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**THE ANNUAL MIDWEST CRANE COUNT:  
DEVELOPMENT OF A PROGRAM PLAN**

by

Brian T. Barch

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A Thesis  
submitted in partial fulfillment  
of the requirements for the degree

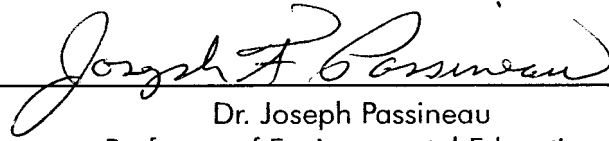
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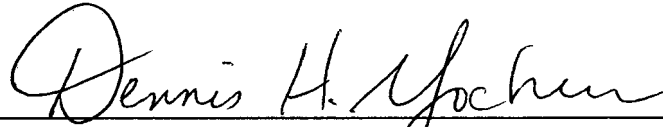


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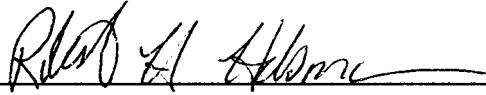
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Dr. Joseph Passineau  
Professor of Environmental Education



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Dr. Dennis H. Yockers  
Associate Professor of Environmental Education



---

Dr. Robert H. Holsman  
Assistant Professor of Wildlife



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Korie M. Klink  
International Crane Foundation Visitor Programs Coordinator





## **ABSTRACT**

The International Crane Foundation (ICF) works worldwide to conserve cranes and the wetland, grassland, and other ecosystems on which they depend. ICF is dedicated to providing experience, knowledge, and inspiration to involve people in resolving threats to these ecosystems. Accordingly, ICF's programs seek to support and help accomplish this mission. One of these programs, in ICF's Conservation Education Department, is the Annual Midwest Crane Count (Crane Count).

The goal of this study was to develop a Program Plan for the Crane Count. Although the Crane Count began in 1976, it has evolved on an informal basis from a one-county sandhill crane survey in Columbia County, Wisconsin, to a two-species survey of more than 100 counties in portions of five Upper Midwestern states. The Program Plan establishes a mission, goals, and objectives for the Crane Count, with specific recommendations for future improvements and direction. This plan was created through a variety of sequential steps including: a) review and content analysis of historic program documents, b) assessment of current program status through the North American Association for Environmental Education's (NAAEE) publication *Nonformal Environmental Education Programs: Guidelines for Excellence* (NEEPGE), c) stakeholder input through questionnaires and a focus group, d) development of a logic model of displaying current program components, and e) evaluation of current program educational materials with another NAAEE publication, *Environmental Education Materials: Guidelines for Excellence* (EEMGE).

A variety of major findings resulted from the process of Program Plan development. After development of a program mission, goals, and objectives, it was revealed that only 30% of

the Crane Count's objectives are currently being addressed. The Crane Count's status as an environmental education program, as determined through NEEPE, revealed ample opportunity to further enrich the Crane Count with existing environmental education research and resources, especially in the area of evaluation. The evaluation of the Crane Count's current resources with EEMGE revealed that the resources are functional, but are especially weak in the areas of action orientation and emphasis on skills building. Exploration of the program's primary stakeholders brought several unknown pieces of information to light. Stakeholders are heavily skewed towards a 45 years of age and older demographic. Most of these individuals evidence a long-term commitment to the Crane Count, and desire a number of program improvements. Strong motivations behind their involvement include: as a contribution to a conservation organization, to improve understanding of crane populations, and to introduce others to or to experience the natural world.

This Program Plan will be used by ICF's Conservation Education Department in the continued implementation and development of the Crane Count. Through use of the Program Plan, ICF can a) determine program direction in the context of strategic planning outcomes, b) better justify the Crane Count and its resource needs, c) begin measuring program effectiveness with established objectives, d) improve the program for volunteer participants, and e) more effectively work to support ICF's mission and Conservation Education Department efforts.

## **ACKNOWLEDGMENTS**

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## TABLE OF CONTENTS

ABSTRACT .....	v
ACKNOWLEDGMENTS .....	vii
LIST OF FIGURES .....	xi
CHAPTER ONE: INTRODUCTION	
Introduction to the Study .....	1
Goal of the Study .....	8
Objectives of the Study .....	8
Limitations .....	8
Definition of Terms .....	9
Assumptions .....	10
CHAPTER TWO: REVIEW OF THE RELATED LITERATURE	
Introduction .....	11
Crane Count and Education .....	12
Environmental Education .....	15
Citizen Science .....	27
Planning .....	30
Summary .....	32
CHAPTER THREE: METHODOLOGY	
Timeline .....	36
Objective One Methodology .....	36
Objective Two Methodology .....	46
Objective Three Methodology .....	48
Objective Four Methodology .....	50
Summary .....	51
CHAPTER FOUR: RESULTS	
Objective One Results .....	54
Objective Two Results .....	110
Objective Three Results .....	116
Objective Four Results .....	124
Finalized Program Plan and Summary .....	125
CHAPTER FIVE: DISCUSSION	
Summary .....	127
Major Findings .....	128
Recommendations for ICF .....	130
Recommendations for Further Research .....	137
Conclusion .....	140

REFERENCES .....	143
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APPENDICES

A. Annual Midwest Crane Count Program Plan .....	146
B. Historic Program Documents .....	238
C. Historic Document Review Spreadsheet .....	263
D. Historic Document Review Sub-codes & Concepts .....	272
E. Assessment Rubric: Nonformal Environmental Education Programs: Guidelines for Excellence .....	277
F. NEEPE Strengths .....	425
G. NEEPE Weaknesses .....	428
H. UWSP Institutional Review Board Protocol .....	433
I. County Coordinator Questionnaire .....	437
J. Participant Questionnaire .....	443
K. Coordinator Follow-up Post Card .....	449
L. Participant Follow-up Post Card .....	451
M. Coordinator Questionnaire Code Key .....	453
N. Participant Questionnaire Code Key .....	457
O. Coordinator Questionnaire Response Compilation .....	461
P. Participant Questionnaire Response Compilation .....	471
Q. Focus Group Discussion Guide .....	482
R. Focus Group Discussion Transcript .....	486
S. Phone Interview Transcripts .....	506
T. Identification & Classification of Resources .....	511
U. Environmental Education Materials: Guidelines for Excellence .....	517
V. Gap Identification & Summary .....	524
W. Resources Database .....	528

## LIST OF FIGURES

Logic Model	
3.1 Example of a simple logic model .....	39
Nonformal Environmental Education Programs: Guidelines for Excellence	
3.2 These two selections from NEEPGE highlight the method used to organize program examination, from broad to specific: “Key Characteristic,” “Guideline,” and “What to look for” indicator .....	41
Review of Program History	
4.1 Sub-code frequency for occurrences in historic Crane Count documents .....	56
Logic Model	
4.2 Annual Midwest Crane Count Logic Model .....	61
NEEPGE Assessment Rubric	
4.3 Sample page from NEEPGE Assessment Rubric .....	63
4.4 Sample score summary page from NEEPGE Assessment Rubric .....	65-6
County Coordinator Questionnaire Results	
4.5 Reported age of County Coordinators .....	71
4.6 Number of times Coordinators report coordinating the Crane Count .....	72
4.7 Reported estimates of hours coordinating duties take each year .....	73
4.8 Reasons Coordinators volunteer to coordinate the Crane Count .....	74
4.9 Reported components included in participant training .....	75
4.10 Reported responses on whether or not Coordinators actively seek new participants for their counties .....	77
4.11 Reported methods used by those Coordinators who actively seek new participants .....	78
4.12 Reported materials used by County Coordinators .....	79
4.13 Reported use of the Crane Count website by County Coordinators ..	81
4.14 Reported uses of the Crane Count website by County Coordinators ..	82
Participant Questionnaire Results	
4.15 Reported age demographic of participants .....	85
4.16 Reported education levels of participant respondents .....	86
4.17 Formal educator status of participants .....	87
4.18 Number of times respondents report participating .....	87
4.19 Types of groups participant respondents report most frequently counting with .....	88
4.20 How individuals report first learning of the Crane Count .....	89

4.21 "Other" means of first learning of the Crane Count .....	90
4.22 Motivations for participating in the Crane Count .....	91
4.23 Reported Pre-Count training most recently experienced .....	92
4.24 Reported Crane Count materials used by participants .....	93
4.25 Reported use of the Crane Count website by participants .....	94
4.26 Participant "other" reasons for not using the website .....	96
4.27 Reported uses of the website by participants .....	98



# CHAPTER ONE: INTRODUCTION

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## **Overview**

### **I. Introduction to the Study**

ICF Conservation Education Department  
Annual Midwest Crane Count  
Whooping Crane Reintroduction  
Aspects to Involving Citizens With Science  
Crane Count Volunteers  
The Future: What Should Be Done With the Crane Count?  
ICF Strategic Planning Process  
Problem Statement

### **II. Goal of the Study**

### **III. Objectives of the Study**

### **IV. Limitations**

### **V. Definition of Terms**

### **VI. Assumptions**

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## **Introduction to the Study**

This much, though, can be said: our appreciation of the crane grows with the slow unraveling of earthly history.

When we hear his call, we hear no mere bird. He is the symbol of our untamable past, of that incredible sweep of millennia which underlies and conditions the daily affairs of birds and men.

—Aldo Leopold, Marshland Elegy (Leopold, 1966)

Aldo Leopold evidenced his fascination with cranes by penning Marshland Elegy in 1937. Leopold's elegy was a lament – he perceived that the sandhill cranes of Wisconsin might easily disappear, never to be seen again. Just over thirty years later, two other men shared not only a fascination with cranes, but with Leopold's writings and philosophies. These two men, Ron Sauey and George Archibald, shared a similar concern for the world's cranes. They acted on a dream, and founded the International Crane Foundation.

The International Crane Foundation (ICF) is headquartered in Baraboo, Wisconsin. Since 1973, ICF has worked to protect the world's fifteen crane species, nine of which are currently considered to be threatened in some manner (International Union for Conservation of Nature and Natural Resources, 2004). ICF's mission states: ICF works worldwide to conserve cranes and the wetland, grassland and other ecosystems on which they depend. ICF is dedicated to providing knowledge, experience, and inspiration to involve people in resolving threats to these ecosystems (International Crane Foundation, 2006). Cranes are distributed across five of the world's seven continents. ICF uses a variety of approaches to accomplish its mission and meet its goals in these places, including education.

### ***ICF Conservation Education Department***

The Conservation Education Department at ICF makes use of both on-site and outreach efforts. On-site, scheduled groups and public visitors have the opportunity to explore exhibits featuring the world's fifteen crane species, walk through prairie, savanna, and wetland restorations, view interpretive signage, watch videos, or take guided tours. Through outreach, ICF provides speakers, programming, activity packets for use in K-12 classrooms, brochures, and other

educational materials.

Among ICF's Conservation Education Department programs is the Annual Midwest Crane Count (Crane Count), the focus of this study. This program, which began in 1976, seeks to simultaneously expand knowledge and understanding of the Upper Midwest's crane population, distribution, and ecology while building public awareness of crane conservation.

### ***Annual Midwest Crane Count***

The Annual Midwest Crane Count is ICF's longest running outreach program. It began in 1976 as the Columbia County Crane Survey, involving less than 200 volunteer participants to document the distribution of greater sandhill cranes (*Grus canadensis tabida*) in Columbia County, Wisconsin. The Crane Count changed over the course of time as it expanded geographically and in number of participants. As of 2005, over 3,000 people participated in the Crane Count throughout more than 100 counties in Wisconsin, Illinois, Iowa, Michigan, and Minnesota. For the 30th Crane Count in 2005, volunteers sought to document not only the abundance and distribution of sandhill cranes, but also whooping cranes (*Grus americana*), the world's rarest crane species, now being reintroduced to Wisconsin and returning on spring migration. Considering such advances in just under three decades, what role should the Crane Count play in the future?

### ***Whooping Crane Reintroduction***

In 2001, ICF and other members of the Whooping Crane Eastern Partnership began efforts to return whooping cranes to their historic range in Wisconsin, teaching them to migrate to Florida behind ultralight aircraft. The hope is to

establish a self-sustaining, migratory breeding flock of these birds in the eastern United States. The reintroduction of whooping cranes into Wisconsin has captured public and media attention, emphasized the plight of cranes, and highlighted the need for conservation and education efforts. Such attention has increased public interest in cranes and in the Crane Count. As the reintroduction continues, Crane Count participants request updates and additional information, indicating a desire to learn more. Participants saw whooping cranes for the first time during the 2004 Count. The 2005 Crane Count marked a transition from a one-species survey to a two-species survey. The question now is how should the Crane Count be modified to more effectively incorporate the whooping cranes?

### ***Aspects to Involving Citizens With Science***

Cranes have fascinated people worldwide for thousands of years. Such fascination is evidenced by the role that cranes play in the arts and folklore, as well as in the attention they draw to natural areas on five continents. The ability of cranes to serve as a focal point of interest can be complemented by citizen science programs. Already, a number of bird-based citizen science programs exist, such as the Cornell Lab of Ornithology's Project FeederWatch, the Great Backyard Bird Count co-sponsored by Audubon & Cornell, and Audubon's Christmas Bird Count, the world's oldest with a history dating back to the late 1800s. All capitalize on citizen interest as a means to learn more about bird populations.

The Annual Midwest Crane Count is, however, one of but a few citizen science programs focused specifically on cranes. With a thirty-year history, it ranks among the oldest of citizen science programs. Increasingly, citizens desire to learn more about cranes and the roles they play in our world. One medium for such learning

is the Crane Count – the point at which citizens become involved with some of ICF’s long-term crane research.

James-Rosenberg & Bonney (2002) describe citizen science as “involving the public in professional research to help answer large-scale questions about biology.” In addition to gathering data on the abundance and distribution of sandhill cranes (complementing other ICF regional studies), the Crane Count directly involves thousands of people every year. At a bare minimum, participants must be trained to successfully make observations. However, this is not necessarily the extent of the program’s educational potentials. In the process of participating in the Crane Count, citizens perhaps benefit in a variety of ways. Though not confirmed, this may include enjoyment of the outdoors, development of friendships and connections in meeting like-minded individuals, and connections with these unique species of birds. Research is needed to document these benefits and incorporate them into the Crane Count in a more direct, effective manner.

### ***Crane Count Volunteers***

An increase in participants is an indication that people are interested in the program. County Coordinators – volunteer facilitators – act as intermediaries between the thousands of participants and ICF staff running the program. Through questionnaires distributed to Coordinators every year, ICF is able to obtain input directly from these individuals regarding the program. Although this is a viable means of receiving feedback, it is limited to specific questions related to coordination duties, and may not capture a complete range of desires on the part of Coordinators or other input that could be useful in improving the Crane Count.

Additionally, it would be helpful for the Crane Count program to gain input directly from the Count participants. Currently, their concerns, ideas, and feedback are filtered by passing through the County Coordinators. Given that there are thousands of participants, undoubtedly many of these items never make it to ICF, and hence cannot be addressed. In order to maintain an ongoing Crane Count, more should be done to obtain input from the participants who are crucial to the program.

### ***The Future: What Should Be Done With the Crane Count?***

From many perspectives, the Annual Midwest Crane Count appears to be a success. Not only are involved citizen scientists provided with a variety of undocumented benefits, the Crane Count has also helped ICF better understand the abundance, distribution, and ecology of the Upper Midwest's sandhill cranes. In addition, the global conservation community is better able to understand related threats to cranes in general. Given this success and some of the concerns expressed above, ICF is at a threshold: what should be done with the Crane Count to further advance ICF's mission?

### ***ICF Strategic Planning Process***

To focus pursuit of its mission, ICF embarked on a long-term strategic planning process in 2004. Based on preliminary discussions, ICF's intent was to take its work to a new level. Given the formative stages of this process, specifics could not be provided, but likely included reassessing the direction ICF is heading and setting guidelines for ongoing and future programs and research.

## ***Problem Statement***

The Crane Count can be viewed as a successful program that has benefited ICF, thousands of volunteer participants, and the global conservation community since 1976. Significant advances have occurred in less than three decades. The future role of the Crane Count, however, is still unclear – what role should it play as it seeks to complement and support ICF’s mission? In addition, the 30th Annual Crane Count, with its shift from a single-species survey to a two-species survey, highlights the need to reassess the program and set its future direction.

While Crane Count participants appear to benefit from this citizen science program, these benefits remain undocumented. Current means of receiving feedback from both County Coordinators and participants may not capture a complete range of desires and other input useful to improving the Crane Count.

ICF is at a threshold. For the Crane Count to further advance ICF’s mission, it is necessary to define and explicitly state the role this program plays. Therefore, the problem to be addressed by this research project is a lack of and need for a program plan for the Crane Count. To be most effective and useful, this plan should include a review of the program’s current status and provide recommendations for its future efforts. This plan complements ICF’s strategic planning process by identifying and recommending ways the Crane Count can best support the mission of ICF and the efforts of the Conservation Education Department.

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### **Goal of the Study**

The goal of this study is to develop a Program Plan for the Annual Midwest Crane Count that will support ICF's mission and Conservation Education Department efforts.

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### **Objectives of the Study**

1. To develop a Program Plan for the Annual Midwest Crane Count, including goals and objectives focused on environmental education.
  2. To review and evaluate existing environmental education resources currently used in the Crane Count.
  3. To identify new environmental education resources beneficial to the achievement of the Crane Count's goals and objectives, as well as ICF's Conservation Education Department efforts.
  4. To recommend the development and implementation of specific educational resources to enhance the Crane Count, support ICF's mission, and support its Conservation Education Department efforts.
- 

### **Limitations**

1. ICF strategic planning is in a developmental stage, and may be subject to significant revisions during the course of this project.
2. Final and continuing implementation of the Program Plan and its recommendations is dependent on program considerations and needs on the part of ICF's Conservation Education Department.



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## **Definition of Terms**

*Annual Midwest Crane Count (Crane Count):* Started in 1976 as the Columbia County Crane Survey, the Crane Count is ICF's longest running outreach education program. It monitors the abundance and distribution of a portion of the Eastern population of greater sandhill cranes, *Grus canadensis tabida*, and now whooping cranes, *Grus americana*, as well. The Count takes place annually every April in Wisconsin and portions of Illinois, Iowa, Michigan, and Minnesota, consistently involving more than 100 counties each year. More than 3,000 people participate in the program.

*County Coordinator:* A volunteer working on behalf of ICF in one or more counties to coordinate the implementation of the Crane Count. Coordinator responsibilities include recruiting, training, and educating volunteer participants, organizing Count logistics in their region, compiling results, and returning the results to ICF.

*Greater Sandhill Crane (sandhill crane):* The greater sandhill crane, *Grus canadensis tabida*, is one of six subspecies of sandhill cranes found in North America, and comprises the entirety of the Eastern population in the United States and Canada (found generally in the Great Lakes region of the Upper Midwest). It is physically the largest of the six subspecies, and migrates through the east-central United States to its wintering grounds in Georgia and Florida. This total population is estimated to be 30,000-45,000 birds. The sandhill crane as an entire species is the most abundant in the world, and one of North America's two crane species.

*International Crane Foundation (ICF):* Founded in 1973 in Baraboo, Wisconsin, ICF is considered to be the world center for the study and preservation of cranes. A component of ICF's education efforts is the Annual Midwest Crane Count.

*Whooping Crane:* The whooping crane, *Grus americana*, is the world's rarest crane, numbering only about 470 between wild and captive populations. The sole completely wild flock migrates between Canada's Wood Buffalo National Park and the Aransas National Wildlife Refuge in Texas. Current reintroduction efforts include a flock in Florida (non-migratory), and a flock that is to migrate between Wisconsin and Florida, learning the route by following ultralight aircraft.

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## **Assumptions**

1. A Program Plan for the Annual Midwest Crane Count will be useful to ICF's Conservation Education Department staff in directing the program's future.
2. The Program Plan will best fit the current planning environment at ICF by taking into account that ICF's strategic planning process is ongoing and may be subject to significant changes. The Program Plan will contain elements that complement the final outcomes of strategic planning.
3. Whooping crane reintroduction provides opportunity for cultivating interest in the Annual Midwest Crane Count.
4. The Annual Midwest Crane Count is and will remain an ICF Conservation Education Department program.
5. Environmental Education's goals complement the mission of ICF and its goals, and are appropriate for inclusion in the Crane Count.

## **CHAPTER TWO: REVIEW OF THE RELATED LITERATURE**

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### **Overview**

This chapter reviews published literature related to the project goal. The following topics are covered:

#### **I. Introduction**

#### **II. Crane Count and Education**

#### **III. Environmental Education**

- The Tbilisi Declaration
- Beyond Tbilisi
- Environmental Literacy
- Environmental Sensitivity
- Sense of Place

#### **IV. Citizen Science**

#### **V. Planning**

#### **VI. Summary**

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### **Introduction**

The goal of this study is to develop a Program Plan for the Annual Midwest Crane Count that will support ICF's mission and Conservation Department efforts. The objectives of this study indicate a review of related literature accompany development of the Program Plan. How does ICF and the Crane Count tie in with environmental education? What context can other citizen science programs contribute for comparison or contrast with the Crane Count? What components of planning strategies might best fit within a Plan for the Crane Count?

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## **Crane Count and Education**

ICF's Conservation Education Department runs a variety of programs to support ICF's mission, including the Annual Midwest Crane Count.

As ICF's longest running outreach program, the Crane Count has thirty years of history behind it. Throughout that time, as the program advanced, a variety of people coordinated the venture and modified the program from year to year. As a combination research and education program, the Crane Count seeks to involve volunteers in a crane survey that would otherwise not be possible on such a large scale. Literature related to the Crane Count is limited, especially during the first few years of the program. Some pieces, however, look back to the Count's earliest days: "Then in 1975, in response to the lack of data about changing Sandhill Crane populations, concerned citizens in Wisconsin, U.S.A. began to record crane numbers . . . of their state" (Brynildson, 1987).

As with a number of programs and other events, the Crane Count has become a tradition for some people. "This event has become an annual rite of spring in Wisconsin. For crane count participants, seeing their first robin pales in comparison to hearing spring announced by the predawn calls of Sandhill Cranes" (Voss, 1981). By 1981, only the sixth annual Count, the tradition had already been established. This was also the year in which the Count took on much of the form it still holds today – occurring on one day in April from 5:30am to 7:30 am, Central Daylight Time. Even at this fairly early stage in its development, we can see some of the components behind the program. Voss (1981) states, "The major accomplishment of the annual count is to expose many people to the beauty

and fragility of the wetland environment and its inhabitants. Wetlands are in constant danger of development for agricultural or commercial use, and efforts to protect Wisconsin marshes require general public awareness and support. The thrill of seeing a Sandhill Crane in its native habitat has inspired, in many minds, a change from thinking of wetlands as “dismal swamps” to considering them a vitally important ecosystem worthy of protection. Also, as survey participants return to the same marshes year after year, we gain valuable information about changes in the status of wetland areas. Sites of draining and ditching are identified and can be checked for compliance with government regulations.” This account includes some of the key elements of environmental education (to be discussed later) residing in the program: an outdoor experience, promoting awareness, and the beginnings of taking action.

As a part of ICF’s mission, working to conserve ecosystems on which cranes depend, the emphasis on wetlands at this point in the program is apparent, with statements such as Scott Freeman’s “The Sandhill survey has been an important boost to the long and difficult job of convincing people that wetlands are important.” and “Public interest is the key to conservation” (Freeman, 1982).

Within the next couple of years, the importance of crane counts as a vehicle for citizen involvement was noted on an international basis. “The count at Bharatpur (in India) is particularly important because local people are interested and involved.” and “The Sarus (crane) count is a means of involving the nearby people in crane research and thus conservation” (ICF, 1984). “Easily identified by their large size, the cranes can effectively serve to enhance concern and awareness for conservation issues” (Brynildson, 1987).

George Archibald (1985) acknowledges the thread of education that runs throughout ICF's programs around the world. "Public education is vital." For example, "They (members of the Jiangxi Ministry of Forestry, China) will be developing educational materials and activities for school children and other groups regarding cranes and wetlands." On an international scale, the recognition of counting cranes as a vehicle for education is recognized, if not acted directly upon. "Currently, almost half of all crane species are being monitored annually by volunteers from several continents. Participants share in a love for wild nature, and find that counting cranes is a grand way to express that reverence. The majestic birds are highly visible, awakening and inspiring curiosity and wonder in people of all cultures. And cranes, because of their large size and characteristic vocalizations, are easily counted" (Brynildson, 1987). "Perhaps the greatest benefit of crane counting is the opportunity it provides for people to interact with and learn from nature. This exposure often stimulates participants to develop a deeper concern for wildlife conservation in general, so they can then help to spark local action on behalf of cranes and their threatened habitats" (Brynildson, 1987). Involvement in a survey does not necessarily mean that the participants will be educated, or that steps have been taken to do more than just count the cranes. While it is possible that such results may occur as a result of the experience itself, incorporating specific educational methodologies could take the surveys a step further and enhance their abilities to educate and make an impact towards environmental sensitivity and environmental literacy.

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## **Environmental Education**

### ***The Tbilisi Declaration***

At the time the Annual Midwest Crane Count was still in its beginning stages, the world's first intergovernmental conference on environmental education (EE) took place during 1977 in Tbilisi, Georgia, in the former Soviet Union. Put together by the United Nations Education, Scientific, and Cultural Organization (UNESCO), in cooperation with the U.N. Environment Programme (UNEP), participants included delegates from 66 member states worldwide. The major outcome was the Tbilisi Declaration, a framework establishing goals and objectives for EE still in use today.

Stating that "Environmental Education should be provided for all ages, at all levels and in both formal and nonformal education," the declaration has direct relevance to this project. Youth to senior citizens are the current and potential audience of the Crane Count, and the Program Plan seeks to include goals and objectives focused on environmental education. The Count has developed without guidance based on such a foundation, and despite that, addresses or has the potential to address some of the key elements laid out in the Declaration.

As a major component of the Declaration, five main goals for EE are stated. To paraphrase them, they are:

1. Awareness – acquisition of an awareness and sensitivity to the environment and associated problems
2. Knowledge – acquisition of experience and understanding of the environment and associated problems

3. Attitude – acquisition of values and concern for the environment and motivation for participation in environmental improvement and protection
  4. Skills – acquisition of skills for identification and solution of environmental problems
  5. Participation – opportunity for involvement working toward resolution of environmental problems
- (Engleson & Yockers, 1994)

In short, EE addresses a variety of goals that support people making well-informed decisions and taking action regarding environmental problems and issues.

Although the Tbilisi Declaration deals specifically with EE, and ICF deals with cranes as the focal point of their efforts, the two have a number of commonalities. The ICF's Conservation Education Department and hence the Crane Count fall under the umbrella of ICF's mission. Though phrased in different language, from an educational standpoint ICF's mission and the Tbilisi Declaration approach similar, if not the same, concepts and outcomes.

To reiterate ICF's mission statement for closer inspection:

The International Crane Foundation (ICF) works worldwide to conserve cranes and the wetland, grassland, and other ecosystems on which they depend. ICF is dedicated to providing experience, knowledge, and inspiration to involve people in resolving threats to these ecosystems.

Selecting several key words from ICF's mission statement, the relationship to the goals of EE as put forth in the Tbilisi Declaration is here briefly outlined and examined.

The first sentence of the mission statement defines the parameters of ICF's work:



worldwide, to conserve cranes, and the wetland, grassland and other ecosystems on which cranes depend. The second sentence denotes in a broad manner (covering the various facets of ICF's programs) how ICF seeks to accomplish that stated in the first sentence. ICF is providing experience, knowledge, and inspiration in order to involve people in resolving threats to the indicated ecosystems. To compare these items with the goals of EE:

- Experience – corresponds to Awareness and Knowledge, but especially to the Skills goal – ICF provides experience to give individuals and groups the necessary skills for action
- Knowledge – corresponds to the Knowledge goal
- Inspiration – corresponds to the Attitude goal – ICF works to inspire, or foster values, concern, and motivation for action
- Involve and Resolving – correspond directly to the Participation goal, action working towards the solution to issues

A missing piece in ICF's mission statement that is in the Tbilisi Declaration is awareness. As literature related to the Crane Count indicated, however, environmental awareness is a component of the program: "efforts to protect Wisconsin marshes require general public awareness and support" (Voss, 1981).

Tying EE and ICF's mission together, both support people making well-informed decisions and taking well-informed action regarding environmental problems and issues. ICF's mission specifies the context in which the goals of EE may be addressed in its education programs.

Despite the lack of a long-term guiding plan, and coordination by people who

likely did not have formal training in EE, it is interesting to note that some of these key elements are being addressed to a certain extent within the Crane Count already. Given the statements written about counting cranes and the Annual Midwest Crane Count itself, and despite inconsistencies in specifically identifying how the elements are addressed, it seems apparent that the Crane Count has potential to better incorporate strategies which will help achieve the goals of EE.

### ***Beyond Tbilisi***

Furthermore, in addition to the existing relationship the Crane Count has with the underlying goals of EE, there are a variety of other reasons that the program is ideally suited for a partnership within a larger educational context.

Good environmental education programs are relevant – relevant to the agency or organization, relevant to the audience and meaningful to their everyday lives. An agency or organization’s mission and environmental priorities provide direction for program development in environmental education, guiding the development of goals and objectives and their choice of target audience. Tying environmental education programs to the agency or organization’s primary purpose helps focus program development and justify funding, prevent the establishment of generic environmental education programs, and aid in program efficiency and sustainability (Athman & Monroe, 2001).

Athman and Monroe’s statement, in general terms, largely describes the potential of the Crane Count. As one of ICF’s outreach and research programs, the Count should be relevant to the organization’s work and mission. With more than 3,000 people participating in the program each year, it should have relevance to the citizens of Wisconsin and surrounding states that participate each year. What is missing is explicit documentation of this relevance to both ICF and the Crane Count’s audiences.

Athman and Monroe provide an additional statement that lends credence to

the Crane Count, "The key to relevant environmental education programs is finding commonalities among the existing learning objectives and the agencies or organization's mission and priorities. By doing so, the needs of both the provider (the agency or organization) and the audience are met" (2001). Development of a Program Plan will help to accomplish such ends.

The Crane Count, as a program focusing specifically on cranes in the local region, has advantages in its ability to address more general concepts surrounding EE.

Providing high quality wildlife education in a natural setting using interdisciplinary, hands-on approaches is essential to promote the conservation and wise use of natural resources. Studies suggest that the best combination for learning environmental concepts and awareness is an outdoor experience mixed with pre- and post- experience activities that further reinforce key concepts. In addition, taking the outdoor experience off school grounds allows students a unique opportunity that is both exciting and memorable (Brown, Ermer, Hoffman, & Heimlich, 2002).

Although specifically directed towards students, elements such as interdisciplinary hands-on approaches, and outdoor experiences with pre- and sometimes post-experience activities equally apply to target audiences of the Crane Count. A number of these elements are inherent within the process of the Count already. Others may be further emphasized by developing goals and objectives for the Crane Count, with the eventual possibility of measuring their effectiveness. To participate in the Count, volunteers must go to their designated survey sites, often in rural or undeveloped portions of the landscape. They must develop an awareness of their survey site, relating what their site-location map indicates to the actual landscape. To complete the survey they must look and listen for cranes, and document their presence or its lack on data sheets. Opportunities exist for translating the features of the landscape into hand-drawn maps to assist them in

documenting what they observe. Apart from this, all volunteers undergo some form of pre-Count training – some through attending a meeting where they receive materials and relevant information about how to count, others through a one-on-one meeting with their County Coordinators, and some by viewing online Crane Count resources. At some point following the Count, all participants receive a results newsletter summarizing the overall tally of cranes, complemented by an article discussing items of relevance, interest, or importance. In a limited number of counties, Coordinators host post-Count gatherings to collect data sheets and give participants an opportunity to share their experiences with one another. Despite the fact that the majority of participants are not school students, participating in the Count can still be a unique event that constitutes a memorable occasion.

Apart from such complements to the goals of EE, and some of the associated specifics, the Crane Count also addresses a number of the criteria set out in the related areas of environmental literacy, environmental sensitivity, and sense of place, to be examined here individually in greater detail.

### ***Environmental Literacy***

Given the general relationship that already exists between the Crane Count and EE, there is ample opportunity to further strengthen that relationship. Environmental literacy (EL), is an additional component closely allied with EE. “Environmental education is the tool for developing environmental literacy” (Roth, 1996). As scholarly efforts have examined and further developed the underlying theory of EE in the years since the Tbilisi Declaration, the scope of its initial goals has grown. As Moseley (2000) states, “Achievement of operational environmental literacy – creation of an environmentally literate citizenry – is the ultimate goal of

environmental education.”

Setting out EL as an “ultimate goal” of EE, some definition of what this literacy entails is necessary. Sivek (2002) states, “A key goal of environmental education is environmental literacy, which consists of cognitive and affective attributes that lead individuals toward environmentally responsible behaviors. Indicators of EL include knowledge and concern about the environment, perception of ability to bring about change, and citizen action skills and experience.” In other words, through the successful achievement of the five goals of EE as stated in the original Tbilisi Declaration, a functional environmental literacy of citizens should be the resulting outcome, emphasizing environmentally responsible action.

Participation in the Crane Count therefore may indicate existing levels of EL within individuals, or further foster EL. “It is becoming increasingly imperative that our citizenry have a well developed environmental literacy. That is, our citizens must have a strong working knowledge of how the natural systems of our planet work and how human activity affects and may be harmonized with the environment” (Roth, 1996). This is appropriately within the context of ICF’s mission, and helping people to become involved in resolving threats to ecosystems on which cranes depend.

The Crane Count has the opportunity to take its participants a step beyond the minimum knowledge needed to complete the survey. Its educational potentials are not addressed to the extent that they could be. Cranes, being wetland and grassland birds (and also using agricultural fields), with their large size and attributes as charismatic megafauna, are ideally suited to presenting topics and

concepts beyond the minimum necessary to count the birds for the survey. They catch peoples' attention, as evidenced by more than 3,000 people participating in the Count each year, and provide an avenue to introduce and discuss ecological concepts, and their relationship with humans and the landscape.

There is additional support for the suitability of the Crane Count in indicating or developing EL in its participants. "Further, while the audience is often youth, environmental education is intended for all – youth and adults, as well as individuals and organized groups" (Athman & Monroe, 2001). This almost directly describes the Crane Count and its target audiences – some youth do participate, but so too do adults, family groups, and other organizations.

Finally, as the Crane Count is an annual program, and a number of volunteers participate year after year, the opportunity to foster EL is not necessarily limited to a one-time event. "It was further felt that acquisition of environmental literacy is a developmental process taking place over a lifetime; that is, there are degrees of environmental literacy that build and grow from simpler to more complex levels" (Roth, 1996). If returning volunteers continue to participate year after year, the degree of EL that can be supported correspondingly increases over time. This may indeed already be happening, and warrants future investigation.

### ***Environmental Sensitivity***

The Annual Midwest Crane Count is a program centered on a two hour period in the morning each April. Requisite to participating is an outdoor experience – participants must be near the wetlands, grasslands, or agricultural fields that cranes are using. In conjunction with addressing EL, participation in Crane

Count may indicate, or support the development of, environmental sensitivity (ES) in participants. “More specifically, experiences in the outdoors, where there is direct interaction with natural, rural, or other relatively pristine habitats, have been identified as one of the main formative influences that lead to responsible environmental behavior. These out-of-doors activities can act as major precursors for environmental sensitivity” (Brown, Ermer, Hoffman, & Heimlich, 2002).

Environmental sensitivity is a feeling, on the part of an individual, of empathy towards or relating to the environment, including other living things or ecosystems (D. Sivek, personal communication, September 27, 2004). While outdoor experiences are a key factor in ES, additional influences have been found to play a role as well. “In summary, the influence of outdoor experiences has consistently shown up as the most important influence on adult ES in studies published over the past 20 years. Role models also have been consistently mentioned as an important influence” (Sivek, 2002). The Count provides opportunity for an outdoor experience. For participating youth, role models and families may also play their part. Some students participate in the Crane Count already as an activity related to school or a youth-group organization such as scouting – motivated organizers for an activity such as this may serve as role models. Additionally, families participate in the Crane Count, sometimes as an annual tradition. Putting all of these factors together, the program is suited to foster the development of ES, or may indicate existing ES among current participants.

As an example of the ability of birds to foster ES, this statement by John W. Fitzpatrick, the Louis Agassiz Fuertes Director of the Cornell Lab of Ornithology can be considered. Fitzpatrick reflects on the first time, as a child, he identified a

clay-colored sparrow.

It was a moment of exhilaration and epiphany. To attach a bird, and a sound, with a place and a habitat; to appreciate where I lived in the world in relation to the host of amazing creatures with which I shared it; to learn from others who had explored before me, so that I could better explore on my own; to observe nature and be reinforced for wondering, incessantly, how she works. It was a molding experience in my life, and it would happen again and again through many years of childhood and adulthood. . . (Fitzpatrick, 2003).

Such an experience is possible through participating in the Crane Count, and can serve to foster ES in generations of participants.

As the development of ES is a process that occurs over time, and the Crane Count involves audiences consisting of children to senior citizens, it can serve not only in a formative context for ES, but also in playing a continuing and supportive role for those that have moved beyond the initial formative stage.

EE can build on these instincts by focusing on observation and exploration of the natural environment through direct experiences within natural settings. Understanding and observing the local environment and surroundings can help to build a strong foundation of environmental sensitivity, knowledge, and skills. In addition, direct experiences in the environment can also help foster the awareness and appreciation that ultimately motivates learners to take appropriate action (Brown et al., 2002).

### ***Sense of Place***

Related to the accomplishment of the goals of EE, developing EL, and fostering ES, the Crane Count also has an opportunity to allow participants to develop a sense of place (SOP). In relationship to education, this can be referred to as place-based education. SOP entails an attachment, relationship with, and feelings regarding a particular location or geographical area on the part of an individual. It is in some respects reminiscent of ES, however, the key difference is that in SOP empathy felt



is centered on place. Though it does not exclude living things or ecosystems, and may in part be dependent on those things as integral components, the emphasis is on place. Athman and Monroe elaborate upon this in relationship to education, "Thus, environmental educators need to reintroduce learners to their local area by exploring and experiencing it, by learning about it and celebrating it. By doing so, environmental educators help learners develop a sense of wonder and a sense of place, fostering the awareness and appreciation that motivate them to further questioning, better understanding, and appropriate concern and action" (2001).

The Annual Midwest Crane Count takes place in over 100 counties spread throughout five states. The organization of the Count becomes more specific, on an increasingly fine scale going from region, to state, county and survey site. Some participants volunteer their efforts for the program each year. In a number of cases, they return to the same survey site time after time, getting to know in some detail one particular place. When this happens, participants can become aware of site changes over the years, and they can develop a sense of ownership and belonging, together with the annual tradition. This has a distinct advantage, for "When environmental education is taught in the place where they live and through authentic situations, a learner's own experiences become a part of their education" (Athman & Monroe, 2001).

Teachers, students, and other youth can benefit from the opportunity the Crane Count presents to develop SOP. "One of the great tragedies of American education is the dearth of opportunities for children, or their teachers, to learn about the birds and natural history of their area" (Erickson, 2002). The Crane Count addresses for both of these limitations. "For the first time in human history, many children are

growing up in biologically impoverished environments. In our cities and suburbs, few of the original landforms, streams, natural ecosystems or wild plants and animals still exist" (Reading & Taven, 1996). Cranes tend to utilize rural and wild landscapes, and are found throughout the state. If teachers and their students participate in the program, it can take them from the cities and suburbs, and in most of the state of Wisconsin, within their own counties, to places where these features are still present.

Integrating such an experience into the coursework or activities of students provides a number of advantages to teachers and instructors. "The first and most obvious is that teachers and students turn to phenomena immediately around them as the foundation for curriculum development. Using these experiences as a base, they can then examine more distant and abstract knowledge from other places" (Smith, 2002). As a practical application to the classroom component of student education, "Having a natural environment so close at hand enhances discussions and provides for hands-on learning about many aspects of the natural world: balanced ecosystems, food chains, communities, diversity, change, interrelationships, and so on" (Reading & Taven, 1996). Taking such a specific experience and putting it into a larger context, "The primary value of place-based education lies in the way that it serves to strengthen children's connections to others and to the regions in which they live" (Smith, 2002).

As a final advantage of the Crane Count and its relationship to SOP, it can be pointed out that it is a regional program. While there are distinct differences throughout the landscape of the Count's five-state range, numerous commonalities also exist, centered around the cranes. Thus, "Place-based education can take

a wide range of forms. One of its primary strengths is that it can adapt to the unique characteristics of particular places, and in this way it can help overcome the disjuncture between school and children's lives that is found in too many classrooms" (Smith, 2002).

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### **Citizen Science**

From its beginnings, the Annual Midwest Crane Count has been a citizen science program. Wildlife professionals rely on surveys and studies to answer questions relating to the natural world. Due to limitations in staff, funding, and other resources, such studies are often necessarily limited in scale. Citizen science provides an opportunity for such professionals to obtain information that is not otherwise easily available on different scales. Citizen scientists are as the term describes – citizens, who may not necessarily have backgrounds or college educations in biology, wildlife, ecology, etc. but may nevertheless have an interest in such subjects. Dependent on the program, the science component is designed to fit with the varied backgrounds of these citizens. Citizen science allows the general public to participate as active members in studies over wide geographical areas. Data gathered by citizens may then be used by wildlife or other biological professionals to answer questions. Such studies supplement other population monitoring efforts. What is needed is to have interested citizens, and then to provide them with such training as is necessary to participate in the study at hand. James-Rosenberg and Bonney describe citizen science in short as, "involving the public in professional research to help answer large-scale questions about biology" (2002).

One of the most prominent advocating organizations for citizen science projects, specifically related to birds, is the Cornell Lab of Ornithology based in Ithaca, New

York. With a wide variety of programs seeking to answer questions about bird biology, their programs have given some insight into the background and value these efforts. “Each year, tens of thousands of citizen-science participants are making important contributions to bird studies at the Cornell Lab of Ornithology and other organizations. Why? Many say that they count birds because it enriches their own lives and adds to scientific knowledge and bird conservation. Indeed, their data are helping researchers to investigate far-reaching questions such as the impacts of West Nile virus, global warming, and acid rain on birds” (LaBranche, Chu, & Hochachka, 2003).

In a complementary manner, the Crane Count serves similar purposes. Through the efforts of volunteer participants, citizen scientists, ICF is able to gather data on the abundance, distribution, and large-scale population trends of sandhill cranes in Wisconsin, and portions of four neighboring states. These data serve as a knowledge-base that can be used in conjunction with other studies. For example, the United States Fish and Wildlife Service coordinates a fall survey of the Eastern population of greater sandhill cranes. This survey, however, is limited to the fall staging areas that the cranes use each year – while it may provide a more accurate overall assessment of the entire population abundance, it can do little in the way of assessing their breeding distribution.

LaBranche et al. (2003) discussed several other reasons that citizen science programs are relevant to professional studies. “If you take the additional step of counting birds, your data become even more valuable. Count data are used in studies of bird abundance and distribution, including assessments of the impact of West Nile virus and climate change on birds.” Although the Crane Count is not

actively used to assess specifics as some of Cornell's programs are, the potential for such a use still exists. "In studies of bird distribution and abundance, knowing where a species is absent is as important as knowing where it is seen. Using your data on bird absences, researchers can help determine whether disappearances of birds might have been caused by local events or widespread factors such as drought." Similarly, over the long-term, it is unknown what the future status of Wisconsin's crane population will be. The sandhill population has unexpectedly grown since the 1930's, and it is unknown what the future will hold for these birds. Having data about the distribution of cranes, including their presence and absence, may be critical in determining the cause of changes yet to come. Lastly, LaBranche et al. (2003) bring up the following point, "If you keep track of birds at the same location year after year, your data can help address how bird populations change over time. A species may be rare in one year at your locale but common in another. In some cases, fluctuations like these are normal. Scientists need many years of data from the same locale to interpret long-term patterns and changes." Such considerations may be especially important for the Crane Count. The date of the Count varies from mid to late April, the peak of migration shifts from year to year, and weather conditions can also strongly influence the ability of counter's to see and hear cranes at their survey sites.

In addition to general citizen science projects, the Cornell Lab has also developed sub-programs focusing on education in classrooms. For instance, Cornell's "Project FeederWatch" has its complement, "Classroom FeederWatch." As a highlight for the potential interdisciplinary nature of such classroom programs, James-Rosenberg and Bonney state, "Birds are beautiful, fun, wonderfully accessible study subjects offering endless opportunities to observe nature. We've heard from English, art,

math, and shop teachers, and librarians whose students successfully used bird studies and/or our citizen-science projects – and had fun doing it” (2002). While citizen science projects do not necessarily have to do anything beyond training volunteers in the necessities of participating in such studies, as this exemplifies, the opportunity exists to further the educational potentials of such projects. Projects such as Cornell’s, and the Annual Midwest Crane Count, focusing on the natural world, are suited to addressing EE in addition to gathering data.

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## **Planning**

The goal of this study involves the development of a Program Plan for the Annual Midwest Crane Count. Such a plan will establish direction for the Annual Midwest Crane Count and provide ICF Conservation Education Department (CED) staff with a concise summary and overview of the program. Ultimately, this plan will be used as a reference in the continued implementation of the program and as a guide in furthering the program’s future.

With a variety of planning strategies available, it must be determined what type would be most suitable for the Crane Count. If a specific type is unsuitable, relevant planning components may still be used.

To this end, literature about long range plans, strategic plans, master plans, and conceptual plans has been examined. A short discussion of each follows, with further comments on what is best suited for the Crane Count.

*Long range planning:* Long range planning is intended for organizations on a specific, directed course and assumes that future conditions are predictable. A

plan of action designed to accomplish goals over a period of several years is the result. (Byrd, 2000)

*Strategic Planning:* Strategic planning is for organizations desiring to be responsive to an unpredictable future environment. It is a continuous process, and considers a variety of possible futures, with response strategies based on the current organization. (Byrd, 2000)

*Master Planning:* Master planning can be based on long range or strategic plans, and is intended for land-based organizations at a specific site. Relationships between elements such as land, structures, people, and programs are the focus. (Byrd, 2000)

*Conceptual Planning:* Conceptual planning establishes a vision for organizations designing facilities, incorporating why facilities are needed, who they will serve, and what stories they will tell. These three elements are integrated and further developed into a concept, which can then be implemented through design and building. (Gross and Zimmerman, 2002)

All four of the above plans are intended for organizations as a whole, whereas this project focuses on a single program of an organization – ICF’s Annual Midwest Crane Count. ICF is currently involved in a strategic planning process, and as such, the final outcomes remain unclear. A long range plan for the Crane Count is not appropriate, as creating a specific course for the program cannot at present account for the eventual results of ICF’s strategic planning process. Likewise, a strategic plan for the Crane Count is not appropriate at this time. Specific program

strategies could be better developed after the scope of ICF's overall planning efforts is clear. Master planning is for an overall site, and while the Crane Count is run out of ICF's headquarters, it is largely independent of a site-specific focus. Conceptual planning is largely targeted at the design of facilities, and the Crane Count is a program.

Therefore, a program plan incorporating elements from these specific planning types is most appropriate for this project. Rather than examining an ICF facility, ICF's site, or the organization as a whole, this plan will look at a single ICF program. A program plan will describe key elements of the program – its vision – why it exists, who it serves, and what it does. These three elements will be integrated into an overall program plan presenting a verbal and visual schematic of the Crane Count's parts, how they fit together, and how they interact. This program plan can then serve as a reference and direct the future of the Crane Count and its implementation.

As mentioned above, this Program Plan will provide the ICF CED staff with a concise overview and summary of the Annual Midwest Crane Count as a whole. Furthermore, the Program Plan will contain elements in common with strategic or long range planning. If strategic or long term planning for the Crane Count is appropriate in the future, ICF CED staff will have ready access to this information.

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## **Summary**

Through comparison of ICF's mission and the common goals of environmental education, cranes emerge as a focal point in instituting those goals. The Annual



Midwest Crane Count, as one of the programs of ICF's Conservation Education Department, falls under the general umbrella of ICF's overall mission. Literature discussing the Count over time clearly shows that there are a number of opportunities for the program to address the goals of EE.

Additionally, the Crane Count also is capable of fostering environmental literacy, environmental sensitivity, and a sense of place among its participants. Although the program has not actively sought to do so up to this point, with such strong commonalities between these and the overall goals of EE, the program can be strengthened by incorporating such considerations into the development of goals and objectives for the Count. In turn, these considerations will make their way into program materials to be used with target audiences.

As a citizen science project, the Crane Count has the capability of gathering data useful to both biologists and citizens. Citizen science and EE are not exclusive of one another, and can indeed be complementary.

A Program Plan that incorporates key elements from other planning strategies will best serve the Crane Count. Such a plan will allow CED staff the best opportunity to determine the future course of the Crane Count.

In closing, a statement by Brynildson regarding the international scope of crane counts seems to encompass the variety of points thus far discussed:

The ultimate crane count will record more than avian abundance. It will count on global unity and goodwill among all nations and peoples. From a purely scientific standpoint crane counts generate baseline data otherwise unavailable. As an educational tool, they are an effective means

for bringing people closer to their natural world. United in a spirit of enthusiasm, participants build a greater receptivity toward all life. Crane counting helps people as well as cranes, and in the final tally, these simple counts may also play a part in international coexistence. (1987)

## **CHAPTER THREE: METHODOLOGY**

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### **Overview**

Project Goal:

The goal of this study is to develop a Program Plan for the Annual Midwest Crane Count that will support ICF's mission and Conservation Education Department efforts.

### **I. Timeline**

#### **II. Objective One Methodology**

1. Program Planning Introduction
2. Development of the Program Plan
  - A.) Review of Program History
  - B.) Review and Evaluation of Current Program Status
    - 1.) Logic Model
    - 2.) Nonformal Environmental Education Programs: Guidelines for Excellence
    - 3.) Identification of Program Strengths, Weaknesses, Opportunities, and Threats
  - C.) Assessment of Target Audiences
    - 1.) Questionnaires
    - 2.) Focus Group
  - D.) Mission, Goals, and Objectives

#### **III. Objective Two Methodology**

1. Identification and Classification of Resources
2. Review and Evaluation of Existing EE Resources
  - A.) EE Resources and Questionnaires
  - B.) EE Resources Evaluation

#### **IV. Objective Three Methodology**

1. Gap Identification
2. Citizen Science Program Review
3. Creation of a Resources Database

#### **V. Objective Four Methodology**

1. Revising the Resources Database
2. Prioritizing the Proposed Resources

### **VI. Summary**

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## **Timeline**

Fall 2004

- Development of initial project proposal
- Draft literature review

Spring 2005

- Revise project proposal, receive committee approval
- Initial development of Questionnaires, Focus Group Discussion Guide, Logic Model, and NEEPGE Assessment Rubric Evaluation

Summer 2005

- Revision of Questionnaires and Focus Group Discussion Guide
- Historic Document Review and Content Analysis

Fall 2005

- Submit materials to and receive approval from the UWSP Institutional Review Board for Questionnaires and Focus Group Discussion Guide
- Distribute Questionnaires, hold Focus Group Discussion
- Data Analysis for Questionnaires
- Conduct Citizen Science Program Review, create initial Resources Database

Spring 2006

- Revise Thesis Chapters 1-3, write Chapters 4-5
- Complete all items related to Program Plan development
- Complete Program Plan

Summer 2006

- Project completion
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## **Objective One Methodology**

*To develop a Program Plan for the Annual Midwest Crane Count, including goals and objectives focused on environmental education.*

### **1. Program Planning Introduction**

The purpose of the Program Plan (Appendix A) was to establish direction for

the Annual Midwest Crane Count and to provide ICF CED staff with a concise summary and overview of the program. A program plan made up of components from other planning strategies was selected as most appropriate for this project. This plan will be used as a reference in the continued implementation of the program and as a guide in furthering the program's future.

## **2. Development of the Program Plan**

Development of the Program Plan included the following steps:

### **A.) Review of Program History**

The Crane Count had not been systematically reviewed since its inception. In contemplating the program's future, however, it was relevant to reflect on the program's history. To serve this end, ten historic Crane Count-related documents (Appendix B) were reviewed using a content analysis procedure.

The purpose of this content analysis was to examine documents representative of the Crane Count's past, and search for common categories and themes. Identified categories and themes were used in the development of a mission, goals, and objectives for the Crane Count (step D of Objective 1).

Each document was assigned an identifying designation consisting of a letter and year. Documents reviewed were:

- A1981 – The Annual Wisconsin Sandhill Crane Survey: Its History, Organization, and Results. 1981. (in-house document 1981)
- B1981 – 1981. The Brolga Bugle, Vol. 7, no. 1. "Crane Count Plans

- Laid”
- C1982 – 1982. The Brolga Bugle, Vol. 8, no 3. “Crane Counts, Wetland Bills”
  - D1984 – Crane Counts -- A Tool For Education and Research (in-house document 1984)
  - E1984 – 1984. The ICF Bugle, Vol. 10, no. 2. “Wisconsin Crane Count – 1984”
  - F1985 – Harris, J., & Knoop, J. (1985). The Wisconsin Sandhill Crane Count: A Public Participation Project. Proceedings 1985 Crane Workshop, 17-26.
  - G1987 – 1987. The ICF Bugle, Vol. 13, no. 3. “At Last Count – The Rise of International Crane Counting”
  - H1991 – The Wisconsin Sandhill Crane Count (in-house document, approximately 1991)
  - I1994 – 1994. The ICF Bugle, Vol. 20, no. 1. “20 Years of Counting Cranes: What Have We Learned?”
  - J1999 – 1999. The ICF Bugle, Vol. 26 [sic], no. 2. “Choices for Wisconsin: The Crane Hunting Proposal”

After acquisition, these documents were scanned using optical character recognition software, and content placed in Microsoft Word document format. A search within the documents for categories and themes related to what the program was intended to do or accomplish was instituted.

Each identified statement was highlighted in the Microsoft Word documents, assigned a sequential textual identification number, and a primary code word describing the general theme of the statement. This was followed by a second review on a finer scale, with each statement associated with one or more sub-codes.

## **B.) Review and Evaluation of Current Program Status**

After examining the program’s past, the next step was to take a critical look at the present. The purpose of this review and evaluation was to gain

information regarding the Crane Count’s current status. This analysis was accomplished first by using a logic model, and second with a publication, *Nonformal Environmental Education Programs: Guidelines for Excellence*. Third, these two steps contributed to the identification of program strengths, weaknesses, opportunities, and threats – common components of other types of planning efforts.

### 1.) Logic Model

A logic model is a visual display of a program. Although they come in a variety of forms, they essentially attempt to show the relationship of various program elements to outcomes or goals.

A logic model was developed to display the distinct elements of the Crane Count – its inputs, and outputs associated outcomes, the program goals and objectives. The logic model consists of a chart displaying ties between and among the various program elements.

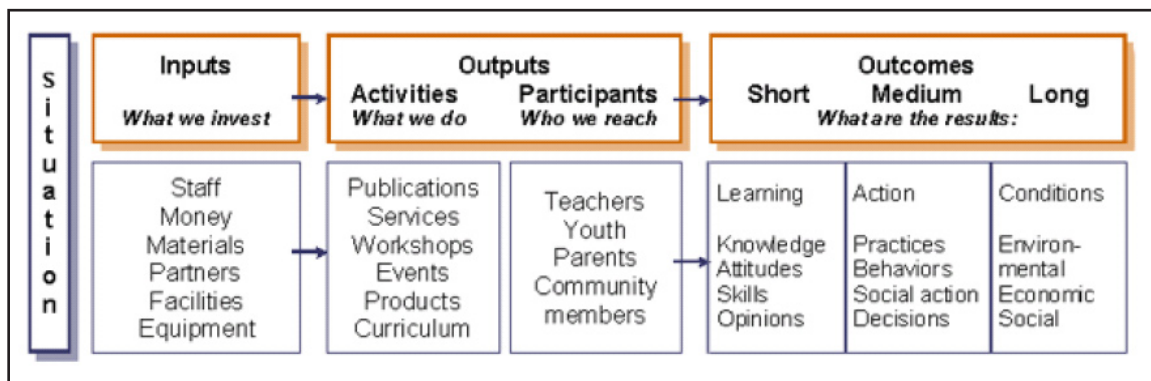


Figure 3.1: Example of a simple logic model. (University of Wisconsin-Stevens Point, 2005)

## **2.) Nonformal Environmental Education Programs: Guidelines for Excellence**

The North American Association for Environmental Education (NAAEE) developed a publication with the input of hundreds of environmental educators entitled *Nonformal Environmental Education Programs: Guidelines for Excellence* (NEEPGE) (2004). The purpose of this document is to assist nonformal environmental educators “ensure a firm foundation for new programs, or to trigger improvements in existing ones. The overall goal of these guidelines is to facilitate a superior educational process leading to the environmental quality that people desire (NAAEE, p. 1, 2004).” This publication deals with the characteristics that describe high quality EE programs as shown below. The document encompasses six key characteristics to be considered in developing or evaluating EE programs: Needs Assessment, Organizational Needs and Capacities, Program Scope and Structure, Program Delivery Resources, Program Quality and Appropriateness, and Evaluation. It continues with increasing specificity with guidelines, and finally, to individual indicators. A rubric based on NEEPGE was used to examine the Crane Count’s status (Appendix E).

Review and evaluation of the Crane Count using the rubric provided specific information about the program’s current status for each of these scales. Qualitatively, descriptions of how the program met or did not meet the NEEPGE criteria were produced. Quantitatively, the rubric generated numerical ratings reflecting the relative achievements and status for each category.



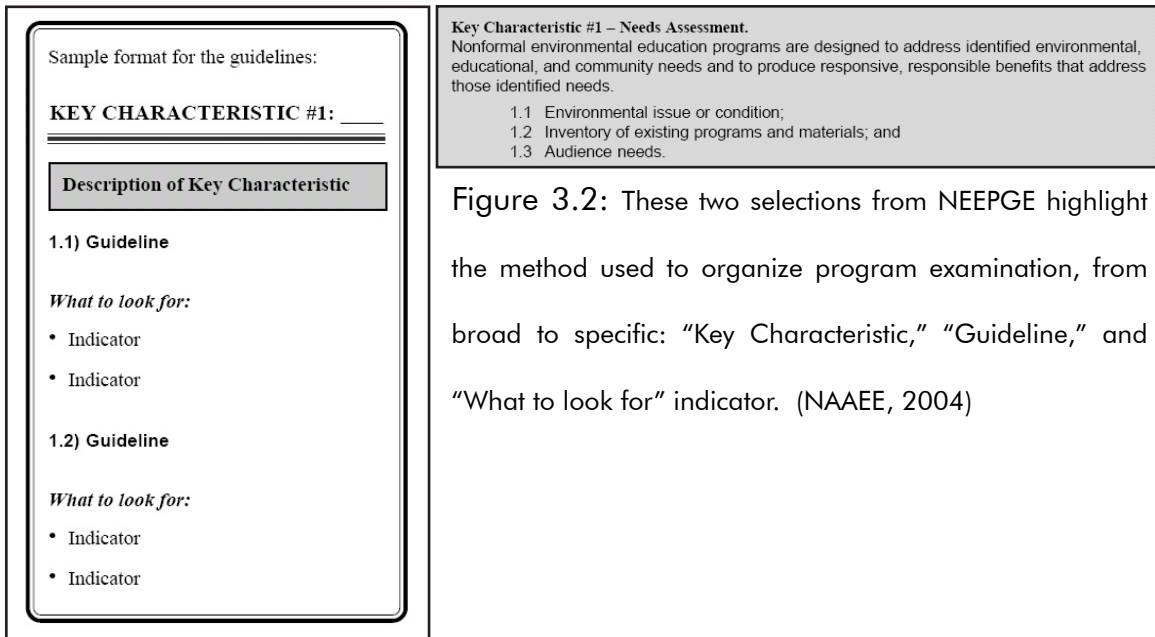


Figure 3.2: These two selections from NEEPGE highlight the method used to organize program examination, from broad to specific: “Key Characteristic,” “Guideline,” and “What to look for” indicator. (NAAEE, 2004)

Preceding final revision of the Program Plan, the NEEPGE rubric was revisited, as the Program Plan itself addresses many of the criteria the document described. Such a revision reflects the actual current status of the Crane Count with the Program Plan in place.

### **3.) Identification of Program Strengths, Weaknesses, Opportunities, and Threats**

Information from the logic model and NEEPGE rubric analysis was used to help identify the strengths (Appendix F), weaknesses (Appendix G), opportunities, and threats for the Crane Count program. Program strengths and weaknesses are internal, whereas the opportunities and threats are external. Identification of the Crane Count’s internal strengths will foster the program’s ability to support ICF’s mission and CED efforts. Identifying its internal weaknesses will be useful to ICF in knowing what hinders the program. Identifying external opportunities will support the future development of the Crane Count, and identifying external threats will

allow CED staff the chance to account for and minimize such challenges as appropriate. (Bryson & Alston, 1996)

## **C.) Assessment of Target Audiences**

A critical aspect of all planning was the identification and assessment of the “Who,” whether it be all organizational stakeholders, facility visitors, or target audiences, as in this case – the Crane Count’s County Coordinators and program participants. Questionnaires, a focus group discussion, and phone interviews were used to gather information on and from the target audiences. As little was known about these audiences, the purpose of the assessment was to gather data on demographics, perceptions of the Crane Count and its materials, audience motivations, potential program improvements, etc.

### **1.) Questionnaires**

Questionnaires were developed for two key groups in the Crane Count – County Coordinators (Appendix I) and program participants (Appendix J). The questionnaires were to gather information on demographics, motivations for being a part of the program, benefits of involvement, perceptions of the program and program materials, etc. For each audience, questions pertinent to these topics were developed. Questionnaires were reviewed by CED staff, revised accordingly, and submitted for University of Wisconsin-Stevens Point Institutional Review Board (IRB) approval (Appendix H). Following IRB approval, measures were undertaken for distributing the questionnaires, as described below.

At the time questionnaires were sent, there were 107 County Coordinators, a small population, making it feasible to census the group. Based on ICF's complete Coordinator contact list from late summer 2005, all 107 County Coordinators were sent Questionnaires in November, 2005. A follow-up post card was sent to non-responders approximately two weeks after initial sending of the Questionnaires (Appendix K).

ICF's Crane Count database had records for 6,590 past program participants available. It was not feasible to do a census of this entire population, so a sample of this population was surveyed with questionnaires. While the Crane Count covers more than 100 counties in portions of five states, its participants are concentrated in counties in or near population centers. Due to time constraints, a stratified sample, rather than random sample, of 317 participants was selected to receive questionnaires. Whenever possible, three individuals were selected from each participating county. In a few instances, only one or two individuals have participated in a given county, and therefore were selected to receive the questionnaire. A follow-up post card was sent to non-responders approximately two weeks after initial sending of the Questionnaire (Appendix L). A total of 40 Questionnaires were returned as undeliverable, leading to a final sample size of 277 participants.

Questionnaire responses were entered into Microsoft Excel spreadsheets (Appendices O and P), and coded as appropriate (Appendices M and N). Data resulting from questionnaires were analyzed using techniques such as content analysis for qualitative data, or descriptive statistics

for quantitative data. After analysis, data were summarized for use in Program Plan development.

## **2.) Focus Group & Phone Interviews**

County Coordinators are a key component of the Crane Count. These volunteer facilitators not only recruit and train participants throughout five states, but also collect, organize, and compile program data sheets for return to ICF.

In addition to the previously mentioned questionnaires, a focus group of six Coordinators was enlisted. An additional three Coordinators participated in phone interviews. The focus group and phone interviews were directed at obtaining information from Coordinators regarding their perceived benefits of being a part of the Crane Count, perceptions of the program and its resources, and suggestions for program improvement.

A discussion guide composed of key questions was developed for use by the discussion moderator (focus group) or interviewer (phone interviews) to obtain desired information (Appendix Q). The focus group discussion lasted 2.5 hours, and was held in ICF's Ron Sauvey Memorial Library for Bird Conservation on Saturday, December 10, 2005. The focus group proceedings were recorded and transcribed (Appendix R).

Phone interviews were conducted on December 21 and 22, 2005, and January 6, 2006. Responses were documented on paper during the

course of the interview, and typed afterwards (Appendix S).

Data from the focus group and phone interviews were reviewed as a supplement to the questionnaires, and in development of recommendations in the Program Plan.

#### **D.) Mission, Goals, and Objectives**

As stated in the Introduction, the role that Crane Count plays needed to be clarified to better articulate its mission, goals, and objectives. The Crane Count began as an effort to document the distribution of sandhill cranes in Columbia County, Wisconsin. Within a few years, sandhill crane abundance was added to the program. In the mid-1990s, the Crane Count grew to become an Upper Midwestern effort, and in 2005, began seeking information on whooping crane sightings. Throughout this entire time, the public was involved in gathering such information, and the Crane Count was described as a scientific and educational program. While the program developed over the years, the mission, goals, and objectives of the Crane Count had been implied, but not explicitly stated and documented.

Using the data gathered thus far for the Program Plan, the mission, goals, and objectives of Crane Count (including a focus on EE) were drafted. A draft of the mission, goals and objectives was submitted to CED staff for review, and revised accordingly before incorporation in the Program Plan.

After these four key steps (A-D) were complete, a draft of the Crane Count Program Plan (Appendix A) was written. As indicated below, the Program Plan was further revised after completion of Objectives Two through Four.

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## **Objective Two Methodology**

*To review and evaluate existing environmental education resources currently used in the Crane Count.*

The primary communication methods used to reach both County Coordinators and participants consists of printed matter and other non-personal media. Objective One dealt with examining the program on an overall scale. Objective Two focused on the primary communication methods the Crane Count uses to reach its target audiences.

Review and evaluation of EE resources included the following steps:

### **1. Identification and Classification of Resources**

As not all Crane Count resources used to reach target audiences qualify as directly related to EE, it was necessary to first identify the resources, and then classify them according to purpose.

The logic model created for Objective One, listing program inputs, outputs, and outcomes, helped to identify the Crane Count's existing EE resources. These resources were categorized into groups such as instructional materials, maps, audio/visual, forms, educational, etc. The purpose of each resource was then described (Appendix T). These resources received further evaluation as described below.

## **2. Review and Evaluation of Existing EE Resources**

### **A.) EE Resources & Questionnaires**

Existing resources were evaluated in part by selected members of the Crane Count's target audiences – the County Coordinators and program participants. Thus far, program resources such as the County Coordinator Instruction Handbook, Training Video, instructions, forms, or maps have been distributed to these audiences without knowing how beneficial audiences found them. To obtain their input, a portion of the previously described Questionnaires (see Objective One, Step C, Questionnaires) were focused on an evaluation of these resources. Data resulting from these questionnaires was analyzed using qualitative or quantitative techniques as appropriate.

### **B.) EE Resources Evaluation**

The NAAEE publication *Environmental Education Materials: Guidelines for Excellence* (EEMGE) was also used to evaluate existing Crane Count EE resources (Appendix U). This guidebook, which focuses specifically on materials as opposed to an overall program, provided information on the current status of Crane Count's EE resources.

The EEMGE publication is similar in its approach and layout to NEEPGE, referenced in Objective One. Six key characteristics – Fairness and Accuracy, Depth, Emphasis on skills building, Action Orientation, Instructional Soundness, and Usability were used in this instance for examining or developing EE materials. These key characteristics were followed by guidelines, and specific indicators.

Evaluation of Crane Count’s EE resources with these criteria helped determine the program’s strengths and weaknesses in using non-personal media to reach its target audiences. As with overall program strengths and weaknesses, the strengths and weaknesses of its resources were documented in the Program Plan (Appendix A).

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### **Objective Three Methodology**

*To identify new environmental education resources beneficial to the achievement of the Crane Count’s goals and objectives, as well as ICF’s Conservation Education Department efforts.*

The identification and evaluation of existing Crane Count EE resources in Objective Two revealed gaps and needs for additional program resources. Determining what these gaps were, and identifying new resources of potential value to the Crane Count and ICF’s CED efforts, entailed the following steps.

#### **1. Gap Identification**

Objective One produced goals and objectives for the Crane Count focused on EE. Objective Two identified and evaluated program materials related to EE. Documentation of what the Crane Count seeks to accomplish, and the materials that currently serve those ends were reviewed for gaps – what goals and objectives were not being addressed? These gaps were identified and listed (Appendix V).



## **2. Citizen Science Program Review**

Other citizen science programs have some approaches similar to the Crane Count in attempting to reach its audiences. A selection of online resources for other existing citizen science programs, especially those focused on birds, was reviewed. Programs examined included the Cornell Lab of Ornithology's Project FeederWatch, the Audubon Christmas Bird Count, and Journey North.

The review focused specifically on resources that, if adapted and modified for the Crane Count, appeared to have potential to address the Crane Count's objectives. Resources and means utilized by these other programs were listed and described (Appendix W).

## **3. Creation of a Resources Database**

To tie identified program goals and objectives gaps with results of the citizen science program review, a database was created (Appendix W). The database includes several categories to organize the information. For each item, there is a resource identification (name), source (citizen science program affiliation), reference (where it can be found), and description. Each item was associated with the Crane Count's identified gaps.

When completed, this database identified new EE resources, and shows which Crane Count goals and objectives could be addressed if they were to be developed.

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## **Objective Four Methodology**

*To recommend the development and implementation of specific educational resources to enhance the Crane Count, support ICF's mission, and support its Conservation Education Department efforts.*

Objective Three identified a selection of new EE resources that could, if developed, support ICF's mission and Conservation Education Department efforts; it was, however, necessary to identify which of these resources would be most useful. The purpose of recommending the development and implementation of specific educational resources was twofold. Firstly, recommending specific resources enhances the Crane Count's ability to provide such support. Secondly, the recommendation prioritizes key resources that could most effectively work towards this end.

The process of developing recommendations for specific resources included the following steps.

### **1. Revising the Resources Database**

The Resources Database developed in Objective Three was revised (Appendix W). An additional category was added to the Database: Number of Objectives Potentially Addressed. The number of objectives a resource could potentially address was counted and documented.

### **2. Prioritizing the Proposed Resources**

This step resulted in a final list of recommended resources focused on how useful

the resources would be in addressing program objectives. First, the identified resources were given a score: the number of objectives they could potentially address, from Step 1 above. Those resources that scored highest, and hence would address significant or multiple gaps, were classified as high priority. These were recommended as the most important to develop and implement. Dependent on resulting scores, the proposed resources were grouped in three categories: High Priority, Moderate Priority, and Low Priority. A final list of recommended, prioritized resources was produced and incorporated into the Program Plan.

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### **Summary**

The Program Plan (Appendix A), in its entirety, provides a complete overview of the Annual Midwest Crane Count. It not only highlights and provides information about the program and its status, but also recommends a variety of actions and resources that, if implemented, will advance the program and thereby support ICF's Conservation Education Department's efforts and ICF's overall mission.



## **CHAPTER FOUR: RESULTS**

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### **Overview**

The goal of this study was to develop a Program Plan for the Annual Midwest Crane Count that supports ICF's mission and Conservation Education Department efforts. This chapter describes the results of each sequential step used in developing and assembling this plan.

### **I. Objective One Results**

1. Development of the Program Plan
  - A.) Review of Program History
  - B.) Review and Evaluation of Current Program Status
    - 1.) Logic Model
    - 2.) Nonformal Environmental Education Programs: Guidelines for Excellence
    - 3.) Identification of Program Strengths, Weaknesses, Opportunities, and Threats
  - C.) Assessment of Target Audiences
    - 1.) Questionnaires
    - 2.) Focus Group
  - D.) Mission, Goals, and Objectives

### **II. Objective Two Results**

1. Identification and Classification of Resources
2. Review and Evaluation of Existing EE Resources
  - A.) EE Resources and Questionnaires
  - B.) EE Resources Evaluation

### **III. Objective Three Results**

1. Gap Identification
2. Citizen Science Program Review
3. Creation of a Resources Database

### **IV. Objective Four Results**

1. Revising the Resources Database
2. Prioritizing the Proposed Resources

### **V. Finalized Program Plan and Summary**

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## **Objective One Results**

*To develop a Program Plan for the Annual Midwest Crane Count, including goals and objectives focused on environmental education.*

### **1. Development of the Program Plan**

Development of the Program Plan included the following steps, with associated results documented for each one:

#### **A.) Review of Program History**

Ten historic Crane Count-related documents (Appendix B) were reviewed using a content analysis procedure. Each document was assigned an identifying designation consisting of a letter and year. The purpose of the analysis was to support the development of a mission, goals, and objectives for the Crane Count.

A search within the documents for categories and themes related to what the program was intended to do or accomplish was instituted. Five primary code words describing the general theme of each statement initially resulted:

- Accomplishment (21 statements)
- Audience (11 statements)
- Goal (55 statements)
- Implication (15 statements)
- Need (2 statements)

The total results of this process were 107 identified statements associated with the five primary code words. Each statement, its document designation,

textual identification number, and primary code word were entered into a Microsoft Excel spreadsheet for further analysis (Appendix C).

As the five primary code words proved to encompass a large number and variety of statements, a second review of the statements was instituted on a more detailed scale. The primary code words were set aside and not further used, although remaining associated with the statements.

Each statement was again reviewed, and a new set of more specific categories and themes emerged. The results were a series of fourteen sub-codes associated with one or more statements (Figure 4.1, Appendix D). Appendix D lists the sub-codes in conjunction with key words and concepts from the statements. These key words and concepts were used when assigning sub-codes to specific statements. For instance, the first sub-code, "Example," is associated with the key words and concepts of "demonstration of an environmental education program" and "model program." The entire list of fourteen sub-codes were:

- Example
- Awareness
- Involvement
- Attitude
- Education
- Crane Knowledge
- Data Use
- Program Characteristic
- Outlook
- Participant Background
- Demographics
- Qualification
- Function
- Future

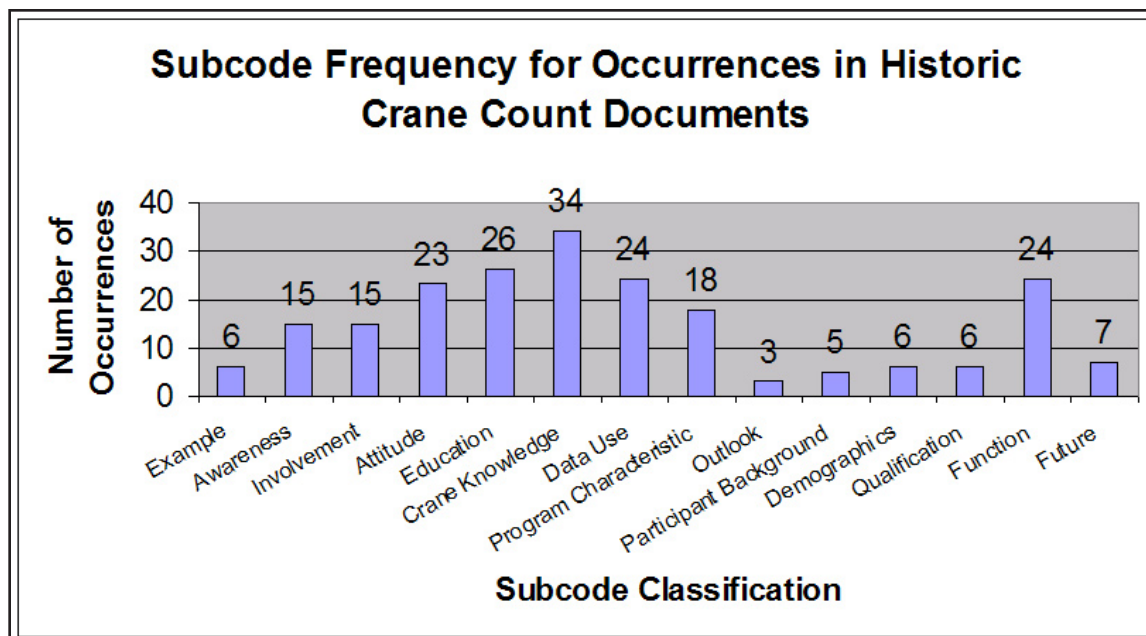


Figure 4.1: Sub-code frequency for occurrences in historic Crane Count documents

For each of the fourteen sub-codes, all applicable statements were reviewed. Summaries for each sub-code were prepared, integrating the key concepts and overall meaning of the relevant statements considered as a whole. The results were the summaries shown below by sub-code. Each sub-code number corresponds with that used in Appendix C, the Microsoft Excel Spreadsheet in which data were entered.

•Example (Sub-code #6)

The Annual Midwest Crane Count serves as model Environmental Education program, demonstrating how new crane counts can be started within the United States or abroad. The Crane Count highlights the valuable role public involvement plays. ICF is willing to provide example materials and information to those interested in starting crane counts. (Based on 6/108 statements, or 5.6%)

•Awareness (Sub-code #7)

The Crane Count serves as a vehicle for promoting public awareness of cranes, wetlands, and other wildlife. It serves to introduce or expose people to these, and may enhance or increase people’s awareness. This includes participants as well as other members of the public. (Based on 15/108 statements, or 13.8%)



- Involvement (Sub-code #8)

The Crane Count seeks to involve individuals in the program. Citizen involvement supports the accomplishment of the Count's other goals and objectives. This supports public awareness of cranes, wetlands, and other wildlife. Scientific goals. It is hoped that involvement in the Crane Count will help to educate participants, and stimulate active involvement in societal issues outside of the Count itself. Citizen interest in cranes and wetlands may transfer over to other facets of conservation.

(Based on 15/108 statements, or 13.8%)

- Attitude (Sub-code #9)

The Crane Count seeks to foster a positive attitude on the part of participants towards wetlands and wildlife. Supporting these positive attitudes may in turn inspire participants to take independent action towards conservation and environmental protection.

(Based on 23/108 statements, or 21.2%)

- Education (Sub-code #10)

The Crane Count seeks to educate participants and citizens outside of the program. The program provides the knowledge and training in skills necessary to participate, as well as additional information about cranes and the ecosystems on which they depend. It serves to illustrate the values that habitats have to both people and wildlife. In part, participants learn through doing. Knowledge derived from the Count also serves to educate through publicity and its availability to interested citizens. The program is also a model of an Environmental Education program that can be adapted in other places.

(Based on 26/108 statements, or 24%)

- Crane Knowledge (Sub-code #11)

The Crane Count gathers long-term baseline data on the abundance and distribution of cranes, on their habitats, and on habitat use. These data can provide population trend information, display relationships between cranes and their habitats, monitor changes over time, etc. Without the Crane Count, these data, and the knowledge they can provide, would not be available.

(Based on 34/108 statements, or 31.5%)

- Data Use (Sub-code #12)

Data gathered through the Crane Count is useful for a variety of purposes. These include, but are not limited to the following. Data provide a knowledge base on the region's cranes. Data can be used to evaluate population and habitat status, and for long-term monitoring of cranes and habitats. They are available for research and analysis, and

can be provided to organizations, government agencies, or citizens as an information source. As an information sources, the data can support or oppose well-informed decisions and actions on various issues.

(Based on 24/108 statements, or 22.2%)

- Program Characteristic (Sub-code #13)

The Crane Count has a number of unique characteristics. It is a well-organized, long-term, large scale research tool that complements other crane research efforts. It seeks to expand to the periphery of known crane habitat, and involve more people. It is a hands-on form of Environmental Education, with a clear and practical goal (gathering data, thereby increasing crane knowledge for a variety of uses). The program and its results serve as a unique information source.

(Based on 18/108 statements, or 16.7%)

- Outlook (Sub-code #14)

Participants are described as having an interest in nature. The Crane Count is a chance for them to get outdoors, greet spring, see and hear cranes and other wildlife, and express their interest in nature.

(Based on 3/108 statements, or 2.8%)

- Participant Background (Sub-code #15)

Participants are sought from a variety of “non-biological” backgrounds. Most have little prior knowledge about cranes, and little scientific background. If their background does not include a positive experience with wetlands they are specifically recruited. Participants are also recruited if this will be a new and exciting experience for them.

(Based on 5/108 statements, or 4.6%)

- Demographics (Sub-code #16)

Participants in the Crane Count range in age from children through senior citizens. They come from a variety of backgrounds, and some participate as part of organizations (youth groups, bird clubs, schools, etc.).

(Based on 6/108 statements, or 5.6%)

- Qualification (Sub-code #17)

All participants attend a pre-Count meeting. Participants are specifically recruited if this will be a new and exciting experience for them, and/or if they have not had a previous positive encounter with wetlands.

(Based on 6/108 statements, or 5.6%)

- Function (Sub-code #18)

The Crane Count serves a variety of functions. It can identify wetlands especially worthy of protection, and enhances wetland protection and preserving the sandhill crane. It is an aid to managing agencies, can assist in designing and implementing conservation strategies, be applied to other regions, and evaluate potential impacts of a proposed hunting season on sandhill cranes. Volunteers can be organized to survey large areas. It serves to document the increase of a species rather than a decline. It is an annual rite of spring that takes people outside and allows them to become involved in contributing to conservation. It gives volunteers experience with cranes, and an interest that can carry over into other facets of conservation.

(Based on 24/108 statements, or 22.2%)

- Future (Sub-code #19)

ICF plans to continue the Crane Count indefinitely. The longer it continues, the more valuable it becomes. The program seeks to expand to the periphery of known crane habitat, and involve more people. It is an important event to people, and over time has become an annual rite of spring.

(Based on 7/108 statements, or 6.5%)

Based on the statements taken from historic program documents, these summaries described the multiple intents of the Crane Count, and what it was intended to accomplish. These were reserved for later use in developing the Crane Count's mission, goals, and objectives (step D of Objective 1, below).

## **B.) Review and Evaluation of Current Program Status**

Review and evaluation of the Crane Count's current status was accomplished first through the development of a logic model, and second with a publication, *Nonformal Environmental Education Programs: Guidelines for Excellence*. Third, these two steps contributed to the identification of program strengths, weaknesses, opportunities, and threats.

## **1.) Logic Model**

A logic model (Figure 4.2) was developed to display the distinct major elements of the Crane Count. The logic model listed the inputs that contribute to the Crane Count. These inputs were tied to the program outputs – specific activities and components that make up the major portions of the Crane Count. Outcomes were then displayed in terms of Crane Count goals and objectives (developed in step D of Objective One) associated with the outputs. The desired outcomes resulting from the outputs is accomplishment of the listed goals and objectives. Upon completion, the logic model was included in the final Program Plan for the Crane Count (Appendix A).

## **2.) Nonformal Environmental Education Programs:**

### **Guidelines for Excellence**

A scoring rubric based on the North American Association for Environmental Education’s publication *Nonformal Environmental Education Programs: Guidelines for Excellence* (NEEPGE) was used to examine the Crane Count’s current status (Appendix E).

The NEEPEG rubric allowed a systematic evaluation of the Crane Count according to the Key Characteristics, Guidelines, and “What to look for” indicators. For each indicator, the result was a score ranging from zero to three, with zero corresponding to “Does Not Meet,” and three corresponding to “Fully Meets.” In some cases, an indicator was judged to be non-applicable, and noted as such. Additionally, each score for the indicators was supported or justified with one or more comments

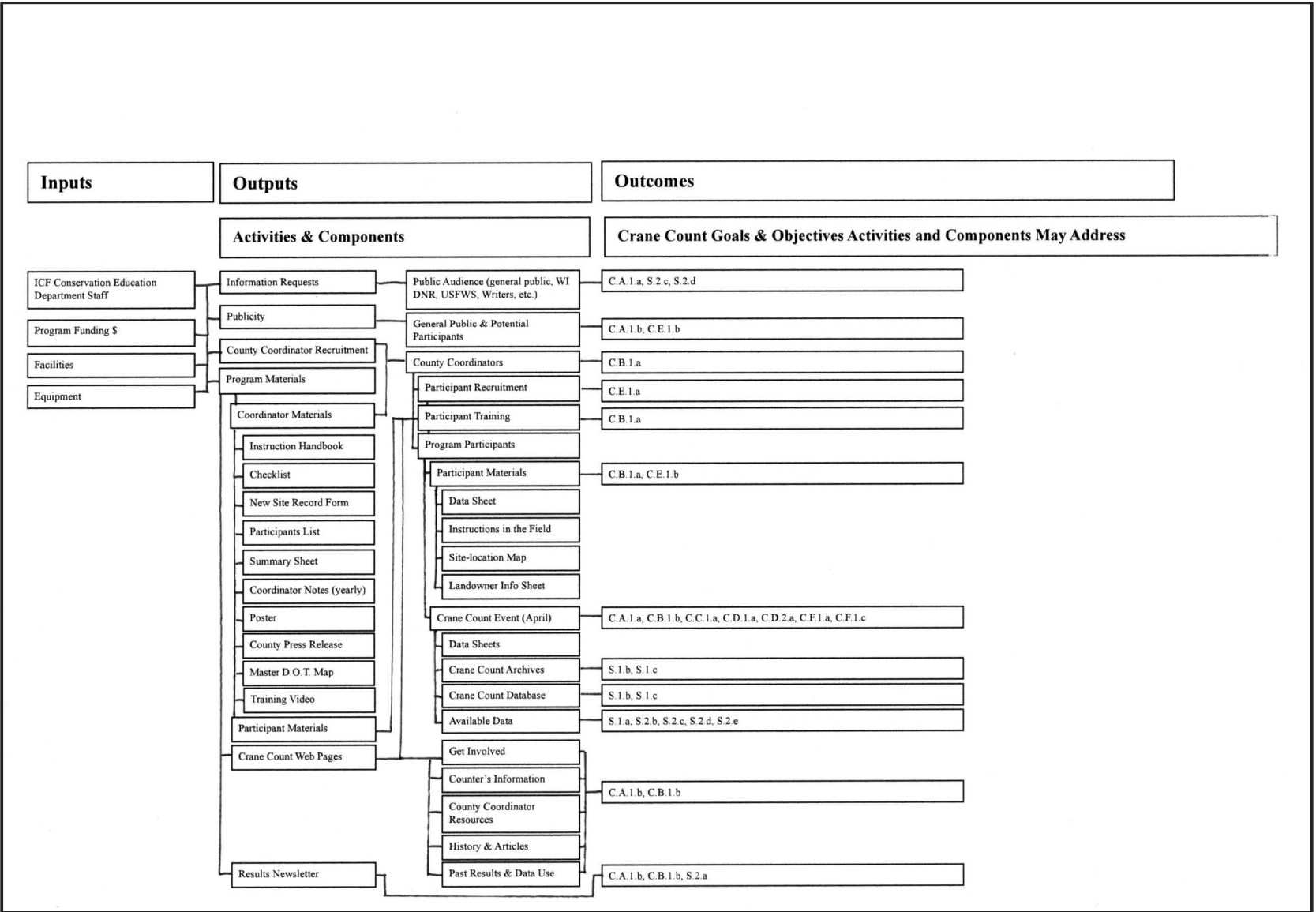


Figure 4.2 - Annual Midwest Crane Count Logic Model

associated with it.

For instance, the description for Key Characteristic #2, Organizational Needs and Capacities, reads, "Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals (NAAEE, 2004)."

This Key Characteristic is broken down into three Guidelines. Guideline 2.3 reads, "Organization's existing resources inventoried. The sponsoring organization has the means and will to support the program (NAAEE, 2004)."

This Guideline is broken down into four "What to look for" Indicators. The first of these four Indicators reads, "The capacities and resources of the organization (human, financial, physical site, material resources, and supplies) have been inventoried and are sufficient to support the program successfully (NAAEE, 2004)."

In the Assessment Rubric (Figure 4.3), this indicator is further broken down into four categories. With a highest possible score of three for this Indicator, the score assigned was "2 - Generally Meets." This was supported by comments such as, "As of this point, capacities and resources are sufficient to generally support the Crane Count," and "Each year, staff find it difficult to complete data entry in a timely manner. This could be considered a lack of human resources, or a lack of technological resources to more efficiently complete this task."

Figure 4.3 - Sample page from NEEPGE Assessment Rubric

## Key Characteristic #2: Organizational Needs and Capacities

**2.3) Organization's Existing Resources Inventoried**  
The sponsoring organization has the means and will to support the program.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The capacities and resources of the organization (human, financial, physical site, material resources, and supplies) have been inventoried and are sufficient to support the program successfully.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed consideration has been given to program resource needs over the long term.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

-An inventory has not been conducted of capacities and resources  
-As of this point, capacities and resources of ICF are sufficient to generally support the Crane Count.  
-Each year, staff find it difficult to complete data entry in a timely manner. This could be considered a lack of human resources, or a lack of technological resources to more efficiently complete this task.  
  
-No specific consideration has been given to Crane Count resource needs over the long term.

Rubric scores were on three different scales: “What to look for” indicator, Guideline, and Key Characteristic. The scores associated with each indicator were compiled at the Guideline level, and then Guideline scores were in turn compiled at the Key Characteristic level.

In the example provided in Figure 4.3, the Indicator received a score of two. With four Indicators comprising Guideline 2.3, the highest possible points for the Guideline are twelve. The total score for Guideline 2.3 was six out of twelve possible points, or 50%. Three Guidelines comprise Key Characteristic #2 (Figure 4.4). Adding the percentage scores for all three Guidelines together, and dividing by three provided an overall percentage score for Key Characteristic #2, Organizational Needs and Capacities. The final overall score for this Characteristic was 55.3%, out of a possible 100%.

The final score summary for the six Key Characteristics was as follows (highest possible score is 100%):

1. Needs Assessment – 35.33%
2. Organizational Needs and Capacities – 55.3%
3. Program Scope and Structure – 29.25%
4. Program Delivery Resources – 61%
5. Program Quality and Appropriateness – 27%
6. Evaluation – 3.67%

At the end of each Key Characteristic section, the comments for each indicator were compiled in two categories: strengths and weaknesses. Figure 4.5 shows the incorporation of the example used for Key Characteristic #2 in this format – comment “A” under section 2.3



## Key Characteristic #2: Organizational Needs and Capacities

### Score Summary and Comment Narrative

Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals.

2.1) **Consistent with Organizational Priorities:** The environmental education program is consistent with, and supportive of, parent organizations priorities and objectives.

Total Score:      4/12    converted to percentage:      33%

2.2) **Organization's Need for the Program Identified:** The environmental education program fills an identified need within existing activities of the sponsoring organization.

Total Score:      5/6    converted to percentage:      83%

2.3) **Organization's Existing Resources Inventoried**  
The sponsoring organization has the means and will to support the program.

Total Score:      6/12    converted to percentage:      50%

Sum of Percentage Scores For Organizational Needs and Capacities:

166/3 =            55.3% Overall Score

**Comment Narrative:**

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## Key Characteristic #2:

Comment Narrative (Section 2: Organizational Needs and Capacities, continued)

### Strengths:

- 2.1)
  - A. The Crane Count's goals and objectives are consistent with ICF's mission
  - B. Crane Count is integrated into ICF's budget
- 2.2)
- 2.3)
  - A. ICF capacities and resources are currently adequate to generally support the Crane Count

### Weaknesses:

- 2.1)
  - A. The Crane Count needs to be further examined to determine if it is consistent with ICF's goals, objectives, long-range plan, and any other applicable mandates
  - B. It is unknown if program staff/materials articulate the relationship between the program and ICF mission, etc.
  - C. ICF communication strategies and priorities are unknown, and it is unknown if the Crane Count supports these
  - D. Recommendations for the future of Crane Count need to be examined in the context of ICF's budget, and feasibility determined
- 2.2)
  - A. The existence of an inventory of ICF programs and their interrelationship needs to be confirmed (may be a part of Strategic Planning)
  - B. The Crane Count's role in ICF's overall program offerings needs to be specifically identified
- 2.3)
  - A. ICF human & technical resources are increasingly challenged by data entry
  - B. No specific consideration is given to long-term Crane Count resource needs
  - C. Support of program by leadership, departments, and board unknown
  - D. The degree to which staff/volunteers implementing the program support its development and implementation is unknown

strengths, and comment “A” under section 2.3 weaknesses.

Strengths are reflected by the percentage score for each Key Characteristic. These results were applied to Step 3, below.

### **3.) Identification of Program Strengths, Weaknesses, Opportunities, and Threats**

Several components and steps in the project methodology contributed to the identification of program strengths, weaknesses, opportunities, and threats.

Results from the NEEPGE rubric evaluation resulted in scores and comments classified as strengths and weaknesses (Appendices F and G). These were incorporated into the Program Plan (Appendix A) under a section entitled “Current Program Status.” With the NEEPGE rubric score results, this provides a summary of the strengths and weaknesses of the Crane Count as a nonformal environmental education program.

The logic model (Figure 4.2) helped serve as an inventory of program components – specifically the primary resources that the Crane Count uses to reach its target audiences. This inventory was used in Objective 2 (below) to begin the process of reviewing and evaluating existing environmental education resources currently used in the Crane Count. In Objective 2, Step 1.B (where more detail will be found), the Crane Count’s resources were evaluated using the North American Association for Environmental Education’s publication *Environmental Education*

*Materials: Guidelines for Excellence (EEMGE).*

As with the NEEPGE results, qualitative EEMGE results were compiled in two categories: strengths and weaknesses. These were included in the Program Plan (Appendix A) in a section entitled, "Current Materials Status." This section outlines both the strengths and weaknesses of the resources as they currently stand.

Opportunities and threats external to the Crane Count were identified (shown below) by a review of the results incorporated into the Program Plan – such as the strengths and weaknesses identified by NEEPGE and EEMGE, and results from Questionnaires received from County Coordinators and participants.

#### Opportunities

1. Exploring partnership(s) with other citizen science programs (such as Cornell Lab of Ornithology, National Audubon, Journey North, Wisconsin Nature Mapping, etc.). Such programs may have valuable insights, expertise, resources, etc. that are not currently available or feasible for the Crane Count.
2. Making more effective and complete use of available and advancing technologies (online data entry, mapping programs, etc.).
3. Further incorporation of Environmental Education resources and research into the Crane Count.
4. Seeking expertise outside of ICF for continuing development and refinement of the Crane Count.
5. Seeking additional funding resources outside of ICF for

continuing development and refinement of the Crane Count.

6. Targeting and involving school classrooms in the Crane Count.

## Threats

1. The primary demographic of participants consists of a middle-aged and older audience. While not an immediate threat, this raises concerns for the Crane Count's ability to maintain adequate participants in future years due to volunteer depreciation.

2. The cost of maintaining the Crane Count in its current form, and/or developing new initiatives may interfere with the program's ability to effectively address its mission, goals, and objectives.

3. Advancing technology threatens the Crane Count, making many of the techniques currently used in the program inefficient, if not obsolete. This has repercussions for CED staff, County Coordinators, and the ability of the program to effectively address its mission, goals, and objectives.

4. "Competing" citizen science programs have taken advantage of advancing technologies, and may draw Coordinators and participants away from the Crane Count due to its relative level of reliance on paper forms and redundant paperwork.

5. The Crane Count's degree of success in meeting its mission, goals, and objectives is unknown, and therefore it is unknown how effectively the program works to support ICF's mission.

For instance, Opportunity #3 on the list, "Further incorporation of Environmental Education resources and research into the Crane Count" was derived from the literature review (Chapter 2), NEEPE evaluation, and EEMGE evaluation. Each of these either pointed out relevant information, or outlined the benefits of making use of existing resources and research as a best practice. Therefore, since this has only been

minimally accomplished, the opportunity exists to do so in the future.

## **C.) Assessment of Target Audiences**

Questionnaires, a focus group discussion, and phone interviews were used to gather information on and from the target audiences – County Coordinators and participants.

### **1.) Questionnaires**

Of the 107 County Coordinator Questionnaires sent, 72 individuals responded, a rate of 67%. Of the 277 deliverable participant Questionnaires sent, 149 individuals responded, a rate of 54%. Results from Questionnaire analysis for these two groups are presented below.

#### **County Coordinator Questionnaire Results**

##### ***Age and Gender:***

Figure 4.5 displays the reported age demographic of County Coordinators. This reveals that, as with responding participants, this audience is heavily skewed towards middle-aged and older. A full 77% of responding Coordinators are 45 years of age or older. Relatively few Coordinators come from the 44 and younger demographic. Of these individuals, 57% (N = 41) are female, and 38% (N = 27) male, with 5% (N=4) not reporting gender.

This points out a potential threat to the future of the Crane Count. As this audience continues to age, the current core group will depreciate

for a variety of reasons. These may include, but are not limited to Coordinator retirement, health issues, death, moving away, loss of interest or burn-out, etc.

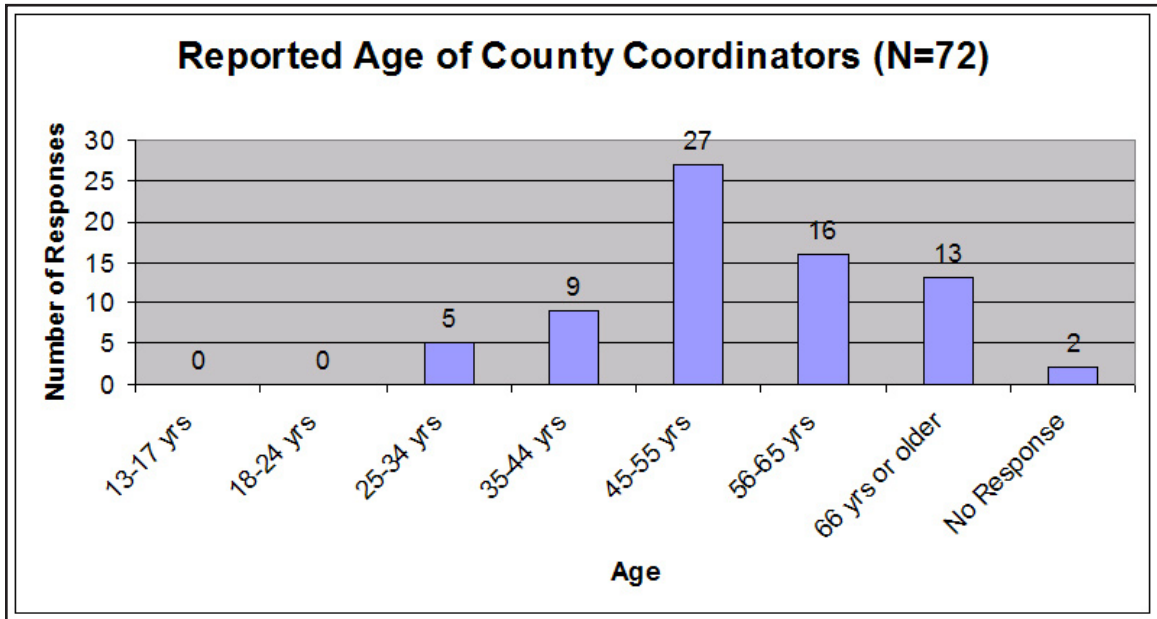


Figure 4.5 - Reported age of County Coordinators

**Times Coordinating:**

Figure 4.6 illustrates that most Coordinators have had a long-term commitment to facilitating the Crane Count. Most Coordinators, 57%, have facilitated the program 6 times or more. Twenty-five percent have coordinated 16 times or more. Currently, 43% have coordinated 5 times or less.

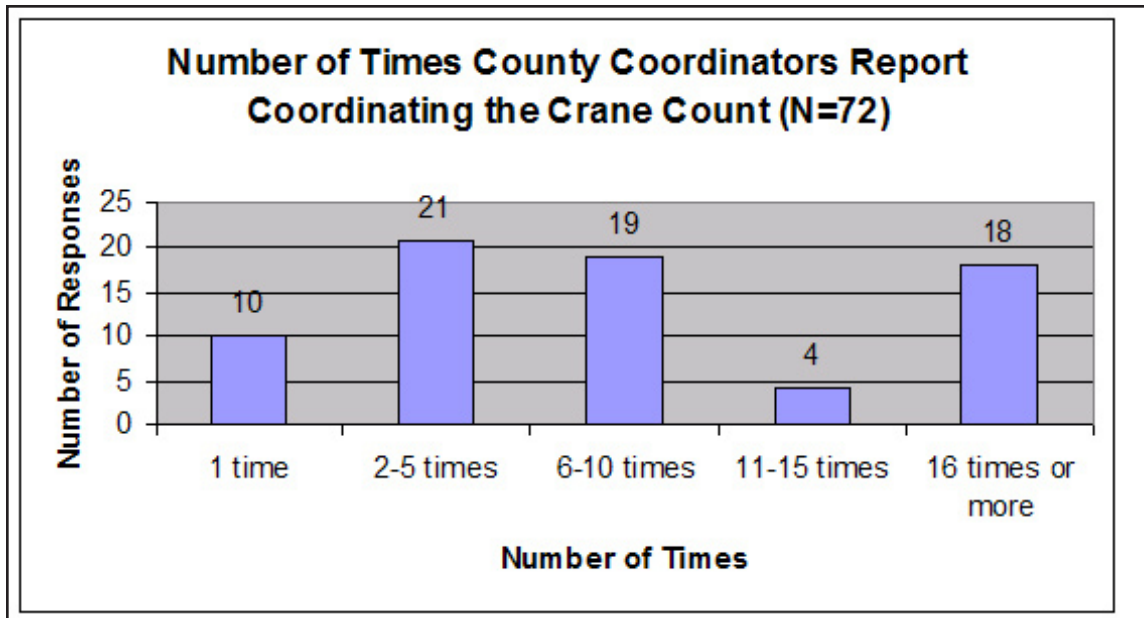


Figure 4.6 - Number of times Coordinators report coordinating the Crane Count

***Yearly Time Commitment:***

Crane Count program materials describe the primary duties of County Coordinators as recruitment, training, collection, and compilation. Estimating the amount of time coordinating duties take each year, Coordinator responses ranged from a minimum of one hour up to one-hundred hours. Only 7% reported spending more than 80 hours on their duties each year, and the remaining 93% reported spending 40 hours or less. The average time commitment was approximately 20 hours per year.

Taken as a whole, estimates added up to 1,312 hours for the 71 reporting Coordinators. If non-responders also spent an average of 20 hours on their duties, an additional 700+ hours could be added to this total. All told, Coordinators donate a significant amount of time to make the Crane Count possible.



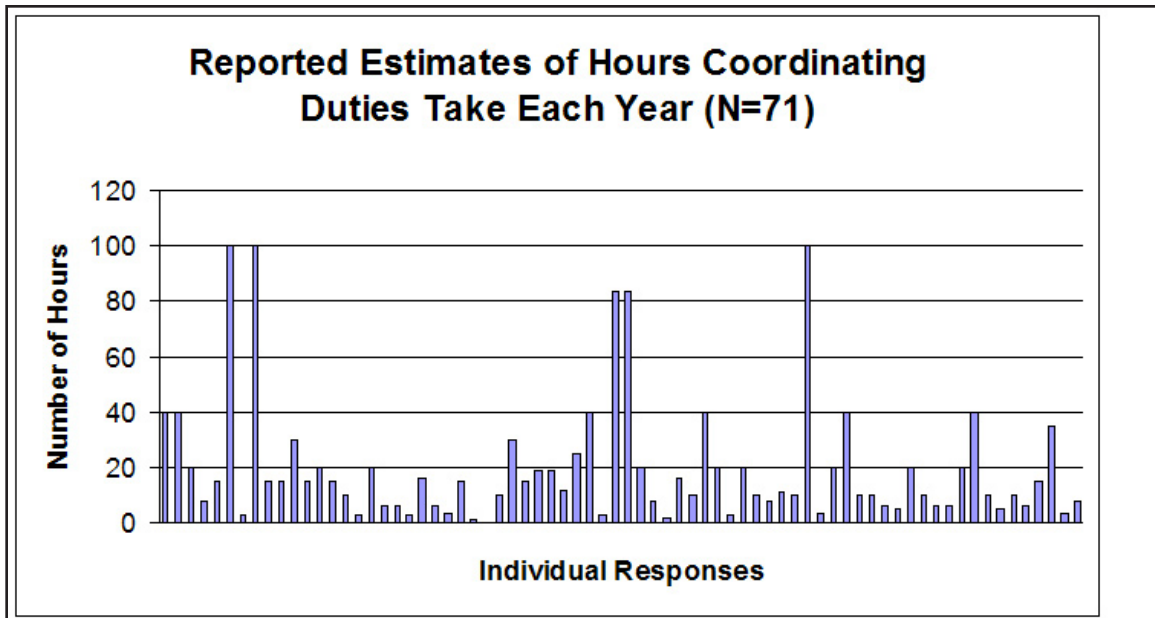


Figure 4.7 - Reported estimates of hours coordinating duties take each year

***Motivations:***

Coordinators report a variety of motivations for volunteering to coordinate the Crane Count (Figure 4.8). The four major motivations (75% or more Coordinators indicating the motivations) are as a contribution to a conservation organization (92%), to introduce others to the natural world (79%), to improve understanding of crane populations (79%), and to teach others about cranes (75%).

Motivations reported below the 75% level are:

- to learn about cranes (69%)
- as a tradition (68%)
- to meet others with shared interests (63%)
- other reasons (variable open-ended response) (33%)

While this is far from an evaluation, the above motivations lend support to the mission, goals, and objectives of the Crane Count as described in the Program Plan (Appendix A).

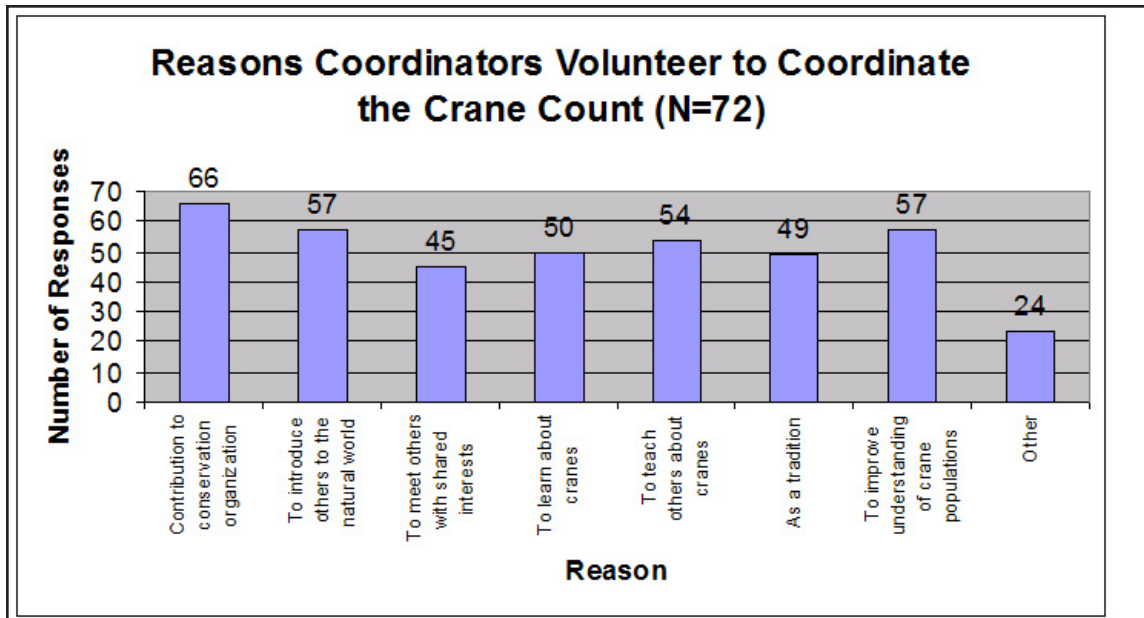


Figure 4.8 - Reasons Coordinators volunteer to coordinate the Crane Count

***Components Included in Participant Training:***

Participant training is one of the primary responsibilities of County Coordinators. Although suggestions are made in program materials as to how to conduct participant training, no two Coordinators implement it in exactly the same way. Variables between one county and the next may influence how a Coordinator chooses to institute training. Variables may include, but are not limited to: experience level of counters (returning or new), number of participants, time available, motivational level, and participant availability.

Despite the variables in how a Coordinator chooses to implement participant training, it is potentially useful to know what components are included as a part of training (Figure 4.9). Based on instructions included in program materials, Coordinators were presented with a list of components to see which ones they included.

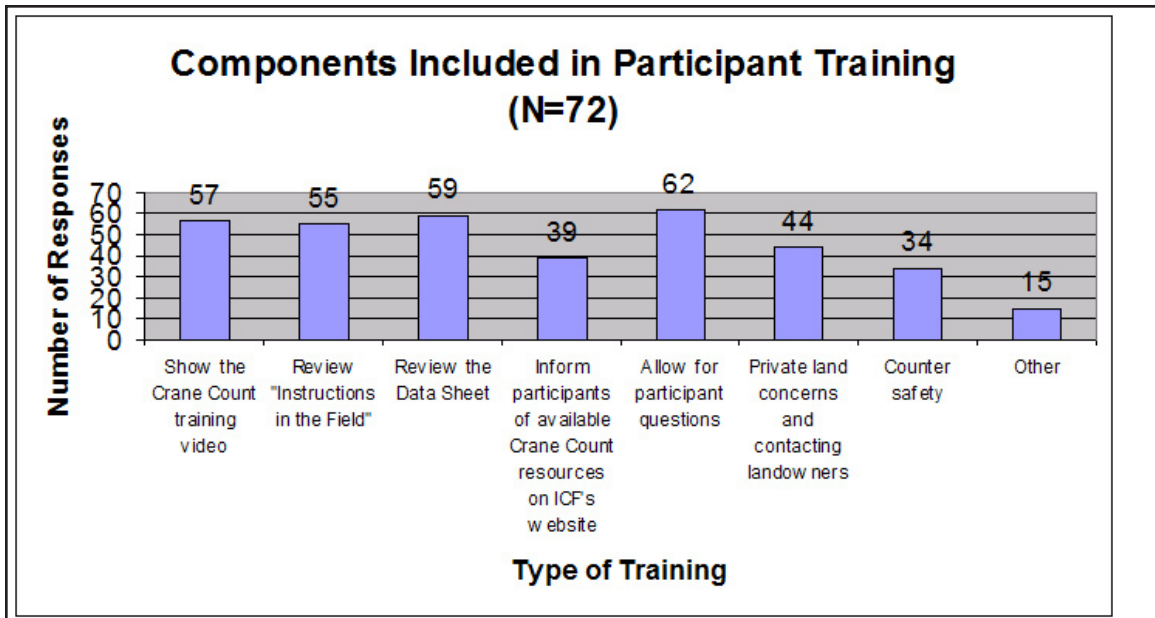


Figure 4.9 - Reported components included in participant training

Components included in participant training (by percentage):

- 86% allow for participant questions
- 82% review the Data Sheet
- 79% show the training video
- 76% review Instructions in the Field
- 61% include private land concerns and contacting landowners
- 54% inform participants of available resources on ICF's website
- 47% include counter safety
- 21% include other components not listed here

These data indicate a number of things. Most Coordinators include components that could (and perhaps should) be included in participant training. A number of these items are important in supporting the accomplishment of the Crane Count's mission, goals, and objectives. Others, while they may not provide direct support, are indirectly related, such as counter safety, and remain an important part of the program. There certainly could be viable

reasons for not including certain components – for instance a veteran counter may not need a review of the Data Sheet.

These data bring up concerns, however, as the Crane Count in large part relies on resources and on participant training to achieve its mission, goals, and objectives. For example, data gathered from participant Questionnaires (Participant Questionnaire Results, below) indicate that 40% of participants that do not use the Crane Count section of ICF's website were unaware of its existence. This may be related to the 46% of Coordinators who do not inform participants of available website resources.

### ***Participant Recruitment:***

As earlier indicated, one of the primary duties of Coordinators is to recruit participants. A majority of Coordinators, 75%, report that they actively seek new participants for their counties (Figure 4.10). Those that do not were asked to indicate the reason. Sites already taken by current participants accounted for 10% of the Coordinators who do not pursue active recruitment. Eight percent indicated either no reason or another reason for not actively recruiting. Only 1% (a single individual) indicated that recruitment efforts had been unsuccessful in the past.

Of most concern for the Crane Count is the 13% of Coordinators who indicated that recruitment requires more personal time than is available. Recruitment is one of the primary responsibilities, and necessary for the Crane Count to accomplish several of its goals

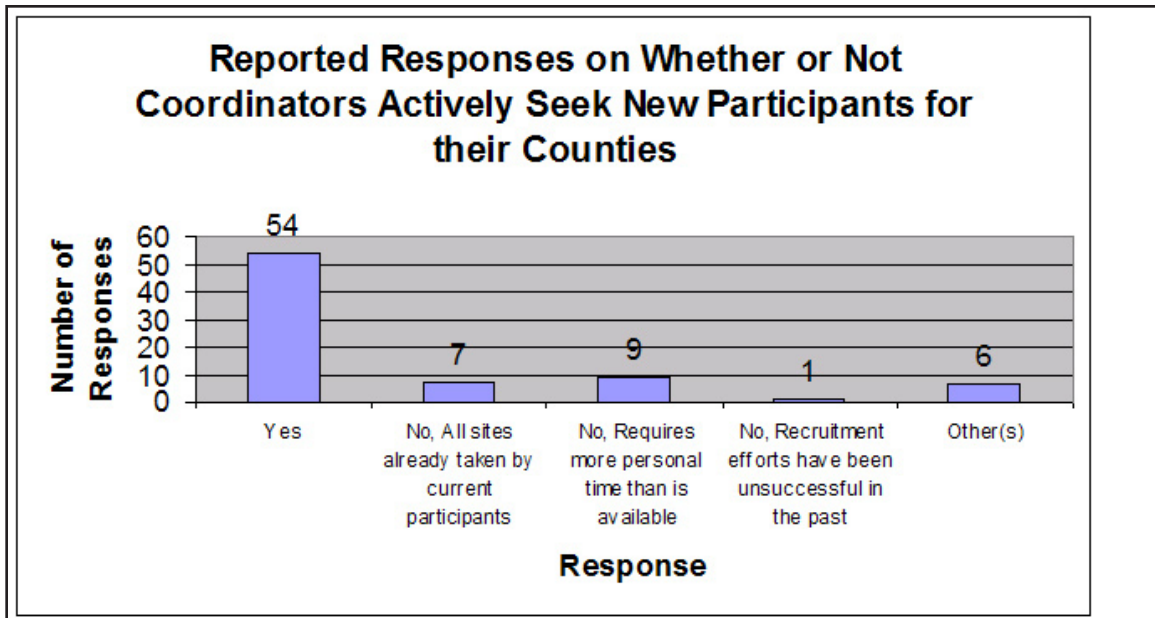


Figure 4.10 - Reported responses on whether or not Coordinators actively seek new participants for their counties

and objectives. Such a lack of active recruitment means that the program may not be reaching as many people as it could otherwise.

**Recruitment Methods:**

ICF provides some materials for recruitment, but Coordinators are not limited to using those made available. A press release sent to local media (which may or may not be the one provided by ICF) is reportedly used by 89% of those Coordinators who undertake active recruitment efforts. A Crane Count poster (not necessarily the one provided by ICF) is also used by 46% of those working on active recruitment. Second only to a press release, however, are the 79% of these Coordinators who use other methods. These methods consist of using word of mouth, emails, networking with local organizations, and casual conversations.

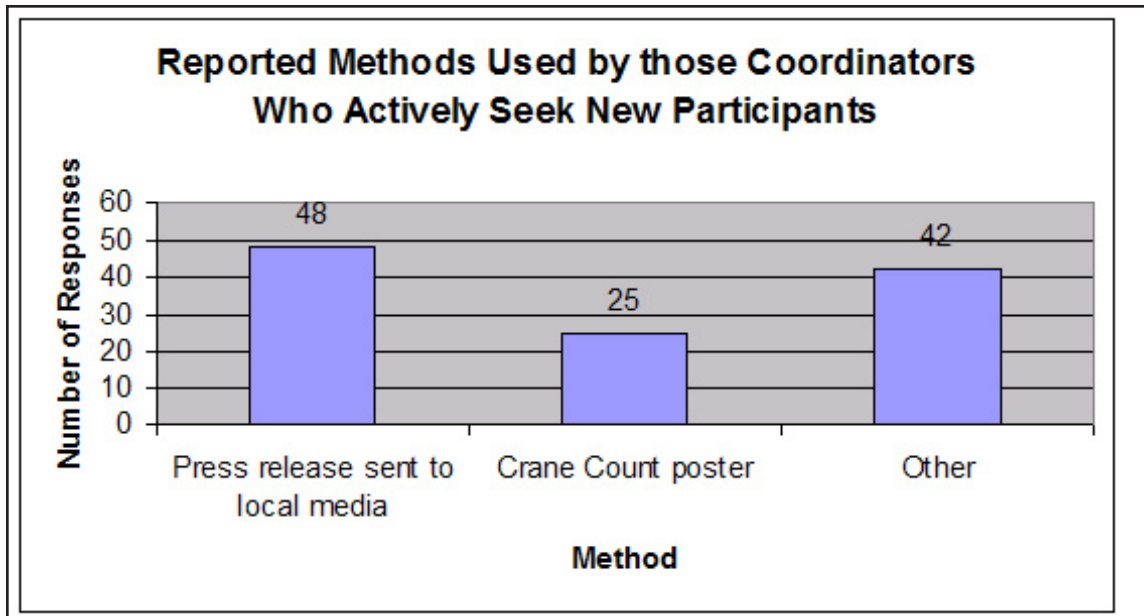


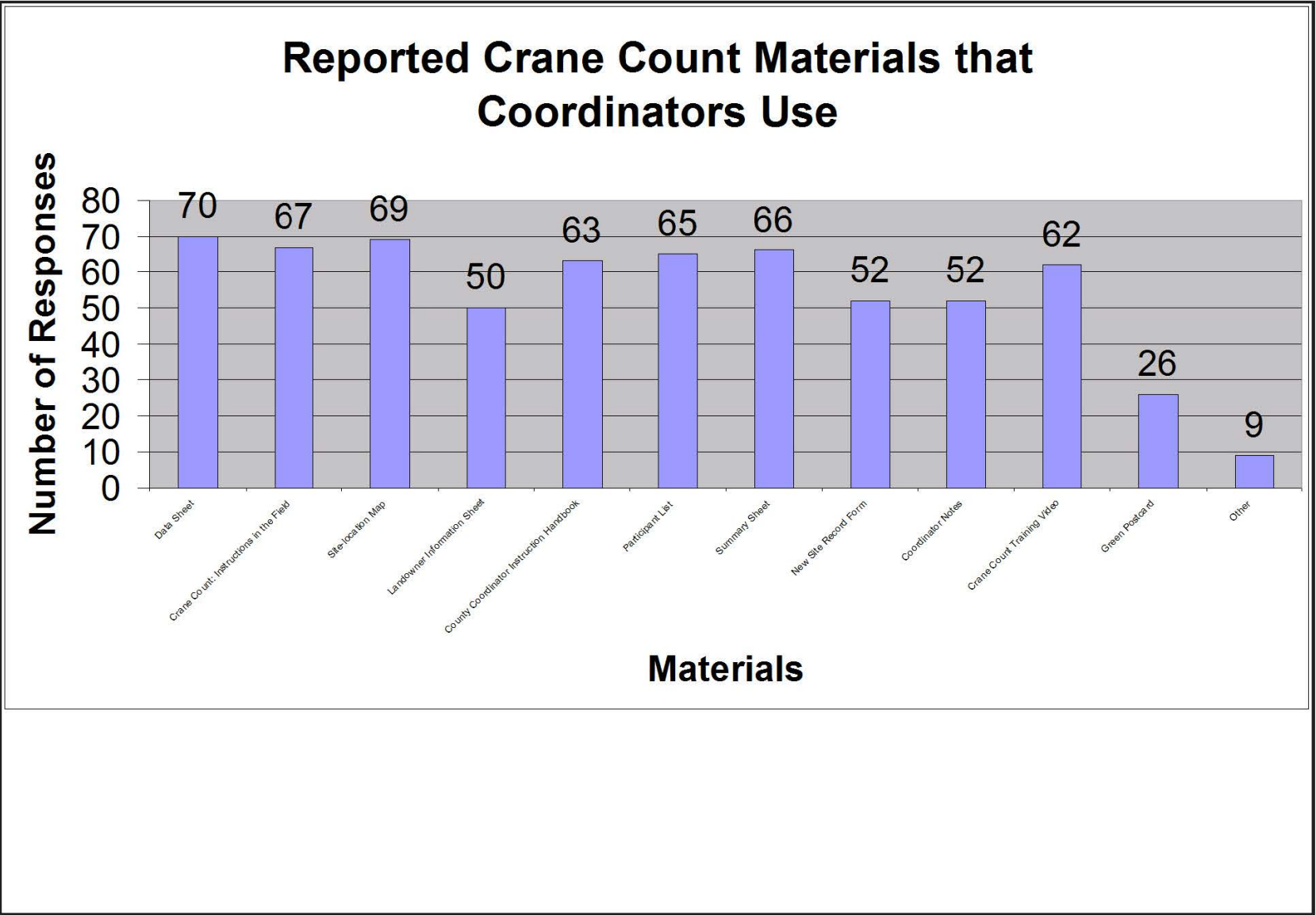
Figure 4.11 - Reported methods used by those Coordinators who actively seek new participants

**Crane Count Materials Used:**

County Coordinators were asked what Crane Count materials they used. The below, summarizes what materials the Coordinators report using. These results, however, do not necessarily indicate the extent or purposes for which these materials are used (Figure 4.12).

- 97% report using the Data Sheet
- 93% report using Instructions in the Field
- 96% report using the Site-location Map
- 69% report using the Landowner Information Sheet
- 88% report using the County Coordinator Instruction Handbook
- 90% report using the Participants List
- 92% report using the Summary Sheet
- 72% report using the New Site Record Form
- 72% report using the Coordinator Notes
- 86% report using the Crane Count Training Video
- 36% report using the Green Postcard
- 13% report using other materials (county highway map, their own postcards, etc.)

Figure 4.12 - Reported materials used by County Coordinators



These responses tell us that most of the Crane Count materials are used by most Coordinators. The Landowner Information Sheet has not been printed in several years, and is not currently available on ICF's website – it is interesting to note that 69% of Coordinators still report using it.

Of primary concern are two of these results – the 3% of Coordinators who do not use the Data Sheet (as so many of the program goals and objectives depend on this piece), and the 28% of Coordinators who do not use the Coordinator Notes. The Notes provide important, updated information relevant to the Count every year that is found nowhere else. This is a key item for Coordinators to use.

***Status of Website Use by Coordinators:***

Coordinators were asked whether or not they used the Crane Count section of ICF's website, and if not, to indicate why (Figure 4.13).

- 51% of Coordinators reported making use of the website
- 8% of Coordinators indicated they do not have internet access
- 10% of Coordinators indicated their slow connection speed is unable to handle ICF's website
- 4% of Coordinators indicated they were unable to locate the Crane Count section of ICF's website
- 24% of Coordinators indicate other reasons for not using the Crane Count section of ICF's website (several haven't thought of it or seen the need, others minimize their computer use, rely on printed materials, etc.)



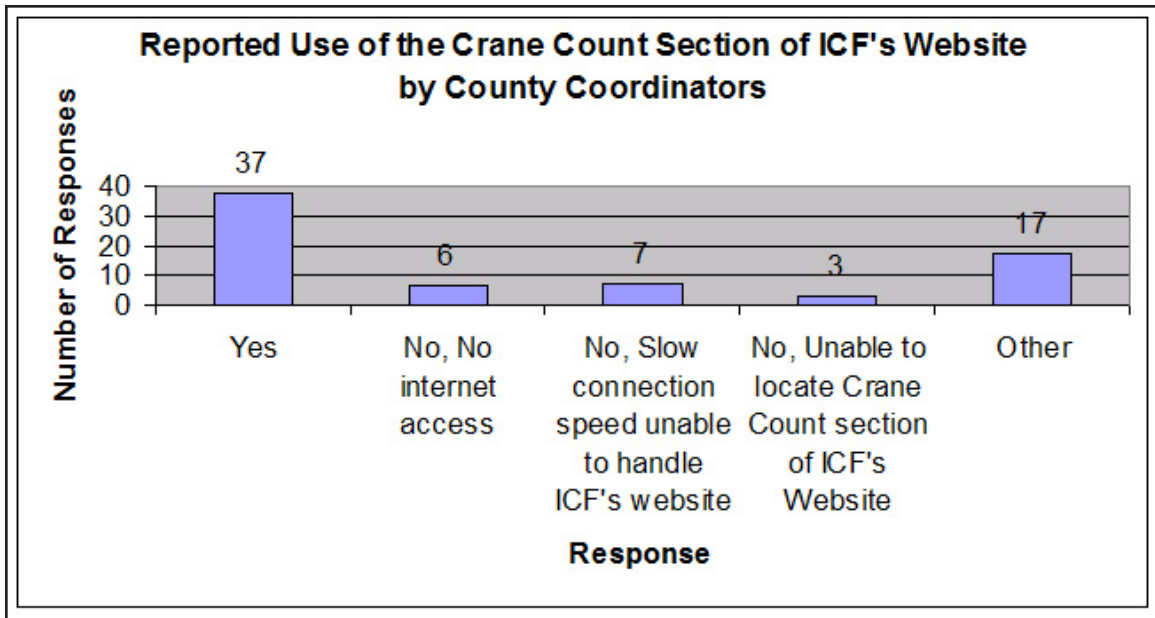


Figure 4.13 - Reported use of the Crane Count website by County Coordinators

**Reported Uses of the Crane Count Section of ICF's Website:**

Those Coordinators who reported making use of the Crane Count section of ICF's website were asked to indicate what they used it for. 51% of Coordinators (37 individuals) reported using this portion of ICF's website. Of those 37, the following percentage reported using it for (Figure 4.14):

- 65% to learn more about the Crane Count program
- 54% to find out how to get in touch with other County Coordinators
- 51% to answer questions they have about coordinating the Count
- 65% to print out Crane Count forms
- 59% to listen to crane calls
- 65% to learn more about cranes
- 59% to answer questions they have about cranes
- 49% to answer questions participants have about cranes
- 32% to show the Crane Count Training Video
- 5% for other reasons (to find future Count dates and for meeting time)

## Reported Uses of the Crane Count Section of ICF's Website by County Coordinators

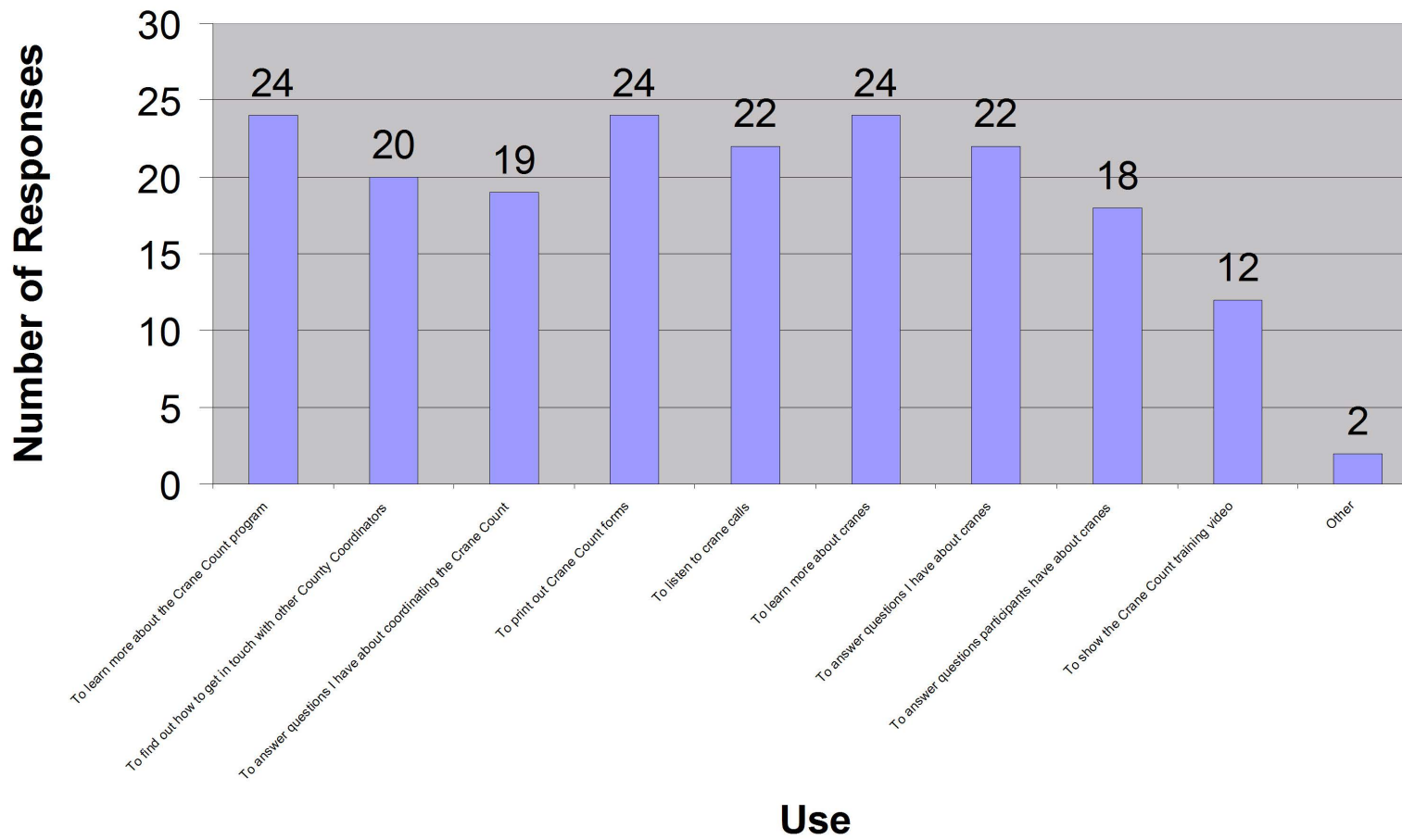


Figure 4.14 - Reported uses of the Crane Count website by County Coordinators

With over half of the responding County Coordinators reporting they make use of the website, and the purposes for which they report using it serve to indicate that it is a valuable resource for their duties.

### ***Comments on County Coordinator Questionnaire***

#### ***Results:***

Most of the above results were included in the Program Plan (Appendix A) in the Who: County Coordinators section. These results provide an overall picture of the County Coordinator audience. Other results from the County Coordinator Questionnaires (specific to program resources) were not discussed here, but will be found below in Objective Two.

## **Participant Questionnaire Results**

### ***Age and Gender:***

Figure 4.15 displays the reported age demographic of responding participants. As with County Coordinators, the demographic was heavily skewed towards a middle-aged and older audience. Eighty-seven percent of participants were 45 years of age or older. Twenty-seven percent or more of participants fell within each of the following age brackets: 45-55 years, 56-65 years, and 66 or older. Only 12% of participants were 44 years of age or younger. Only one respondent indicated being in the 14-17 years old range, and there were no respondents from the 0-13 years old bracket. Of responding participants, 42% were female, 49% male, and 9% did not indicate their gender.

Comments from the County Coordinator Focus Group Discussion and Phone Interviews supported this information about the participant audience. Coordinators indicated that most of their participants are older, and that they have few, if any, youth participating in their counties. Coordinators indicated that sometimes one or more families with children or grandchildren would participate, or in some areas, that groups such as 4-H would participate with youth. In some limited instances, school classrooms would also participate, bringing youth into the program.

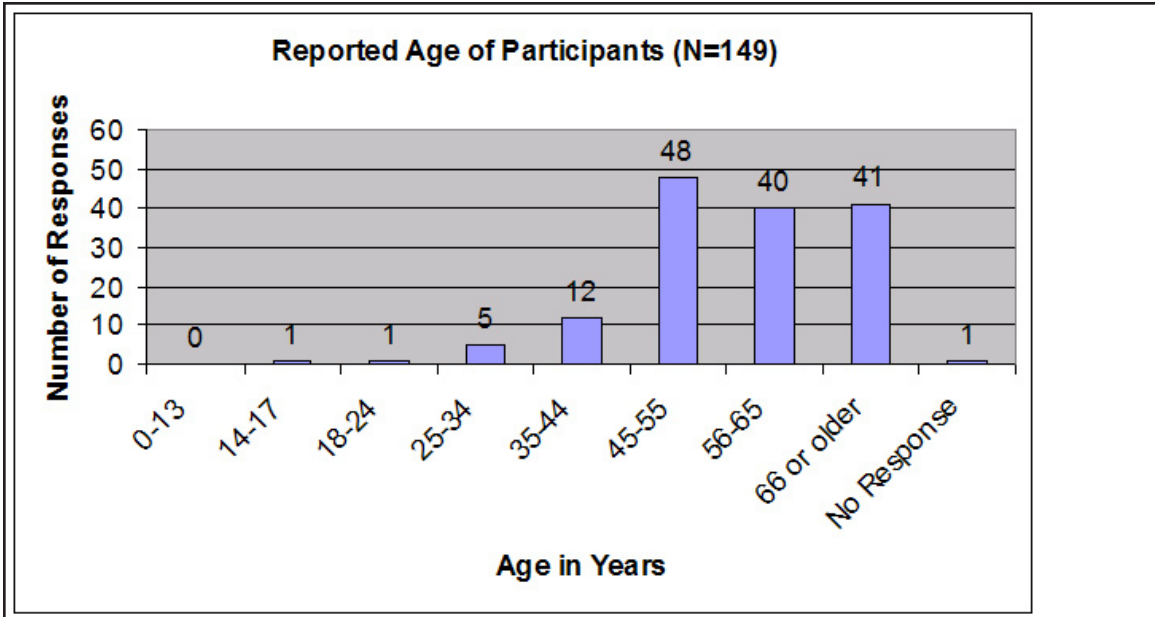


Figure 4.15 - Reported age demographic of Crane Count participants

Just as with the County Coordinator demographic, this reveals a potential threat to the future of the Crane Count. The current core audience will continue to age, and over time is likely to depreciate. The Crane Count’s ability to meet its mission, goals, and objectives largely relies on having an audience of participants that must be maintained over time.

**Education Level:**

Overall, Crane Count participants reported being well-educated (Figure 4.16). Seventy-five percent of respondents had a college education or more. Twenty-nine percent had a Master’s degree or above. Only 20% had a high school education. Of the three individuals who reported being in school, one was in high school, and the other two in college.

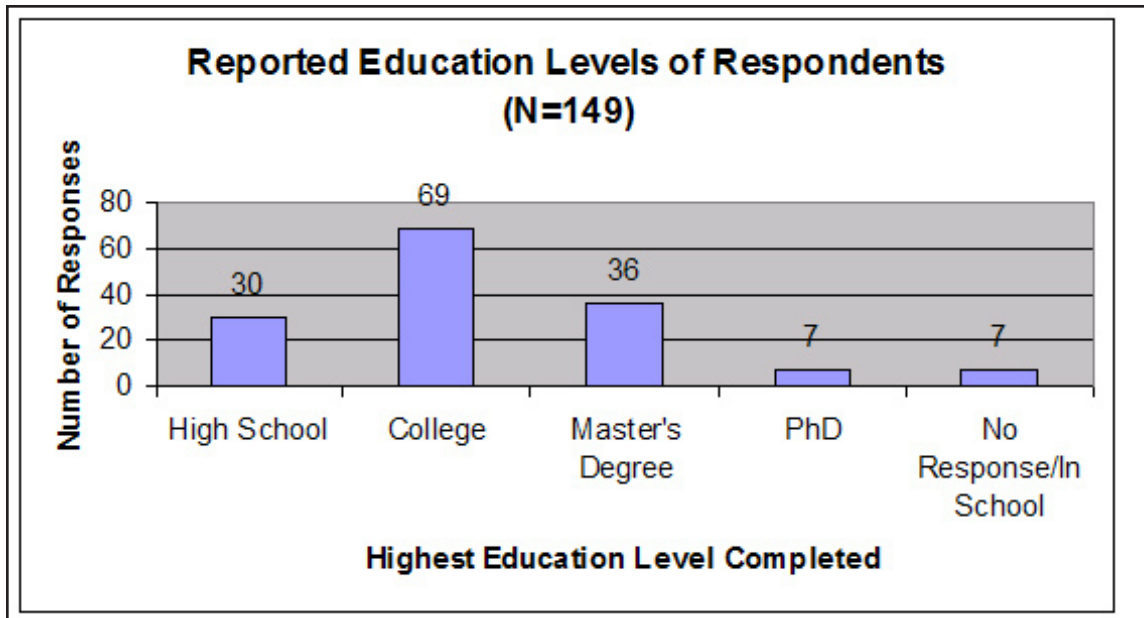


Figure 4.16 - Reported education levels of participant respondents

**Formal Educator Status:**

Most participants (78%) were not formal educators, but 9% were (Figure 4.17). Another 9% indicated they were retired formal educators, however, this was not an available response on the Questionnaire. Respondents wrote in “retired” or a similar comment, so the actual proportion may be higher.

**Times Participating:**

As with County Coordinators, participants largely appeared to have a long-term commitment to the program. Most participants (76%) have participated in the Crane Count six times or more (Figure 4.18). Twenty percent have participated 16 times or more. Twenty-four percent have participated 5 times or less, and only 1% have participated one time.

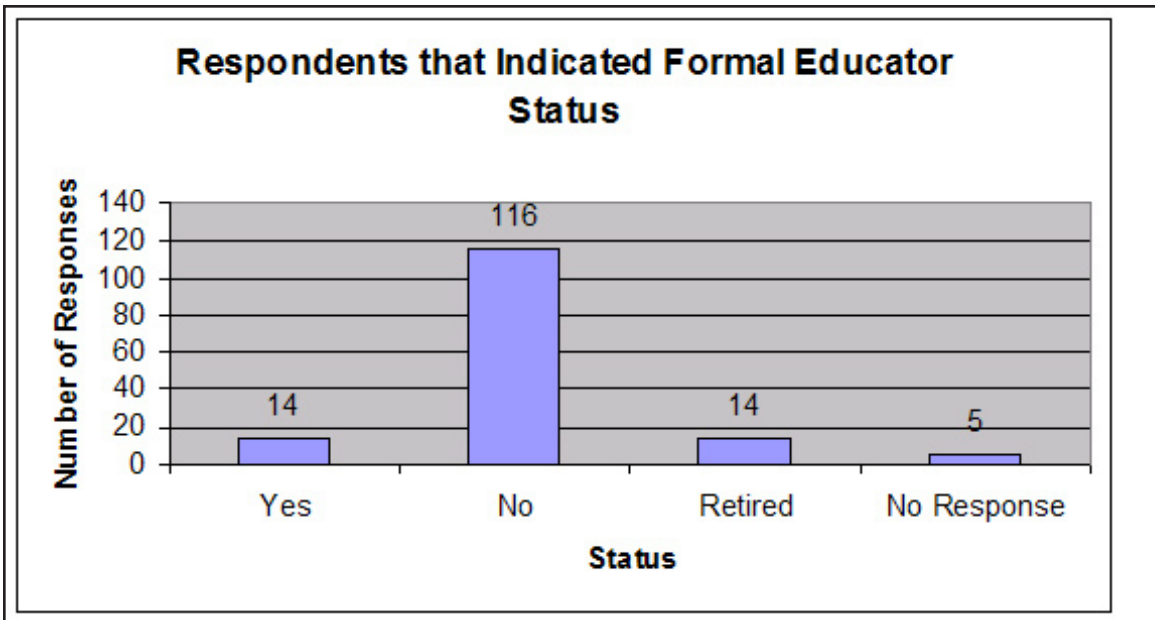


Figure 4.17 - Formal educator status of participants

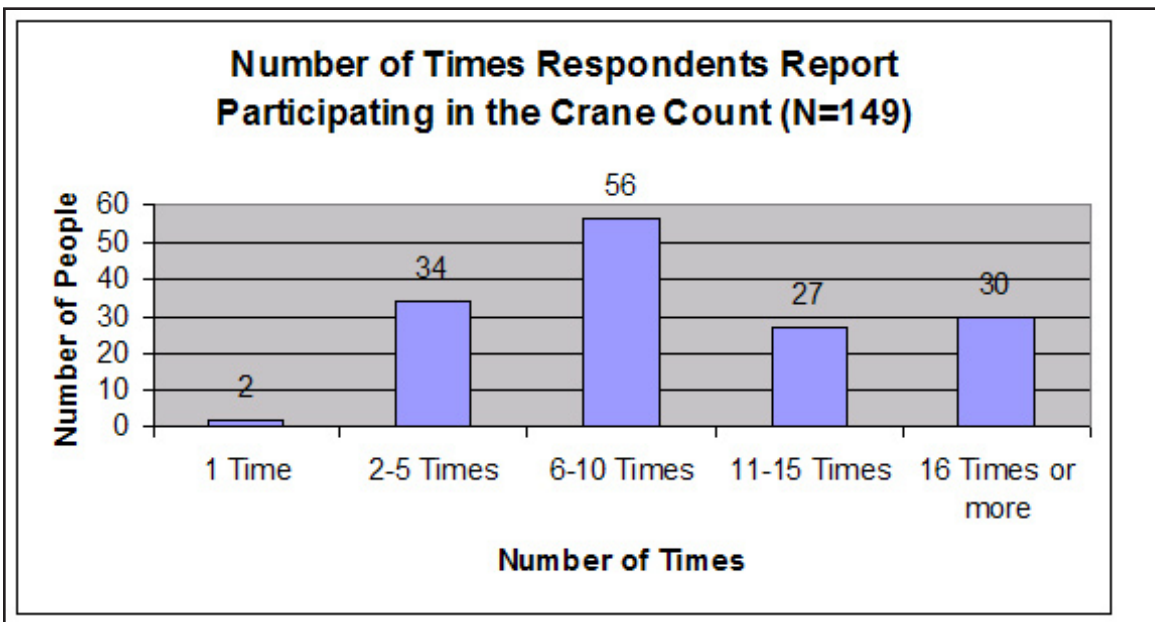


Figure 4.18 - Number of times respondents report participating

**Types of Groups Most Frequently Counted With:**

Participants were asked whom they most frequently participated with during the Count (Figure 4.19). They could choose one or more options. Most either count alone, with friends, or with family. Forty-eight percent indicated alone, 31% with friends, and 42% with family. Fourteen percent indicated as part of an organization, and 2% indicated some other type of group. No participants reported counting as part of a class group.

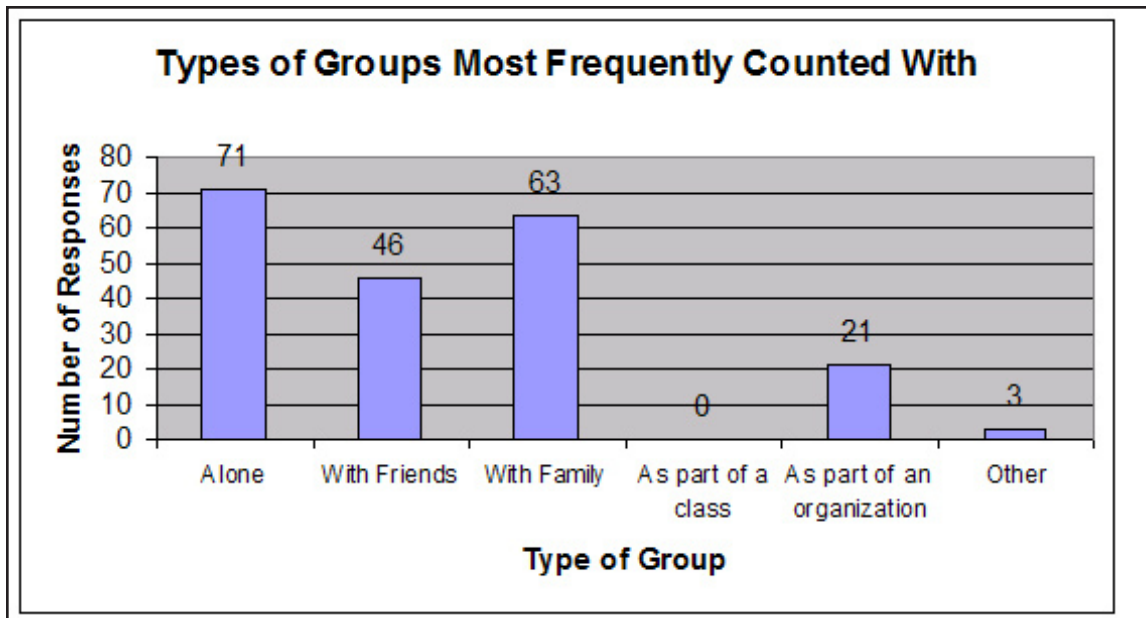


Figure 4.19 - Types of groups participants report most frequently counting with

**How Individuals Report First Learning of the Crane Count:**

Figure 4.20 displays how participants report first learning of the Crane Count. Nineteen percent learned of it through a newspaper article, 37% through a friend, and 28% through other means (see below for more detailed examination of other means). Three



percent or less of participants reported learning of the Crane Count through each of the following: radio announcement, television, poster, family member, ICF visit, and ICF website. Five percent of participants made an inappropriate response to the question, and indicated more than one item.

From this, it appears that the most effective means of contacting potential new participants may be word of mouth (friends), through newspapers, or through "other" means. Given that most participants have been involved with the Crane Count for several years, and this question asks how they first learned of the Crane Count, this does not necessarily reflect how potential participants might learn of the Crane Count today.

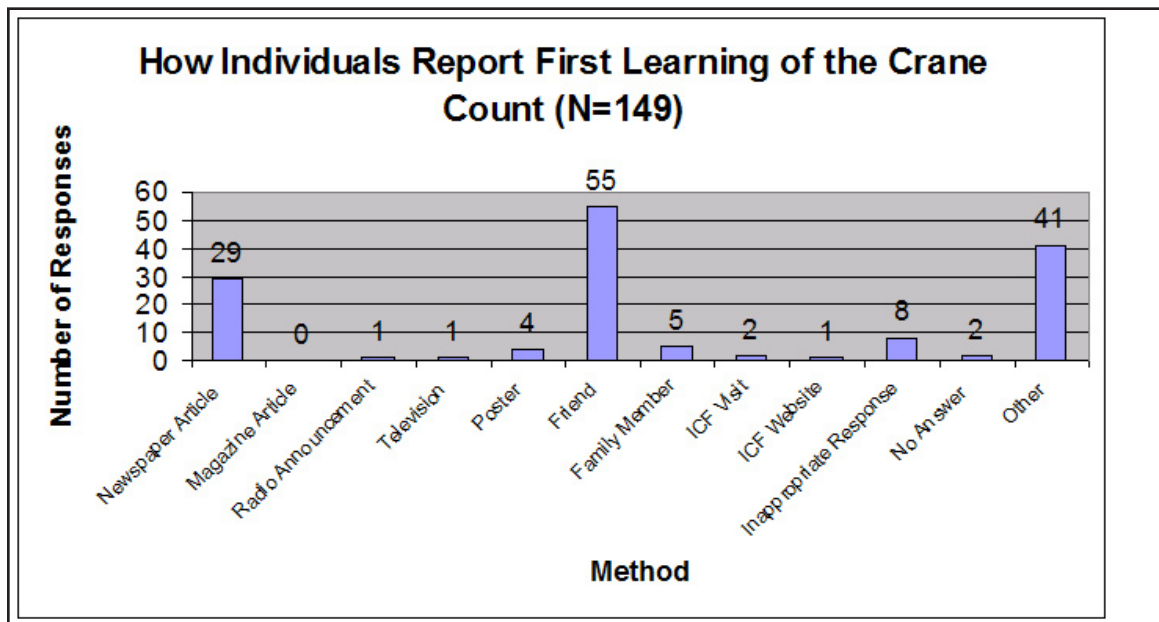


Figure 4.20 - How individuals report first learning of the Crane Count

**Other Means of First Learning of the Crane Count:**

Twenty-eight percent of participants indicated they first learned of the Crane Count through means other than those listed on the Questionnaire. Figure 4.21 summarizes and displays their responses.

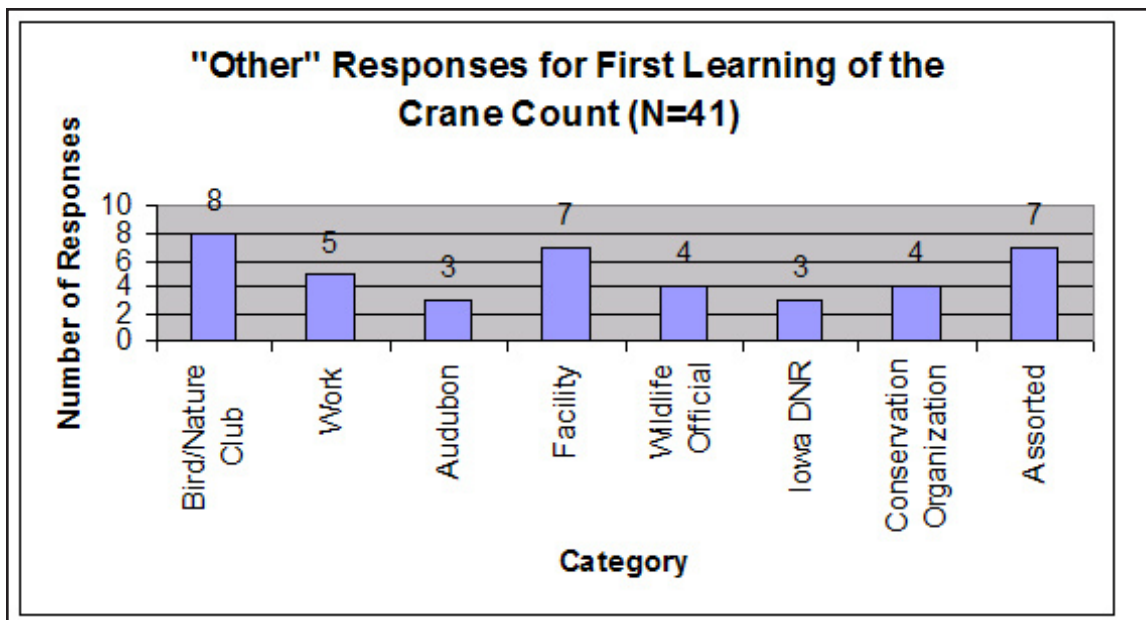


Figure 4.21 - "Other" means of first learning of the Crane Count

**Motivations:**

Participants report a variety of motivations for participating in the Crane Count (Figure 4.22). Above the 70% level are the following four reasons: to see cranes (85%), to experience the natural world (80%), as a contribution to a conservation organization, and to improve understanding of crane populations (71%).

Below the 70% level were the following reasons:

- 41% A chance to see a whooping crane
- 25% A shared experience with family
- 51% A shared experience with friends
- 40% To meet others with shared interests
- 38% To introduce others to the natural world
- 60% To learn about cranes
- 62% As a tradition
- 9% for other reasons (such as to start a hunting season, for fun, for a challenge, to see other wildlife, to talk with other crane counters, etc.)

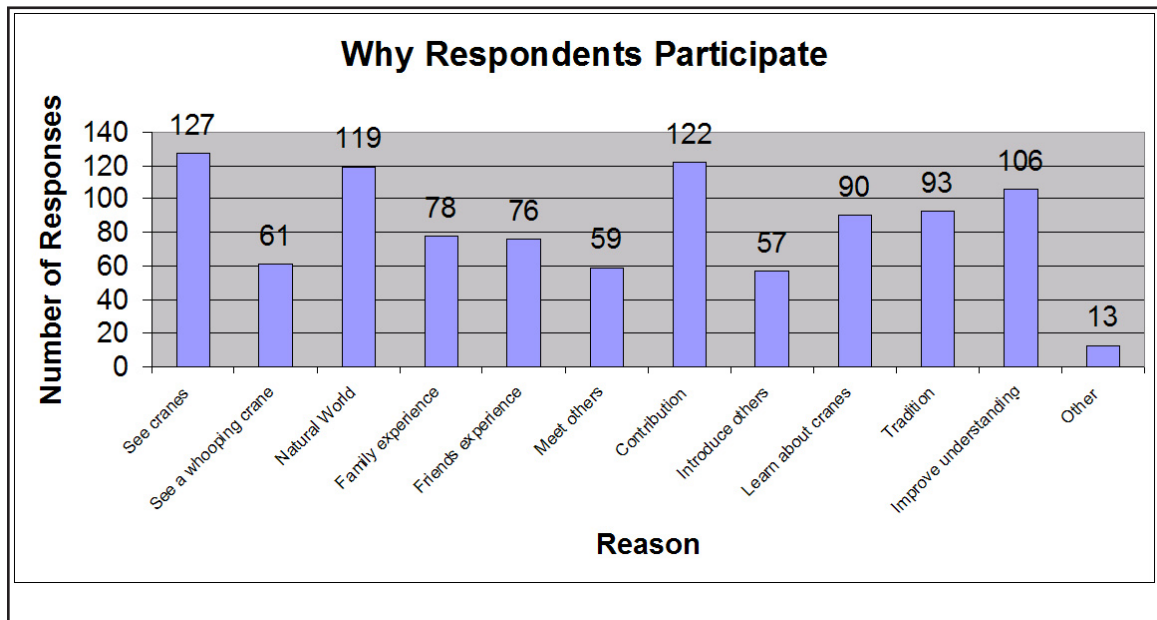


Figure 4.22 - Why respondents participate

**Pre-Count Training Most Recently Experienced:**

Training offered from county to county varies. Participants report most recently experiencing the following types of pre-Count training, and could select more than one option

- 26% County training meeting
- 11% One-on-one meeting with County Coordinator
- 32% Through standard mail
- 7% "Virtual training" via ICF's website

- 5% Through email
- 29% No training
- 12% Other training (such as: trained in a previous year, schooling, watching videos, reading, etc.)

These reports of training do not specify what the training included, nor how effective it was. Of primary concern are the 29% of participants who report no training. These may be veteran counters who perceived they needed no training, but this is not certain. Coordinator feedback through the focus group discussion indicated that veteran counters have higher confidence in their abilities than the condition of their Data Sheets displayed.

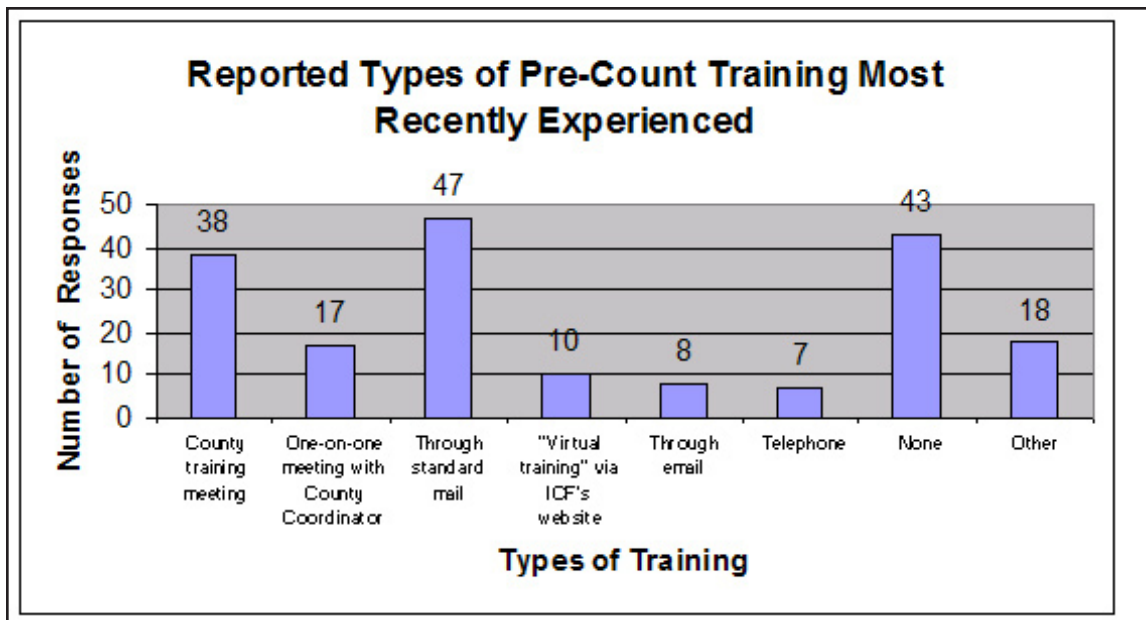


Figure 4.23 - Reported Pre-Count training most recently experienced

**Materials Used:**

Most Crane Count resources are given to County Coordinators, who in turn provide them to participants. Figure 4.24 displays what materials participants report using. Ninety-one percent of participants report using the Data Sheet, 70% Instructions in the Field, 78% the Site-location Map, and 34% the Landowner Information Sheet. Five percent report using other Crane Count materials (taped calls, other maps, etc.).

Of major concern are the 9% of participants who don't report using the Data Sheet. A major responsibility of participants is to fill this sheet out for the Crane Count. If they are not using this, how are they documenting and reporting their observations?

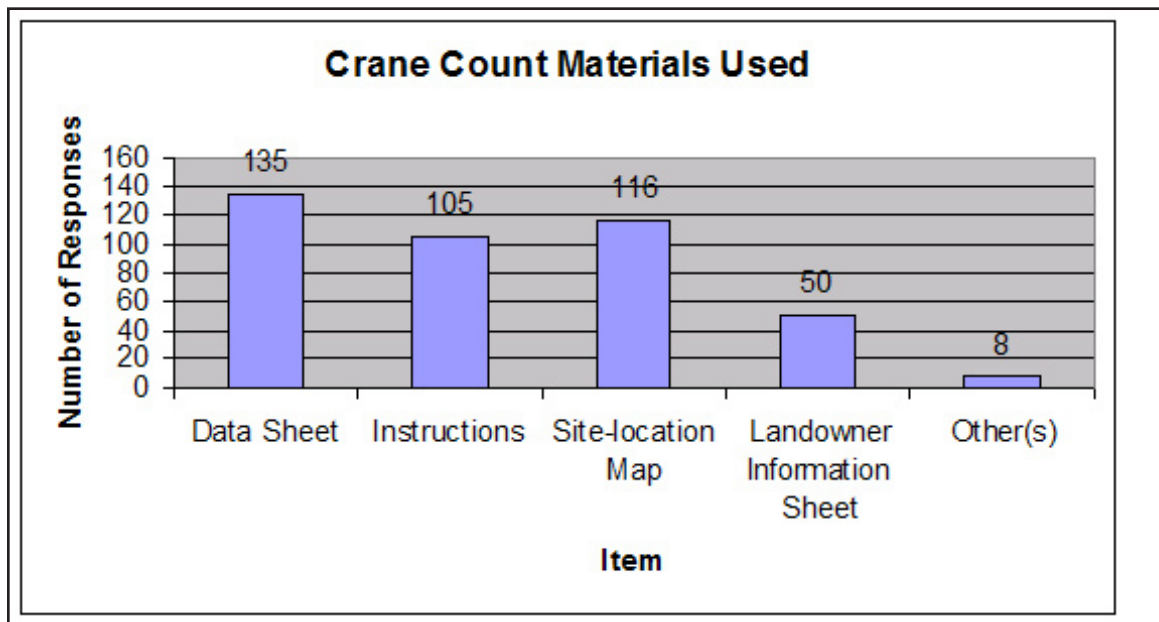


Figure 4.24 - Reported Crane Count materials used by participants

**Status of Website Use by Participants:**

In contrast to the more than 50% of County Coordinators who reported making use of the Crane Count section of ICF’s website, only 11% of participants report making use of it.

Figure 4.25 displays the status of website use by participants, and reasons it is not used. Of participants:

- 20% indicate they do not have internet access
- 6% indicate their slow connection speed is unable to handle ICF’s website
- 3% indicate they were unable to locate the Crane Count section of ICF’s website
- 60% of participants indicated other reasons for not using the Crane Count section of ICF’s website (see below - “Other” Reasons for not Using the Crane Count Section of ICF’s Website)

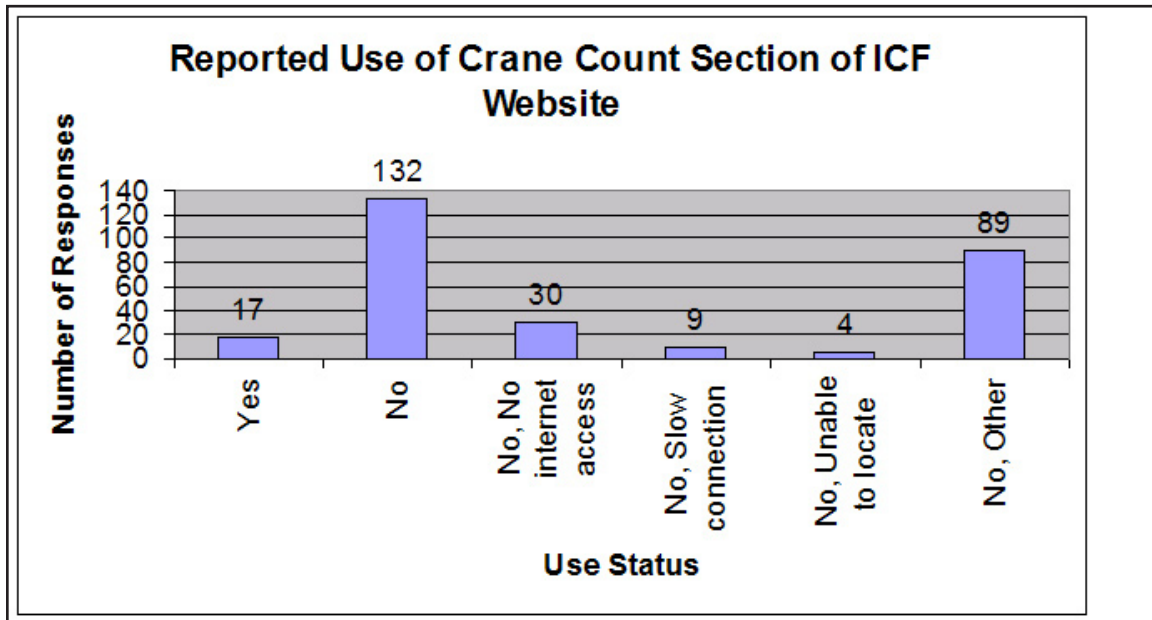


Figure 4.25 - Reported use of Crane Count website by participants

***“Other” Reasons for Not Using the Crane Count Section of ICF’s Website:***

Figure 4.26 displays the “other” reasons participants indicated for not using the Crane Count section of ICF’s website.

In summary, the following percentages of participants did not because:

- 24% indicated they were unaware of it (this is 40% of the participants who indicated they do not use the website)
- 8% felt it was unnecessary
- 3% indicated a desire to minimize their computer use
- 8% indicated they never tried
- 3% indicated they had no desire to do so
- 2% indicated they had no time
- 2% indicated they prefer other contact
- 1% indicated computer illiteracy
- 1% indicated still other reasons
- 7% indicated no reason

Percentage-wise, the outstanding “other’ reason for not making use of the Crane Count section of ICF’s website was unawareness, with 24% of participants writing in this reason. While this is almost a full quarter of respondents who returned Questionnaires, it is 40% of those who indicated they do not use the website.

This may be related to other pieces of information the both the Coordinator and Participant Questionnaires revealed: 46% of County Coordinators do not inform participants of available resources on ICF’s website, and the 29% of participants who report most recently receiving no training.

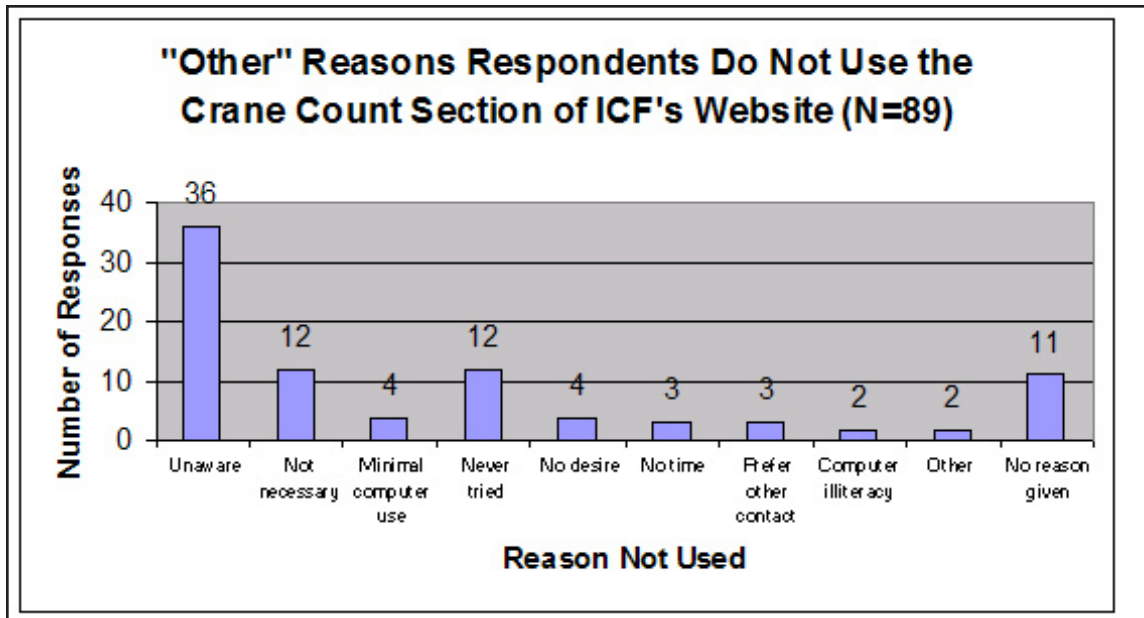


Figure 4.26 - Participant "other" reasons for not using the website

Although many Crane Count materials indicate that there are Crane Count resources available online, this apparently is not enough to make all participants aware.

**Reported Uses of the Crane Count Section of ICF's Website:**

The 11% of participants who indicated that they do use the Crane Count section of ICF's website were asked to report what they used it for (Figure 4.27).

In summary, the 11% of participants who make use of the website report using it for the following purposes:

- 53% to learn more about the Crane Count
- 24% to find out how to get in touch with their County Coordinator
- 41% to answer questions they have about participating
- 35% to print out Crane Count forms



- 82% to listen to crane calls
- 65% to learn more about cranes
- 41% to answer questions they have about cranes
- 35% to watch the Crane Count Training Video

Although relatively few participants make use of the Crane Count section of ICF's website (as compared to the more than 50% of County Coordinators who use it), it appears to be a valuable resource. Listening to the distinct calls of cranes online is the most popular use of the website, though it is apparent that participants use it for other, if lesser, reasons..

***Comments on Participant Questionnaire Results:***

Most of the above results were included in the Program Plan (Appendix A) in the Who: Participants section, serving to create a picture of this audience. Other results from the Participant Questionnaires specific to program resources will be found below in Objective Two.

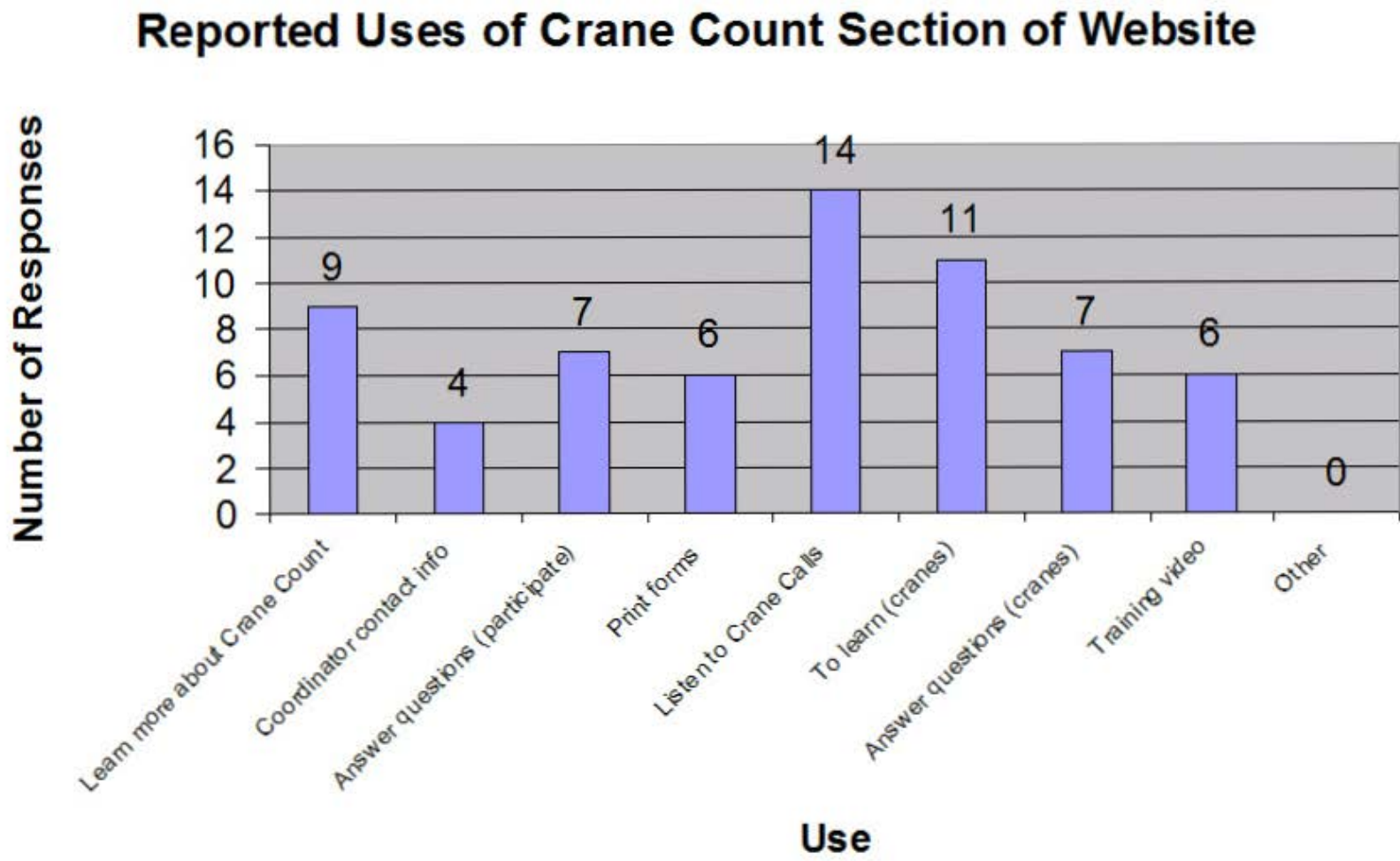


Figure 4.27 - Reported uses of the website by participants

## **2.) Focus Group & Phone Interviews**

As a complement to the Coordinator Questionnaires, a focus group discussion, and three phone interviews were conducted with County Coordinators. A Focus Group Discussion Guide (Appendix Q) was used for both the discussion and the interviews.

All nine County Coordinators also completed and returned Coordinator Questionnaires. Six Coordinators participated in the Discussion (Appendix R), and three were interviewed individually over the telephone (Appendix S). In a manner similar to the Questionnaires, the focus group and phone interviews were directed at obtaining information regarding the benefits of being a part of the Crane Count, perceptions of the program and its resources, and suggestions for program improvement.

The information from these in-depth discussions was minimally applied to development of the Program Plan. It was used as a supplement to the Questionnaires (both from County Coordinators and participants) and other portions of Program Plan development. Data was reviewed to complement results gathered by other methods, to see if they were consistent. Below are summarized some of the supplementary functions that these discussions served on the following topics: benefits of coordination, the Data Sheet, participant demographics, involvement of youth, and partnership.

- Benefits of coordination (motivations)

From focus group:

W speaking: “. . . I looked overhead and there’s these large birds flying over that I’d never seen before in my life and I’ve seen pictures of lesser sandhill cranes out in Nebraska but I’ve never seen a greater sandhill crane and about five of them flew over my head and I just about ducked and hit the dirt because I’ve never seen a bird like that and I wanted to make sure that those birds continue to fly over Beaver Dam, WI and the rest of the United States wherever they want to, as long as they want to.”

T speaking: “. . . I got really interested in the cranes and started coming to the orientations but I never really got into volunteering until recently and just something I enjoy doing for the research and helping out.”

J speaking: “Number one the cranes. . . I had a chance to go to the original Crane Foundation over on the Sauey Farm and ever since then I’ve been fascinated with not just the cranes but the growth of the organization.”

K speaking: “I guess I have a lot of reasons. One was of course the cranes and when I started there were very few cranes in the state, there was still a very low population level and so it’s a very important thing to start counting them and seeing how the changes have come about over the years. But once you start its really hard to stop, you get really involved with the people so that would be the second reason is just going to the meetings and the post-meeting and seeing how excited everybody is . . . and then too, I guess I have to say that I like to control the data, and if I turn it over to somebody else I’d worry about all the data. And I like to just know what’s going on in my county, and if I wasn’t coordinating, that probably wouldn’t be true. And there’s other reasons, and I’m a bird person too; just a bird junkie.”

B speaking: “Well, I’m a birder too, and I think probably my reasons would be very close to K’s, you know the crane research, at the beginning and the excited people, and then now, what keeps me going is, is sort of that cranes are just a real good ambassador bird for a number of things: the bird world, wetlands, and it’s kind of having a one day thing and get people really excited about and its just a great public education thing and I also think the long-term research is real important.”

L speaking: "I started because really don't have a "no" button to be pushed when it comes to trying to do things in environmental organizations. And I've been involved with the Crane Count and ICF now for a long time. And I would have to say that it is the single one of those organizations . . . the Crane Count and the Crane Foundation just seems to do it right as far as I'm concerned for involving people in environmental concerns. You always feel like you are contributing something, and that it's valued. And that you don't have to be a Ph.D. to be valued for what you do. And it's a great opportunity to expand peoples' knowledge and interest in all these issues and B's word 'ambassador' is the other thing that really, really matters to me. I think the Crane Foundation, and the Count, and the things that have grown out of the Count are some of the greatest diplomatic things that we do. I mean we really can get places and touch people in other parts of the world."

-These statements match closely with the underlying motivations, and hence benefits Coordinators received through their work, that were indicated on the Questionnaires. It is noted that Coordinators due this as a contribution to a conservation organization (ICF), they are motivated by involving people and introducing others to the natural world, teaching them about cranes, and improving understanding of crane populations. Both cranes and people are indicated here as motivating factors.

- Data Sheet

From focus group:

W speaking: "I've had people who second by second document their count and hand that in triplicate to you. Every bird, every animal, every plant that he sees. And then I have it handed in to me on a paper towel – I saw three birds."

-This statement serves as a check on the Data Sheet-use questions – it illustrates that there are participants who use the Data Sheet, but

also that there are those that do not, as was indicated by Participant Questionnaire responses.

- Participant Demographics

From focus group:

W speaking: "We got 4-H leaders, about five of them, and they send out five different crews."

T speaking: "I have a lot of veteran counters, like 90% of them are veterans and I just don't have the enthusiasm everyone's talking about. It's just kind of a thing they do every year and they're dedicated to do it, but I think I need the new people, try and get some new people and get something going there. And that's what I need help with, is getting the enthusiasm out there on it. I just don't have that in my county."

K speaking: "It's getting harder, because the veterans are either moving away or. . . they're passing on, or they're too old to count."

From phone interview #1:

"There is a dearth of younger participants. There's only a few children, not many."

From phone interview #2:

"About 1/3-1/2 veterans. . . New participants: a lot of teachers, college students for class experience, high school introduction to natural resource field. . . children are variable from year to year, with some families. Not many young participants."

From phone interview #3:

"Once you get them, they keep coming back – they seem to keep coming."

-These statements largely lend support to the reported demographic information from the Participant Questionnaires. Most counters are returning veterans, and once they participate, they continue participating. They also show that some Coordinators are concerned about depreciation of their core groups of participants. These statements do indicate that there is a lack of a younger audience, but

there are a few children, families, youth groups, or school students that participate.

- Involvement of Youth

From focus group:

B speaking: "My youngest counter is probably a seventh grader right now, and the oldest is 91. And most of them, probably 80% are veterans, and keep coming back. And also, one of the counters is one of the fifth grade teachers in town, and he was my son's fifth grade teacher and I did some wetland work with him and the kids when my son was there. So he now, every year, offers extra credit to his fifth graders who will come to the meeting, but he doesn't require them to count. But some of those then are, not every year, but every now and then I'll get one who will show up with a parent to actually count in the morning. So that's getting the kids at least educated and seeing the video, and see what we do. And then we also have a two-year UW campus in town and one of the instructors also offers extra credit to his biology students if they will help count. So some years I'll have two or three young ones coming out and that's always nice to have a little of that perspective. One of the young women made the best map I've ever seen."

-The statements by this Coordinator provide further support for the general demographics of participants. They also show how some younger demographics are sometimes, but not consistently, recruited for the Crane Count.

- Partnership

From focus group:

W speaking: "I don't want to reinvent the wheel or anything like that, but something to look to in the future is to redesign the whole Count, from the database to the actual site-maps and stuff like that. We're having these glitches and stuff like that, and if we follow some of the other counts like the Christmas Bird Count or something like that, they can make it a little bit easier on the counters. You can look out your window and count Christmas birds now, and you can put it on

the internet. And you'll get the results immediately. It's something that, I don't know if they want to go in that direction, but obviously the direction is there."

-The statements by this Coordinator lend and independent confirmation some weaknesses as pointed out through the NEEPE rubric analysis. This Coordinator's suggestions are similar to some of the "What to look for" indicators that suggest exploring partnerships with other organizations, and making effective use of currently available technology and resources. Coordinators do, however, have serious concerns that they voiced about potential directions something like online data entry could take.

In addition to having served a supplementary function to components of the Program Plan development process, the focus group and phone interview transcripts can be an additional valuable source of information for ICF CED staff.

#### **D.) Mission, Goals, and Objectives**

Following the initial gathering and analysis of data for previous steps in Objective One, the development of a mission, goals, and objectives for the Crane Count was completed. Based on the Review of Program History (step A, above), efforts were undertaken to first develop the Crane Count's mission, then its goals, and then its objectives. Following the initial drafting of these items, all were reviewed by ICF CED staff, and revised accordingly. The below summarizes the final results.



Based on the Summary of Historic Document Analysis, a mission statement was drafted to encompass the intent of the Crane Count as one of ICF's programs.

The resulting developed mission statement was:

The Annual Midwest Crane Count is a citizen science program that actively involves people in gathering data concerning the Upper Midwest's cranes and their habitats.

The goals for the Crane Count were next determined. As a citizen science program, two categories were determined for the sake of convenience: citizens, and science. Although the two are closely tied in the program, the result was the beginnings of a framework into which to place the goals.

Based on the Summary of Historic Document Analysis, broad statements about what the Crane Count seeks to accomplish were drafted, and organized between the "citizen" and "science" categories according to their primary intent. Seven goals were developed for the "citizen" category, and two goals for the "science" category.

The literature review (Chapter Two) examined some of the commonalities between the goals of environmental education and ICF's mission. Based on these commonalities, key words were pulled from ICF's mission statement to serve as sub-categories for the citizen goals, and help ensure the tie to environmental education: Knowledge, Experience, Inspiration, and Involvement. An additional

two sub-categories were added to fit with the intent of the Crane Count's goals: Awareness and Action. Each category was assigned one goal, except for Inspiration, which was assigned two.

Each citizen sub-category was assigned an alphabetical capital-letter designation, and each goal under the respective sub-categories was numbered. The two science goals were simply numbered.

A further, more specific review of the Summary of Historic Data Analysis was used to derive a total of twenty resulting objectives. These objectives were written to encompass the intent of the summaries that were used to derive them, while at the same time defining the audience concerned, the condition to be fulfilled, and desired outcome.

These objectives were assigned to their two primary categories, citizens or science, and then placed under relevant goals. Each objective was assigned a lower-case alphabetical designation.

This series of hierarchical number and letter designations for the goals and objectives was used to create a unique code for each objective, for use elsewhere in the Program Plan.

For instance, take this selected objective: "The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend." This

objective's code was "C.F.1.a," which can be broken down as follows by looking at each component of the code:

- "C" indicates this falls under the "citizen" category
- "F" indicates an "Action" goal
- "1" indicates this falls under goal number 1 (Through participating in the Crane Count, ICF hopes people will be stimulated to take well-informed action on conservation issues outside of the program.) in this section.
- "a" indicates the objective, as it is written above.

The seven resulting goals and twenty objectives are listed below. They are displayed in a manner demonstrating the hierarchy according to which they were organized.

#### Citizens:

##### A. Awareness:

1. The Crane Count promotes public awareness of cranes, wetlands, and other wildlife. This includes both participants and other members of the public.

a. Objective (C.A.1.a): Public awareness of cranes, wetlands and other wildlife will be increased through citizen participation in the Crane Count.

b. Objective (C.A.1.b): Public awareness of cranes, wetlands, and other wildlife will be increased through publicity, ICF's website, and published research.

##### B. Knowledge:

1. The Crane Count provides citizens knowledge about cranes and the ecosystems on which they depend.

a. Objective (C.B.1.a): Participant knowledge about cranes

and the ecosystems on which they depend will be increased through program materials and participation in the Crane Count.

b. Objective (C.B.1.b): Citizen knowledge about cranes and the ecosystems on which they depend will be increased through publicity, ICF's website, and published research.

C. Experience:

1. The Crane Count provides citizens with experience in the scientific study of cranes and the ecosystems on which they depend.

a. Objective (C.C.1.a): Citizens will have the opportunity to participate in the Crane Count to gain experience studying cranes and the ecosystems on which they depend.

D. Inspiration:

1. The Crane Count seeks to foster positive attitudes towards cranes and wetlands.

a. Objective (C.D.1.a): Positive attitudes towards cranes and wetlands will increase through citizen participation in the Crane Count.

2. The Crane Count stimulates independent action towards conservation and environmental protection outside of the program.

a. Objective (C.D.2.a): After participating in the Crane Count, citizens will take well-informed, independent action towards conservation and environmental protection.

E. Involvement:

1. The Crane Count involves people in studying cranes and the ecosystems on which they depend.

a. Objective (C.E.1.a): ICF will recruit citizens from youth to seniors to participate in the Crane Count.

b. Objective (C.E.1.b): ICF will make people aware of other opportunities for involvement through program materials.

F. Action:

1. Through participating in the Crane Count, ICF hopes people will be stimulated to take well-informed action on conservation issues outside of the program.

a. Objective (C.F.1.a): The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend.

b. Objective (C.F.1.b): The Crane Count will support citizen skills and decision-making, and suggest how citizens can get involved in conservation issues.

c. Objective (C.F.1.c): The Crane Count will allow citizens to develop skills and provide an opportunity for participation that can later transfer to other action outside of the Crane Count.

Science:

1. The Crane Count will gather long-term baseline information on cranes in the Upper Midwest, on their habitat, and their habitat use.

a. Objective (S.1.a): The Crane Count will gather information on the abundance and distribution of cranes in the Upper Midwest.

b. Objective (S.1.b): ICF will retain records gathered through the Crane Count, and maintain a long-term database.

c. Objective (S.1.c): The Crane Count will gather information on crane habitat and habitat use.

2. Data gathered through the Crane Count will be used for a variety of purposes by ICF staff, researchers, and other citizens.

a. Objective (S.2.a): ICF will provide summaries of data gathered yearly to all program participants.

b. Objective (S.2.b): ICF will use Crane Count data for a variety of research and analysis purposes.

c. Objective (S.2.c): Crane Count data will be available to not

only ICF staff, but organizations, government agencies, and citizens as an information source.

d. Objective (S.2.d): Crane Count data will be used to complement other ICF studies, as well as other researchers' studies.

e. Objective (S.2.e): Data will be used to evaluate crane population and habitat status, and for long-term monitoring of cranes and habitats.

The final results, mission, seven goals, and twenty objectives for the Crane Count, were placed in the Program Plan (Appendix A) as described in Step E below.

## **E.) Initial Program Plan Assembly**

After these four key steps (A-D) were complete, results were incorporated into an initial draft of the Crane Count Program Plan. Before the Program Plan was completed, further revisions were made according the results stemming from Objectives Two through Four.

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### **Objective Two Results**

*To review and evaluate existing environmental education resources currently used in the Crane Count.*

Review and evaluation of EE resources included the following steps, with results documented for each one:

#### **1. Identification and Classification of Resources**

Crane Count resources used to reach target audiences, or by target audiences,

were identified and classified according to purpose (Appendix T).

The logic model developed in Objective One (Figure 4.2), listing major program inputs, outputs, and outcomes, was used as an inventory to identify existing program resources. These identified resources were classified as falling under four major headings:

- Coordinator Materials
  - County Coordinator Instruction Handbook
  - County Coordinator Checklist
  - New Site Record Form
  - Participants List
  - Summary Sheet
  - Crane Count Poster
  - County Press Release
  - Master D.O.T. Map
  - Crane Count Training Video
- Participant Materials
  - Data Sheet
  - Instructions in the Field
  - Site-location Map
  - Landowner Information Sheet
- Crane Count Web Pages
  - Web Pages as a Whole
  - Get Involved
  - County Coordinator Resources
  - History and Articles
  - Past Results and Data Use
- Other
  - Results Newsletter

After being organized accordingly, the resources were reviewed to determine how they should be further classified. Several categories for classification resulted, with each applying to one or more of the resources:

- Instructional
- Reference
- Form
- Educational
- Recruitment
- Map
- Audio Visual

The purpose of each resource was next addressed. Each item was reviewed, with a brief description written telling what it was and what it was for. The categorized resources were then associated with Crane Count goals and objectives as developed in Objective One. It was found that specific goals and objectives were not associated with all resources, though the resources served a supporting function. To indicate this function in these instances, the word “support” was used in place of listed goals and objectives. Two resources from Appendix W are provided below as examples: the County Coordinator Checklist and Data Sheet.

Coordinator Materials: County Coordinator Checklist

- Category: Reference
- Purpose: The County Coordinator Checklist is a brief one-page summary of responsibilities and timelines for participant recruitment, training, and the collection and compilation of results.
- Goals and Objectives: Support

Participant Materials: Data Sheet

- Category: Form, Educational
- Purpose: The Data Sheet is a dual-purpose item. It serves to document participant observations, with resulting tallies of sandhill cranes and sandhill crane pairs. It may also serve to assist participant in documenting the sightings of any banded cranes (whether sandhill or whooping) that they may see during the Count. In addition, the Data Sheet serves an educational function - to help participants increase their awareness of cranes, their behavior, ecology, and habitats at the site level.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.E.1.b, C.F.1.a, S.1.a, S.1.c



The final result for this step was a list of categorized Crane Count EE resources with their purposes described, and associated with program goals and objectives.

## **2. Review and Evaluation of Existing EE Resources**

### **A.) EE Resources & Questionnaires**

As indicated in Objective One, while discussing results from the County Coordinator and Participant Questionnaires, some Questionnaire results applied specifically to program resources.

These data were added to the Identification and Classification of Resources (Appendix T). Where applicable to each resource, and the scale on which each resource was evaluated by audience members, two categories were added to the Identification and Classification document: Coordinator Use and Participant Use. Such information under these categories described the respective audience's use and perceptions of the indicated resource. For example, the County Coordinator Checklist previously referred to was not evaluated by County Coordinators. The Data Sheet, however, was evaluated by both Coordinators and participants, with the following results:

- Coordinator Use:
  - 82% (59/72) report reviewing the Data Sheet as a part of training
  - 97% (70/72 respondents) report making use of the Data Sheet:
    - \*83% of those using it rate it as "Very Useful," 14% as "Useful," and 2% use it, but provided no rating.
- Participant Use:
  - 91% (135/149 respondents) report using the Data Sheet
  - \*64% of those using it rate it as "Very Useful," 30% as "Useful," 1% as "Slightly Useful," and 4% use it, but provided no rating.

The information included in this finalized document was incorporated into the Program Plan's "What" section in a sub-section entitled, "Resource Details" (Appendix A).

## **B.) EE Resources Evaluation**

The NAAEE publication Environmental Education Materials: Guidelines for Excellence (EEMGE) was also used to evaluate existing Crane Count EE resources that were identified above (Appendix U). As with NEEPGE, this allowed an evaluation of the Crane Count's resources according to six Key Characteristics, broken down into a series of Guidelines and "What to look for" Indicators.

As no assessment rubric was available for EEMGE, a relative rating scale ranging from one to five was used to score each Key Characteristic:

- 1 - Indicators Not Met
- 2 - Indicators Poorly Met
- 3 - Indicators Moderately Met
- 4 - Indicators Mostly Met
- 5 - Indicators Met

The final score summary that resulted from this evaluation for each Key Characteristic was:

- |                                 |          |
|---------------------------------|----------|
| 1. Fairness and Accuracy:       | Rating 3 |
| 2. Depth:                       | Rating 3 |
| 3. Emphasis on Skills Building: | Rating 1 |
| 4. Action Orientation:          | Rating 1 |
| 5. Instructional Soundness:     | Rating 2 |
| 6. Usability:                   | Rating 3 |

The ratings for each Key Characteristic were supported and justified by documenting those indicators that were met, and those that were not, and in some cases providing relevant comments. These were listed as the strengths and weaknesses under each Key Characteristic.

The evaluation of these materials revealed a variety of things about the resources the Crane Count uses to meet its mission, goals, and objectives, and reach its audiences. The current materials are primarily limited in scope, and not very learning/application oriented in the context of issues-based environmental education. Such an orientation is desirable, considering objectives such as C.D.2.a and C.F.1.b that focus on citizen skills, decision-making, and action. Materials serve important functions in supporting the accomplishment of several of the Crane Count's goals and objectives. For the most part, these consist of gathering data for a variety of uses, and a number of the lower-level citizen-related items (i.e. awareness, knowledge, etc.). There is minimal emphasis on higher-level objectives (i.e. action, decision-making).

The evaluation revealed that Crane Count materials are rather piecemeal, with individual items remaining somewhat independent of one another. The mission, goals, and objectives of the Crane Count need to be both more fully and effectively addressed through the program materials. The importance of the program, key concepts, and connections amongst materials need to be emphasized, and demonstrate how they address program objectives.

The final result for this step, the score summary and documentation of strengths and weaknesses for each Key Characteristic was incorporated into the Program Plan's "What" section in a sub-section entitled "Current Materials Status" (Appendix A).

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### **Objective Three Results**

*To identify new environmental education resources beneficial to the achievement of the Crane Count's goals and objectives, as well as ICF's Conservation Education Department efforts.*

Crane Count resources were identified, classified, evaluated, and associated with program goals and objectives. The results of this process revealed that there were gaps in the goals and objectives addressed, and therefore a need for additional program resources. Determining the specific gaps, and identifying new resources of potential value in addressing goals and objectives entailed the following steps with associated results documented.

#### **1. Gap Identification**

Identification of gaps – the program goals and objectives not currently being addressed – was a matter of first listing the program objectives, and then determining which materials were associated with them. Information from the Identification and Classification of Resources from Objective Two was used to complete this process.

Presence or absence of gaps was scored by counting the number of times

that a program resource item was associated with each objective (Appendix V). For this process, a gap was defined as any objective scoring two or less, meaning it was associated with two or less program resource items. Identification of these gaps does not measure or otherwise evaluate the degree of success for associated materials in meeting the objectives – it only documents which objectives are or are not being addressed. The results of this process, are shown below. Each objective is listed by its code, followed by its gap status, and in parentheses its score:

- C.A.1.a Not a Gap (5)
- C.A.1.b Not a Gap (4)
- C.B.1.a Not a Gap (8)
- C.B.1.b Gap (2)
- C.C.1.a Gap (0)
- C.D.1.a Gap (0)
- C.D.2.a Gap (0)
- C.E.1.a Not a Gap (5)
- C.E.1.b Gap (2)
- C.F.1.a Not a Gap (7)
- C.F.1.b Gap (1)
- C.F.1.c Gap (0)
- S.1.a Not a Gap (4)
- S.1.b Gap (0)
- S.1.c Gap (2)
- S.2.a Gap (1)
- S.2.b Gap (0)
- S.2.c Gap (2)
- S.2.d Gap (0)
- S.2.e Gap (0)

Below, broken down by gap status, each objective is spelled out, and the materials (if applicable) it is associated with listed individually. Those objectives that are not gaps are listed first, followed by those that are gaps.

*Objectives Currently Addressed with Associated Materials:*

- C.A.1.a: Public awareness of cranes, wetlands, and other wildlife will be increased through citizen participation in the Crane Count.

- Associated Materials: Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Results Newsletter

- C.A.1.b: Public awareness of cranes, wetlands, and other wildlife will be increased through publicity, ICF's website, and published research.

- Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Results Newsletter

- C.B.1.a: Participant knowledge about cranes and the ecosystems on which they depend will be increased through program materials and participation in the Crane Count.

- Associated Materials: Coordinator Notes, Crane Count Training Video, Data Sheet, Instructions in the Field, Counter's Information (specific web page), County Coordinator Resources (specific web page), Past Results and Data Use (specific web page), Results Newsletter

- C.E.1.a: ICF will recruit citizens from youth to seniors to participate in the Crane Count.

- Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Get Involved (specific web page), Counter's Information (specific web page)

- C.F.1.a: The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend.

- Associated Materials: Coordinator Notes, County Press Release, Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Crane Count Web Pages

- S.1.a: The Crane Count will gather information on cranes in the abundance and distribution of cranes in the Upper Midwest.

- Associated Materials: New Site Record Form, Summary Sheet, Master D.O.T. Map, Data Sheet

*Objectives Not Currently Addressed (identified gaps):*

Gaps are defined as those objectives associated with two or less materials. Associated Materials are listed when applicable.

- C.B.1.b: Citizen knowledge about cranes and the ecosystems on which they depend will be increased through publicity, ICF's website, and published research.  
-Associated Materials: County Press Release, Crane Count Web Pages
- C.C.1.a: Citizens will have the opportunity to participate in the Crane Count to gain experience studying cranes and the ecosystems on which they depend.
- C.D.1.a: Positive attitudes towards cranes and wetlands will increase through citizen participation in the Crane Count.
- C.D.2.a: After participating in the Crane Count, citizens will take well-informed, independent action towards conservation and environmental protection.
- C.E.1.b: ICF will make people aware of other opportunities for involvement through program materials.  
-Associated Materials: Data Sheet, Results Newsletter
- C.F.1.b: The Crane Count will support citizen skills and decision-making, and suggest how citizens can get involved in conservation issues.  
-Associated Materials: Results Newsletter
- C.F.1.c: The Crane Count will allow citizens to develop skills and provide an opportunity for participation that can later transfer to other action outside of the Crane Count.
- S.1.b: ICF will retain records gathered through the Crane Count, and maintain a long-term database.
- S.1.c: The Crane Count will gather information on crane habitat and habitat use.  
-Associated Materials: Master D.O.T. Map, Data Sheet
- S.2.a: ICF will provide summaries of data gathered yearly to all program participants.  
-Associated Materials: Results Newsletter

- S.2.b: ICF will use Crane Count data for a variety of research and analysis purposes.
- S.2.c: Crane Count data will be available to not only ICF staff, but organizations, government agencies, and citizens as an information source.  
-Associated Materials: Past Results and Data Use (specific web page), Results Newsletter
- S.2.d: Crane Count data will be used to complement other ICF studies, as well as other researchers' studies.
- S.2.e: Data will be used to evaluate crane population and habitat status, and for long-term monitoring of cranes and their habitats.

What was revealed through this process is that only six of the twenty objectives are not considered gaps. That is, only 30% of the program's objectives are currently being addressed. The above listing (Appendix V), spelling out the individual objectives, and the specific materials they were associated with was prepared, and placed in the Program Plan's "What" section as a sub-section entitled "Gap Identification Summary" (Appendix A).

## **2. Citizen Science Program Review**

Web pages of other citizen science programs were reviewed as a means of describing resources that could be potentially adapted for the Crane Count, and assist it in meeting its mission, goals, and objectives. Programs examined were the Cornell Lab of Ornithology's Project FeederWatch, the Audubon Christmas Bird Count, and Journey North (specifically its whooping crane pages). Identified online resources from these programs consisted of the following:



Christmas Bird Count (CBC):

- Christmas Bird Count Home Page:  
<http://www.audubon.org/bird/cbc/>
- CBC "Historical Results" link:  
<http://www.audubon.org/bird/cbc/hr/index.html>
- CBC "Current Year's Results" link:  
[http://cbc.audubon.org/cbccurrent/current\\_table.html](http://cbc.audubon.org/cbccurrent/current_table.html)
- CBC "Bibliography" link:  
<http://www.audubon.org/bird/cbc/biblio.html>
- CBC "History and Objectives" link:  
<http://www.audubon.org/bird/cbc/history.html>
- "About Citizen Science" link:  
<http://www.audubon.org/bird/citizen/index.html>
- CBC "FAQ" link:  
<http://www.audubon.org/bird/cbc/FAQ.html>
- CBC "Data Entry/Review" link:  
<http://cbc.audubon.org/appportal/>
- CBC "Compiler's Page" link:  
<http://www.audubon.org/bird/cbc/compiler.html>
- CBC "Get Involved" link:  
<http://www.audubon.org/bird/cbc/getinvolved.html>
- CBC Survey:  
[http://www.audubon.org/bird/cbc/pdf/CBC\\_Survey\\_2005.pdf](http://www.audubon.org/bird/cbc/pdf/CBC_Survey_2005.pdf)

Project FeederWatch (FW):

- Project FeederWatch Home Page  
<http://www.birds.cornell.edu/pfw/>
- "Featured Photos" link  
<http://www.birds.cornell.edu/pfw/Members/FeaturedPhotos/FeaturedPhotoIndex.htm>
- "Explore Data" link  
<http://watch.birds.cornell.edu/PFW/ExploreData>

- “Featured FeederWatcher” link  
<http://www.birds.cornell.edu/pfw/Members/FeaturedFeederWatcher/FeaturedFWerIndex.htm>
- “About Birds and Birdfeeding” link  
[http://www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds\\_index.html](http://www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds_index.html)
- “News” link  
[http://www.birds.cornell.edu/pfw/News/news\\_index.html](http://www.birds.cornell.edu/pfw/News/news_index.html)
- “About FeederWatch” link  
[http://www.birds.cornell.edu/pfw/Overview/over\\_index.html](http://www.birds.cornell.edu/pfw/Overview/over_index.html)
- “Participants corner” link  
[http://www.birds.cornell.edu/pfw/Members/members\\_index.html](http://www.birds.cornell.edu/pfw/Members/members_index.html)
- “Instructions” link  
[http://www.birds.cornell.edu/pfw/InstruxandUpdates/inst\\_index.html](http://www.birds.cornell.edu/pfw/InstruxandUpdates/inst_index.html)
- “Data Entry” link  
<http://watch.birds.cornell.edu/PFW/CheckUserLogin>

Journey North (JN):

- Journey North Home Page  
<http://www.learner.org/jnorth/index.html>
- JN “Whooping Crane” main page  
<http://www.learner.org/jnorth/crane/index.html>
- JN “How You Can Help Whooping Cranes” link  
<http://www.learner.org/jnorth/tm/crane/Help.html>
- JN “Whooping Crane Lessons, Activities and Information” link  
<http://www.learner.org/jnorth/tm/crane/Resources.html>
- JN “Ask the expert” link  
<http://www.learner.org/jnorth/tm/crane/Ask.html>
- JN “For Kids” link  
<http://www.learner.org/jnorth/tm/crane/jr/JnKidsOverview.html>
- JN “Facts about Whooping Cranes” link  
<http://www.learner.org/jnorth/search/Crane.html>

- JN “Getting Started” link for whooping cranes  
<http://www.learner.org/jnorth/tm/crane/AboutSpring.html>

In total, twenty-nine online resources were identified. Eleven were from the Christmas Bird Count, ten from Project FeederWatch, and eight from Journey North. These identified online resources were used as described below to create a Resources Database.

### **3. Creation of a Resources Database**

The results of the Citizen Science Program Review were placed into a Microsoft Excel spreadsheet (Appendix W). The program review results were organized by the following categories before the database was further developed:

- Resource Name: identified the resource by descriptive name
- Source: identified online location of resource by web address
- Reference: citizen science program affiliation, abbreviated as “FW” for Cornell’s Project FeederWatch, “CBC” for Audubon’s Christmas Bird Count, and “JN” for Journey North
- Description: provides a brief description of what the resource was, and what function it appeared intended to serve

Twenty-nine resources were listed and described – ten from Project FeederWatch, eleven from the Christmas Bird Count, and eight from Journey North. Further development of the database added one additional category to the above list: Crane Count Objectives. To complete this category, the resource descriptions were reviewed with the following question in mind: “If something like this resource were fully developed for the Crane Count, what program objectives does it have the potential to address?” In this manner, those objectives were listed by code for each of the resources.

The result for this step was a series of resources, that if fully adapted and developed for the Crane Count, have the potential to address the indicated objectives. The database was further revised as indicated below in Objective Four, with final results described there.

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### **Objective Four Results**

*To recommend the development and implementation of specific educational resources to enhance the Crane Count, support ICF's mission, and support its Conservation Education Department efforts.*

The process of developing recommendations for specific resources included the following steps, with associated results documented below:

#### **1. Revising the Resources Database**

The Resources Database (Appendix W) developed for Objective Three received further revision. An additional category was added to the database: Number of Objectives Potentially Addressed. The number of objectives a resource could potentially address was counted, and documented. In the database, this was further broken down into objectives that are already addressed by existing program materials and gaps.

The result of this step was a count of objectives for each potential resource that could be addressed if it were fully adapted and developed. Counts ranged from zero objectives to thirteen objectives for each resource.

## **2. Prioritizing the Proposed Resources**

Proposed resources documented in the Resources Database (Appendix W) next needed to be prioritized to indicate which resources would be of greatest possible value to addressing the Crane Count's objectives. The process used and results are described below.

The count resulting from the preceding step was used as a score. The score is therefore indicative of a resource's potential ability to address a given quantity of objectives. These scores were assigned priority ratings on a descending scale, depending on the number of objectives they reflected. The priority ratings, and associated scores were:

- High Priority: 8-13 objectives
- Moderate Priority: 5-7 objectives
- Low Priority: 0-4 objectives

Eight resources were rated as High Priority, eight as Moderate Priority, and thirteen as Low Priority. The resultant information from the completed Resources Database was incorporated into the "Recommendations" section of the Program Plan (Appendix A) in a sub-section entitled "Resource Recommendations."

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### **Finalized Program Plan and Summary**

With the completion of Objectives One through Four, and corresponding results in-hand, a finalized Program Plan for the Annual Midwest Crane Count was assembled (Appendix A).

Significant portions of the Program Plan had already been put into place. The final steps consisted of writing acknowledgements, a table of contents, and an introduction to the overall Plan. For each major section of the Plan (Why, Who, What), introductory comments were drafted.

A Recommendations section was completed based on the overall results and assembly of the Program Plan components. The Recommendations section included general recommendations based on the NEEPGE and EEMGE analyses., the resource recommendations from the results of Objective Four, and recommended improvements based on information gathered from the County Coordinator and Participant Questionnaires. Finally, other recommendations that did not fit elsewhere were added based on results throughout the entire process of developing the Program Plan. Finally, a section entitled "Suggested Action Approach" was drafted to complete the Program Plan, and suggest a process for putting the Plan and its recommendations into place.

The Program Plan (Appendix A), in its entirety, provides a complete overview of the Annual Midwest Crane Count. It provides both highlights and detailed information about the program and its status, and also recommends a variety of actions and resources that, if implemented, will advance the program and thereby support ICF's Conservation Education Department's efforts and ICF's overall mission.

## **CHAPTER FIVE: SUMMARY AND RECOMMENDATIONS**

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### **Overview**

The goal of this study was to develop a Program Plan for the Annual Midwest Crane Count that supports ICF's mission and Conservation Education Department efforts. This chapter summarizes the project, its major findings, makes some recommendations for ICF, and for further research to be pursued.

### **I. Summary of Project**

### **II. Major Findings**

### **III. Recommendations for ICF**

- The Future: What Should Be Done With the Crane Count?
- Has the Crane Count Outgrown ICF?
- What Should Be Done?
- Recommendations

### **IV. Recommendations for Further Research**

- Curriculum
- Demographics
- Development of Resources
- Evaluation

### **IV. Conclusion**

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### **Summary of Project**

The Introduction described the background to this project, and the lack of and need for a Program Plan for the Crane Count. The resulting Program Plan defines the scope and role that the Crane Count plays as one of ICF's program offerings. The Plan addresses the key elements of the program – why it exists, who its major stakeholders are, and what constitutes the program. It looks at the program's current

status, how it rates as an environmental education program, how its environmental education resources rate, and how stakeholders perceive the program and its resources. Finally, it makes recommendations for the program's future based on stakeholder input and an extensive evaluation of its current status.

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### **Major Findings**

Through the development of the Program Plan, a number of major findings of importance to the Crane Count and its future came to light. These findings were not found in any one specific stage of the project, rather, they arose throughout its course.

A mission, seven goals, and twenty objectives were developed for the Crane Count based on historic program documents. While they are ambitious in scope, they are consistent with ICF's mission, and hold commonalities with EE. Their first order of importance is that they explicitly state the scope of the Crane Count and what it is intended to do. Furthermore, by associating the objectives with existing program resources a significant gap is revealed: only 30% of the program's objectives are currently being addressed. The potential now exists to measure the degree to which the Crane Count is in meeting its mission, goals, and objectives. It is now possible to create or adapt resources to specifically address the majority of objectives.

The North American Association for Environmental Education helps to set well-founded standards and best practices in the field of EE through their *Guidelines for Excellence* series. Through use of NEEPGE, the Crane Count's current status as an EE program was evaluated. While these guidelines are not an absolute, the



results point out several things about the Crane Count worth consideration. That the Crane Count is by some measure a success is evidenced by its age, however, NEEPEGE reveals that the program could be far more successful than it currently is. The two strongest Key Characteristics for the Crane Count were Organizational Needs and Capacities (at 55.3%) and Program Delivery Resources (at 61%). The remaining four Characteristics were all below 36%. The weakest score was for Evaluation, rating at 3.67%. For the Crane Count to continue, and build upon its past success, the results of this evaluation should be closely examined, and used as a guide in determining the program's future. Continued incorporation of existing EE research and resources can further enrich the Crane Count.

Evaluation of the Crane Count's resources through EEMGE revealed a similar picture – the resources are functional, but are largely overwhelmed by a variety of weaknesses. On a relative rating scale from 1-5, with 1 corresponding to Indicators Not Met, and 5 to Indicators Met, the Crane Count's resources as whole rated 3 (Indicators Moderately Met) or less. At the "Moderately Met" level were the following three Key Characteristics: Fairness and Accuracy, Depth, and Usability. The two Characteristics for which the indicators were not met were Emphasis on Skills Building and Action Orientation. Examining the Crane Count's resources, and associating them with the program's objectives, this rating is further confirmed. The Crane Count currently has little in place to address skills building and action, despite objectives that seek such ends.

Previously unknown information about the Crane Count's primary target audiences was revealed. The demographics of both County Coordinators and participants are heavily skewed towards a 45 years of age and older bracket – the Coordinators

at 77%, and participants at 87%. This points out concerns for the program's future as these audiences depreciate, as the Crane Count's success is largely dependent on these people. These individuals evidence a strong commitment to the Crane Count. Fifty-seven percent of Coordinators have facilitated 6 times or more, and 76% of participants have participated 6 times or more. For most of these individuals, it appears that once they become involved, they stay involved. When presented with a list of potential improvements, both audiences indicated a wide variety of items that would improve the Crane Count experience for them, ranging from access to historic Count data to youth-centered Crane Count materials. Audiences indicate several motivations for their involvement, amongst which the strongest are: as a contribution to a conservation organization, to improve understanding of crane populations, to introduce others to or to experience the natural world, and perhaps not surprisingly, to see cranes.

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### **Recommendations for ICF**

Within ICF's Conservation Education Department, this project is currently of a unique status. The Conservation Education Department's focus is on supporting ICF's mission through advancing ICF's educational efforts – while this does not exclude research and research-related activities in the environmental education field, it has never included them either. In addition to benefitting the Annual Midwest Crane Count, this project serves as one demonstration of the overall value, benefits, and recommendations that can result from such undertakings. Nevertheless, there are still some things such research can contribute to, but not decide.

### ***The Future: What Should Be Done With the Crane Count?***

As set out in the Introduction, a key question remains unanswered: What should be done with the Crane Count to further advance ICF's mission? The Program Plan makes recommendations towards this end. What it does not do is make the decisions of what feasibly can and will be done, given the current organizational conditions at ICF.

Concurrent with this project, developing the Program Plan for the Crane Count, ICF underwent a strategic planning process. Byrd states that "Strategic planning is a disciplined, consensus building process of creating a desired future for an organization and developing strategies to attain that future" (2000). Byrd further states that "Strategic planning is an essential tool for any organization to use to develop a shared vision, strategies to achieve the vision, and a plan of action to guide the organization toward success" (2000). Having undergone a strategic planning process, and now having newly available information about the Crane Count, it is necessary for ICF to examine this program in the context of planning outcomes.

How does the Crane Count fit into ICF's desired future? Answering such a question was beyond the scope of developing the Program Plan. However, the Program Plan provides a thorough foundation on which to make such decisions about the Crane Count. The question not only is one of what should be done with the Crane Count to advance ICF's mission, but what action is appropriate given the desired future and strategies that have resulted from the planning process? This, ultimately, will determine the Crane Count's future.

### ***Has the Crane Count Outgrown ICF?***

The process of developing the Program Plan revealed that the intended purposes of the Crane Count are consistent with supporting ICF's mission. The Crane Count's mission, goals, and objectives were based on historic program materials, and developed in such a manner as to display how they address ICF's overall mission. While this in and of itself does nothing to determine how successful the Crane Count is in meeting its goals and objectives, it does demonstrate that the program is appropriate to ICF's work.

Developing the Program Plan also revealed a wide variety of other items of importance. Reviewing the program's history shows how it advanced from a single-county effort in 1976, to a 100 county-plus effort spread throughout five Upper Midwestern states today. Is it feasible for the Crane Count to potentially encompass the entire range of the Upper Midwest's cranes? A close examination of the program's objectives, determined through analysis of historic Crane Count documents, revealed that only 30% of the objectives are currently being addressed. The NEEPGE evaluation revealed that the Crane Count does have some strengths as a quality environmental education program (for example, its program delivery resources), but that it also has a disproportionate amount of weaknesses, especially in evaluation. Likewise, the EEMGE evaluation of the Crane Count's materials revealed that there are some existing strengths to these resources, such as usability, but once again, a disproportionate amount of weaknesses, especially in the areas of action orientation and emphasis on skills building. Most Questionnaire respondents, whether they were County Coordinators or participants, indicated that they are committed to the Crane Count, as evidenced by the years that most have been involved and their motivations. These audiences also indicated that

new initiatives on the part of ICF would improve their experience, varying from something as relatively simple as a Crane Count brochure to more complex endeavors such as online data entry.

Has the Crane Count outgrown ICF? No, it has not outgrown ICF per se, but it has outgrown ICF's current capacities to run it in an efficient and effective manner. Current capacities may be adequate to continue running the program as it stands, however, sooner or later, if not now, the weaknesses and threats to the Crane Count will have an impact. There is an obvious strain on the program – what should be done, versus what can be done. This is especially apparent in light of the recommendations the Program Plan makes.

### ***What Should Be Done?***

Ultimately, what should be done with the Crane Count is dependent upon how it fits in with ICF's strategic planning outcomes and desired vision of the future. Several possibilities exist. When examining the Crane Count in the context of ICF's desired future, considering the following may be appropriate, but should by no means be the limit.

#### *Eliminate the Crane Count:*

Eliminating the Crane Count as an ICF program offering may be one viable option, however, as with all options to be considered, not one without consequences. Such an option has several benefits. While the funds allocated to the Crane Count are a proportionately small amount of ICF's expenditures, the true cost is reflected by this combined with the time staff spend on the program. Each year, hundreds of hours are spent by CED staff in conducting data entry, not to mention other

day-to-day pre- and post-Count responsibilities. As the Crane Count is only one of many duties for CED staff, this would free up a significant portion of time that could be devoted to other duties, and may prove to be cost-effective.

There are disadvantages to this option as well. What about the 3,000-plus people who dedicate their time to the Crane Count? The potential ramifications of losing such audiences should not be disregarded. One of the major motivating factors listed by both County Coordinators and participants was that of “a contribution to a conservation organization.” If these individuals do not contribute through the Crane Count, will they remain involved with ICF? Of the 149 participants who returned completed Questionnaires, 117 indicated they were not currently ICF members. Only 28 indicated they were, and another four offered no response. If this sample is representative of participants as a whole, this means that approximately 19% of crane counters directly support ICF through membership. Are they otherwise involved with ICF’s work? Apart from ICF visitation, there are few other opportunities available for direct involvement locally, especially considering the geographical distribution of participants. The Crane Count therefore is reaching a unique audience it would not otherwise reach. With the long-term commitment these audiences display to the program, what impact would such a loss have on ICF’s reputation, especially at the regional level? This should not be discounted if such a decision is made.

*Internal Capacity Building:*

The current capacities at ICF may be enough to continue the Crane Count as it is, however, as earlier noted, sooner or later weaknesses and threats will have an impact on the program. Building the CED’s internal capacities is another

available option. Given what the Program Plan has revealed about the Crane Count, a significant commitment must be made to build necessary capacities to address the recommendations, weaknesses, and threats that the Plan describes.

Internal capacities cannot be built all at once. A sequential, staged action approach, over a period of years would perhaps best serve such an endeavor. Sources of funding for support would have to be found. Further professional development and training for staff would be necessary, to insure that competencies are adequate to address an assortment of program needs. While specifically targeted towards skills and knowledge necessary to the Crane Count, such professional development could easily be transferred to the CED's other programs at the same time. Considering the scale on which recommendations for the program have been made, there is ample opportunity to hire one or more qualified individuals to work solely on the Crane Count.

Building internal capacities is not without its challenges. It would require current staff to take on responsibilities additional to the ones they currently hold. Such an option may not be viable in the short-term.

*External Capacity Building:*

To address many of the recommendations made in the Program Plan, internal capacities may not be adequate, and instituting internal capacity building may not be a feasible option, given other CED staff responsibilities. One possibility would be to address Program Plan recommendations through external sources. This could include partnerships with other leaders in the Citizen Science field, the Cornell Lab of Ornithology or National Audubon, for instance. Such organizations may

have valuable input regarding the most efficient and effective methods in running large-scale citizen science programs. They may have technology and expertise available that can be applied to the Crane Count. Alternatively, recruitment of potential graduate students may also be of value. Working in partnership with a university, such students could address and implement recommendations through their academic work.

While building capacities externally would eliminate some of the work load, it would still require a commitment of staff time, and more than likely funding, to accomplish it. Even with external capacity building, there may still be the need for additional internal work. Even if the Crane Count were completely turned over to another organization, this would still require a commitment of staff time, and it would no longer be an ICF program.

*Define Success:*

A key factor in determining what route is best to take to match the Crane Count with ICF's desired future is defining the program's success – to what degree is it accomplishing its stated mission, goals, and objectives? Research should be conducted in this area, in order to make better-informed decisions about the program's future. Such information would further justify the Crane Count, or indicated that changes need to be made. Whether this means that efforts to address the recommendations in the Program Plan should be fully instituted as stated, or that the program needs to be modified significantly, the information will aid ICF in best determining what to do with the Crane Count.



## **Recommendations**

Before any other actions are taken, with the information the Program Plan provides, the Crane Count should be examined in the context of ICF's strategic planning outcomes, and the desired vision of the future that it describes. Decisions on the next step should be made accordingly, whether it means contemplating the total elimination of the program, building internal capacities of the CED, or looking outside of ICF for means to institute program improvements and recommendations.

Further research should be conducted, with the Crane Count as its subject. Additional research could assist in making determinations about the program's future, but has other benefits as well. Much of ICF's work is unique. ICF has successfully bred all fifteen of the world's crane species. Its Field Ecology department has conducted research on ecological restoration that has revealed unexpected results. Further research on the Crane Count would assist ICF in continuing its reputation for excellence in a new way. The Crane Count would benefit, ICF would benefit, and the Environmental Education and Citizen Science communities would benefit from further exploration into this unique program. Recommendations for research to be conducted are described below.

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## **Recommendations for Further Research**

During the Program Plan development process, a number of opportunities for further research came to light. Pursuing such research would help ICF to further support its mission by building the capacities of the Crane Count.

**Curriculum:**

The Crane Count now has its mission, goals, and objectives explicitly stated. Further examination revealed that only 30% of the program's objectives are currently being addressed. Evaluation of the program's educational resources through EEMGE revealed that there are a number of notable weaknesses in the Crane Count's materials.

Further research is needed to develop a "Crane Count Curriculum." This Curriculum should lay out a scope and sequence addressing the program's mission, goals, and objectives. Such a scope and sequence would demonstrate and indicate the program's components, develop new components, and show how effectively these support the program. Such research should involve not only ICF, but also the program's stakeholders, who would benefit from this work. In addition, such research would make strides in addressing a number of the program's current weaknesses, as well as recommendations made in the Program Plan.

**Demographics:**

One of the striking pieces of information that came to light through Questionnaires was the skewed demographic that the Crane Count currently serves. Most individuals are 45 years of age or older. While this is not necessarily a bad thing in and of itself, it does pose a potential threat to the Crane Count's future, and provides some unique opportunities for further research.

Key questions that deserve further exploration arise. Does this match with the demographics of other citizen science programs? Apart from age, what are the differences between the 45 and older demographic, and the 44 and younger?

What are the similarities of these crane counters? Do their motivations differ significantly? As societal demographics shift, do people simply begin involvement when they reach a certain age bracket? Does participation in the Crane Count serve as an indicator of environmental sensitivity? What would attract a younger demographic to participate in the Crane Count?

One way to address the potential threat of demographics to the future of Crane Count would be to not only involve a younger audience, but youth specifically. ICF already has existing activity packets for K-12 youth, but these are not linked to the Crane Count. Research into the development and implementation of youth-centered Crane Count curriculum for classrooms could help address this threat, while at the same time helping to address the program's objectives.

***Development of Resources:***

Even if not in the form of curricula, there is a need for development of resources to address gaps in the Crane Count's objectives. Research is called for to develop these resources for the Crane Count and its audiences, and to determine their effectiveness in meeting the stated objectives.

***Evaluation:***

The weakest overall aspect of the Crane Count as a program is a lack of evaluation. The effectiveness of the program in meeting its mission, goals, and objectives is not currently assessed. Developing an evaluation plan for the Crane Count, and integrating evaluation into the current framework was beyond the scope of Program Plan development. Research into an evaluation plan, its integration, and implementation could make significant headway into this major weakness of the

Crane Count.

Other research opportunities for the Crane Count exist. How exactly does the Crane Count support the environmental literacy of its audiences? Does the Crane Count promote environmentally responsible behaviors, and if so, what behaviors and how do they correlate with the program? To what extent does the Crane Count support a sense of place in its participants? Does it require participating a minimum number of times? Do these individuals develop a sense of place at the site-level, or the county level?

Inquiry into the research possibilities of the Crane Count is by no means exhausted – indeed only the surface has been touched. The above topics and questions deal primarily with the “citizen” end of the Crane Count, and there is further room for as-yet unexplored avenues in the “science” end.

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## **Conclusion**

The crane may be “the symbol of our untamable past, of that incredible sweep of millennia which underlies and conditions the daily affairs of birds and men” (Leopold, 1966). For some people, the magic of such symbology may be enough to get them out experiencing the natural world and counting cranes. But such symbology is not enough to run the Annual Midwest Crane Count alone.

Development of the Program Plan has revealed not only the mission, goals, and objectives for the Crane Count. It has pointed out various strengths and weaknesses in the program, opportunities and threats, and made a variety of recommendations for its future.

A relatively unplanned approach to the Crane Count for the past thirty years has led to its evident success. Just imagine where the Crane Count can go, and what it can do in the future, with a focused, planned approach, taking advantage of the multitudinous opportunities and existing resources that are available. ICF's work and mission are about cranes, and just as much about people. The Crane Count, as a citizen science program tied closely to ICF's mission, has a vast untapped potential. The challenge is for a renewed commitment to the program. With renewed commitment, the Crane Count can continue to inspire future generations. Fanning this spark of inspiration, ICF can take the Crane Count into unexplored territory, and with it, the thousands of committed individuals who help to shape the face of our earth.



## REFERENCES

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- Archibald, G. (1985). The Cranes at Poyang Lake. *The ICF Bugle*, 11(2), 1-3.
- Athman, J. A., & Monroe, M. C. (2001). *Elements of Effective Environmental Education Programs*. Defining Best Practices in Boating, Fishing, and Stewardship Education. (ERIC Document Reproduction Service No. ED463936)
- Brown, M., Ermer, S., Hoffman, S., & Heimlich, J. E. (2002). Wildlife-based Environmental Education in a Natural Setting. *EETAP Resource Library*, 114, 1-3.
- Brynildson, E. (1987). At Last Count – The Rise of International Crane Counting. *The ICF Bugle*, 13(3), 1-3.
- Bryson, J. M., & Alston, F. K. (1996). *Creating and implementing your strategic plan: A workbook for public and nonprofit organizations*. San Francisco: Jossey-Bass Publishers.
- Byrd, N.J. (2000). *Director's guide to best practices: Examples from the nature and environmental learning center profession*. Dayton: Association of Nature Center Administrators.
- Engelson, D. C., & Yockers, D. H. (1994). *A Guide to Curriculum Planning in Environmental Education* (2nd ed.). Madison: Wisconsin Department of Public Instruction.
- Erickson, L. (2002). Sharing the Wonder of Birds with Kids. *The Passenger Pigeon*, 64(1&2), 19-22.
- Fitzpatrick, J. W. (2003). The View from Sapsucker Woods. *Birdscope*, 17(3), 2.
- Freeman, S. (1982). Crane Counts, Wetland Bills. *The Brolga Bugle*, 8(3), 3.
- Gross, M. P., & Zimmerman, R. P. (2002). *Interpretive centers: The history, design and development of nature and visitor centers*. Stevens Point: UW-SP Foundation Press, Inc.
- International Crane Foundation. (1984). A Million Cranes in Gujarat. *The ICF Bugle*, 10(2), 1, 3.

- International Crane Foundation. (2006, May 30). *About ICF*. Retrieved from <http://www.savingcranes.org/about/index.cfm>
- International Union for Conservation of Nature and Natural Resources. (2005, May 12). *2004 IUCN Red List of Threatened Species*. Retrieved from [www.redlist.org](http://www.redlist.org)
- James-Rosenberg, A., & Bonney, R. (2002). The Educator's Guide to Bird Study. *Birdscope*, 16(4), 14.
- LaBranche, M. S., Chu, M., & Hochachka, W. M. (2003). Why Count Birds?. *Birdscope*, 17(1), 6-7.
- Leopold, A. (1966). *A sand county almanac: With essays on conservation from round river*. New York: Ballantine Books.
- Moseley, C. (2000). Teaching for Environmental Literacy. *Clearing House*, 74(1). Retrieved October 5, 2004, from Academic Search Elite database.
- North American Association for Environmental Education. (2004). *Nonformal environmental education programs: Guidelines for excellence*. Washington: North American Association for Environmental Education.
- Reading, J. & Taven, G. (1996). Outdoor Classrooms: The Learning Links. *Clearing*, 94, 46-49.
- Roth, C. E., Ed. (1996). *Benchmarks on the Way to Environmental Literacy K-12*. Massachusetts Secretary's Advisory Group on Environmental Education, Littleton. (ERIC Document Reproduction Service No. ED 392635)
- Sivek, D. J. (2002). Environmental Sensitivity among Wisconsin High School Students. *Environmental Education Research*, 8(2), 155-170.
- Smith, G. A. (2002). Place-based Education. *Phi Delta Kappan*, 83(8). Retrieved October 5, 2004, from Academic Search Elite database.
- University of Wisconsin-Stevens Point. (2005, March 8). 2.2 Logic Model. In *Applied Environmental Education Program Evaluation* (chap. 2). Retrieved from <http://www.uwsp.edu/natres/nres410/aepe/Unit2/2.2.htm>
- Voss, K. (1981). Crane Count Plans Laid. *The Brolga Bugle*, 7(1), 3.



## APPENDICES

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A. Annual Midwest Crane Count Program Plan .....	146
B. Historic Program Documents .....	238
C. Historic Document Review Spreadsheet .....	263
D. Historic Document Review Sub-codes & Concepts .....	272
E. Assessment Rubric: Nonformal Environmental Education Programs: Guidelines for Excellence .....	277
F. NEEPE Strengths .....	425
G. NEEPE Weaknesses .....	428
H. UWSP Institutional Review Board Protocol .....	433
I. County Coordinator Questionnaire .....	437
J. Participant Questionnaire .....	443
K. Coordinator Follow-up Post Card .....	449
L. Participant Follow-up Post Card .....	451
M. Coordinator Questionnaire Code Key .....	453
N. Participant Questionnaire Code Key .....	457
O. Coordinator Questionnaire Response Compilation .....	461
P. Participant Questionnaire Response Compilation .....	471
Q. Focus Group Discussion Guide .....	482
R. Focus Group Discussion Transcript .....	486
S. Phone Interview Transcripts .....	506
T. Identification & Classification of Resources .....	511
U. Environmental Education Materials: Guidelines for Excellence .....	517
V. Gap Identification & Summary .....	524
W. Resources Database .....	528

**APPENDIX A:**  
**Annual Midwest Crane Count Program Plan**

International Crane Foundation

Annual  
Midwest  
Crane  
Count



Program  
Plan



INSPIRING A GLOBAL COMMUNITY

# Acknowledgments

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- All ICF staff who have worked on the Crane Count in the past
- Those County Coordinators who participated in the research which allowed this Program Plan to be created
- Those participants who likewise participated in the research effort
- Recent CED and other ICF staff who assisted and supported the development of this Plan
- The Wisconsin Environmental Education Board, for providing a 2004-2005 grant under which portions of this plan were initially developed



# Table of Contents



ACKNOWLEDGMENTS .....	2
INTRODUCTION .....	4
WHY – Mission, Goals, and Objectives .....	5
Mission .....	6
Goals .....	7
Citizens .....	7
Science .....	7
Objectives .....	8
Citizens .....	8
Science .....	10
WHO .....	11
County Coordinators .....	12
Participants .....	22
WHAT .....	32
Logic Model .....	33
Current Program Status .....	35
Strengths .....	36
Weaknesses .....	39
Current Materials Status .....	45
Resource Details .....	56
Coordinator Materials .....	57
Participant Materials .....	61
Crane Count Web Pages .....	63
Other .....	67
Gap Identification Summary .....	68
Objectives Currenty Addressed with Associated Materials .....	69
Objectives Not Currently Addressed (Identified Gaps) .....	70
Opportunities .....	72
Threats .....	73
Recommendations .....	74
General Recommendations .....	75
Resource Recommendations .....	77
Recommended Improvements .....	86
Other Recommendations .....	90
SUGGESTED ACTION APPROACH .....	91

# Introduction



In one sense, the Annual Midwest Crane Count's success is evidenced by its age – thirty years in 2006. Continuing for three decades, spread throughout more than 100 counties in portions of five Upper Midwestern states, and involving approximately 3,000 people yearly, the program must be doing something right.

What is the Crane Count doing right?

What could the Crane Count do better in the future?

This Program Plan addresses these questions.

As one of ICF's programs, the Crane Count supports ICF's overall mission. This Program Plan helps to define the scope of the Crane Count and its role in supporting that mission. It lays out the Crane Count's mission, goals and objectives. It reveals information about the Count's key stakeholders – the program participants and County Coordinators that make the program possible. It details the components that make up the program, and provides a series of recommendations for the future. These all serve to strengthen and justify the program, provide future direction, and create opportunity for more efficient and effective allocation of limited resources for its continuing development in years to come.

Throughout its history, ICF has been characterized by a "try it and see" attitude. The Crane Count is just one result – a unique program that has developed a regional niche, and touched thousands of people.


I was fortunate enough to be extensively involved with the Crane Count for nearly five years at ICF, and to extend this involvement for another two years in partnership with the graduate program in the University of Wisconsin-Stevens Point's College of Natural Resources.

I look forward to seeing how this Program Plan will assist the Conservation Education Department in taking the Crane Count to the next level.

Respectfully submitted,

Brian T. Barch  
ICF Education Research Associate

# Why - Mission, Goals, & Objectives



Why does the Crane Count exist?

What is it trying to accomplish?

In other words, what are its mission, goals, and objectives?

Through an extensive review and analysis of historic program documents dating back to the early days of the Crane Count, the following mission, goals, and objectives have been produced.

These serve to explain the intents and purposes of the Crane Count, and document what it sets out to accomplish.

These are of value not only for explaining the program, for in the future they can serve as another, more specific, measure of the Crane Count's success. To what degree is the Crane Count accomplishing its stated objectives?

# Mission



## International Crane Foundation (ICF) Mission Statement:

ICF's mission is to work worldwide to conserve cranes and the wetland, grassland and other ecosystems on which they depend. ICF is dedicated to providing experience, knowledge, and inspiration to involve people in resolving threats to these ecosystems.

As one of ICF's local regional programs, the Annual Midwest Crane Count directly supports ICF's mission.

## Annual Midwest Crane Count Mission Statement:

The Annual Midwest Crane Count (Crane Count) is a citizen science program that actively involves people in gathering data concerning the Upper Midwest's cranes and their habitats.

Through this mission, the Crane Count provides knowledge and opportunities otherwise unattainable. Citizen science programs such as the Crane Count are characterized by their dual nature, revolving around both the involved citizens as well as the scientific focus. For the Crane Count, cranes serve as the bridge between people and science. The goals focused on these two key factors are closely tied and interrelated – without one, the other is not possible.



# Goals



## Citizens:

### A. Awareness:

1. The Crane Count promotes public awareness of cranes, wetlands, and other wildlife. This includes both participants and other members of the public.

### B. Knowledge:

1. The Crane Count provides citizens knowledge about cranes and the ecosystems on which they depend.

### C. Experience:

1. The Crane Count provides citizens with experience in the scientific study of cranes and the ecosystems on which they depend.

### D. Inspiration:

1. The Crane Count seeks to foster positive attitudes towards cranes and wetlands.
2. The Crane Count stimulates independent action towards conservation and environmental protection outside of the program.

### E. Involvement:

1. The Crane Count involves people in studying cranes and the ecosystems on which they depend.

### F. Action:

1. Through participating in the Crane Count, ICF hopes people will be stimulated to take well-informed action on conservation issues outside of the program.

## Science:

1. The Crane Count will gather long-term baseline information on cranes in the Upper Midwest, on their habitat, and their habitat use.
2. Data gathered through the Crane Count will be used for a variety of purposes by ICF staff, researchers, and other citizens.

# Objectives



## Citizens:

### A. Awareness:

1. The Crane Count promotes public awareness of cranes, wetlands, and other wildlife. This includes both participants and other members of the public.

a. Objective (C.A.1.a): Public awareness of cranes, wetlands and other wildlife will be increased through citizen participation in the Crane Count.

b. Objective (C.A.1.b): Public awareness of cranes, wetlands, and other wildlife will be increased through publicity, ICF's website, and published research.

### B. Knowledge:

1. The Crane Count provides citizens knowledge about cranes and the ecosystems on which they depend.

a. Objective (C.B.1.a): Participant knowledge about cranes and the ecosystems on which they depend will be increased through program materials and participation in the Crane Count.

b. Objective (C.B.1.b): Citizen knowledge about cranes and the ecosystems on which they depend will be increased through publicity, ICF's website, and published research.

### C. Experience:

1. The Crane Count provides citizens with experience in the scientific study of cranes and the ecosystems on which they depend.

a. Objective (C.C.1.a): Citizens will have the opportunity to participate in the Crane Count to gain experience studying cranes and the ecosystems on which they depend.

### D. Inspiration:

1. The Crane Count seeks to foster positive attitudes towards cranes and wetlands.

# Objectives

a. Objective (C.D.1.a): Positive attitudes towards cranes and wetlands will increase through citizen participation in the Crane Count.

2. The Crane Count stimulates independent action towards conservation and environmental protection outside of the program.

a. Objective (C.D.2.a): After participating in the Crane Count, citizens will take well-informed, independent action towards conservation and environmental protection.

## E. Involvement:

1. The Crane Count involves people in studying cranes and the ecosystems on which they depend.

a. Objective (C.E.1.a): ICF will recruit citizens from youth to seniors to participate in the Crane Count.

b. Objective (C.E.1.b): ICF will make people aware of other opportunities for involvement through program materials.

## F. Action:

1. Through participating in the Crane Count, ICF hopes people will be stimulated to take well-informed action on conservation issues outside of the program.

a. Objective (C.F.1.a): The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend.

b. Objective (C.F.1.b): The Crane Count will support citizen skills and decision-making, and suggest how citizens can get involved in conservation issues.

c. Objective (C.F.1.c): The Crane Count will allow citizens to develop skills and provide an opportunity for participation that can later transfer to other action outside of the Crane Count.

# Objectives

## Science:

1. The Crane Count will gather long-term baseline information on cranes in the Upper Midwest, on their habitat, and their habitat use.

a. Objective (S.1.a): The Crane Count will gather information on the abundance and distribution of cranes in the Upper Midwest.

b. Objective (S.1.b): ICF will retain records gathered through the Crane Count, and maintain a long-term database.

c. Objective (S.1.c): The Crane Count will gather information on crane habitat and habitat use.

2. Data gathered through the Crane Count will be used for a variety of purposes by ICF staff, researchers, and other citizens.

a. Objective (S.2.a): ICF will provide summaries of data gathered yearly to all program participants.

b. Objective (S.2.b): ICF will use Crane Count data for a variety of research and analysis purposes.

c. Objective (S.2.c): Crane Count data will be available to not only ICF staff, but organizations, government agencies, and citizens as an information source.

d. Objective (S.2.d): Crane Count data will be used to complement other ICF studies, as well as other researchers' studies.

e. Objective (S.2.e): Data will be used to evaluate crane population and habitat status, and for long-term monitoring of cranes and their habitats.

# Who



From its inception, the Crane Count has been built on a foundation of volunteers – the program’s key stakeholders.

These volunteers consist of the County Coordinators who facilitate the Count at the county level, and the program participants that they recruit.

These volunteers are what allows the Crane Count to support ICF’s mission through addressing program objectives.

The following two sections highlight information gathered about these target audiences: demographics, perceptions of the program, motivations, etc.

# County Coordinators



County Coordinators serve as the liaison between ICF CED staff and the participants in the Crane Count.

These individuals are a key to the past and ongoing success of the Crane Count. They are responsible for the recruitment of participants, participant training, and facilitating the program in each county. They arrange for coverage of sites, compile data for return to ICF after the Count, and due to their important role in the Count, serve as volunteer representatives of ICF.

The individuals who make up the group of County Coordinators are constantly changing. Based on the complete Coordinator contact list from late summer of 2005, 107 Coordinators were sent Questionnaires. Questionnaires focused on topics such as the Crane Count Coordination Experience, Participants and Training, Crane Count Materials and Resources, and Demographics.

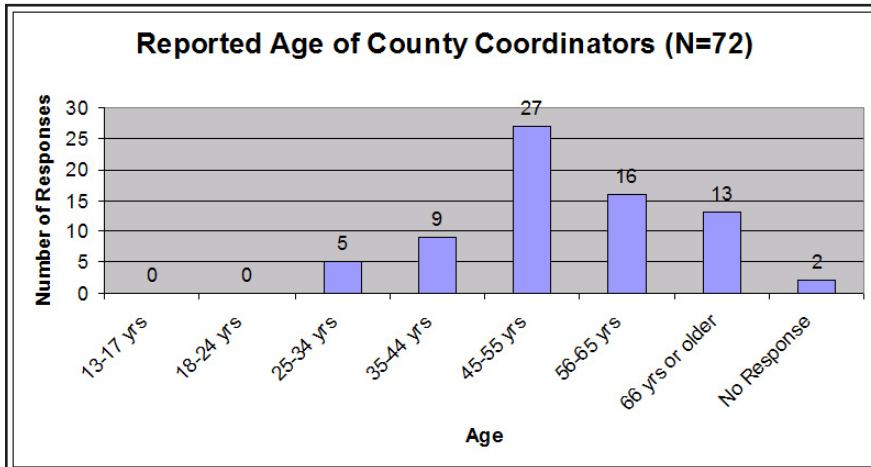
Of the 107 Questionnaires sent in the fall of 2005, 72 individuals, or 62%, responded. The following information on this audience is based on those responses.

# Who: Our County Coordinators

## Age & Gender:

As with the participant age demographic, our Coordinators are heavily skewed towards middle age and older.

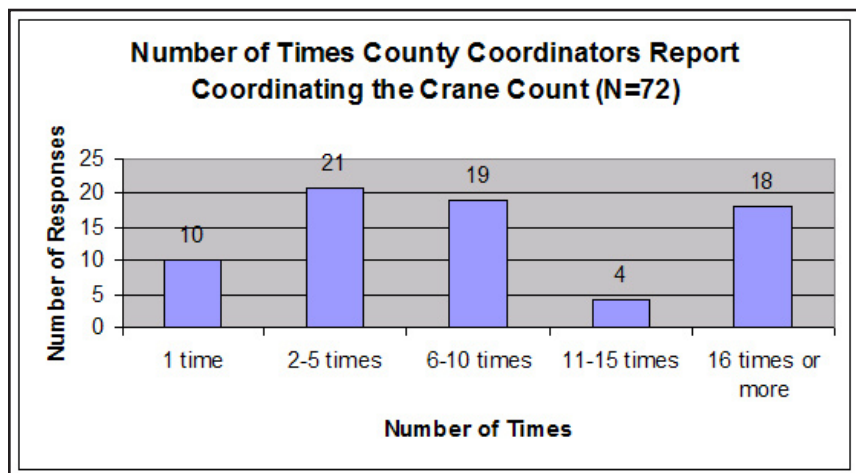
- 77% of Coordinators are 45 years of age or older
- 38% of Coordinators are in the 45-55 years old bracket



- Of these individuals, 57% are female, and 38% male.

## Times Coordinating:

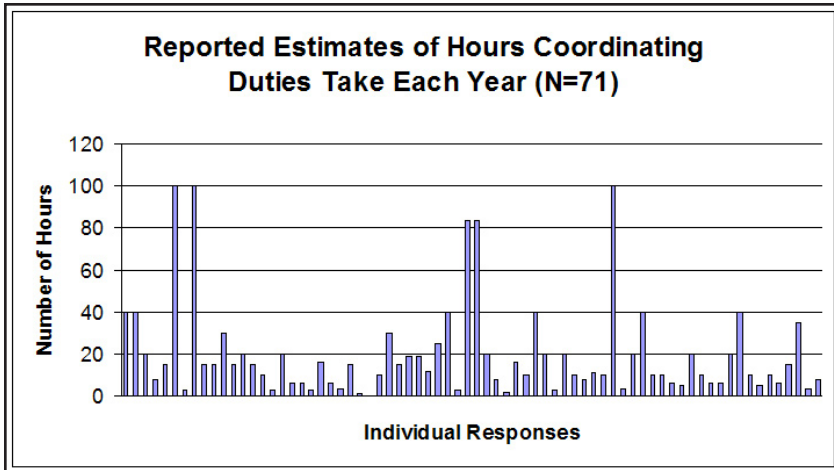
- Most Coordinators (57%) have coordinated the Count 6 times or more, indicating a long-term commitment and involvement to the program.
- A full 25% of these have been volunteered for the job more than 16 times.



**Yearly Time Commitment:**

Responding Coordinators estimated the amount of time their coordinating duties took each year.

- Responses ranged from a minimum of 1 hour to a maximum of 100+ hours.
- 7% report spending more than 80 hours each year.
- 93% report spending less than 40 hours or less each year.



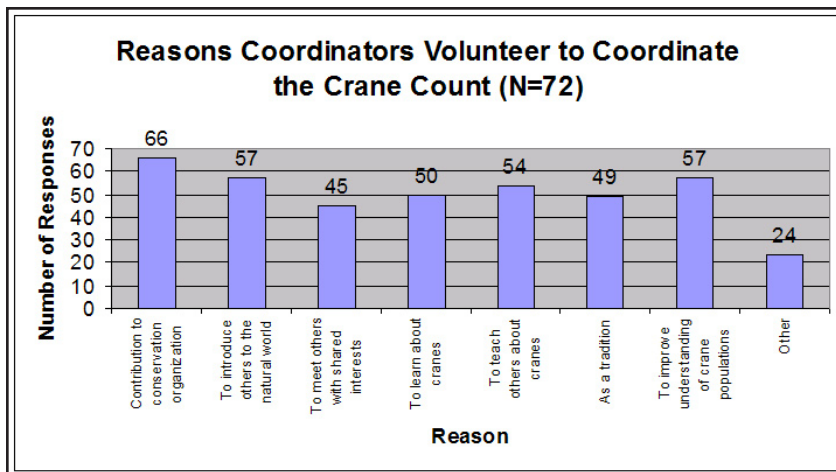
- The average reported time commitment was approximately 20 hours.
- Added together, the estimated time reporting coordinators spend on the Crane Count each year comes to 1,312 hours.
- Assuming the Coordinators who did not respond spent an average of 20 hours each year on their Count duties (estimated by the average for responding coordinators), this would add an additional 700 hours, bringing the total commitment to over 2,000 hours each year. This is the equivalent of one person spending 50 weeks of a year working on the Count for 40 hours a week.



Motivations:

Coordinators report a variety of motivations for volunteering to coordinate the Crane Count.

- 92% do so as a contribution to a conservation organization.
- 79% do so to introduce others to the natural world and to improve understanding of crane populations.
- 75% do so to teach others about cranes.
- 69% do so to learn about cranes
- 68% do so as a tradition
- 63% do so to meet others with shared interests
- 33% report a variety of other reasons for doing so

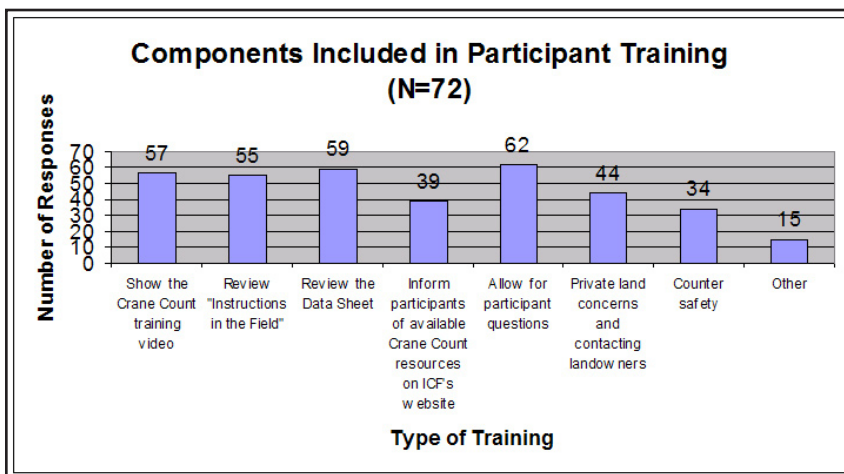


### Components Included in Participant Training:

Participant training is variable across counties, from one Coordinator to the next. Variables that may come into play when Coordinators are training their participants may include: whether they are working with returning counters, number of participants, available time, motivational level, geographic factors, participant availability, etc.

Responding Coordinators indicate including the following components in their participant training:

- 86% allow for participant questions
- 82% review the Data Sheet
- 79% show the Training Video
- 76% review Instructions in the Field
- 61% include private land concerns and contacting landowners
- 54% inform participants of available resources on ICF's website
- 47% include counter safety
- 21% include other components not listed here



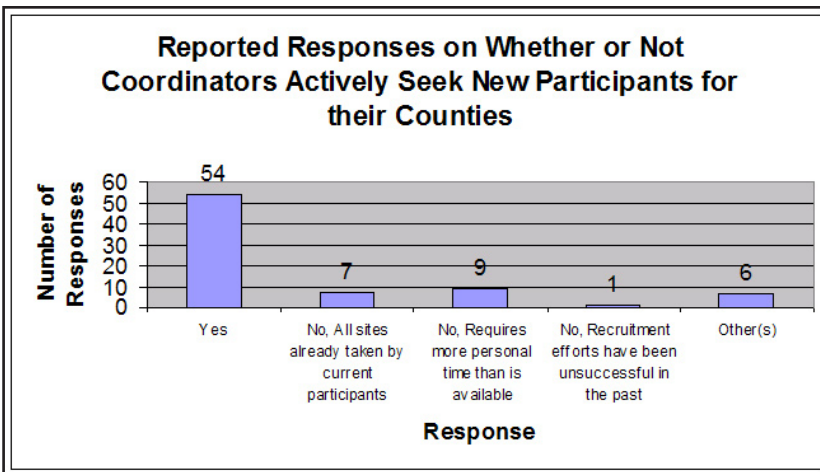
Looked at from the opposite perspective, this indicates that, of Coordinators:

- 14% do not allow for participant questions
- 18% do not review the Data Sheet
- 21% do not show the Training Video
- 24% do not review Instructions in the Field
- 39% do not include private land concerns and contacting landowners
- 46% do not inform participants of available resources on ICF's website
- 53% do not include counter safety
- 79% do not include other components not listed here

### Participant Recruitment:

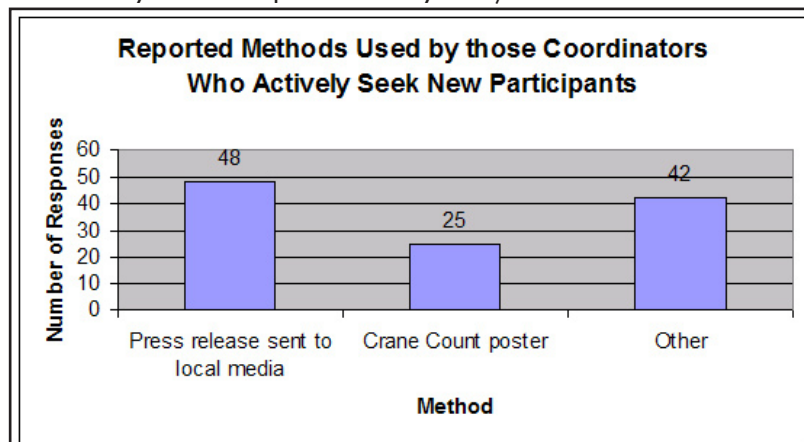
Participant recruitment is one of the responsibilities of County Coordinators, and important to the continued success of the Crane Count in the Upper Midwest.

- 75% of Coordinators report actively seeking new participants for their counties
- 10% indicate they do not, as all current sites are already taken by current participants
- 13% indicate they do not, as recruitment requires more personal time than is available
- 8% indicate other (or no) reasons for not actively recruiting new participants
- 1% indicate they do not, as recruitment efforts have been unsuccessful in the past



### Recruitment Methods:

- 89% of those who do actively recruit report using a press release sent to local media
- 78% of those who do actively recruit report using other methods (a variety, including using word of mouth, emails, networking with local organizations, casual conversations, etc.)
- 46% of those who do actively recruit report using a Crane Count poster (not necessarily the one provided by ICF)



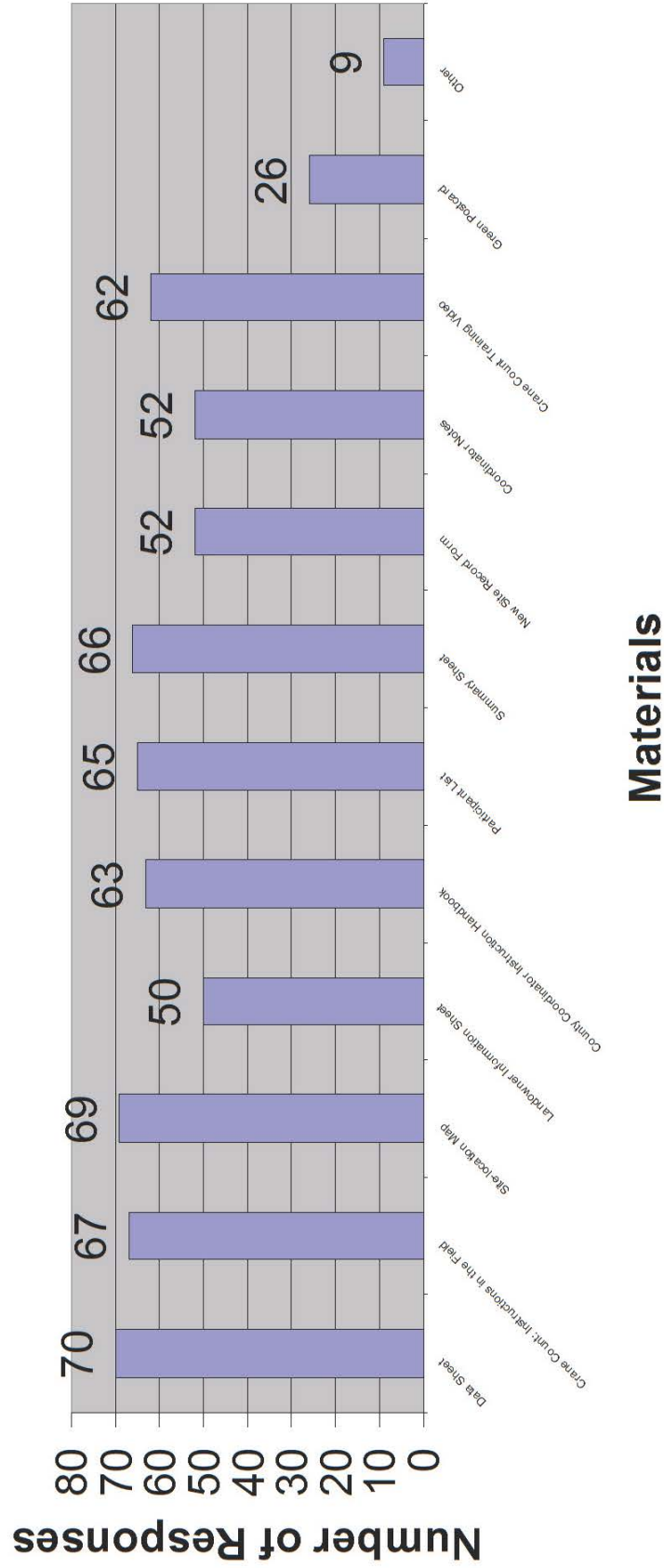
### Crane Count Materials Used:

A variety of materials are distributed to County Coordinators for their use, and for the use of participants. Distribution, however, tells us little of whether or not these materials are used by Coordinators, or passed on to participants.

The following summarizes the materials Coordinators report using, though it does not necessarily indicate the extent or purposes for which these materials are used. See also the display chart on the following page.

- 97% report using the Data Sheet
- 93% report using Instructions in the Field
- 96% report using the Site-location Map
- 69% report using the Landowner Information Sheet
- 88% report using the County Coordinator Instruction Handbook
- 90% report using the Participants List
- 92% report using the Summary Sheet
- 72% report using the New Site Record Form
- 72% report using the Coordinator Notes
- 86% report using the Crane Count Training Video
- 36% report using the Green Postcard
- 13% report using other materials (county highway map, their own postcards, etc.)

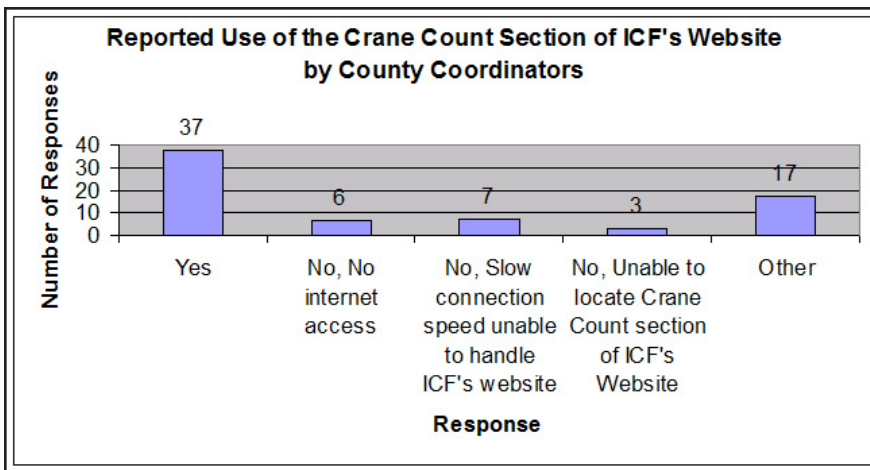
## Reported Crane Count Materials that Coordinators Use



## Materials

Status of Website Use by Coordinators:

- 51% of Coordinators report making use of the Crane Count section of ICF's website
- 8% of Coordinators indicate they do not have internet access
- 10% of Coordinators indicate their slow connection speed is unable to handle ICF's website
- 4% of Coordinators indicate they are unable to location the Crane Count section of ICF's website
- 24% of Coordinators indicate other reasons for not using the Crane Count section of ICF's website (several haven't thought of it or seen the need, others minimize their computer use, rely on printed materials, etc.)

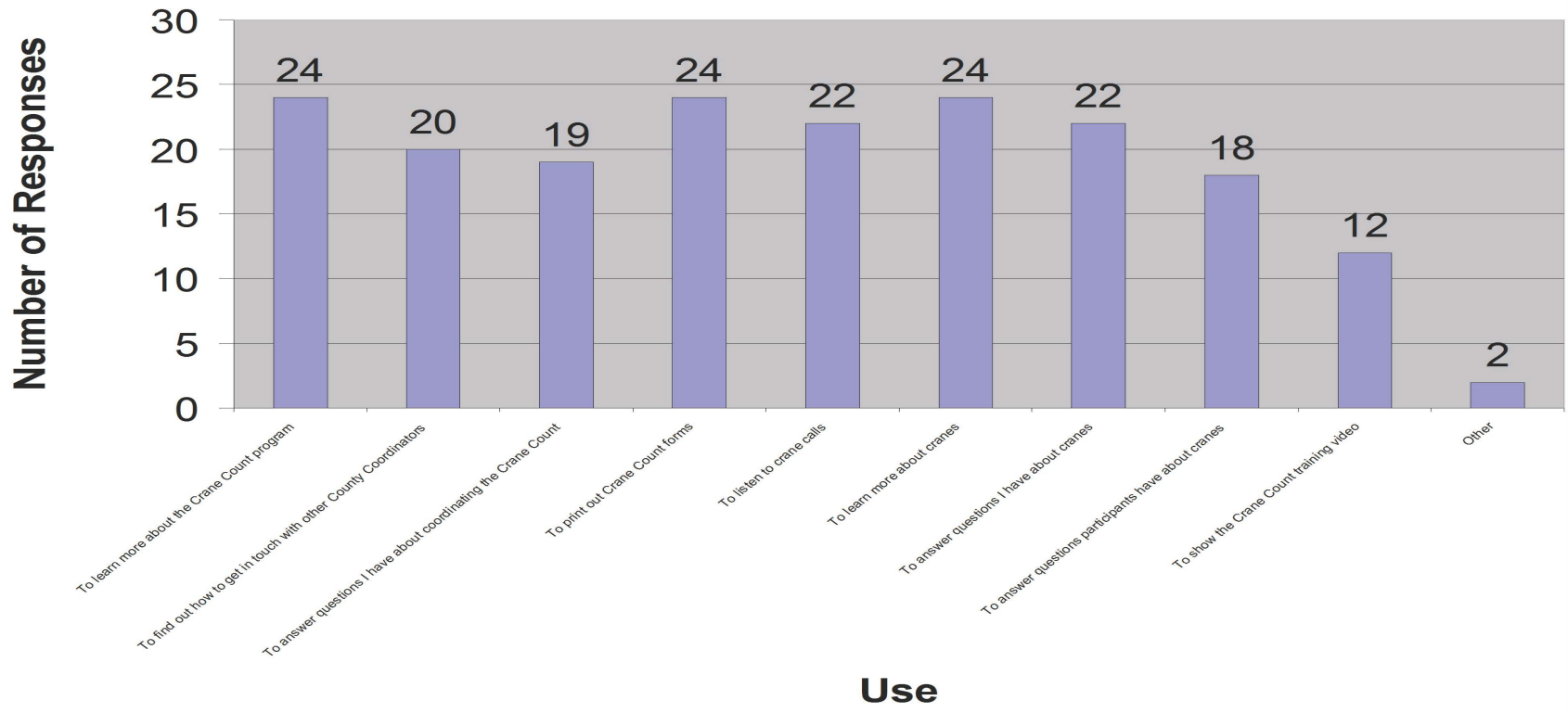


Reported Uses of the Crane Count Section of ICF's Website:

The 51% of Coordinators who use the Crane Count section of ICF's website report using it for the following purposes (see also display chart on the following page):

- 65% to learn more about the Crane Count program
- 54% to find out how to get in touch with other County Coordinators
- 51% to answer questions they have about coordinating the Count
- 65% to print out Crane Count forms
- 59% to listen to crane calls
- 65% to learn more about cranes
- 59% to answer questions they have about cranes
- 49% to answer questions participants have about cranes
- 32% to show the Crane Count training video
- 5% for other reasons (to find future Count dates and for meeting time)

### Reported Uses of the Crane Count Section of ICF's Website by County Coordinators



# Participants



CF works to recruit and maintain County Coordinators. The County Coordinators, in turn, recruit participants in more than 100 counties in five Upper Midwest states each year. In total, approximately 3,000 people participate in the program yearly.

While Coordinators are important to the success of the Crane Count, in some ways volunteer participants *are* the success. The mission, goals, and objectives of the Crane Count largely revolve around these participants, highlighting their importance. The intent of many goals and objectives is for the participants to get certain things from the program, while assisting an supporting the accomplishment of other program goals and objectives.

Given the importance of participants to the continuance of the Crane Count, few specifics have been known about them up to this point.

Based on the summer 2005 participants contact list from the Crane Count database, 6,590 past program participants were available for potential receipt of Questionnaires. With this large population size, it was not feasible to send Questionnaires to all of these individuals. To get a input from a variety of participants throughout the Crane Count's geographic range, a stratified sample of 317 participants was chosen from amongst the 6,590 possible entries. Whenever possible, three individuals were chosen from each participating county. In some cases, only one or two individuals have participated in a given county, and were therefore selected to receive Questionnaires.

Of the 317 Questionnaires sent to participants in the fall of 2005, 149 individuals, or 47%, responded. The following information is based on those responses.

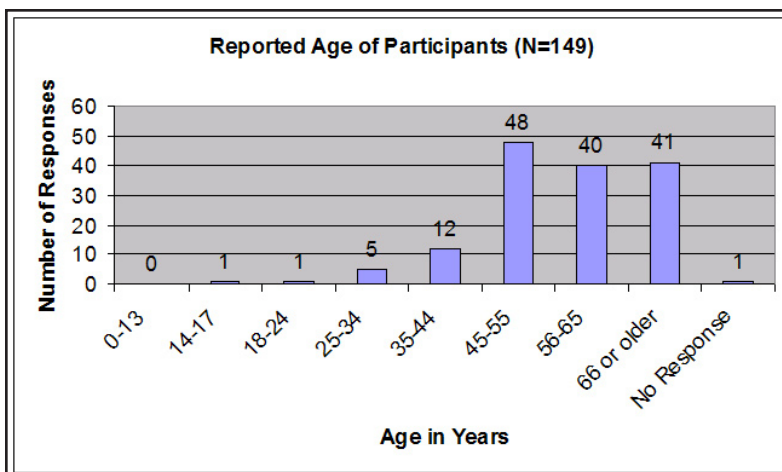


## Who: Our Crane Count Participants

### Age & Gender:

The age of respondents is obviously skewed towards a middle aged or older audience. This is supported by comments made during a focus group discussion and phone interviews with selected County Coordinators: they indicate their audience is primarily older, and few, if any, children participate (though there are some exceptions when families may participate, or if school or youth groups are involved).

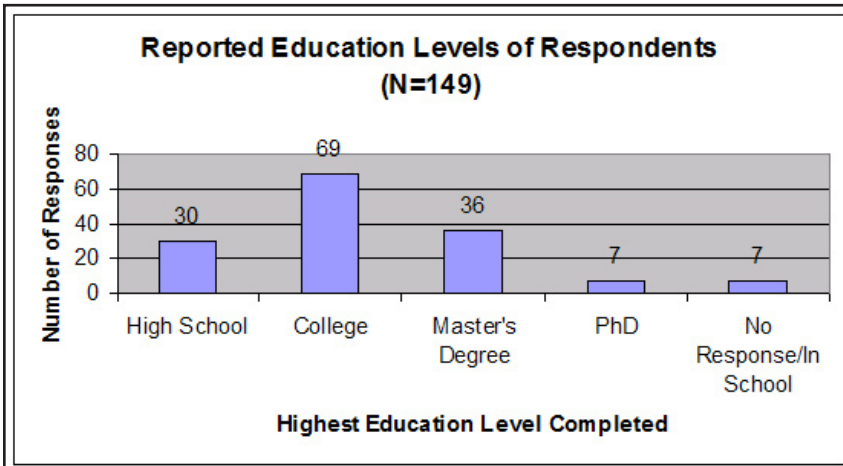
- 87% of participants are 45 years of age or older
- 27% or more of participants fall within the 45-55 years old bracket, 55-65 years old bracket, and 66 or older bracket, respectively
- Only 12% of participants are 44 years of age or younger
- Only one responded indicated being between 14-17 years old
- There were no respondents from the 0-13 year old age bracket



- Of these individuals, 42% are female, 49% male, and 9% offered no response.

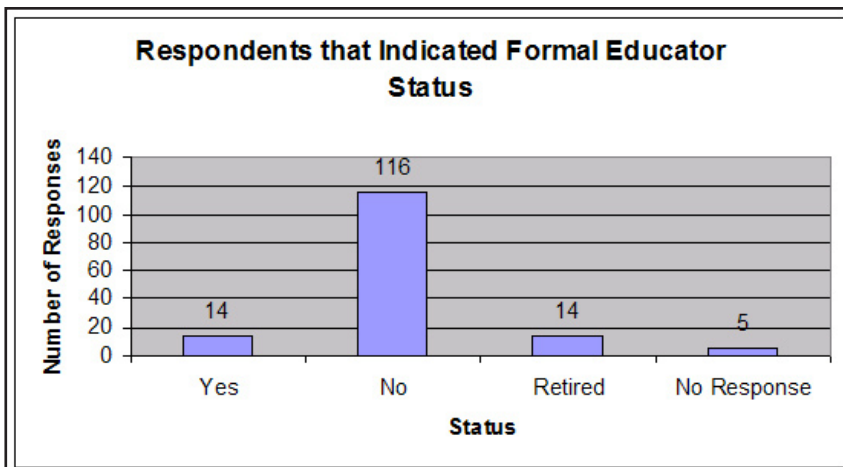
Education Level:

- 75% of participants report having a college education or more
- 29% of participants report having a Master’s degree or more
- 20% of participants report having only a high school education
- Of 3 individuals currently in school, one is in high school, and two are in college



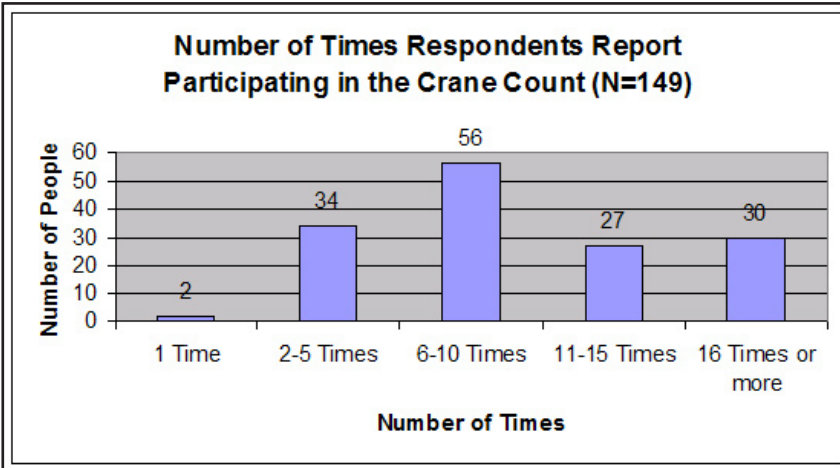
Formal Educator Status:

- 9% of participants indicate that they are formal educators
- Another 9% indicate that they are retired formal educators (note: this was not an available response on the Questionnaire – respondents wrote it in – the actual number of retired formal educators may actually be higher)
- 78% of participants indicate they are not formal educators



### Times Participating:

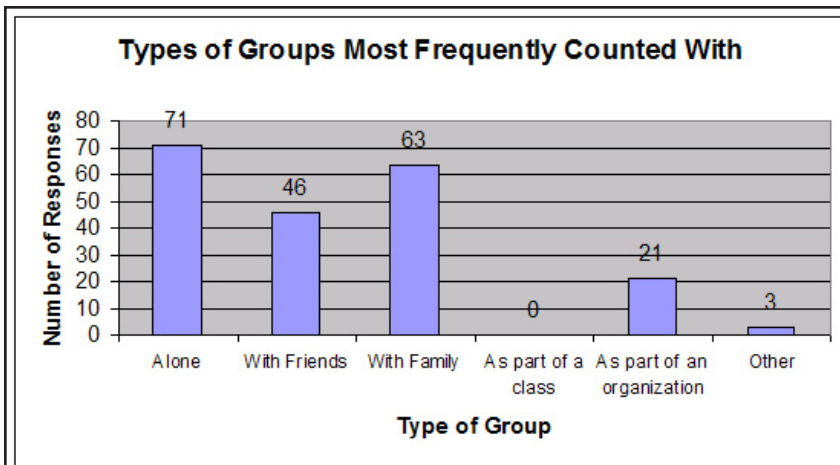
- Most participants (76%) have participated in the Count 6 times or more, indicating a long-term commitment and involvement to the program.
- 20% of these have participated more than 16 times.
- 24% have participated 5 times or less
- Only 1% have participated one time



### Types of Groups Most Frequently Counted With:

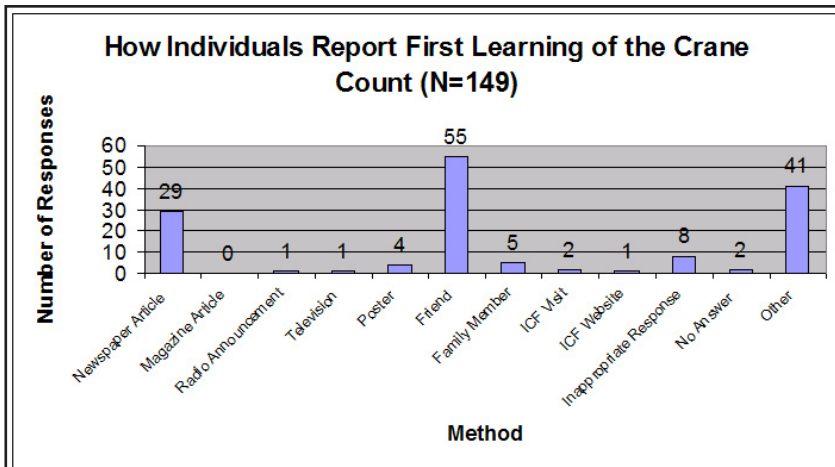
Individuals could indicate more than one of the following options.

- 48% indicate alone
- 31% indicate with friends
- 42% indicate with family
- 14% indicate as part of an organization
- 2% indicate some other type of group



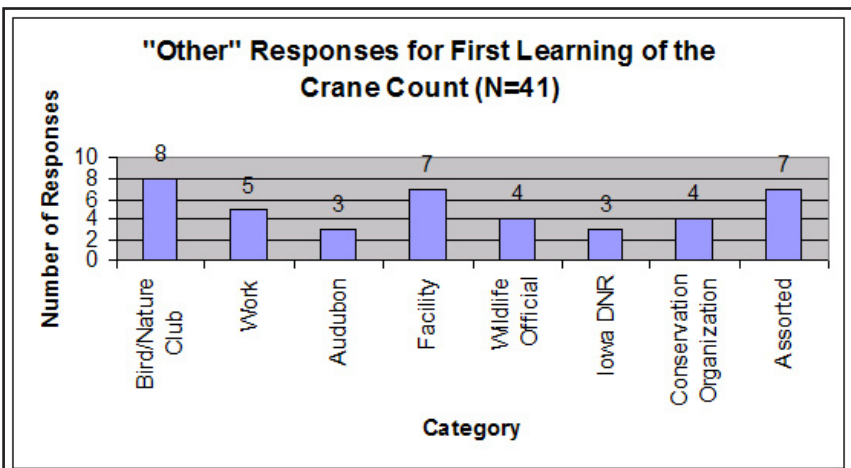
## How Individuals Report First Learning of the Crane Count:

- 19% through a newspaper article
- 37% through a friend
- 28% through other means
- 3% or less through each one of the following: radio announcement, television, poster, family member, ICF visit, and ICF website
- 5% made an inappropriate response to the question (indicating more than one item)



## Other Means of First Learning of the Crane Count:

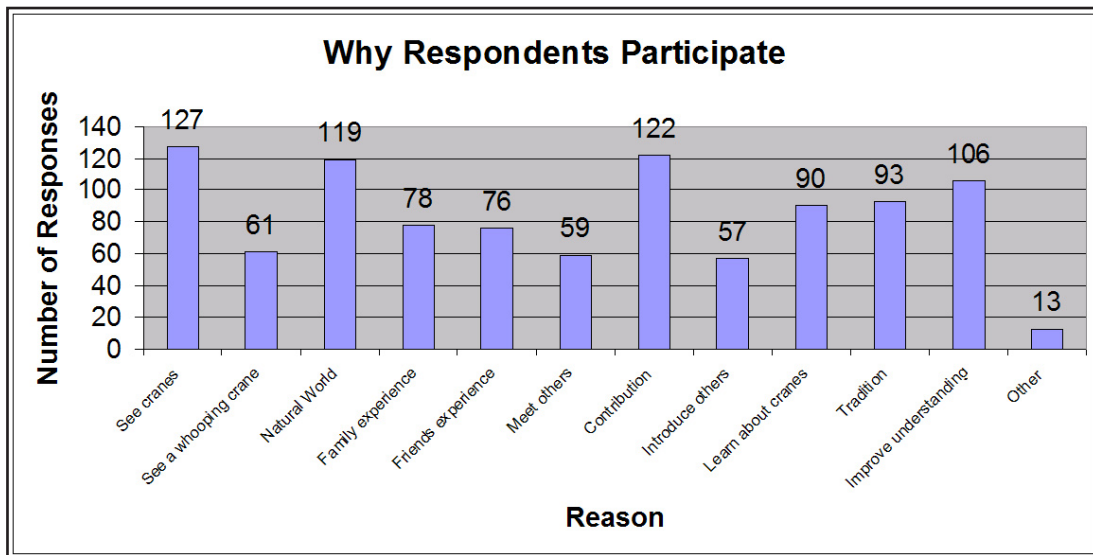
28% of respondents indicated they learned of the Count through a means other than those listed on the Questionnaire. The below chart summarizes their responses, and classifies them according to group.



Motivations:

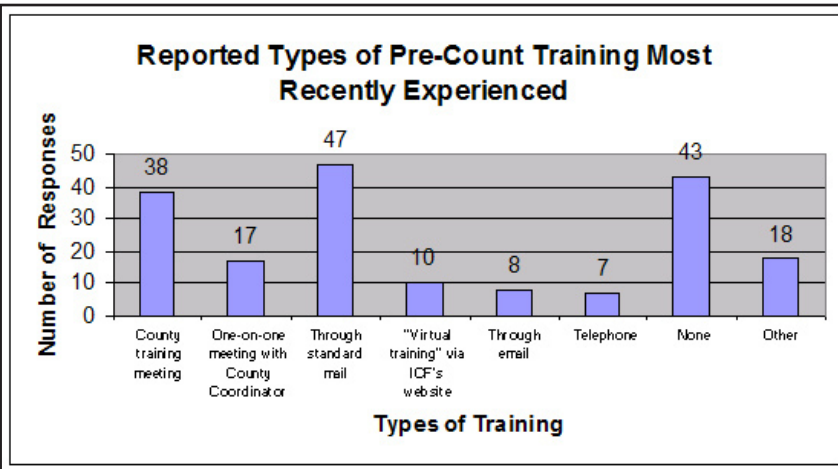
Participants were asked to indicate their reasons for participating in the Crane Count. The following is a summary of their responses.

- 85% participate to see cranes
- 41% participate for a chance to see a whooping crane
- 80% participate to experience the natural world
- 25% participate for a shared experience with family
- 51% participate for a shared experience with friends
- 40% participate to meet others with shared interests
- 82% participate as a contribution to a conservation organization
- 38% participate to introduce others to the natural world
- 60% participate to learn about cranes
- 62% participate as a tradition
- 71% participate to improve understanding of crane populations
- 9% participate for other reasons (reasons vary: to start a hunting season, for fun, for a challenge, to see other wildlife, to talk with other crane counters, etc.)



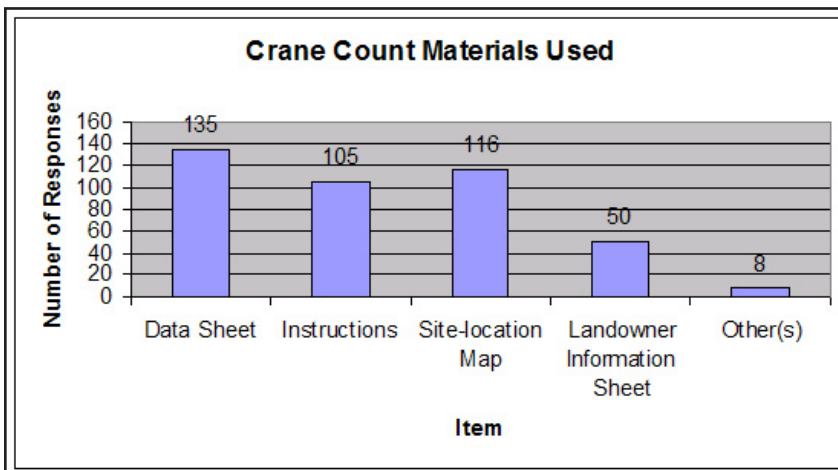
Pre-Count Training Most Recently Experienced:

- 26% report experiencing a County Training Meeting
- 11% report experiencing a one-on-one meeting with their County Coordinator
- 32% report experiencing training through standard mail
- 7% report experiencing "Virtual Training" via ICF's website
- 5% report experiencing training through email
- 5% report experiencing training over the telephone
- 29% report experiencing no training
- 12% report experiencing some other type of training (such as: trained in a previous year, schooling, watching videos, reading, etc.)



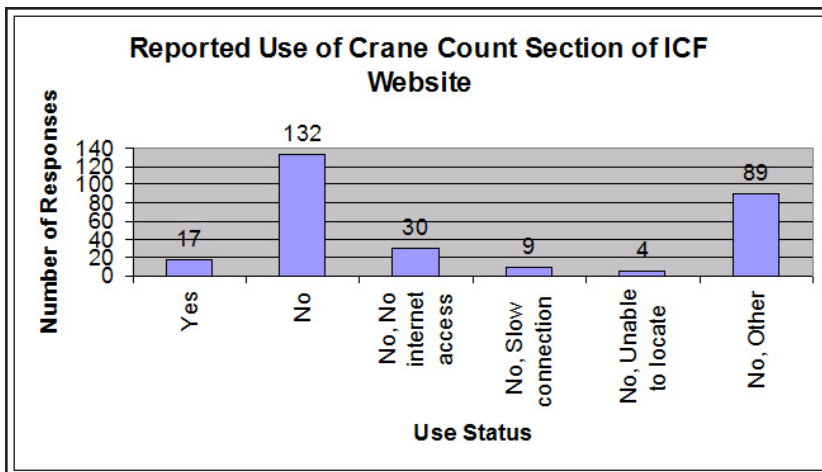
Materials Used:

- 91% report using the Data Sheet
- 70% report using Instructions in the Field
- 78% report using the Site-location Map
- 34% report using the Landowner Information Sheet
- 5% report using other Crane Count materials (taped calls, other maps, etc.)



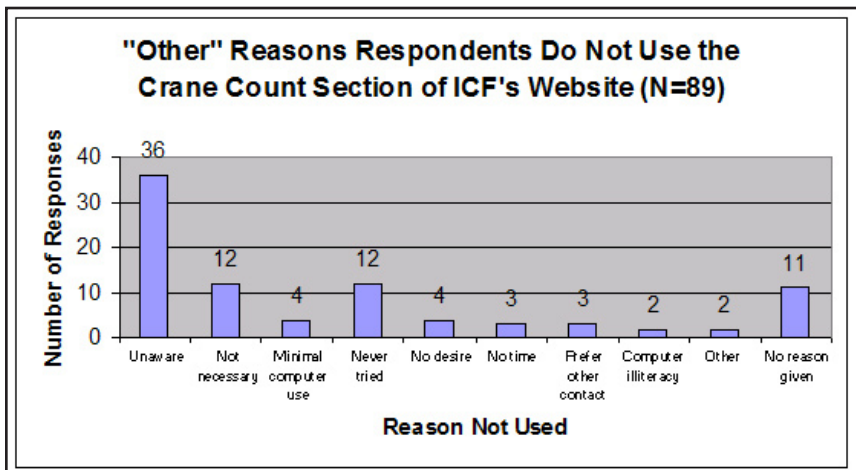
Status of Website Use by Participants:

- 11% of participants report making use of the Crane Count section of ICF's website
- 89% of participants report that they do not make use of the Crane Count section of ICF's website
- 20% of participants indicate they do not have internet access
- 6% of participants indicate their slow connection speed is unable to handle ICF's website
- 3% of participants indicate they are unable to locate the Crane Count section of ICF's website
- 60% of participants indicate other reasons for not using the Crane Count section of ICF's website (see following page)



**“Other” Reasons Participants Do Not Use the Crane Count Section of ICF’s Website:**

- 24% of participants indicate they were unaware of the Crane Count section of ICF’s website (this is 40% of those participants who don’t make use of the website)
- 8% of participants indicate they feel it is not necessary
- 3% of participants indicate a desire to minimize their computer use
- 8% of participants indicate they never tried
- 3% of participants indicate they have no desire to do so
- 2% of participants indicate they have no time
- 2% of participants indicate they prefer other contact
- 1% of participants indicate computer illiteracy
- 1% of participants indicate other reasons
- 7% of participants indicate no reason



**Reported Uses of the Crane Count Section of ICF’s Website:**

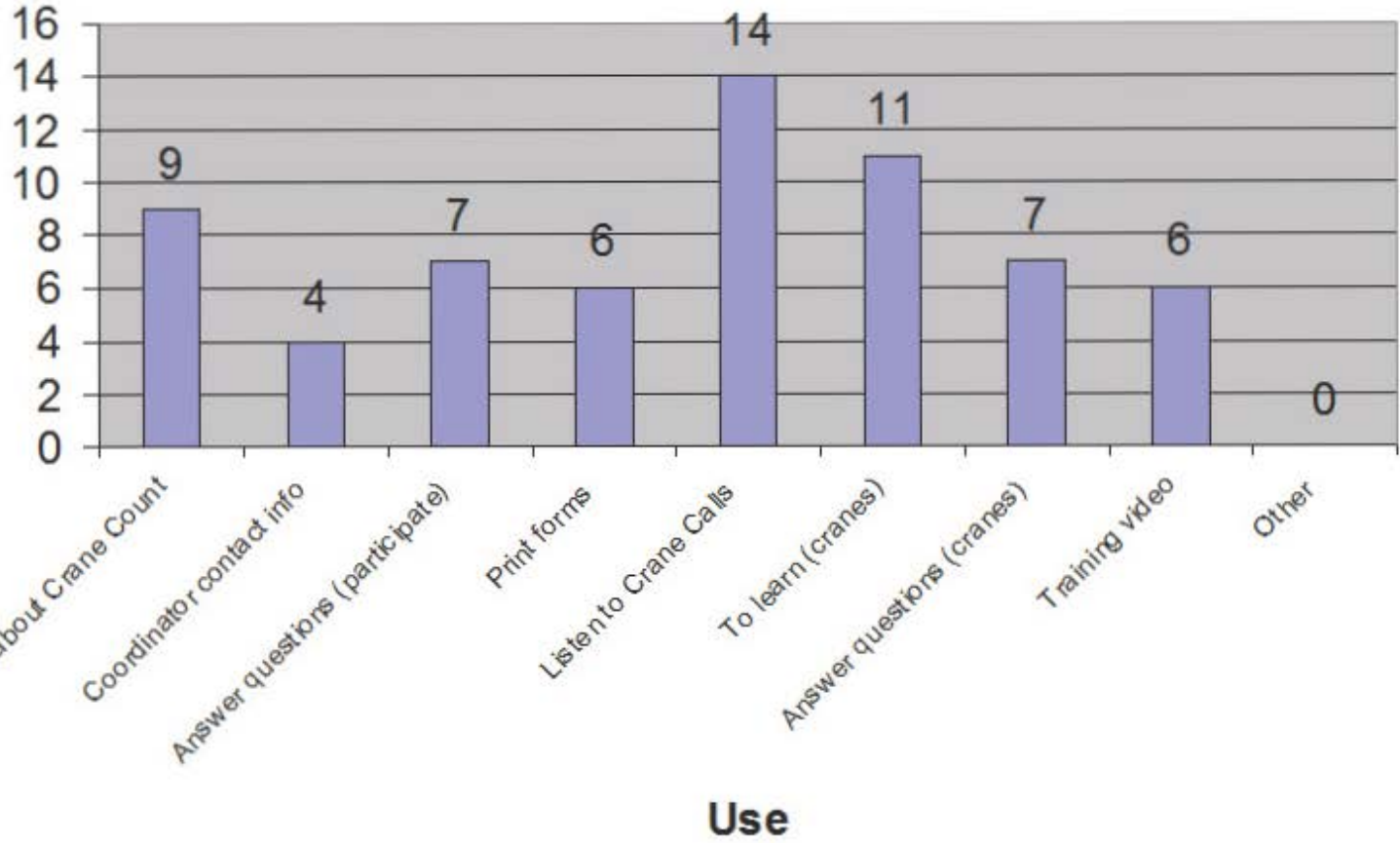
The 11% of participants who use the Crane Count section of ICF’s website report using it for the following purposes (see also display chart on the following page):

- 53% to learn more about Crane Count
- 24% to find out how to get in touch with their County Coordinator
- 41% to answer questions they have about participating
- 35% to print out Crane Count forms
- 82% to listen to crane calls
- 65% to learn more about cranes
- 41% to answer questions they have about cranes
- 35% to watch the Crane Count Training Video



### Reported Uses of Crane Count Section of Website

**Number of Responses**



# What



The Crane Count's mission, goals, and objectives define why we do the Crane Count.

What they do not do is tell us how we go about doing it, what we use to go about doing it, nor what the current status of the program and its materials are.

This section examines a number of these items in varying degrees of detail. It looks at what resources make up the primary components that are in place for the Crane Count, and associates them with specific program objectives.

It examines the current status of the Crane Count: how does it rate overall as a quality environmental education program? What are its strengths and weaknesses?

Likewise, what are the strengths and weaknesses of its materials from an environmental education standpoint?

What are our target audiences' perceptions of program resources, and how are they used?

What are the gaps – that is, what objectives are not being addressed by program resources?

What external opportunities exist for the Crane Count, and what potential threats exist to the program?

In the end, the Crane Count is about much more than just counting cranes. The infrastructure of program resources are what allows us to address the program's mission, goals, and objectives. Through its resources, the Crane Count consists of an interaction, dialogue, and communication between ICF, program participants, County Coordinators, and ultimately, society.

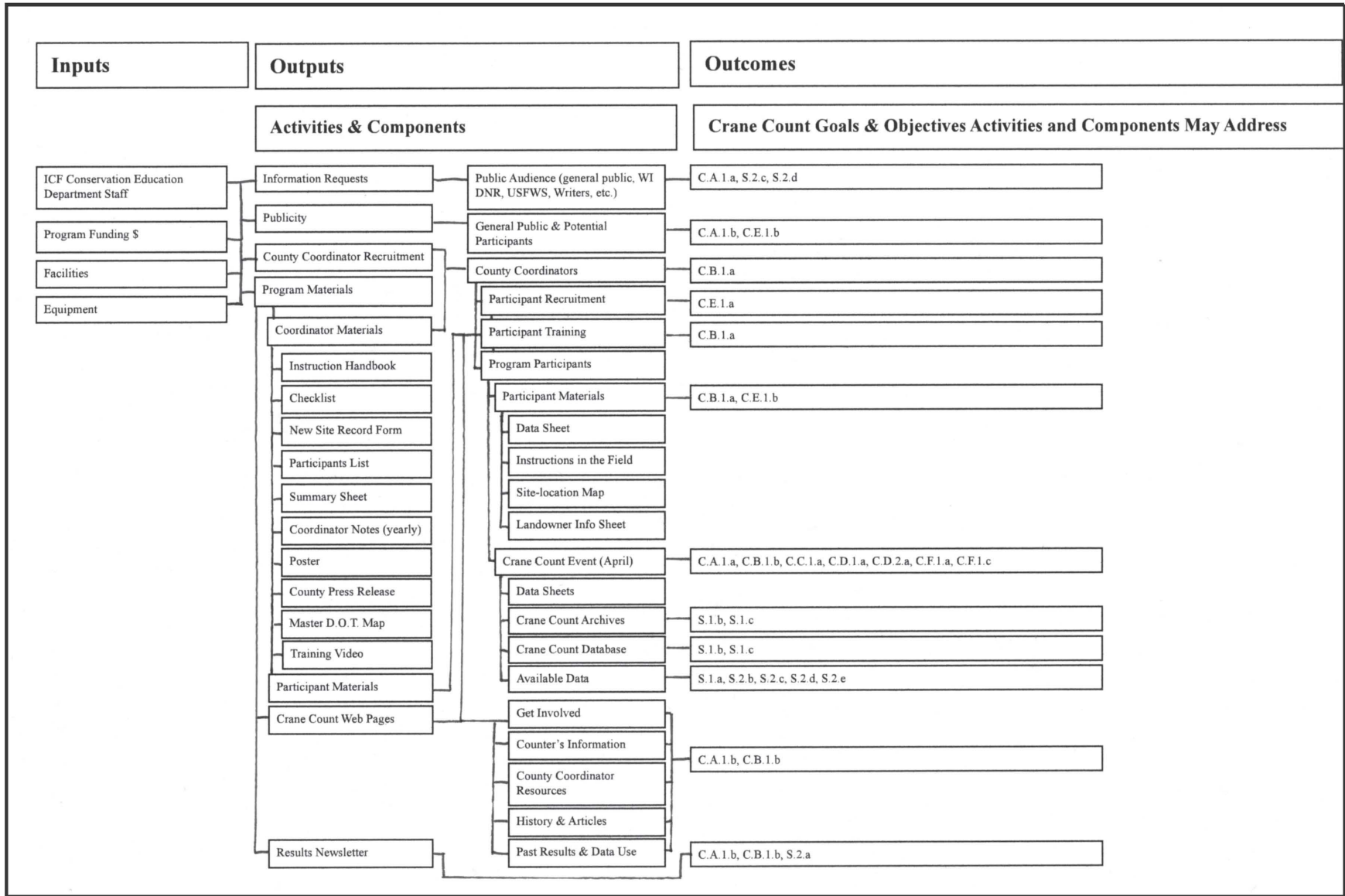
# Logic Model



A logic model is, at its simplest, a visual display of components that make up a program.

Such models provide a schematic displaying the relationship between program inputs (what goes into a program), outputs (the activities and components that the program consists of), and outcomes (the results).

The following logic model displays the major inputs, outputs, and outcomes for the Crane Count. Outcomes are displayed in terms of the Crane Count's objectives – the desired result would be accomplishment of these objectives.



# Current Program Status



How does the Crane Count rate as an environmental education program? To judge this, it is necessary to have a standard for measurement or comparison.

To this end, the Crane Count was evaluated using a scoring rubric based on the North American Association for Environmental Education's publication, *Nonformal environmental education programs: Guidelines for excellence* (NEEPGE). This publication was developed with the input of hundreds of environmental educators. Its purpose is to assist nonformal environmental educators "ensure a firm foundation for new programs, or to trigger improvements in existing ones. The overall goal of these guidelines is to facilitate a superior educational process leading to the environmental quality that people desire."

NEEPGE examines programs according to six key characteristics, which are broken down into more specific guidelines, and then into indicators. Through the rubric, the Crane Count was evaluated and scored for each indicator. These scores were summarized and compiled at the Key Characteristic Level as follows below. The percentages in parentheses reflect the status of the Crane Count without the Program Plan in place.

## Key Characteristics:

1. Needs Assessment - 35.33% (19.6%)
2. Organizational Needs and Capacities - 55.3% (52.7%)
3. Program Scope and Structure - 29.25% (4.25%)
4. Program Delivery Resources - 61% (61%)
5. Program Quality and Appropriateness - 27% (20.25%)
6. Evaluation - 3.67% (0%)

Through this evaluation, strengths and weaknesses of the Crane Count are documented at the "indicator" level from NEEPE in the following pages.

These scores are not absolute, and can change over time. Their most useful function is in pointing out current strengths of the Crane Count, while indicating areas that may need attention in the future.

Reference: North American Association for Environmental Education. (2004). *Nonformal environmental education programs: Guidelines for excellence*. Washington: North American Association for Environmental Education.

## S trengths

### Key Characteristic #1: Needs Assessment

*Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.*

- 1.1) Environmental issue or condition
  - A. Need partly identified — to monitor the abundance and distribution of cranes
  
- 1.2) Inventory of existing programs and materials
  - A. Crane Count does not duplicate existing efforts
  - B. Crane Count is complementary to other studies
  - C. Literature review/program review is part Program Plan development
  - D. Resources and strengths of the Crane Count have been inventoried during Program Plan development
  - E. Some gaps that might hinder successful continuing development of the Crane Count have been identified during Program Plan development.
  
- 1.3) Audience needs
  - A. Yearly County Coordinator Questionnaire captures some needs and interests of Coordinators, but in a limited fashion
  - B. Some needs of Coordinators and participants have been documented during the development of the Program Plan
  - C. Crane Count seeks to be inclusive and is sensitive to audience
  - D. Some provider and audience needs have been documented during the course of Program Plan development

### Key Characteristic #2: Organizational Needs and Capacities

*Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals.*

- 2.1) Consistent with organizational priorities
  - A. The Crane Count's goals and objectives are consistent with ICF's mission
  - B. Crane Count is integrated into ICF's budget
  
- 2.3) Organization's existing resources inventoried
  - A. ICF capacities and resources are currently adequate to generally support the Crane Count

Key Characteristic #3: Program Scope and Structure

*Nonformal environmental education programs should be designed with well-articulated goals and objectives that state how the program will contribute to the development of environmental literacy.*

3.1) Goals and objectives for the program

- A. The Crane Count's goals and objectives are related to environmental education, and correspondingly to environmental literacy and quality
- B. Crane Count goals and objectives articulate what the program is designed to accomplish. Goals and objectives are attainable and measurable
- C. Goals and objectives reflect the value of long-term commitment by ICF, in that they directly support ICF's mission
- D. Goals and objectives clearly relate to program materials, topics included, concepts, and questions considered.

3.3) Program format and delivery

- A. The format of the Crane Count appears largely appropriate for the accomplishment of its goals and objectives
- B. Program format and delivery are appropriate for meeting some needs of the Count's audience
- C. Program format is safe/comfortable — there is the option for people to opt out and make a willing choice
- D. Established goals and objectives help detail how the Crane Count fits into the scope of EE by addressing its goals

Key Characteristic #4: Program Delivery Resources

*Nonformal environmental education programs require careful planning to ensure that well-trained staff, facilities, and support materials are available to accomplish program goals and objectives.*

4.1) Assessment of resource needs

- A. Resources needed to implement the current program are identified

4.2) Quality instructional staff

- A. Background checks on staff are conducted at time of hiring
- B. ICF staff are competent, hence hired
- C. Safety is addressed in program materials
- D. Training exists for staff, Coordinators, and participants, but may not be adequate
- E. Professional development/enrichment exists to a certain extent for ICF staff, though this may not be directly related to the Crane Count
- F. Performance reviews exist for ICF staff

4.4) Provision of support materials

- A. Supplies for the Crane Count are available before needed
- B. Crane Count is a part of ICF's budget
- C. Relevant staff are familiar with Crane Count "equipment"

4.5) Emergency planning

- A. County Coordinators and participants are provided with program materials discussing activity, clothing, safety, etc.

*Key Characteristic #5: Program Quality and Appropriateness*

*Nonformal environmental education programs are built on a foundation of quality instructional materials and through planning.*

5.1) Quality instructional materials and techniques

- A. Some technology used in the Crane Count is appropriate and presumably effective
- B. Program materials are reviewed by organizational "experts" in the subject matter
- C. Goals and objectives of the Crane Count are tied to the goals of EE, and the program is therefore integrated into a continuum of EE

5.2) Field testing

- A. Materials are assembled and ready before needed, and reviewed

5.3) Promotion, marketing, and dissemination

- A. Participants probably know how to participate and where to get more information
- B. Crane Count generally does not conflict with other programs

5.4) Sustainability

- A. Goals and objectives for the Crane Count appear to be appropriate for the program cycle
- B. Crane Count materials and other resources from each year are archived at ICF
- C. Participant information is in archives and in the Crane Count database

*Key Characteristic #6: Evaluation*

*Nonformal environmental education programs define and measure results in order to improve current programs, ensure accountability, and maximize the effects of future efforts.*

6.3) Use of evaluation results

- A. Numbers served for the Crane Count is documented



## Weaknesses

### Key Characteristic #1: Needs Assessment

*Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.*

- 1.1) Environmental issue or condition
  - A. Educational need not explicitly identified
  - B. Stakeholder input not actively sought
  - C. Needs assessment not conducted (hence specific environmental condition or issues not identified)
  
- 1.2) Inventory of existing programs and materials
  - A. No survey of potential partners, community residents, etc. conducted
  - B. Resources/strengths of ICF not inventoried
  - C. Community strengths/resources have not been inventoried
  - D. ICF organizational strengths/resources that could contribute to Crane Count not specifically identified
  
- 1.3) Audience needs
  - A. Cultural perspective, needs, & interests of target audience not specifically identified
  - B. Yearly County Coordinator Questionnaire is limited in documenting the cultural perspectives, needs, and interests of Coordinators — this does not address participants
  - C. No specific assessment of participant/Coordinator understandings has been conducted, though limited self-reports were received through Questionnaires during Program Plan development
  - D. There has been no identification of appropriate educational methodologies for participants and Coordinators
  - E. Provider needs have not been fully documented
  - F. Audience needs not fully documented (hence interrelationship not examined)
  - G. ADA should be reviewed to determine its applicability to the Crane Count program

Key Characteristic #2: Organizational Needs and Capacities

*Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals.*

2.1) Consistent with organizational priorities

- A. The Crane Count needs to be further examined to determine if it is consistent with ICF's goals, objectives, long-range plan, and any other applicable mandates
- B. It is unknown if program staff/materials articulate the relationship between the program and ICF mission, etc.
- C. ICF communication strategies and priorities are unknown, and it is unknown if the Crane Count supports these
- D. Recommendations for the future of Crane Count need to be examined in the context of ICF's budget, and feasibility determined

2.2) Organization's need for the program identified

- A. The existence of an inventory of ICF programs and their interrelationship needs to be confirmed (may be a part of Strategic Planning)
- B. The Crane Count's role in ICF's overall program offerings needs to be specifically identified

2.3) Organization's existing resources inventoried

- A. ICF human & technical resources are increasingly challenged by data entry
- B. No specific consideration is given to long-term Crane Count resource needs
- C. Support of program by leadership, departments, and board unknown
- D. The degree to which staff/volunteers implementing the program support its development and implementation is unknown

Key Characteristic #3: Program Scope and Structure

*Nonformal environmental education programs should be designed with well-articulated goals and objectives that state how the program will contribute to the development of environmental literacy.*

3.1) Goals and objectives for the program

- A. Some, but not all, program materials explain the Crane Count's importance
- B. No evaluation criteria or indicators of success exist for the measurement of the Crane Count's goals and objectives

- 3.2) Fit with goals and objectives of environmental education
  - A. It is not established how Crane Count contributes to Environmental Literacy, though the goals and objectives are related to EE. This would need to be evaluated
  - B. It is not established how Crane Count contributes to responsible action — this would need to be evaluated
  - C. EEE Guidelines for learning criteria need to be reviewed in order to determine the Crane Count’s contribution to responsible action
  - D. It is unknown exactly how the Crane Count contributes to Environmental Education programs in the area, state, and region
  
- 3.3) Program format and delivery
  - A. Consideration should be given to the appropriate context for accomplishing the Count’s goals and objectives
  - B. Some needs of the Count’s audience have been documented through Program Plan development, however, not all are being met. Program improvements would help address these needs. Additional undocumented needs may exist, and need to be determined
  - C. There is no detailed consideration of learner readiness (or concepts and skills presented)
  - D. There are no evaluation strategies for the Crane Count
  
- 3.4) Partnerships and collaboration
  - A. There are no partners/collaborators identified for the Crane Count

*Key Characteristic #4: Program Delivery Resources*

*Nonformal environmental education programs require careful planning to ensure that well-trained staff, facilities, and support materials are available to accomplish program goals and objectives.*

- 4.1) Assessment of resource needs
  - A. Future resources needed for the Crane Count are unknown
  - B. Additional information on “client” resource needs is necessary
  
- 4.2) Quality instructional staff
  - A. No thorough background checks are done on County Coordinators — is this consistent with ICF volunteer policy?
  - B. Staff are not assessed according to NAAEE Guidelines for Educators
  - C. Volunteer competencies are not assessed
  - D. Training needs for staff, County Coordinators, and participant volunteers are not assessed
  - E. “Training” does not extend beyond the subject matter
  - F. Training exists for staff, Coordinators, and participants, but may not be adequate — it is not assessed

G. Professional development/enrichment does not exist for volunteers (Coordinators & participants), and for staff, it generally does not exist for the Crane Count

H. Performance review does not exist for the Crane Count's Coordinators or for participants

I. Performance reviews are not based on the goals and objectives of the Crane Count — staff performance review standards may need to be revised. A performance review system would need to be developed for program volunteers, based on goals and objectives

#### 4.3) Facilities management

A. Given the scope/scale/nature of Crane Count, facilities and grounds used for the Crane Count may not be able to meet the ADA

#### 4.4) Provision of support materials

A. Materials and equipment for the Crane Count are not "tested" under field conditions before use — they are implemented, and only then may be revised

### *Key Characteristic #5: Program Quality and Appropriateness*

*Nonformal environmental education programs are built on a foundation of quality instructional materials and through planning.*

#### 5.1) Quality instructional materials and techniques

A. Crane Count materials are not reviewed according to Guidelines for excellence, and if they include those quality characteristics

B. Program materials, instructional strategies, and materials are not reviewed to determine connections between environmental concerns and wider questions of social needs, welfare, and economic opportunity

C. Strategic planning — the Crane Count's program elements and materials need to be reviewed to determine if they are integrated with overall goals

D. Applicable regulations, standards, and safety guidelines are not assembled and checked against program elements and materials to determine compliance

E. Theory is not used in the development of Crane Count program materials and the mix of theories required as the audience ranges from pre-K through senior citizens

F. Program elements, instructional strategies, and materials need to be examined to see if they consider innovative or novel ways to achieve objectives

G. In the context of Crane Count, critical and creative thinking skills need to be defined and measured

H. Due to the varied audience, program materials may not be age,

audience, or content appropriate

I. Instructional methodologies are not based specifically (if at all) on respected, research-based practices

J. Methods do not specifically strive for multiple intelligences or learning styles

K. Lifelong learning strategies are not actively incorporated into the Crane Count

L. Crane Count is far behind in making use of existing technology to make the program efficient (if not also effective)

M. Follow up activities for the Crane Count do not take place

N. Materials are not reviewed by “experts” in education, environmental or otherwise

O. Materials are reviewed by participants and Coordinators through use, but not to determine whether they are pedagogically sound, value-fair, or scientifically accurate

#### 5.2) Field testing

A. Materials are not field tested — they are implemented and then may be revised

B. There is no evaluation plan or field testing for the Crane Count

C. Materials are not field tested before they are needed

#### 5.3) Promotion, marketing, and dissemination

A. Non-participants may not be aware of the program or where to find additional information

B. The publicity strategy for Crane Count at ICF is currently unknown

C. The Crane Count does not coordinate with other EE programs to maximize its effect and opportunity for integration

D. Photos, case studies, and other forms of documentation are not collected to facilitate marketing and sharing of information gained

#### 5.4) Sustainability

A. A long-term funding strategy specifically for the Crane Count does not exist, though the Count is part of ICF’s yearly budget

B. Alternative funding strategies for the Crane Count have not been discussed

C. No partnership or other “ownership” possibilities have been explored

D. No “strategy” for sustaining the program currently exists

Key Characteristic #6: Evaluation

*Nonformal environmental education programs define and measure results in order to improve current programs, ensure accountability, and maximize the effects of future efforts.*

6.1) Determination of evaluation strategies

- A. Goals have been established during Program Plan development, but not evaluation techniques or strategies
- B. Assessment techniques/tools are not built into the Crane Count
- C. There is no evaluation process — measurement of program outcomes/impacts does not take place
- D. Goals/objectives have been established, but outcomes and impacts have yet to be measured or evaluated
- E. Evaluation design and data analysis does not conform to accepted practices, as there is no evaluation design
- F. Impacts of the Crane Count are not monitored on an ongoing basis

6.2) Effective evaluation techniques and criteria

- A. Program evaluation (as there is none to speak of), does not determine the Crane Count's contribution to Environmental Literacy
- B. There is no evaluation to determine the degree to which stated goals, objectives, and learning outcomes are met
- C. There is no evaluation in place to determine the degree to which resources are used responsibly
- D. No needs assessment has been conducted, therefore the Crane Count cannot be evaluated on this basis
- E. Unanticipated outcomes of the Crane Count are not captured, as there is not an evaluation process

6.3) Use of evaluation results

- A. No intended uses for evaluation information are specified, as there is no evaluation information
- B. Without evaluation in place, evaluation results cannot be reviewed
- C. It is not currently possible to determine areas of strength, gaps, community impacts, or how to function more effectively, as there is not an established evaluation in place
- D. Non-existent evaluation results can't be used with planning groups
- E. Non-existent evaluation results can't be used with external groups
- F. Staff can't speak knowledgeably about non-existent results
- G. There is no sharing plan for the EE community
- H. Staff, instructor, & volunteer efficiency & effectiveness are not measured
- I. Overall program impact is not measured

# Current Materials Status



Crane Count materials, as a whole, were evaluated in the context provided by *Environmental Education Materials, Guidelines for Excellence (EEMGE)*, another publication of the North American Association for Environmental Education.

Materials are the primary method used to reach the Crane Count's primary audiences (Coordinators and participants). This evaluation points out a number of things relevant to the Crane Count's ability to address its goals and objectives through these materials.

The current materials are primarily limited in scope, and not very learning/application oriented in the context of issues-based environmental education. They serve important functions in supporting the accomplishment of several of the Crane Count's goals and objectives. For the most part, these consist of gathering data for a variety of uses, and a number of the lower-level Citizen-related items (i.e. awareness, knowledge, etc.). There is minimal emphasis on higher level objectives (i.e. action, decision-making).

The evaluation reveals that the Crane Count materials are, to an extent, rather piecemeal, with individual items remaining somewhat independent of one another. The mission, goals, and objectives of the Crane Count need to be both more fully and effectively addressed through the program materials. The importance of the program, key concepts, and connections amongst materials need to be emphasized, and demonstrate how they address the program objectives.

The EEMGE evaluation of program materials provides a framework outlining both the strengths and weaknesses of materials as they currently stand. This information can serve as a guide for both revision of current materials, and development of new materials in the future.

The materials were rated according to a relative scale from 1-5: 1= Indicators Not Met, 2= Indicators Poorly Met, 3= Indicators Moderately Met, 4= Indicators Mostly Met, and 5= Indicators Met.

1. Fairness and Accuracy, Rating: 3
2. Depth, Rating: 3
3. Emphasis on Skills Building, Rating: 1
4. Action Orientation, Rating: 1
5. Instructional Soundness, Rating: 2
6. Usability, Rating: 3

From this evaluation, what appears to be called for is an overall Crane Count curriculum, laying out a scope and sequence addressing the program's mission, goals, and objectives. The scope and sequence would demonstrate and indicate the program's components, and how each supports the mission, goals, and objectives of the Crane Count, and thereby ICF's overall mission.

Details follow for EEMGE's six key characteristics, detailing the current strengths and weaknesses of the Crane Count's materials as to whether or not they meet the "What to look for" indicators.

Reference: North American Association for Environmental Education. (2004). *Environmental education materials: Guidelines for excellence*. Washington: North American Association for Environmental Education.

1. Fairness and Accuracy, Rating: 3  
"EE materials should be fair and accurate in describing environmental problems, issues, and conditions, and in reflecting the diversity of perspectives on them."

Strengths in this Characteristic:

- Information in materials is largely provided in an educational manner, in appropriate language.
- Policies of ICF are clearly identified when presenting controversial issues (such as crane hunting).
- Presentations of positions on such issues are balanced, and multiple perspectives are mentioned.
- Materials generally communicate consensus (or its lack) amongst scientists and crane experts.
- The educational and program tools (materials) support learners in forming their own opinions.
- Although this occurs rarely (as it is largely not applicable to most of the program), learners are encouraged to explore personal and societal values when examining issues.
- Materials promote an atmosphere of respect for different opinions, and



an openness to new ideas.

- Although not a major emphasis, items such as the Crane Count Data Sheet do suggest that learners collect and analyze their own data, and draw their own conclusions (i.e. participation in eBird, involvement with a state-wide ornithological organization, other multi-species citizen science opportunities).

Weaknesses in this Characteristic:

- For the most part, Crane Count materials do not reference original sources of factual information (excluding Count data). It is therefore unknown if these sources are primary, secondary, or beyond.
- Original context, documentation, and explanation for facts is missing for most facts in the materials.
- Overall, a range of experts in appropriate fields have not reviewed or participated in the development of materials (though the Field Ecology Department and Crane Conservation Department are sometimes consulted).
- Experts in multicultural education and members of historically under-represented groups have not been involved in the materials development and review process.
- There is little or no documentation listing the people involved in materials review or development.
- Proponents of differing viewpoints do not review or help develop materials – all materials are ICF-produced and developed.
- There are few, if any, exercises that encourage learners to understand the opinions of their peers.
- Activities do not specifically encourage learners to become discerning readers and observers of media coverage of environmental matters.
- Readings and additional resources that present concepts and perspectives from different cultures are generally not offered within Crane Count materials.

2. Depth, Rating: 3

“EE materials should foster awareness of the natural and built environment, an understanding of environmental concepts, conditions, and issues, and an awareness of the feelings, values, attitudes, and perceptions at the heart of environmental issues, as appropriate for different developmental levels.”

Strengths in this Characteristic:

- Opportunities for learners to explore the world around them are provided (though not specifically based on developmental level).
- Activities provide opportunities for experiences that may increase learners’ awareness of natural and built environments.

- Facts and vocabulary words are presented and defined in context and support of important concepts.
- Ideas are presented logically and connected throughout materials.
- Though infrequent, environmental issues are explained in terms of specific concepts.
- Historical, ethical, cultural, geographic, economic, and sociopolitical relationships are addressed, as appropriate.
- Concepts are introduced through experiences relevant to learners' lives.
- Some materials consider communities of different scales: site, county, state, and region. National and global are not specifically included.

Weaknesses in this Characteristic:

- Few materials help learners understand the interdependence of all life forms.
- Most exercises and activities do not specifically encourage students to identify and express their own positions regarding environmental issues.
- Concepts from environmental science and social science fields are not specifically presented according to developmental levels.
- Materials do not include a clearly articulated conceptual framework that states the concepts to be learned and relates them to each other.
- Learners are not frequently offered opportunities to examine multiple perspectives on issues, or to gain understanding of the complexity of issues. When these opportunities do occur, they are not targeted at the audience's developmental levels.
- There are not further investigations to help learners probe more deeply into the ecological, social, and economic aspects of issues, and their interrelationships.
- Materials may help learners make connections among the concepts, but this is not an emphasis, nor is it measured.
- Learning is not specifically based on students constructing knowledge through research, discussion, and application to gain conceptual understanding.
- Materials do not specifically examine issues over a variety of temporal scales so that short-term and long-term problems, actions, and impacts are not clear.

3. *Emphasis on Skills Building, Rating: 1*

"EE materials should build lifelong skills that enable learners to address environmental issues."

Strengths in this Characteristic:

- Materials offer learners the opportunity to practice collecting and organizing information, but little else in the way of critical thinking

processes.

- When the crane hunting issue is presented in program materials, many of the indicators in this characteristic are met for that specific issue.
- Learners practice some interpersonal and communication skills.
- Learners are provided with the opportunity to develop some citizenship skills (as the Crane Count is a volunteer project, and participants actively contribute to it and ICF through their efforts).
- Materials and activities help students to sharpen field skills such as observation and data collection.
- Learners may use various forms of technology to help them develop and apply their skills – but not all learners do.

Weaknesses in this Characteristic:

- Materials offer learners little in the way of opportunities to practice critical thinking processes (problem definition, forming hypotheses, analyzing information, synthesizing, drawing conclusions, formulating possible solutions, and identifying opportunities for action).
- Materials generally do not provide learners with opportunities to practice creative thinking processes such as modeling, using metaphors and analogies, and formulating questions.
- Learners are not generally challenged to use higher level thinking processes such as identifying bias, inferring, relating, applying, and reflecting.
- Materials do not provide guidance for judging the validity of various sources of information, and therefore learners are not encouraged to apply these guidelines.
- Learners are not given opportunities to practice critical thinking skills individually or in groups (apart from collecting and organizing data about cranes).
- Materials generally do not help students learn to identify, define, and evaluate issues on the basis of evidence and different perspectives. Ethical and value considerations are not included. (The major exception to this is when the crane hunting issue is presented, in which case this indicator is met.)
- Materials generally do not provide a list of organizations and other resources that learners can use to explore the issue on their own, as appropriate for their developmental level. (The exception to this once again is crane hunting, when it is addressed, although developmental level is not a specific consideration.)
- There are not generally opportunities to use different methods of evaluating environmental issues and their potential solutions, appropriate for the intended age levels.
- Materials do not generally help learners understand the strengths,

weaknesses, and biases of different means of evaluating an issue. (Crane hunting excepted.)

- While learners may develop their own solutions to issues, this has not been measured or otherwise assessed, and remains unknown.
- Environmental issues are generally not presented with a range of possible solutions or information about how the problems are currently being addressed. Materials generally do not compel learners to consider the implications of different approaches. (Crane hunting excepted.)
- Materials generally do not give learners an opportunity to learn basic skills for addressing environmental issues.
- Learners do not necessarily hone their ability to forecast and plan for the long-term (this is not assessed).
- Materials generally do not facilitate student learning of basic skills of applied science, including evaluating others' research and setting up an independent research proposal (though they do participate in environmental monitoring).

#### 4. Action Orientation, Rating: 1

"EE materials should promote civic responsibility, encouraging learners to use their knowledge, personal skills, and assessments of environmental problems and issues as a basis for environmental problems solving and action."

##### Strengths in this Characteristic:

- Learners are encouraged to share and celebrate the results of their actions (more specifically the results of their Count experience) with peers and other interested people.

##### Weaknesses in this Characteristic:

- In general, materials do not promote intergenerational and global responsibility, linking historic and current actions with future and distant consequences (though this is dealt with in a limited degree).
- Learners are not provided with specific opportunities to reflection on the effects of their actions and to sort out their opinions about what, if anything, they should do differently.
- Materials do not contain examples of people of different ages, races, genders, cultures, and education and income levels who have made a difference by taking responsible action.
- Materials do not specifically convey the idea that many individual actions have cumulative effects, both in creating and addressing environmental issues.
- Materials generally do not challenge learners to apply their thinking and act on their conclusions (Crane hunting excepted).
- Materials do not include a variety of individual and community strategies

for citizen involvement and do not provide learners with opportunities to practice these strategies through projects they generate individually in their school or in the larger community.

- There are not examples of successful individual and collective actions.

5. Instructional Soundness, Rating: 2

“EE materials should rely on instructional techniques that create an effective learning environment.”

Strengths in this Characteristic:

- Activities may allow learners to build from previous knowledge and lead toward further learning.
- Learners (should – this is not measured) gain understanding through research, discussion, application, and practical experiences (i.e. participating in the Crane Count).
- Where appropriate (though rather limited in this respect), activities and projects use learner questions and concerns as a starting point. (This may take place before or after training, and Coordinators share some participant questions with ICF.)
- Some opportunities are provided for students to learn from experience (this varies, involving parents, families, friends, other community members, etc.) in learning activities.
- Case studies and examples are relevant to the learner (content and illustrations all appropriate for the Upper Midwest region).
- Students learn in a diverse environment which consists of various field settings (Crane Count sites).
- Materials use examples that reflect real-world experiences (related to cranes and counting).
- Materials not only suggest, but require experiential learning activities in which students immerse themselves in an activity outside of the classroom – the Crane Count itself.
- The materials may help develop skills useful in other subject areas, such as reading comprehension, math, writing, and map reading and analysis, but this is not measured.
- Goals and objectives for learner outcomes are clearly stated.
- Lesson-related activities can be accomplished in the time specified (two hours on Count day) with the provided resources.
- Environmental responsibility is modeled in the design, underlying philosophy, and suggested activities of the lessons and materials.
- Learner outcomes are tied to the goals and objectives of the materials.
- Expectations for the Crane Count are made clear to students at its onset.

#### Weaknesses in this Characteristic:

- Instruction does not necessarily assist learners in undertaking their own inquiry.
- Materials do not facilitate learner participation in planning and assessing learning, and do not promote learner reflection on the process and content of learning.
- Materials do not encourage educators to experiment with a range of instructional methods to reach learners with a variety of learning styles. This is challenging, as opportunities to use such methods are somewhat limited.
- Important concepts are not necessarily conveyed in several ways so that all students can understand them (major focus is on the written word, with some visuals, and a small amount of auditory).
- Materials, activities, and content are not specifically developmentally appropriate for any designated grade – for the most part “one size fits all,” and participants range from youth to senior citizens. Materials are not specifically sensitive to individual differences in educational experience and learning mode.
- Opportunities are not provided for students to learn from expression (using music, art, poetry, etc.).
- Diverse sensory involvement is not a criterion for selecting learning activities.
- Learners are not specifically challenged to develop their multiple intelligences.
- Learning is not accessible to students with limited English proficiency.
- Concepts to be taught are not related directly to students’ experiences.
- Instructional materials may not be easy for students to use and understand (based on CED experience in examining completed Data Sheets, as well as County Coordinator feedback).
- Materials do not reflect cultural, gender, and age differences.
- Materials generally do not provide for continuing involvement throughout the year by the learner, both at home and at school. Means for involving the learners’ families or care givers are not suggested.
- Materials do not suggest partnerships with local civic organizations, businesses, religious communities, or governments to explore a local issue. (Crane hunting excepted.)
- Except in a very few cases, there are not partnerships with local universities, colleges, or technical schools to allow learners to participate in research, environmental monitoring, creative projects, etc. (Exceptions are the few counties in which coordination is run through a university organization, such as The Wildlife Society at UWSP.)
- Materials generally do not suggest linkages to informal, experiential, and service learning opportunities in the community.
- Lists of written materials and other resources for further study are

generally not included (except in some Coordinator materials).

- Materials do not clearly list the subject disciplines integrated into each lesson or lessons, and do not suggest tie-ins with other subject areas.
- The content may not be appropriate for fully addressing the objectives. Steps for accomplishing the objectives are not identified in written lesson or activity plans.
- Activities are not necessarily relevant, accurate, predictable, and suitable for target grade levels (youth to senior citizens), as they are currently “one size fits all.” Materials in general do not include suggestions for appropriate variations and extensions.
- Activities may not be efficient. The amount of time required may not be consistent with the importance of what is to be learned. Evaluation/assessment of goals and objectives is necessary to determine this.
- Materials do not state expected learner outcomes and do not provide examples of how to use specific performance-based assessments to indicate mastery.
- Means of assessing learners’ baseline understandings, skills and concepts at the beginning of each lesson are not included.
- Materials do not use current and appropriate educational assessment techniques.
- There are no practical and efficient assessment techniques currently suggested.
- Assessment is not ongoing, and is not tied to student learning.
- Students do not assess their own or other students’ work.

#### 6. Usability, Rating: 3

“EE materials should be well designed and easy to use.”

Strengths in this Characteristic:

- Materials are clearly written. Examples in the text are appropriate to the content.
- Instructions for educators are clear and concise.
- The following information is included in a straightforward manner:
  - Intended audience/grade level (youth to senior citizens)
  - Process skills addressed (observing, documenting)
  - Equipment needed
  - Safety precautions
  - Time needed for activity
  - Brief overview of activity
  - Instructions for conducting activity
- Background information for the educator (Coordinators) is present, and there are listings of some additional resources.
- Materials are organized sequentially, but may not be easy-to-use.

- Field work is clearly linked to related content material.
- Some illustrations, photographs, maps, graphs, and charts are useful, clear, and easy to read.
- Most materials are easy for educators for keep and use.
- Masters for student handouts and overhead transparencies are easily duplicated (and also available online).
- Most materials are available in electronic format online.
- Materials include information on where replacements and updates can be obtained (primarily online or through ICF).
- Most equipment and materials are listed, reasonably accessible, inexpensive, and simple to use.
- Student materials are sufficiently supplied. Consumable instructional materials are of good quality and sufficient quantity to support the objectives (though not all objectives are fully supported at the current time).
- Nonconsumable materials can be reused by another educator (or the same one).
- Continuing technical support for educators (Coordinators) is available.
- Materials include lists of essential resource and supporting materials (ICF/Coordinator contacts, website, etc.).
- The program provides for constant, but very limited feedback throughout the year.
- Program materials could be (but are not currently) correlated with national, state, or local requirements or learning objectives.
- Materials could be readily integrated into established curricula.

Weaknesses in this Characteristic:

- Materials may not be engagingly written.
- The following information is not included in a straightforward manner, and may not be included at all:
  - Instructional setting and optimal number of learners
  - Disciplines and concepts covered
  - Intended learner outcomes
  - Suggestions for assessing the activity
  - Pre- and post-activities
- Background information for the educator (Coordinators) may not be adequate – goals, objectives, etc. are currently not included.
- The layout of materials may not be appealing for educators and learners.
- Some illustrations, photographs, maps, graphs, and charts are not useful, clear, and easy to read.
- Suggestions are not provided for adapting lessons and activities for learners from particular ethnic or cultural backgrounds.
- Materials are not available in more than one language.



- There are not suggestions for finding low-cost or no-cost alternatives for the equipment and materials needed.
- Materials do not provide suggestions for adaptations for students with special learning needs, language needs, and physical needs.
- Materials do not offer ideas for adapting to different grade levels.
- Professional development programs for the Crane Count are not accessible to educators (Coordinators) either in this area or in the Upper Midwest.
- Instructional programs do not provide follow-up activities or evaluations, and do not help develop a network of practitioners.
- Claims of learning outcomes are not substantiated by systematic evaluation rather than merely by letters of endorsement and anecdotal comments from users.
- Materials were not field tested under conditions similar to their intended use and evaluated in terms of stated goals and objectives prior to wide scale implementation.
- The program provides for constant, but very limited feedback throughout the year.
- Educators (Coordinators) who work in the settings in which the material is intended to be used did not participate on the development team or review drafts of the materials.
- Experts in learning theory, evaluation, and other appropriate educational disciplines were not involved on the development team and did not review drafts of materials.

# Resource Details



The Logic Model for the Crane Count provides a visual schematic of the program, and associates major program outputs with program objectives.

What follows here is a more detailed view of selected program outputs – specifically the major resources that the Crane Count uses as a means to interact and communicate with its primary target audiences.

These resources are grouped under the following four headings: Coordinator Materials, Participant Materials, Crane Count Web Pages, and Other.

Each resource is named, and then details are described. Details include the following for each resource as they are applicable:

- Category: Includes one or more of the following – Instructional, Reference, Form, Educational, Recruitment, Map, and Audio Visual.
- Purpose: A brief description of the resource.
- Goals and Objectives: Lists goals and objectives associated with the resource. In some cases specific goals and objectives are not associated with a resource, as the resource serves a supporting function – these are indicated with the word “Support.”
- Coordinator Use: Information gathered from Questionnaires sent to Coordinators, describing this audience’s use and perceptions of the indicated resource.
- Participant Use: Information gathered from Questionnaires sent to participants, describing this audience’s use and perceptions of the indicated resource.

It should be noted that not all resources include comments on all details. In some cases, the details are not applicable, and in others information on such details is not currently available. Coordinators also make use of some materials intended primarily for participants. When relevant, information from both audiences is included in the detailed descriptions.

The section dealing with the Crane Count Web Pages also differs slightly from this general format. Some information (such as Coordinator and Participant Use) is available for the web pages as a whole, but not on a finer scale for specific sections of those web pages. This is reflected in the presentation of details for the Crane Count Web Pages.

## C oordinator Materials

### County Coordinator Instruction Handbook

- Category: Instructional, Reference
- Purpose: The County Coordinator Instruction Handbook is a resource available to County Coordinators. It provides information on Coordinator responsibilities, participant recruitment, participant training, collection and compilation of results, and other information pertinent to facilitating the Count. For veteran Coordinators, the Handbook may serve primarily as a reference to be consulted as the need arises. For new Coordinators, the Handbook can serve as a guide to the process of coordinating.
- Goals and Objectives: Support
- Coordinator Use:
  - 88% (63/72 respondents) report making use of the County Coordinator Instruction Handbook
  - 57% of those using it rate it as "Very Useful," 35% as "Useful," and 8% as "Slightly Useful"

### County Coordinator Checklist

- Category: Reference
- Purpose: The County Coordinator Checklist is a brief one-page summary of responsibilities and timelines for participant recruitment, training, and the collection and compilation of results.
- Goals and Objectives: Support

### New Site Record Form

- Category: Form, Reference
- Purpose: The New Site Record Form is to be used when new Crane Count sites are created. The form details information such as the year in which the site is established, state, county, and specific location. Comments about the site and other pertinent information may be included with the Record. The Record is to be filed with the Data Sheets.
- Goals and Objectives: S.1.a
- Coordinator Use:
  - 72% (52/72 respondents) report using the New Site Record Form
  - 56% of those rate it as "Very Useful," 33% as "Useful," and 12% as "Slightly Useful"

## Participants List

- Category: Form, Reference

Purpose: The Purpose of the Participants List is to help Coordinators organize and keep track of participant contact information and specific sites counted. Space is provided for Count site numbers and participant contact information.

- Goals and Objectives: Support
- Coordinator Use:

-90% (65/72 respondents) report using the Participants List

\*75% of those rate it as "Very Useful," 23% as "Useful," and 2% use it but provided no rating

## Summary Sheet

- Category: Form, Reference

•Purpose: The Summary Sheet is intended to consolidate some of the key information from a given county after the Crane Count – especially site number, number of sandhill cranes reported at each site, and number of sandhill pairs reported at each site.

- Goals and Objectives: S.1.a
- Coordinator Use:

-92% (66/72 respondents) report using the Summary Sheet

\*70% of those rate it as "Very Useful," 27% as "Useful," 2% as "Slightly Useful," and 2% use it but provided no rating

## Coordinator Notes

- Category: Instructional, Reference, Educational

•Purpose: Coordinator Notes serve to provide a convenient means to update Coordinators with pertinent information, address possible Coordinator concerns, highlight selected "memories" from the past year's Coordinators, and answer Coordinator questions (often about cranes, crane ecology, crane hunting, coordination issues, etc.). Coordinator Notes are revised yearly and sent out to Coordinators with other program materials.

- Goals and Objectives: C.B.1.a, C.F.1.a
- Coordinator Use:

-72% (52/72 respondents) report using the Coordinator Notes

\*50% of those rate it as "Very Useful," 38% as "Useful," and 12% as "Slightly Useful"

### Crane Count Poster

- Category: Recruitment
- Purpose: The purpose of the Crane Count Poster is to serve as a tool to assist Coordinators in their recruitment efforts. Posters can be placed by Coordinators on a local level to help attract new participants, and increase awareness of the upcoming Count.
- Goals and Objectives: C.A.1.b, C.E.1.a
- Coordinator Use:
  - 35% (25/72 respondents) report making use of the County Press Release (46% of Coordinators (25/54) who actively seek new participants in their counties)

### County Press Release

- Category: Recruitment, Educational
- Purpose: The purpose of the County Press Release is to provide Coordinators with a tool relevant to their region that can assist their recruitment efforts. Basic information is provided, with blanks left for county-specific information. Press Releases can be distributed to local media by the Coordinators. Additionally, the Press Release serves to help increase awareness of Crane Count and cranes.
- Goals and Objectives: C.A.1.b, C.B.1.b, C.E.1.a, C.F.1.a
- Coordinator Use:
  - 66% (48/72 respondents) report making use of the County Press Release (88% of Coordinators (48/54) who actively seek new participants in their counties)

### Master D.O.T. Map

- Category: Map, Reference
- Purpose: The purpose of the Master D.O.T. Map is to document and display the locations, borders, and numbers of all sites in each participating county.
- Goals and Objectives: S.1.a, S.1.c

## Crane Count Training Video

- Category: Audio Visual, Instructional, Educational
- Purpose: The primary purpose of the Crane Count Training Video is to provide Coordinators with a tool to help train participants. Knowledge essential to participating in the Crane Count is covered in the video – how to fill out a data sheet, how to count cranes, document crane pairs, differentiate between crane calls, identify a unison call, differentiate cranes from similar looking birds, etc. In addition to the video’s primary training purpose, it also serves to increase participant awareness and knowledge of cranes and their habitats.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.F.1.a
- Coordinator Use:
  - 79% (57/72 respondents) report showing the video as part of training
  - 86% (62/72 respondents) report using the Training Video
    - \*77% of those rate it as “Very Useful,” 19% as “Useful,” and 3% as “Slightly Useful”
  - 17% (12/72 respondents) report using the website to show the Crane Count Training Video

## Participant Materials

### Data Sheet

- Category: Form, Educational
- Purpose: The Data Sheet is a dual-purpose item. It serves to document participant observations, with resulting tallies of sandhill crane tallies, and sandhill crane pairs. It may also serve to assist participants in documenting the sightings of any banded cranes (whether sandhill or whooping) that they may see during the Count. In addition, the Data Sheet serves an educational function – to help participants increase their awareness of cranes, their behavior, ecology, and habitats at the site level.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.E.1.b, C.F.1.a, S.1.a, S.1.c
- Coordinator Use:
  - 82% (59/72) report reviewing the Data Sheet as a part of training
  - 97% (70/72 respondents) report making use of the Data Sheet:
    - \*83% of those using it rate it as “Very Useful,” 14% as “Useful,” and 2% use it, but provided no rating
- Participant Use:
  - 91% (135/149 respondents) report using the Data Sheet
  - \*64% of those using it rate it as “Very Useful,” 30% as “Useful,” 1% as “Slightly Useful,” and 4% use it, but provided no rating

### Instructions in the Field

- Category: Instructional, Reference, Educational
- Purpose: The purpose of Instructions in the Field is to provide participants with a brief overview of essential requirements for participating in the Crane Count. Additionally, the Instructions cover identifying characteristics of sandhill and whooping cranes, with a small amount of ecological information to increase their awareness and knowledge levels.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.F.1.a
- Coordinator Use:
  - 76% (55/72 respondents) report reviewing instructions as a part of training
  - 93% (67/72 respondents) report making use of Instructions in the Field
    - \*75% of those using it rate it as “Very Useful,” and 25% as “Useful”
- Participant Use:
  - 70% (105/149 respondents) report using Instructions in the Field
  - \*46% of those using it rate it as “Very Useful,” 45% as “Useful,” 6% as “Slightly Useful,” and 4% use it, but provided no rating

## Site-location Map

- Category: Map, Reference
- Purpose: The purpose of the Site-location Map is to display the location of a participant's designated site, its identifying number, and boundaries.
- Goals and Objectives:
- Coordinator Use:
  - 96% (69/72 respondents) report making use of the Site-location Map
    - \*74% of those using it rate it as "Very Useful," 16% as "Useful," 9% as "Slightly Useful," and 1% use it, but provided no rating
- Participant Use:
  - 78% (116/149 respondents) report using the Site-location Map
    - \*50% of those using it rate it as "Very Useful," 44% as "Useful," 3% as "Slightly Useful," and 3% use it, but provided no rating

## Landowner Information Sheet

- Category: Educational
- Purpose: The purpose of the Landowner Information Sheet is to provide participants with a resource that can be distributed to private landowners who may have questions about the Crane Count. Through this Sheet, landowners' knowledge and awareness of cranes, wetlands, and the Crane Count may be increased.
- Goals and Objectives: C.A.1.a, C.F.1.a
- Coordinator Use:
  - 69% (50/72 respondents) report making use of the Landowner Information Sheet
    - \*34% of those using it rate it as "Very Useful," 34% as "Useful," and 32% as "Slightly Useful"
- Participant Use:
  - 34% (50/149 respondents) report using the Landowner Information Sheet
    - \*42% of those using it rate it as "Very Useful," 30% as "Useful," 26% as "Slightly Useful," and 2% use it, but provided no rating



## Crane Count Web Pages

### Web Pages as a Whole:

- Goals and Objectives: C.A.1.b, C.B.1.b, C.E.1.a, C.F.1.a
- Coordinator Use:
  - 54% (39/72 respondents) report informing participants of available Crane Count resources on ICF's website
  - 51% (37/72 respondents) report making use of the Crane Count section of ICF's website – referred to below as "web-users"
  - 8% (6/72 respondents) indicate they have no internet access
  - 10% (7/72 respondents) indicate their slow connection speed is unable to handle ICF's website
  - 4% (3/72 respondents) indicate they are unable to locate the Crane Count section of ICF's website
  - 24% indicate other reasons for not using the Crane Count section of ICF's website (41% of these indicate they have not thought of it, the remainder list other reasons such as no need, no time, etc.)
  - 33% of Coordinators (24/72 respondents) use it to learn more about the Crane Count program (65% of the web-users)
    - \*42% of those who use it for this purpose provide a rating of "Very Useful," 42% as "Useful," 8% as "Slightly Useful," and 8% indicated use, but provided no rating
  - 28% of Coordinators (20/72 respondents) use it to find out how to get in touch with other County Coordinators (54% of the web-users)
    - \*30% of those who use it for this purpose provide a rating of "Very Useful," 45% as "Useful," 20% as "Slightly Useful," and 5% indicated use, but provided no rating
  - 26% of Coordinators (19/72 respondents) use it to answer questions they have about Coordinating the Crane Count (51% of the web-users)
    - \*47% of those who use it for this purpose provide a rating of "Very Useful," 37% as "Useful," 5% as "Slightly Useful," and 11% indicated use, but provided no rating

-33% of Coordinators (24/72 respondents) use it to print out Crane Count forms (65% of the web-users)

\*79% of those who use it for this purpose provide a rating of "Very Useful," 17% as "Useful," and 4% as "Slightly Useful"

-31% of Coordinators (22/72 respondents) use it to listen to crane calls (59% of the web-users)

\*59% of those who use it for this purpose provide a rating of "Very Useful," 27% as "Useful," 5% as "Slightly Useful," and 9% indicated use, but provided no rating

-33% of Coordinators (24/72 respondents) use it to learn more about cranes (65% of the web-users)

\*63% of those who use it for this purpose provide a rating of "Very Useful," 29% as "Useful," and 8% indicated use, but provided no rating

-31% of Coordinators (22/72 respondents) use it to answer questions they have about cranes (59% of the web-users)

\*50% of those who use it for this purpose provide a rating of "Very Useful," 32% as "Useful," 14% as "Slightly Useful," and 5% indicated use, but provided no rating

-25% of Coordinators (18/72 respondents) use it to answer questions participants have about cranes (49% of the web-users)

\*67% of those who use it for this purpose provide a rating of "Very Useful," 28% as "Useful," and 6% as "Slightly Useful"

-17% of Coordinators (12/72 respondents) use it to show the Crane Count Training Video (32% of the web-users)

\*75% of those who use it for this purpose provide a rating of "Very Useful," 17% as "Useful," and 8% as "Slightly Useful"

•Participant Use:

-7% (10/149 respondents) report participating in "Virtual Training" for the Crane Count via ICF's website

-11% (17/149 respondents) report making use of the Crane Count section of ICF's website – referred to below as "web-users"

-20% (30/149 respondents) indicate they have no internet access

-6% (9/149 respondents) indicate their slow connection speed is unable to handle ICF's website

-3% (4/149 respondents) indicate they are unable to locate the Crane Count section of ICF's website

-60% (89/149 respondents) indicate other reasons for not using the Crane Count section of ICF's website

\*40% (36/89 respondents) indicate they were unaware of the Crane Count section of ICF's website

\*13% (12/89 respondents) indicate they feel it is unnecessary (or equivalent)

\*13% (12/89 respondents) indicate they have never tried it

\*12% (11/89 respondents) gave no reason

\*4% or less (4/89 respondents or less) indicated reasons such as each of the following: minimal computer use, no desire, no time, a preference for other methods, or computer illiteracy

-6% of participants (9/149 respondents) use it to learn more about the Crane Count program (53% of the web-users)

\*33% of those who use it for this purpose provide a rating of "Very Useful," and 66% as "Useful"

-3% of participants (4/149 respondents) use it to find out how to get in touch with County Coordinators (24% of the web-users)

\*0% of those who use it for this purpose provide a rating of "Very Useful," 25% as "Useful," and 75% as "Slightly Useful"

-5% of participants (7/149 respondents) use it to answer questions they have about participating in the Crane Count (41% of the web-users)

\*14% of those who use it for this purpose provide a rating of "Very Useful," 71% as "Useful," and 14% as "Slightly Useful"

-4% of participants (6/149 respondents) use it to print out Crane Count forms (35% of the web-users)

\*50% of those who use it for this purpose provide a rating of "Very Useful," 33% as "Useful," and 16% as "Slightly Useful"

-9% of participants (14/149 respondents) use it to listen to crane calls (82% of the web-users)

\*57% of those who use it for this purpose provide a rating of "Very Useful," and 43% as "Useful"

-7% of participants (11/149 respondents) use it to learn more about cranes (65% of the web-users)

\*55% of those who use it for this purpose provide a rating of "Very Useful," 36% as "Useful," and 9% as "Slightly Useful"

-5% of participants (7/149 respondents) use it to answer questions they have about cranes (41% of the web-users)

\*43% of those who use it for this purpose provide a rating of "Very Useful," and 57% as "Useful"

-4% of participants (6/149 respondents) use it to watch the Crane Count Training Video (35% of the web-users)

\*50% of those who use it for this purpose provide a rating of "Very Useful," and 50% as "Useful"

## Web Pages as Divided by Main Sections:

### Get Involved

- Category: Recruitment, Reference
- Purpose: The purpose of the Get Involved page is to direct potential participants to the necessary information they need in order to participate in the program.
- Goals and Objectives: C.E.1.a

### Counter's Information

- Category: Reference, Educational
- Purpose: The purpose of the Counter's Information page is to provide crane counters with a directory of information pertinent to participating, and with further information that may be of interest. This includes pdf handouts (Instructions in the Field, Data Sheet), links to Sandhill Crane Identification and Calls, Whooping Crane Identification and Calls, County Coordinator Contact Information (by state), County Meeting Information (by state), and an online version of the Crane Count Training Video. Additionally, there is a Frequently Asked Questions section dealing with some commonly asked questions about cranes.
- Goals and Objectives: C.B.1.a, C.E.1.a

### County Coordinator Resources

- Category: Reference, Educational
- Purpose: The purpose of the County Coordinator Resources section is to provide Coordinators with online access to updated versions of their primary resources. Most Coordinator and Participant Materials are available online here. In addition, there is a Frequently Asked Questions section that deals with Crane Count-Specific Questions, and Crane Behavior and Life Questions.
- Goals and Objectives: C.B.1.a

## History and Articles

- Category: Reference, Educational
- Purpose: The purpose of this section is to provide a brief overview of the Crane Count's history (currently 1976-2005), and links to articles related to the Crane Count. At present, the page is limited to history only, and no articles are available on the page.
- Goals and Objectives: Support

## Past Results and Data Use

- Category: Reference, Educational
- Purpose: The purpose of the Past Results and Data Use page is to provide access to past results, and information about how Crane Count data are or have been used. Current links include both the 2004 and 2005 Results Newsletter, and a Past Results Compilation. No information about how Crane Count data are or have been used is currently available on this page.
- Goals and Objectives: C.B.1.a, S.2.c

## Other

## Results Newsletter

- Category: Educational, Reference
- Purpose: The purpose of the Results Newsletter is to provide participants with the tally of sandhill cranes seen and heard on a regional, statewide, and county level (both total tally of sandhill cranes and number of sandhill crane pairs reported). The Results Newsletter is also intended (typically) to provide an article or articles of interest to Crane Counters for educational purposes, and to thank participants for counting.
- Goals and Objectives: C.A.1.a, C.A.1.b, C.B.1.a, C.E.1.b, C.F.1.b, S.2.a, S.2.c

# Gap Identification Summary



A mission, goals, and objectives for the Crane Count have been documented in this Program Plan. Program resources have been associated with the program's goals and objectives.

What is revealed are gaps – goals and objectives that are not associated with currently available resources (identification of these gaps does not measure or otherwise evaluate the degree of success for associated materials in meeting the objectives). For the purposes of gap identification, a “gap” is defined as any objective that is associated with two or less currently available resources.

Of the Crane Count's twenty specific objectives, a total of six are not classified as gaps. The remaining fourteen are. In summary, these are the program's specific objectives, their gap status, and number of times they are associated with resources:

C.A.1.a	Not a Gap (5)
C.A.1.b	Not a Gap (4)
C.B.1.a	Not a Gap (8)
C.B.1.b	Gap (2)
C.C.1.a	Gap (0)
C.D.1.a	Gap (0)
C.D.2.a	Gap (0)
C.E.1.a	Not a Gap (5)
C.E.1.b	Gap (2)
C.F.1.a	Not a Gap (7)
C.F.1.b	Gap (1)
C.F.1.c	Gap (0)
S.1.a	Not a Gap (4)
S.1.b	Gap (0)
S.1.c	Gap (2)
S.2.a	Gap (1)
S.2.b	Gap (0)
S.2.c	Gap (2)
S.2.d	Gap (0)
S.2.e	Gap (0)

The following pages document the Crane Count's objectives, and list what, if any, program materials they are currently associated with.

## Objectives Currently Addressed with Associated Materials:

C.A.1.a: Public awareness of cranes, wetlands, and other wildlife will be increased through citizen participation in the Crane Count.

•Associated Materials: Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Results Newsletter

C.A.1.b: Public awareness of cranes, wetlands, and other wildlife will be increased through publicity, ICF's website, and published research.

•Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Results Newsletter

C.B.1.a: Participant knowledge about cranes and the ecosystems on which they depend will be increased through program materials and participation in the Crane Count.

•Associated Materials: Coordinator Notes, Crane Count Training Video, Data Sheet, Instructions in the Field, Counter's Information (specific web page), County Coordinator Resources (specific web page), Past Results and Data Use (specific web page), Results Newsletter

C.E.1.a: ICF will recruit citizens from youth to seniors to participate in the Crane Count.

•Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Get Involved (specific web page), Counter's Information (specific web page)

C.F.1.a: The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend.

•Associated Materials: Coordinator Notes, County Press Release, Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Crane Count Web Pages

S.1.a: The Crane Count will gather information on cranes in the abundance and distribution of cranes in the Upper Midwest.

•Associated Materials: New Site Record Form, Summary Sheet, Master D.O.T. Map, Data Sheet

## Objectives Not Currently Addressed (identified gaps):

C.B.1.b: Citizen knowledge about cranes and the ecosystems on which they depend will be increased through publicity, ICF's website, and published research.

- Associated Materials: County Press Release, Crane Count Web Pages

C.C.1.a: Citizens will have the opportunity to participate in the Crane Count to gain experience studying cranes and the ecosystems on which they depend.

C.D.1.a: Positive attitudes towards cranes and wetlands will increase through citizen participation in the Crane Count.

C.D.2.a: After participating in the Crane Count, citizens will take well-informed, independent action towards conservation and environmental protection.

C.E.1.b: ICF will make people aware of other opportunities for involvement through program materials.

- Associated Materials: Data Sheet, Results Newsletter

C.F.1.b: The Crane Count will support citizen skills and decision-making, and suggest how citizens can get involved in conservation issues.

- Associated Materials: Results Newsletter

C.F.1.c: The Crane Count will allow citizens to develop skills and provide an opportunity for participation that can later transfer to other action outside of the Crane Count.

S.1.b: ICF will retain records gathered through the Crane Count, and maintain a long-term database.

S.1.c: The Crane Count will gather information on crane habitat and habitat use.

- Associated Materials: Master D.O.T. Map, Data Sheet

S.2.a: ICF will provide summaries of data gathered yearly to all program participants.

- Associated Materials: Results Newsletter

S.2.b: ICF will use Crane Count data for a variety of research and analysis purposes.



S.2.c: Crane Count data will be available to not only ICF staff, but organizations, government agencies, and citizens as an information source. Associated Materials: Past Results and Data Use (specific web page), Results Newsletter

S.2.d: Crane Count data will be used to complement other ICF studies, as well as other researchers' studies.

S.2.e: Data will be used to evaluate crane population and habitat status, and for long-term monitoring of cranes and their habitats.

# Opportunities



Throughout the process of examining the Crane Count and its resources from a variety of perspectives, several opportunities have been identified external to the program. By no means is the list complete, however it identifies several possibilities to be examined in the context of overall priorities for ICF, the CED, and the Crane Count program itself.

1. Exploring partnership(s) with other citizen science programs (such as Cornell Lab of Ornithology, National Audubon, Journey North, Wisconsin Nature Mapping, etc.). Such programs may have valuable insights, expertise, resources, etc. that are not currently available or feasible for the Crane Count.
2. Making more effective and complete use of available and advancing technologies (online data entry, mapping programs, etc.).
3. Further incorporation of Environmental Education resources and research into the Crane Count.
4. Seeking expertise outside of ICF for continuing development and refinement of the Crane Count.
5. Seeking additional funding resources outside of ICF for continuing development and refinement of the Crane Count.
6. Targeting and involving school classrooms in the Crane Count.

# Threats



As with external opportunities, a variety of potential threats to the Crane Count have been identified. Once again, the list is not complete, however it does point out several items that warrant further attention as the future of the Crane Count is considered.

1. The primary demographic of participants consists of a middle-aged and older audience. While not an immediate threat, this raises concerns for the Crane Count's ability to maintain adequate participants in future years due to volunteer depreciation.
2. The cost of maintaining the Crane Count in its current form, and/or developing new initiatives may interfere with the program's ability to effectively address its mission, goals, and objectives.
3. Advancing technology threatens the Crane Count, making many of the techniques currently used in the program inefficient, if not obsolete. This has repercussions for CED staff, County Coordinators, and the ability of the program to effectively address its mission, goals, and objectives.
4. "Competing" citizen science programs have taken advantage of advancing technologies, and may draw Coordinators and participants away from the Crane Count due to its relative level of reliance on paper forms and redundant paperwork.
5. The Crane Count's degree of success in meeting its mission, goals, and objectives is unknown, and therefore it is unknown how effectively the program works to support ICF's mission.

# Recommendations



The Crane Count of 1976 is not the same as the Crane Count of 2006. The program has grown from a one county effort thirty years ago, to a five-state, 100 county plus effort today. Significant advances and changes have occurred in that time, and needed that time to occur. It didn't happen all at once.

This Program Plan further builds the foundation of the Crane Count, using its past to help determine where it should go in the future.

The following recommendations are intended to help the Crane Count most effectively progress into the future. As with the program's past, such progression can't happen all at once. The Program Plan as a whole, and these recommendations, lay out a path to reach the future.

With a mission, goals, and objectives established, the Crane Count should be better able to accomplish what it sets out to do, and support ICF's mission.

To do this, a further commitment to the Crane Count is necessary, with an action plan in place to guide the continuing process. Following the recommendations, which are steps to be addressed in the process, is a Suggested Action Approach to facilitate the establishment of an action plan.

## General Recommendations

In general, to make the Crane Count more successful than it already is, is a more thorough, comprehensive, and planned approach to the continued implementation of the Crane Count is recommended.

### NEEPGE:

The evaluation of the Crane Count's current status with the NEEPGE rubric revealed not only strengths of the program as it currently stands, but a variety of weaknesses.

The Crane Count rated as follows in the NEEPGE's Key Characteristics, with 100% being the highest possible rating:

1. Needs Assessment - 35.33%
2. Organizational Needs and Capacities - 55.3%
3. Program Scope and Structure - 29.25%
4. Program Delivery Resources - 61%
5. Program Quality and Appropriateness - 27%
6. Evaluation - 3.67%

It is recommended that the Crane Count continue to maintain and support its current strengths, while efforts be undertaken to address its weaknesses. NEEPGE and the NEEPGE rubric will serve as useful guides in undertaking this process.

For instance, "Evaluation" is the Crane Count's weakest rating amongst the Key Characteristics. According to the criteria laid out by NEEPGE, efforts to integrate an evaluation plan into the Crane Count should be instituted. This will not only add to the program's status as a quality environmental education program, it will allow ICF to determine the degree to which the program is accomplishing its mission, goals, and objectives.

## EEMGE:

The status of the Crane Count's current resources was evaluated according to the Key Characteristics described in EEMGE. Once again, this points out a variety of strengths and weaknesses.

The Crane Count's resources rated as follows in EEMGE's Key Characteristics, according to the following scale: 1 = Indicators Not Met, 2 = Indicators Poorly Met, 3 = Indicators Moderately Met, 4 = Indicators Mostly Met, and 5 = Indicators Met.

1. Fairness and Accuracy, Rating: 3
2. Depth, Rating: 3
3. Emphasis on Skills Building, Rating: 1
4. Action Orientation, Rating: 1
5. Instructional Soundness, Rating: 2
6. Usability, Rating: 3

It is recommended that the Crane Count maintain its current strengths in using these resources, while working to improve them by addressing the weaknesses that EEMGE revealed.

An overall Crane Count curriculum, laying out a scope and sequence addressing the program's mission, goals, and objectives would be particularly suited for this task. The scope and sequence would demonstrate and indicate the programs components, and how each supports the mission, goals, and objectives of the Crane Count, and thereby ICF's overall mission. Use of EEMGE's content will foster inclusion of characteristics of high quality environmental education materials.

The identified gaps in the Crane Count set the framework for materials that should be created, and current materials that could be revised.

## Resource Recommendations:

A variety of other citizen science programs exist, several of which focus on birds. Although they all differ from the Crane Count, there are a number of commonalities between the programs, and therefore, a potential similarity in some of their goals and approaches. Three programs, National Audubon's Christmas Bird Count (CBC), the Cornell Lab of Ornithology's Project FeederWatch (FW) and the whooping crane portion of Journey North (JN), were reviewed to examine their online approaches to citizen science.

These reviews identified resource approaches that could be adapted or developed for the Crane Count. In some cases, the Crane Count already has the beginnings of similar resources, in which case modifications could be made to help make them more effective in addressing the program's objectives.

Below, these resource approaches from each program have been identified, their sources listed (where they can be found online), and a short description written. Each approach was evaluated in the context of the Crane Count: if something like this were fully developed for the Crane Count, what program goals and objectives could potentially be address? Accordingly, these goals and objectives are listed with each approach, together with a score. The score is simply a county of the number of objectives that could potentially be addressed.

It is recommended that these approaches be taken advantage of, and similar resources be adopted for the Crane Count. To this end, the approaches are prioritized: High Priority at 8-13 objectives, Moderate Priority at 5-7, and Low Priority at 0-4.

### High Priority:

Original Resource Name: CBC "Historical Results" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/hr/index.html>
- Description: Allows visitors access to historic CBC data in a variety of formats. From this page: "You can make maps of bird distribution, construct graphs of species trends over time, or see the raw count data. See what's happened on your count over time; look up your favorite species; many more discoveries await!"
- Crane Count Objectives: C.B.1.b, C.D.1.a, C.D.2.a, C.F.1.b, C.F.1.c, S.1.b, S.2.a, S.2.c, S.2.d, C.A.1.b, C.B.1.a, C.F.1.a, S.1.a
- Priority Score: 13

Original Resource Name: "Explore Data" link

- Program Reference: FW
- Source: <http://watch.birds.cornell.edu/PFW/ExploreData>
- Description: Allows website visitor to view FW data summaries in a variety of formats (personal summaries, rare birds, trend graphs, etc.)
- Crane Count Objectives: C.B.1.b, C.D.2.a, C.F.1.b, C.F.1.c, S.1.b, S.2.a, S.2.c, S.2.d, C.A.1.b, C.B.1.a, C.F.1.a, S.1.a
- Priority Score: 12

Original Resource Name: CBC "Current Year's Results" link

- Program Reference: CBC
- Source: [http://cbc.audubon.org/cbccurrent/current\\_table.html](http://cbc.audubon.org/cbccurrent/current_table.html)
- Description: Allows website visitor to search out a current year's count results, and creates a table of the available information. Visitors can also search out results for a specific species.
- Crane Count Objectives: C.B.1.b, C.D.2.a, C.F.1.b, C.F.1.c, S.1.b, S.2.a, S.2.c, S.2.d, C.A.1.b, C.B.1.a, C.F.1.a, S.1.a
- Priority Score: 12

Original Resource Name: JN "How You Can Help Whooping Cranes" link

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/tm/crane/Help.html>
- Description: Provides a list of ways that children (or other people) can help whooping crane recovery efforts.
- Crane Count Objectives: C.D.1.a, C.D.2.a, C.E.1.b, C.F.1.b, C.F.1.c, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 8

Original Resource Name: CBC "Bibliography" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/biblio.html>
- Description: A fairly extensive bibliography of articles based on CBC data. Organizes articles by general topic, provides citation information, and thereby illustrates some of the uses to which CBC data have been put.
- Crane Count Objectives: C.B.1.b, C.D.1.a, C.D.2.a, C.F.1.b, S.2.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 8



Original Resource Name: CBC "History and Objectives" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/history.html>
- Description: Provides a brief history of the CBC, as well as a brief discussion of what the CBC accomplishes, some of its benefits, and examples of what it is used for.
- Crane Count Objectives: C.B.1.b, C.D.1.a, C.F.1.b, S.2.b, C.A.1.b, C.B.1.a, C.E.1.a, C.F.1.a,
- Priority Score: 8

Original Resource Name: "About Citizen Science" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/citizen/index.html>
- Description: Takes visitor to a page describing some benefits of citizen science. Includes links to Audubon's current citizen science programs, as well as several for citizen science programs of some of their partner organizations.
- Crane Count Objectives: C.C.1.a, C.D.1.a, C.D.2.a, C.E.1.b, C.F.1.b, C.A.1.b, C.E.1.a, C.F.1.a,
- Priority Score: 8

Original Resource Name: Christmas Bird Count Home Page

- Program Reference: Christmas Bird Count (CBC)
- Source: <http://www.audubon.org/bird/cbc/>
- Description: Portal to the online portion of the Christmas Bird Count (CBC). Introduces the current status of the CBC, and invites website visitors to make use of available resources. Includes direct links to key portions of online site, and links to other citizen science programs sponsored by Audubon.
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.E.1.b, C.F.1.b, C.F.1.c, C.A.1.b, C.E.1.a, C.F.1.a,
- Priority Score: 8

Moderate Priority:

Original Resource Name: Project FeederWatch Home Page

- Program Reference: FW
- Source: <http://www.birds.cornell.edu/pfw/>
- Description: Introduces and briefly describes the FeederWatch program, and provides a variety of links about the program, how to get involved, and other items of potential interest to participants or website visitors. Project updates are provided on this page, as well as selected features (rare birds, bird flu, photos, feeder cam, etc.)
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.F.1.b, C.A.1.b, C.B.1.a, C.E.1.a, C.F.1.a,
- Priority Score: 7

Original Resource Name: "Featured FeederWatcher" link

- Program Reference: FW
- Source: <http://www.birds.cornell.edu/pfw/Members/FeaturedFeederWatcher/FeaturedFWerIndex.htm>
- Description: A few FW participants have been selected and featured. Details include a brief biography related to birds and the program, and selected details and photos of what individuals and their sites have learned or experienced through the FW program.
- Crane Count Objectives: C.B.1.b, C.D.1.a, C.F.1.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: "About Birds and Birdfeeding" link

- Program Reference: FW
- Source: [http://www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds\\_index.html](http://www.birds.cornell.edu/pfw/AboutBirdsandFeeding/abtbirds_index.html)
- Description: A variety of links to various topics associated with birds and birdfeeding. Appears to be a good informational resource for program participants.
- Crane Count Objectives: C.B.1.b, C.D.2.a, C.F.1.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: "News" link

- Program Reference: FW
- Source: [http://www.birds.cornell.edu/pfw/News/news\\_index.html](http://www.birds.cornell.edu/pfw/News/news_index.html)
- Description: Provides links to a variety of featured stories and scientific articles related to FW.
- Crane Count Objectives: C.B.1.b, C.F.1.b, S.2.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: JN "Whooping Crane Lessons, Activities and Information" link

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/tm/crane/Resources.html>
- Description: Provides links to the basic "Getting Started" page mentioned above, as well as an extensive variety of lessons for spring and fall, and other supplementary lessons centered on whooping cranes.
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.F.1.c, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: JN "Whooping Crane" main page

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/crane/index.html>
- Description: Serves as the primary menu for the JN whooping crane project/program, with a variety of links. JN works with citizen science focused on migration and seasonal change, primarily by involving students (k-12) in studying these topics. The "Migration News" link is updated periodically as appropriate for the selected time period -- fall or spring.
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.A.1.b, C.B.1.a, C.E.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: CBC "FAQ" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/FAQ.html>
- Description: Lists and briefly answers 7 commonly asked questions about the CBC. Includes items such as what it is, why it is useful, how to get involved, and fee information.
- Crane Count Objectives: C.C.1.a, C.D.1.a, S.2.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 6

Original Resource Name: "About FeederWatch" link

- Program Reference: FW
- Source: [http://www.birds.cornell.edu/pfw/Overview/over\\_index.html](http://www.birds.cornell.edu/pfw/Overview/over_index.html)
- Description: Takes visitor to a page that asks a variety of basic questions about FeederWatch (i.e. what is it? What do data tell us? Etc.) Clicking on the questions quickly takes visitors to their answers.
- Crane Count Objectives: C.B.1.b S.2.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 5

Low Priority:

Original Resource Name: JN "Ask the expert" link

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/tm/crane/Ask.html>
- Description: An activity designed to encourage youth to ask questions of the "experts" that they are unable to answer themselves. Includes background on meeting the expert, preparing questions, submitting questions, and answers as well. Previous answers are included in the whooping crane FAQ page.
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 5

Original Resource Name: JN "For Kids" link

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/tm/crane/jr/JnKidsOverview.html>
- Description: A variety of photos, videos, and booklets on whooping cranes centered towards youth can be accessed here.
- Crane Count Objectives: C.B.1.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 4

Original Resource Name: JN "Facts about Whooping Cranes" link

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/search/Crane.html>
- Description: Links to a page that lists a variety of questions about whooping cranes (characteristics, life cycle, ecology, and conservation). Clicking on the questions leads to answers.
- Crane Count Objectives: C.B.1.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 4

Original Resource Name: JN "Getting Started" link for whooping cranes

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/tm/crane/AboutSpring.html>
- Description: Provides background on the western and eastern flocks of whooping cranes. Provides primary links for background knowledge and basic activities including: meet two flocks (western & eastern), Follow Migration Reports (updated throughout the season as the program progresses), Track the Migration (mapping and activities), Investigate Crane Survival lesson, Learn About Radio Tracking Cranes, a Review of Crane Reintroduction, and Look at Reintroduction History.
- Crane Count Objectives: C.B.1.b, C.A.1.b, C.B.1.a, C.F.1.a,
- Priority Score: 4

Original Resource Name: "Participants corner" link

- Program Reference: FW
- Source: [http://www.birds.cornell.edu/pfw/Members/members\\_index.html](http://www.birds.cornell.edu/pfw/Members/members_index.html)
- Description: Has links to a variety of things that may be of interest to FW participants. Many of them appear somewhat "fun" such as photo galleries, FW participant stories, etc. This area appears to highlight and build upon enthusiasm expressed by participants, and may be one form of recognition for their work.
- Crane Count Objectives: C.D.1.a, C.D.2.a, C.F.1.b,
- Priority Score: 3

Original Resource Name: "Instructions" link

- Program Reference: FW
- Source: [http://www.birds.cornell.edu/pfw/InstruxandUpdates/inst\\_index.html](http://www.birds.cornell.edu/pfw/InstruxandUpdates/inst_index.html)
- Description: Basic instructions on "how to" participate in FW. Step by step. Includes instructions on submitting data via paper forms or through an online process.
- Crane Count Objectives: C.C.1.a, C.F.1.c, C.B.1.a,
- Priority Score: 3

Original Resource Name: Journey North Home Page

- Program Reference: JN
- Source: <http://www.learner.org/jnorth/index.html>
- Description: Home page for Journey North, with a brief description of what it is, and links to its various projects.
- Crane Count Objectives: C.C.1.a, C.E.1.a, C.F.1.a,
- Priority Score: 3

Original Resource Name: CBC "Data Entry/Review" link

- Program Reference: CBC
- Source: <http://cbc.audubon.org/apportal/>
- Description: Gives registered users/participants access through a login and password, presumably to enter and submit their CBC data or to review it. Actual review of this section is not possible due to registration restrictions.
- Crane Count Objectives: C.B.1.b, C.C.1.a, C.B.1.a,
- Priority Score: 3

Original Resource Name: CBC "Compiler's Page" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/compiler.html>
- Description: Provides resources for CBC compilers (the equivalent of Crane Count's County Coordinators). Includes text on the web itself, as well as pdf files. Resources include: important information, current timeline, compiler's manual, data entry manual, compiler's packet online (a variety of forms that compilers may need), fee policy, editorial codes, and new count application information.
- Crane Count Objectives: C.C.1.a, C.E.1.a,
- Priority Score: 2

Original Resource Name: CBC "Get Involved" link

- Program Reference: CBC
- Source: <http://www.audubon.org/bird/cbc/getinvolved.html>
- Description: Describes current status of the CBC program for those wishing to get involved.
- Crane Count Objectives: C.C.1.a, C.E.1.a,
- Priority Score: 2

Original Resource Name: "Featured Photos" link

- Program Reference: FW
- Source: <http://www.birds.cornell.edu/pfw/Members/FeaturedPhotos/FeaturedPhotoIndex.htm>
- Description: Features and displays a few photos submitted by FW participants. Also includes a link to a gallery of previously submitted and featured photos.
- Crane Count Objectives: C.D.1.a,
- Priority Score: 1

Original Resource Name: "Data Entry" link

- Program Reference: FW
- Source: <http://watch.birds.cornell.edu/PFW/CheckUserLogin>
- Description: Takes visitor to a logon/password page before data can be entered.
- Crane Count Objectives: C.C.1.a,
- Priority Score: 1

Original Resource Name: CBC Survey

- Program Reference: CBC
- Source: [http://www.audubon.org/bird/cbc/pdf/CBC\\_Survey\\_2005.pdf](http://www.audubon.org/bird/cbc/pdf/CBC_Survey_2005.pdf)
- Description: This is a brief survey directed at CBC participants to get input on CBC coverage in American Birds magazine, as well as the CBC website.
- Crane Count Objectives: none
- Priority Score: 0

## R ecommended Improvements

While data were being gathered through Questionnaires from County Coordinators and participants about demographics, perceptions of the program and its materials, these audiences were also asked about a variety of items that would improve their experiences with the program.

A similar set of items was presented to both the County Coordinators and participants.

Based on feedback from these audiences, it is recommended that these items be examined, further explored, and implemented accordingly.

## C ounty Coordinators

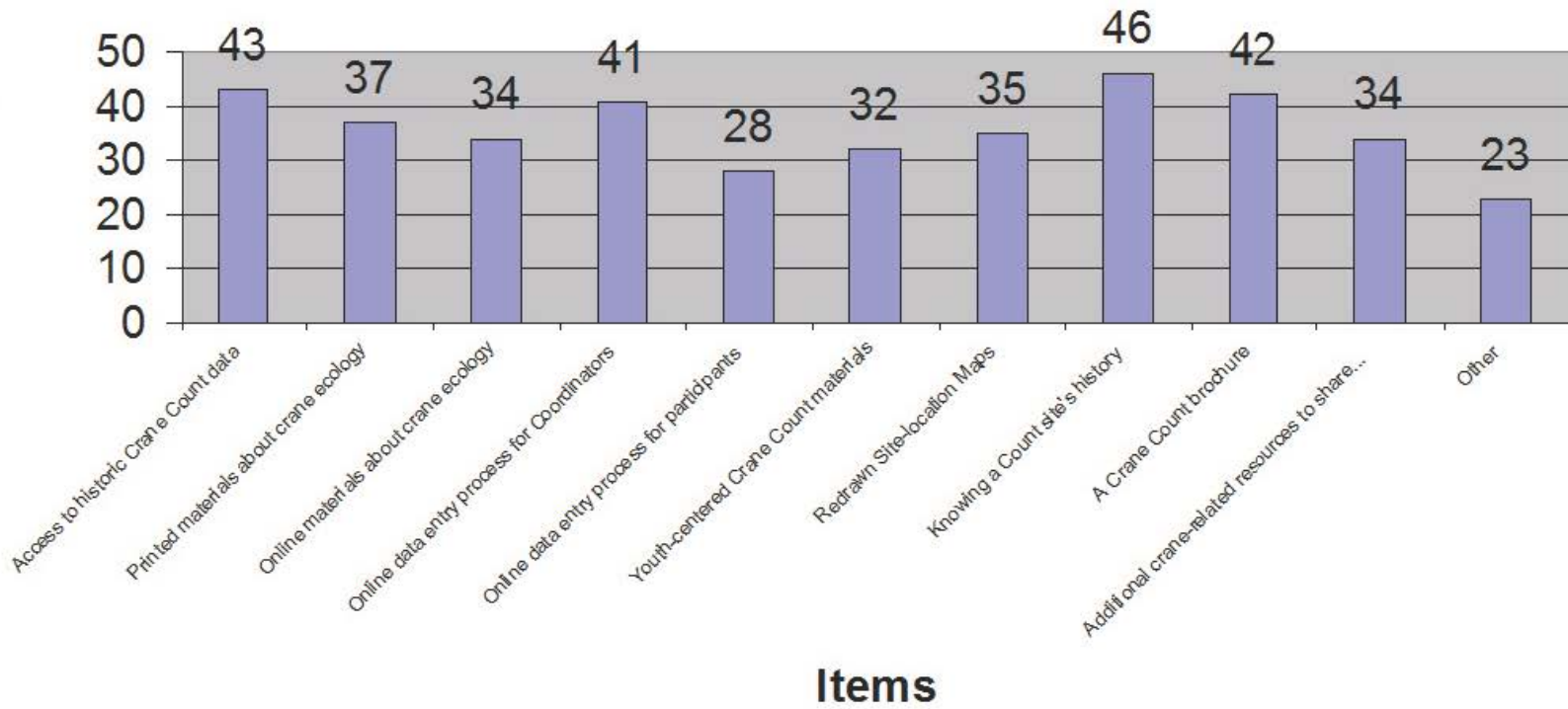
County Coordinators were presented with a list of items in the Questionnaire, and ask to select those that would improve the coordination experience for them. Please see the display chart on the following page for visual presentation of the following items. Percentages are based on the number of responses out of the seventy-two Coordinators who returned Questionnaires.

- Access to historic Crane Count data
  - 60% of Coordinators said this would improve the experience
- Printed materials about crane ecology
  - 51% of Coordinators said this would improve the experience
- Online materials about crane ecology
  - 47% of Coordinators said this would improve the experience
- Online data entry process for Coordinators
  - 57% of Coordinators said this would improve the experience
- Online data entry process for participants
  - 39% of Coordinators said this would improve the experience
- Youth-centered Crane Count materials
  - 44% of Coordinators said this would improve the experience
- Redrawn site-location maps
  - 49% of Coordinators said this would improve the experience
- Knowing a count site's history
  - 64% of Coordinators said this would improve the experience
- A Crane Count brochure
  - 58% of Coordinators said this would improve the experience
- Additional crane-related resources to share with participants
  - 47% of Coordinators said this would improve the experience



### Items That Would Improve the Coordination Experience (N=72)

Number of Responses

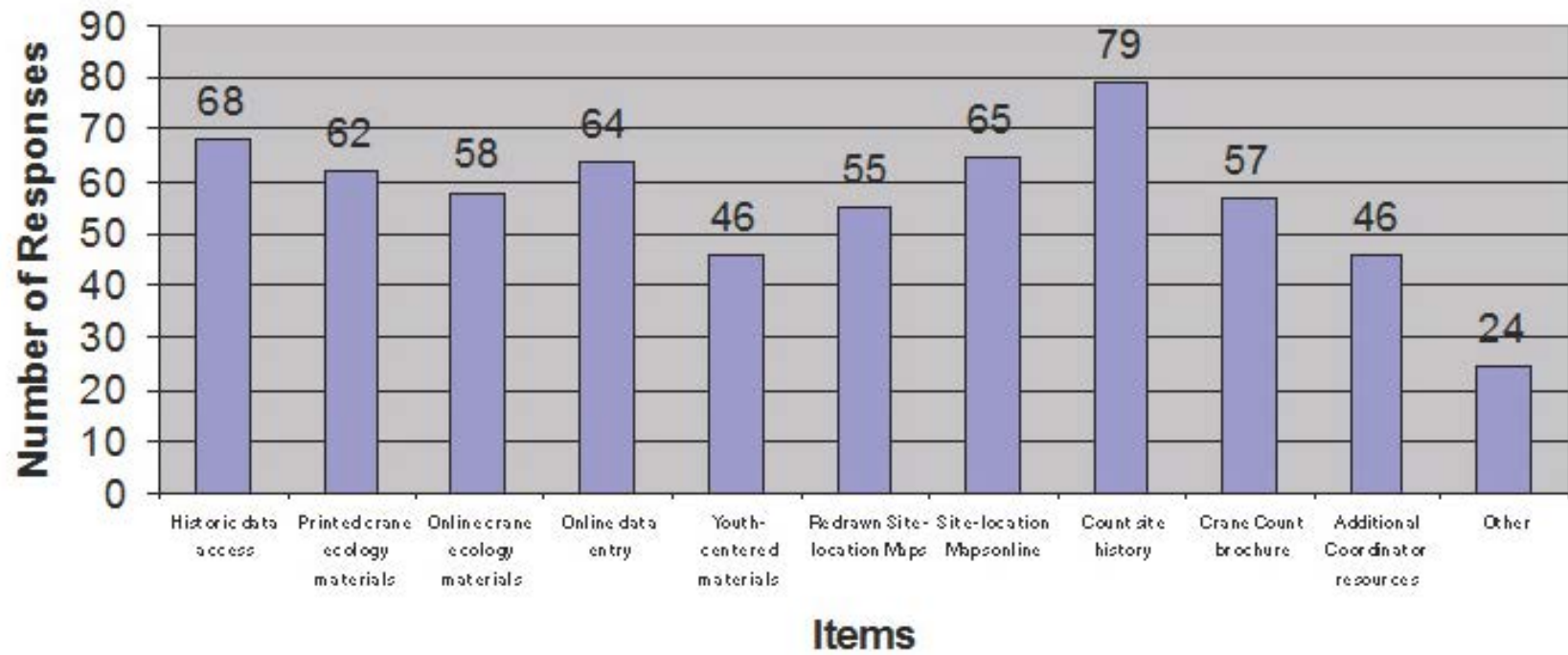


## Participants

As with County Coordinators, participants were presented with a list of items in the Questionnaire, and ask to select those that would improve the coordination experience for them. The list is quite similar to that presented to the County Coordinators. Please see the display chart on the following page for visual presentation of the following items. Percentages are based on the number of responses out of the 149 who returned Questionnaires.

- Access to historic Crane Count data
  - 46% of participants said this would improve the experience
- Printed materials about crane ecology
  - 42% of participants said this would improve the experience
- Online materials about crane ecology
  - 40% of participants said this would improve the experience
- Online data entry process
  - 43% of participants said this would improve the experience
- Youth-centered Crane Count materials
  - 31% of participants said this would improve the experience
- Redrawn site-location maps
  - 37% of participants said this would improve the experience
- Site-location maps available online
  - 44% of participants said this would improve the experience
- Knowing a count site's history
  - 53% of participants said this would improve the experience
- A Crane Count brochure
  - 38% of participants said this would improve the experience
- Additional crane-related resources for County Coordinators to share
  - 31% of participants said this would improve the experience

## Reported Items that Would Improve the Crane Count Experience for Participants



## ther Recommendations

In addition to the recommendations already made, there are a few that did not fit specifically with the previous categories.

- It is recommended that work be done towards addressing the current gaps in the Crane Count's objectives. Currently only 30% of the objectives are associated with current materials. A full 40% of the objectives are not specifically associated with any materials at all.
- In addition to maintaining the Crane Count's current audience (both County Coordinators and Participants), it is recommended that efforts be made to target younger demographics (44 years of age and earlier). While not an immediate threat, the current demographic may threaten the Crane Count's ability to continue in years to come through audience depreciation.
- It is recommended that youth be targeted as a potential audience for the Crane Count. Only 1/149 participant Questionnaire respondents was 17 or under.
- It is recommended that youth in formal education settings be targeted through their classroom teachers. Of 149 Questionnaire respondents, 14 indicated formal educator status (specific grade levels unknown). When asked what items would encourage incorporation of the Crane Count into their program:
  - 50% indicated a Crane Count-related curriculum would do so
  - 43% indicated curriculum tied to academic standards would do so
  - 43% indicated real-life subject matter usable in the classroom would do so
  - 43% indicated multidisciplinary topics would do soThere is ample opportunity to take advantage of the Crane Count's educational focus, and adapt it to a school setting, thereby helping to promote youth participation.
- It is recommended that efforts be undertaken to address participant awareness of the Crane Count Web Pages. Of the 149 participant Questionnaire respondents, only 11% indicated they use it. 24% of participants reported that they were unaware of this section of the website (and these individuals make up 40% of those who indicate they don't make use of the website).
- It is recommended that long-term or lifelong learning strategies be incorporated into the Crane Count, with 76% of participants indicating they have participated more than six times.

# Suggested Action Approach



To take best advantage of this Program Plan and its recommendations, the following action approach for CED staff to take is suggested.

- Review the Program Plan
- Associate the ICF vision from Strategic Planning with the Crane Count
- Review the Crane Count Program Plan in the context of ICF's Strategic Planning vision and Long-range Plan
- Use the results from this process to develop a framework and implementation schedule for the Crane Count's future – in other words, an action plan
- According to the schedule, work to address selected priorities for the Crane Count
- Take a mission-goals-objectives-based approach - create an integrated "curriculum" for the Crane Count, defining its scope and sequence (how it goes about meeting the mission, goals, and objectives)
- Develop and implement an evaluation plan for current and future resources to document and justify the program, its success (or lack thereof), and problems
- Seek out resources - whether grants, qualified individuals, expertise, partnerships - to support implementation
- Seek direct input from stakeholders (County Coordinators and participants) at appropriate times during the process - support their ownership in the program
- Pilot test new initiatives in the field - a few counties, evaluate, and revise before full implementation
- Revise and update Program Plan as necessary

**APPENDIX B:**  
**Historic Program Documents**

Document Designation: A1981

The Annual Wisconsin Crane Survey  
A Joint Project of the Wisconsin Wetlands Association  
And the International Crane Foundation

The annual crane survey began in 1976 as a high school project in one county. Since then it has continued as a project sponsored jointly by the Wisconsin Wetlands Association (WWA) and the International Crane Foundation (ICF). In 1981 the survey included 34 counties - nearly a five-fold increase over previous years - due to intensive organizational efforts by state coordinators from both organizations.

Historically, the greater sandhill crane (*Grus Canadensis tabida*) was a common summer resident of Wisconsin and other mid-western states. In the early 1900's the population plummeted to a low of only a few breeding pairs due in part to hunting pressures and agricultural development of wetland habitat. Since the mid-1900's, the cranes have been steadily increasing in numbers, an event attributed to protection from hunting and acquisition of public lands for wildfowl habitat. Although this population increase may seem to bode well for Wisconsin's sandhill cranes, it does not necessarily mean that their future is secure. Many cranes use small privately owned marshland habitats - areas subject to intense pressure and little protection from drainage for agricultural use. While central, east central and southeast Wisconsin have been intensively studied, large portions of potential crane habitat in north and northeast Wisconsin have not been surveyed.

**[1. IMPLICATION]** If cranes are to be protected in Wisconsin, their habitat must be preserved. **[2. GOAL]** A primary goal of the crane count is to enhance wetland protection by increasing public awareness and appreciation for cranes. Cranes are secretive birds and tend to use remote habitats where available. Consequently their presence often goes unnoticed. **[3. AUDIENCE GOAL]** By seeking participants from a variety of "non-biological" backgrounds the crane survey promotes recognition and appreciation of cranes and can instill a positive attitude toward habitat protection.

**[4. NEED]** While efforts of other researchers have thus far been concentrated on intensive surveying of limited areas, there is a need for a broad census. In 1981, over 750 individuals participated in 34 counties - a larger survey area than could be attained by other means. Counties where little is recorded about the presence of cranes were included. **[5. GOAL]** A second goal of the 1982 crane count is to expand into more counties on the periphery of recorded crane habitat - areas where cranes may be residing undetected.

#### METHODS

The organization of the crane survey involves individuals at a

number of levels. State coordinators recruit county coordinators and hold an organizational meeting about two months prior to the survey date. They provide county coordinators with instructional materials to be used at local meetings, including access to slides, tapes and films, publicity materials, maps and participant survey packets. Following the survey day, state coordinators review survey forms, prepare the crane count results and mail a summary of the results to all participants.

County coordinators recruit participants, hold a local informational meeting and distribute the survey packets. Following the meeting he or she compiles a summary of the results for the county and returns all materials to the state coordinators.

**[6. GOAL]** Participants attend the county informational meeting for instruction on the identification of cranes by sight and sound, and receive a survey site packet. On the survey day, participants spend about two hours at dawn on the survey site, recording all information requested on the survey form. Participants return all survey materials to county coordinators immediately following the survey. Survey sites are identified from previous surveys, and from maps available through the Department of Natural Resources Wetlands Mapping Project. In some previously unsurveyed counties, county coordinators are responsible for seeking survey site information from wildlife refuge personnel or other sources.

#### ANALYSIS OF DATA

The numbers and locations of cranes seen or heard are tabulated by the county coordinators. State coordinators review each survey form returned to correct for double counting or questionable sightings. A final summary sheet for each county is completed, listing the township, range and section of each site surveyed and numbers of cranes seen or heard. Each location where cranes are located is marked on an 8" X 10" county map. **[7. GOAL]** This information is kept on file at ICF and provides a record of locations where cranes are known to occur.

#### SIGNIFICANCE

The actual numbers of cranes seen in past crane counts has not been stressed as accurate census information. Variability in the degree of coverage of different areas and the use of inexperienced observers precludes complete accuracy. **[8. GOAL]** As the survey coverage becomes more complete and extends into counties on the periphery of known crane range in Wisconsin, significant information about the numbers and locations of cranes can be obtained.

**[9. AUDIENCE GOAL]** The importance of the public education aspects of the count should not be underestimated. Participants whose backgrounds often do not include a previous positive experience with wetland habitats are specifically recruited. In past years, most participants, including those who did not see cranes,



expressed very positive feelings about their crane count experience. [10. AUDIENCE] Additionally, a large number of non-participants are reached through publicity generated by the crane survey. (BELOW FOLLOWS THE "INSTRUCTIONS TO COUNTY COORDINATORS, 1981 SANDHILL CRANE SURVEY. BTB 7.28.05)

#### Instructions to County Coordinators, 1981 Sandhill Crane Survey

You have received a large amount of information relating to the 1981 Sandhill Crane survey. These instructions are provided to help explain (or review, for those who attended the Jan.31st meeting) the functions of the various forms.

#### I. Wetland information, participant survey packets (big maps & envelope)

##### A. Counties with observation sites marked:

1. Large county road map: this will be marked with numbered observation sites. This is the master map for your county, and must be returned at the conclusion of the survey. If you can include wetlands in addition to those already marked, please mark them carefully on the master map.

2. Participant packets: the numbered white envelopes correspond to the numbers on the master map. They contain:

a. Instructions to participants: this sheet is fairly self-explanatory. Please emphasize number 3 to your participants, especially marking the maps.

b. Crane Survey Data Sheet: this is also largely self explanatory. The purpose of the following questions is

[11. AUDIENCE] \*Names and addresses of landowners: ICF plans to send a letter to landowners with crane marshes, recognizing them for their contribution to protecting wetlands.

[12. GOAL] \*Please list other birds seen: intended primarily to direct participant's attention to other wildlife around him/her, and provide additional info on habitat.

c. Site Map: in most counties these are copied from the county master maps. Some counties have additional more detailed plat or topographic maps. The coordinator should put his/her name and address on the front of each envelope.

3. Previous survey information: where this is available, it is included, and is helpful in assigning sites.

B. Counties without observation sites marked: we don't yet have sites for these counties, and will rely on coordinators to locate wetlands to survey on April 4th.

1. Large County road map: this is unmarked. As you locate wetlands, please mark and number the sites clearly.

2. Participant packets (envelopes with enclosed sheets): you must put maps in these packets.

3. 8 1/2 x 11 county maps: sites can be marked and numbered, corresponding to the master map, and included in the participant packets (which also should be numbered). If you need more maps or packet information, please make your own copies, and ICF will reimburse you.

##### II. Summary and Information sheets for coordinator

A. Crane count participants: please fill this out, and put site number of area surveyed next to each participant's name.

B. Crane marsh landowners: this information will primarily come from the participant's completed survey forms. The corresponding site number should be recorded next to the landowner's name.

C. Survey Data Summary Sheet: this sheet will make it easy for you to summarize the data from the participant's sheets. Be sure to list your expenses (copying, postage, telephone) and comments and suggestions for next year's count.

ALL THE SHEETS DISCUSSED SO FAR SHOULD BE RETURNED TO ICF!! WHEW!

##### III. Publicity Sheets

A. Join the Crane Count: this can be used as a poster. Color the outside with magic marker to make it eye-catching, and put them up on grocery store, church, store, etc. bulletin boards.

B. Crane Count Hatched: this is a news release which you should fill out and send to your local newspaper. Try and have it published a week before your meeting, and include the photo.

C. Public Service Announcement: this is for your local radio station to publicize your meeting. Ask them to read it the week before your meeting.

D. Publicity contacts: where possible we have included a list of radio stations and newspapers in your county.



COORDINATOR'S TIMETABLE: these suggestions should help you organize your activities as a crane count coordinator. Read on!

A. Set the date, time, and place for your county meeting--this should be in early to mid-March. Note: ICF has a 20 minute movie on the life of the Sandhill Crane available. If you wish to use this, you should consult with Scott Freeman at ICF to reserve the film (before you set your meeting date!)

B. Recruit participants: this is your single most important job. It is essential for the success of the crane count that we really find a lot of people to participate. Be energetic and imaginative in seeking participants. [13, GOAL] Keep in mind that one of the goals of the survey is to expose many people, often for the first time, to the beauty and fragility of Wisconsin wetlands and wildlife. [14, AUDIENCE] Contact high school biology groups, bird clubs, church groups, boy and girl scouts, FFA, 4-H, etc. etc. Be original!

1. Two weeks prior to your meeting: put posters.

2. one weeks prior to your meeting: have announcements on radio, and in the newspaper.

C. At your meeting:

1. Post your county master map

2. Assign participants (have them choose) a site to survey.

3. Sign people and site numbers up on the crane count participant sheet.

4. Hand out the envelope with site map, data sheet, and instruction sheet to each participant, as they choose their site.

5. Emphasize:

\*accurate map markings (wetlands, crane sightings, observation points) are very important.

\*It is very important that everyone survey their site on April 4th. But, if someone cannot survey on April 4, have them survey on another day close to April 4--preferably at a site where someone has already been on April 4th.

[15, GOAL] \*Try to get more than one person per site--the more the better for a good count, and its more fun for participants.

\*Make sure people get those data sheets and maps back to immediately.  
\*Urge your participants to visit their site before April 4, to find out the best places to observe, and possibly talk with the landowner about walking on the area April 4.

6. [16, GOAL] Show the movie mentioned earlier, or get a set of slides from Scott Freeman at ICF. Talk a little bit about the goals of the count (below) and the history Sandhills in Wisconsin.

D. [17, GOAL] Have a great count. How about having a donut and coffee got together on count day at a local cafe or your home, so folks can share enthusiasm, answer questions, and hand in their data sheets and maps.

E. Complete Survey Data Summary Sheet and Marshland Owner Sheet, and return all materials to ICF. Use your list of participants to gather all tardy forms.

#### GOALS OF THE CRANE COUNT

[18, GOAL] 1. The crane survey provides a fine opportunity for people to have a positive encounter with Wisconsin wetlands and wildlife. We hope to recruit people for whom this will be a new and exciting experience, and want to generate an appreciation for our wetlands.

[19, GOAL] 2. The annual nature of the crane count permits long-term monitoring of known wetlands. Alterations which are observed can be checked for compliance with state regulations.

[20, GOAL] 3. Knowledge of the usage of wetlands by cranes can be incorporated in environmental impact studies of lands proposed for development.

If questions arise at any time, please don't hesitate to contact Scott Freeman at ICF: (608) 356-9462.

Thank you for your interest and commitment of time and energy.

(WHAT FOLLOWS IS THE "POSTER" FROM THE 1981 DOCUMENT)

International  
Crane Foundation

JOIN THE CRANE COUNT:

[21, GOAL] You can help the International Crane Foundation and the Wisconsin Wetlands Association preserve the world's oldest living species of bird: the Sandhill Crane. Though cranes were almost extinct in Wisconsin at one time, now they are coming back strong.

On April 4th hundreds of people will visit their local wetlands to look and listen for Sandhill Cranes. [22, NEED] We need to know how many Sandhill Cranes are in Wisconsin, and where they are. You don't need to be an expert - what really counts is your interest. [23, GOAL] We're out to learn, contribute to conservation, and have fun. Won't you join us?

You can attend the crane count meeting at:

PLACE:

DAY:

TIME:

OR CONTACT:

If you see or hear a Sandhill Crane in Wisconsin, the International Crane Foundation would like to hear about it. Please call us at the number below.

Designation: B1981

Crane Count Plans Laid  
by Karen Voss, ICF Researcher

ICF and the Wisconsin Wetlands Association (WWA) have braved the wintry blast to hatch plans for the 1981 Sandhill Crane Count. [24, IMPLICATION] This event has become an annual rite of spring in Wisconsin. For crane count participants, seeing their first robin pales in comparison to bearing spring announced by the predawn calls of Sandhill Cranes.

The Crane Count began in one Wisconsin county in 1976 as a cooperative venture between ICF and high school students from Middleton, Wisconsin. Last spring over 200 people surveyed more than 100 different wetland areas in seven southern Wisconsin counties. [25, GOAL] In 1981 we hope to survey additional marshes, involve more people, and expand the census to a total of 30 counties.

[26, ACCOMPLISHMENT, GOAL] The major accomplishment of the annual count is to expose many people to the beauty and fragility of the wetland environment and its inhabitants. Wetlands in constant danger of development for agricultural or commercial use, and efforts to protect Wisconsin marshes require general public awareness and support. The thrill of seeing a Sandhill Crane in its native habitat has inspired, in many minds, a change from thinking of wetlands as "dismal swamps" to considering them a vitally important ecosystem worthy of protection. Also, as survey participants return to the same marshes year after year, we gain valuable information about changes in the status of wetland areas. Sites of draining and ditching are identified and can be checked for compliance with government regulations.

Getting the annual crane count "fledged" each year is a major cooperative effort. ICF and WWA work together to identify wetlands and find people to coordinate the survey in each county. The state coordinators from ICF and WWA brief county coordinators on count procedures and supply maps, survey information, and data collection sheets. The county coordinators, in turn, contact the actual participants in each county.

[27, ACCOMPLISHMENT] Crane Count participants of past years have found the project a rewarding experience. If you wish to watch the sun rise over a Wisconsin crane marsh this year, listen for the hauntingly beautiful call of the Sandhill Crane, and watch for this magnificent bird in flight, we urge you to join us on April 4th. We can't guarantee you will see cranes, but we can promise that you will almost certainly be greeted with some unexpected sign of spring. [28, GOAL] Wisconsin members who would like to participate this spring, or any member or crane researcher who would like more information, should call ICF at (608) 356-9462.

Citation: 1982, v8, n3  
Designation: C1982

Crane Counts, Wetland Bills  
by Scott Freeman, Educational Coordinator

Two outstanding events occurred in the lives of Wisconsin's Sandhill Cranes this spring: over 1600 people surveyed the population on April 17th, and the Governor of Wisconsin signed a wetland protection bill on April 28th. [29, IMPLICATION] The cranes, the crane counters, and the wetlands law all have an important common thread: public interest.

Sandhill Cranes were nearly extinct in Wisconsin by the early 1940's. New state wildlife refuges and firm control over hunting rescued what was left of the crane population — in the nick-of-time. Private citizens and landowners also began to take a keen interest in Sandhills, starting with the publication of "A Marshland Elegy" - Aldo Leopold's stirring essay on the crane's demise.

Public concern and action worked, and Sandhill Cranes are coming back. In 1976, ICF and the Wisconsin Wetlands Association (WWA) began counting them. [30, IMPLICATION] From a brave start in one Wisconsin county, the annual Sandhill Crane survey began to build on the public interest in cranes and wetlands which Aldo Leopold kindled.

Last year ICF and WWA sponsored the crane survey statewide for the first time. Volunteer county coordinators recruited and trained participants in 33 counties around the state. A total of 760 people surveyed a marsh in their home county, and recorded the locations of over 2600 cranes. [31, ACCOMPLISHMENT] The crane count was maturing, and becoming an important vehicle for monitoring crane populations and inspiring public interest in wetlands.

In 1982 the count expanded dramatically. County coordinators again did the grassroots campaigning to recruit and train participants. This spring there were 43 counties and over 1600 participants involved. All participants were up before dawn to look and listen for cranes on the morning of April 17th. Miserable weather kept the bird count down, but the crane counters still saw or heard more than 2600 cranes. [32, AUDIENCE] People from all walks of life, from senior citizens to 4-H kids, turned out to count cranes.

[33, ACCOMPLISHMENT] The Sandhill survey has been an important boost to the long and difficult job of convincing people that wetlands are important. Wetland protection is currently the most controversial land-use question in Wisconsin, but education efforts are beginning to pay off. Grassroots interest in wetlands finally flowered in the Wisconsin state legislature this spring, in a bill numbered AB839.

AB839 is the first law to protect wetlands ever passed by the Wisconsin Legislature. Although it is not a comprehensive wetlands protection bill — a goal conservationists have been lobbying for each of the past eleven years - it does safeguard wetlands in urban areas. AB839 requires that a developer obtain a permit from the Wisconsin Department of Natural Resources before ditching, diking, or filling an urban wetland.

AB839 is a real victory for the conservation of wetlands, and ICF salutes the people who made it happen. The individuals who coordinated the crane count and the letter-writing campaigns for AB839, the volunteers who run WWA and the Wetlands Taskforce, and the state legislators who took a special interest in AB839 all deserve our gratitude. [34, ACCOMPLISHMENT] But if one person could be singled out as contributing most to the growing public interest in the crane count and wetlands protection legislation, it is Karen Voss.

Long, long ago - in 1973 - Karen was the first student ever to do a research project on the captive cranes at ICF. She completed a fine Master's Thesis on the behavior of Sandhill Cranes at the University of Wisconsin, then for several years devoted herself to raising two daughters. When Karen and her family moved back to central Wisconsin two years ago, she began working as a conservationist in earnest. She spearheaded the last two crane counts, and led the lobbying effort for AB839. When Governor Lee Dreyfus signed the bill, he gave the pen to Karen.

[35, IMPLICATION] Public interest is the key to conservation. It takes people like Karen Voss to turn that key.



Citation: Crane Counts – A Tool For Education and Research  
Designation: D1984

1984  
page 1

[36, IMPLICATION] CRANE COUNTS -- A TOOL FOR EDUCATION AND RESEARCH

Over the past ten years, an annual Sandhill Crane Count has become an important event for thousands of adults and children in the state of Wisconsin, U.S.A. On April 14, 1984, over 2200 people went out before sunrise and counted 5717 cranes in 59 of Wisconsin's 72 counties. [37, ACCOMPLISHMENT] The crane count has yielded valuable information on the abundance and distribution of cranes in Wisconsin (see the attached map).

[38, GOAL] Even more importantly, crane counts educate citizens by providing them an opportunity to become involved in studying and ultimately protecting cranes and wetlands. Techniques, painstakingly developed in Wisconsin, are now available for application to other regions where cranes breed, migrate, or winter.

The International Crane Foundation (ICF), located in Baraboo, Wisconsin, coordinates the Wisconsin Crane Count with assistance from other organizations. [39, GOAL] ICF staff have prepared an instructional packet for people wishing to start new crane counts. The packet includes details on how to organize the count over a large or small area -- initial efforts in a region should usually be targeted over a small area -- as well as samples of the report forms used in Wisconsin. Assistance is also available for planning the timing of the count, publicizing the count, and developing educational materials for the participants.

Crane Count  
page 2

Participants are easily recruited for the count because of the great size of the cranes as well as their graceful displays and loud, ringing voices. [40, GOAL] The cranes in turn introduce participants to the beauty and value of the wetland habitats on which the cranes depend. As the counters learn to care about cranes, they start to care about wetlands and the myriad forms of other wildlife that dwell there. Publicity for the crane count carries its impact far beyond the counters themselves.

[41, GOAL] A crane count is an ideal mechanism for enhancing a state-wide or national awareness of wildlife and wetlands in general. [42, GOAL, AUDIENCE] In Wisconsin, all participants attend a practical meeting to prepare for the count. [43, GOAL] This preparation includes a slide show and tape recordings supplied

by ICF so that the counters can recognize cranes and their habitats and interpret what they see in the field. These materials also stress the importance of wetlands for wildlife and also for people. In addition, ICF is producing count materials for use by schools and youth groups, based on ICF's successful school tour program at its Wisconsin headquarters.

[44, IMPLICATION] Anyone wishing to begin a crane count is invited to contact Jim Harris, Education Coordinator, International Crane Foundation, Route 1, Box 230C, Baraboo, Wisconsin 53913, U.S.A. Our telephone is (608) 356-9462. We would be happy to supply more information on the counts.

Citation: The ICF Bugle, 1984, v10, n2

Designation: E1984

#### Wisconsin Crane Count – 1984

Despite the wind, cold, and rain, Wisconsin's 1984 Sandhill Crane Count was another tremendous success. Four new counties were added to the survey to bring the total number of counties to 59. Hundreds of wetlands were observed for the first time, and a grand total of 5,677 Sandhill Cranes were counted.

Although crane numbers were slightly lower this year, probably owing to the weather, the number of participants increased dramatically. Almost 2,500 people greeted a wetland sunrise on April 14, an increase over last year of 25 percent!

This is the fourth consecutive year that a statewide Crane Count has been conducted. We now know that Sandhills are widespread in Wisconsin and nest in essentially every county of the state. To assist ICF in the analysis of the massive amount of data already collected, a graduate student has offered to computerize the data. [45, GOAL] This will give us a better understanding of crane numbers and, most importantly, yearly changes in wetland habitats and how these changes are affecting breeding cranes across Wisconsin.

Citation:

Designation: F1985

#### THE WISCONSIN SANDHILL CRANE COUNT: A PUBLIC PARTICIPATION PROJECT

JAMES HARRIS, International Crane Foundation, Route 1, Box 230C, Baraboo, Wisconsin 53913

JEFF KNOOP, The Nature Conservancy, 1504 West First Avenue, Columbus, Ohio 43212

Abstract: From 1975 to the present, an annual count has been made of greater sandhill cranes (*Grus canadensis tabida*) in Wisconsin. The census depends entirely on volunteer participants, some without previous experience observing cranes. In 1984, 2219 people surveyed 1284 sites in 59 of Wisconsin's 71 counties and found 5717 cranes. The crane count day occurs in the third week of April, when participants visit their assigned wetland sites for 2 early morning hours. [46, GOAL] They record all cranes seen or heard and the condition of the wetlands. These procedures became standardized in 1981, and coverage of the survey has greatly expanded since then. [47, GOAL] The project is an effective educational tool, exposing a great variety of people to cranes and conveying a sense of wonder and appreciation toward wetlands. [48, GOAL] Research value of the project depends on collection of data from many sites over several years. Results from any single year can be biased by variations in weather and number of observers. This paper summarizes count procedures and evaluates data through 1984, including a detailed analysis of two sample counties in southcentral Wisconsin. Cranes now occur throughout Wisconsin, with the greatest numbers in central counties. In the two sample counties, 59% of 58 regularly-used crane sites were in private ownership. Crane count data are now being computerized in cooperation with the Wisconsin Department of Natural Resources.

#### PROCEEDINGS 1985 CRANE WORKSHOP

[49, IMPLICATION, NEED] Over the last decade, the annual sandhill crane count has become an important event for thousands of adults and children in Wisconsin. On 14 April 1984, over 2,200 people went out before sunrise and counted 5717 cranes in 59 of Wisconsin's 71 counties.

[50, IMPLICATION] The crane count serves three purposes. [51, GOAL] First, it is a research tool. An army of volunteers checks wetlands throughout Wisconsin for the presence of greater sandhill cranes on one early morning at the beginning of the breeding season. The crane count is collecting extensive information on

abundance and distribution of cranes. These data would be impossible to gather through more intensive studies by wildlife professionals -- the crane count therefore complements more traditional research efforts.

[52, GOAL] Second, and equally important, the crane count educates citizens by providing them an opportunity to participate in studying and ultimately protecting cranes and wetlands. As preparation for the count, participants learn about crane biology and behavior and the importance of wetland habitats. The count then takes the observers into the marshes at a beautiful time of morning. As people become enthusiastic about protecting cranes and their habitats, their interest can carry over into other facets of conservation.

[53, ACCOMPLISHMENT] The cranes have attracted large numbers of people as volunteers, and the count grows in popularity every year. [54, GOAL] The event is especially effective as an education tool because people learn by doing. They have a clear and practical goal for their efforts.

[55, GOAL] Third, the crane count encourages wetland conservation. Cranes serve as excellent indicators of the health of their ecosystems. Participants record not only the presence of cranes, but also the condition of their study sites and any recent habitat changes they can detect. When all these data are assembled, the extent of habitat change and its effect on crane populations can be determined. The crane data also can identify wetlands especially worthy of protection. This paper outlines the methods used for the count, in sufficient detail that they can be adapted for similar projects in other regions. We also discuss results of the crane count.

This discussion of results will be preliminary, and is intended chiefly to demonstrate how the accumulated data can be used rather than to give an exhaustive analysis. Variations in the number and reliability of observers as well as weather have greatly influenced data from particular locations or particular years. Conclusions from crane count data must be based on many sites observed over a series of years. Due to the small size of the count in its early years, only a few counties have data bases extending back more than 3 or 4 years. We will look at two sample counties, one with 6 years and the other with 5 years of data, as an indication of what information the crane count will be yielding for much of Wisconsin by 1986.

## BACKGROUND

The sandhill crane is of particular interest in Wisconsin because its populations have undergone dramatic changes in the past 150 years. The status of the species has been reviewed by Hunt and Gluesing (1976). Before white settlement, sandhill cranes bred commonly in Wisconsin, especially in southern and western regions of prairies and wetlands. But hunting, settlement, and habitat alteration, caused

major declines that became evident by the 1880's. By 1936, only 25 pairs were estimated to remain in Wisconsin (Henika 1936). Twenty pairs survived on large marshes in Juneau, Wood, and Jackson counties, all in central Wisconsin, with a few other pairs at scattered locations.

A gradual recovery in sandhill crane numbers was detected in the 1940's. The development of large waterfowl management areas encouraged a substantial increase in cranes by the 1960's. A survey among wildlife managers and game wardens in 1967 revealed crane nests or young in 20 marshes in 16 counties (Hunt and Gluesing 1976). Most of these reports came from public wildlife areas. Then results of a follow-up survey in 1973 indicated that 250 pairs were present that summer in 32 counties. Of 40 actually located, 55% were on private land. The cranes also appeared to be using smaller wetlands for nesting, with a minimum size of 8 ha. But the increase and spread of cranes through Wisconsin made representative population surveys more difficult to accomplish.

The sandhill crane count began in 1975 on a small scale. Initial efforts were limited to Columbia County as a high school study project, but by 1978 the count had spread into five counties. For several years, the event was sponsored by the Wisconsin Wetlands Association, a non-profit conservation and education organization staffed entirely by volunteers. The International Crane Foundation (ICF) has organized the count since 1981.

Up through 1981, methods for the count varied from year to year, as organizers gained experience with counting cranes and using volunteers. In 1979, for example, observers were instructed to visit their survey sites on one or more occasions between 17 March and 24 April. From 1981 to the present, observers have counted on a single date each year throughout the state, and other procedures have been standardized so that data are easily comparable year to year. Data from the years up before 1981 require extra care and effort when they are compared to 1981-84 data.

[56, ACCOMPLISHMENT] The crane count is the result of the dedication and effort of thousands of volunteer observers, many of them returning year after year to help. The County coordinators have done a splendid job of organizing their areas, devoting literally days of work on count preparations. We wish to acknowledge individually those whose vision helped start the count in the 1970's and those who served as state coordinators for 1 or more years: Charlie Luthin, George Archibald, Al Shea, Jim Bachhuber, Steve Schmidt, Steve Landfried, Scott Freeman, Karen Voss, Karen Atkins, and Marion Hill. The Wisconsin Wetlands Association has consistently supported the count, and took responsibility for organizing the event for several years. The following organizations contributed financially to the project for 1 or more years: Citizens Natural Resources Association, Sierra Club -- the John Muir Chapter, Madison Audubon Society, Milwaukee Audubon Society, Winnebago Audubon Society, Wisconsin Metro Audubon Society, Lakeland Audubon Society, and the Wisconsin Society for



Ornithology. The Wisconsin Wetlands Inventory of the Department of Natural Resources provided extensive information on wetland locations, sizes, and vegetation types.

## METHODS

### Timing

Timing of the count greatly affects results. It must be standardized because Wisconsin's crane population is migratory and breeding appears synchronized, occurring directly after the birds complete their migration. Starting in 1982, the crane count has occurred during the third week in April--after most migration is over in Wisconsin, but while most pairs are highly vocal and territorial on their marshes. By early May, the cranes have eggs and have become secretive; they are then difficult to count.

Observers arrive at their assigned survey sites at 0430 hours, well before sunrise, and remain until 0630 or 0700 hours. Cranes are most conspicuous and vocal during this portion of day.

### State-wide Organization

[57, GOAL] Because of the large size of Wisconsin (14.5 million ha) and the number of survey sites and participants, good organization is necessary to complete the operation. An ICF staff person serves as state coordinator, overseeing planning, site selection, and participant recruiting for the entire count. The state coordinator has the following duties.

(a) Recruit and Assist County Coordinators--The state coordinator finds people who will organize the observers in their assigned counties. This organizing is accomplished four months before the count, so that county coordinators can be trained and began to recruit observers within their counties.

(b) Develop Training Materials--We use a slide show with a narrative tape cassette with recordings of crane calls to train participants. [58, GOAL] These materials introduce observers (who often have little scientific background) to crane behavior and wetlands, and to values of wetlands for wildlife and people. Multiple copies of the slide show have been prepared and are loaned out to county coordinators.

(c) Coordinate Mapping of Survey Sites--The state coordinator maintains a permanent record of wetland sites that have been surveyed in Wisconsin. This master map is updated each year. Copies of the maps for each county, with

survey sites identified, are sent to each county coordinator. In 1982, a sample of wetlands in each county were identified as "priority sites." Since then, we have instructed county coordinators to be certain each of these sites is covered annually by reliable observers.

(d) Arrange Advance Publicity--The state coordinator sends general news releases to major Wisconsin newspapers to publicize the count and recruit participants. The state coordinator also prepares public service announcements for radio and television, and special releases for youth group newsletters. These materials go out more than a month before the count day.

(e) Prepare County Coordinator Packets--These packets contain directions and background information for county coordinators and materials to be given to their participants. The maps, data sheets, and publicity posters are included.

(f) Hold a County Coordinator Meeting--This meeting occurs two months before the count day. At the meeting, the state coordinator gets to know the county coordinators and informs them of count procedures. The packets are handed out.

(g) Duties After Count Day--The state coordinator compiles the data county by county, checking the reports filed by the county coordinators for accuracy and completeness. [59, GOAL] The results are announced to the public and to participants as soon as possible, and all records are saved for permanent record.

### County Coordinators

The county coordinators play a key role in organizing the Wisconsin crane count. The state is too large for the state coordinator personally to contact all participants and make sure they are sufficiently knowledgeable about cranes and count procedures. For Wisconsin's 1984 count, 54 county coordinators performed these tasks.

Coordinators volunteer from each participating county. Many have an assistant who helps them and becomes familiar with crane count procedures, so that they can replace coordinators in later years. The county coordinators have the following responsibilities.

(a) Recruit Participants--Records are kept of participants from previous years. The county coordinator sends post cards to these people a month before the count, asking them to participate again. New counters are recruited by involving youth groups, through personal contacts and news releases, and by placing posters in public areas.

(b) Identify Survey Sites--With the help of the map from the state coordinator, and through personal knowledge of the area, the county coordinator identifies all appropriate wetlands within the county and labels them on site maps.

(c) Meet With Participants— [60, GOAL] The county coordinator holds a meeting to introduce volunteer observers to cranes and wetlands and to distribute the materials they will need. At this meeting the slides and tapes supplied by the state coordinator are used. Participants also choose and sign up for their survey sites. The county meeting occurs two to three weeks before the count.

(d) Do Local Publicity--The county coordinator sends news releases supplied by the state coordinator to local radio stations and newspapers. Releases, including the date of that county's meeting for crane counters, go out two weeks before the county meeting. This helps recruit additional participants.

(e) Duties on Count Day--The county coordinator holds a morning meeting immediately after the count, for participants to hand in data sheets and share experiences. These meetings are very popular among participants, and allow them to ask questions about what they observed.

(f) After the Count--The county coordinator completes a summary sheet that includes information about the cranes and wetlands of his or her county. This summary sheet is returned to the state coordinator. The county coordinator also mails back all maps of survey sites and participants' names and addresses.

#### Participants

[61, GOAL, AUDIENCE] Most people who volunteer for the crane count have little prior knowledge about cranes. They learn by participating. Participants include youth groups from scouting organizations and schools, adults from birding clubs and community organizations, people who own wetlands inhabited by cranes, and many other citizens.

Observers unfamiliar with their assigned site are urged to visit the location between the training meeting and the count day. Where necessary, they obtain landowner permission. Observers are responsible for getting to and from the appropriate place at the necessary times, although sometimes the county coordinators help them to obtain transportation.

Participants for each site fill out a data sheet during their 2-hour sunrise watch on count day. They record site number, landowner, condition of the wetland, adjacent land-use, and wildlife observed. They record all crane observations, by ear or eye, together with the time. At the end of the watch, they estimate how many cranes were present and the number of breeding pairs. Breeding pairs are

identified by the unison call. Participants also prepare a sketch map of the site, with the locations of the cranes. The county coordinator will review these data sheets to check observer judgment regarding total crane numbers and to make adjustments for any cranes that may have been counted twice by observers on two neighboring sites.

[62, AUDIENCE, NEED, ACCOMPLISHMENT] It is due to our varied but plentiful participants that the Wisconsin crane count can exist on the scale it does. Many crane counters later support other ICF programs and work to protect the wetlands near their homes.

#### RESULTS

Each year the state coordinator has tabulated results from all counties. Results for 1980-1984 are presented in Table 1. The increase in cranes counted over the decade is not evidence for an increase in numbers of cranes but rather is due to growth in the organization of the count and in the number of observers.

Data for 1981 and 1982 deserve further explanation because exactly the same number of cranes were counted in the 2 years. This result is noteworthy because twice as many counters went out in 1982 as in 1981, and they surveyed almost twice as many wetland sites. But the 1981 count occurred on 4 April, when many migrant cranes still lingered in Wisconsin, thereby inflating totals. The 17 April date for 1982 timed the count after most migration was over, when only resident birds remained. As a further complication, the weather for 1982 included wind, rain, and even snow, so that viewing conditions were terrible. Many cranes probably were missed.

Table 1. Wisconsin sandhill crane count annual totals, 1980-1984.

Year	Total cranes observed	Total counties participating	Total observers	Total survey sites
1980	977	8	about 200	178
1981	2824	32	760	490
1982	2824	43	1617	937
1983	5822	55	1802	1178
1984	5717	59	2219	1284



The results from 1981 and 1982 highlight the need for caution in interpreting crane count data. All analyses must consider the influence of weather, levels of public participation, and observer inexperience. We believe that few reported cranes were misidentified because the crane has such a striking appearance and call. But a report of no cranes at a site can only be considered tentative.

[63. ACCOMPLISHMENT] Although Table 1 cannot be used to compare crane numbers from year to year, the crane totals for 1983 and 1984 -- over 5,000 crane each year -- do provide minimum figures for Wisconsin's population. The true population must be substantially greater, because some counties received no coverage during the count and in others only a few sites were visited. Results from 1983 and 1984 clearly suggest the extent that sandhill crane populations have recovered in Wisconsin. These current figures greatly exceed estimates for Wisconsin's crane population even for 1973 and 1975 (Hunt and Gluesing 1976).

The crane count also reveals that cranes have returned to wetlands in all parts of the state. Nevertheless, cranes are concentrated in certain areas. Fig. 1 depicts the numbers of cranes counted and observers in each county in 1984. Relative crane numbers are charted by county in Fig. 2. Consistent with the situation in earlier decades, the central counties appeared to have the greater share of cranes. The counties bordering the central Wisconsin counties contained the second greatest crane densities. Cranes were sparsely represented in the southwestern counties where wetlands are scarce, and in the heavily forested northern counties. We also charted crane numbers from the 1983 count, and had an almost identical map.

In Fig. 2, crane numbers are presented without any correction for the highly variable numbers of observers or survey sites in the different counties. Some counties had no more than 2-3 observers at 1-2 sites, while others fielded over 100 people at 80-100 sites. But no easy correction can be made for such biases. Some counties may have only a couple dozen locations even marginally suitable for cranes, while others have literally hundreds of wetlands.

A county by county comparison of data in Fig. 1 reveals no clearcut correlation between numbers of cranes and numbers of observers. We have chosen not to apply statistical tests to these data which are from only 1 year. For many counties, only 2 or 3 years of data have been collected. By 1986, however, the project will have generated enough data to provide a more reliable map.

As indicated in Table 1, only a handful of counties have data extending back 5 years. [64. GOAL] We believe that a minimum of 5 years of data should be accumulated before the status of cranes in any county can be closely evaluated.

For this paper, we examined data for two counties, both located in southcentral Wisconsin (Table 2). We worked with 6 years of data from Columbia County, and 5 years of data from Jefferson County. Columbia County has an area 2,010 km<sup>2</sup>

with a human population of 44,000; out of Wisconsin's 71 counties, it ranks 33rd in surface area and 28th in population. Jefferson County has an area of 1,461 km<sup>2</sup> and a human population of 67,000; it ranks 53rd in surface area among Wisconsin counties and 21st in population (Wisconsin Legislative Reference Bureau 1983). Both counties have relatively high crane populations (Figs. 1 and 2) with 278 cranes counted in Columbia County and 309 cranes counted in Jefferson County in 1984.

[65. GOAL] The crane count has significance for research because of the large number of sites surveyed. A two-county sample is too small to reveal population trends. But the two counties give us an indication of just what the project is accomplishing, and can guide data analysis for the whole state as additional years of data accumulate.

Coverage of sites in Columbia and Jefferson counties varies from year to year, so that few sites have been surveyed every year. This inconsistent coverage results mainly from the preferences of the volunteers -- [66. GOAL] because we encourage observers to visit a site near their home or a wetland they especially like. As observers change from year to year, so do the sites surveyed. But in this way, we hope to encourage people to become involved in the welfare and fate of individual wetlands, so that they are likely to try to influence governmental or private landowner decisions affecting those wetlands.

The designation of priority sites in 1982 provided for consistent coverage of many areas in each county. By this method, we are obtaining a sizable sample of wetlands surveyed every year, while still allowing considerable observer choice over survey sites.

For purposes of the present analysis we have divided survey sites into locations regularly used by cranes and into locations irregularly used or not used by cranes (Table 3). These locations were selected from the sites that had been surveyed 2 or more years. We classified as regular-use sites those locations where cranes were present 3 or more years. Sites reported to be without cranes for 2 or more years were categorized as irregular-use/unused sites. Many sites did not meet either test, and three sites met both tests: these sites were placed in an intermediate category and received no further analysis.

We chose this method for classifying sites because of the variable coverage of sites from year to year. We wanted to use our limited amount of data to obtain two groupings of wetlands distinctly different in crane use. It should be noted that by our criteria, sites surveyed only 2 years were classed as irregular-use/unused sites if cranes appeared neither year; otherwise, these sites were placed in the intermediate category and not analyzed.

Table 3 reveals one bias to our data. Regular-use sites greatly outnumbered irregular-use/unused sites. The organization of the count favors coverage of sites with cranes. [67. GOAL] Both the volunteer observers and the county coordinators tended to select sites for observation with a past history of crane use -- after all, the project is designed to give volunteers experience with cranes. A site that did not have cranes for 1 or 2 years was less likely than other sites to be surveyed in subsequent years (unless it had been designated as a priority site).

The regular-use sites, 26 for Columbia County and 33 for Jefferson County, can be considered prime crane marshes. This is by no means an exhaustive list (other prime sites probably have not yet been surveyed for enough years to be considered). But the regular-use sites represent a sizable sample of marshes where cranes frequently live. We have analyzed them according to ownership and acreage.

Table 2. Numbers of surveyed wetland sites, Columbia and Jefferson counties, Wisconsin.

Number of years surveyed	Columbia County	Jefferson County	Two-county total
1	22	44	66
2	25	28	53
3	12	25	37
4	11	13	24
5	6	11	17
6	3		3
Total	79	121	200

Table 3. Frequency of crane use of survey sites, Columbia and Jefferson counties, Wisconsin.

Use category	Columbia County	Jefferson County	Two-county total
Regular-use	25	33	58
Intermediate-use	27	34	61
Irregular-use or unused	5	10	15
Total number			

We determined ownership of the regular-use sites from the 1983 platbook for Columbia County and the 1984 platbook for Jefferson County. Among the 25 regular-use sites in Columbia County, 13 were entirely or almost entirely in private ownership, 50% of the total. In Jefferson County, 21 regular-use sites were entirely or primarily in private ownership, 64% of the total. For the two counties combined, 34 out of the 58 sites (59%) were in private ownership. The remaining sites were partly or entirely owned by U. S. Fish and Wildlife Service, the Wisconsin Department of Natural Resources, or (two wetlands in Jefferson County) the University of Wisconsin. Many of these "public" lands were interspersed with private holdings.

For these two counties, the future of the crane population will be heavily influenced by how private landowners manage their wetlands. The primary dependence of cranes on state and federal wildlife areas, noted through the 1950's and 1960's, no longer appears to characterize Wisconsin's crane population. Private ownership of crane marshes in Columbia and Jefferson counties for 1983-84 is similar to the 55% reported for Wisconsin as a whole in 1973 (Hunt and Gluesing 1976).

Cranes do not appear to co-exist with people in Wisconsin's cities and villages, perhaps because remnant wetlands in urban areas are too small and too highly disturbed for cranes. None of the 58 regular-use sites from the two counties were located in incorporated areas.

We have also examined acreages for wetlands at regular-use survey sites. The Wisconsin Wetlands Inventory of the Department of Natural Resources (DNR) provided acreages for these two counties, based on computer analysis of the wetland maps recently completed for the state (see Wisconsin Department of Natural Resources, 1982, for a description of the Wisconsin Wetland Inventory). Several larger wetlands in each county contained more than one regular-use site. We analyzed sizes for 42 wetlands regularly used by cranes.

The DNR maps depict all wetland types, including heavily forested swamps, wet areas covered with shrubs, and open waters to a depth of 2 m. In calculating sizes of crane marshes, we only included wetland areas where at least 30% of the surface was covered by emergent vegetation. Wooded swamps and other areas unsuitable for cranes were thus not included in our size determinations.

Of the 42 crane marshes, 7 (or 17%) were less than 41 ha; 8 (or 19%) were between 41 and 81 ha; 3 (or 7%) were between 81 and 122 ha; 4 (or 10%) were between 122 and 162 ha; 5 (or 12%) were between 162 and 203 ha; 4 (or 10%)



were between 203 and 405 ha; and 11 wetlands were larger than 405 ha. Sizes of the wetlands regularly used by cranes ranged from 23 to 1,251 ha.

These figures are roughly comparable to the sizes for 139 crane marshes reported for Wisconsin by Hunt and Gluesing (1976), although our sample contains a greater proportion of large wetlands. This difference could simply reflect the sizes of wetlands present in Jefferson and Columbia counties, and thus available to the cranes.

[68, GOAL] Along with revealing the characteristics of marshes frequently used by cranes, the crane count data should also provide information on the differences between sites preferred and sites not preferred by cranes. Such between-group comparisons are best made with a large sample size, such as will be available after 1 or 2 additional years of data are collected for the projects' randomly selected priority sites. But we have used our two-county sample for an initial comparison of sizes of regular-use sites and irregular-use/unused sites.

The 42 regular-use marshes averaged 262 ha, while the 15 irregular-use/unused marshes averaged 76 ha in size. The difference appears substantial, although we do not consider this present sample to have been randomly selected and therefore did not analyze the data statistically.

#### DISCUSSION

[69, IMPLICATION] Based on our experience with data from the two sample counties, we are now working with the Wisconsin DNR to develop a computer data bank for Wisconsin crane count results. Information stored will include site number and location along with an expandable array of variables about each site -- ownership, acreage, other wildlife use, etc. We will enter the total number of cranes present and the number of crane pairs for each site for each year of the count.

[70, GOAL] The data bank will serve two main purposes. The DNR will have the crane count results available for use in its water regulatory and environmental impact programs. And ICF will have the data readily accessible for research and analysis.

Our work with the data from our two sample counties has suggested the breadth of information about cranes that can be derived from the count results. By 1986, hundreds of sites across much of the state will have each been counted three to eight times. The limitations encountered in our small two-county sample -- limitations inherent in the type of data the crane count generates -- can partially be overcome as the sample size grows. [71, GOAL] We will then be able to

analyze numbers of cranes reported at sites and evaluate habitat. In this manner, for example, we can assess characteristics of wetlands that support more than one pair of cranes.

[72, GOAL] The count as a whole does not directly measure population size or change for sandhill cranes, due to variations in the coverage of sites. But the priority sites, surveyed every year, will allow close comparison of crane numbers for a large sample of Wisconsin wetlands. These data will serve as our measure of population change.

There is a special advantage to computerizing the data in cooperation with the DNR. The DNR, particularly through its Wetlands Inventory and Endangered Resources programs, has assembled extensive information about wetlands, information that may assist in analyzing crane count data. The Wetlands Maps, for example, can be used to obtain acreage and habitat type figures by county, township, or individual wetland across the state. The Endangered Resources Program has been conducting surveys of black terns (*Chlidonias niger*) and other wildlife on many of the same wetlands surveyed in the crane count. By storing crane count data with the DNR, there is further opportunity for analysis using two or more of the data banks.

There are, however, definite limits to the accessibility and usefulness of the Wetlands Inventory data. Wetland acreage figures were provided at our request for the two counties, but budget constraints may prevent generation of similar data for most other counties. And the habitat types used for the Wetland Maps may not follow the criteria most useful for classifying crane habitats. Crane habitat analysis may need to depend on other wetland inventories or on field checks of selected crane marshes.

[73, IMPLICATION] We plan to continue indefinitely conducting the annual crane count. The more data we have from particular sites, the more useful it becomes. But also, the network of volunteer county coordinators and participants that we have developed over the years probably would not remain involved if the count occurred only once every 2 to 3 years.

[74, GOAL, ACCOMPLISHMENT] Although this paper has not emphasized the project's education and wetland conservation goals, much of the value of the crane count derives from its multiple impacts. When one considers the substantial percentage of crane marshes in private hands, active involvement of thousands of citizens, including many wetland owners, in the cause of crane conservation may prove to be the most important result of our efforts.

[75, IMPLICATION] We highly recommend crane counts as research-education projects for other areas within the United States and abroad. The essential need is for an institution able to make a long-term commitment to organizing a count and

carefully keeping the data. ICF has developed an instructional packet about the census in Wisconsin, including samples of forms and guidelines for coordinators and participants. These materials can be adapted for other areas. For a copy of the packet, contact the Education Coordinator, International Crane Foundation, Route 1, Box 230C, Baraboo, Wisconsin 53913.

#### LITERATURE CITED

Henika, F. S. 1936. Sandhill cranes In Wisconsin and other Lake States. Proc. N. Am. Wildlife Conf. 1:644-646.

Hunt, R. A., and E. A. Gluesing. 1976. The sandhill crane in Wisconsin. Pages 19-34 in J. C. Lewis, ed. Proceedings international crane workshop. Oklahoma State Univ., Stillwater.

Wisconsin Department of Natural Resources. 1982. User's Guide to the Wisconsin Wetlands Inventory. State of Wisconsin. 21 pp.

Wisconsin Legislative Reference Bureau. 1983. The State of Wisconsin 1983-1984 Blue Book. State of Wisconsin. 983 pp.

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At Last Count -- The Rise of International Crane Counting  
By Erik Brynildson, ICF Education Associate

In the past few years, the popularity of citizen crane counts has gained momentum around the world. Currently, almost half of all crane species are being monitored annually by volunteers from several continents. [76, GOAL, AUDIENCE] Participants share in a love for wild nature, and find that counting cranes is a grand way to express that reverence. The majestic birds are highly visible, awakening and inspiring curiosity and wonder in people of all cultures. And cranes, because of their large size and characteristic vocalizations, are easily counted.

Historically, scientists were the first to count cranes. The US Fish and Wildlife Service began to collect data on the endangered Whooping Crane in Texas at Aransas National Wildlife Refuge in 1941. At that time, only 15 Whoopers occupied the refuge. Last winter's count, 45 years later, recorded 112 of the birds. Many of the pioneer censusing strategies used by scientists to keep track of animal populations relied on public participation. [77, AUDIENCE, IMPLICATION] Volunteer observers are still a vital aid to managing agencies, especially in times of drastic budgetary cutbacks and escalating operational costs. Cranes, often widely dispersed over nesting and feeding sites, can be difficult for small teams of scientists to count, but volunteers can be organized to survey large areas.

The earliest known grassroots non-professional crane count is the winter count of endangered Red-crowned Cranes in Hokkaido, Japan, an event which started in the early 1950's. Then in 1975, in response to the lack of data about changing Sandhill Crane populations, concerned citizens in Wisconsin, U.S.A. began to record crane numbers in two counties of their state.

[78, IMPLICATION] Today, the Wisconsin count has evolved into an annual statewide rite of spring, with 2500 volunteer participants covering over 1400 sites in 64 counties. [79, IMPLICATION] The Wisconsin Sandhill Crane Count is organized and administered by the International Crane Foundation (ICF), and we are delighted to report the growth of the program. At last count, our 13th annual Crane Count recorded over 7100 cranes in Wisconsin on April 11th of this year. [80, IMPLICATION] The project has become a model for other regions to follow.

Presently, several countries have established citizen crane counts. Many more such counts are needed, however, because endangered crane populations still go uncounted. ICF urges the development of two counts now lacking. The vanishing Black-necked Crane of southern Tibet, with a total population of under a thousand, needs to be consistently counted. And, since the end of the recent war in Vietnam, a small flock of Eastern Sarus Cranes has been rediscovered along the Mekong River Delta. These birds too should be monitored closely.

[81. GOAL] In order to design and implement effective preservation strategies, we must first know the distribution and abundance of the cranes. The best method to obtain this basic ecological information is by involving those peoples who live with the cranes.

[82. GOAL] Perhaps the greatest benefit of crane counting is the opportunity it provides for people to interact with and learn from nature. This exposure often stimulates participants to develop a deeper concern for wildlife conservation in general, so they can then help to spark local action on behalf of cranes and their threatened habitats.

#### South Africa

Three crane species inhabit South Africa: the Stanley or Blue Crane: which is the national bird; the Gray Crowned Crane; and the Wattled Crane. All of these species appear to be declining, and are less widespread over their ranges than they once were.

Several hundred citizen observers began to monitor approximately 300 "observation units" or sites in 1986. Two crane counting weekends take place each year. A summer count in late January is followed by a winter tally taken in late July. Road surveys and "casual sightings" from designated sites are also used in establishing totals. At last count (1986), the cranes numbered Wattled 183, Blue 3800, and Gray Crowned 2103. These figures do not include the Karoo regions of the South African Republic, where Blue Cranes reside in unknown numbers.

These latest tabulations help to substantiate the losses in all three species of South African cranes. The sharpest declines appear to be in Blue Crane populations, where both the citizen count and scientific aerial surveys show fewer birds than in previous years. The majority of Blue Cranes observed during the winter count were foraging in wheat fields. In reaction to crop losses, farmers have poisoned the cranes. This poisoning may be the main reason for the decline.

#### Hokkaido, Japan

Since 1972, counting cranes has been a Japanese tradition. Relict flocks of three endangered species of cranes, the Red-crowned, the White-naped, and the Hooded, have experienced gradual recoveries since the turbulent war period in the Pacific.

Hokkaido is the northernmost main island in the Japanese archipelago. Near the villages of Akan and Tsun, a resident population of Red-crowned Cranes inhabits the paddy fields and marshes adjacent to warm tidal flats. The open stretches of coastal river are crucial habitats for the cranes, as they provide fish and crustaceans for over-winter food. Winter food availability is often a primary limiting factor in bird populations.

During the unusually hard winter of 1952, the rivers froze, promoting local Japanese villagers to begin feeding the "sacred" birds. Feeding stations were established outside Akan and Tsun, with farmers and school children scattering grain to help the cranes survive. At that time, the children also started to count the cranes. Back then, only 30 Red-crowned Cranes inhabited the area. Today, nearly 400 Red-crowns live on Hokkaido. This flock represents a third of the total population of this species.

Since that special winter, children of those original children who came to the rescue of the cranes have participated in the annual December count. And today the descendants of those 30 starving Red-crowns still benefit from the efforts of these youth.

#### Kenya

The recent formation of the Kenya Working Group On Cranes has stimulated much activity in Kenya. In August of 1985, the Wildlife Clubs of Kenya (WCK) published a questionnaire in the Clubs' magazine, *Komba*, requesting information on status, abundance, nesting success, and local habitat conditions affecting the Gray Crowned Crane. WCK consists of 1200 localized clubs throughout Kenya. Data from 430 responses suggest that the cranes are widely distributed in Kenya, but that their primary breeding sites are in potentially important agricultural areas within central and western Kenya. The data also indicate that wetlands in Kenya are rapidly dwindling in size and number due to drainage and filling, land clearing, and overgrazing and degradation by livestock. It further appears that some Gray Crowneds have failed to breed in apparently suitable habitats because of harassment by local people. In addition, the survey substantiates the decline in Gray Crowned Crane populations in recent years.

WCK staff now hope to expand the count into an annual nationwide event.

#### Bharatpur, India

Crane counting in India began in 1970 when scientists started monitoring the diminishing western flock of endangered Siberian Cranes at Keoladeo National Park near Bharatpur. For the past four years, citizens have been recording numbers of Indian Sarus Cranes, another crane suffering population losses. In 1987, this citizen count expanded to cover the entire Bharatpur district. The Bharatpur Sarus



Count is particularly valuable in that it directly involves the local people in conservation at their outstanding, and threatened, national park.

The Indian Sarus Crane is non-migratory and is known as the world's tallest flying bird. The species is found in wetlands throughout northern India. Easily identified by their large size, the cranes can effectively serve to enhance concern and awareness for conservation issues.

It is hoped that the Bharatpur count will be viewed as a precedent for other crane-inhabited regions of India. At last count, 66 men, women, and children counted a total of 313 Indian Sarus Cranes. The latter figure reflects a sharp decline from previous years.

#### Planetary Peace and Counting Cranes

The ultimate crane count will record more than avian abundance. It will count on global unity and goodwill among all nations and peoples.

[83, GOAL] From a purely scientific standpoint crane counts generate baseline data otherwise unavailable. As an educational tool, they are an effective means for bringing people closer to their natural world. United in a spirit of enthusiasm, participants build a greater receptivity toward all life. Crane counting helps people as well as cranes, and in the final tally, these simple counts may also play a part in international coexistence.

For anyone interested in developing a crane count, ICF has an instructional packet available. A fee of \$6 is charged to cover printing costs for all U.S. requests. Conservationists outside of the United States can obtain the materials free of charge.

Crane counts can cover a single wetland or an entire country. But to be effective, such projects require careful planning and implementation by a sponsoring organization committed to the endeavor for a period of years. The results are always worth the efforts.

Citation:  
Designation: H1991

From approximately 1991

#### The Wisconsin Sandhill Crane Count

##### Introduction

The Wisconsin sandhill Crane Count is sponsored by the International Crane Foundation (ICF) and organizations that contribute to the count's expenses. [84, GOAL] The count is held during an early low hour period on a Saturday morning in mid-April to census Sandhill Cranes. Since the number of cranes found during any one count is dependent on the number of volunteers and weather, the data from an individual count may not be representative of the actual number of cranes living and nesting in Wisconsin. However, data has now been collected for nine years (using consistent methods). [85, GOAL] The longitudinal data derived from those nine years makes more accurate conclusions possible.

The count has essentially three functions. While not replacing standard research methods, the count gathers data on a scale that would not be possible by other means. Secondly, it teaches the relationship that exists between cranes and wetlands. Thirdly, participants learn about the value of wetlands.

Participation in the count has grown to over 3,600 counters annually with about 60 of Wisconsin's 72 counties participating annually. Many participants have little experience with either wetlands or cranes. Since cranes are large and charismatic birds, individuals with little experience in birding often are interested in the count. Participation is not limited to just Wisconsin citizens. Each year all of Wisconsin's neighboring states are represented and some participants arrive from distant states such as Pennsylvania and Florida. Alaska had a representative in the 1991 Count!

Participants also come from many Midwestern cities such as Minneapolis, St. Paul, Chicago, Milwaukee and many smaller towns and villages. [86, GOAL] This form of hands-on environmental education is becoming increasingly important as our population becomes urbanized and loses touch with the fundamentals of living within the constraints of our environment.

[87, ACCOMPLISHMENT] The count also generates involvement outside of the one day on which the count occurs. Count volunteers call ICF to use the data collected during the count to serve as background information when local wetlands are threatened by development. Citizen participation in the sitings of a fire incinerator, a high-voltage power line, a city highway bypass, a request by the WDNR about sightings of prairie chickens, and numerous requests about

miscellaneous filling or draining of marshes are examples of how count participants, and count data, are involved in local issues.

[88, GOAL] In this sense, an argument could be made that the count not only teaches values, but that it helps to produce a citizenry that is actively involved in important societal issues. [89, ACCOMPLISHMENT] The level of participation and the activities of individuals and groups before and after the count indicate that the count is an effective educational tool in changing behavior.

#### Background

Sandhill and Whooping Cranes ranged across Wisconsin prior to European settlement. Native Americans often chose cranes as their totems and cranes were an important part of their heritage. Whooping Cranes were never very common even before European settlement, but probably a few pairs nested with the confines of what was to become Wisconsin. Sandhill Cranes were numerous and were found throughout Wisconsin in the early 1800s.

Wisconsin could be divided roughly in half by a line delineating the "tension zone" that runs roughly from Green Bay to south of Superior. North and east of this line are the northern plant communities characterized by boreal forest of the north. South and west of this line are plant communities dominated by more southern plant communities such as prairie and deciduous forest.

Southwestern Wisconsin is dominated by the unglaciated Driftless Area. The area is characterized by steep topography with few large rivers and even fewer natural lakes. There are marshes along the Mississippi and Wisconsin Rivers, but wetlands suitable for nesting cranes are relatively uncommon in this area when compared to the rest of southern Wisconsin. Much of the rest of southern Wisconsin was dominated by prairie and oak savanna and wetlands.

Fire maintained Wisconsin prairies. Wildfires swept across Wisconsin prairies and oak savannas killing all but the most hardy of the invading trees and leaving the fire-adapted prairie communities behind. While many of these fires were set by lightning, Native Americans also set fires. They realized that grasslands could support more of the game on which they subsisted than what heavy forest could support. Fires also encouraged the growth of berries and other important food items for the hunters and gatherers of pre-European Wisconsin.

Cranes thrived in the marshes of these areas. However with European settlement wildfires were no longer looked on favorably and wetlands were regarded as impediments to progress. Heavy forest began to dominate the landscape as fires were suppressed. Wetlands were drained to provide more room for agriculture. Often fires would start in the dried peat and burn for months.

Due to the rapid changes in their traditional habitat, crane populations declined. By 1900 the last Whooping Crane migrated through the state. By 1936 only an estimated 25 pairs of Sandhills were left in Wisconsin. Most of these were living in the central sand counties in marshes found on public land. The few cranes found on private lands were located in cranberry bogs.

Protection (at least for overhunting) for many species of migratory birds, including cranes, came with the ratification of the Migratory Bird Acts of 1916 and 1918 with Great Britain (on behalf of Canada) and Mexico. But waterfowl, such as ducks and geese, continued to decline due to loss of habitat.

Meanwhile social and economic issues forced many farms developed on reclaimed wetlands in the late 1800s and early 1900s to be abandoned. Many of the abandoned farms, defaulted to the government for back taxes, were reflooded to provide additional habitat for ducks and geese. But the increase in wetlands also benefited the cranes. In the 1940s crane numbers began to increase and by 1974 Sandhill Cranes were removed from Wisconsin's endangered species list.

#### Count Organization

Since the count covers a relatively large geographical area, and has so many participants, it is necessary to have an organizational hierarchy. The count has been organized by an ICF staff member since 1981. Primary responsibilities of the State Coordinator are to:

1. recruit and train County Coordinators
2. create, revise, and distribute training materials for both the County Coordinators and participants
3. assist Count coordinators in mapping potential sites
4. provide additional information to County Coordinators as requested
5. distribute advance publicity
6. summarize count results and distribute to participants

The primary responsibilities for the County Coordinators include:

1. recruiting participants through publicity (newspapers, radio, TV, posters, etc.)
2. conducting the county meeting and present educational materials like the slide/tape show developed by the State Coordinator
3. assigning sites for each group of counters and provide them with the materials to survey their site
4. answering any additional questions from participants
5. assembling, checking, and summarizing post-count data and return it to State Coordinator
6. identifying new survey sites



7. holding the post-count meeting, usually the morning of the count, to gather data sheets from participants

The date for the count is in mid-April. Timing is important to coincide with the conclusion of migration, but before the birds begin to nest since cranes become more secretive after nesting starts. The count runs from 5:30am to 7:30am Central Daylight Time since this is when the cranes are most active and vocal.

Each site is marked on a master map and identified by a unique number for that county. Information gathered during the count is computerized and identified by county name and the site number.

Each county is supervised by a County Coordinator, although in a few instances a coordinator may supervise two counties. County Coordinators are recruited starting in early December, although recruiting efforts continue until late March. Training for coordinators includes a packet of information and instructions, a four hour training session at the International Crane Foundation, and personal contact with the State Coordinator via telephone or written correspondence. County Coordinators are sometimes Wisconsin Department of Natural Resources employees, local teachers, interested birders, etc.

Participants from previous years are contacted by the County Coordinator by either postcard or telephone call to let them know the date of the county training session and the count. New counters are reached through the media, usually newspapers, or by putting up posters provided in the coordinator's packet.

The county training session for participants is usually held one to three weeks before the count. Some counties use two sessions; one session on a week night and the other on a Saturday or Sunday. This practice provides a more personal training session for the participants and reduces congestions in some of the counties where the count is very popular.

Not only the counters show up at these training sessions. For instance, Dane County routinely has in excess of 250 people attending the training session. Some of these individuals do not necessarily want to participate in the Count any further than the training session. (Since Dane County have more counters than sites, nearby County Coordinators capitalize on this bonanza by attending the Dane County meeting and recruiting Dane County participants for their counties!) [90, GOAL] Landowners are naturally curious why participants want to count cranes and in most instances quickly volunteer their knowledge about where they have seen cranes and where cranes traditionally nest. Landowners often express interest in the habits of the birds and want to learn more about them.

At the training session participants are assigned to a site, provided a map, a set of instructions, a Sandhill fact sheet, and data forms on which to record their

sightings. Participants also view a tape-narrated slide show that gives them a history of the Sandhills in Wisconsin, their habits and biology, and relationship to the wetlands. The show also provides examples of other animal species that can be encountered on count morning. Since about half of all cranes counted are heard rather than seen, the tape provides examples of the crane guard and unison calls.

On the morning of the count, participants arrive at their site and begin recording information on the data sheets. This includes the site number, their name, the landowner's name, county name, condition of wetlands, other species observed, plus any cranes they may hear or see. Information they gather on crane sightings include the time of the observation, and location of the bird and its behavior. [91, GOAL] They also draw a map of the area to sharpen their observation skills and to direct future counters to the best areas.

ICF retains the paper record of each count and has entered much of the data into Symphony, and integrated software package produced by Lotus, Inc. Symphony is readily available and widely used. It does have some limitations including the size of the database that can be loaded into it and its speed when searching or sorting. Symphony uses a file format that lends itself to importation into other commonly used database software such as the dBase family. Because of the amount of data the count produced over the last several years, we have broken the database into several files.

[92, IMPLICATION] Results are provided to the Wisconsin Department of Natural Resources (WDNR). The WDNR is in the process of mapping all wetlands in Wisconsin using a geographical information system (GIS), which is a computerized mapping system. [93, GOAL, IMPLICATION] It is hoped that at some time in the future that the count data may be loaded into the system to provide additional information about the distribution and densities of cranes in Wisconsin.

#### Summary

[94, ACCOMPLISHMENT] 1. The count generates data in greater amounts that what would be possible using more traditional research methods.

[95, ACCOMPLISHMENT] 2. The count touches more people than just the 3,600 counters, their families, and coordinators that participate each year. People other than those that will actually count cranes come to the training sessions to learn more. Landowners are frequently eager to share their knowledge about cranes on their property and want to know more about the count.

[96, ACCOMPLISHMENT] 3. The count generates enthusiasm for preserving wetlands. Each year ICF receives numerous calls from crane counters concerned about wetland destruction in their neighborhoods. Information gathered in the



count is available to individuals and groups to support or oppose activities near wetlands.

[97, ACCOMPLISHMENT] 4. The count allows us to gather the data necessary to draw conclusions about the Sandhill population growth that we suspect is occurring in Wisconsin. As the data accumulates, we should be able to draw better conclusions.

Citation:  
Designation: I1994

#### 20 Years of Counting Cranes: What Have We Learned?

by Gordon Dietzman, Education Coordinator  
and Scott Swengel, Assistant Curator of Birds

The morning sun comes up slowly in early spring. Once up, it warms the chilly, damp air over Wisconsin wetlands even more slowly. Most of us greet these nippy mornings by pulling a thick comforter up around our ears, sinking deeper into warm beds. But sunrise on the morning of the Sandhill Crane Count finds nearly 2,600 people braving the elements to watch and listen for Sandhill Cranes in Wisconsin wetlands.

[98, GOAL] The count enables ICF to determine trends in the Sandhill Crane population in Wisconsin. This statewide survey, one of the largest single-species surveys in the world, is made possible by volunteers who participate for a variety of reasons.

[99, AUDIENCE] Some participants see it as a chance to get outdoors and greet the spring after a long winter. Others view the count as a project having special personal significance. Still others see the count as an adventure, going to new sites every year, while some prefer counting at the same site each year.

[100, AUDIENCE] For many it is a wonderful opportunity to see and hear cranes and other wildlife. During early morning in spring, the wetlands teem with life. Geese and ducks are migrating -- to their honks, quacks, and whistles are added the songs of other early arriving birds. Deer, fox, beaver, ruffed grouse and pheasant are also commonly reported, as are less common species such as prairie chicken or sharp-tailed grouse. The most unusual report, however, came on a very cold morning from a fun-loving counter who reported seeing Santa Claus!

#### Only 25 Sandhill pairs remained

Sandhill Crane sightings were almost as rare as Santa sightings in the first half of this century. Changing land-use patterns and overhunting, coupled with other forms of disturbance during settlement, coincided with a dramatic decline in the number of Sandhills in the midwestern states.

Before settlement, cranes probably foraged in prairies and savannas for part of

the year. These natural communities, however, also attracted European settlers. The settlers eliminated large grazing animals and wildfires -- both of which had prevented the encroachment of woody plants -- so forests began to replace savannas and trees began to invade prairies. Other prairies and savannas were plowed or turned into pasture for livestock.

Neither were savannas spared as settlers felled the open-grown oaks for building materials and firewood, or to clear additional fields. These changes in land use spelled the end of prairies and savannas in Wisconsin. A few of the old open-grown savanna oaks still remain, but now their lower branches are entwined with lesser trees, lonely sentinels guarding degraded patches of Wisconsin's past. Prior to European settlement, one fourth of Wisconsin's land surface was covered by wetlands, but by the mid-1980s, Wisconsin had lost nearly half of its wetlands, many of them destroyed between 1870 and 1950. By the mid-1930s, only an estimated 25 Sandhill pairs remained in Wisconsin, when Aldo Leopold described the wetlands as "... humbled, adrift in history. . .," because cranes no longer lived there.

Despite Leopold's concern for cranes, Sandhills did not disappear from Wisconsin. In fact, the population began slowly to increase and by 1973, had recovered sufficiently for Sandhills to be removed from Wisconsin's endangered species list.

An educational and research tool

Begun in 1975 as a high school project, [101, GOAL, ACCOMPLISHMENT] the count accomplishes two things. First, it's an exceptional tool for teaching about cranes and wetlands. The last two counts averaged nearly 2,600 volunteers, with about half new to the count each year. At a training session held prior to the count, participants learn about cranes and the ecosystems on which they depend. Participants are provided data forms and select a site within their county to survey. They are instructed to count not only the number of cranes they see or hear, but also to observe and record the condition of the wetlands.

[102, GOAL, ACCOMPLISHMENT] The other function of the count is to collect information about the distribution and frequency of cranes in Wisconsin. Participants have collected a staggering quantity of data, which ICF has shared with Wisconsin's DNR and other government agencies. Citizen groups and individuals have also requested count results to use in the permit process for controversial development projects.

What can we learn from this body of data? Before drawing conclusions, we must be aware of biases inherent in the count. The count is scheduled after migration to avoid counting migrating cranes, but before the cranes become secretive and

difficult to find as the nesting season begins. A Saturday in mid-April is the best compromise. A late spring, however, brings late migration which results in a larger count, while an early spring brings early nesting, which results in a lower count.

Weather on the day of the count also affects results, since fog can obscure the birds and heavy winds may mask calls, causing the final tally to be low. Heavy snows or rainstorms may also prevent some participants from reaching their site. These effects all complicate the process of making comparisons between years, and explain much of the year-to-year fluctuation in the numbers of cranes shown in the graph on page 2.

But we still wanted to analyze how populations were changing over time. To diminish the effects weather may have on results, data were averaged within two periods of three years each, and then the two periods were compared. We will call the counts of 1983, 1984, and 1985 "Period 1," and the counts of 1989, 1990, and 1991 "Period 2." By comparing the average number of cranes per site, and also the average number of pairs per site for these two periods, we were able to confirm the population increase suggested by the graph on page 2. Between Period 1 and Period 2, the number of cranes per site increased by 19%, (t-test,  $p < .001$ ) and the number of pairs per site increased by 7% (t-test,  $p < .01$ ).

It is especially important to consider where these increases occurred. Based on the data collected in Period 1, we divided Wisconsin into three zones: A "high-density" area where all counties averaged over 2 cranes per site, a "medium-density" area where all counties averaged 1-2 cranes per site, and a "low-density" area where all counties averaged less than 1 crane per site. The left-hand map on page 3 shows the distribution and average density of cranes per site for Period 1. The right-hand map shows the same information using the same criteria, but for Period 2.

All counties designated as high-density counties in Period 1 were also high-density counties in Period 2 (excepting Langlade County, which didn't have enough Period 2 data to classify). When we looked at the medium and low-density areas of Period 1, we found that by Period 2, the crane populations had doubled in the medium-density areas, and tripled in the low-density areas.

In other words, between Period 1 and Period 2, nine medium-density counties changed to high-density counties, while no high-density counties declined to medium-density. Likewise, many of the 28 counties classified as low-density in Period 1 were reclassified as medium-density in Period 2. (Several of the Period 1 low-density counties had insufficient data to classify in Period 2.)

Other count results demonstrate that the average number of breeding pairs per

site remained the same in Period 1 high-density counties through the end of Period 2, suggesting that Sandhills have occupied all potential breeding territories in these counties. But between Period 1 and Period 2, the average number of pairs per site increased by 80% in the Period 1 medium-density counties, and by 169% in the Period 1 low-density counties.

In summary, the data reveal stable crane populations in the high-density counties, while medium and low-density counties have rapidly increasing crane populations. For example, the counties having the lowest density in 1983-85 had the greatest rate of increase.

We hypothesize that the growth of crane populations in Wisconsin has progressed through two stages. First, the substantial increase in crane populations at the edge of their 1983-85 range in Wisconsin is caused by newly-formed pairs establishing new breeding territories in medium and low-density counties, where competition with established pairs is lower. Second, a few years later, young produced by these new breeding pairs also begin to reproduce, adding to the growing populations in medium and low-density counties.

[103, GOAL] All too often, biologists are only able to document the decline of a species. But now, crane counters are witnessing the opposite trend, as crane populations increase and expand their range outward from central Wisconsin. Further evidence for range expansion comes from neighboring states. Illinois, Indiana, and Ohio have all recorded nestings in the 1980s, their first in over 70 years. Iowa recorded a nesting in 1992, the state's first since 1894!

The count reaches out

It was still dark on the morning of the 1991 count as a slow-moving van weaved its way along a back road in Marquette County. Scott and Ann Swengel, the Marquette County Coordinators, nervously watched the van's approach as they changed a flat tire on their own car. When the van stopped for directions, the Swengels were relieved to recognize ICF's own Eric Scott at the wheel. Eric had been trying to read a road map while driving and communicating with five Tibetan and Chinese biologists on their first Wisconsin crane count. Scott gave Eric directions, then drove away to find his own site before the sun rose.

[104, GOAL, ACCOMPLISHMENT] Biologists and reserve managers from all over the world come to ICF to learn about captive breeding and reserve management, but they also learn about environmental education programs such as the crane count. The count demonstrates to our colleagues the important role of public involvement in preserving endangered species of cranes, and in saving the

wetlands and grasslands on which both people and cranes depend.

Crane counts are popular in other countries as well. For example, Japanese school children count Red-crowned, White-naped, and Hooded Cranes. Eurasian Cranes are counted in France, Germany, Russia, Spain, and Sweden. Counts of other species have been conducted in China, India, Kenya, and South Africa.

On April 16, the Sandhill Crane count will celebrate its 20th anniversary. In the gray twilight of that early morning, volunteers will once again take to the wetlands to listen for the sounds of spring and for the calls that herald the return of Sandhill Cranes.

Editor's note: If you are interested in being a County Coordinator or would like to participate in the count, call Rob Nelson at ICF for more information. This article provides a preliminary look at results of the crane count. ICF staff are now working on a more comprehensive report.



Citation:  
Designation: J1999

Choices for Wisconsin:  
The Crane Hunting Proposal

By Jim Harris, Deputy Director, and George Archibald, Director

Over the past 26 years, the International Crane Foundation (ICF) has based both thought and action on the belief that people must work together. The cranes -- these elegant, ancient ambassadors of goodwill -- have helped us address the threats of a modern world. In distant regions, we have sought common ground and built alliances for conservation among diverse groups. . . across the Russian-China border, along the crane flyways through Pakistan, and where the cranes winter in the Demilitarized Zone of Korea.

The April 12th vote of the Wisconsin Conservation Congress, 2,465 to 1,162 in favor of a limited Sandhill Crane hunt, is advisory in nature and an expression of interest by one constituency in the state. The vote highlights a growing conflict close to home. How does one apply the lessons and values of 26 years?

[105, GOAL] The simplest answer is that ICF has a special responsibility as a source of reliable information. ICF has studied cranes in Wisconsin for over 20 years, in large part with the help of thousands of volunteers in the annual Sandhill Crane Count. Our research provides the best available means of evaluating the status of this population and the likely impacts of a hunt. Our expertise and objectivity on this issue have enabled us to inform and interact with all the diverse groups involved in crane issues. As scientists who believe that hunting and other conservation choices should be made by society as a whole, based upon the best science, we need to retain our objectivity.

ICF is also a conservation organization. Conservation action arises out of strong values. We believe that threats to cranes and their ecosystems are accelerated as people become sharply divided. In Wisconsin, and most other parts of the world, the chief threat to cranes is loss of wetland habitat. Certainly the decision for Wisconsin, whether or not to hunt cranes, will depend on expression of deeply personal beliefs and choices. But the long-term survival of cranes, and people, depends on nurturing our shared values and a vision that can bridge even strong differences. There is real danger that a bitter dispute about crane hunting in Wisconsin could alienate farmers and many other landowners, who have a primary role in safeguarding the habitats that cranes and many other birds need to survive. ICF is actively engaged as advocates for the long-term needs of the cranes and for the rural landscape on which they depend.

First, we are committed to obtaining accurate scientific information about cranes. Beginning in 1991, we started studying cranes in central Wisconsin because we realized that increasing crane numbers could eventually lead to conflicts with farmers. Our research has helped to define the problem -- when damage occurs, where, and to what extent -- and to develop preventive measures.

[106, GOAL, ACCOMPLISHMENT, NEED] Fall surveys, coordinated by government agencies, provide a rough estimate of the overall size of the midwest crane population, and thus provide a basis for the hunting proposal. But the ICF-sponsored Midwest Crane Count has yielded a much more detailed record of changes in crane distribution and numbers. Crane Count data have therefore allowed scientists critically to evaluate one of the alleged reasons for a crane hunt: the need to control a rapidly growing crane population. Our data indicate, in two ways, that crane numbers in the state are not likely to keep growing. First, crane populations in the eight most densely populated counties of Wisconsin appear to have stabilized. Second, the number of Wisconsin counties containing over 100 birds has changed very slowly over the past 15 years. Cranes appear to be limited by suitable breeding habitat.

The role of science is critical. In many states where crane hunting has been proposed, proponents of hunting have based their arguments on damage to crops and the needs of farmers. The issue has been framed in economic terms, of human needs 'versus' the birds. Our Wisconsin research effectively separates the hunting proposal from the crop damage issue. The worst crop damage by cranes occurs to corn just after it germinates in spring. A fall hunt would not solve the crop damage problem unless the crane population was dramatically reduced. To be effective, a spring hunt would need to occur at the time that cranes and many other wetland birds are nesting; even so, hunting might merely shift foraging cranes from one farm to another. Our research points to a more direct solution to crop damage: use of a repellent on the seed corn that effectively stops cranes from eating young corn.

From a scientist's perspective, a crane hunt could not be compatible with conservation in many parts of the world. Most cranes are rare or declining, and their habitats deeply threatened. Most countries have very limited capacity to monitor impacts of hunting, or to control a hunt once legalized. None of these conditions apply to Wisconsin.

Second, we are committed to ensuring that public discussion of crane hunting is based on accurate information. The resolution presented by the Wisconsin Conservation Congress was inaccurate, offering the crane hunt as a solution to crop damage by cranes. Our research indicates that a crane hunt, as proposed, will not solve the damage problem. Alternatives to hunting are more promising.

ICF researchers have been meeting with state policy makers and the media to explain our research. Our researchers are speaking often to farming groups as well as other organizations involved in conservation. Our mailings and website are placing our research results in the hands of members, crane counters, and the general public.

Third, we believe that the best decision on crane hunting will occur with maximum involvement of an informed public. We will make sure our members, and the public, know the key steps in the public process for discussion and decision on a crane hunt for Wisconsin. We urge our members to be active in this process.

Our fourth commitment is to work with farmers, and other individuals and organizations, to find an effective strategy for preventing crop damage by cranes. Given the dependence of Sandhill Cranes on Wisconsin farmlands, crane conservationists need to work with and for farmers. Thus, ICF must remain objective and fair. We can hardly expect farmers to trust or rely upon our proposals for solving crop damage if our main agenda is to oppose hunting of Sandhill Cranes. Our stance has enabled us to work on cranes with more than 50 farming families in central Wisconsin. The collaboration has taught us much, not only about the localized but significant damage cranes cause to some farmers, but about land-use issues and the pressures upon wetlands in agricultural areas.

Solutions for damage in Wisconsin will be important for crane-farmer conflicts elsewhere in the United States and abroad. Most of the world's crane populations depend significantly on farmlands.

Our fifth commitment echoes our work of the past 26 years: we will strive to unite people on behalf of the cranes, because we believe the combined efforts of everyone are needed to ensure a place for wildlife. Today in Wisconsin, most cranes live on private lands, often farmlands. The decisions these land owners make about their wetlands, meadows, and croplands -- about conservation of cranes and other wildlife -- will shape the future of the state's crane population. It is imperative that crane conservationists build a vision sensitive to and inclusive of landowners, many of them farmers and hunters, so that we work effectively together.

ICF, in fulfilling its mission, needs to welcome everyone interested in cranes. Landowners and hunters have often been at the forefront of efforts to conserve America's waterbirds and wetland habitats. Cranes cannot afford the message that hunters are not crane conservationists. We will continue to nurture alliances among hunters, farmers, and other conservationists for wildlife.

The hunting issue is highly important to Wisconsin, because of the spectacular presence of cranes and their comeback from near extinction in the state. Our choice at ICF is to do our best to facilitate an informed decision by the public and a strong,

inclusive process. We hope, through this process, that diverse groups will choose to understand each other and, whatever the individual differences, to respect and build upon our common love for wildlife.

Visit ICF's website to learn more about ICF's Sandhill Crane research and its implications for crop damage control and crane hunting in Wisconsin. Or see articles in the November 1997 and August 1996 issues of *The ICF Bugle*. Or, write or call ICF and ask Kate Fitzwilliams for a copy of our special mailing to Wisconsin members in April 1999. P.O. Box 447, Baraboo, WI 53913 or [kate.icf@baraboo.com](mailto:kate.icf@baraboo.com) or 608-356-9462 ext. 147



**APPENDIX C:**  
**Historic Document Review Spreadsheet**

Document Designation	Text ID #	Contact	Primary Code Number	Primary Code Word	Sub-code Numo	Sub-code Numo	Sub-code Numo	Sub-code Numo	Sub-code Numo
F1085	73	We plan to continue indefinitely conducting the annual crane count. The more data we have from particular sites, the more useful it becomes. But also, the network of volunteer county coordinators and participants that we have developed over the years probably would not remain involved if the count occurred only once every 2 to 3 years.	4	Implication					
A1081	18	1. The crane survey provides a fine opportunity for people to have a positive encounter with Wisconsin wetlands and wildlife. We hope to recruit people for whom this will be a new and exciting experience, and want to generate an appreciation for our wetlands.		Goal	19	11	12	13	8
B1081	26	The major accomplishment of the annual count is to expose many people to the beauty and fragility of the wetland environment and its inhabitants. Wetlands in constant danger of development for agricultural or commercial use, and efforts to protect Wisconsin marshes require general public awareness and support. The thrill of seeing a Sandhill Crane in its native habitat has inspired, in many minds, a change from thinking of wetlands as "distasteful swamps" to considering them a vitally important ecosystem worthy of protection. Also, as survey participants return to the same marshes year after year, we gain valuable information about changes in the status of wetland areas. Sites of draining and ditching are identified and can be checked for compliance with government regulations.	3	Accomplishment	18	9	17	15	9
O1084	38	Even more importantly, crane counts educate citizens by providing them an opportunity to become involved in studying and ultimately protecting cranes and wetlands. Techniques, painstakingly developed in Wisconsin, are now available for application to other regions where cranes breed, migrate, or winter.	1	Goal	7	8	9	11	12
F1085	32	Second, and equally important, the crane count educates citizens by providing them an opportunity to participate in studying and ultimately protecting cranes and wetlands. As preparation for the count, participants learn about crane biology and behavior and the importance of wetland habitats. The count then takes the observers into the marshes at a beautiful time of morning. As people become enthusiastic about protecting cranes and their habitats, their interest can carry over into other facets of conservation.	3	Goal	10	18	8	8	8
C1082	31	The crane count (refers to 1981). STBI was maturing, and becoming an important vehicle for monitoring crane populations and inspiring public interest in wetlands.	1	Accomplishment	12	9	7	11	
F1085	75	We highly recommend crane counts as research-education projects for other areas within the United States and abroad. The essential need is for an institution able to make a long-term commitment to organizing a count and carefully keeping the data. ICF has developed an instructional packet about the census in Wisconsin, including samples of forms and guidelines for coordinators and participants. These materials can be adapted for other areas.	4	Implication					
O1084	40	The cranes in turn introduce participants to the beauty and value of the wetland habitats on which the cranes depend. As the counters learn to care about cranes, they start to care about wetlands and the myriad forms of other wildlife that share them. Publicity for the crane count serves to impact far beyond the counters themselves.		Goal	5	10	11	13	
J1099	105	The simplest answer is that ICF has a special responsibility as a source of reliable information. ICF has studied cranes in Wisconsin for over 20 years, in large part with the help of thousands of volunteers in the annual Sandhill Crane Count. Our research provides the best available means of analyzing the status of this population and the likely impacts of a hunt. Our expertise and objectivity on this issue have enabled us to inform and interact with all the diverse groups involved in crane issues.	3	Goal	7	10	9	18	
			3		12	8	11	18	



F1085	55	Third, the crane count encourages wetland conservation. Cranes serve as excellent indicators of the health of their ecosystems. Participants record not only the presence of cranes, but also the condition of their study sites and any recent habitat changes they can detect. When all these data are assembled, the extent of habitat change and its effect on crane populations can be determined. The crane data also can identify wetlands especially worthy of protection.	Goal	3	18	11	12	18
F1085	62	It is due to our varied but plentiful participants that the Wisconsin crane count can exist on the scale it does. Many crane counters <b>love</b> support other ICF programs and <b>work</b> to protect the wetlands near their homes.	Accomplishment	1	13	8	15	18
I1004	104	Biologists and reserve managers from all over the world come to ICF to learn about captive breeding and reserve management, but they also learn about environmental education programs such as the crane count. The count demonstrates to our colleagues the important role of public involvement in preserving endangered species of cranes, and in saving the wetlands and grasslands on which both people and cranes depend.	Accomplishment	1	10	6	8	8
G1087	82	Perhaps the greatest benefit of crane counting is the opportunity it provides for people to interact with and learn from nature. This exposure often stimulates participants to develop a deeper concern for wildlife conservation in general, so they can then help to spark local action on behalf of cranes and their threatened habitats.	Goal	3	18	9	8	8
H1001	95	The count reaches more people than just the 3,600 counters, their families, and coordinators that participate each year. People other than those that will actually count cranes come to the training sessions to learn more. Landowners are frequently eager to share their knowledge about cranes on their property and want to know more about the count.	Accomplishment	1	7	10	8	8
G1087	81	In order to design and implement effective preservation strategies we must first know the distribution and abundance of the cranes. The best method to obtain this basic ecological information is by involving those peoples who live with the cranes.	Goal	3	18	11	8	8
F1085	47	The project is an effective educational tool, exposing a great variety of people to cranes and conveying a sense of wonder and appreciation toward wetlands.	Goal	3	10	7	9	9
H1001	86	This form of hands-on environmental education is becoming increasingly important as our population becomes urbanized and loses touch with the fundamentals of living within the constraints of our environment.	Goal	3	13	7	9	9
A1081	2	A primary goal of the crane count is to enhance wetland protection by increasing public awareness and appreciation for cranes.	Goal	3	18	7	9	9
G1087	83	From a purely scientific standpoint crane counts generate baseline data otherwise unavailable. As an educational tool, they are an effective means for bringing people closer to their natural world. United in a spirit of enthusiasm, participants build a greater receptivity toward all life. Crane counting helps people as well as cranes, and in the final tally, these simple counts may also play a part in international coexistence.	Goal	3	11	10	9	9
A1081	3	By seeking participants from a variety of non-biological backgrounds the crane survey promotes recognition and appreciation of cranes and can instill a positive attitude toward habitat protection.	Audience	2	15	10	9	9
A1081	23	Want out to learn, contribute to conservation, and have fun.	Goal	3	10	18	9	9
H1001	97	The count allows us to gather the data necessary to draw conclusions about the Sandhill population growth that we suspect is occurring in Wisconsin. As the data accumulate, we should be able to draw <b>better</b> conclusions.	Accomplishment	1	13	11	12	12
I1004	100	The other function of the count is to collect information about the distribution and frequency of cranes in Wisconsin. Participants have collected a staggering quantity of data, which ICF has shared with Wisconsin's DNR and other government agencies. Citizen groups and individuals have also requested count results to use in the permit process for controversial development projects.	Accomplishment	1	13	11	12	13
F1085	48	Research value of the project depends on collection of data from many sites over several years.	Goal	3	11	12	13	13

FI085	64	We believe that a minimum of 3 years of data should be accumulated before the status of cranes in any county can be closely evaluated.	3	Goal	11	12	13
HI091	88	In this sense, an argument could be made that the count not only reaches values, but that it helps to produce a citizenry that is actively involved in important societal issues.	3	Goal	10	8	18
J1090	108	Fall surveys, coordinated by government agencies, provide a rough estimate of the overall size of the midwest crane population, and thus provide a basis for the hunting proposal. But the ICF-sponsored Midwest Crane Count has yielded a much more detailed record of changes in crane distribution and numbers. Crane Count data have therefore allowed scientists critically to evaluate one of the alleged reasons for a crane hunt, the need to control a rapidly growing crane population.		Accomplishment			
A1081	8	As the survey coverage becomes more complete and extends into counties on the periphery of known crane ranges in Wisconsin, significant information about the numbers and locations of cranes can be obtained.	1	Goal	11	13	18
DI084	44	Anyone wishing to begin a crane count is invited to contact Jim Harris, Education Coordinator, International Crane Foundation, Route 1, Box 230C, Baraboo, Wisconsin 53913, U.S.A. Our telephone is (608) 366-0462. We would be happy to supply more information on the counts.	3	Implication	13	11	19
FI085	56	The crane count is the result of the dedication and effort of thousands of volunteer observers, many of them returning year after year to help.	1	Accomplishment	10	5	8
FI085	66	because we encourage observers to visit a site near their home or a wetland they especially like. As observers change from year to year, so do the sites surveyed. But in this way, we hope to encourage people to become involved in the welfare and fate of individual wetlands, so that they are likely to try to influence governmental or private landowner decisions affecting those wetlands.	3	Goal	9	8	
HI091	80	The level of participation and the activities of individuals and groups before and after the count indicate that the count is an effective educational tool in changing behavior.	1	Accomplishment	10	9	
GI087	76	Participants show in a love for wild nature, and find that counting cranes is a grand way to express that reverence. The majestic birds are highly visible, swarming and inspiring curiosity and wonder in people of all cultures.	2	Audience	14	9	
HI091	90	Landowners are naturally curious why participants want to count cranes and in most instances quickly volunteer their knowledge about where they have seen cranes and where cranes traditionally nest. Landowners often express interest in the habits of the birds and want to learn more about them.	3	Goal	16	10	
DI084	42	In Wisconsin, all participants attend a practical meeting to prepare for the count.	2	Audience	17	10	
A1081	6	Participants attend the county informational meeting for instruction on the identification of cranes by sight and sound, and receive a survey site packet.	3	Goal	17	10	
FI085	50	The results are announced to the public and to participants as soon as possible, and all records are saved for permanent record.	3	Goal	7	11	
A1081	17			Goal			
A1081	12	Have a great count. How about having a donut and coffee get-together on count day at a local cafe or your home, so folks can share enthusiasm, answer questions, and hand in their data sheets and maps.	3	Goal	9	11	
A1081	12	Please list either bird seen, intended primarily to direct participant's attention to other wildlife around him/her, and provide additional info on habitat.	3	Goal	10	11	
DI084	36	CRANE COUNTS -- A TOOL FOR EDUCATION AND RESEARCH	4	Implication	10	11	
HI091	94	The count generates data in greater amounts than would not be possible using more traditional research methods.	1	Accomplishment	13	11	



ID	Description	Accomplishment
H1091	87 The count also generates involvement outside of the one day on which the count occurs. Count volunteers call ICF to use the data collected during the count to serve as background information when local wetlands are threatened by development. Citizen participation in the siting of a five inductor, a high-voltage power line, a city highway bypass, a request by the WDNR about sightings of prairie chickens, and numerous requests about miscellaneous filling or draining of marshes are examples of how count participants, and count data, are involved in local issues.	8 12
H1091	96 The count generates enthusiasm for preserving wetlands. Each year ICF receives numerous calls from crane counters concerned about wetland destruction in their neighborhoods. Information gathered in the count is available to individuals and groups to support or oppose activities near wetlands.	9 12
A1081	20 3. Knowledge of the usage of wetlands by cranes can be incorporated in environmental impact studies of lands proposed for development.	11 12
E1084	45 This will give us a better understanding of crane numbers and, most importantly, yearly changes in wetland habitats and how these changes are affecting breeding cranes across Wisconsin.	11 12
F1085	65 The crane count has significance for research because of the large number of sites surveyed. A two-county sample is too small to reveal population trends. But the two counties give us an indication of just what the project is accomplishing, and can guide data analysis for the whole state as additional years of data accumulate.	11 12
F1085	68 Along with revealing the characteristics of marshes frequently used by cranes, the crane count data should also provide information on the differences between sites preferred and sites not preferred by cranes.	11 12
F1085	70 The data bank will serve two main purposes. The DNR will have the crane count results available for use in its water regulatory and environmental impact programs. And ICF will have the data readily accessible for research and analysis.	11 12
F1085	71 We will then be able to analyze numbers of cranes reported at sites and evaluate habitat. In this manner, for example, we can assess characteristics of wetlands that support more than one pair of cranes.	11 12
F1085	72 The count as a whole does not directly measure population size or change for sandhill cranes, due to variations in the coverage of sites. But the priority sites, surveyed every year, will allow close comparison of crane numbers for a large sample of Wisconsin wetlands. These data will serve as our measure of population change.	11 12
F1085	54 The event is especially effective as an education tool because people learn by doing. They have a clear and practical goal for their efforts.	10 13
F1085	51 First, it is a research tool. An army of volunteers checks wetlands throughout Wisconsin for the presence of greater sandhill cranes on one early morning at the beginning of the breeding season. The crane count is collecting extensive information on abundance and distribution of cranes. These data would be impossible to gather through more intensive studies by wildlife professionals -- the crane count therefore complements more traditional research efforts.	11 13
A1081	10 2. The annual nature of the crane count permits long-term monitoring of known wetlands. Alterations which are observed can be checked for compliance with state regulations.	12 13
F1085	58 These materials (training materials, BWS) introduce observers (who often have little scientific background) to crane behavior and wetlands, and to values of wetlands for wildlife and people.	10 15
D1084	42 In Wisconsin, all participants attend a practical meeting to prepare for the count.	10 17
F1085	60 The county coordinator holds a meeting to introduce volunteer observers to cranes and wetlands and to distribute the materials they will need.	10 17

A1981	0	The importance of the public education aspects of the count should not be underestimated. Participants whose backgrounds often do not include a previous positive experience with wetland habitats are specifically recruited.	Audience	2	15	17
F1984	00	Some participants see it as a chance to get outdoors and great the spring after a long winter. Others view the count as a project having special personal significance. Still others see the count as an adventure, going to new sites every year, while some prefer counting at the same site each year.	Audience	2	14	18
A1981	11	Names and addresses of landowners: ICF plans to send a letter to landowners with crane marshes, recognizing them for their contribution to protecting wetlands.	Audience	2	15	18
A1981	3	A second goal of the 1982 crane count is to expand into more counties on the periphery of recorded crane habitat - areas where cranes may be residing undetected.	Goal	3	13	19
F1985	40	Over the last decade, the annual sandhill crane count has become an important event for thousands of adults and children in Wisconsin.	4 Implication	4	15	19
G1987	78	Today, the Wisconsin count has evolved into an annual statewide rite of spring, with 2900 volunteer participants covering over 1400 sites in 64 counties.	4 Implication	4	18	19
D1984	30	ICF staff have prepared an instructional packet for people wishing to start new crane counts. The packet includes details on how to organize the count over a large or small area -- initial efforts in a region should usually be targeted over a small area -- as well as samples of the report forms used in Wisconsin. Assistance is also available for planning the timing of the count, publicizing the count, and developing educational materials for the participants.	Goal	3	18	19
G1987	80	The project has become a model for other regions to follow.	4 Implication	4	6	6
C1982	34	But if one person could be singled out as contributing most to the growing public interest in the crane count and wetlands protection legislation, it is Karen Veas.	Accomplishment	1	7	7
A1981	10	Additionally, a large number of non-participants are reached through publicity generated by the crane survey.	Audience	2	7	7
A1981	13	Keep in mind that one of the goals of the survey is to expose many people, often for the first time, to the beauty and fragility of Wisconsin wetlands and wildlife.	Goal	3	7	7
D1984	41	A crane count is an ideal mechanism for enhancing a statewide or national awareness of wildlife and wetlands in general.	Goal	3	7	7
C1982	20	The cranes, the crane counts, and the wetlands law all have an important common thread: public interest.	4 Implication	4	7	7
C1982	30	From a brave start in one Wisconsin county, the annual Sandhill Crane survey began to build on the public interest in cranes and wetlands which Aldo Leopold kindled.	4 Implication	4	7	7
C1982	35	Public interest is the key to conservation.	4 Implication	4	7	7
F1985	74		Accomplishment			
B1981	27	Although this paper has not emphasized the project's education and wetland conservation goals, much of the value of the crane count derives from its multiple impacts. When one considers the substantial percentage of crane marshes in private hands, active involvement of thousands of citizens, including many wetland owners, in the cause of crane conservation may prove to be the most important result of our efforts.	1	8	8	
C1982	33	Crane Count participants of past years have found the project a rewarding experience.	1 Accomplishment	1	9	9
F1985	33	The Sandhill survey has been an important boost to the long and difficult job of convincing people that wetlands are important.	1 Accomplishment	1	9	9
A1981	15	The cranes have attracted large numbers of people as volunteers, and the count grows in popularity every year.	Goal	3	9	9
A1981	15	Try to get more than one person per site--the more the better for a good count, and its more fun for participants.	Goal	3	9	9



IT1004	101	the count accomplishes <b>two things</b> . First, it's an <b>exceptional tool for teaching about cranes and wetlands</b> . The last two counts averaged nearly 2,600 volunteers, with about half new to the count each year. At a training session held prior to the count, participants <b>learn</b> about cranes and the ecosystems on which they depend. Participants are provided data forms and select a site within their county to survey. They are instructed to count not only the number of cranes they see or hear, but also to observe and record the condition of the wetlands.	10	1	Goal
A1081	16	(Directions to Coordinators. BTB) Show the <b>maps</b> mentioned earlier, or get a set of <b>slides</b> from Scott Freeman at ICF. <b>Take a little bit</b> about the goals of the count (below) and the history Sandhills in Wisconsin.	10	3	Goal
D1084	43	This <b>preparation</b> includes a <b>slide show</b> and <b>tape recordings</b> supplied by ICF so that the counters can <b>recognize</b> cranes and their habits and <b>interpret</b> what they see in the field. These materials also <b>stress the importance of wetlands for wildlife and also for people</b> . In addition, ICF is producing <b>count materials for use by schools and youth groups</b> , based on ICF's successful school tour program at its Wisconsin headquarters	10	3	Goal
H1001	01	They also draw a map of the area to <b>sharpen their observation skills</b> and to <b>direct future counters</b> to the best areas.	10	3	Goal
D1084	37	The crane count has yielded valuable information on the <b>abundance and distribution of cranes</b> in Wisconsin (see the attached map). [NOTE: Map is not attached here. BTB]	11	1	Accomplishment
F1085	63	Although Table 1 cannot be used to compare crane numbers from year to year, the crane totals for 1983 and 1984 -- over 5,000 cranes each year -- do <b>provide minimum figures</b> for Wisconsin's population.	11	1	Accomplishment
A1081	7	This <b>information</b> (numbers & locations of cranes seen and heard -- see source document. BTB) is <b>kept on file at ICF</b> and provides a <b>record of locations where cranes are known to occur</b> .	11	3	Goal
F1085	46	They <b>record all cranes seen or heard</b> and the <b>condition of the wetlands</b> .	11	3	Goal
H1001	84	The count is held during an <b>early two hour period</b> on a <b>Saturday morning</b> in mid-April to <b>count Sandhill Cranes</b> .	11	3	Goal
A1081	4	While efforts of other researchers have thus far been concentrated on <b>intensive surveying of limited areas</b> , there is a <b>need for a broad census</b> . In 1981, over 700 individuals participated in 34 counties - a larger survey area than could be obtained by other means. Counties where little is recorded about the presence of cranes were included.	11	5	Need
A1081	22	We <b>need to know how many Sandhill Cranes are in Wisconsin, and where they are</b> .	11	5	Need
H1001	85	The longitudinal data derived from these nine years makes <b>more accurate conclusions possible</b> .	12	3	Goal
H1001	03	<b>Results are provided</b> to the Wisconsin Department of Natural Resources (WDNR).	12	3	Goal
IT1004	08	The count enables ICF to <b>determine trends</b> in the Sandhill Crane population in Wisconsin.	12	3	Goal
F1085	60	Based on our experience with data from the two sample counties, we are now <b>working with the Wisconsin DNR</b> to develop a computer data bank for Wisconsin crane count results.	12	4	Implication
H1001	02	<b>Results are provided</b> to the Wisconsin Department of Natural Resources (WDNR).	12	4	Implication
B1081	25	In 1981 we hope to <b>survey additional marshes, involve more people, and expand the census</b> to a total of 30 counties.	13	3	Goal
B1081	28	Wisconsin members who would like to <b>participate</b> this spring, or any member or crane researcher who would like <b>more information</b> , should call ICF at (608) 356-0462.	13	3	Goal
F1085	57	Because of the large size of Wisconsin (14.5 million ha) and the number of survey sites and participants, <b>good organization is necessary to complete the operation</b> .	13	3	Goal
IT1004	100	For many, it is a wonderful opportunity to <b>see and hear cranes and other wildlife</b> .	14	2	Audience

F1985	61	Most <b>people</b> who volunteer for the crane count have <b>little prior knowledge about cranes</b> . They learn by <b>participating</b> . Participants include youth groups from scouting organizations and schools, adults from birding clubs and community organizations, people who own wetlands inhabited by cranes, and many other citizens.	Audience	2	15
A1981	14	(Instructions to Coordinators. BTB) Contact high school biology groups, bird clubs, church groups, boy and girl scouts, FFA, 4-H, etc	Audience	2	15
C1982	32	People from all walks of life, from senior citizens to 4-H kids, turned out to count cranes.	Audience	2	15
G1987	77	Volunteer observers are <b>still a vital aid to managing agencies</b> , especially in times of drastic budgetary cutbacks and escalating operational costs. Cranes, often widely dispersed over nesting and feeding sites, can be difficult for small teams of scientists to count; but <b>volunteers can be organized to survey large areas</b> .	Audience	2	18
A1981	21	You can help the International Crane Foundation and the Wisconsin Wetlands Association <b>preserve</b> the world's oldest living species of bird: the <b>Sandhill Crane</b> .	Goal	3	18
F1985	67	Both the volunteer observers and the county coordinators tended to <b>select sites for observation with a past history of crane use</b> -- after all, the <b>project is designed to give volunteers experience with cranes</b> .	Goal	3	18
I1994	103	All too often, biologists are only able to <b>document the decline of a species</b> . But now, crane counters are <b>witnessing the opposite trend</b> , as crane populations increase and expand their range outward from central Wisconsin.	Goal	3	18
A1981	1	<b>If cranes are to be protected</b> in Wisconsin, their <b>habitat must be preserved</b> .	4 Implication	4	18
F1985	50	The crane count serves <b>three purposes</b> .	4 Implication	4	18
G1987	79	The Wisconsin Sandhill Crane Count is organized and administered by the International Crane Foundation (ICF), and we are <b>delighted to report the growth of the program</b> .	4 Implication	4	19

Subcode Classification	Count of Subcode Numbers	Subcode number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Example	6	6	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Awareness	15	7	3	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Involvement	15	8	7	2	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Attitude	23	9	5	8	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Education	26	10	8	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crane Knowledge	34	11	11	19	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Use	24	12	11	8	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Program Characteristic	18	13	4	10	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outlook	3	14	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Participant Background	5	15	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demographics	6	16	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Qualification	6	17	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Function	24	18	4	13	4	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	7	19	4	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**APPENDIX D:**  
**Historic Document Review Sub-codes & Concepts**



## Historic Document Review Sub-coding Categories and Concepts

- 6 Example
  - demonstration of environmental education program
  - model program
  
- 7 Awareness
  - expose people,
  - public awareness,
  - public interest,
  - touch people
  - wetlands
  - wildlife
  - increase/enhance
  - introduce
  - announce
  
- 8 Involvement
  - work, public support,
  - public involvement,
  - active involvement,
  - involve in local issues,
  - returning
  - (NOTE: involvement is within the Count and outside of it)
  
- 9 Attitude
  - inspiration,
  - behavior change,
  - rewarding experience,
  - dedication,
  - convince people,
  - attract,
  - generate enthusiasm,
  - appreciation
  - instill a positive attitude
  - awaken curiosity
  - awaken wonder
  - fun
  - build/increase
  - new
  - exciting
  - care
  - encourage

- 10 Education
  - educational tool,
  - knowledge,
  - learn,
  - teach cranes,
  - teach wetlands
  - recognition
  - learn by participation
  - direct attention to other wildlife
  - share
  - values
  - show/talk
  - receive materials
  - prepare for Count
  - interpret
  
- 11 Crane Knowledge
  - abundance,
  - distribution,
  - population numbers,
  - draw conclusions,
  - detailed record
  - information on habitat
  - changes in habitat
  - understanding
  - long-term
  - knowledge
  
- 12 Data Use
  - monitor population,
  - data use by citizens,
  - background information and knowledge,
  - support or oppose activities,
  - long term for better conclusions
  - environmental impact studies
  - research
  - analysis
  
- 13 Program Characteristic
  - scale,
  - generate data,
  - gather data,
  - complement other research
  - research tool

- well-organized
- expand to periphery of crane habitat
- more complete survey coverage
- involve more people
- long-term monitoring
- clear and practical goal
- hands-on Environmental Education

#### 14 Outlook

- Share in love for wild nature
- grand way to express reverence
- chance to get outdoors
- greet spring
- event of personal significance
- adventure
- opportunity to see and hear cranes and other wildlife

#### 15 Participant Background

- Background
- Non-biological
- No previous positive experience with wetlands
- Little prior knowledge
- Volunteers

#### 16 Demographics

- Landowners
- High school groups
- Bird clubs
- Church groups
- Boy scouts
- Girl scouts
- FFA
- 4-H
- People from all walks of life
- Varied but plentiful
- Schools
- Youth groups
- Adults
- Children

#### 17 Qualification

- All participants attend training meeting
- Recruit

18 Function

- Contribute to protecting wetlands
- Vital aid to managing agencies
- Can be organized to survey large areas
- Enhance wetland protection
- Preserve sandhill cranes
- Conservation contribution
- Application to other regions
- Protect cranes and wetlands
- Provide opportunity for involvement
- Takes people outside
- Interest can carry over to other facets of conservation
- Identify wetlands especially worthy of protection
- Give volunteers experience with cranes
- Annual rite of spring
- Assist in designing and implementing conservation strategies
- Document the increase of a species rather than decline
- Evaluate potential impacts of a hunting season
- Serves multiple purposes

19 Future

- Indefinite
- Growth of program
- Expand
- Extend
- Annual rite of spring
- Important event

**APPENDIX E:**  
**Assessment Rubric:**  
**Nonformal Environmental Education Programs:**  
**Guidelines for Excellence**



# Assessment Rubric

Nonformal Environmental Education Programs:  
Guidelines for Excellence

# Assessment Rubric Design Team

This Assessment Rubric was developed as a Graduate component of the Foundations of Environmental Education course at the University of Wisconsin Stevens Point in autumn, 2004. Members of the Assessment Rubric Design Team are:

Brian T. Barch      Graduate Assistant NRES 150, College of Natural Resources, University of Wisconsin Stevens Point, Stevens Point, Wisconsin

Jennifer Dillard      Online EE Course Graduate Assistant, Environmental Education Training and Partnership, College of Natural Resources, University of Wisconsin Stevens Point, Stevens Point, Wisconsin

Abbie Kuhn      Graduate Student, College of Natural Resources, University of Wisconsin Stevens Point, Stevens Point, Wisconsin

Karla L. Lockman      Graduate Assistant, Central Wisconsin Environmental Station, Amherst Junction, Wisconsin



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Dr. Dan Sivek	Professor of Environmental Education, Coordinator — Human Dimensions of Natural Resource Management, College of Natural Resources, University of Wisconsin Stevens Point, Stevens Point, Wisconsin
Dr. Richard Wilke	UW System Distinguished Professor and Director, Environmental Education Training & Partnership, College of Natural Resources, University of Wisconsin Stevens Point, Stevens Point, Wisconsin
Dr. Deborah Simmons	Department of Teaching and Learning, Northern Illinois University, DeKalb, Illinois
Carolyn Rock	Naturalist, Whitefish Dunes State Park, Sturgeon Bay, Wisconsin
Bobbi Kubish	Interim Director, Central Wisconsin Environmental Station, Amherst Junction, Wisconsin
Becca Franzen	Interim Program Manager, Central Wisconsin Environmental Station, Amherst Junction, Wisconsin
Korie Klink	Visitor Programs Coordinator, International Crane Foundation, Baraboo, Wisconsin
Karen Bryan	Instructor, Shaw Nature Reserve, Gray Summit, Missouri

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# Table of Contents

Introduction.....	7
Instructions.....	8
Key Characteristic #1 — Needs Assessment.....	11
1.1 Summary.....	13
1.2 Summary.....	16
1.3 Summary.....	21
Key Characteristic #1 Score Summary and Comment Narrative.....	22
Key Characteristic #2 — Organizational Needs and Capacities.....	24
2.1 Summary.....	27
2.2 Summary.....	29
2.3 Summary.....	32
Key Characteristic #2 Score Summary and Comment Narrative.....	33
Key Characteristic #3 — Program Scope and Structure.....	35
3.1 Summary.....	43
3.2 Summary.....	45
3.3 Summary.....	50
3.4 Summary.....	54
Key Characteristic #3 Score Summary and Comment Narrative.....	55

# Table of Contents (continued)

Key Characteristic #4 — Program Delivery Resources.....	57
4.1 Summary.....	59
4.2 Summary.....	65
4.3 Summary.....	68
4.4 Summary.....	71
4.5 Summary.....	76
Key Characteristic #4 Score Summary and Comment Narrative.....	77
Key Characteristic #5 — Program Quality and Appropriateness.....	79
5.1 Summary.....	89
5.2 Summary.....	91
5.3 Summary.....	96
5.4 Summary.....	100
Key Characteristic #5 Score Summary and Comment Narrative.....	101
Key Characteristic #6 — Evaluation.....	103
6.1 Summary.....	107
6.2 Summary.....	110
6.3 Summary.....	118
Key Characteristic #6 Score Summary and Comment Narrative.....	119
Key Characteristic #1-6, Overall Score Summary and Comment Narrative.....	121

# Table of Contents (continued)

Appendices:.....	125
A. Letter to Reviewers.....	126
B. Reviewer Comment and Scoring Form.....	127
C. Methodology and Process Summary.....	130
D. Overall Reviewer Comment Summary.....	131
E. Comments on “What to Look For” Indicators.....	133
F. Overall Design Team Comments and Recommendations.....	139
G. Contact Information for Reviewers and Design Team.....	140
H. References.....	142

# Introduction

In 2004, the North American Association for Environmental Education released a publication entitled “*Nonformal Environmental Education Programs: Guidelines for Excellence*.” (NEEPGE) The intent of the document is to provide “a set of recommendations for developing and administering high quality nonformal environmental education programs. These recommendations provide a tool that can be used to ensure a firm foundation for new programs or to trigger improvements in existing ones. The overall goal of these guidelines is to facilitate a superior educational process leading to the environmental quality that people desire. This overall goal is shared with the other guidelines produced by the North American Association for Environmental Education’s National Project for Excellence in Environmental Education.” (from NEEPE introduction)

In turn, this assessment rubric is designed as a complement to the *Nonformal Environmental Education Programs: Guidelines for Excellence* publication. While NEEPE provides recommendations for developing new programs or improving existing ones, this assessment rubric provides a specific tool, based on the six characteristics of high quality nonformal environmental education programs, that may be used for evaluating the existing or developing strengths of programs and identifying areas that may need improvement.

The format of the rubric closely follows the layout of the original NEEPE document, and is broken down into similar sections. Drawn directly from the NEEPE document, the assessment rubric contains the six key characteristics of high quality nonformal environmental education programs, with their accompanying guidelines listed for consideration. At this point, the assessment rubric breaks from the original presentation: the “What to look for” indicators listed under each guideline are still included, but in slightly modified form.

Under the “How To Use These Guidelines” section from the NEEPE document, it is stated that the “What to look for” indicators “are simply clusters of attributes you might look for to help gauge whether the characteristic is embodied in the nonformal program you are reviewing or developing.” At this point, the assessment rubric takes the “What to look for” indicators a step further: each indicator is listed, and then rephrased in a manner that seeks to specify to what degree a nonformal program meets or does not meet the fulfillment of that indicator. In so doing, program strengths and potential weaknesses or areas for improvement are highlighted through a simple scoring system. It should be noted that these indicators are not set in stone — the wide scope of this tool prevents such from being the case. Indicators may in some cases be inapplicable, however, they may be disregarded, adapted, serve as examples, or provide inspiration for more applicable indicators that are meaningful to specific program situations not mentioned in the text.

The assessment rubric fully runs through all six characteristics and the criteria that exemplify quality nonformal environmental programs. Throughout the rubric, opportunities are presented to summarize the results of the evaluation: after each guideline, at the end of each section, and finally, an overall summary at the end of the entire rubric. The intent of the summaries is to highlight the program strengths and potential weaknesses on three different levels: by key characteristic, guideline, and “What to look for” indicator. After completing the rubric fully, one could examine the overall program summary at the very end, see a low score for a particular characteristic, and then go back to an earlier summary, which in turn could lead back to a specific guideline, and from there, to the specific indicator.

It is hoped that this assessment rubric will further the ability of nonformal educators to examine the quality of their programs, whether currently existing or in development. Used in conjunction with the NEEPE document, the rubric may allow the *Guidelines* to further “contribute to more effective environmental education.” (from NEEPE Introduction)

# Instructions

This assessment rubric is designed as a complement to *Nonformal Environmental Education Programs: Guidelines for Excellence* (NEEPGE). As in the original publication, the rubric includes the six key characteristics of high quality nonformal environmental education programs, their associated guidelines, and “What to look for” indicators. Where it departs from the original is in breaking down the “What to look for” indicators into four distinct categories so that educators, administrators, evaluators, program developers, and so on can more easily assess the degree to which their programs meet the guidelines as stated.

## How to Use the Assessment Rubric

Familiarize yourself with *Nonformal Environmental Education Programs: Guidelines for Excellence*. This document covers the key characteristics, guidelines, and indicators that may be found in high quality nonformal environmental education programs. What the Assessment Rubric does is help to measure the extent to which a program does or does not meet the criteria listed.

After choosing the program to be evaluated, select a Key Characteristic to begin with. While the format follows the NEEPGE order, the Key Characteristics do not necessarily need to be completed sequentially. Read the stated section guideline, and then the “What to look for” indicator. Use the Assessment Rubric categories (see below) to determine the degree to which the program meets the indicator. Fill the associated category score into the provided box. Use the comment section for examples, concerns, justification of the score, or to note the nonapplicability of the indicator to the program if relevant. Tally your section score by adding up the scores for each indicator. At the end of each Characteristic, transfer these numbers to the Characteristic summary page for an overall score, and at the end of the entire rubric, transfer these overall scores to the general summary page.

## Assessment Rubric Categories

Within the assessment rubric, the original “What to look for” indicator is listed in the left hand column. Following this in the rubric, the indicator is restated in a manner such that it can be determined if the nonformal environmental education program fully meets, generally meets, minimally meets, or does not meet the original indicator. These are the

# Instructions (continued)

determination categories with associated numerical scores and a brief explanation, as specifics are dependent on the content of the indicators themselves, and of the program being examined:

Fully Meets, 3: The program meets the indicator standard's criteria completely.

Generally Meets, 2: The program meets a majority of, or several of, the indicator standard's criteria.

Minimally Meets, 1: The program meets a minority of, or minimal amount of, the indicator standard's criteria.

Does Not Meet, 0: The program does not meet any of the indicator standard's criteria.

## Scoring and Scoring Interpretation

As is indicated above, each category is assigned a numerical value. At the end of each guideline section within the stated characteristic (e.g. Key Characteristic 3, Section 3.2) there is a space to summarize the scores by adding all values accumulated for the section. At the end of each characteristic is a score summary where values for all sections can be displayed, and at the end of the entire document is a final overall summary section for all characteristics. The primary purpose of the numerical score is to highlight areas in which the nonformal program is strong, and areas which may need attention. The scores in and of themselves serve no other function than this.

To aid in highlighting areas of the program that are strong, or those that may need additional attention, the overall characteristic summary at the end of each characteristic provides opportunity to convert the numerical scores for each guideline section into percentages. The higher the percentage, the stronger the program is in that area. Looking at a high or low score in the overall characteristics summary, one can then return to the specified characteristic summary, see which guidelines have been met or are lacking, and then review the specific indicators that resulted in the score as it is.

If indicators are not applicable to the program being reviewed, all that need be done is to note such in the commentary space. For scoring purposes, simply subtract three for each non-applicable indicator from the summary sections before converting to percentage.

# Instructions (continued)

## Summaries

As mentioned in Scoring and Scoring Interpretation above, there are several summary sections within the assessment rubric. The overall layout and progression of the summaries from beginning to end goes from specific to more general at each level. The most specific summary is that of the section guideline (e.g. Key Characteristic 5, Section 5.2), which takes the score for each indicator and adds them together for a section total. Following the final section guideline for each key characteristic is the second level of summary; this displays the final summaries for each section guideline, and provides opportunity to add all together to obtain an overall score for the key characteristic converted into a percentage. The final and third level of summary comes at the end of the assessment rubric, and is the most general. Here the overall score for each of the six characteristics can be displayed in relationship with the others. It is hoped that for reviewers of the completed rubric this will facilitate their ability to search out the level of detail desired by working back through each summary as necessary, ending at the “What to look for” indicator.

## Commentary

Numerous opportunities are provided throughout the assessment rubric for providing commentary. The space may be used to indicate program specifics, questions, etc. Additionally, if indicators are not applicable to the program being assessed, this is a space to note such.

## Considerations

As was mentioned in the Introduction, due to the wide scope of this tool for nonformal environmental education programs, indicators are not set in stone. This Assessment Rubric is meant as a general tool to be utilized by any number or variety of nonformal programs — it cannot be entirely specific, but may point in a direction to go. This being the case, use indicators as examples — adapt them, use them as inspiration for indicators relevant to a specific program being reviewed or developed, as a method of creating something more meaningful to a specific situation, or disregard them as necessary. The Rubric does not have to be used in its entirety — for a full review, it may be worth doing, but for smaller programs or specific situation, it may only be relevant to choose a particular characteristic to look at. Use this tool in a manner that best suits the needs at hand.



# Key Characteristic #1: Needs Assessment

# Key Characteristic #1: Needs Assessment

Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.

## 1.1) Environmental Issue or Condition

The environmental education program is designed to respond to carefully considered needs and issues.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The need for the program has been: <ul style="list-style-type: none"> <li>• identified</li> <li>• Confirmed cooperatively with stakeholders (community residents, intended audiences, community leaders, etc.)</li> </ul>	The need for the program has been: <ul style="list-style-type: none"> <li>-identified, <i>and</i> -confirmed cooperatively with all relevant stakeholders</li> </ul>	The need for the program has been: <ul style="list-style-type: none"> <li>-identified, <i>and</i> -some stakeholders have been contacted, <i>or</i> -there are plans to confirm cooperatively with all or some relevant stakeholders</li> </ul>	The need for the program has been: <ul style="list-style-type: none"> <li>-identified, <i>and</i> -there are no plans to confirm cooperatively stakeholders</li> </ul>	The need for the program <i>has not been</i> identified
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

-The need for Crane Count is at least partially identified — monitoring the abundance and distribution of cranes, long-term population trends, etc.  
 -The educational need has not been specifically identified, but has been assumed.  
 -Stakeholder input has not specifically been sought out.

# Key Characteristic #1: Needs Assessment

Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.

## 1.1) Environmental Issue or Condition

The environmental education program is designed to respond to carefully considered needs and issues.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Specific environmental conditions or issues to be addressed by the program have been identified through the needs assessment.	Specific environmental conditions or issues to be addressed by the program have been identified through the needs assessment. <input type="checkbox"/>	Broad environmental conditions or issues to be addressed by the program have been identified through the needs assessment. <input type="checkbox"/>	Broad environmental conditions or issues to be addressed by the program have been <i>minimally</i> identified through the needs assessment. <input type="checkbox"/>	No environmental conditions or issues to be addressed by the program have been identified through the needs assessment. <input type="checkbox"/> 0	-A needs assessment has not been conducted, therefore this indicator cannot be addressed.

## Summary Section I.I

1.1) Environmental Issue or Condition: The environmental education program is designed to respond to carefully considered needs and issues.

Total Score: 1/6

# Key Characteristic #1: Needs Assessment

1.2) Inventory of Existing Programs and Materials  
 The environmental education program builds on existing resources and complements existing programs.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
An analysis has been conducted: •the program does not duplicate existing efforts •is complementary to ongoing programs of other organizations •a survey of the literature, existing environmental education programs, potential partners, community residents, etc., has been conducted as part of this analysis.	An analysis has been conducted, <i>and</i> -the program does not duplicate existing efforts, <i>and</i> -is complementary to ongoing programs of other organizations, <i>and</i> -a survey of the literature, existing environmental education programs, potential partners, community residents, etc., is a component	An analysis has been conducted, <i>and two of the following criteria are met:</i> -the program does not duplicate existing efforts, <i>and/or</i> -is complementary to ongoing programs of other organizations, <i>and/or</i> -a survey of the literature, existing environmental education programs, potential partners, community residents, etc., is a component	An analysis has been conducted, <i>and one of the following criteria is met:</i> -the program does not duplicate existing efforts, <i>or</i> -is complementary to ongoing programs of other organizations, <i>or</i> -a survey of the literature, existing environmental education programs, potential partners, community residents, etc., is a component	No analysis has been conducted
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-A specific analysis has not been conducted at this point, however, several elements in this indicator have been addressed.  
 -The program does not duplicate existing efforts.  
 -The Crane Count is complementary to other U.S. crane surveys, such as those conducted in the fall by the USFWS, and also other ICF regional crane studies.  
 -A literature review has been conducted as a part of the Crane Count Thesis project.  
 -A survey of existing EE programs has *not* been conducted, but a review of selected citizen science programs has for program plan development.  
 -A survey of selected participants and Coordinators has been conducted during Plan development, but not potential partners, community residents, etc.

# Key Characteristic #1: Needs Assessment

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Community and organizational strengths and resources (human, environmental, material, and programmatic) have been inventoried to see if present resources can be adapted or adopted to fill the need.	Both community and organizational strengths and resources (human, environmental, material, and programmatic) have been inventoried to see if present resources can be adapted or adopted to fill the need. <input type="checkbox"/>	Either community or organizational strengths and resources (human, environmental, material, and programmatic) have been inventoried to see if present resources can be adapted or adopted to fill the need. <input type="checkbox"/>	Either community or organizational strengths and resources (human, environmental, material, or programmatic) have been <i>partially</i> inventoried to see if present resources can be adapted or adopted to fill the need. <input type="checkbox"/>	No community or organizational resources have been inventoried. <input type="checkbox"/>	<ul style="list-style-type: none"> <li>-Current Crane Count program resources &amp; strengths have been inventoried for Plan development</li> <li>-Full ICF organizational resources and strengths have not been inventoried</li> <li>-Community strengths and resources have not been inventoried, and at this point there is no specific plan to do so. This may play a future role if partnerships for Crane Count are explored, depending on how "community strengths and resources" are defined.</li> <li>-"Need" must be defined for this indicator.</li> </ul>

# Key Characteristic #1: Needs Assessment

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Community and organizational strengths and resources (human, environmental, material, and programmatic) that could contribute to the environmental education program have been identified, as well as gaps that might hinder the successful development of the program	All community <i>and</i> organizational strengths and resources (human, environmental, material, and programmatic) that could contribute to the environmental education program have been identified, <i>and</i> -gaps that might hinder the successful development of the program have been identified	Either community or organizational strengths and resources (human, environmental, material, and programmatic) that could contribute to the environmental education program have been identified, <i>and</i> -gaps that might hinder the successful development of the program have been identified	Either community or organizational strengths and resources (human, environmental, material, and programmatic) that could contribute to the environmental education program have been partially identified, <i>or</i> -gaps that might hinder the successful development of the program have been partially identified	No community and organizational strengths and resources, or gaps hindering successful development of the program have been identified
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Comments:

-Community & ICF organizational strengths and resources that could contribute to the Crane Count have *not* been specifically identified.  
 -Development of the Program Plan has identified strengths and existing resources within the Crane Count.  
 -Gaps hindering the successful continuing development of the Crane Count have been identified in Program Plan development.

## Summary Section 1.2

1.2) Inventory of Existing Programs and Materials: The environmental education program builds on existing resources and complements existing programs.

Total Score: 5/9

# Key Characteristic #1: Needs Assessment

**Comments:**

1.3) Audience Needs  
The environmental education program reflects a careful analysis and consideration of the target audience(s).

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The cultural perspectives, needs, and interests of the target audience (the precise segments of the population or community with which you will work) have been <ul style="list-style-type: none"> <li>• identified</li> <li>• understood</li> <li>• accommodated, and</li> <li>• addressed in program development and activities.</li> </ul>	<p>The cultural perspectives, needs, and interests of the target audience have been</p> <ul style="list-style-type: none"> <li>-identified, <i>and</i></li> <li>-understood, <i>but</i></li> <li>-<i>may not be</i> accommodated, <i>or</i></li> <li>-addressed in program development and activities</li> </ul> <input type="checkbox"/>	<p>The cultural perspectives, needs, and interests of the target audience have been</p> <ul style="list-style-type: none"> <li>-identified, <i>or</i></li> <li>-understood, <i>but</i></li> <li>-<i>may not be</i> accommodated, <i>or</i></li> <li>-addressed in program development and activities</li> </ul> <input type="checkbox"/>	<p>Cultural perspectives, needs, and interests of the target audience <i>have not been</i> identified, understood, accommodated, or addressed in program development and activities</p> <input type="checkbox"/>	<p>Cultural perspectives, needs, and interests of the target audience have <i>not</i> been <i>specifically</i> identified, therefore they cannot be understood, accommodated, or addressed in Crane Count development and activities.</p> <p>-Some needs of the Crane Count's target audiences have been identified through development of the Program Plan, though they may not yet be addressed</p> <p>-NOTE: To a limited extent, some needs (wants?) and interests of the participants and County Coordinators have been communicated through annual Coordinator questionnaires, and have been addressed.</p>

# Key Characteristic #1: Needs Assessment

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
An assessment of target audience understandings and skills has been conducted, including consideration of such issues as literacy levels, languages spoken, etc.	A <i>full</i> assessment of target audience understandings and skills has been conducted, including consideration of such issues as literacy levels, languages spoken, etc.	An assessment of target audience understandings and/or skills has been conducted, including consideration of <i>one or more</i> such issues as literacy levels, languages spoken, etc.	A <i>minimal</i> /assessment of target audience understandings or skills has been conducted, and <i>may include</i> consideration of <i>one or more</i> such issues as literacy levels, languages spoken, etc.	No assessment of target audience understandings or skills has been conducted
Appropriate educational methodologies are identified for the specific characteristics (age, experience, cultural background, and education background) of the target audience.	Appropriate educational methodologies are identified for the specific characteristics of the target audience	Appropriate educational methodologies are identified <i>for most but not all</i> of the specific characteristics of the target audience	Educational methodologies are identified, <i>but may not be appropriate</i> for the specific characteristics of the target audience	No educational methodologies have been identified
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-No assessment of participant/Coordinator understandings has been conducted.  
-During Program Plan development, limited self-report assessments were conducted through Questionnaires about Crane Count skills (not literacy, language, etc.).

-No educational methodologies have been identified.  
(Educational methodologies must be defined to determine appropriateness), though through Program Plan development, some characteristics of the target audiences are now known — the first step towards this end.



# Key Characteristic #1: Needs Assessment

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The kind and duration of program that is most appropriate to reach and meet the needs of the audience has been identified.	The kind and duration of program that is most appropriate to reach and meet the needs of the audience has been identified. <input type="checkbox"/>	The kind and duration of program that is <i>generally</i> appropriate to reach and meet the needs of the audience has been identified. <input type="checkbox"/>	N/A <input type="checkbox"/>	The kind or duration of program has been identified, <i>but is not</i> appropriate to reach and meet the needs of the audience. <input type="checkbox"/>
The interrelationship of audience needs and provider needs has been examined.	The <i>full</i> interrelationship of audience needs <i>and</i> provider needs has been examined. <input type="checkbox"/>	The interrelationship of both audience needs <i>and</i> provider needs has been <i>generally</i> examined. <input type="checkbox"/>	The interrelationship of audience needs <i>or</i> provider needs has been <i>minimally</i> examined. <input type="checkbox"/>	The interrelationship of audience needs and provider needs <i>has not been</i> examined. <input type="checkbox"/>

-**Not Applicable** for the Crane Count as a whole. Kind and duration of program are centered around cranes and crane activity.  
 -**May** be applicable for participant training, but this examination of the Crane Count is not addressing such specifics at this time.

-Provider needs have **not** been explicitly documented.  
 -Audience needs have **not** been explicitly documented.  
 -Both potential needs of the provider (ICF) and audience (participants and Coordinators) have been partially identified through development of the Program Plan. The interrelationship has yet to be fully examined.

# Key Characteristic #1: Needs Assessment

## Comments:

-At this point, the specific "culture" and "ethnic background" of Count participants are not specifically known. Gender is a mixed.  
 -The program does seek to be inclusive to the general public from which it draws participants, and be sensitive to the backgrounds of these people.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program seeks to be inclusive and promotes a multi-cultural experience. It is sensitive to <ul style="list-style-type: none"> <li>•the culture,</li> <li>•ethnic background, and</li> <li>•gender of the audience.</li> </ul>	The program seeks to be inclusive and promotes a multi-cultural experience. It is sensitive to: <ul style="list-style-type: none"> <li>-the culture, <i>and</i></li> <li>-ethnic background, <i>and</i></li> <li>-gender of the audience</li> </ul>	The program seeks to be inclusive and promotes a multi-cultural experience. It is sensitive to <i>two of the following</i> : <ul style="list-style-type: none"> <li>-the culture, <i>and/or</i></li> <li>-ethnic background, <i>and/or</i></li> <li>-gender of the audience</li> </ul>	The program seeks to be inclusive and promotes a multi-cultural experience. It is sensitive to <i>one of the following</i> : <ul style="list-style-type: none"> <li>-the culture, <i>or</i></li> <li>-ethnic background, <i>or</i></li> <li>-gender of the audience</li> </ul>	The program <i>does not</i> seek to be inclusive and promote a multi-cultural experience. It is <i>not</i> sensitive to the following: <ul style="list-style-type: none"> <li>-the culture,</li> <li>-ethnic background, <i>or</i></li> <li>-gender of the audience</li> </ul>
	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

# Key Characteristic #1: Needs Assessment

Comments:				
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Facilities and activities used are broadly accessible and comply with both the spirit and letter of the Americans with Disabilities Act.	Facilities and activities used are broadly accessible and comply with both the spirit and letter of the Americans with Disabilities Act	Facilities and activities used are broadly accessible and <i>generally</i> comply with both the spirit and letter of the Americans with Disabilities Act	Facilities and/or activities used are broadly accessible and <i>minimally</i> comply with both the spirit and letter of the Americans with Disabilities Act	<i>Neither</i> facilities nor activities used are broadly accessible and <i>do not</i> comply with either the spirit or the letter of the Americans with Disabilities Act
	—	—	—	—

-**Not Applicable.** The Crane Count is spread throughout more than 100 counties in parts of five states.  
 -This **may** be applicable in regards to participant training.  
 -ADA **should be** reviewed.

## Summary Section I.3

**1.3) Audience Needs:** The environmental education program reflects a careful analysis and consideration of the target audience(s).

**Total Score:** 3/15 (Two indicators N/A)

# Key Characteristic #1: Needs Assessment

## Score Summary and Comment Narrative

Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.

**1.1) Environmental Issue or Condition:** The environmental education program is designed to respond to carefully considered needs and issues.

**Total Score:** 1/6 converted to percentage: 17%

**1.2) Inventory of Existing Programs and Materials:** The environmental education program builds on existing resources and complements existing programs.

**Total Score:** 5/9 converted to percentage: 56%

**1.3) Audience Needs:** The environmental education program reflects a careful analysis and consideration of the target audience(s).

**Total Score:** 5/15 converted to percentage: 33%

**Sum of Percentage Scores For Needs Assessment:** 106/3 = 35.33% Overall Score

**Comment Narrative:**

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# Key Characteristic #1: Needs Assessment

## Comment Narrative (Section 1: Needs Assessment, continued)

### Strengths:

- 1.1)
  - A. Need partly identified — to monitor the abundance and distribution of cranes
  - 1.2)
    - A. Crane Count does not duplicate existing efforts
    - B. Crane Count is complementary to other studies
    - C. Literature review/program review is part Program Plan development
    - D. Resources and strengths of the Crane Count have been inventoried during Program Plan development
    - E. Some gaps that might hinder successful continuing development of the Crane Count have been identified during Program Plan development.
  - 1.3)
    - A. Yearly County Coordinator Questionnaire captures some needs and interests of Coordinators, but in a limited fashion
    - B. Some needs of Coordinators and participants have been documented during the development of the Program Plan
    - C. Crane Count seeks to be inclusive and is sensitive to audience
    - D. Some provider and audience needs have been documented during the course of Program Plan development

### Weaknesses:

- 1.1)
  - A. Educational need not explicitly identified
  - B. Stakeholder input not actively sought
  - C. Needs assessment not conducted (hence specific environmental condition or issues not identified)
- 1.2)
  - A. No survey of potential partners, community residents, etc. conducted
  - B. Resources/strengths of ICF not inventoried
  - C. Community strengths/resources have not been inventoried
  - D. ICF organizational strengths/resources that could contribute to Crane Count not specifically identified
- 1.3)
  - A. Cultural perspective, needs, & interests of target audience not specifically identified
  - B. Yearly County Coordinator Questionnaire is limited in documenting the cultural perspectives, needs, and interests of Coordinators — this does not address participants
  - C. No specific assessment of participant/Coordinator understandings has been conducted, though limited self-reports were received through Questionnaires during Program Plan development
  - D. There has been no identification of appropriate educational methodologies for participants and Coordinators
  - E. Provider needs have not been fully documented
  - F. Audience needs not fully documented (hence interrelationship not examined)
  - G. ADA should be reviewed to determine its applicability to the Crane Count program

# Key Characteristic #2: Organizational Needs and Capacities

# Key Characteristic #2: Organizational Needs and Capacities

Nonformal environmental education programs support and complement their parent organization’s mission, purpose, and goals.

## 2.1) Consistent with Organizational Priorities

The environmental education program is consistent with, and supportive of, parent organization’s priorities and objectives.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
<ul style="list-style-type: none"> <li>• The program is consistent with the parent organization’s mission, goals, objectives, long-range plan, and any applicable mandates.</li> </ul>	<ul style="list-style-type: none"> <li>• The program is <i>always</i> consistent with the parent organization’s mission, goals, objectives, long-range plan, and any applicable mandates.</li> </ul>	<ul style="list-style-type: none"> <li>• The program is consistent with the parent organization in <i>at least three of the following</i>: mission, goals, objectives, long-range plan, or applicable mandates.</li> </ul>	<ul style="list-style-type: none"> <li>• The program is consistent with the parent organization in <i>at least one of the following</i>: mission, goals, objectives, long-range plan, or applicable mandates.</li> </ul>	<ul style="list-style-type: none"> <li>• The program is <i>not</i> consistent with the parent organization’s mission, goals, objectives, long-range plan, or applicable mandates.</li> </ul>	<ul style="list-style-type: none"> <li>• Cannot be specifically determined at this point, as ICF is currently undergoing a strategic planning process, and most of these items are in a state of flux.</li> <li>• The Program Plan has been developed to be consistent with ICF’s mission. Examination of overall goals, objectives, long-range plan, and applicable mandates will need to be completed.</li> </ul>

# Key Characteristic #2: Organizational Needs and Capacities

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program staff and program materials articulate the relationships among the program and the parent organization's mission, goals, objectives, long-range plan, and any applicable mandates.	All program staff <i>and</i> all program materials articulate the relationships among the program and parent organization's mission, goals, objectives, long-range plan, and any applicable mandates	Program staff <i>and</i> program materials <i>generally</i> articulate the relationships among the program and parent organization's mission, goals, objectives, long-range plan, and any applicable mandates	<i>Either</i> program staff <i>or</i> program materials <i>are lacking</i> in articulation of relationships among the program and parent organization's mission, goals, objectives, long-range plan, and any applicable mandates	<i>Neither</i> program staff <i>nor</i> program materials articulate the relationships among the program and parent organization's mission, goals, objectives, long-range plan, and any applicable mandates
The program supports organizational communication strategies and priorities.	The program <i>fully</i> supports organizational communication strategies and priorities	The program <i>generally</i> supports organizational communication strategies and priorities	The program <i>minimally</i> supports organizational communication strategies and priorities	The program <i>does not</i> support organizational communication strategies and priorities

-See Comments on p. 25 regarding strategic planning process.  
-Program materials must be reviewed to see if they articulate relationships.

-See Comments on p. 25 regarding strategic planning process.  
-What are ICF's current organizational communication strategies and priorities?



# Key Characteristic #2: Organizational Needs and Capacities

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
The program's budget is consistent with and fully integrated into the parent organization's overall budget.	The program's budget is <i>consistent with and fully</i> integrated into the parent organization's overall budget. <span style="float: right;">3</span>	The program's budget is <i>consistent with but only partially</i> integrated into the parent organization's overall budget. <span style="float: right;"><input type="checkbox"/></span>	The program's budget is <i>lacking in consistency and is minimally</i> integrated into the parent organization's overall budget. <span style="float: right;"><input type="checkbox"/></span>	The program's budget is <i>lacking in consistency and is not</i> integrated into the parent organization's overall budget. <span style="float: right;"><input type="checkbox"/></span>	-The Crane Count is integrated into ICF's budget. -Although the program is integrated, when the Crane Count Program Plan is complete, this item should be reexamined in light of recommendations made for the program's future, and the costs associated with activities, etc.

## Summary Section 2.1

**2.1) Consistent with Organizational Priorities:** The environmental education program is consistent with, and supportive of, parent organizations priorities and objectives.

**Total Score:** 3/12

# Key Characteristic #2: Organizational Needs and Capacities

## 2.2) Organization's Need for the Program Identified

The environmental education program fills an identified need within existing activities of the sponsoring organization.

### Comments:

-Although marked as "fully meets," this item should be confirmed with ICF CED staff — this may be a part of strategic planning.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Programs sponsored by the organization: • have been inventoried, • the interrelationship of all programs considered, and • the function of proposed new programs contrasted with existing activities.	Programs sponsored by the organization: -have been inventoried, <i>and</i> -the interrelationship of all programs considered, <i>and</i> -the function of proposed new programs contrasted with existing activities	Programs sponsored by the organization: -have been inventoried, <i>and</i> -the interrelationship of all programs considered, <i>or</i> -the function of proposed new programs contrasted with existing activities	Programs sponsored by the organization: -have been inventoried, <i>but</i> -the interrelationship of all programs <i>have not been</i> considered, <i>nor</i> -the function of proposed new programs contrasted with existing activities	Programs sponsored by the organization <i>have not been</i> inventoried
	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

# Key Characteristic #2: Organizational Needs and Capacities

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
The role that any proposed new program plays in the overall offerings of the organization has been identified.	The role that any proposed new program plays in the overall offerings of the organization <i>has been identified</i> <input type="checkbox"/>	The role that any proposed new program plays in the overall offerings of the organization <i>has been partially identified</i> <input checked="" type="checkbox"/> 2	N/A <input type="checkbox"/>	The role that any proposed new program plays in the overall offerings of the organization <i>has not yet been identified</i> <input type="checkbox"/>	<ul style="list-style-type: none"> <li>-The Crane Count is not a new program.</li> <li>-Despite not being a new program, the role that the Crane Count plays in ICF's overall offerings should be specifically identified.</li> </ul>

## Summary Section 2.2

**2.2) Organization's Need for the Program Identified:** The environmental education program fills an identified need within existing activities of the sponsoring organization.

**Total Score:** 5/6

# Key Characteristic #2: Organizational Needs and Capacities

## 2.3) Organization's Existing Resources Inventoried

The sponsoring organization has the means and will to support the program.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The capacities and resources of the organization (human, financial, physical site, material resources, and supplies) have been inventoried and are sufficient to support the program successfully.	All capacities and resources of the organization <i>have been inventoried and are sufficient to fully support the program</i> successfully	All capacities and resources of the organization <i>have been inventoried and are sufficient to generally support the program</i>	The capacities and resources of the organization <i>have not been fully inventoried and may not be sufficient to minimally support the program</i>	The capacities and resources of the organization <i>have not been inventoried</i>
Detailed consideration has been given to program resource needs over the long term.	<i>Detailed</i> consideration has been given to program resource needs over the long term	<i>General</i> consideration has been given to program resource needs over the long term	<i>Minimal</i> consideration has been given to program resource needs over the long term	No consideration has been given to program resource needs

- An inventory has not been conducted of capacities and resources
- As of this point, capacities and resources of ICF are sufficient to generally support the Crane Count.
- Each year, staff find it difficult to complete data entry in a timely manner. This could be considered a lack of human resources, or a lack of technological resources to more efficiently complete this task.
- No specific consideration has been given to Crane Count resource needs over the long term.

# Key Characteristic #2: Organizational Needs and Capacities

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Organizational or agency leadership, including other departments and the Board of Directors, if applicable, support the program.	Organizational or agency leadership, including other departments and the Board of Directors, <i>fully</i> support the program <input type="checkbox"/>	Organizational or agency leadership, including other departments or the Board of Directors, <i>generally</i> support the program <input type="checkbox"/> 2	Organizational or agency leadership, including other departments or the Board of Directors, <i>minimally</i> support the program <input type="checkbox"/>	Organizational or agency leadership, including other departments or the Board of Directors, <i>are in opposition</i> to the program <input type="checkbox"/>	- "Support" needs to be defined in this instance. - True degree of organizational support for the Crane Count is unknown

# Key Characteristic #2: Organizational Needs and Capacities

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Staff and volunteers to be involved in implementing the program support its development and implementation.	Staff and volunteers to be involved in implementing the program <i>fully</i> support its development and implementation	Staff and volunteers to be involved in implementing the program <i>generally</i> support its development and implementation	Staff and volunteers to be involved in implementing the program <i>minimally</i> support its development and implementation	Staff and volunteers to be involved in implementing the program <i>are in opposition</i> to its development and implementation
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-“Support” once again needs to be defined.  
 -How is support of development & implementation actually measured?  
 -“Generally meets” was selected due to these questions, as it is unknown to what degree all staff and volunteers involved in the program support it.

## Summary Section 2.3

### 2.3) Organization’s Existing Resources Inventoried

The sponsoring organization has the means and will to support the program.

Total Score:      6/12

# Key Characteristic #2: Organizational Needs and Capacities

## Score Summary and Comment Narrative

Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals.

**2.1) Consistent with Organizational Priorities:** The environmental education program is consistent with, and supportive of, parent organizations priorities and objectives.

**Total Score:** 4/12 converted to percentage: 33%

**2.2) Organization's Need for the Program Identified:** The environmental education program fills an identified need within existing activities of the sponsoring organization.

**Total Score:** 5/6 converted to percentage: 83%

**2.3) Organization's Existing Resources Inventoried**

The sponsoring organization has the means and will to support the program.

**Total Score:** 6/12 converted to percentage: 50%

**Sum of Percentage Scores For Organizational Needs and Capacities:**

166/3 = 55.3% Overall Score

**Comment Narrative:**

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# Key Characteristic #2:

Comment Narrative (Section 2: Organizational Needs and Capacities, continued)

## Strengths:

- 2.1)
  - A. The Crane Count's goals and objectives are consistent with ICF's mission
  - B. Crane Count is integrated into ICF's budget
- 2.2)
- 2.3)
  - A. ICF capacities and resources are currently adequate to generally support the Crane Count

## Weaknesses:

- 2.1)
  - A. The Crane Count needs to be further examined to determine if it is consistent with ICF's goals, objectives, long-range plan, and any other applicable mandates
  - B. It is unknown if program staff/materials articulate the relationship between the program and ICF mission, etc.
  - C. ICF communication strategies and priorities are unknown, and it is unknown if the Crane Count supports these
  - D. Recommendations for the future of Crane Count need to be examined in the context of ICF's budget, and feasibility determined
- 2.2)
  - A. The existence of an inventory of ICF programs and their interrelationship needs to be confirmed (may be a part of Strategic Planning)
  - B. The Crane Count's role in ICF's overall program offerings needs to be specifically identified
- 2.3)
  - A. ICF human & technical resources are increasingly challenged by data entry
  - B. No specific consideration is given to long-term Crane Count resource needs
  - C. Support of program by leadership, departments, and board unknown
  - D. The degree to which staff/volunteers implementing the program support its development and implementation is unknown



## Key Characteristic #3: Program Scope and Structure

# Key Characteristic #3: Program Scope and Structure

Nonformal environmental education programs should be designed with well-articulated goals and objectives that state how the program will contribute to the development of environmental literacy.

3.1) Goals and Objectives for the Program  
The environmental education program is based on well-considered goals and objectives.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The environmental education program is based on clearly delineated, relevant goals and objectives related to the ultimate goal of an environmentally literate citizenry and environmental quality.	The environmental education program is based on <i>clearly</i> delineated, relevant goals and objectives related to the ultimate goal of an environmentally literate citizenry and environmental quality	The environmental education program is based on <i>generally</i> delineated, relevant goals and objectives related to the ultimate goal of an environmentally literate citizenry and environmental quality	The environmental education program is based on <i>partially</i> delineated, relevant goals and objectives related to the ultimate goal of an environmentally literate citizenry and environmental quality	The environmental education program <i>is not based on</i> clearly delineated, relevant goals or objectives related to the ultimate goal of an environmentally literate citizenry or environmental quality
	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

## Comments:

-The Crane Count's goals and objectives are clearly related to environmental education, and correspondingly to environmental literacy and quality.

# Key Characteristic #3: Program Scope and Structure

Comments:				
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program goals and objectives describe accurately and specifically what the program is designed to accomplish. Objectives are attainable and measurable.	All of the program goals and objectives describe <i>accurately</i> and specifically what the program is designed to accomplish. <i>All</i> objectives are attainable and measurable.	Program goals and objectives describe <i>generally</i> what the program is designed to accomplish. Objectives are attainable and measurable.	Program goals and objectives <i>minimally</i> describe what the program is designed to accomplish. Objectives <i>may not be</i> attainable or measurable.	Program goals or objectives <i>do not</i> describe accurately or specifically what the program is designed to accomplish. Objectives <i>are not</i> attainable and measurable.
Program goals and objectives reflect the value of long-term commitment by the organization and partners.	Program goals and objectives <i>fully</i> reflect the value of long-term commitment by the organization and partners.	Program goals and objectives <i>generally</i> reflect the value of long-term commitment by the organization and partners.	Program goals and objectives <i>minimally</i> reflect the value of long-term commitment by the organization and partners.	Program goals and objectives <i>fail to</i> reflect the value of long-term commitment by the organization and partners.

-Goals & objectives describe what the Crane Count is designed to accomplish. Objectives are attainable and measurable.

-Goals & objectives reflect the value of long-term commitment by ICF, in that they directly support ICF's mission

# Key Characteristic #3: Program Scope and Structure

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program goals and objectives relate specifically to the needs and interest of the identified audience(s).	Program goals and objectives relate <i>specifically</i> to the needs and interest of the identified audience(s) <input type="checkbox"/>	Program goals and objectives relate <i>generally</i> to the needs and interest of the identified audience(s) 2 <input type="checkbox"/>	Program goals and objectives relate <i>minimally</i> to the needs and interest of the identified audience(s) <input type="checkbox"/>	Program goals and objectives <i>fail to</i> relate to the needs and interest of the identified audience (s) <input type="checkbox"/>
Program goals and objectives address any applicable standards or mandates of the organization.	Program goals and objectives <i>fully</i> address any applicable standards or mandates of the organization <input type="checkbox"/>	Program goals and objectives <i>generally</i> address any applicable standards or mandates of the organization 2 <input type="checkbox"/>	Program goals and objectives <i>minimally</i> address any applicable standards or mandates of the organization <input type="checkbox"/>	Program goals and objectives <i>fail to</i> address any applicable standards or mandates of the organization <input type="checkbox"/>

-Goals & objectives have not been directly assessed in this manner, however, a relationship is evidenced by Questionnaire responses (participants and Coordinators) from descriptions of the “most important things Crane Count accomplishes.”

-Goals and objectives of the Crane Count were reviewed by CED staff, and thereby can be said to generally address organizational standards and mandates. This may warrant additional, more detailed examination by CED staff.

# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
<p>Program goals and objectives consider relevant aspects of state or federal planning documents and, for school-focused youth programs, are consistent with applicable national, state and local educational goals and objectives.</p>	<p>Program goals and objectives <i>fully</i> consider all relevant aspects of state or federal planning documents and, for school-focused youth programs, are <i>fully</i> consistent with applicable national, state and local educational goals and objectives.</p>	<p>Program goals and objectives <i>generally</i> consider relevant aspects of state or federal planning documents and, for school-focused youth programs, are <i>generally</i> consistent with applicable national, state and local educational goals and objectives.</p>	<p>Program goals and objectives <i>minimally</i> consider relevant aspects of state or federal planning documents and, for school-focused youth programs, <i>minimally</i> consistent with applicable national, state and local educational goals and objectives.</p>	<p>Program goals and objectives fail to consider relevant aspects of state or federal planning documents and, for school-focused youth programs, <i>fail to be</i> consistent with applicable national, state and local educational goals and objectives.</p>	<p>-Not currently applicable to ICF's Crane Count, as ICF is a private non-profit. This may need to be reexamined if program focus changes in the future — through partnerships with other agencies, or a greater focus on involving school classrooms in the program.</p>

# Key Characteristic #3: Program Scope and Structure

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program goals and objectives are consistent with the purposes for which the program was funded and responsive to intended uses specified by the funder.	Program goals and objectives are consistent with the purposes for which the program was funded and responsive to intended uses specified by the funder.	Program goals and objectives are <i>generally</i> consistent with the purposes for which the program was funded and responsive to intended uses specified by the funder.	Program goals and objectives are <i>minimally</i> consistent with the purposes for which the program was funded and responsive to intended uses specified by the funder.	Program goals and objectives are <i>inconsistent</i> with the purposes for which the program was funded and <i>unresponsive</i> to intended uses specified by the funder.
Partners develop program goals and objectives collaboratively.	3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Crane Count is funded as a part of ICF's budget. Goals and objectives are consistent with the continuance of the Crane Count in the future.

-Not applicable — the Crane Count is an ICF program, and not run under a partnership.

# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Program materials clearly explain the program's importance.	Program materials <i>clearly</i> explain the program's importance. <input type="checkbox"/>	Program materials <i>generally</i> explain the program's importance. <input type="checkbox"/>	Program materials <i>minimally</i> explain the program's importance. <input type="checkbox"/>	Program materials <i>fail to</i> clearly explain the program's importance. <input type="checkbox"/>	-Some, but not all, program materials explain the program's importance. It should be noted that not all materials are intended for such a purpose, and including such information may interfere with the intent of specific materials.
Topics to be included, major concepts to cover, and key questions to be considered by the program clearly follow from the goals and objectives.	All of the following <i>clearly</i> follow from the goals and objectives of the program: -topics to be included, -major concepts to cover -key questions to be considered <input type="checkbox"/>	Two or three of the following <i>generally</i> follow from the goals and objectives of the program: -topics to be included, -major concepts to cover -key questions to be considered <input type="checkbox"/>	Two or three of the following <i>minimally</i> follow from the goals and objectives of the program: -topics to be included, -major concepts to cover -key questions to be considered <input type="checkbox"/>	Topics to be included, major concepts to cover and key questions to be considered by the program <i>do not</i> clearly follow from the goals and objectives. <input type="checkbox"/>	-Goals & objectives clearly relate to program materials, topics included, concepts and questions considered.

# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The tangible and intangible costs and benefits of reaching goals and objectives are considered as the goals and objectives are developed.	The tangible and intangible costs and benefits of reaching goals and objectives are <i>fully</i> considered as the goals and objectives are developed	The tangible and intangible costs and benefits of reaching goals and objectives are <i>generally</i> considered as the goals and objectives are developed	The tangible and intangible costs and benefits of reaching goals and objectives are <i>minimally</i> considered as the goals and objectives are developed	The tangible and intangible costs and benefits of reaching goals and objectives <i>are not</i> considered as the goals and objectives are developed
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

-Goals & objectives were developed 30 years after the program began. As such, they were developed to fit what the program is doing, without necessarily considering the tangible and intangible costs and benefits of being reached. This item warrants further examination as the program progresses in the future, and program priorities are addressed or revised.



# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Evaluation criteria and indicators of success are specified for the program and tied to program goals and objectives.	Evaluation criteria and indicators of success are <i>fully</i> specified for the program <i>and</i> <i>successfully</i> tied to program goals and objectives <input type="checkbox"/>	Evaluation criteria and indicators of success are <i>generally</i> specified for the program <i>and</i> <i>loosely</i> tied to program goals and objectives <input type="checkbox"/>	Evaluation criteria and indicators of success are <i>minimally</i> specified for the program <i>or</i> <i>poorly</i> tied to program goals and objectives <input type="checkbox"/>	Evaluation criteria and indicators of success are <i>unspecified</i> for the program and <i>fail</i> to be tied to program goals and objectives <input type="checkbox"/>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Comments:</div> <p style="margin-top: 10px;">-Evaluation criteria and indicators of success are not currently specified for the Crane Count. However, with goals and objectives now established for the program, such efforts could be undertaken and put into place.</p>				

## Summary Section 3.1

### 3.1) Goals and Objectives for the Program

The environmental education program is based on well-considered goals and objectives.

Total Score: 20/30

# Key Characteristic #3: Program Scope and Structure

3.2) Fit with Goals and Objectives of Environmental Education  
The environmental education program builds towards the larger goals and objectives of the environmental education field.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>The program clearly establishes how it contributes to the larger goals of:</p> <ul style="list-style-type: none"> <li>• environmental literacy and</li> <li>• responsible action such as those detailed in Excellence in Environmental Education: Guidelines for Learning (K-12), published by the North American Association for Environmental Education.</li> </ul>	<p>The program <i>clearly</i> establishes how it contributes to the larger goals of:</p> <ul style="list-style-type: none"> <li>-environmental literacy, <i>and</i></li> <li>-responsible action such as those detailed in Excellence in Environmental Education: Guidelines for Learning (K-12)</li> </ul>	<p>The program <i>generally</i> establishes how it contributes to the larger goals of:</p> <ul style="list-style-type: none"> <li>-environmental literacy, <i>and</i></li> <li>-responsible action such as those detailed in Excellence in Environmental Education: Guidelines for Learning (K-12)</li> </ul>	<p>The program <i>minimally</i> establishes how it contributes to one of the larger goals of:</p> <ul style="list-style-type: none"> <li>-environmental literacy, <i>or</i></li> <li>-responsible action such as those detailed in Excellence in Environmental Education: Guidelines for Learning (K-12)</li> </ul>	<p>The program <i>does not</i> establish how it contributes to the larger goals of:</p> <ul style="list-style-type: none"> <li>-environmental literacy, <i>or</i></li> <li>-responsible action such as those detailed in Excellence in Environmental Education: Guidelines for Learning (K-12)</li> </ul>

-It is not specifically or clearly established how the Crane Count contributes to the larger goal of EL.  
-It is not specifically or clearly established how Crane Count contributes to the larger goal of responsible action.  
-EEE Guidelines for Learning would have to be reviewed in order to determine the Crane Count's contribution to responsible action.

# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
<p>The program considers how it contributes to a comprehensive environmental education program in the:</p> <ul style="list-style-type: none"> <li>• local area,</li> <li>• state, and</li> <li>• region, and</li> <li>• includes applicable state plans as resources.</li> </ul>	<p>The program <i>clearly</i> considers how it contributes to a comprehensive environmental education program in the following:</p> <ul style="list-style-type: none"> <li>-local area,</li> <li>-state, <i>and</i></li> <li>-region, <i>and</i></li> <li>-includes applicable state plans as resources</li> </ul> <div style="text-align: right;"><input type="checkbox"/></div>	<p>The program <i>generally</i> considers how it contributes to a comprehensive environmental education program <i>in several</i> of the following:</p> <ul style="list-style-type: none"> <li>-local area,</li> <li>-state,</li> <li>-region, <i>and</i></li> <li>-includes state plans as resources</li> </ul> <div style="text-align: right;"><input type="checkbox"/></div>	<p>The program <i>minimally</i> considers how it contributes to a comprehensive environmental education program <i>in several</i> of the following:</p> <ul style="list-style-type: none"> <li>-local area,</li> <li>-state,</li> <li>-region, <i>and</i></li> <li>-<i>partially</i> includes state plans as resources</li> </ul> <div style="text-align: right;"><input type="checkbox"/></div>	<p>The program <i>does not</i> consider how it contributes to a comprehensive environmental education program in the</p> <ul style="list-style-type: none"> <li>-local area,</li> <li>-state, <i>or</i></li> <li>-region, <i>and</i></li> <li>-<i>does not</i> include applicable state plans as resources</li> </ul> <div style="text-align: right;"><input type="checkbox"/></div>	<p>-This has not been considered. -“Comprehensive EE program” needs to be defined. -This may be relevant to the Crane Count on the first three scales especially, as these are scales on which the Crane Count works (site, county, state, Upper Midwest region) -Applicable state plans would have to be located.</p>

## Summary Section 3.2

### 3.2) Fit with Goals and Objectives of Environmental Education

The environmental education program builds towards the larger goals and objectives of the environmental education field.

**Total Score:**      0/6

# Key Characteristic #3: Program Scope and Structure

## 3.3) Program Format and Delivery

The environmental education program is built on careful consideration of the program format and delivery system(s) that will most effectively reach the target audience.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The "medium" or format (e.g., workshop, demonstration area, community forum, festival, course, guest speaker) is <ul style="list-style-type: none"> <li>• appropriate to meet the set goals and objectives, and</li> <li>• thought has been given to the appropriate context needed to accomplish objectives.</li> </ul>	The "medium" or format is -appropriate to meet the set goals and objectives, and -considerable thought has been given to the appropriate context needed to accomplish objectives	The "medium" or format is -appropriate to generally meet the set goals and objectives, and/or -thought has been given to the context needed to accomplish objectives	The "medium" or format is -minimally appropriate to meet the set goals and objectives, and/or -minimal thought has been given to the context needed to accomplish objectives	The "medium" or format is -not appropriate to meet the set goals and objectives, and -no thought has been given to the context needed to accomplish objectives
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-The format of the Crane Count is fairly set, with years of tradition behind it. It appears appropriate for the program's goals and objectives.  
-With goals and objectives now set for the Crane Count, consideration can be given to the appropriate context needed for their accomplishment.

# Key Characteristic #3: Program Scope and Structure

		Comments:		
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program's scope and duration are appropriate to meet the goals and objectives.	The program's scope and duration are appropriate to <i>fully</i> meet all the goals and objectives fully <input type="checkbox"/>	The program's scope and duration are appropriate to <i>generally</i> meet the goals and objectives <input checked="" type="checkbox"/>	The program's scope and duration are appropriate to <i>minimally</i> meet <i>one or more</i> of the goals and objectives <input type="checkbox"/>	The program's scope and duration <i>are not</i> appropriate to meet the goals and objectives <input type="checkbox"/>
Program format and delivery mechanisms meet the needs of the intended audience.	Program format and delivery mechanisms meet the needs of the intended audience <input type="checkbox"/>	Program format and delivery mechanisms <i>generally</i> meet the needs of the intended audience <input type="checkbox"/>	Program format and/or delivery mechanisms <i>minimally</i> meet the needs of the intended audience <input checked="" type="checkbox"/>	Program format and delivery mechanisms <i>do not meet</i> the needs of the intended audience <input type="checkbox"/>

-The scope and duration of Crane Count are generally appropriate to meet at least some of the established goals and objectives. Scope and duration may need to be reexamined in the context of the established goals and objectives, and given further consideration.

-Some needs of the intended audiences (participants and Coordinators) have been documented through Questionnaires. These indicate that some needs are being met, however, they also indicate that numerous program improvements would help to further meet their needs.

# Key Characteristic #3: Program Scope and Structure

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>Program format and delivery are designed to provide a “safe” and comfortable atmosphere for audience members of all races, genders, ages, or cultures.</p>	<p>Program format and delivery are designed to provide a <i>completely</i> “safe” and comfortable atmosphere for audience members of all races, genders, ages, or cultures</p> <div style="text-align: right; border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;">3</div>	<p>Program format and delivery are designed to <i>generally</i> provide a “safe” and comfortable atmosphere for audience members of all races, genders, ages, or cultures</p> <div style="text-align: right; border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	<p>Program format or delivery are designed to <i>partially</i> provide a “safe” and comfortable atmosphere for audience members of all races, genders, ages, or cultures</p> <div style="text-align: right; border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>	<p>Program format and delivery <i>are not</i> designed to provide a “safe” and comfortable atmosphere for audience members of all races, genders, ages, or cultures</p> <div style="text-align: right; border: 1px solid black; width: 20px; height: 20px; margin: 0 auto;"></div>

-Program format and delivery seem to be primarily centered around gathering crane data rather than around participants. However, participants are volunteers and have the choice as to whether or not they participate. To this extent, the format and delivery are a “safe and comfortable” atmosphere.

# Key Characteristic #3: Program Scope and Structure

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
<p>The design of program format and delivery mechanisms includes a detailed consideration of how the program fits with</p> <ul style="list-style-type: none"> <li>• a larger scope and sequence for environmental education and learner readiness for the concepts and skills presented.</li> </ul>	<p>The design of program format and/or delivery mechanisms includes a <i>general</i> consideration of how the program fits with</p> <ul style="list-style-type: none"> <li>- a larger scope and sequence for environmental education <i>and</i> learner readiness for the concepts and skills presented</li> </ul>	<p>The design of program format or delivery mechanisms includes a <i>minimal</i> consideration of how the program fits with</p> <ul style="list-style-type: none"> <li>- a larger scope and sequence for environmental education <i>and/or</i> learner readiness for the concepts and skills presented</li> </ul>	<p>The design of program format and delivery mechanisms includes a <i>lack of</i> consideration of how the program could fit with</p> <ul style="list-style-type: none"> <li>- a larger scope and sequence for environmental education and learner readiness for the concepts and skills presented</li> </ul>	<p>-The establishment of goals and objectives for the Crane Count help detail how the program fits into the scope of environmental education by addressing its goals.</p> <p>-The Crane Count does not currently include a detailed consideration of learner readiness for the concepts and skills presented.</p>	

# Key Characteristic #3: Program Scope and Structure

Comments:

-Apart from an annual questionnaire distributed to County Coordinators, there are no evaluation strategies for the Crane Count.  
 -These questionnaires provide feedback to ICF  
 -These questionnaires do not provide feedback to Coordinators/participants.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Evaluation strategies are designed and implemented to provide feedback to: <ul style="list-style-type: none"> <li>• program partners and</li> <li>• the audiences involved so that learning is not just unidirectional.</li> </ul>	All evaluation strategies are designed and implemented to provide feedback to <ul style="list-style-type: none"> <li>-program partners and</li> <li>-the audiences involved <i>so that</i> learning is not just unidirectional</li> </ul>	Evaluation strategies are <i>generally</i> designed and implemented to provide feedback to <ul style="list-style-type: none"> <li>-program partners and</li> <li>-the audiences involved <i>so that</i> learning is not just unidirectional</li> </ul>	Evaluation strategies are <i>minimally</i> designed and implemented to provide feedback to <ul style="list-style-type: none"> <li>-program partners and/or</li> <li>-the audiences involved</li> </ul>	Evaluation strategies are <i>not</i> designed and implemented to provide feedback to <ul style="list-style-type: none"> <li>-program partners or</li> <li>-the audiences involved</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Summary Section 3.3

### 3.3) Program Format and Delivery

The environmental education program is built on careful consideration of the program format and delivery system(s) that will most effectively reach the target audience.

**Total Score:**      9/18



# Key Characteristic #3: Program Scope and Structure

## 3.4) Partnerships and Collaboration

The environmental education program maximizes effectiveness and efficiency by working in partnership with the groups of similar interest or with shared goals.

**Comments:**

- “Partner” and “collaborator” need to have specific definitions. In this case, volunteers (County Coordinators & participants) are not being counted as either.
- No potential partners or collaborators have been identified for the Crane Count.
- If such are to be identified, this should be in the master plan for the Count. This section then would need revisiting.
- Not Applicable (see above)

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Potential partners and collaborators have been identified.	An <i>extensive amount</i> of potential partners and collaborators have been identified <input type="checkbox"/>	Potential partners and collaborators have been <i>generally</i> identified <input type="checkbox"/>	Potential partners and collaborators have been <i>minimally</i> identified <input type="checkbox"/>	There <i>are no</i> potential partners or collaborators identified <input type="checkbox"/>
The relationship of the program to the desired long-term cooperative activities between and among partners is clearly articulated and understood.	The relationship of the program to the desired long-term cooperative activities between and among partners is <i>clearly</i> articulated and understood <input type="checkbox"/>	The relationship of the program to the desired long-term cooperative activities between and among partners is <i>generally</i> articulated and understood <input type="checkbox"/>	The relationship of the program to the desired long-term cooperative activities between and among partners is <i>minimally</i> articulated and there-fore <i>may not be</i> fully understood <input type="checkbox"/>	The relationship of the program to the desired long-term cooperative activities between and among partners <i>has not been</i> clearly articulated and <i>is not</i> understood <input type="checkbox"/>

# Key Characteristic #3: Program Scope and Structure

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Partners have been involved in the process of developing the program.	Partners have been <i>fully</i> involved in the process of developing the program	Partners have been <i>generally</i> involved in the process of developing the program	Partners have <i>had minimal</i> involvement in the process of developing the program	Partners have not been involved in the process of developing the program
Roles of partners and collaborators are clearly established and are linked to the expertise, resources and skills each partner brings.	Roles of partners and collaborators are <i>clearly</i> established and are linked to the expertise, resources, and skills each partner brings	Roles of partners and collaborators are <i>generally</i> established, and are <i>generally</i> linked to the expertise, resources, and skills each partner brings	Roles of partners and collaborators are <i>minimally</i> established, and are <i>minimally</i> linked to the expertise, resources, and skills each partner brings	Roles of partners and collaborators are <i>not clearly</i> established <i>nor</i> linked to the expertise, resources, and skills each partner brings
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Not Applicable (see p. 51)

-Not Applicable (see p. 51)

# Key Characteristic #3: Program Scope and Structure

		Comments:		
<b>What to look for:</b>	<b>Fully Meets</b> 3	<b>Generally Meets</b> 2	<b>Minimally Meets</b> 1	<b>Does Not Meet</b> 0
Duration of commitment to the program is clearly articulated among partners.	Duration of commitment to the program is <i>clearly</i> articulated among partners	Duration of commitment to the program is <i>generally</i> articulated and understood by partners	Duration of commitment to the program is <i>minimally</i> articulated and understood by partners	Duration of commitment to the program <i>has not</i> been clearly articulated among partners
	—	—	—	—
The relationships among program goals and partners' programs and collaborators' interest are clear	The relationships among program goals and partners' programs and collaborators' interest are clear	The relationships among program goals and partners' programs and collaborators' interest are <i>generally</i> clear	The relationships among program goals and partners' programs and/or collaborators' interest are <i>somewhat unclear</i>	The relationships among program goals and partners' programs and collaborators' interests are <i>unclear</i>
	—	—	—	—
	-Not Applicable (see p. 51)			
	-Not Applicable (see p. 51)			

# Key Characteristic #3: Program Scope and Structure

Comments:

-Not Applicable (see p. 51)

<b>What to look for:</b>	<b>Fully Meets</b> 3	<b>Generally Meets</b> 2	<b>Minimally Meets</b> 1	<b>Does Not Meet</b> 0
A program development team represents partner and collaborator interests.	A program development team <i>clearly</i> represents partner and collaborator interests.	A program development team <i>generally</i> represents the partner and collaborator interests.	A program development team <i>minimally</i> represents the partner and/or collaborator interests.	A program development team <i>does not</i> represent the partner or collaborator interests.
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Summary Section 3.4

### 3.4) Partnerships and Collaboration

The environmental education program maximizes effectiveness and efficiency by working in partnership with the groups of similar interest or with shared goals.

**Total Score:**      0/3 (Six indicators not currently applicable)

# Key Characteristic #3: Program Scope and Structure

## Score Summary and Comment Narrative

Nonformal environmental education programs should be designed with well-articulated goals and objectives that state how the program will contribute to the development of environmental literacy.

**3.1) Goals and Objectives for the Program:** The environmental education program is based on well-considered goals and objectives.

**Total Score:** 20/30 converted to percentage: 67%

### 3.2) Fit with Goals and Objectives of Environmental Education

The environmental education program builds towards the larger goals and objectives of the environmental education field.

**Total Score:** 0/6 converted to percentage: 0%

### 3.3) Program Format and Delivery

The environmental education program is built on careful consideration of the program format and delivery system(s) that will most effectively reach the target audience.

**Total Score:** 9/18 converted to percentage: 50%

### 3.4) Partnerships and Collaboration

The environmental education program maximizes effectiveness and efficiency by working in partnership with the groups of similar interest or with shared goals.

**Total Score:** 0/3 converted to percentage: 0%

**Sum of Percentage Scores For Program Scope and Structure:** 117/4 = 29.25% Overall Score

# Key Characteristic #3:

## Comment Narrative (Section 3: Program Scope and Structure, continued)

### Strengths:

- 3.1)
  - A. The Crane Count’s goals and objectives are related to environmental education, and correspondingly to environmental literacy and quality
  - B. Crane Count goals and objectives articulate what the program is designed to accomplish. Goals and objectives are attainable and measurable
  - C. Goals and objectives reflect the value of long-term commitment by ICF, in that they directly support ICF’s mission
  - D. Goals and objectives clearly relate to program materials, topics included, concepts, and questions considered.
- 3.2)
- 3.3)
  - A. The format of the Crane Count appears largely appropriate for the accomplishment of its goals and objectives
  - B. Program format and delivery are appropriate for meeting some needs of the Count’s audience
  - C. Program format is safe/comfortable — there is the option for people to opt out and make a willing choice
  - D. Established goals and objectives help detail how the Crane Count fits into the scope of EE by addressing its goals

### Weaknesses:

- 3.1)
  - A. Some, but not all, program materials explain the Crane Count’s importance
  - B. No evaluation criteria or indicators of success exist for the measurement of the Crane Count’s goals and objectives
- 3.2)
  - A. It is not established how Crane Count contributes to Environmental Literacy, though the goals and objectives are related to EE. This would need to be evaluated
  - B. It is not established how Crane Count contributes to responsible action — this would need to be evaluated
  - C. EEE Guidelines for learning criteria need to be reviewed in order to determine the Crane Count’s contribution to responsible action
  - D. It is unknown exactly how the Crane Count contributes to Environmental Education programs in the area, state, and region
- 3.3)
  - A. Consideration should be given to the appropriate context for accomplishing the Count’s goals and objectives
  - B. Some needs of the Count’s audience have been documented through Program Plan development, however, not all are being met. Program improvements would help address these needs. Additional undocumented needs may exist, and need to be determined
  - C. There is no detailed consideration of learner readiness (or concepts and skills presented)
  - D. There are no evaluation strategies for the Crane Count
- 3.4)
  - A. There are no partners/collaborators identified for the Crane Count

# Key Characteristic #4: Program Delivery Resources

# Key Characteristic #4: Program Delivery Resources

Nonformal environmental education programs require careful planning to ensure that well-trained staff, facilities, and support materials are available to accomplish program goals and objectives.

## 4.1) Assessment of Resource Needs

The environmental education program has taken steps to ensure that staff, support materials, and facilities needed to conduct the program will be available.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Resources needed to develop and implement the program have been clearly identified.	All resources needed to develop and implement the program have been <i>clearly</i> identified	Resources needed to develop and implement the program have been <i>generally</i> identified	Resources needed to develop and implement the program have been <i>minimally</i> identified	Resources needed to develop and implement the program <i>have not</i> been identified
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Comments:

-Resources needed to implement the program as it stands are currently known, and have been identified.  
 -This indicator may need to be reexamined for future proposed development & recommendations that may result from the Crane Count Program Plan.



# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Needed resources, both from within the organization and from its partners or clients, have been agreed to, and are available.	All needed resources, both from within the organization and from its partners or clients, have been agreed to, and are all available <input type="checkbox"/>	Needed resources, from within the organization and from its partners or clients, have been <i>generally</i> agreed to, and are available <input checked="" type="checkbox"/> 2	Needed resources, from within the organization <i>but not</i> from its partners or clients, have been agreed to, and are available <input type="checkbox"/>	Needed resources, <i>both</i> from within the organization <i>and</i> from its partners or clients, have <i>not been</i> agreed to, and are <i>not</i> available <input type="checkbox"/>	-Needed resources from ICF are known and available for the program as it currently stands. -Needed resources (from County Coordinators) are generally known, and a system exists for ICF to learn of additional resources they may want or need.

## Summary Section 4.I

### 4.1) Assessment of Resource Needs

The environmental education program has taken steps to ensure that staff, support materials, and facilities needed to conduct the program will be available.

**Total Score:** 5/6

# Key Characteristic #4: Program Delivery Resources

## 4.2) Quality Instructional Staff

The planning and conducting of the environmental education program is based on a highly qualified and trained cadre of staff and volunteers.

<b>What to look for:</b>	<b>Fully Meets</b> 3	<b>Generally Meets</b> 2	<b>Minimally Meets</b> 1	<b>Does Not Meet</b> 0
Background checks have been performed on prospective staff or volunteers as appropriate.	Background checks have been performed on <i>both</i> prospective staff <i>and</i> volunteers as appropriate.	Background checks have been performed on prospective staff <i>or</i> volunteers as appropriate.	N/A	No background checks have been performed on <i>either</i> prospective staff <i>or</i> volunteers as appropriate.

### Comments:

- Background checks have been performed on staff as part of ICF's hiring process.
- Background checks have not been and are not performed on County Coordinators.
- ICF policy needs to be reviewed to determine if background checks on County Coordinators would be appropriate, and what this would entail.
- Are County Coordinators qualified to do their "jobs?"
- Do they meet minimum requirements, and do they work in a manner consistent with ICF policies?

# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
<p>The competencies of program educators (staff or volunteers) have been assessed and it has been determined that they meet applicable competencies such as those outlined in NAAEE's <i>Guidelines for the Initial Preparation of Environmental Educators</i>.</p>	<p>The competencies of <i>all</i> program educators have been <i>fully</i> assessed and it has been determined that they meet applicable competencies</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The competencies of program educators have been <i>generally</i> assessed and it has been determined that they <i>generally</i> meet applicable competencies</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The competencies of program educators have been <i>partially</i> assessed and it has been determined that they <i>minimally</i> meet applicable competencies</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The competencies of program educators <i>have not been</i> assessed</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>-Competencies of ICF staff have been assessed in the hiring process.</p> <p>-ICF hiring process does not assess staff according to NAAEE Guidelines for Educators.</p> <p>-Competencies of volunteers (County Coordinators and participants) have not been and are not assessed.</p> <p>-Applicable competencies are in need of definition.</p>
<p>The training needs of staff, volunteers, and other presenters or educators have been assessed.</p>	<p>The training needs of <i>all</i> staff, volunteers, <i>and</i> any other presenters or educators have been <i>fully</i> assessed</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The training needs of staff, volunteers, <i>and/or</i> other presenters or educators have been <i>generally</i> assessed</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The training needs of staff, volunteers, <i>and/or</i> other presenters or educators have been <i>minimally</i> assessed</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>The training needs of staff, volunteers, <i>and</i> other presenters or educators <i>have not been</i> assessed</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>-Training needs of staff are only partially assessed (i.e. minimum needed to run Crane Count)</p> <p>-Training needs of Coordinators &amp; participants have not specifically been assessed.</p>

# Key Characteristic #4: Program Delivery Resources

Comments:

-What little actual "training" exists is centered on subject matter. Safety is addressed in program materials.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Training extends beyond subject matter and technique, and includes: <ul style="list-style-type: none"> <li>• safety and emergency preparedness,</li> <li>• handling of disruptive behavior,</li> <li>• need for objectivity and balance, etc.</li> </ul>	Training extends beyond subject matter and technique, and includes <i>all of the following</i> : <ul style="list-style-type: none"> <li>-safety</li> <li>-emergency preparedness,</li> <li>-handling of disruptive behavior,</li> <li>-need for objectivity and balance, etc.</li> </ul>	Training extends beyond subject matter and technique, and includes <i>three of the following</i> : <ul style="list-style-type: none"> <li>-safety</li> <li>-emergency preparedness,</li> <li>-handling of disruptive behavior,</li> <li>-need for objectivity and balance, etc.</li> </ul>	Training extends beyond subject matter and technique, and includes <i>one or two of the following</i> : <ul style="list-style-type: none"> <li>-safety</li> <li>-emergency preparedness,</li> <li>-handling of disruptive behavior,</li> <li>-need for objectivity and balance, etc.</li> </ul>	Training <i>does not</i> extend beyond subject matter and technique, and includes <i>none of the following</i> : <ul style="list-style-type: none"> <li>-safety</li> <li>-emergency preparedness,</li> <li>-handling of disruptive behavior,</li> <li>-need for objectivity and balance, etc.</li> </ul>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
If needed, a training program for staff, volunteers, and other presenters or educators has been designed and implemented.	If needed, a <i>complete</i> training program for all staff, volunteers, and any other presenters or educators has been designed and implemented <input type="checkbox"/>	If needed, a <i>general</i> training program for staff, volunteers, and other presenters or educators has been designed and implemented <input checked="" type="checkbox"/>	If needed, a <i>general</i> training program for staff, and volunteers, has been <i>partially</i> designed <i>and/or</i> implemented <input type="checkbox"/>	No training program for staff, volunteers, and other presenters or educators has been designed or implemented <input type="checkbox"/>
Professional development and enrichment activities are available for staff and volunteers.	Professional development and enrichment activities are available for staff <i>and</i> volunteers <input type="checkbox"/>	Professional development and enrichment activities are available for staff <i>but not</i> volunteers <input type="checkbox"/>	<i>Either</i> professional development <i>or</i> enrichment activities are available for staff <i>but not</i> volunteers <input checked="" type="checkbox"/>	No professional development or enrichment activities are available for staff <i>or</i> volunteers <input type="checkbox"/>

## Comments:

- General training exists. For ICF staff, by other ICF staff experienced in the program, also through materials.
- For County Coordinators, training consists of program materials. Results of the training are not assessed.
- County Coordinators train participants. Results of training are not assessed or evaluated.
  
- Some professional development/enrichment activities are available to ICF staff, however, not necessarily in relation to the Crane Count program.
- Professional development/enrichment activities are not available for County Coordinators/participants, apart from an invitation to visit ICF free of charge (enrichment).

# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
A performance review system to evaluate staff and volunteers is included as part of the organization's personnel policies and procedures.	A <i>full</i> performance review system to evaluate all staff <i>and</i> volunteers is included as part of the organization's personnel policies and procedures	A <i>general</i> performance review system to evaluate staff <i>and</i> volunteers is included as part of the organization's personnel policies and procedures	A <i>general</i> performance review system to evaluate staff <i>but not</i> volunteers is included as part of the organization's personnel policies and procedures	No performance review system to evaluate staff and volunteers exists
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Comments:

- A performance review system is in place for ICF staff.
- County Coordinators, as ICF volunteers are not evaluated.
- ICF policy should be reviewed to determine requirements on this matter, and if such policies are being met.

# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The [performance] review system is drawn from and supports specific program goals and objectives.	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 

## Comments:

- With establishment of Crane Count goals and objectives, performance review standards may need to be revised accordingly.
- Secondly, ICF staff performance reviews would be based only in part on the Crane Count, as only one component of CED staff responsibilities.
- Nor performance review system for County Coordinators exists.

## Summary Section 4.2

### 4.2) Quality Instructional Staff

The planning and conducting of the environmental education program is based on a highly qualified and trained cadre of staff and volunteers.

**Total Score:**            8/24

# Key Characteristic #4: Program Delivery Resources

4.3) Facilities Management  
Safe and appropriate facilities are available for the environmental education program.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Needed facilities have been re-served or rented.	Needed facilities <i>have been re-served</i> or rented	Needed facilities <i>are in the process</i> of being reserved or rented	Needed facilities <i>are being considered, but no action has been taken</i> to reserve or rent	Needed facilities <i>have not been re-served</i> or rented, <i>and no action taken in that direction</i>
Facilities and areas to be used for the program have been surveyed to ensure that there are no medical or safety hazards.	Facilities <i>and</i> areas to be used for the program have been <i>fully</i> surveyed to ensure that there <i>are absolutely no</i> medical or safety hazards	Facilities <i>and/or</i> areas to be used for the program have been <i>generally</i> surveyed to ensure that there <i>should be no</i> medical or safety hazards	Facilities <i>and/or</i> areas to be used for the program have been <i>partially</i> surveyed to ensure that there <i>should be no</i> medical or safety hazards	Facilities and areas to be used for the program <i>have not been</i> surveyed to ensure that there are no medical or safety hazards
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Not Applicable to overall program. May be applicable for Coordinators & participant training.

-This indicator is not feasible, considering the that the Crane Count takes place at thousands of sites in more than 100 counties in parts of five states.



# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>Needed permits and permissions have been obtained.</p>	<p>Needed permits and permissions <i>have been</i> obtained</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>Needed permits and permissions <i>are in the process</i> of being obtained</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>N/A</p>	<p>Needed permits and permissions <i>have not been</i> obtained</p> <p style="text-align: right;"><input type="checkbox"/></p>

**Comments:**

- Not applicable to overall program.
- May be applicable to participants wishing to venture on private lands, and needing landowner permissions.

## Key Characteristic #4: Program Delivery Resources

Comments:

-Not feasible given the scale of Crane Count. See comment on p. 66.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Facilities and grounds meet the letter and spirit of the American's with Disabilities Act.	Facilities and grounds meet the letter and spirit of the American's with Disabilities Act <input type="checkbox"/>	Facilities and grounds <i>generally</i> meet the letter and spirit of the American's with Disabilities Act <input type="checkbox"/>	Facilities and grounds <i>minimally</i> meet the letter and spirit of the American's with Disabilities Act <input type="checkbox"/>	Facilities and grounds <i>do not</i> meet the letter and spirit of the American's with Disabilities Act <input type="checkbox" value="0"/>

### Summary Section 4.3

#### 4.3) Facilities Management

Safe and appropriate facilities are available for the environmental education program.

Total Score:      0/6      (two indicators not applicable)

# Key Characteristic #4: Program Delivery Resources

Comments:

4.4) Provision of Support Materials  
Effective environmental education programs require that adequate supplies and re-sources be on hand.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Equipment, supplies, refills, etc., have been obtained or ordered with sufficient time before the program is scheduled to begin.	Equipment, supplies, refills, etc., <i>have been</i> obtained or ordered with sufficient time before the program is scheduled to begin	N/A	N/A	Equipment, supplies, refills, etc., <i>have not been</i> obtained or ordered with sufficient time before the program is scheduled to begin
Arrangements have been made for needed food, drinks, lodging, etc.	3	<input type="checkbox"/>		<input type="checkbox"/>
	All arrangements <i>have been</i> made for needed food, drinks, lodging, etc	Arrangements <i>are in process</i> for needed food, drinks, lodging, etc	N/A	No arrangements <i>have been</i> made for needed food, drinks, lodging, etc
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

-Supplies etc. are obtained & ordered before actually needed for the Crane Count.

-Not Applicable.

## Key Characteristic #4: Program Delivery Resources

Comments:

-Crane Count is part of ICF's budget — financial arrangements have been made.  
-There are not program charges at this point.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Financial arrangements have been made to pay for food, entrance fees, supplies, etc., needed during the program and to collect applicable program charges.	Financial arrangements <i>have been</i> made to pay for food, entrance fees, supplies, etc., needed during the program and to collect applicable program charges <input type="checkbox" value="3"/>	Financial arrangements <i>are in the process</i> of being made to pay for food, entrance fees, supplies, etc., needed during the program and to collect applicable program charges <input type="checkbox"/>	N/A <input type="checkbox"/>	No financial arrangements <i>have been</i> made to pay for food, entrance fees, supplies, etc., needed during the program or to collect applicable program charges <input type="checkbox"/>

# Key Characteristic #4: Program Delivery Resources

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
All equipment has been tested under conditions comparable to those likely during the program, and staff members are trained in its use and maintenance.	<input type="checkbox"/>	<input checked="" type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/>	<p>- "Equipment" for the Crane Count itself consists of data sheets, instructions, etc. Staff are trained in their use.</p> <p>- Materials are not "tested" under field conditions before use, but are "tested" by actual field use, and revised accordingly for the following year if feedback is received.</p>

## Summary Section 4.4

### 4.4) Provision of Support Materials

Effective environmental education programs require that adequate supplies and resources be on hand.

**Total Score:** 8/9 (one indicator not applicable)

# Key Characteristic #4: Program Delivery Resources

Comments:

**4.5) Emergency Planning**  
A safe and effective environmental education program includes thorough emergency planning.

-Not Applicable

<b>What to look for:</b> Appropriate staff members have received training in first aid and cardiopulmonary resuscitation (CPR).	<b>Fully Meets</b> 3 Appropriate staff members have received training in first aid <i>and</i> cardiopulmonary resuscitation (CPR)	<b>Generally Meets</b> 2 One or more staff members have received training in first aid <i>and</i> cardiopulmonary resuscitation (CPR)	<b>Minimally Meets</b> 1 Plans have been made for appropriate staff members to receive training in first aid <i>and/or</i> cardiopulmonary resuscitation (CPR)	<b>Does Not Meet</b> 0 No staff members have received training in first aid <i>and</i> cardiopulmonary resuscitation (CPR)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Key Characteristic #4: Program Delivery Resources

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>Staff members know whom to contact for medical assistance and to report an emergency such as a fire, and they know where the nearest phone or radio is to make the contact.</p>	<p>All staff members -know whom to contact for medical assistance and to report an emergency such as a fire, <i>and</i> -they know where the nearest phone or radio is to make the contact</p>	<p>Staff members -know whom to contact for medical assistance and to report an emergency such as a fire, <i>or</i> -they know where the nearest phone or radio is to get emergency help</p>	<p>N/A</p>	<p>No staff members -know whom to contact for medical assistance and to report an emergency such as a fire, <i>nor</i> -do they know where the nearest phone or radio is to get emergency help</p>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Not Applicable

# Key Characteristic #4: Program Delivery Resources

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Staff members have been trained to recognize poisonous animals and plants and how to avoid them.	All staff members have been trained to recognize poisonous animals and plants and how to avoid them	Staff members have been <i>generally</i> trained to recognize poisonous animals and plants and how to avoid them	Staff members have been <i>minimally</i> trained to recognize poisonous animals and plants and how to avoid them	Staff members <i>have not been</i> trained to recognize poisonous animals and plants and how to avoid them
Staff members have been trained to respond to all emergency situations they might reasonably be expected to encounter, such as missing persons.	All staff members have been <i>fully</i> trained to respond to all emergency situations they might reasonably be expected to encounter	Staff members have been <i>generally</i> trained to respond to emergency situations they might reasonably be expected to encounter	Staff members have been <i>minimally</i> trained to respond to emergency situations they might reasonably be expected to encounter	Staff members <i>have not been</i> trained to respond to emergency situations they might reasonably be expected to encounter

-Not Applicable

-Not Applicable



# Key Characteristic #4: Program Delivery Resources

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>A system is in place to warn staff of severe weather (or other emergency situations) and staff members know where to go for shelter or how to evacuate.</p>	<p>A <i>complete</i> system is in place to warn staff of severe weather (or other emergency situations) <i>and all</i> staff members know where to go for shelter or how to evacuate</p>	<p>A <i>general</i> system is in place to warn staff of severe weather (or other emergency situations) <i>and</i> staff members know where to go for shelter or how to evacuate</p>	<p>No system is in place to warn staff of severe weather (or other emergency situations) <i>but</i> staff members know where to go for shelter or how to evacuate</p>	<p>No system is in place to warn staff of severe weather (or other emergency situations) <i>nor</i> do staff members know where to go for shelter or how to evacuate</p>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Not Applicable

# Key Characteristic #4: Program Delivery Resources

Comments:

-County Coordinators/  
participants are provided with  
such information in their pro-  
gram materials

<b>What to look for:</b>	<b>Fully Meets</b> 3	<b>Generally Meets</b> 2	<b>Minimally Meets</b> 1	<b>Does Not Meet</b> 0
Participants have been provided with relevant information about the program, including level of physical activity, appropriate clothing, equipment needed, safety concerns, etc.	Participants have been provided with <i>all</i> relevant information about the program, including level of physical activity, appropriate clothing, equipment needed, safety concerns, etc.	Participants have been provided with <i>general</i> information about the program, <i>possibly</i> including level of physical activity, appropriate clothing, equipment needed, safety concerns, etc.	Participants have been provided with <i>partial</i> information about the program, <i>possibly</i> including <i>one or more of the following</i> : level of physical activity, appropriate clothing, equipment needed, safety concerns, etc.	Participants <i>have not been</i> provided with relevant information about the program, including level of physical activity, appropriate clothing, equipment needed, safety concerns, etc.
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Summary Section 4.5

### 4.5) Emergency Planning

A safe and effective environmental education program includes thorough emergency planning.

**Total Score:**      3/3      (five indicators not applicable)

# Key Characteristic #4: Program Delivery Resources

## Score Summary and Comment Narrative

Nonformal environmental education programs require careful planning to ensure that well-trained staff, facilities, and support materials are available to accomplish program goals and objectives.

### 4.1) Assessment of Resource Needs

The environmental education program has taken steps to ensure that staff, support materials, and facilities needed to conduct the program will be available.

**Total Score:** 5/6 converted to percentage: 83%

### 4.2) Quality Instructional Staff

The planning and conducting of the environmental education program is based on a highly qualified and trained cadre of staff and volunteers.

**Total Score:** 8/24 converted to percentage: 33%

### 4.3) Facilities Management

Safe and appropriate facilities are available for the environmental education program.

**Total Score:** 0/6 converted to percentage: 0%

### 4.4) Provision of Support Materials

Effective environmental education programs require that adequate supplies and resources be on hand.

**Total Score:** 8/9 converted to percentage: 89%



# Key Characteristic #4:

## Comment Narrative (Section 4: Program Delivery Resources continued)

### Strengths:

- 4.1) A. Resources needed to implement the current program are identified
- 4.2) A. Background checks on staff are conducted at time of hiring  
B. ICF staff are competent, hence hired  
C. Safety is addressed in program materials  
D. Training exists for staff, Coordinators, and participants, but may not be adequate  
E. Professional development/enrichment exists to a certain extent for ICF staff, though this may not be directly related to the Crane Count  
F. Performance reviews exist for ICF staff
- 4.3) A. Supplies for the Crane Count are available before needed
- 4.4) B. Crane Count is a part of ICF's budget  
C. Relevant staff are familiar with Crane Count "equipment"
- 4.5) A. County Coordinators and participants are provided with program materials discussing activity, clothing, safety, etc.

### Weaknesses:

- 4.1) A. Future resources needed for the Crane Count are unknown  
B. Additional information on "client" resource needs is necessary
- 4.2) A. No thorough background checks are done on County Coordinators — is this consistent with ICF volunteer policy?  
B. Staff are not assessed according to NAAEE Guidelines for Educators  
C. Volunteer competencies are not assessed  
D. Training needs for staff, County Coordinators, and participant volunteers are not assessed  
E. "Training" does not extend beyond the subject matter  
F. Training exists for staff, Coordinators, and participants, but may not be adequate — it is not assessed  
G. Professional development/enrichment does not exist for volunteers (Coordinators & participants), and for staff, it generally does not exist for the Crane Count  
H. Performance review does not exist for the Crane Count's Coordinators or for participants  
I. Performance reviews are not based on the goals and objectives of the Crane Count — staff performance review standards may need to be revised. A performance review system would need to be developed for program volunteers, based on goals and objectives
- 4.3) A. Given the scope/scale/nature of Crane Count, facilities and grounds used for the Crane Count may not be able to meet the ADA
- 4.4) A. Materials and equipment for the Crane Count are not "tested" under field conditions before use — they are implemented, and only then may be revised
- 4.5)

# Key Characteristic #5: Program Quality and Appropriateness

# Key Characteristic #5: Program Quality and Appropriateness

Nonformal environmental education programs are built on a foundation of quality instructional materials and thorough planning.

## 5.1) Quality Instructional Materials and Techniques

The environmental education program employs instructional materials and techniques of the highest quality.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Any educational materials developed or used as part of the program include the characteristics of quality environmental education materials as outlined in NAAEE's <i>Environmental Education Materials: Guidelines for Excellence</i> .	Any educational materials developed or used as part of the program include <i>all</i> of the characteristics of quality environmental education materials as outlined in NAAEE's <i>Environmental Education Materials: Guidelines for Excellence</i> .	A <i>majority</i> of educational materials ( <i>more than 3/4</i> ) developed or used as part of the program include the characteristics of quality environmental education materials as outlined in NAAEE's <i>Environmental Education Materials: Guidelines for Excellence</i> .	A <i>portion</i> of educational materials ( <i>less than 3/4</i> ) developed or used as part of the program include the characteristics of quality environmental education materials as outlined in NAAEE's <i>Environmental Education Materials: Guidelines for Excellence</i> .	Any educational materials developed or used as part of the program include <i>none</i> of the characteristics of quality environmental education materials as outlined in NAAEE's <i>Environmental Education Materials: Guidelines for Excellence</i> .	-Crane Count materials have not been reviewed according to the Guidelines for Excellence. It is unknown if they include the characteristics.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>Program elements, instructional strategies, and materials are broadly inclusive and recognize the integral connections between environmental concerns and the wider questions of social needs, welfare, and economic opportunity.</p>	<p>Program elements, instructional strategies, and materials are <i>broadly</i> inclusive and <i>fully</i> recognize the integral connections between environmental concerns and the wider questions of social needs, welfare, and economic opportunity</p>	<p>Program elements, instructional strategies, and materials are <i>largely</i> inclusive and <i>generally</i> recognize the integral connections between environmental concerns and the wider questions of social needs, welfare, and economic opportunity</p>	<p>Program elements, instructional strategies, and materials are <i>minimally</i> inclusive and <i>do not</i> recognize the integral connections between environmental concerns and the wider questions of social needs, welfare, and economic opportunity</p>	<p>Program elements, instructional strategies, and materials are <i>not</i> inclusive and <i>do not</i> recognize the integral connections between environmental concerns and the wider questions of social needs, welfare, and economic opportunity</p>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-Elements, instructional strategies, and materials would need to be reviewed within this indicator's specific context.



# Key Characteristic #5: Program Quality and Appropriateness

Comments:				
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program elements and materials are integrated with relevant curricula or with program goals from the organization.	Program elements and materials are <i>fully</i> integrated with relevant curricula or with program goals from the organization	Program elements and materials are <i>generally</i> integrated with relevant curricula or with program goals from the organization	Program elements and materials are <i>minimally</i> integrated with relevant curricula or with program goals from the organization	Program elements and materials <i>are not</i> integrated with relevant curricula or with program goals from the organization
Program elements and materials comply with all applicable regulations, standards, and safety guidelines.	Program elements and materials <i>fully</i> comply with <i>all</i> applicable regulations, standards, and safety guidelines	Program elements and materials <i>generally</i> comply with applicable regulations, standards, and safety guidelines	Program elements and materials <i>minimally</i> comply with applicable regulations, standards, and safety guidelines	Program elements and materials <i>do not</i> comply with applicable regulations, standards, and safety guidelines

-In part, due to ICF strategic planning, Crane Count elements and materials need to be reviewed to determine if they are indeed integrated with overall organizational program goals.

-Applicable regulations, standards, and safety guidelines need to be assembled and then checked against program elements and materials to determine their compliance.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program elements, instructional strategies, and materials reflect theory appropriate for the target audience.	All program elements, instructional strategies, and materials <i>fully</i> reflect theory appropriate for the target audience	Program elements, instructional strategies, and materials <i>generally</i> reflect theory appropriate for the target audience	Program elements, instructional strategies, and materials <i>minimally</i> reflect theory appropriate for the target audience	Program elements, instructional strategies, and materials <i>do not</i> reflect theory appropriate for the target audience
Program elements, instructional strategies, and materials consider innovative and novel ways to achieve objectives rather than assuming that traditional or historical methods are most appropriate.	All program elements, instructional strategies, and materials <i>fully</i> consider innovative and novel ways to achieve objectives rather than assuming that traditional or historical methods are most appropriate	Program elements, instructional strategies, and materials <i>generally</i> consider innovative and novel ways to achieve objectives rather than assuming that traditional or historical methods are most appropriate	Program elements, instructional strategies, and materials <i>minimally</i> consider innovative and novel ways to achieve objectives rather than assuming that traditional or historical methods are most appropriate	Program elements, instructional strategies, and materials <i>do not</i> consider innovative or novel ways to achieve objectives rather than assuming that traditional or historical methods are most appropriate

-Theory was not used in the development of Crane Count program materials.  
-Audience consists of children to senior citizens, a mix of theories would be needed.

-Goals and objectives for the Crane Count are now established. Program elements, instructional strategies, and materials need to be examined to see if they consider innovative or novel ways to achieve objectives.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:				
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program elements, instructional strategies, and materials aid in developing critical and creative thinking skills.	All program elements, instructional strategies, and materials <i>fully</i> aid in developing critical and creative thinking skills	Program elements, instructional strategies, and materials <i>generally</i> aid in developing critical and creative thinking skills	Program elements, instructional strategies, and materials <i>minimally</i> aid in developing critical and creative thinking skills	Program elements, instructional strategies, and materials <i>do not</i> aid in developing critical and creative thinking skills
Program elements, instructional strategies, and materials are <ul style="list-style-type: none"> <li>•culturally sensitive</li> <li>•gender sensitive</li> <li>•inclusive and are age, audience, and content appropriate.</li> </ul>	Program elements, instructional strategies, and materials are appropriate <i>for all of the following</i> : <ul style="list-style-type: none"> <li>-culturally sensitive</li> <li>-gender sensitive</li> <li>-inclusive</li> <li>-age</li> <li>-audience</li> <li>-content</li> </ul>	Program elements, instructional strategies, and materials are appropriate <i>for at least 4 or 5 of the following</i> : <ul style="list-style-type: none"> <li>-culturally sensitive</li> <li>-gender sensitive</li> <li>-inclusive</li> <li>-age</li> <li>-audience</li> <li>-content</li> </ul>	Program elements, instructional strategies, and materials are appropriate <i>for at least 1 to 3 of the following</i> : <ul style="list-style-type: none"> <li>-culturally sensitive</li> <li>-gender sensitive</li> <li>-inclusive</li> <li>-age</li> <li>-audience</li> <li>-content</li> </ul>	Program elements, instructional strategies, and materials are appropriate <i>for none of the following</i> : <ul style="list-style-type: none"> <li>-culturally sensitive</li> <li>-gender sensitive</li> <li>-inclusive</li> <li>-age</li> <li>-audience</li> <li>-content</li> </ul>

-While elements, instructional strategies, and materials for the Crane Count may aid in developing critical & creative thinking skills, these would have to be defined and then measured in the context of Crane Count.

-As the target audience for Crane Count ranges from children to senior citizens, elements, instructional strategies, and materials may not be appropriate for being "inclusive," age, the entire audience, or regarding content.

## Key Characteristic #5: Program Quality and Appropriateness

Comments:

- “Scope and sequence” needs definition.
- Meaning of this indicator is suitable ambiguous at this point, and it is being classed as “Not Applicable.”

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Program elements, instructional strategies, and materials are integrated into an appropriate scope and sequence.	All program elements, instructional strategies, and materials are <i>fully</i> integrated into an appropriate scope and sequence	Program elements, instructional strategies, and materials are <i>generally</i> integrated into an appropriate scope and sequence	Program elements, instructional strategies, and materials are <i>minimally</i> integrated into an appropriate scope and sequence	Program elements, instructional strategies, and materials are <i>not</i> integrated into an appropriate scope and sequence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program uses instructional methodologies based on respected, research-based practices. Methods address the varied learning styles of audience members, including attention to theories of multiple intelligences.	The program <i>fully</i> uses instructional methodologies based on respected, research-based practices. <i>All</i> methods <i>fully</i> address the varied learning styles of audience members, including attention to theories of multiple intelligences	The program <i>generally</i> uses instructional methodologies based on respected, research-based practices. Methods <i>partially</i> address the varied learning styles of audience members, including attention to theories of multiple intelligences	The program <i>makes minimal</i> use of instructional methodologies based on respected, research-based practices. Methods <i>minimally</i> address the varied learning styles of audience members, including attention to theories of multiple intelligences	The program <i>does not</i> use instructional methodologies based on respected, research-based practices. Methods <i>do not</i> address the varied learning styles of audience members, including attention to theories of multiple intelligences
Life-long learning strategies are incorporated into program design.	Life-long learning strategies are <i>fully</i> incorporated into program design	Life-long learning strategies are <i>generally</i> incorporated into program design	Life-long learning strategies are <i>minimally</i> incorporated into program design	Life-long learning strategies <i>are not</i> incorporated into program design

-Crane Count does not specifically seek to use these. Any that are used are by chance and not design.

-Life-long learning strategies (need definition) are not actively incorporated into the Crane Count.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>The overall program and specific activities are <i>broadly</i> accessible and are responsible to concepts and standards expressed in the Americans with Disabilities Act (ADA).</p>	<p>The overall program and specific activities are <i>broadly</i> accessible and are <i>completely</i> responsive to concepts and standards expressed in the Americans with Disabilities Act (ADA)</p>	<p>The overall program and specific activities are <i>primarily</i> accessible and are <i>generally</i> responsive to concepts and standards expressed in the Americans with Disabilities Act (ADA)</p>	<p>The overall program and specific activities are <i>minimally</i> accessible and are only <i>partially</i> responsive to concepts and standards expressed in the Americans with Disabilities Act (ADA)</p>	<p>The overall program and specific activities are <i>not</i> accessible and are <i>not</i> responsive to concepts and standards expressed in the Americans with Disabilities Act (ADA)</p>
<p>The program uses appropriate and effective technology.</p>	<p>The program uses appropriate <i>and</i> effective technology</p>	<p>The program <i>generally</i> uses appropriate <i>and/or</i> effective technology</p>	<p>The program uses a <i>minimum</i> of appropriate <i>and/or</i> effective technology</p>	<p>The program <i>does not</i> use appropriate <i>or</i> effective technology</p>

-The Crane Count program and activities need to be checked against ADA.

-Although this "appropriate and effective technology" needs better definition, Crane Count is far behind in making use of existing technology to make the program for efficient, if not effective.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:				
What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program is safe and comfortable for the audience.	The program is <i>completely</i> safe and comfortable for the audience <input type="checkbox"/>	The program is <i>generally</i> safe and comfortable for the audience <input type="checkbox"/> 2	The program is <i>minimally</i> safe and comfortable for the audience <input type="checkbox"/>	The program is <i>not</i> safe and comfortable for the audience <input type="checkbox"/>
The program is integrated into a continuum of environmental education, with readiness and follow-up activities conducted as appropriate.	The program is <i>fully</i> integrated into a continuum of environmental education, with readiness and follow-up activities conducted as appropriate <input type="checkbox"/>	The program is <i>generally</i> integrated into a continuum of environmental education, with readiness and follow-up activities <i>partially</i> conducted as appropriate <input type="checkbox"/>	The program is <i>minimally</i> integrated into a continuum of environmental education, but readiness and follow-up activities <i>minimally</i> conducted as appropriate <input type="checkbox"/> 1	The program is <i>not</i> integrated into a continuum of environmental education, with readiness and follow-up activities conducted as appropriate <input type="checkbox"/> 0

-This has not been measured. It may be assumed to be the case, as participants can opt out of the program if they do not feel safe for comfortable.

-Goals and objectives of the Crane Count are tied to the goals of EE, and it is therefore integrated to some extent into a continuum of EE.  
-If training can be considered a readiness activity, it is conducted in some manner for participants.  
-Follow-up activities do not take place.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

-Materials have been reviewed by experts in subject matter (ICF staff).  
 -Materials have not been reviewed by experts in education. (What defines an expert in education?)  
 -Materials are reviewed by participants through use, but not for the reasons listed here.

<b>What to look for:</b> Materials have been reviewed by experts in education and subject matter and by their intended audience to assure that they are pedagogically sound, value-fair, and scientifically accurate.	<b>Fully Meets</b> <div style="text-align: center; font-size: 24pt;">3</div> <div style="text-align: center;"><input type="checkbox"/></div>	<b>Generally Meets</b> <div style="text-align: center; font-size: 24pt;">2</div> <div style="text-align: center;"><input type="checkbox"/></div>	<b>Minimally Meets</b> <div style="text-align: center; font-size: 24pt;">1</div> <div style="text-align: center;"><input checked="" type="checkbox"/></div>	<b>Does Not Meet</b> <div style="text-align: center; font-size: 24pt;">0</div> <div style="text-align: center;"><input type="checkbox"/></div>
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## Summary Section 5.1

### 5.1) Quality Instructional Materials and Techniques

The environmental education program employs instructional materials and techniques of the highest quality.

**Total Score:**      6/45 (One indicator not applicable)



# Key Characteristic #5: Program Quality and Appropriateness

## 5.2) Field Testing

Educational activities and strategies used in the environmental education program are tested to ensure their effectiveness.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Educational activities, materials, and strategies are tested in the field with samples of the target audience, and revisions are made based on this testing whenever possible.	Educational activities, materials, and strategies are tested in the field with samples of the target audience, and revisions are always made based on this testing <input type="checkbox"/>	A majority of educational activities, materials and strategies are tested in the field with samples of the target audience, and revisions may or may not be made based on testing <input type="checkbox"/>	A minimal amount of educational activities, materials, and strategies are tested in the field with a general audience, but few or no revisions are made <input type="checkbox"/>	Educational activities, materials, and strategies are not tested — they are implemented with entire audience, and then revised if feedback is received through Coordinator questionnaires. <input type="checkbox"/>	
The evaluation plan is implemented and updated as needed, based on field testing.	The evaluation plan is implemented and updated as needed, based on field testing <input type="checkbox"/>	The evaluation plan is implemented and is partially updated, based on field testing <input type="checkbox"/>	The evaluation plan is minimally implemented and/or minimally updated, based on field testing <input type="checkbox"/>	The evaluation plan is neither being implemented nor updated <input type="checkbox"/>	

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

-Materials etc. are assembled and readily available, are reviewed before they are needed, but not tested.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Equipment, consumables, money, and other resources needed to conduct the program are assembled or readily available, and items are tested or reviewed before they are needed for the program.	Equipment, consumables, money, and other resources needed to conduct the program <i>are</i> assembled or readily available, <i>and</i> items are tested or reviewed before they are needed for the program <input type="checkbox"/>	A majority of equipment, consumables, money, and other resources needed to conduct the program <i>are</i> assembled or readily available, <i>but</i> items <i>may not be</i> tested or reviewed before they are needed for the program <input type="checkbox"/> 2	Equipment, consumables, money, and other resources needed to conduct the program <i>may not be</i> assembled or readily available, <i>and</i> items are <i>minimally or not</i> tested or reviewed before they are needed for the program <input type="checkbox"/>	Equipment, consumables, money, and other resources needed to conduct the program <i>are not</i> assembled <i>or are</i> unavailable <input type="checkbox"/>

## Summary Section 5.2

### 5.2) Field Testing

Educational activities and strategies used in the environmental education program are tested to ensure their effectiveness.

Total Score:      2/9

# Key Characteristic #5: Program Quality and Appropriateness

## 5.3) Promotion, Marketing, and Dissemination

The environmental education program has an effective promotion, marketing, and dissemination plan to ensure that it reaches its target audience and has the opportunity to achieve its goals and objectives.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
The availability and content of the program are widely known to target audiences in the local community, and elsewhere if appropriate. Members of the target audience(s) know how they can participate in the program and where they can obtain additional information about the program.	The availability and content of the program are <i>widely</i> known to target audiences in the local community, and elsewhere if appropriate. Members of the target audience(s) know how they can participate in the program and where they can obtain additional information about the program.	The availability and content of the program are <i>generally</i> known to target audiences in the local community. Members of the target audience(s) <i>may or may not</i> know how they can participate in the program or where they can obtain additional information about the program.	The availability and content of the program are <i>minimally</i> known to target audiences in the local community. Members of the target audience(s) <i>neither</i> know how they can participate in the program <i>nor</i> where they can obtain additional information about the program.	The availability and content of the program are <i>not</i> known to target audiences in the local community. Members of the target audience(s) <i>do not</i> know how they can participate in the program or where they can obtain additional information about the program.	-For those who have participated in the Crane Count, this indicator is probably met (but this has not been measured). -For those who have not participated, this may not be met, and members of the general public may not even be aware of the Crane Count's existence, or where to find additional information.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Media contacts and publicity strategies are detailed in print for use on an ongoing basis.	Media contacts and publicity strategies are <i>detailed</i> in print for use on an ongoing basis	Media contacts and publicity strategies are <i>generally</i> in print for use on an ongoing basis	Media contacts and publicity strategies are <i>partially</i> in print for use on an ongoing basis	Media contacts and publicity strategies are <i>not</i> in print for use on an ongoing basis
Event schedules are coordinated with partners and collaborators to avoid conflicts.	Event schedules are <i>always</i> coordinated with partners and collaborators to avoid conflicts	Event schedules are <i>generally</i> coordinated with partners and collaborators to avoid conflicts	Event schedules are <i>partially</i> coordinated with partners and collaborators to avoid conflicts	Event schedules are <i>never</i> coordinated with partners and collaborators to avoid conflicts

-CED staff have access to some media contacts in a database.  
-Publicity strategies — it is unknown if these are detailed for use — ICF CED staff & PR staff need to be consulted regarding this matter, and determining if there is a plan for the Crane Count.

-Not Applicable

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
To the extent possible, events are scheduled so as not to compete with other programs for the target audience(s) and in order to maximize opportunities for the target audience(s) to participate.	Events are <i>specifically</i> scheduled so as not to compete with other programs for the target audience(s) and in order to maximize opportunities for the target audience(s) to participate	Events are <i>generally</i> scheduled so as not to compete with other programs for the target audience(s) and in order to maximize opportunities for the target audience(s) to participate	Events are <i>sometimes</i> scheduled so as not to compete with other programs for the target audience(s) and in order to maximize opportunities for the target audience(s) to participate	Events are scheduled <i>without consideration</i> as to whether they compete with other programs for the target audience(s) and in order to maximize opportunities for the target audience(s) to participate
Partners and collaborators help in marketing and promotion efforts.	Partners and collaborators <i>always</i> help in marketing <i>and</i> promotion efforts	Partners and collaborators <i>generally</i> help in marketing <i>and</i> promotion efforts	Partners and collaborators <i>seldom</i> help in <i>either</i> marketing <i>or</i> promotion efforts	Partners and collaborators <i>do not</i> help in <i>either</i> marketing <i>or</i> promotion efforts

-Crane Count is scheduled so that it does not conflict with Easter weekend.  
-Other programs may exist at this time of year, but are not known.

-Not Applicable

## Key Characteristic #5: Program Quality and Appropriateness

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Programs are coordinated with other environmental education programs to maximize effect and opportunity for integration.	Programs are <i>always</i> coordinated with other environmental education programs to maximize effect and opportunity for integration <input type="checkbox"/>	Programs are <i>generally</i> coordinated with other environmental education programs to maximize effect and opportunity for integration <input type="checkbox"/>	Programs are <i>partially</i> coordinated with other environmental education programs to maximize effect and opportunity for integration <input type="checkbox"/>	Programs are <i>not</i> coordinated with other environmental education programs to maximize effect and opportunity for integration <input type="checkbox"/>

Comments:

-“Other EE programs” needs more specific definition.  
-The Crane Count is not specifically coordinated with other ICF EE programs (tours, activity packets, etc.) to maximize its effect and opportunity for integration.

# Key Characteristic #5: Program Quality and Appropriateness

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
Photographs (with signed releases from participants depicted in photos, granting their permission to publish or otherwise use the photographs), case studies, or other forms of documentation are collected to facilitate marketing and sharing of information gained.	Photographs, case studies, or other forms of documentation are collected <i>specifically</i> to facilitate both the marketing <i>and</i> sharing of information gained. <input type="checkbox"/>	Photographs, case studies, or other forms of documentation are <i>generally</i> or <i>occasionally</i> collected to facilitate <i>either</i> the marketing or sharing of information gained. <input type="checkbox"/>	Photographs, case studies, or other forms of documentation are <i>seldom</i> collected, <i>and/or</i> <i>not</i> used to facilitate the marketing or sharing of information gained. <input type="checkbox"/>	Photographs, case studies, or other forms of documentation are <i>not</i> collected. <input type="checkbox"/>	-These items are not actively collected — if they are, it is due to happenstance and not a concerted effort. -Photographs of the actual Crane Count are in short supply, and are not actively taken.

## Summary Section 5.3

### 5.3) Promotion, Marketing, and Dissemination

The environmental education program has an effective promotion, marketing, and dissemination plan to ensure that it reaches its target audience and has the opportunity to achieve its goals and objectives.

**Total Score:** 6/15 (two indicators not applicable)

# Key Characteristic #5: Program Quality and Appropriateness

## 5.4) Sustainability

The environmental education program can be sustained if a long-term initiative is necessary for effectiveness.

Comments:

-Goals and objectives for Crane Count are appropriate for its cycle.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program's goals and objectives are valid and appropriate for the entire length of the program cycle.	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Key Characteristic #5: Program Quality and Appropriateness

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>A long-term funding strategy for the program has been developed that details how the program will be continued after initial funding is exhausted. Alternatives such as fees for services and charging for materials are incorporated as appropriate.</p>	<p>A long-term funding strategy for the program has been developed that <i>details</i> how the program will be continued after initial funding is exhausted. Alternatives such as fees for services and charging for materials are <i>incorporated</i> as appropriate.</p>	<p>A long-term funding strategy for the program has been developed that <i>generally outlines</i> how the program will be continued after initial funding is exhausted. Alternatives such as fees for services and charging for materials are <i>discussed</i>.</p>	<p>A long-term funding strategy for the program has been developed that <i>partially outlines</i> how the program will be continued after initial funding is exhausted. Alternatives such as fees for services and charging for materials have <i>not</i> been discussed.</p>	<p>A long-term funding strategy for the program <i>has not</i> been developed. Alternatives such as fees for services and charging for materials <i>have not</i> been discussed.</p>

Comments:

- A "long-term funding strategy" does not exist.
- Crane Count is a part of the CED yearly budget.
- Alternative funding strategies have not been discussed.

# Key Characteristic #5: Program Quality and Appropriateness

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Partnerships and other "ownership" possibilities are included in strategies for sustaining the program.	Partnerships and other "ownership" possibilities are <i>fully</i> included in strategies for sustaining the program	Partnerships and other "ownership" possibilities are <i>generally</i> included in strategies for sustaining the program	A <i>minimum</i> of partnerships or other "ownership" possibilities are included in strategies for sustaining the program	Partnerships and other "ownership" possibilities are <i>excluded</i> in strategies for sustaining the program
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- No partnerships or other "ownership" possibilities have been explored.
- There is no "strategy" for sustaining the program.

# Key Characteristic #5: Program Quality and Appropriateness

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	
<p>Accurate records of programs, goals, objectives, content, participants, training, resources, and evaluation results are compiled and kept in order to contribute to the organization's institutional memory.</p>	<p><i>Accurate</i> records of programs, goals, objectives, content, participants, training, resources, and evaluation results are compiled <i>and</i> kept in order to contribute to the organization's institutional memory</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p><i>General</i> records of programs, goals, objectives, content, participants, training, resources, and evaluation results are compiled <i>and</i> are <i>generally</i> organized to contribute to the organization's institutional memory</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p><i>Partial</i> records of programs, goals, objectives, content, participants, training, resources, and evaluation results are <i>present, but</i> are <i>minimally</i> or <i>not</i> compiled or organized to contribute to the organization's institutional memory</p> <p style="text-align: right;"><input type="checkbox"/></p>	<p>There are <i>no</i> records of programs, goals, objectives, content, participants, training, resources, and evaluation results</p> <p style="text-align: right;"><input type="checkbox"/></p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Comments:</b></p> </div> <ul style="list-style-type: none"> <li>-Materials and other resources from each year are archived at ICF.</li> <li>-Participant information is documented in a database.</li> <li>-Evaluation results, apart from Coordinator questionnaires, do not exist.</li> <li>-Goals and objectives for Crane Count have only recently been established.</li> </ul>

## Summary Section 5.4

### 5.4) Sustainability

The environmental education program can be sustained if a long-term initiative is necessary for effectiveness.

**Total Score:** 4/12

# Key Characteristic #5: Program Quality and Appropriateness

## Score Summary and Comment Narrative

Nonformal environmental education programs are built on a foundation of quality instructional materials and thorough planning.

### 5.1) Quality Instructional Materials and Techniques

The environmental education program employs instructional materials and techniques of the highest quality.

**Total Score:** 6/45 converted to percentage: 13%

### 5.2) Field Testing

Educational activities and strategies used in the environmental education program are tested to ensure their effectiveness.

**Total Score:** 2/9 converted to percentage: 22%

### 5.3) Promotion, Marketing, and Dissemination

The environmental education program has an effective promotion, marketing, and dissemination plan to ensure that it reaches its target audience and has the opportunity to achieve its goals and objectives.

**Total Score:** 6/15 converted to percentage: 40%

### 5.4) Sustainability

The environmental education program can be sustained if a long-term initiative is necessary for effectiveness.

**Total Score:** 4/12 converted to percentage: 33%

**Sum of Percentage Scores For Program Quality and Appropriateness** 108/4 = 27% Overall Score

102

# Key Characteristic #5:

## Comment Narrative (Section 5: Program Quality and Appropriateness, continued)

### Strengths:

- 5.1)
  - A. Some technology used in the Crane Count is appropriate and presumably effective
  - B. Program materials are reviewed by organizational “experts” in the subject matter
  - C. Goals and objectives of the Crane Count are tied to the goals of EE, and the program is therefore integrated into a continuum of EE
- 5.2)
  - A. Materials are assembled and ready before needed, and reviewed
- 5.3)
  - A. Participants probably know how to participate and where to get more information
  - B. Crane Count generally does not conflict with other programs
- 5.4)
  - A. Goals and objectives for the Crane Count appear to be appropriate for the program cycle
  - B. Crane Count materials and other resources from each year are archived at ICF
  - C. Participant information is in archives and in the Crane Count database

### Weaknesses:

- 5.1)
  - A. Crane Count materials are not reviewed according to Guidelines for excellence, and if they include those quality characteristics
  - B. Program materials, instructional strategies, and materials are not reviewed to determine connections between environmental concerns and wider questions of social needs, welfare, and economic opportunity
  - C. Strategic planning — the Crane Count’s program elements and materials need to be reviewed to determine if they are integrated with overall goals
  - D. Applicable regulations, standards, and safety guidelines are not assembled and checked against program elements and materials to determine compliance
  - E. Theory is not used in the development of Crane Count program materials and the mix of theories required as the audience ranges from pre-K through senior citizens
  - F. Program elements, instructional strategies, and materials need to be examined to see if they consider innovative or novel ways to achieve objectives
  - G. In the context of Crane Count, critical and creative thinking skills need to be defined and measured
  - H. Due to the varied audience, program materials may not be age, audience, or content appropriate
  - I. Instructional methodologies are not based specifically (if at all) on respected, research-based practices
  - J. Methods do not specifically strive for multiple intelligences or learning styles
  - K. Lifelong learning strategies are not actively incorporated into the Crane Count
  - L. Crane Count is far behind in making use of existing technology to make the program efficient (if not also effective)

# Key Characteristic #5:

Comment Narrative (Section 5: Program Quality and Appropriateness, continued)

Strengths:

Weaknesses:

- 5.1) (continued)
  - M. Follow up activities for the Crane Count do not take place
  - N. Materials are not reviewed by “experts” in education, environmental or otherwise
  - O. Materials are reviewed by participants and Coordinators through use, but not to determine whether they are pedagogically sound, value-fair, or scientifically accurate
- 5.2)
  - A. Materials are not field tested — they are implemented and then may be revised
  - B. There is no evaluation plan or field testing for the Crane Count
  - C. Materials are not field tested before they are needed
- 5.3)
  - A. Non-participants may not be aware of the program or where to find additional information
  - B. The publicity strategy for Crane Count at ICF is currently unknown
  - C. The Crane Count does not coordinate with other EE programs to maximize its effect and opportunity for integration
  - D. Photos, case studies, and other forms of documentation are not collected to facilitate marketing and sharing of information gained
- 5.4)
  - A. A long-term funding strategy specifically for the Crane Count does not exist, though the Count is part of ICF’s yearly budget
  - B. Alternative funding strategies for the Crane Count have not been discussed
  - C. No partnership or other “ownership” possibilities have been explored
  - D. No “strategy” for sustaining the program currently exists

# Key Characteristic #6: Evaluation

# Key Characteristic #6: Evaluation

Nonformal environmental education programs define and measure results in order to improve current programs, ensure accountability, and maximize their effects.

## 6.1) Determination of Evaluation Strategies

The environmental education program has both formative and summative evaluation built into key parts of its development.

<p><b>What to look for:</b></p> <p>Evaluation techniques appropriate for the program and its goals have been determined up front.</p>	<p><b>Fully Meets</b> 3</p> <p>Evaluation techniques appropriate for the program and <i>all</i> its goals have been <i>fully</i> determined up front</p> <p><input type="checkbox"/></p>	<p><b>Generally Meets</b> 2</p> <p>Evaluation techniques appropriate for the program and its goals have been <i>primarily</i> determined up front</p> <p><input type="checkbox"/></p>	<p><b>Minimally Meets</b> 1</p> <p>Evaluation techniques appropriate for the program and its goals have been <i>partially</i> determined up front</p> <p><input type="checkbox"/></p>	<p><b>Does Not Meet</b> 0</p> <p>Evaluation techniques <i>are not</i> appropriate for the program and its goals</p> <p><input type="checkbox"/></p>
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**Comments:**

-Goals have recently been determined for the Program Plan, however, evaluation techniques have not yet been associated with them.



# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Assessment techniques and tools are integrated into the program and considered early in the planning stage.	Assessment techniques and tools are <i>fully</i> integrated into the program and considered early in the planning stage <input type="checkbox"/>	Assessment techniques and tools are <i>generally</i> integrated into the program and considered in the planning stage <input type="checkbox"/>	Assessment techniques and tools are <i>minimally</i> integrated into the program and considered in the planning stage <input type="checkbox"/>	Assessment techniques and tools are <i>not</i> integrated into the program and <i>not</i> considered early in the planning stage <input type="checkbox"/>
Measurement of program outcomes and impacts are integrated into the evaluation process.	Measurement of program outcomes and impacts are <i>fully</i> integrated into the evaluation process <input type="checkbox"/>	Measurement of program outcomes and impacts are <i>generally</i> integrated into the evaluation process <input type="checkbox"/>	Measurement of program outcomes and impacts are <i>minimally</i> integrated into the evaluation process <input type="checkbox"/>	Measurement of program outcomes and impacts are <i>not</i> integrated into the evaluation process <input type="checkbox"/>

## Comments:

-Assessment techniques and tools are not built into the Crane Count.  
-If they had been considered early in the planning stage, they would have been put in place in 1976 or shortly thereafter.

-There is not an evaluation process (apart from Coordinator questionnaire), and measurement of program outcomes and impacts does not take place.

# Key Characteristic #6: Evaluation

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Type of program outputs, outcomes, and impacts (e.g. short-term, medium-range, and long-term) are appropriate given program goals, objectives, and duration.	Type of program outputs, outcomes, and impacts are <i>fully</i> appropriate given program goals, objectives, and duration	Type of program outputs, outcomes, and impacts are <i>generally</i> appropriate given program goals, objectives, and duration	Type of program outputs, outcomes, and impacts are <i>minimally</i> appropriate given program goals, objectives, and duration	Type of program outputs, outcomes, and impacts <i>are not</i> appropriate given program goals, objectives, and duration
Overall evaluation design and the collection and analysis of data conform to accepted practices.	Overall evaluation design and the collection and analysis of data <i>fully</i> conform to accepted practices	Overall evaluation design and the collection and analysis of data <i>generally</i> conform to accepted practices	Overall evaluation design and the collection and analysis of data <i>minimally</i> conform to accepted practices	Overall evaluation design and the collection and analysis of data <i>does not</i> conform to accepted practices
	<input type="checkbox"/>	<input type="checkbox"/> 2	<input type="checkbox"/>	<input type="checkbox"/> 0

-Goals and objectives have only recently been established for the Program Plan. Outputs and desired outcomes are listed, and appear to be generally appropriate. Outcomes, however, have yet to be measured or evaluated.

-There is not an evaluation design or analysis of data to conform to accepted practices.

# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Impacts are monitored on an ongoing basis, as appropriate, for the scope of the program.	Impacts are <i>fully</i> monitored on an ongoing basis, as appropriate, for the scope of the program. <input type="checkbox"/>	Impacts are <i>generally</i> monitored on an ongoing basis, as appropriate, for the scope of the program. <input type="checkbox"/>	Impacts are <i>minimally</i> monitored on an ongoing basis, as appropriate, for the scope of the program. <input type="checkbox"/>	Impacts are <i>not</i> monitored on an ongoing basis, as appropriate, for the scope of the program. <input type="checkbox"/>

Comments:

-Impacts of the Crane Count are not monitored.

## Summary Section 6.I

### 6.1) Determination of Evaluation Strategies

The environmental education program has both formative and summative evaluation built into key parts of its development.

Total Score: 2/18

# Key Characteristic #6: Evaluation

## 6.2) Effective Evaluation Techniques and Criteria

The environmental education program employs an effective strategy in order to promote success.

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program evaluation determines the degree to which the program contributes to overall environmental literacy.	The program evaluation <i>fully</i> determines the degree to which the program contributes to overall environmental literacy	The program evaluation <i>generally</i> determines the degree to which the program contributes to overall environmental literacy	The program evaluation <i>minimally</i> determines the degree to which the program contributes to overall environmental literacy	The program evaluation <i>does not</i> determine the degree to which the program contributes to overall environmental literacy
The program evaluation determines the degree to which the program meets stated goals, objectives, and learning outcomes.	The program evaluation <i>fully</i> determines the degree to which the program meets stated goals, objectives, and learning outcomes	The program evaluation <i>generally</i> determines the degree to which the program meets stated goals, objectives, and learning outcomes	The program evaluation <i>minimally</i> determines the degree to which the program meets stated goals, objectives, and learning outcomes	The program evaluation <i>does not</i> determine the degree to which the program meets stated goals, objectives, and learning outcomes

-The only limited program evaluation that takes place is the Coordinator questionnaire, and it does nothing to determine the Crane Count's contribution to EL.

-While goals and objectives have been established in the Program Plan, no evaluation is in place to measure them.

# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program evaluation determines the degree to which the program used resources such as funds and supplies responsibly.	The program evaluation <i>fully</i> determines the degree to which the program used resources such as funds and supplies responsibly. <input type="checkbox"/>	The program evaluation <i>generally</i> determines the degree to which the program used resources such as funds and supplies responsibly. <input type="checkbox"/>	The program evaluation <i>minimally</i> determines the degree to which the program used resources such as funds and supplies responsibly. <input type="checkbox"/>	The program evaluation <i>does not</i> determine the degree to which the program used resources such as funds and supplies responsibly. <input type="checkbox"/>
The program is evaluated to determine if it addressed needs identified in the original needs assessment.	The program is evaluated to determine if it <i>fully</i> addressed needs identified in the original needs assessment. <input type="checkbox"/>	The program is evaluated to determine if it <i>partially</i> addressed needs identified in the original needs assessment. <input type="checkbox"/>	The program is evaluated to determine if it <i>minimally</i> addressed needs identified in the original needs assessment. <input type="checkbox"/>	The program is evaluated <i>but it does not help</i> to determine if it addressed needs identified in the original needs assessment. <input type="checkbox"/>

## Comments:

-There is not program evaluation, and as such, it cannot determine the degree to which resources were used responsibly.

-No needs assessment has taken place, and as such, the program cannot be evaluated to determine if such needs were addressed.

# Key Characteristic #6: Evaluation

Comments:

-There is not a program evaluation.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
The program evaluation includes ways to capture and assess unanticipated outcomes.	The program evaluation includes ways to <i>fully</i> capture and assess unanticipated outcomes	The program evaluation includes ways to <i>generally</i> capture and assess unanticipated outcomes	The program evaluation includes ways to <i>minimally</i> capture <i>but not</i> assess unanticipated outcomes	The program evaluation <i>does not</i> include ways to capture or assess unanticipated outcomes
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Summary Section 6.2

### 6.2) Effective Evaluation Techniques and Criteria

The environmental education program employs an effective strategy in order to promote success.

Total Score: 0/15

112

# Key Characteristic #6: Evaluation

## 6.3) Use of Evaluation Results

Reasons for evaluating the environmental education programs and the use of data obtained are considered as an integral part of the program development.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0	Comments:
The intended uses and dissemination methods for the information developed during the evaluation process are specified beforehand and built into the evaluation process along with recommendations for revision and improvements, cycle of evaluation and improvement, monitoring of results, etc.	The intended uses and dissemination methods for the information developed during the evaluation process are <i>specified beforehand and built into the evaluation process</i> along with recommendations for revision and improvements, cycle of evaluation and improvement, monitoring of results, etc. <input type="checkbox"/>	A <i>majority of the</i> intended uses and dissemination methods for the information developed during the evaluation process are <i>specified beforehand and are in the process of being built into the evaluation process</i> along with recommendations for revision and improvements, cycle of evaluation and improvement, monitoring of results, etc. <input type="checkbox"/>	A <i>minimum of the</i> intended uses and dissemination methods for the information developed during the evaluation process are <i>specified beforehand and are in the process of being built into the evaluation process</i> along with recommendations for revision and improvements, cycle of evaluation and improvement, monitoring of results, etc. <input type="checkbox"/>	The intended uses and dissemination methods for the information developed during the evaluation process are <i>not specified beforehand and are built into the evaluation process</i> <input type="checkbox"/>	-As there is no evaluation process to speak of, this indicator is not met.

# Key Characteristic #6: Evaluation

Comments:

-As current evaluation consists only of a Coordinator questionnaire, the majority of the content as specified in this indicator remains unaddressed.

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Evaluation results are reviewed to determine whether the needs of the participants, organization, partners, audience, sponsors, and funders have been met.	Evaluation results are <i>fully</i> reviewed to determine whether the needs of the participants, organization, partners, audience, sponsors, and funders have been met	Evaluation results are <i>generally</i> reviewed to determine whether the needs of the participants, organization, partners, audience, sponsors, and funders have been met	Evaluation results are <i>minimally</i> reviewed to determine whether the needs of the participants, organization, partners, audience, sponsors, and funders have been met	Evaluation results <i>have not been</i> reviewed
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Evaluation results are used to help determine: <ul style="list-style-type: none"> <li>• areas of strength and potential gaps,</li> <li>• how work has impacted the community, and</li> <li>• how to function more effectively.</li> </ul>	Evaluation results are used to help determine <i>all of the following</i> : <ul style="list-style-type: none"> <li>- areas of strength and potential gaps</li> <li>- how work has impacted the community</li> <li>- how to function more effectively</li> </ul> <input type="checkbox"/>	Evaluation results are used to help determine <i>two of the following</i> : <ul style="list-style-type: none"> <li>- areas of strength and potential gaps</li> <li>- how work has impacted the community</li> <li>- how to function more effectively</li> </ul> <input type="checkbox"/>	Evaluation results are used to help determine <i>one of the following</i> : <ul style="list-style-type: none"> <li>- areas of strength and potential gaps</li> <li>- how work has impacted the community</li> <li>- how to function more effectively</li> </ul> <input type="checkbox"/>	Evaluation results are used to help determine <i>none of the following</i> : <ul style="list-style-type: none"> <li>- areas of strength and potential gaps</li> <li>- how work has impacted the community</li> <li>- how to function more effectively</li> </ul> <input type="checkbox"/>

## Comments:

-See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

# Key Characteristic #6: Evaluation

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Evaluation results are used within the planning group to: <ul style="list-style-type: none"> <li>• identify strengths and achievements to be celebrated,</li> <li>• to identify areas needing attention or improvement,</li> <li>• to help clarify issues and/or build consensus,</li> <li>• to provide direction, and</li> <li>• to inform group decision making.</li> </ul>	Evaluation results are used within the planning group to do <i>all of the following</i> : <ul style="list-style-type: none"> <li>- identify strengths and achievements to be celebrated</li> <li>- identify areas needing attention or improvement</li> <li>- help clarify issues and/or build consensus</li> <li>- provide direction</li> <li>- inform group decision making</li> </ul> <input type="checkbox"/>	Evaluation results are used within the planning group to do <i>at least three of the following</i> : <ul style="list-style-type: none"> <li>- identify strengths and achievements to be celebrated</li> <li>- identify areas needing attention or improvement</li> <li>- help clarify issues and/or build consensus</li> <li>- provide direction</li> <li>- inform group decision making</li> </ul> <input type="checkbox"/>	Evaluation results are used within the planning group to do <i>at least one of the following</i> : <ul style="list-style-type: none"> <li>- identify strengths and achievements to be celebrated</li> <li>- identify areas needing attention or improvement</li> <li>- help clarify issues and/or build consensus</li> <li>- provide direction</li> <li>- inform group decision making</li> </ul> <input type="checkbox"/>	Evaluation results are used within the planning group to do <i>none of the following</i> : <ul style="list-style-type: none"> <li>- identify strengths and achievements to be celebrated</li> <li>- identify areas needing attention or improvement</li> <li>- help clarify issues and/or build consensus</li> <li>- provide direction</li> <li>- inform group decision making</li> </ul> <input type="checkbox"/> 0

-See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
<p>Evaluation results are used with external groups to:</p> <ul style="list-style-type: none"> <li>• promote the program within the community,</li> <li>• to increase understanding of the organization's work,</li> <li>• to communicate within one's own agency or organization,</li> <li>• to use in funding requests,</li> <li>• to build group visibility in the community, and</li> <li>• to recruit other participants.</li> </ul>	<p>Evaluation results are used with external groups to do <i>all of the following</i>:</p> <ul style="list-style-type: none"> <li>- promote the program within the community</li> <li>- increase understanding of the organization's work</li> <li>- communicate within one's own agency or organization</li> <li>- use in funding requests</li> <li>- build group visibility in the community</li> <li>- recruit other participants</li> </ul>	<p>Evaluation results are used with external groups to do <i>at least four of the following</i>:</p> <ul style="list-style-type: none"> <li>- promote the program within the community</li> <li>- increase understanding of the organization's work</li> <li>- communicate within one's own agency or organization</li> <li>- use in funding requests</li> <li>- build group visibility in the community</li> <li>- recruit other participants</li> </ul>	<p>Evaluation results are used with external groups to do <i>none of the following</i>:</p> <ul style="list-style-type: none"> <li>- promote the program within the community</li> <li>- increase understanding of the organization's work</li> <li>- communicate within one's own agency or organization</li> <li>- use in funding requests</li> <li>- build group visibility in the community</li> <li>- recruit other participants</li> </ul>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

## Comments:

-See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

# Key Characteristic #6: Evaluation

Comments:

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Staff should be able to speak knowledgeable about evaluation results.	All staff can speak knowledgeable about evaluation results <input type="checkbox"/>	At least two-thirds of staff can speak knowledgeable about evaluation results <input type="checkbox"/>	At least one-third of staff can speak knowledgeable about evaluation results <input type="checkbox"/>	Staff cannot speak knowledgeable about evaluation results <input type="checkbox"/>
Systematic activities are planned to share evaluation results with the larger environmental education community so that successes, problems, and unintended outcomes can be used as learning tools by others.	Systematic activities are planned to share evaluation results with the larger environmental education community so that successes, problems, and unintended outcomes can be used as learning tools by others <input type="checkbox"/>	Systematic activities are in the process of being planned to share evaluation results with the larger environmental education community so that successes, problems, and unintended outcomes can be used as learning tools by others <input type="checkbox"/>	N/A <input type="checkbox"/>	Systematic activities are not planned to share evaluation results with the larger environmental education community <input type="checkbox"/>

--See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

--See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

# Key Characteristic #6: Evaluation

What to look for:	Fully Meets 3	Generally Meets 2	Minimally Meets 1	Does Not Meet 0
Measurement of the efficiency and effectiveness of staff, instructors, and volunteers are included in the evaluation.	Measurement of the efficiency and effectiveness of staff, instructors, <i>and</i> volunteers are included in the evaluation	Measurement of the efficiency and effectiveness of staff <i>and</i> instructors, <i>but not</i> volunteers are included in the evaluation	Measurement of the efficiency and effectiveness of staff, <i>but not</i> instructors <i>or</i> volunteers are included in the evaluation	Measurement of the efficiency and effectiveness of staff, instructors, <i>or</i> volunteers <i>are not</i> included in the evaluation
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

-See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.

# Key Characteristic #6: Evaluation

Comments:

-See previous comments regarding the Coordinator questionnaire as the sole form of evaluation.  
 -Impact of program is not measured.  
 -Numbers served is not included as part of the evaluation, but is an item documented as part of the Count process.

<p><b>What to look for:</b></p> <p>Attempts to measure the overall impact of the program and to document numbers served are included in the evaluation.</p>	<p><b>Fully Meets</b> 3</p> <p>Attempts to measure the overall impact of the program and to document numbers served are included in the evaluation</p>	<p><b>Generally Meets</b> 2</p> <p>Attempts to measure the overall impact of the program and to document numbers served are <i>generally</i> included in the evaluation</p>	<p><b>Minimally Meets</b> 1</p> <p>Attempts to measure the overall impact of the program and to document numbers served are <i>minimally</i> included in the evaluation</p>	<p><b>Does Not Meet</b> 0</p> <p>Attempts to measure the overall impact of the program and to document numbers served are <i>not</i> included in the evaluation</p>
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## Summary Section 6.3

### 6.3) Use of Evaluation Results

Reasons for evaluating the environmental education programs and the use of data obtained are considered as an integral part of the program development.

Total Score: 0/27

# Key Characteristic #6: Evaluation

## Score Summary and Comment Narrative

Nonformal environmental education programs are built on a foundation of quality instructional materials and thorough planning.

### 6.1) Determination of Evaluation Strategies

The environmental education program has both formative and summative evaluation built into key parts of its development.

**Total Score:** 2/18 converted to percentage: 11%

### 6.2) Effective Evaluation Techniques and Criteria

The environmental education program employs an effective strategy in order to promote success.

**Total Score:** 0/15 converted to percentage: 0%

### 6.3) Use of Evaluation Results

Reasons for evaluating the environmental education programs and the use of data obtained are considered as an integral part of the program development.

**Total Score:** 0/27 converted to percentage: 0%

**Sum of Percentage Scores For Evaluation:** 11/3 = 3.67% Overall Score

# Key Characteristic #6:

Comment Narrative (Section 6: Evaluation, continued)

## Strengths:

- 6.1)
- 6.2)
- 6.3)
- A. Numbers served for the Crane Count is documented

## Weaknesses:

- 6.1)
  - A. Goals have been established during Program Plan development, but not evaluation techniques or strategies
  - B. Assessment techniques/tools are not built into the Crane Count
  - C. There is no evaluation process — measurement of program outcomes/impacts does not take place
  - D. Goals/objectives have been established, but outcomes and impacts have yet to be measured or evaluated
  - E. Evaluation design and data analysis does not conform to accepted practices, as there is no evaluation design
  - F. Impacts of the Crane Count are not monitored on an ongoing basis
- 6.2)
  - A. Program evaluation (as there is none to speak of), does not determine the Crane Count's contribution to Environmental Literacy
  - B. There is no evaluation to determine the degree to which stated goals, objectives, and learning outcomes are met
  - C. There is no evaluation in place to determine the degree to which resources are used responsibly
  - D. No needs assessment has been conducted, therefore the Crane Count cannot be evaluated on this basis
  - E. Unanticipated outcomes of the Crane Count are not captured, as there is not an evaluation process
- 6.3)
  - A. No intended uses for evaluation information are specified, as there is no evaluation information
  - B. Without evaluation in place, evaluation results cannot be reviewed
  - C. It is not currently possible to determine areas of strength, gaps, community impacts, or how to function more effectively, as there is not an established evaluation in place
  - D. Non-existent evaluation results can't be used with planning groups
  - E. Non-existent evaluation results can't be used with external groups



# Key Characteristic #6:

Comment Narrative (Section 6: Evaluation, continued)

**Strengths:**

**Weaknesses:**

6.3) (continued)

- F. Staff can't speak knowledgeably about non-existent results
- G. There is no sharing plan for the EE community
- H. Staff, instructor, & volunteer efficiency & effectiveness are not measured
- I. Overall program impact is not measured

**Key Characteristic #1-6:  
Overall Score Summary and Comment Narrative**

# Key Characteristic #1-6: Overall Score Summary and Comment Narrative

## Key Characteristic #1: Needs Assessment

Nonformal environmental education programs are designed to address identified environmental, educational, and community needs and to produce responsive, responsible benefits that address those identified needs.

Overall Score For Needs Assessment (pg. 22): 35.33%

Comment:

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## Key Characteristic #2: Organizational Needs and Capacities

Nonformal environmental education programs support and complement their parent organization's mission, purpose, and goals.

Overall Score For Organizational Needs and Capacities (pg. 33): 55.3%

Comment:

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## Key Characteristic #3: Program Scope and Structure

Nonformal environmental education programs should be designed with well-articulated goals and objectives that state how the program will contribute to the development of environmental literacy.

Overall Score For Program Scope and Structure (pg. 55): 29.25%

Comment:

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# Key Characteristic #1-6: Overall Score Summary and Comment Narrative

## Key Characteristic #4: Program Delivery Resources

Nonformal environmental education programs require careful planning to ensure that well-trained staff, facilities, and support materials are available to accomplish program goals and objectives.

Overall Score For Program Delivery Resources (pg. 78): 61%  
Comment:

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## Key Characteristic #5: Program Quality and Appropriateness

Nonformal environmental education programs are built on a foundation of quality instructional materials and thorough planning.

Overall Score For Program Quality and Appropriateness (pg. 102): 27%  
Comment:

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## Key Characteristic #6: Evaluation

Nonformal environmental education programs are built on a foundation of quality instructional materials and thorough planning.

Overall Score For Evaluation (pg 121): 3.67%  
Comment:

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# Appendices

# Appendix A: Letter to Reviewers

Dear Reviewer,

3 November, 2004

Enclosed, please find an assessment rubric we (graduate team at University of Wisconsin Stevens Point) are developing from the North American Association for Environmental Education's *Nonformal Environmental Education Programs: Guidelines for Excellence*. Our objective upon completion of this project is to provide nonformal educators with a tool complementary to the guidelines. It is hoped that this tool will facilitate assessment of their programs, identifying strengths, weaknesses, and ways to improve the programs. We realize the document is substantial, but this is necessary for it to be thorough.

Please read over the enclosed copy (if you have not already received one) of *Nonformal Environmental Education Programs: Guidelines for Excellence* to familiarize yourself with its scope and intent, realizing that the rubric we are developing seeks to measure their accomplishment or lack thereof for nonformal environmental education programs. This copy of *Guidelines* is yours to keep.

Your role as a reviewer is essential in providing independent critical commentary on the rubric, the extent to which it adequately works to measure the already established guidelines, and its ability to serve as a functional tool for a wide variety of nonformal educators.

If you find the "What to look for" indicators drawn from the *Guidelines* to be problematic or ambiguous, please indicate such on the rubric as specifically as possible. The intent of this project is to assess the characteristics, guidelines, and indicators as currently written, but it is possible that in the future the *Guidelines* publication may be revised. Provided comments regarding the indicators will not be immediately addressed, but will be compiled as a part of recommendations to be acted on at a later time.

To facilitate the review, we have enclosed a Reviewer Scoring and Comment Form to establish a framework to ease the process and increase its efficacy. Please fill out this form as fully as possible, and provide comments directly on the rubric itself as applicable, but do not feel it necessary to limit your feedback to only the requested items.

Working within constraints of a deadline, the project timeline is as follows:

**November 8** – first draft of Assessment Rubric sent out to review team

**November 19** – first draft revision recommendations returned to UWSP graduate team

**November 29** – second draft of Assessment Rubric sent out to review team

**December 6** – second draft revision recommendations returned to UWSP graduate team

When this project is complete, you will receive the following:

- A copy of *Nonformal Environmental Education Programs: Guidelines for Excellence* (enclosed)
- A copy of the finished product
- Acknowledgement within the final product for assistance in the review process

Thank you for your willingness to serve as reviewers on this project.

Sincerely,

Brian T. Baruch

Jenn Dillard

Karla Lockman

Abbie Kuhn

## Appendix B: Reviewer Scoring and Comment Form

The following two page form was sent with the Assessment Rubric to assist reviewers in the process of looking the document over. In addition to filling in this Scoring and Comment Form, reviewers had the opportunity to comment directly on the Assessment Rubric itself.

Of the six reviewers provided with both the Assessment Rubric and Reviewer Scoring and Comment Form, four returned a completed scoring form.

According to the criteria and categories listed on the form, the Assessment Rubric received the following count of ratings by these reviewers:

	Fully Meets	Partially Meets	Doesn't Meet	No Response
Measurement:	1	2	0	1
Intention:	4	0	0	0
Language:	1	3	0	0
Format:	2	1	1	0

Comments (provided on or in addition to the Scoring and Comment Form) regarding the Assessment Rubric by reviewers can be found in Appendix D: Overall Reviewer Comment Summary.



# Appendix B: Reviewer Scoring and Comment Form

## Reviewer Scoring and Comment Form

### Nonformal Environmental Education Programs: Guidelines for Excellence Assessment Rubric

This form is meant as a means for you to provide general feedback on the Assessment Rubric as a whole. Please provide specific comments directly on the Assessment Rubric as applicable. Any and all comments are welcome.

What to Look For	Fully Meets	Partially Meets	Doesn't Meet	Comments:
<b>Measurement:</b> Measures the "What to look for" indicators as stated in <i>Guidelines</i> publication.	Wording of assessment criteria (Fully Meets, Generally Meets, Minimally Meets, & Does Not Meet) adequately measures the stated indicators <input type="checkbox"/>	Wording of assessment criteria (Fully Meets, Generally Meets, Minimally Meets, & Does Not Meet) measures the stated indicators, but needs to be more specific in precisely delineating differences between criteria <input type="checkbox"/>	Wording of assessment criteria (Fully Meets, Generally Meets, Minimally Meets, & Does Not Meet) does not measure the stated indicators <input type="checkbox"/>	_____ _____ _____ _____ _____ _____ _____
<b>Intention:</b> The rubric is a tool for nonformal educators to assess their programs, identifying strengths and weaknesses.	The rubric assessment criteria fully identify both strengths and weaknesses of programs according to the Guidelines Characteristics and stated indicators <input type="checkbox"/>	The rubric assessment criteria only partially identify both strengths and weaknesses of programs according to the Guidelines Characteristics and stated indicators <input type="checkbox"/>	The rubric assessment criteria do not identify both strengths and weaknesses of programs according to the Guidelines Characteristics and stated indicators <input type="checkbox"/>	_____ _____ _____ _____ _____ _____ _____



## Appendix C: Methodology and Process Summary

In early September, 2004, the four graduate students (design team) in UWSP's Foundations of Environmental Education NRES 501 course were presented with this project, encompassing the development and design of a rubric to complement NAAEE's *Nonformal Environmental Education Programs: Guidelines for Excellence* publication.

The process for the project began with each graduate student becoming very familiar with *Nonformal Environmental Education Programs: Guidelines for Excellence*. After reading the rubric project criteria and an understanding of the project focus was assured, 1.25-2.25 hour weekly meeting times for the graduate student design team were established. The initial meeting determined goals for the first few weeks of the project. The group had to first decide what type of rubric this would be, what form would be used, and more specifically what it would look like.

Using resources provided by Dr. Sivek, the group researched different rubrics, and at the second meeting decided on a general layout for the rubric. At this time the graduate group also established an initial scoring system to be used and brainstormed about other useful sections that should be included, such as comment, evaluation, and summation sections.

With the rubric form decided upon, the next step was to begin placing the NEEPE content into rubric form. The group decided that the best way to proceed was for each graduate student to take the first Key Characteristic, associated guidelines, and "What to look for" indicators and individually put them into rubric form. Taking this step enabled the group to see similarities, differences, advantages, and disadvantages in how each person broke down the information. This step was also incredibly valuable in developing a specific vocabulary that would be used throughout the rubric for consistency.

Following this, each week NEEPE Key Characteristic sections were split up between the graduate students, and the sections that were done the previous week were reviewed and discussed. After discussion, edits were made to the rubric content, and corresponding changes were made in the rubric document. This process continued until each one of the six Key Characteristics had been broken down into the rubric form. After initial completion on the part of the graduate design team, each section was given to Dr. Sivek and Dr. Wilke for review and suggestions. Following their reviews, comments and suggestions were discussed, and applicable changes incorporated into the rubric. In some cases, specific to "What to look for" indicators, comments were compiled for use in future recommendations (see Appendix E: Comments on "What to Look For" Indicators).

Once all sections were through this first phase, the entire document was put together in hard copy format and sent out in early November to a review team consisting of six individuals working with an assortment of nonformal programs. The reviewers were given a period of two weeks and an evaluation rubric with which to examine the Assessment Rubric. The reviewers were asked to read over the rubric carefully, fill out the evaluation form, and make comments (see Appendix A: Letter to Reviewers and Appendix B: Reviewer Scoring and Comment Form) regarding changes they felt should be made. When comments came back from the entire review team the design team again met, looked over all comments and suggestions made, and decided which ones could be adequately incorporated into the rubric in the time remaining for project completion. Comments not addressed at this point were compiled for use in future recommendations (See Appendix D: Overall Reviewer Comment Summary and Appendix E: Comments on "What to Look For" Indicators).

Following incorporation of selected reviewer comments, the final draft of the rubric was put together in late November to early December, including appendices containing materials used in the development of the rubric, reviewer and design team suggestions, and recommendations for use in future development of the rubric.

## Appendix D: Overall Reviewer Comment Summary

The following is a compilation of comments provided by reviewers, either on the Reviewer Comment and Scoring Form or in addition to it. Due to the scope of the majority of these comments, most were not addressed in any degree in the time available for final editing of the rubric. They are compiled here for future use in the further development of the rubric.

### Korie Klink

- The rubric as a whole document is much too long to be practically useful for less intensive interpretive programming. For example, the process of evaluating an entire departmental program vs. a less intensive program (nature journaling, introduction to bird watching etc.) would be greatly enhanced by the rubric; a rubric this long for “smaller” programs would be fairly inefficient otherwise.
- Be cautious about being consistent with terminology – specifically “generally” vs. “partially” vs. “minimally”. Each user of the rubric will interpret these terms differently, but it is important to use them throughout the document consistently.
- I believe it is important that this rubric be published upon completion as a companion piece to the NAAEE’s “Nonformal EE Programs: Guidelines for Excellence”. The practicality of the NAAEE publication would be greatly enhanced by having the rubric published in tandem.

### Karen Bryan

- When N/A is used I feel there is a gap in measuring. State what is accomplished, even at the lowest level.
- Very detailed, almost overwhelming. If streamlined I am not sure it would have the same effect.
- A section on how the target audience is reached might be added.
- Avoid negatives in the “does not meet” column, state what is accomplished even at the lowest level.

### Carolyn Rock

- The main issue is that it would take a great deal of time to review each or even some of my programs using this form. Along with the number of trees killed for the paper.
- Make it shorter. Shorten to 1-2 pages and it will be used. At its present length and readability it is not pertinent to real life.
- I would not use the rubric due to the length of it. It would be read and then filed never to be brought out again.

### Dr. Bora Simmons

- The rubrics are, for the most part, on target. However, there is a tendency to use generally too much. Generally isn't really a measure — It is pretty easy to say that something is always or completely, or that something is never, but generally has little to hang your hat on. It is a vague term. Consider using “broad”.
- You should look through the rubric and consider how you want it used - particularly, when do you want it used. Will it be used as a formative assessment (in which case, items that say that something is in development are OK) or is it a summative assessment (completed after implementation). Some of the wording will need to change no matter what your answer is.
- At times the distinctions are not particularly clear between 3 and 4 (less so between 2 and 3 or 2 and 1). [Note from design team: as scoring has been altered, subtract 1 from the scores to represent current scoring] Make sure that the “distance” between each category is about the same.

### Bobbi Kubish

- The wording is problematic. It would help to get rid or scale down the rubric’s superfluous wording. This may help in shortening the length of the overall document.

## Appendix D: Overall Reviewer Comment Summary

The following reviewer comment was made by Dr. Bora Simmons. After discussing this comment, an attempt was made to further address the problem brought up by incorporating additional text in the Introduction and in the Instructions. Without further review, however, the success or lack thereof of this treatment is unknown. This comment is therefore provided here on the chance that it may be further addressed at some time in the future if deemed necessary.

- Although you mention this in the introduction, I think it is important to emphasize that the indicators are not absolute (the rubrics make them seem as if they are an all inclusive list). The indicators were developed to provide some imagery; they are examples. Using the indicators (and setting up a scoring system) is somewhat problematic. You should make sure that people understand that assessing their programs using the rubrics provides one snapshot, but that it is not absolute. You could also encourage them to add indicators (adapt the rubrics) that are more meaningful for their particular situation.

## Appendix E: Comments on “What to Look For” Indicators

Through working on the design of the rubric, comments were occasionally noted on the “What to look for” indicators. As the scope of this project was to assess the indicators as presented, such comments were not acted upon, but are instead noted in this section. Most comments resulted primarily from the review process with Dr. Sivek and Dr. Wilke.

Dr. Bora Simmons also made comments that are compiled here. Some deal directly with the “What to look for” indicators, while others deal with the text listed under specific indicator scoring categories within the rubric. By implication, a number of these comments may influence the scope of the entire rubric — as such, they have not been addressed, but are compiled here for future reference.

“What to look for” indicators are written as found in the rubric. Comments regarding the indicator, or possible alternative wordings to be considered are written in italics. Commentators are also identified, should additional clarification on these comments be desired. The indicators are numbered (1st, 3rd, etc.) in the order they can be found within NEEPGE and corresponding in the Assessment Rubric.

# Appendix E: Comments on “What to Look For” Indicators

WTLF = What To Look For

**Key Characteristic 1** = Dr. Sivek’s and Dr. Wilke’s comments

## 1.2 (1<sup>st</sup> WTLF)

An Analysis has been conducted:

- The program does not duplicate existing efforts
- Is complementary to ongoing programs of other organizations
- A survey of the literature, existing environmental education programs, potential partners, community residents, etc., has been conducted as part of the analysis. *Consider re-wording this last section in the WTLF*

## 1.2 (2<sup>nd</sup> WTLF)

Community and organizational strengths and resources (human, environmental materials, and programmatic) have been inventoried to see if present resources can be adapted or adopted to fill the need. *Consider re-wording the WTLF*

## 1.2 (3<sup>rd</sup> WTLF)

Community and organizational strengths and resources (human, environmental materials, and programmatic) that could contribute to the environmental education program have been identified, as well as gaps that might hinder successful development of the programs. *Consider re-wording the WTLF.*

## 1.3 (1<sup>st</sup> WTLF)

The cultural perspectives, needs, and interests of the target audience (the precise segments of the population or community with which you will work) have been

- Identified
  - Understood (*Needs to be operationalized*)
  - Accommodated, and
  - Addressed in program development and activities
- Consider splitting out into four sub headings? (Identified, “Understood”, Accommodated, and Addressed)*

## 1.3 (2<sup>nd</sup> WTLF)

An assessment of target audience understandings and skills have been conducted, including consideration of such issues as literacy levels, languages spoken, etc. *Related to? We need clarification on this.*

## 1.3 (6<sup>th</sup> WTLF)

The program seeks to be inclusive and promotes a multicultural experience. It is sensitive to *Re-word to say “The program seeks to be inclusive and multiculturally sensitive to”*

- The culture,
- Ethnic background, and
- Gender of the audience.

## Appendix E: Comments on “What to Look For” Indicators

### Key Characteristic 2 = Dr. Bora Simmons’ comments

#### 2.1 (1<sup>st</sup> WTLF)

The program is consistent with the parent organization’s:

- Mission,
- Goals,
- Objectives,
- Long-range plan, and
- Any applicable mandates.

*Under the generally meets and the minimally meets Bora asks, “What if it is mostly (but not completely) consistent with these?”*

#### 2.1 (2<sup>nd</sup> WTLF)

Program staff and program materials articulate the relationships among the program and the parent organization’s mission, goals, objectives, long-range plan, and any applicable mandates.

*Under the minimally meets category Bora states “Not sure it is a question of ‘or’. The issue is the overall degree to which the program (as communicated by staff and materials) shows an articulation.”*

#### 2.2 (1<sup>st</sup> WTLF)

Programs sponsored by the organization:

- Have been inventoried,
- The interrelationship of all programs considered and
- The function of proposed new programs contrasted with existing activities.

*Under the generally meets section Bora states that “The function is of more immediate concern than interrelationships among existing programs.”*

#### 2.3 (1<sup>st</sup> WTLF)

The capacities and resources of the organization (human, financial, physical site, material resources, and supplies) have been inventoried and are sufficient to support the program successfully. *Under fully and generally meets Bora asks, “might be possible to inventory all in a small nature center, but what about a large state or federal agency?” Under the minimally meets category she asks, “Isn’t the sufficiency the important characteristic?”*

#### 2.3 (2<sup>nd</sup> WTLF)

Detailed consideration has been given to program resource needs over the long term.

*“Is it the degree of consideration or the future thinking?”*

### Key Characteristic 2 = Dr. Wilke’s comments

#### 2.1 (2<sup>nd</sup> WTLF)

Program staff and program materials articulate the relationships among the program and the parent organization’s mission, goals, objectives, long-range plan, and any applicable mandates.

Program staff and program materials articulate the relationships among the program and the parent organization’s mission, goals, objectives,



## Appendix E: Comments on “What to Look For” Indicators

long-range plan, and any applicable mandates. *Italicized words are not specific enough.*

### 2.1 (3<sup>rd</sup> WTLF)

The program supports organizational communication strategies and priorities. Delete entire item.

### 2.1 (4<sup>th</sup> WTLF)

The program’s budget is consistent with and fully integrated into the parent organization’s overall budget. The program’s budget *is consistent with and fully integrated* into the parent organization’s overall budget. *Italicized words are not specific enough.*

### 2.2 (1<sup>st</sup> WTLF)

Programs sponsored by the organization

- have been inventoried,
- the interrelationship of all programs considered, and
- the function of proposed new programs contrasted with existing activities.

*Programs sponsored by the organization*

- *have been inventoried,*
- *the interrelationship of all programs considered, and*
- *staff and administration agree on the need for the program*
- *the need for the program has been clearly identified and is supported by the program’s administration and staff.*

### 2.2 (2<sup>nd</sup> WTLF)

The role that any proposed new program plays in the overall offerings of the organization, has been identified. *The need addressed by the proposed new program has been identified and is supported by staff and administration.*

**Key Characteristic 3** = Dr. Wilke and Dr. Sivek’s comments

### 3.1 (3<sup>rd</sup> WTLF)

Program goals and objectives reflect the value of long-term commitment by the organization and partners.

W= Program goals and objectives *reflect the value of long-term commitment* by the organization and partners. *Italicized font indicates poor wording.*

S= Program goals and objectives reflect the *value of long-term commitment* by the organization and partners. *Italicized words are not specific enough.*

### 3.4 (2<sup>nd</sup> WTLF)

The relationship of the program to desired long-term cooperative activities between and among partners is clearly articulated and understood.

S= Entire statement not clearly articulated or understood

## Appendix E: Comments on “What to Look For” Indicators

### **Key Characteristic 3 = Dr. Bora Simmons' comments**

#### 3.1 (1<sup>st</sup> WTLEF)

The environmental education program is based on clearly delineated, relevant goals and objectives related to the ultimate goal of an environmentally literate citizenry and environmental quality. *Under the fully meets section Bora asks, “I would argue that environmental literacy is the key here – how well the goals and objectives are written can be assessed in the next rubric. A program that doesn’t relate to environmental literacy (even with good goal and objective statements) isn’t promoting environmental education.”*

#### 3.1 (8<sup>th</sup> WTLEF)

Partners develop program goals and objectives collaboratively. *“Not sure of wording (generally and partially) – I would focus on level of collaboration.”*

#### 3.2 (1<sup>st</sup> WTLEF)

The program clearly establishes how it contributes to the larger goals of:

Environmental literacy and

Responsible action such as those detailed in Excellence in Environmental Education Guidelines for Learning (K-12), published by the North American Association for Environmental Education. *Under minimally meets section Bora states, “Not sure that specifying ‘one’ helps. What if minimal across all goals vs. minimal for one even though good for all of the rest.”*

#### 3.3 (1<sup>st</sup> WTLEF)

The “medium” or format (e.g., workshop, demonstration area, community forum, festival, course, guest speaker) is appropriate to meet the set goals and objectives, and thought has been given to the appropriate context needed to accomplish objectives.

*Under generally meets section, the second bulleted statement, Bora states, “This was added as a further description, not really a separate criteria. I would focus on the degree to which the format chosen is appropriate.”*

### **Key Characteristic 4 = Dr. Bora Simmons' comments**

#### 4.2 (3<sup>rd</sup> WTLEF)

Training extends beyond subject matter and technique, and includes:

- safety and emergency preparedness
- handling of disruptive behavior,
- need for objectivity and balance etc.

*“Under generally and minimally meets – ‘etc.’ doesn’t really work if you are counting.”*

#### 4.2 (4<sup>th</sup> WTLEF)

If needed, a training program for staff, volunteers, and other presenters or educators has been designed and implemented. *“If needed – seems to confuse the issue here. If not needed, it would be N/A.”*

## Appendix E: Comments on “What to Look For” Indicators

### 4.2 (5<sup>th</sup> WTLF)

Professional development and enrichment activities are available for staff and volunteers. *Under the minimally meets section Bora states, “Not sure that ‘Either’ is a meaningful distinction.”*

### 4.3 (1<sup>st</sup> WTLF)

Needed facilities have been reserved or rented. *Under the generally and minimally meets sections Bora states, “If the rubric is used as a formative tool, this might make sense – otherwise, it doesn’t really matter as long as it is done by implementation.”*

### 4.3 (2<sup>nd</sup> WTLF)

Facilities and areas to be used for the program have been surveyed to ensure that there are no medical or safety hazards. *Under the generally and minimally meets sections Bora has questions regarding the wording “should be”.*

### 4.3 (4<sup>th</sup> WTLF)

Facilities and grounds meet the letter and spirit of the American’s with Disabilities Act. *Under the generally meets section Bora states, “This is also included in Needs Assessment. Overlap was deliberate because of design phases – it may or may not be appropriate here.”*

### 4.4 (4<sup>th</sup> WTLF)

All equipment has been tested under conditions comparable to those likely during the program, and staff members are trained in its use and maintenance. *Under the fully and generally meets sections Bora states, “Pretty subtle differences.”*

### 4.5 (5<sup>th</sup> WTLF)

A system is in place to warn staff of severe weather (or other emergency situations) and staff members know where to go for shelter or how to evacuate. *Under generally meets section Bora states, “not quite sure what a ‘general’ system would be. I would go back and really look at where you’ve used general and decide whether it is a meaningful measure. In this particular case ‘partial’ may make more sense.”*

### **Key Characteristic 5 = Dr. Sivek’s comments**

### 5.3 (1<sup>st</sup> WTLF)

The availability and content of the program are widely known to target audiences in the local community, and elsewhere if appropriate. Members for the target audience(s) know how they can participate in the program and where they can obtain additional information about the program. *Change wording to: “Availability and content of the program are clearly communicated and widely disseminated in media appropriate to the target audience.”*

## Appendix F: Overall Design Team Comments and Recommendations

In the process of developing this rubric, the design team found the scope of the project to be larger than what could be addressed within the allotted time. The following recommendations and considerations may be of use, together with other reviewer commentary, in the future development of the Assessment Rubric.

### **Recommendations and Considerations:**

- Length of the document problematic.
- Consider breaking up the rubric into manageable sections by Key Characteristics.
- Look at reducing the wordiness of the document. Cut out superfluous words if possible.
- Assessment terminology problematic, especially the term “generally.” While “broad” has been suggested, other better possibilities should be considered, though thus far other suggestions have not been made.
- It would be a good idea to pilot test a workable document to see if it indeed does what it is intended to do. CWES or Schmeeckle are possibilities. Additionally, Korie Klink and Joan Garland of the International Crane Foundation have expressed potential interest in pilot testing.
- Work closely with an expert panel of reviewers to develop the rubrics within a formative or summative framework.
- Need to address recommendations for changes in the wording of some of the “What to Look For” indicators. These changes would need to be implemented by NAAEE in the next printing of the original *Nonformal EE Programs: Guidelines For Excellence*.
- Scope (further development, revision, publication, pilot testing etc.) of the project may be large enough to warrant a separate graduate project.

### **Comments:**

Initial plans had been for the Assessment Rubric to be sent out to the review team twice. Due to extensive commentary regarding the Assessment Rubric as a whole, numerous suggestions by reviewers could not be addressed, and available time was insufficient to send the Rubric out for the second review. A selection of reviewer comments and other changes were incorporated, but their effectiveness or applicability at this point remain unknown with the absence of the second review.

Extensive changes (incorporated into this edition of the Assessment Rubric) made after reviewer comments include the following:

- Scoring system changed from 1-4 to 0-3 to more accurately reflect the influence of “Does Not Meet” on the overall scores for Key Characteristics.
- Percentage conversion was also shifted from the final summary to be included in each Key Characteristic summary, showing a more equal weighing of each section Guideline than merely adding up the scores as had earlier been the case.
- Throughout the rubric text, delineation between Fully Meets, Generally Meets, Minimally Meets, and Does Not Meet was highlighted by italicizing text differentiating each category.
- Key Characteristic section pages were added at the beginning of each section in an attempt to break up the extensive document more effectively.
- In an attempt to address a comment by Dr. Bora Simmons reemphasizing the fact that “What to look for” indicators are not absolute, additional text was added to both the Introduction and Instructions.

## Appendix G: Contact Information for Reviewers and Design Team

### **REVIEWERS:**

Carolyn Rock  
Naturalist  
Whitfish Dunes State Park  
3725 Clark Lake Rd  
Sturgeon Bay, WI 54235  
920-823-2400  
[rockc@mail01@dhr.state.wi.us](mailto:rockc@mail01@dhr.state.wi.us)

Bobbi Kubish  
Interim Director  
Central Wisconsin Environmental Station  
10186 Hwy MM  
Amherst Junction, WI 54407  
715-824-2428  
[Bobbi.Kubish@uwsp.edu](mailto:Bobbi.Kubish@uwsp.edu)

Becca Franzen  
Interim Program Manager  
Central Wisconsin Environmental Station  
10186 Hwy MM  
Amherst Junction, WI 54407  
715-824-2428  
[Becca.Franzen@uwsp.edu](mailto:Becca.Franzen@uwsp.edu)

Karen Bryan  
Instructor Shaw Nature Reserve  
P.O. Box 38  
Gray Summit, MO 63039  
(636) 451-3512  
[karen.bryan@mobot.org](mailto:karen.bryan@mobot.org)

Korie Klink  
Visitor Programs Coordinator  
International Crane Foundation  
E-11376 Shady Lane Road, PO Box 447  
Baraboo, WI 53913  
608-356-9462 ext 127  
[korie@savingcranes.org](mailto:korie@savingcranes.org)

Dr. Deborah Simmons  
Department of Teaching and Learning  
Northern Illinois University  
DeKalb, IL 60115  
(815) 753-9069  
FAX: (815) 753-8594  
EMAIL: [boras@niu.edu](mailto:boras@niu.edu)

Dr. Dan Sivek  
Professor of Environmental Education  
Coordinator — Human Dimensions of Natural Resource Management  
University of Wisconsin — Stevens Point  
Stevens Point, WI 54481  
715-346-2028  
EMAIL: [dsivek@uwsp.edu](mailto:dsivek@uwsp.edu)

Dr. Richard Wilke  
UW System Distinguished Professor &  
Director, Environmental Education & Training Partnership  
College of Natural Resources  
University of Wisconsin - Stevens Point  
Stevens Point, WI 54481  
(715) 346 - 4766  
EMAIL: [rwilke@uwsp.edu](mailto:rwilke@uwsp.edu)

## Appendix G: Contact Information for Reviewers and Design Team

### **DESIGN TEAM:**

Brian T. Barch  
Graduate Assistant NRES 150  
College of Natural Resources  
University of Wisconsin — Stevens Point  
Stevens Point, WI 54481  
715-343-9548  
[bbarch@uwsp.edu](mailto:bbarch@uwsp.edu)

Jennifer Dillard  
Online EE Course Graduate Assistant  
Environmental Education Training & Partnership  
University of Wisconsin — Stevens Point  
College of Natural Resources  
Stevens Point, WI 54481  
715-346-4957  
[Jenn.Dillard@uwsp.edu](mailto:Jenn.Dillard@uwsp.edu)

Abbie Kuhn  
Graduate Student  
3232 Clifford St  
Stevens Point, WI 54481  
715-544-0145  
[akuhn661@uwsp.edu](mailto:akuhn661@uwsp.edu)

Karla L. Lockman  
Graduate Assistant  
Central Wisconsin Environmental Station  
10186 Hwy MM  
Amherst Junction, WI 54407  
715-824-2428  
[klock091@uwsp.edu](mailto:klock091@uwsp.edu)

## Appendix H: References

- North American Association for Environmental Education. 2004. Nonformal Environmental Education Programs: Guidelines for Excellence. Washington, D.C.
- Mertler, Craig A. (2001). Designing scoring rubrics for your classroom. *Practical Assessment, Research & Evaluation*, 7 (25). Retrieved September 17, 2004 from <http://PAREonline.net/getvn.asp?v=7&n=25>
- Moskal, Barbara M. (2000). Scoring rubrics: what, when and how?. *Practical Assessment, Research, & Evaluation*, 7(3). Retrieved September 17, 2004 from <http://PAREonline.net/getvn.asp?v=7&n=3>
- Moskal, Barbara M. & Jon A. Leydens (2000). Scoring rubric development: validity and reliability. *Practical Assessment, Research, & Evaluation*, 7(10). Retrieved September 17, 2004 from <http://PAREonline.net/getvn.asp?v=7&n=10>
- What is a Rubric? [http://www.relearning.org/resources/PDF/rubric\\_sampler.pdf](http://www.relearning.org/resources/PDF/rubric_sampler.pdf). 2000. Relearning by Design.

**APPENDIX F:**  
**NEEPGE Strengths**



## NEEPGE Strengths

### 1.1)

A. Need partly identified — to monitor the abundance and distribution of cranes

### 1.2)

A. Crane Count does not duplicate existing efforts

B. Crane Count is complementary to other studies

C. Literature review/program review is part Program Plan development

D. Resources and strengths of the Crane Count have been inventoried during Program Plan development

E. Some gaps that might hinder successful continuing development of the Crane Count have been identified during Program Plan development.

### 1.3)

A. Yearly County Coordinator Questionnaire captures some needs and interests of Coordinators, but in a limited fashion

B. Some needs of Coordinators and participants have been documented during the development of the Program Plan

C. Crane Count seeks to be inclusive and is sensitive to audience

D. Some provider and audience needs have been documented during the course of Program Plan development

### 2.1)

A. The Crane Count's goals and objectives are consistent with ICF's mission

B. Crane Count is integrated into ICF's budget

### 2.3)

A. ICF capacities and resources are currently adequate to generally support the Crane Count

### 3.1)

A. The Crane Count's goals and objectives are related to environmental education, and correspondingly to environmental literacy and quality

B. Crane Count goals and objectives articulate what the program is designed to accomplish. Goals and objectives are attainable and measurable

C. Goals and objectives reflect the value of long-term commitment by ICF, in that they directly support ICF's mission

D. Goals and objectives clearly relate to program materials, topics included, concepts, and questions considered.

### 3.3)

A. The format of the Crane Count appears largely appropriate for the accomplishment of its goals and objectives

B. Program format and delivery are appropriate for meeting some needs of the Count's audience

C. Program format is safe/comfortable — there is the option for people to opt out and make a willing choice

D. Established goals and objectives help detail how the Crane Count fits into the scope of EE by addressing its goals

4.1)

A. Resources needed to implement the current program are identified

4.2)

A. Background checks on staff are conducted at time of hiring

B. ICF staff are competent, hence hired

C. Safety is addressed in program materials

D. Training exists for staff, Coordinators, and participants, but may not be adequate

E. Professional development/enrichment exists to a certain extent for ICF staff, though this may not be directly related to the Crane Count

F. Performance reviews exist for ICF staff

4.4)

A. Supplies for the Crane Count are available before needed

B. Crane Count is a part of ICF's budget

C. Relevant staff are familiar with Crane Count "equipment"

4.5)

A. County Coordinators and participants are provided with program materials discussing activity, clothing, safety, etc.

5.1)

A. Some technology used in the Crane Count is appropriate and presumably effective

B. Program materials are reviewed by organizational "experts" in the subject matter

C. Goals and objectives of the Crane Count are tied to the goals of EE, and the program is therefore integrated into a continuum of EE

5.2)

A. Materials are assembled and ready before needed, and reviewed

5.3)

A. Participants probably know how to participate and where to get more information

B. Crane Count generally does not conflict with other programs

5.4)

A. Goals and objectives for the Crane Count appear to be appropriate for the program cycle

B. Crane Count materials and other resources from each year are archived at ICF

C. Participant information is in archives and in the Crane Count database

6.3)

A. Numbers served for the Crane Count is documented

**APPENDIX G:**  
**NEEPGE Weaknesses**

## NEEPGE Weaknesses

### 1.1)

- A. Educational need not explicitly identified
- B. Stakeholder input not actively sought
- C. Needs assessment not conducted (hence specific environmental condition or issues not identified)

### 1.2)

- A. No survey of potential partners, community residents, etc. conducted
- B. Resources/strengths of ICF not inventoried
- C. Community strengths/resources have not been inventoried
- D. ICF organizational strengths/resources that could contribute to Crane Count not specifically identified

### 1.3)

- A. Cultural perspective, needs, & interests of target audience not specifically identified
- B. Yearly County Coordinator Questionnaire is limited in documenting the cultural perspectives, needs, and interests of Coordinators — this does not address participants
- C. No specific assessment of participant/Coordinator understandings has been conducted, though limited self-reports were received through Questionnaires during Program Plan development
- D. There has been no identification of appropriate educational methodologies for participants and Coordinators
- E. Provider needs have not been fully documented
- F. Audience needs not fully documented (hence interrelationship not examined)
- G. ADA should be reviewed to determine its applicability to the Crane Count program

### 2.1)

- A. The Crane Count needs to be further examined to determine if it is consistent with ICF's goals, objectives, long-range plan, and any other applicable mandates
- B. It is unknown if program staff/materials articulate the relationship between the program and ICF mission, etc.
- C. ICF communication strategies and priorities are unknown, and it is unknown if the Crane Count supports these
- D. Recommendations for the future of Crane Count need to be examined in the context of ICF's budget, and feasibility determined

### 2.2)

- A. The existence of an inventory of ICF programs and their interrelationship needs to be confirmed (may be a part of Strategic Planning)
- B. The Crane Count's role in ICF's overall program offerings needs to be specifically identified

### 2.3)

- A. ICF human & technical resources are increasingly challenged by data entry
- B. No specific consideration is given to long-term Crane Count resource needs
- C. Support of program by leadership, departments, and board unknown
- D. The degree to which staff/volunteers implementing the program support its development and implementation is unknown

### 3.1)

- A. Some, but not all, program materials explain the Crane Count's importance
- B. No evaluation criteria or indicators of success exist for the measurement of the Crane Count's goals and objectives

### 3.2)

- A. It is not established how Crane Count contributes to Environmental Literacy, though the goals and objectives are related to EE. This would need to be evaluated
- B. It is not established how Crane Count contributes to responsible action — this would need to be evaluated
- C. EEE Guidelines for learning criteria need to be reviewed in order to determine the Crane Count's contribution to responsible action
- D. It is unknown exactly how the Crane Count contributes to Environmental Education programs in the area, state, and region

### 3.3)

- A. Consideration should be given to the appropriate context for accomplishing the Count's goals and objectives
- B. Some needs of the Count's audience have been documented through Program Plan development, however, not all are being met. Program improvements would help address these needs. Additional undocumented needs may exist, and need to be determined
- C. There is no detailed consideration of learner readiness (or concepts and skills presented)
- D. There are no evaluation strategies for the Crane Count

3.4)

A. There are no partners/collaborators identified for the Crane Count

4.1)

A. Future resources needed for the Crane Count are unknown

B. Additional information on "client" resource needs is necessary

4.2)

A. No thorough background checks are done on County Coordinators — is this consistent with ICF volunteer policy?

B. Staff are not assessed according to NAAEE Guidelines for Educators

C. Volunteer competencies are not assessed

D. Training needs for staff, County Coordinators, and participant volunteers are not assessed

E. "Training" does not extend beyond the subject matter

F. Training exists for staff, Coordinators, and participants, but may not be adequate — it is not assessed

G. Professional development/enrichment does not exist for volunteers (Coordinators & participants), and for staff, it generally does not exist for the Crane Count

H. Performance review does not exist for the Crane Count's Coordinators or for participants

I. Performance reviews are not based on the goals and objectives of the Crane Count — staff performance review standards may need to be revised. A performance review system would need to be developed for program volunteers, based on goals and objectives

4.3)

A. Given the scope/scale/nature of Crane Count, facilities and grounds used for the Crane Count may not be able to meet the ADA

4.4)

A. Materials and equipment for the Crane Count are not "tested" under field conditions before use — they are implemented, and only then may be revised

5.1)

A. Crane Count materials are not reviewed according to Guidelines for excellence, and if they include those quality characteristics

B. Program materials, instructional strategies, and materials are not reviewed to determine connections between environmental concerns and wider questions of social needs, welfare, and economic opportunity

C. Strategic planning — the Crane Count's program elements and materials need to be reviewed to determine if they are integrated with overall goals

D. Applicable regulations, standards, and safety guidelines are not assembled and checked against program elements and materials to determine compliance

E. Theory is not used in the development of Crane Count program materials and the mix of theories required as the audience ranges from pre-K through senior citizens

F. Program elements, instructional strategies, and materials need to be examined to see if they consider innovative or novel ways to achieve objectives

G. In the context of Crane Count, critical and creative thinking skills need to be defined and measured

H. Due to the varied audience, program materials may not be age, audience, or content appropriate

I. Instructional methodologies are not based specifically (if at all) on respected, research-based practices

J. Methods do not specifically strive for multiple intelligences or learning styles

K. Lifelong learning strategies are not actively incorporated into the Crane Count

L. Crane Count is far behind in making use of existing technology to make the program efficient (if not also effective)

M. Follow up activities for the Crane Count do not take place

N. Materials are not reviewed by "experts" in education, environmental or otherwise

O. Materials are reviewed by participants and Coordinators through use, but not to determine whether they are pedagogically sound, value-fair, or scientifically accurate

5.2)

A. Materials are not field tested — they are implemented and then may be revised

B. There is no evaluation plan or field testing for the Crane Count

C. Materials are not field tested before they are needed

5.3)

A. Non-participants may not be aware of the program or where to find additional information

B. The publicity strategy for Crane Count at ICF is currently unknown

C. The Crane Count does not coordinate with other EE programs to maximize its effect and opportunity for integration

D. Photos, case studies, and other forms of documentation are not collected to facilitate marketing and sharing of information gained

5.4)

- A. A long-term funding strategy specifically for the Crane Count does not exist, though the Count is part of ICF's yearly budget
- B. Alternative funding strategies for the Crane Count have not been discussed
- C. No partnership or other "ownership" possibilities have been explored
- D. No "strategy" for sustaining the program currently exists

6.1)

- A. Goals have been established during Program Plan development, but not evaluation techniques or strategies
- B. Assessment techniques/tools are not built into the Crane Count
- C. There is no evaluation process — measurement of program outcomes/impacts does not take place
- D. Goals/objectives have been established, but outcomes and impacts have yet to be measured or evaluated
- E. Evaluation design and data analysis does not conform to accepted practices, as there is no evaluation design
- F. Impacts of the Crane Count are not monitored on an ongoing basis

6.2)

- A. Program evaluation (as there is none to speak of), does not determine the Crane Count's contribution to Environmental Literacy
- B. There is no evaluation to determine the degree to which stated goals, objectives, and learning outcomes are met
- C. There is no evaluation in place to determine the degree to which resources are used responsibly
- D. No needs assessment has been conducted, therefore the Crane Count cannot be evaluated on this basis
- E. Unanticipated outcomes of the Crane Count are not captured, as there is not an evaluation process

6.3)

- A. No intended uses for evaluation information are specified, as there is no evaluation information
- B. Without evaluation in place, evaluation results cannot be reviewed
- C. It is not currently possible to determine areas of strength, gaps, community impacts, or how to function more effectively, as there is not an established evaluation in place
- D. Non-existent evaluation results can't be used with planning groups
- E. Non-existent evaluation results can't be used with external groups
- F. Staff can't speak knowledgeably about non-existent results
- G. There is no sharing plan for the EE community
- H. Staff, instructor, & volunteer efficiency & effectiveness are not measured
- I. Overall program impact is not measured



**APPENDIX H:**  
**University of Wisconsin-Stevens Point**  
**Institutional Review Board Protocol**



University of Wisconsin-Stevens Point  
Institutional Review Board for the Protection of Human Subjects

**Protocol for Original Submissions**

A complete protocol must be submitted to the IRB for approval prior to the initiation of any investigations involving human subjects or human materials, including studies in the behavioral and social sciences.

Send: 11 copies of (1) the completed protocol; (2) project abstract; and (3) samples of informed consent forms to the IRB chairperson. PROTOCOLS LACKING ANY ONE OF THESE THREE ELEMENTS WILL NOT BE APPROVED. In addition, copies of questionnaires or interview questions MUST be attached.

PLEASE TYPE

Project Title: The Annual Midwest Crane Count: Development of a Program Plan

Principal Investigator: Brian T. Barch

Department: College of Natural Resources – Env. Education Rank: Graduate Student

Campus Mailing Address: Brian T. Barch, Graduate Student, College of Natural Resources

Telephone: 715-343-9548 E-mail address: bbarch@uwsp.edu

Faculty Sponsor (if required): Dr. Joseph Passineau  
(Faculty sponsor required if investigator is below rank of instructor.)

Expected Starting Date: Oct/Nov 2005 Expected Completion Date: May 2006

Are you applying for funding of this research? Yes  No

If yes, what agency? Wisconsin Environmental Education Board (WEEB) Grant # 2004-0072

Please indicate the categories of subjects to be included in this project. Please check all that apply.

Normal adult volunteers  Minors (under 18 years of age)  
 Incarcerated individuals  Mentally Disabled  
 Pregnant women  Other \_\_\_\_\_ (specify)

(Faculty Member) I have completed the "Human Subjects Protection Training" (available at <http://www.uwsp.edu/special/irb/start.htm>) and agree to accept responsibility for conducting or directing this research in accordance with the guidelines.

Joseph Passineau 9/26/05  
(Signature of Faculty Member responsible for research)

(Department Chair or equivalent) I have reviewed this research proposal and, to the best of my knowledge, believe that it meets the ethical standards of the discipline.

Daniel Auer 9/26/05  
(Signature of Department Chair or equivalent)

\*\*\*\*\* Do not write below this line – for IRB use only \*\*\*\*\*

IRB approval [Signature] Date 10/24/05  
(Signature of IRB Chair)

Approval for this research expires one year from the above date.  
If research is not completed by this date, a request for continuation must be filed and approved before continuing.

Revised form: January 2001

*Final Review*

**Proposal Abstract**

Write a brief description of the purpose of the proposed research project. (100-200 words)

This project will result in the development of a Program Plan for the International Crane Foundation's (ICF's) Annual Midwest Crane Count. The Program Plan will provide a concise overview and summary of this program for ICF's Conservation Education Department (CED) staff, and will establish recommended directions the Crane Count could take in the future.

The Program Plan will describe the vision of the Crane Count – its mission, goals, and objectives. This portion of the project will be achieved through analysis of historic program documents and discussions with current CED staff. A key component in addressing the Crane Count's vision entails acquiring input from its primary target audiences, program participants and volunteer facilitators. Volunteer facilitators coordinate the implementation of the Crane Count and serve as the liaison between ICF and the actual program participants. Samples from these audiences will receive questionnaires, and a selection of volunteer facilitators will participate in a focus group discussion.

Additionally, the Program Plan will provide an assessment of the program's current status based on the North American Association for Environmental Education's publication, *Nonformal Environmental Education Programs: Guidelines for Excellence*. Existing program materials will also be inventoried and examined, and other citizen science programs will be reviewed. The final component of the Program Plan will consist of a variety of recommendations for avenues the Crane Count could take in future years.

**Please complete the following questions for all research.**

1. Describe the characteristics of the subjects, including gender, age ranges, ethnic background, health/treatment status and approximate number.

Subjects in this study will consist of female and male Crane Count volunteers – both program participants and volunteer facilitators. Questionnaires about the Crane Count, the benefits of participating, and program materials will be sent through standard mail to approximately 300 of the program's 3,000 participants in the Upper Midwest. Participants range in age from small children through senior citizens, and their ethnic backgrounds are unknown.

Likewise, questionnaires will be sent to all volunteer facilitators to obtain input on the Crane Count, benefits of participating, and program materials. Questionnaires will be sent to the 70-90 volunteer facilitators currently involved with the Crane Count. These individuals range from teenage youth to senior citizens, and their ethnic backgrounds are unknown. A selection of approximately ten adult facilitators will be invited to participate in a focus group discussion to obtain more detailed input on selected program topics.

2. Indicate how and where your subjects will be obtained. Describe the method you will use to contact subjects.

Contact information for both program participants and volunteer facilitators will be obtained from the International Crane Foundation. This information is held in a Microsoft Access database. Both the program participants selected to receive questionnaires as well as the volunteer facilitators will be contacted directly through standard mail. For the focus group, approximately ten volunteer facilitators will be invited to participate. These invitations will consist of a letter sent either through standard mail or via email. Completion of the surveys and participation in the focus group is entirely voluntary.

3. What are you going to ask your subjects to do (be explicit) and where will your interaction with the subjects take place?

Both program participants and volunteer facilitators will be asked to complete questionnaires. These questionnaires will be focused on the Annual Midwest Crane Count, with questions pertaining to general information such as demographics, as well as individuals' involvement in the Crane Count, their experiences with the program, and program materials and resources. All interaction in these instances will be through standard mail.

Approximately ten adult volunteer facilitators will be invited to participate in a focus group discussion. Similar to the questionnaires, the discussion will be centered on the facilitators' involvement with the Crane Count, experiences, and program materials and resources. The focus group is tentatively planned to take place at ICF's Ron Sauey Memorial Library for Bird Conservation. If this location is not available, another space suitable for small gatherings and discussion will be selected.

4. Will deception be used in gathering data? Yes \_\_\_\_\_ No **X** \_\_\_\_\_  
If yes, describe and justify.

5. Are there any risks to subjects? Yes \_\_\_\_\_ No **X** \_\_\_\_\_  
If yes, describe the risks (consider physical, psychological, social, economic, and legal risks) and include this description on the informed consent form.

6. What safeguards will be provided for subjects in case of harm or distress? (Examples of safeguards include having a counselor/therapist on call, an emergency plan in place for seeking medical assistance, assuring editorial rights to data prior to publication or release where appropriate.)

All information garnered through the questionnaires or focus group discussions will remain anonymous. Identifying information for participating individuals will not be released. Completion of the questionnaires, or participation in the focus group discussion will be completely voluntary.

7. What are the benefits of participation/involvement in this research to subjects? (Examples include obtaining knowledge of discipline, experiencing research in a discipline, obtaining course credit, getting paid, or contributing to general welfare/knowledge.) Be sure to include this description on the informed consent form.

In completing this study, both ICF and the study subjects can benefit. This is an opportunity for the program participants to voice their views, impressions, and experiences of the Crane Count. With this information in hand, ICF and its CED staff can better work to improve the participation experience on the part of involved individuals. With input received from this audience, it may be possible to refine program materials, identify the need to develop

new materials, and identify gaps and desires that are not currently being addressed.

This is also an opportunity for the volunteer facilitators to provide their input for the future of the Crane Count program. Information gathered from this audience will be used to recommend program improvements. As these individuals serve to facilitate the program, such improvements will in turn benefit program participants. Input from these facilitators will help to identify the successes in the program implementation, as well as existing gaps that hinder the process.

8. Will this research involve conducting surveys or interviews? Yes **X** \_\_\_\_\_ No \_\_\_\_\_  
If yes, please attach copies of all instruments or include a list of interview questions.

9. If electronic equipment is used with subjects, it is the investigator's responsibility to determine that it is safe, either by virtue of his or her own experience or through consultation with qualified technical personnel. The investigator is further responsible for carrying out continuing safety checks, as appropriate, during the course of the research. If electronic equipment is used, have appropriate measures been taken to ensure safety?  
Yes **X** \_\_\_\_\_ No \_\_\_\_\_

There are only two instances related to the study subjects that will involve electronic equipment, and both are related to the focus group discussion with volunteer facilitators. Email may be used to contact and invite individuals to participate in the discussion. During the discussion itself, a digital voice recorder will be used to record the proceedings. In neither case do safety concerns arise.

10. During this research, what precautions will be taken to protect the identify of subjects and the confidentiality of the data?

Questionnaires completed by program participants and volunteer facilitators will be kept anonymous. Name information will not be recorded related to including data in the Program Plan. Survey ID numbers will be used only to keep track of survey responses, will be used only during that process, and will not be included in the final presentation of data. Paper questionnaires will be destroyed at the completion of the project.

Focus group proceedings will be documented digitally, and then transcribed into written form. The digital sound file will be deleted at the completion of the project. Responses to focus group questions will not be associated with individual names.

11. Where will the data be kept throughout the course of the study? What provisions will be taken to keep it confidential or safe?

Data will be held and analyzed only by the researcher during the course of this study. Paper questionnaires will be stored in a locked cabinet in CNR 464. Digital data will be stored on an external hard drive at the researcher's residence. No other individuals or groups have access to the external hard drive. When data are included in the Program Plan or any other related documents, no information associating the data with specific individuals will be included.

12. Describe the intended use of the data by yourself and others.

The data gathered is intended to facilitate the completion of a Program Plan for ICF's Annual Midwest Crane Count. For the purposes of the Program Plan, these data will influence and inform the establishment of program goals and objectives, as well as developing recommendations for the program's future. Ultimately, these data will assist CED staff at ICF in directing the Crane Count and its direction in future years.

13. Will the results of the study be published or presented in a public or professional setting?

Yes **X** \_\_\_\_\_ No \_\_\_\_\_

If yes, what precautions will be taken to protect the identity of your participants? **State whether or not subjects will be identifiable directly or through identifying information linked to the subjects.**

The completed Program Plan will be made available to ICF staff, and others who may be concerned with the future of the Crane Count. Data included in the Program Plan will not be linked to individual subjects, and it will not be possible to identify any individuals through examination of the data. It is anticipated that project results will be disseminated through a written thesis, articles, one or more presentations, and possibly other avenues. In these instances as well, it will not be possible to identify any individuals through examination of the data.

14. State how and where you will store the data upon completion of your study as well as who will have access to it? What will be done with audio/video data upon completion of the study?

Upon completion of this project, only data contained within the Program Plan and a written thesis will be retained. These data will also exist in electronic format (such as an Excel spreadsheet). In all cases, data will not be associated or linked to any individuals. The Program Plan and final Excel spreadsheet will be given to the International Crane Foundation for the organization's use in directing the future of the Crane Count. Hard copies of completed questionnaires will be destroyed at the project's completion, and the digital audio file of the focus group proceedings will be deleted.

A completed protocol must include a copy of the Informed Consent Form or a statement as why individual consent forms will not be used.  
Revised form: January 2001

(Include this page ONLY if information on this page applies to your project)

15. Please identify personnel assisting in conducting this research project. Include students or others who will be carrying out or directly supervising the carrying out of the research.

Name: Dr. Joseph Passineau  
Position: Professor of Environmental Education  
Campus Address: CNR 178  
Campus Phone: 346-3764

Name: Brian T. Barch  
Position: Graduate Student  
Campus Address: CNR 464  
Campus Phone: 346-2025

Please note: Everyone having contact with human subjects must have reviewed the "Guidelines for Human Subject Research" (available at <http://www.uwsp.edu/special/irb/start.htm>). The principle investigator assumes responsibility for insuring this requirement has been met.

16. Complete the section below if you will obtain access to all or some of the subjects through cooperating institutions not under the University of Wisconsin's control. Use the following format for each institution with responsibility for human subjects participating in this activity:

Name of official: Korie M. Klink  
Title: ICF Visitor Programs Coordinator  
Name and address of institution:  
International Crane Foundation  
E-11376 Shady Lane Road  
PO Box 447  
Baraboo, WI 53913  
Phone: (608)-356-9462, extension 127

Subject Status: (wards, residents, employees, patients, etc)  
Annual Midwest Crane Count program volunteers  
Number of subjects:  
Approximately 370-400  
Age Range of subjects:  
Children through senior citizens

17. If subjects from another institution are involved, and approval was obtained from a legally constituted IRB at that institution, please attach a copy of the approval. (Please note that this does not release you from the obligation to obtain approval from the UWSP IRB for Human Subjects.)

A completed protocol must include a copy of the Informed Consent Form or a statement as why individual consent forms will not be used.

Revised form: January 2001

**APPENDIX I:**  
**County Coordinator Questionnaire**

INTERNATIONAL CRANE FOUNDATION  
WORLD CENTER FOR THE STUDY AND PRESERVATION OF CRANES



E 11376 Shady Lane Road  
P.O. Box 447  
Baraboo, WI 53913-0447, USA

TEL: 608-356-9462  
FAX: 608-356-9465  
E-MAIL: [cranes@savingcranes.org](mailto:cranes@savingcranes.org)  
WEBSITE: [www.savingcranes.org](http://www.savingcranes.org)

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Ronald Sauey, Ph.D. (1948-1987)  
and George Archibald, Ph.D.

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Paul C. Urban, USA  
Bernard Wentworth, USA  
Thomas M. Yull, USA  
Le Cong Kiet, Vietnam

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Dear County Coordinator,

November 11, 2005

Thank you for helping us to make the Annual Midwest Crane Count a success!

The International Crane Foundation (ICF), in partnership with the College of Natural Resources at the University of Wisconsin – Stevens Point, is conducting a survey of all County Coordinators, as well as a selection of participants.

The year 2005 marked the 30<sup>th</sup> Crane Count, and we are pleased to have reached this milestone. Your facilitation of this event at the county level has been essential to reach this point. It is something for all of us to celebrate, and it is also a time to reflect on where the Crane Count has been, and how we can continue its success in the future. The purpose of this survey is to collect information about your experiences with the Crane Count. Why? So that we can work to make it even better than it is now.

We request that you please take a few moments to fill out and return the enclosed questionnaire. As a County Coordinator working in the field, your insights are especially valuable to us. Taking this survey is voluntary. As you have already been a key part of this program's success, your voice will be an important part of the Crane Count's future.

If you are 17 years of age or younger, it is necessary for a parent or legal guardian to sign the enclosed consent form giving you permission to complete the survey, and to have the signed form returned with your completed questionnaire.

Information gathered from this survey will remain anonymous. As your response is important to us, we have provided ID numbers for each survey – if we have not received your completed survey by November 21, 2005, we will follow-up with an additional letter to ensure that you have ample opportunity to provide us with your input. These survey ID numbers will only be used to track the returned surveys, and will not be associated with your responses in any way.

When you have completed the survey, please return it in the supplied postage-paid envelope, with the signed consent form if you are 17 or younger. With your input, we hope to continue the success of the Crane Count for years to come. Thank you for the time and resources you have already given to the Crane Count, and for helping us with this effort!

Sincerely,

Brian T. Barch  
ICF Education Research Associate &  
UW-Stevens Point Graduate Student

**Informed Consent to Participate in Crane Count Research  
County Coordinator Questionnaire**

Dear County Coordinator,

IF YOU ARE UNDER 18, PLEASE HAVE A PARENT OR LEGAL GUARDIAN SIGN THIS SHEET GIVING PERMISSION FOR YOU TO COMPLETE THE SURVEY AND PARTICIPATE IN THIS RESEARCH. PLEASE RETURN THE SIGNED SHEET WITH YOUR COMPLETED SURVEY.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from County Coordinators such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

Please take a few moments to fill out the enclosed questionnaire to provide your insights and perspectives. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk in completing this survey.

**Safeguards:** The information gathered from this survey will remain anonymous. The survey ID number found on the questionnaires will be used only to track returned surveys, and will not be associated with the data in any way. Completion of the enclosed questionnaire is completely voluntary.

**Benefits:** As a County Coordinator, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you, other County Coordinators, and future participants.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
Professor of Environmental Education  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-346-3764  
jpassine@uwsp.edu

If you have any concerns about participating in this study, please call or write:

Dr. Sandra Holmes, Chair  
Institutional Review Board for the Protection of Human Subjects  
Psychology Department  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
(715)-348-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

If you are an adult (18 years of age or more), your completion and submission of the enclosed questionnaire represents your consent to serve as a subject in this research.

If you are a minor (17 years of age or younger) it is necessary to obtain the consent of your parent or legal guardian before you can complete this questionnaire. Please have them review this document and the enclosed questionnaire. If they consent to your participation, have them sign below, and return this form with the completed questionnaire.

**Parent or Legal Guardian:**

I have received a complete explanation of the study, and I agree that my child or legal dependent can participate.

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature of parent or legal guardian)

IF YOU ARE UNDER 18, PLEASE RETURN THIS FORM SIGNED BY A PARENT OR GUARDIAN ALONG WITH THE COMPLETED SURVEY.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.

**Informed Consent to Participate in Crane Count Research  
County Coordinator Questionnaire**

Dear County Coordinator,

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE READ THIS SIDE. IF YOU ARE UNDER 18, PLEASE USE THE REVERSE SIDE OF THIS PAGE.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from County Coordinators such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

Please take a few moments to fill out the enclosed questionnaire to provide your insights and perspectives. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk in completing this survey.

**Safeguards:** The information gathered from this survey will remain anonymous. The survey ID number found on the questionnaires will be used only to track returned surveys, and will not be associated with the data in any way. Completion of the enclosed questionnaire is completely voluntary.

**Benefits:** As a County Coordinator, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you, other County Coordinators, and future participants.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
Professor of Environmental Education  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-346-3764  
jpassine@uwsp.edu

If you have any concerns about participating in this study, please call or write:

Dr. Sandra Holmes, Chair  
Institutional Review Board for the Protection of Human Subjects  
Psychology Department  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
(715)-348-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

Your completion and submission of the enclosed questionnaire represents your consent to serve as a subject in this research.

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE RETAIN THIS PAGE FOR YOUR RECORDS.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.



# Annual Midwest Crane Count: Coordinator Questionnaire



The purpose of this survey is to gather information about Annual Midwest Crane Count. Our goals are to make the Crane Count and program resources even better than they are. We at ICF thank you for your willingness to share your ideas with us. Results from this survey will be used to develop improvements for the Crane Count. As a County Coordinator, you are a key part in the success of this program, and your insights are valuable to us. Please complete this survey, and return it in the provided envelope by Nov. 21, 2005, to:

Brian Borch  
College of Natural Resources  
UW-Stevens Point  
Stevens Point, WI 54481

## The Crane Count Coordination Experience

1. Approximately how many times have you coordinated the Crane Count? Check one.

- 1 time    2-5 times    6-10 times    11-15 times    16 times or more

2. Please estimate how many hours your coordinating duties take each year.

Number of hours: \_\_\_\_\_

3. Why do you volunteer to coordinate the Crane Count? Check all that apply. For each one that you check, please rate the relative strength of the factor as a motivation by checking "Strong," "Moderate," or "Weak."

- |   |                                 |                                   |                               |
|---|---------------------------------|-----------------------------------|-------------------------------|
| <input type="checkbox"/> As a contribution to a conservation organization | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To introduce others to the natural world         | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To meet others with shared interests             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To learn about cranes                            | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To teach others about cranes                     | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a tradition                                   | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To improve understanding of crane populations    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> Other (please specify on lines below):           | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
- \_\_\_\_\_

4. What do you believe are the most important things Crane Count accomplishes? Please share them here.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Which of the following would improve the coordination experience for you? Check all that apply. For each one that you check, please rate how important each item would be to improve the experience by checking "High," "Moderate," or "Low."

- |  |                               |                                   |                              |
|--|-------------------------------|-----------------------------------|------------------------------|
| <input type="checkbox"/> Access to historic Crane Count data                           | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Printed materials about crane ecology                         | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online materials about crane ecology                          | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online data entry process for Coordinators                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online data entry process for participants                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Youth-centered Crane Count materials                          | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Redrawn Site-location Maps                                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Knowing a Count site's history                                | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> A Crane Count brochure  | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Additional crane-related resources to share with participants | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Other (please specify and describe on lines below):           | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
- \_\_\_\_\_
- \_\_\_\_\_

Nothing more is needed to improve the experience

6. What are the challenges that you face in coordination?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Participants and Training

7. Please indicate the type(s) of pre-Count training you offer to participants. Check all that apply. For each item that you check, please indicate the approximate percentage of your participants that experience each type of training.

- |  |                   |
|--|-------------------|
| <input type="checkbox"/> County training meeting               | Percentage: _____ |
| <input type="checkbox"/> One-on-one meeting with participant   | Percentage: _____ |
| <input type="checkbox"/> Through standard mail                 | Percentage: _____ |
| <input type="checkbox"/> "Virtual training" via ICF's website  | Percentage: _____ |
| <input type="checkbox"/> Through email                         | Percentage: _____ |
| <input type="checkbox"/> Telephone                             | Percentage: _____ |
| <input type="checkbox"/> Other (please specify on line below): | Percentage: _____ |
- \_\_\_\_\_

8. Which of the following components do you include in your participant training? Check all that apply.

- Show the Crane Count training video
- Review "Instructions in the Field"
- Review the Data Sheet
- Inform participants of available Crane Count resources on ICF's website
- Allow for participant questions
- Private land concerns and contacting landowners
- Counter safety
- Other (please specify): \_\_\_\_\_

9. Please rate your confidence level for training participants on the following.

Scale: Not confident, 2- Low Confidence, 3- Confident, 4- High Confidence, 5- Very Confident

Training Participants on Crane Count Skills	Confidence				
	Not 1	2	3	4	Very 5
Identifying sandhill cranes by sight					
Recognizing birds similar to sandhill cranes					
Identifying sandhill cranes by sound					
Identifying a sandhill crane unison call					
Identifying a whooping crane by sight					
Filling out a Crane Count Data Sheet					
Accurately documenting number of sandhill cranes seen					
Accurately documenting number of sandhill cranes heard					
Accurately documenting number of sandhill crane pairs					
Matching the actual site with the Site-location Map					

10. How do you contact participants? Check all that apply. For each item that you check, please approximate the percentage of your participants that are contacted in that manner.

- Standard mail Percentage: \_\_\_\_\_
- Email Percentage: \_\_\_\_\_
- Phone Percentage: \_\_\_\_\_
- Other (please specify on line below): \_\_\_\_\_ Percentage: \_\_\_\_\_

11. Do you actively seek new participants for your county?

- Yes - if Yes, please complete question #12
- No - if No, please indicate the reason(s) why, then move on to question #13  
Check all that apply.
  - All sites already taken by current participants
  - Requires more personal time than is available
  - Recruitment efforts have been unsuccessful in the past
  - Other(s) (please specify): \_\_\_\_\_

12. If you answered "Yes" to question 11, and actively seek new participants for your county, please indicate the methods that you use. Check all that apply.

- Press release sent to local media
- Crane Count poster
- Other (please specify) \_\_\_\_\_

### Crane Count Materials and Resources

13. What Crane Count materials do you use? Please check all that apply. For each item that you check, please rate the relative usefulness of each to you by checking "Very Useful," "Useful," or "Slightly Useful."

- |  |                 |            |                     |
|--|-----------------|------------|---------------------|
| <input type="checkbox"/> Data Sheet  | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Crane Count: Instructions in the Field            | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Site-location Map                                 | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Landowner Information Sheet                       | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> County Coordinator Instruction Handbook           | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Participant List                                  | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Summary Sheet                                     | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> New Site Record Form                              | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Coordinator Notes                                 | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Crane Count Training Video                        | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Green Postcard (for contacting past participants) | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Other(s) (please specify on line below): _____    | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |

14. Have you created your own resources to assist with the Crane Count? If so, please list and briefly describe each item here.

---



---



---

15. Do you use the Crane Count section on ICF's website? Check one.

- Yes - if Yes, please complete questions #16, 17, & 18
- No - if No, please indicate why, then move on to question #19.  
Check all that apply.

- No internet access
- Slow connection speed unable to handle ICF's website
- Unable to locate Crane Count section of ICF's website
- Other(s) (please specify): \_\_\_\_\_



16. If you answered "Yes" to question 11, and use the Crane Count section on ICF's website, please indicate what you use it for. Check all that apply. For each item that you check, please rate how useful you find it by checking "Very Useful," "Useful," or "Slightly Useful."

- |   |                                      |                                 |  |
|---|--------------------------------------|---------------------------------|--|
| <input type="checkbox"/> To learn more about the Crane Count program                    | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To find out how to get in touch with other County Coordinators | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To answer questions I have about coordinating the Crane Count  | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To print out Crane Count forms                                 | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To listen to crane calls                                       | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To learn more about cranes                                     | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To answer questions I have about cranes                        | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To answer questions participants have about cranes             | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To show the Crane Count training video                         | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Other (please specify on the line below):                      | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |

\_\_\_\_\_

17. If you have comments on what would make the Crane Count section of ICF's website more useful to you, please share them here:

\_\_\_\_\_  
 \_\_\_\_\_

### General Information

18. What is your gender? Check one.

- Male  
 Female

19. What is your age? Check one. If you are 17 years of age or younger, please be sure to return the Informed Consent form signed by a parent or legal guardian with your questionnaire.

- 13-17 yrs  18-24 yrs  25-34 yrs  35-44 yrs  
 45-55 yrs  56-65 yrs  66 yrs or older

20. Please use the space below to make any additional comments concerning the Crane Count.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Thank you very much for taking the time to complete this questionnaire. Please return this questionnaire by Nov. 21, 2005.

**APPENDIX J:**  
**Participant Questionnaire**

INTERNATIONAL CRANE FOUNDATION  
WORLD CENTER FOR THE STUDY AND PRESERVATION OF CRANES



E-11376 Shady Lane Road  
P.O. Box 447  
Baraboo, WI 53913-0447, USA

TEL: 608-356-9462  
FAX: 608-356-9465  
E-MAIL: cranes@savingcranes.org  
WEBSITE: www.savingcranes.org

Founded in 1973 by  
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and George Archibald, Ph.D.

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Dear Crane Counter,

November 11, 2005

Thank you for helping us to make the Annual Midwest Crane Count a success!

The International Crane Foundation (ICF), in partnership with the College of Natural Resources at the University of Wisconsin – Stevens Point, is conducting a survey of selected Annual Midwest Crane Count participants such as yourself.

The year 2005 marked the 30<sup>th</sup> Crane Count, and we are pleased to have reached this milestone. It is something for all of us to celebrate, and it is also a time to reflect on where the Crane Count has been, and how we can continue its success in the future. The purpose of this survey is to collect information about your experiences with the Crane Count. Why? So that we can work to make it even better than it is now.

We request that you please take a few moments to fill out and return the enclosed questionnaire. As a past Crane Count participant, you have been selected to be a part of this study. Your insights are valuable to us. Taking this survey is voluntary. As you have already been a key part of this program's success, your voice will be an important part of the Crane Count's future. Even if you have not participated in the past year or more, your input is still valuable.

If you are 17 years of age or younger, it is necessary for a parent or legal guardian to sign the enclosed consent form giving you permission to complete the survey, and to have the signed form returned with your completed questionnaire.

Information gathered from this survey will remain anonymous. As your response is important to us, we have provided ID numbers for each survey – if we have not received your completed survey by November 21, 2005, we will follow-up with an additional letter to ensure that you have ample opportunity to provide us with your input. These survey ID numbers will only be used to track the returned surveys, and will not be associated with your responses in any way.

When you have completed the survey, please return it in the supplied postage-paid envelope, with the signed consent form if you are 17 or younger. With your input, we hope to continue the success of the Crane Count for years to come. Thank you for the time you have already given to the Crane Count, and for helping us with this effort!

Sincerely,

Brian T. Barch  
ICF Education Research Associate &  
UW-Stevens Point Graduate Student

**Informed Consent to Participate in Crane Count Research  
Crane Count Participant Questionnaire**

Dear Crane Counter,

IF YOU ARE UNDER 18, PLEASE HAVE A PARENT OR LEGAL GUARDIAN SIGN THIS SHEET GIVING PERMISSION FOR YOU TO COMPLETE THE SURVEY AND PARTICIPATE IN THIS RESEARCH. PLEASE RETURN THE SIGNED SHEET WITH YOUR COMPLETED SURVEY.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from program participants such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

Please take a few moments to fill out the enclosed questionnaire to provide your insights and perspectives. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk in completing this survey.

**Safeguards:** The information gathered from this survey will remain anonymous. The survey ID number found on the questionnaires will be used only to track returned surveys, and will not be associated with the data in any way. Completion of the enclosed questionnaire is completely voluntary.

**Benefits:** As a Crane Counter, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you and other future participants.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
Professor of Environmental Education  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-346-3764  
jpassine@uwsp.edu

If you have any concerns about participating in this study, please call or write:

Dr. Sandra Holmes, Chair  
Institutional Review Board for the Protection of Human Subjects  
Psychology Department  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
(715)-346-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

If you are an adult (18 years of age or more), your completion and submission of the enclosed questionnaire represents your consent to serve as a subject in this research.

If you are a minor (17 years of age or younger) it is necessary to obtain the consent of your parent or legal guardian before you can complete this questionnaire. Please have them review this document and the enclosed questionnaire. If they consent to your participation, have them sign below, and return this form with the completed questionnaire.

Parent or Legal Guardian:

I have received a complete explanation of the study, and I agree that my child or legal dependent can participate.

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature of parent or legal guardian)

IF YOU ARE UNDER 18, PLEASE RETURN THIS FORM SIGNED BY A PARENT OR GUARDIAN ALONG WITH THE COMPLETED SURVEY.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.

**Informed Consent to Participate in Crane Count Research  
Crane Count Participant Questionnaire**

Dear County Coordinator,

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE READ THIS SIDE. IF YOU ARE UNDER 18, PLEASE USE THE REVERSE SIDE OF THIS PAGE.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from program participants such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

Please take a few moments to fill out the enclosed questionnaire to provide your insights and perspectives. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk in completing this survey.

**Safeguards:** The information gathered from this survey will remain anonymous. The survey ID number found on the questionnaires will be used only to track returned surveys, and will not be associated with the data in any way. Completion of the enclosed questionnaire is completely voluntary.

**Benefits:** As a Crane Counter, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you and other future participants.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
Professor of Environmental Education  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-346-3764  
jpassine@uwsp.edu

If you have any concerns about participating in this study, please call or write:

Dr. Sandra Holmes, Chair  
Institutional Review Board for the Protection of Human Subjects  
Psychology Department  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
(715)-346-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

Your completion and submission of the enclosed questionnaire represents your consent to serve as a subject in this research.

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE RETAIN THIS PAGE FOR YOUR RECORDS.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.

# Annual Midwest Crane Count: Participant Questionnaire



The purpose of this survey is to gather information about the Annual Midwest Crane Count. Our goals are to make the Crane Count and program resources even better than they are. We at ICF thank you for your willingness to share your ideas with us. Results from this survey will be used to develop improvements for the Crane Count. Even if you have not participated in the past year or more, your insights are still valuable as a past program participant. Please complete this survey, and return it in the provided envelope by Nov. 21, 2005, to:

Brian Barch  
College of Natural Resources  
UW-Stevens Point  
Stevens Point, WI 54481

### Attention:

If you are 17 years of age or younger, a parent or legal guardian must provide permission before you can complete this questionnaire. Have them review the "Informed Consent to Participate in Crane Count Research" form included with the questionnaire. If they agree that you can participate, have them sign the form, and return it with your completed questionnaire. If you need help answering the questions, please ask your parent or guardian.

## Getting Involved in the Crane Count

1. How many times have you participated in the Crane Count? Check one.

- 1 time    2-5 times    6-10 times    11-15 times    16 times or more

2. How did you first learn of the Crane Count? Check one.

- Newspaper article  
 Magazine article  
 Radio announcement  
 Television  
 Poster  
 Friend  
 Family member  
 ICF visit  
 ICF website  
 Other (please specify): \_\_\_\_\_

3. Are you currently a member of ICF?

- Yes  
 No

## The Crane Count Experience

4. Why do you participate in Crane Count? Check all that apply. For each reason that you check, please rate the relative strength of the motivation by checking "Strong," "Moderate," or "Weak."

- |   |                                 |                                   |                               |
|---|---------------------------------|-----------------------------------|-------------------------------|
| <input type="checkbox"/> To see cranes                                    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a chance to see a whooping crane             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To experience the natural world                  | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a shared experience with family              | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a shared experience with friends             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To meet others with shared interests             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a contribution to a conservation organization | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To introduce others to the natural world         | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To learn about cranes                            | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a tradition                                   | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To improve understanding of crane populations    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> Other (please specify on the line below): _____  | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |

5. What do you believe are the most important things Crane Count accomplishes? Please share them here.

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6. Which of the following best characterizes the type of group that you most frequently count with? Check all that apply.

- Alone  
 With friends  
 With family  
 As part of a class  
 As part of an organization  
 Other (please specify): \_\_\_\_\_

7. Please indicate the type(s) of pre-Count training you experienced the last time you participated. Check all that apply.

- County training meeting  
 One-on-one meeting with County Coordinator  
 Through standard mail  
 "Virtual training" via ICF's website  
 Through email  
 Telephone  
 None  
 Other (please specify): \_\_\_\_\_

8. Please rate your confidence level for the following.

Scale: 1- Not confident, 2- Low Confidence, 3- Confident, 4- High Confidence, 5- Very Confident

Crane Count Skills	Confidence				
	Not 1	2	3	4	Very 5
Identifying sandhill cranes by sight					
Recognizing birds similar to sandhill cranes					
Identifying sandhill cranes by sound					
Identifying a sandhill crane unison call					
Identifying a whooping crane by sight					
Filling out a Crane Count Data Sheet					
Accurately documenting number of sandhill cranes seen					
Accurately documenting number of sandhill cranes heard					
Accurately documenting number of sandhill crane pairs					
Matching the actual site with the Site-location Map					

9. Which of the following would improve the Crane Count experience for you? Check all that apply. For each one that you check, please rate how important each item would be to improve the experience by checking "High," "Moderate," or "Low."

- Access to historic Crane Count data [ ] High [ ] Moderate [ ] Low
- Printed materials about crane ecology [ ] High [ ] Moderate [ ] Low
- Online materials about crane ecology [ ] High [ ] Moderate [ ] Low
- Online data entry process [ ] High [ ] Moderate [ ] Low
- Youth-centered Crane Count materials [ ] High [ ] Moderate [ ] Low
- Redrawn Site-location Maps [ ] High [ ] Moderate [ ] Low
- Site-location Maps available online [ ] High [ ] Moderate [ ] Low
- Knowing a Count site's history [ ] High [ ] Moderate [ ] Low
- A Crane Count brochure [ ] High [ ] Moderate [ ] Low
- Additional crane-related resources for County Coordinators to share [ ] High [ ] Moderate [ ] Low
- Other(s) (please specify and describe on the lines below): [ ] High [ ] Moderate [ ] Low
- \_\_\_\_\_

Nothing more is needed to improve the experience

### Crane Count Materials and Resources

10. What Crane Count materials do you use? Please check all that apply. For each item that you check, please rate the relative usefulness to you by checking "Very Useful," "Useful," or "Slightly Useful."

- Data Sheet [ ] Very Useful [ ] Useful [ ] Slightly Useful
- Crane Count: Instructions in the Field [ ] Very Useful [ ] Useful [ ] Slightly Useful
- Site-location Map [ ] Very Useful [ ] Useful [ ] Slightly Useful
- Landowner Information Sheet [ ] Very Useful [ ] Useful [ ] Slightly Useful
- Other(s) (please specify on the line below): [ ] Very Useful [ ] Useful [ ] Slightly Useful
- \_\_\_\_\_

Annual Midwest Crane Count: Participant Questionnaire

3

11. Do you use the Crane Count section on ICF's website? Check one.

- Yes – if Yes, please complete questions #12, 13, & 14
- No – if No, please indicate why, then move on to question #15.

Check all that apply.

- No internet access
- Slow connection speed unable to handle ICF's website
- Unable to locate Crane Count section of ICF's website
- Other(s) (please specify): \_\_\_\_\_

12. If you answered "Yes" to question 11, and use the Crane Count section on ICF's website, please indicate what you use it for. Check all that apply. For each item that you check, please rate how useful you find it by checking "Very Useful," "Useful," or "Slightly Useful."

- To learn more about the Crane Count program [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To find out how to get in touch with my County Coordinator [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To answer questions I have about participating in Crane Count [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To print out Crane Count forms [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To listen to crane calls [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To learn more about cranes [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To answer questions I have about cranes [ ] Very Useful [ ] Useful [ ] Slightly Useful
- To watch the Crane Count training video [ ] Very Useful [ ] Useful [ ] Slightly Useful
- Other (please specify on the line below): [ ] Very Useful [ ] Useful [ ] Slightly Useful
- \_\_\_\_\_

13. If you have comments on what would make the Crane Count section of ICF's website more useful to you, please share them here:

\_\_\_\_\_

\_\_\_\_\_

### General Information

14. What is your gender? Check one.

- Male
- Female

15. What is your age? Check one. If you are 17 years of age or younger, please be sure to return the Informed Consent form signed by a parent or legal guardian with your questionnaire.

- 0-13 yrs  14-17 yrs  18-24 yrs  25-34 yrs  35-44 yrs
- 45-55 yrs  56-65 yrs  66 yrs or older

Annual Midwest Crane Count: Participant Questionnaire

4

16. Are you currently attending school? Check one.

- Yes – if yes, please complete question #17
- No – if no, please complete question #18

17. If you checked “Yes” for question 16, and are attending school, please indicate at what level you are attending. Check one.

- Elementary (K-5 grade)
- Middle School (6-8 grade)
- High School (9-12 grade)
- College
- Advanced degree

18. If you checked “No” for question 16, and are not attending school, please indicate the highest level of education completed. Check one.

- High School
- College (Associate or Bachelor’s degree)
- Master’s degree
- PhD

19. Are you a formal educator (classroom teacher)? Check one.

- Yes
- No

If yes, please indicate which of the following would encourage incorporation of the Crane Count into your educational program. Check all that apply.

- Crane Count-related curriculum
- Curriculum tied to academic standards
- Real-life subject matter usable in the classroom
- Multidisciplinary topics

20. Please use the space below to make any additional comments concerning the Crane Count.

---

---

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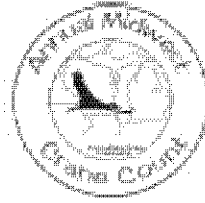
Thank you very much for taking the time to complete this questionnaire. Please return this questionnaire by **November 21, 2005**.

**APPENDIX K:**  
**Coordinator Follow-up Post Card**



Dear County Coordinator,

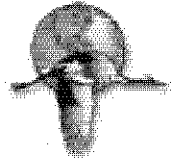
We recently sent you a Questionnaire regarding your experiences with the Annual Midwest Crane Count.



If you have already completed the Questionnaire and returned it, we thank you! If you have not, we ask that you please take a few moments to fill your copy out and return it as soon as possible. This card is just a reminder that your voice is important to us, and that we would like to have your input on the Crane Count.

If you need another copy of the Questionnaire, please contact Brian Borch, ICF Education Research Associate, and we would be happy to send you one. Thank you!

Brian Borch  
bborch@uwsp.edu  
715-343-9548



**APPENDIX L:**  
**Participant Follow-up Post Card**

Dear Crane Counter,

We recently sent you a Questionnaire regarding your experiences with the Annual Midwest Crane Count.



If you have already completed the Questionnaire and returned it, we thank you! If you have not, we ask that you please take a few moments to fill your copy out and return it as soon as possible. This card is just a reminder that your voice is important to us, and that we would like to have your input on the Crane Count.

If you need another copy of the Questionnaire, please contact Brian Barch, ICF Education Research Associate, and we would be happy to send you one. Thank you!

Brian Barch  
bbarch@uwsp.edu  
715-343-9548



**APPENDIX M:**  
**Coordinator Questionnaire Code Key**

Annual Midwest Crane Count: Coordinator Questionnaire  
Code Key

The Crane Count Coordination Experience

1. Approximately how many times have you coordinated the Crane Count? Check one.

- 1 time  2-5 times  6-10 times  11-15 times  16 times or more

0= not checked, 1= 1time, 2= 2-5 times, 3= 6-10 times, 4= 11-15 times, 5= 16 times or more

2. Please estimate how many hours your coordinating duties take each year.

Number of hours: \_\_\_\_\_

Text, NA= No Answer

3. Why do you volunteer to coordinate the Crane Count? Check all that apply. For each one that you check, please rate the relative strength of the factor as a motivation by checking "Strong," "Moderate," or "Weak."

- |   |                                 |                                   |                               |
|---|---------------------------------|-----------------------------------|-------------------------------|
| <input type="checkbox"/> As a contribution to a conservation organization | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To introduce others to the natural world         | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To meet others with shared interests             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To learn about cranes                            | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To teach others about cranes                     | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a tradition                                   | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To improve understanding of crane populations    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> Other (please specify on lines below):           | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |

0= Not Checked, 1= Checked Strong, 2= Checked Moderate, 3= Checked Weak, 4= Checked No Rating

4. What do you believe are the most important things Crane Count accomplishes? Please share them here.

Text, NA= No Answer

5. Which of the following would improve the coordination experience for you? Check all that apply. For each one that you check, please rate how important each item would be to improve the experience by checking "High," "Moderate," or "Low."

- |  |                               |                                   |                              |
|--|-------------------------------|-----------------------------------|------------------------------|
| <input type="checkbox"/> Access to historic Crane Count data                           | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Printed materials about crane ecology                         | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online materials about crane ecology                          | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online data entry process for Coordinators                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online data entry process for participants                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Youth-centered Crane Count materials                          | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Redrawn Site-location Maps                                    | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Knowing a Count site's history                                | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> A Crane Count brochure  | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Additional crane-related resources to share with participants | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Other (please specify and describe on lines below):           | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |

Nothing more is needed to improve the experience

0= Not Checked, 1= Checked High, 2= Checked Moderate, 3= Checked Low, 4= Checked No Rating

6. What are the challenges that you face in coordination?

Text, NA= No Answer

Participants and Training

7. Please indicate the type(s) of pre-Count training you offer to participants. Check all that apply. For each item that you check, please indicate the approximate percentage of your participants that experience each type of training.

- |  |                   |
|--|-------------------|
| <input type="checkbox"/> County training meeting               | Percentage: _____ |
| <input type="checkbox"/> One-on-one meeting with participant   | Percentage: _____ |
| <input type="checkbox"/> Through standard mail                 | Percentage: _____ |
| <input type="checkbox"/> "Virtual training" via ICF's website  | Percentage: _____ |
| <input type="checkbox"/> Through email                         | Percentage: _____ |
| <input type="checkbox"/> Telephone                             | Percentage: _____ |
| <input type="checkbox"/> Other (please specify on line below): | Percentage: _____ |

0= Not Checked, 4= Checked, no rating of percentage, # (number written)= checked with % number

8. Which of the following components do you include in your participant training? Check all that apply.

- Show the Crane Count training video  
 Review "Instructions in the Field"  
 Review the Data Sheet  
 Inform participants of available Crane Count resources on ICF's website  
 Allow for participant questions  
 Private land concerns and contacting landowners  
 Counter safety  
 Other (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

9. Please rate your confidence level for training participants on the following.

Scale: Not confident, 2- Low Confidence, 3- Confident, 4- High Confidence, 5- Very Confident

Training Participants on Crane Count Skills	Confidence				
	Not 1	2	3	4	Very 5
Identifying sandhill cranes by sight					
Recognizing birds similar to sandhill cranes					
Identifying sandhill cranes by sound					
Identifying a sandhill crane unison call					
Identifying a whooping crane by sight					
Filling out a Crane Count Data Sheet					
Accurately documenting number of sandhill cranes seen					
Accurately documenting number of sandhill cranes heard					
Accurately documenting number of sandhill crane pairs					
Matching the actual site with the Site-location Map					

0= Not Rated, Otherwise code is by scale indicated

10. How do you contact participants? Check all that apply. For each item that you check, please approximate the percentage of your participants that are contacted in that manner.

- Standard mail Percentage: \_\_\_\_\_  
 Email Percentage: \_\_\_\_\_  
 Phone Percentage: \_\_\_\_\_  
 Other (please specify on line below): \_\_\_\_\_ Percentage: \_\_\_\_\_

0= Not Checked, 4= Checked with no percentage, # (number written)= checked with % number

11. Do you actively seek new participants for your county?

- Yes - if Yes, please complete question #12  
 No - if No, please indicate the reason(s) why, then move on to question #13  
 Check all that apply.
- All sites already taken by current participants  
 Requires more personal time than is available  
 Recruitment efforts have been unsuccessful in the past  
 Other(s) (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

12. If you answered "Yes" to question 11, and actively seek new participants for your county, please indicate the methods that you use. Check all that apply.

- Press release sent to local media  
 Crane Count poster  
 Other (please specify) \_\_\_\_\_

0= Not Checked, 1= Checked

### Crane Count Materials and Resources

13. What Crane Count materials do you use? Please check all that apply. For each item that you check, please rate the relative usefulness of each to you by checking "Very Useful," "Useful," or "Slightly Useful."

- |  |                 |            |                     |
|--|-----------------|------------|---------------------|
| <input type="checkbox"/> Data Sheet  | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Crane Count: Instructions in the Field            | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Site-location Map                                 | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Landowner Information Sheet                       | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> County Coordinator Instruction Handbook           | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Participant List                                  | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Summary Sheet                                     | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> New Site Record Form                              | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Coordinator Notes                                 | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Crane Count Training Video                        | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Green Postcard (for contacting past participants) | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Other(s) (please specify on line below): _____    | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |

0= Not Checked, 1= Checked Very Useful, 2= Checked Useful, 3= Checked Slightly Useful, 4= Checked No Rating

14. Have you created your own resources to assist with the Crane Count? If so, please list and briefly describe each item here.

Text, NA= No Answer

15. Do you use the Crane Count section on ICF's website? Check one.

- Yes – if Yes, please complete questions #16, 17, & 18  
 No – if No, please indicate why, then move on to question #19.

Check all that apply.

- No internet access  
 Slow connection speed unable to handle ICF's website  
 Unable to locate Crane Count section of ICF's website  
 Other(s) (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

16. If you answered "Yes" to question 11, and use the Crane Count section on ICF's website, please indicate what you use it for. Check all that apply. For each item that you check, please rate how useful you find it by checking "Very Useful," "Useful," or "Slightly Useful."

- |   |                 |            |                     |
|---|-----------------|------------|---------------------|
| <input type="checkbox"/> To learn more about the Crane Count program                    | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To find out how to get in touch with other County Coordinators | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To answer questions I have about coordinating the Crane Count  | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To print out Crane Count forms                                 | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To listen to crane calls                                       | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To learn more about cranes                                     | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To answer questions I have about cranes                        | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To answer questions participants have about cranes             | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> To show the Crane Count training video                         | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |
| <input type="checkbox"/> Other (please specify on the line below): _____                | [ ] Very Useful | [ ] Useful | [ ] Slightly Useful |

0= Not Checked, 1= Checked Very Useful, 2= Checked Useful, 3= Checked Slightly Useful, 4= Checked No Rating

17. If you have comments on what would make the Crane Count section of ICF's website more useful to you, please share them here:

Text, NA= No Answer

### General Information

18. What is your gender? Check one.

- Male  
 Female

0= Not Checked, 1= Male, 2= Female

19. What is your age? Check one. If you are 17 years of age or younger, please be sure to return the Informed Consent form signed by a parent or legal guardian with your questionnaire.

- 13-17 yrs  18-24 yrs  25-34 yrs  35-44 yrs

- 45-55 yrs  56-65 yrs  66 yrs or older

0= Not Checked, 1= 13-17yrs, 2= 18-24yrs, 3= 25-34yrs, 4= 35-44yrs, 5= 45-55yrs, 6= 56-65yrs, 7= 66yrs or older

20. Please use the space below to make any additional comments concerning the Crane Count.

Text, NA= No Answer

**APPENDIX N:**  
**Participant Questionnaire Code Key**



Annual Midwest Crane Count:  
Participant Questionnaire  
Code Key

Getting Involved in the Crane Count

1. How many times have you participated in the Crane Count? Check one.

- 1 time    2-5 times    6-10 times    11-15 times    16 times or more

0= Not Checked, 1= 1 time, 2= 2-5 times, 3= 6-10 times, 4= 11-15 times, 5= 16 times or more

2. How did you first learn of the Crane Count? Check one.

- Newspaper article  
 Magazine article  
 Radio announcement  
 Television  
 Poster  
 Friend  
 Family member  
 ICF visit  
 ICF website  
 Other (please specify): \_\_\_\_\_

0= Not Checked, 1= Newspaper article, 2= Magazine article, 3= Radio announcement, 4= Television, 5= Poster, 6= Friend, 7= Family Member, 8= ICF Visit, 9= ICF Website, 10 = Other, 11= Inappropriate Response (checking more than one item)

3. Are you currently a member of ICF?

- Yes  
 No

0= Not Checked, 1= Yes, 2= No

The Crane Count Experience

4. Why do you participate in Crane Count? Check all that apply. For each reason that you check, please rate the relative strength of the motivation by checking "Strong," "Moderate," or "Weak."

- |   |                                 |                                   |                               |
|---|---------------------------------|-----------------------------------|-------------------------------|
| <input type="checkbox"/> To see cranes                                    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a chance to see a whooping crane             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To experience the natural world                  | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a shared experience with family              | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> For a shared experience with friends             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To meet others with shared interests             | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a contribution to a conservation organization | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To introduce others to the natural world         | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To learn about cranes                            | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> As a tradition                                   | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> To improve understanding of crane populations    | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |
| <input type="checkbox"/> Other (please specify on the line below): _____  | <input type="checkbox"/> Strong | <input type="checkbox"/> Moderate | <input type="checkbox"/> Weak |

0= Not Checked, 1= Checked Strong, 2= Checked Moderate, 3= Checked Weak, 4= Checked No Rating

5. What do you believe are the most important things Crane Count accomplishes? Please share them here.

Text, NA = No Answer

6. Which of the following best characterizes the type of group that you most frequently count with? Check all that apply.

- Alone  
 With friends  
 With family  
 As part of a class  
 As part of an organization  
 Other (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

7. Please indicate the type(s) of pre-Count training you experienced the last time you participated. Check all that apply.

- County training meeting  
 One-on-one meeting with County Coordinator  
 Through standard mail  
 "Virtual training" via ICF's website  
 Through email  
 Telephone  
 None  
 Other (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

8. Please rate your confidence level for the following.

Scale: 1- Not confident, 2- Low Confidence, 3- Confident, 4- High Confidence, 5- Very Confident

Crane Count Skills	Confidence				
	Not 1	2	3	4	Very 5
Identifying sandhill cranes by sight					
Recognizing birds similar to sandhill cranes					
Identifying sandhill cranes by sound					
Identifying a sandhill crane unison call					
Identifying a whooping crane by sight					
Filling out a Crane Count Data Sheet					
Accurately documenting number of sandhill cranes seen					
Accurately documenting number of sandhill cranes heard					
Accurately documenting number of sandhill crane pairs					
Matching the actual site with the Site-location Map					

0= Not Rated, otherwise coding is by scale number as indicated above

9. Which of the following would improve the Crane Count experience for you? Check all that apply. For each one that you check, please rate how important each item would be to improve the experience by checking "High," "Moderate," or "Low."

- |  |                               |                                   |                              |
|--|-------------------------------|-----------------------------------|------------------------------|
| <input type="checkbox"/> Access to historic Crane Count data                                 | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Printed materials about crane ecology                               | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online materials about crane ecology                                | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Online data entry process   | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Youth-centered Crane Count materials                                | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Redrawn Site-location Maps  | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Site-location Maps available online                                 | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Knowing a Count site's history                                      | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> A Crane Count brochure  | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Additional crane-related resources for County Coordinators to share | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| <input type="checkbox"/> Other(s) (please specify and describe on the lines below):          | <input type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low |
| _____  |                               |                                   |                              |
| <input type="checkbox"/> Nothing more is needed to improve the experience                    |                               |                                   |                              |

0= Not Checked, 1= Checked High, 2= Checked Moderate, 3= Checked Low, 4= Checked No Rating

## Crane Count Materials and Resources

10. What Crane Count materials do you use? Please check all that apply. For each item that you check, please rate the relative usefulness to you by checking "Very Useful," "Useful," or "Slightly Useful."

- |   |                                      |                                 |  |
|---|--------------------------------------|---------------------------------|--|
| <input type="checkbox"/> Data Sheet                                   | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Crane Count: Instructions in the Field       | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Site-location Map                            | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Landowner Information Sheet                  | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Other(s) (please specify on the line below): | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |

0= Not Checked, 1= Checked Very Useful, 2= Checked Useful, 3= Checked Slightly Useful, 4= Checked No Rating

11. Do you use the Crane Count section on ICF's website? Check one.

- Yes – if Yes, please complete questions #12, 13, & 14  
 No – if No, please indicate why, then move on to question #15.  
 Check all that apply.

- No internet access  
 Slow connection speed unable to handle ICF's website  
 Unable to locate Crane Count section of ICF's website  
 Other(s) (please specify): \_\_\_\_\_

0= Not Checked, 1= Checked

12. If you answered "Yes" to question 11, and use the Crane Count section on ICF's website, please indicate what you use it for. Check all that apply. For each item that you check, please rate how useful you find it by checking "Very Useful," "Useful," or "Slightly Useful."

- |  |                                      |                                 |  |
|--|--------------------------------------|---------------------------------|--|
| <input type="checkbox"/> To learn more about the Crane Count program                   | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To find out how to get in touch with my County Coordinator    | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To answer questions I have about participating in Crane Count | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To print out Crane Count forms                                | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To listen to crane calls                                      | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To learn more about cranes                                    | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To answer questions I have about cranes                       | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> To watch the Crane Count training video                       | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |
| <input type="checkbox"/> Other (please specify on the line below):                     | <input type="checkbox"/> Very Useful | <input type="checkbox"/> Useful | <input type="checkbox"/> Slightly Useful |

0= Not Checked, 1= Checked Very Useful, 2= Checked Useful, 3= Checked Slightly Useful, 4= Checked No Rating

13. If you have comments on what would make the Crane Count section of ICF's website more useful to you, please share them here:

Text, NA= No Answer

### General Information

14. What is your gender? Check one.

- Male  
 Female

0= Not Checked, 1= Male, 2= Female

15. What is your age? Check one. If you are 17 years of age or younger, please be sure to return the Informed Consent form signed by a parent or legal guardian with your questionnaire.

- 0-13 yrs  14-17 yrs  18-24 yrs  25-34 yrs  35-44 yrs  
 45-55 yrs  56-65 yrs  66 yrs or older

0= Not Checked, 1= 0-13yrs, 2= 14-17yrs, 3= 18-24yrs, 4= 25-34yrs, 5= 35-44yrs, 6= 45-55yrs, 7= 56-65yrs, 8= 66yrs or older

16. Are you currently attending school? Check one.

- Yes – if yes, please complete question #17  
 No – if no, please complete question #18

0= Not Checked, 1= Yes, 2= No

17. If you checked "Yes" for question 16, and are attending school, please indicate at what level you are attending. Check one.

- Elementary (K-5 grade)  
 Middle School (6-8 grade)  
 High School (9-12 grade)  
 College  
 Advanced degree

0= No Level Checked, 1= Elementary, 2= Middle School, 3= High School, 4= College, 5= Advanced Degree

18. If you checked "No" for question 16, and are not attending school, please indicate the highest level of education completed. Check one.

- High School  
 College (Associate or Bachelor's degree)  
 Master's degree  
 PhD

0= No Level Checked, 1= High School, 2= College, 3= Master's degree, 4= Ph.D

19. Are you a formal educator (classroom teacher)? Check one.

- Yes  
 No

0= Not Checked, 1= Yes, 2= No

If yes, please indicate which of the following would encourage incorporation of the Crane Count into your educational program. Check all that apply.

- Crane Count-related curriculum  
 Curriculum tied to academic standards  
 Real-life subject matter usable in the classroom  
 Multidisciplinary topics

0= Not Checked, 1= Checked

20. Please use the space below to make any additional comments concerning the Crane Count.

Text, NA= No Answer

**APPENDIX O:**  
**Coordinator Questionnaire Response Compilation**

Approximately how many times have you coordinated the Crane Count?	
1 time	10
2-5 times	21
6-10 times	19
11-15 times	4
16 times or more	18
Not checked	0
Total # Responses	72

Please estimate how many hours your coordinating duties take each year.	
Average Hours	20.21126761
Maximum Hours	100
Minimum Hours	1
Median Hours	15
Mode Hours	10

Why do you volunteer to coordinate the Crane Count?	As a contribution to a conservation organization	To introduce others to the natural world	To meet others with shared interests	To learn about cranes	To teach others about cranes	As a tradition	To improve understanding of crane populations	Other
Strong (1)	51	39	18	24	27	25	39	
Moderate (2)	14	15	21	22	24	21	16	
Weak (3)	0	2	6	3	2	3	2	
Checked, No rating (4)	1	1	0	1	1	0	0	
Total Checked	66	57	45	50	54	49	57	24
Not Checked (0)	6	15	27	22	18	23	15	48
Total # Responses	72	72	72	72	72	72	72	72

Contribution to conservation organization	To introduce others to the natural world	To meet others with shared interests	To learn about cranes	To teach others about cranes	As a tradition	To improve understanding of crane populations	Other
66	57	45	50	54	49	57	24

Which of the following would improve the coordination experience for you?	Access to historic Crane Count data	Printed materials about crane ecology	Online materials about crane ecology	Online data entry process for Coordinators	Online data entry process for participants	Youth-centered Crane Count materials	Redrawn Site location Maps	Knowing a Count site's history	A Crane Count brochure	Additional crane-related resources to share with participants	Other	Nothing more is needed to improve the experience	
Strong (1)	19	14	18	24	13	18	21	28	25	17		3	Checked (1)
Moderate(2)	19	19	14	14	9	10	7	15	13	13		69	Not Checked (0)
Weak (3)	4	4	2	3	6	4	7	3	3	3		72	Total Number of Responses
Checked, No rating (4)	1	0	0	0	0	0	0	0	1	1			
Total Checked	43	37	34	41	28	32	35	46	42	34		23	
Not Checked (0)	29	35	38	31	44	40	37	26	30	38		49	
Total # of Responses	72	72	72	72	72	72	72	72	72	72			

Access to historic Crane Count data	Printed materials about crane ecology	Online materials about crane ecology	Online data entry process for Coordinators	Online data entry process for participants	Youth-centered Crane Count materials	Redrawn Site location Maps	Knowing a Count site's history	A Crane Count brochure	Additional crane-related resources to share with participants	Other
43	37	34	41	28	32	35	46	42	34	23

Please indicate the type(s) of pre-Count training you offer to participants.	County training meeting	One-on-one meeting with participant	Through standard mail	"Virtual training" via ICF's website	Through email	Telephone	Other
Average Percentage	21.12676056	15.24637681	26.52173913	7.277777778	18.11111111	26.15492958	
Median Percentage	5	5	10	0	0	10	
Mode Percentage	0	0	0	0	0	0	
Maximum Percentage	100	100	100	100	95	100	
Minimum Percentage	0	0	0	0	0	0	
Not Indicated (0)	33	29	29	57	43	21	57

Which of the following components do you include in your participant training?	Show the Crane Count training video	Review "Instructions in the Field"	Review the Data Sheet	inform participants of available Crane Count resources on ICF's website	Allow for participant questions	Private land concerns and contacting landowners	Counter safety	Other
Checked (1)	57	55	59	39	62	44	34	15
Not Checked (0)	15	17	13	33	10	28	38	57
Total # Responses	72	72	72	72	72	72	72	72





	Identifying sandhill cranes by sight	Recognizing birds similar to sandhill cranes	Identifying sandhill cranes by sound	Identifying a sandhill crane unison call	Identifying a whooping crane by sight	Filling out a Crane Count Data Sheet	Accurately documenting number of sandhill cranes seen	Accurately documenting number of sandhill cranes heard	Accurately documenting number of sandhill crane pairs	Matching the actual site with the Site-location Map
Not Confident	1	1	0	0	6	0	1	0	0	1
Low Confidence	0	0	3	4	5	1	0	2	2	2
Confident	2	2	1	9	11	6	6	14	13	7
High Confidence	12	22	18	16	16	23	28	30	27	18
Very Confident	55	45	48	38	31	39	35	24	28	42
Not rated	2	2	2	3	3	3	2	2	2	2

How do you contact participants?	Standard Mail	Email	Phone	Other
Average Percentage	42.44927536	27.30985915	37.27536232	
Median Percentage	25	5	20	
Mode Percentage	0	0	0	
Maximum Percentage	100	100	100	
Minimum Percentage	0	0	0	
Not Indicated (0)	19	33	13	52

Do you actively seek new participants for your county?	Yes	No, All sites already taken by current participants	No, Requires more personal time than is available	No, Recruitment efforts have been unsuccessful in the past	Other(s)
Checked(1)	54	7	9	1	6
Not Checked (0)	18	65	63	71	66
Total # Responses	72	72	72	72	

If you answered "Yes" to question 11, and actively seek new participants for your county, please indicate the methods that you use.	Press release sent to local media	Crane Count poster	Other
Checked (1)	48	25	42
Not Checked (0)	24	47	30
Total # Responses	72	72	

What Crane Count materials do you use?	Data Sheet	Crane Count: Instructions in the Field	Site-location Map	Landowner Information Sheet	County Coordinator Instruction Handbook	Participant List	Summary Sheet	New Site Record Form	Coordinator Notes	Crane Count Training Video	Green Postcard	Other
Very Useful(1)	58	50	51	17	36	49	46	29	26	48	15	
Useful (2)	10	17	11	17	22	15	18	17	20	12	4	
Slightly Useful (3)	0	0	6	16	5	0	1	6	6	2	5	
Checked, No Rating (4)	2	0	1	0	0	1	1	0	0	0	2	
Total Checked	70	67	69	50	63	65	66	52	52	62	26	9
Not Checked(0)	2	5	3	22	9	7	6	20	20	10	46	63
Total # Responses	72	72	72	72	72	72	72	72	72	72	72	72

Data Sheet	Crane Count: Instructions in the Field	Site-location Map	Landowner Information Sheet	County Coordinator Instruction Handbook	Participant List	Summary Sheet	New Site Record Form	Coordinator Notes	Crane Count Training Video	Green Postcard	Other
70	67	69	50	63	65	66	52	52	62	26	9

Do you use the Crane Count section on ICF's Website?	Yes	No, No Internet access	No, Slow connection speed unable to handle ICF's website	No, Unable to locate Crane Count section of ICF's Website	Other
Checked (1)	37	6	7	3	17
Not Checked (0)	35	66	65	69	55
Total # Responses	72	72	72	72	

If you answered "Yes" to question 15, and use the Crane Count section on ICF's website, please indicate what you use it for.	To learn more about the Crane Count program	To find out how to get in touch with other County Coordinators	To answer questions I have about coordinating the Crane Count	To print out Crane Count forms	To listen to crane calls	To learn more about cranes	To answer questions I have about cranes	To answer questions participants have about cranes	To show the Crane Count training video	Other
Very Useful (1)	10	6	9	19	13	15	11	12	9	
Useful (2)	10	9	7	4	6	7	7	5	2	
Slightly Useful (3)	2	4	1	1	1	0	3	1	1	
Checked, Not Rating (4)	2	1	2	0	2	2	1	0	0	
Total Checked	24	20	19	24	22	24	22	18	12	
Not Checked (0)	48	52	53	48	50	48	50	54	60	70
Total # Responses	72	72	72	72	72	72	72	72	72	72

To learn more about the Crane Count program	To find out how to get in touch with other County Coordinators	To answer questions I have about coordinating the Crane Count	To print out Crane Count forms	To listen to crane calls	To learn more about cranes	To answer questions I have about cranes	To answer questions participants have about cranes	To show the Crane Count training video	Other
24	20	19	24	22	24	22	18	12	2

What is your gender?	
Male	27
Female	41
No Response	4
Total # Responses	72

What is your age?	
13-17 yrs	0
18-24 yrs	0
25-34 yrs	5
35-44 yrs	9
45-55 yrs	27
56-65 yrs	16
66 yrs or older	13
No Response	2
Total # Responses	72

**APPENDIX P:**  
**Participant Questionnaire Response Compilation**

Times participated in the Crane Count					
1 Time	2-5 Times	6-10 Times	11-15 Times	16 Times or more	
2	34	56	27	30	

How did you first learn of the Crane Count?												
Newspaper Article	Magazine Article	Radio Announcement	Television	Poster	Friend	Family Member	ICF Visit	ICF Website	Inappropriate Response	No Answer	Other	
29	0	1	1	4	55	5	2	1	8	2	41	

Are you currently a member of ICF?		
Yes (1)	No (2)	Not Checked (0)
28	117	4

Why do you participate in the Crane Count?	To see cranes	For a chance to see a whooping crane	To experience the natural world	For a shared experience with family	For a shared experience with friends	To meet others with shared interests	As a contribution to a conservation organization	To introduce others to the natural world	To learn about cranes	As a tradition	To improve understanding of crane populations	Other
Strong (1)	96	20	96	37	35	18	99	23	47	53	67	
Moderate(2)	25	17	20	17	27	29	21	21	29	29	33	
Weak (3)	8	24	3	24	14	12	1	13	13	10	8	
Checked, No rating (4)	0	0	0	0	0	0	1	0	1	1	0	
Total Checked	127	61	119	78	76	59	122	57	90	93	106	13
Not checked (0)	22	88	30	71	73	90	27	92	59	56	43	136

See cranes	See a whooping crane	Natural World	Family experience	Friends experience	Meet others	Contribution	Introduce others	Learn about cranes	Tradition	Improve understanding	Other
127	61	119	78	76	59	122	57	90	93	106	13



Which of the following best characterizes the group that you most frequently count with?						
	Alone	With Friends	With Family	As part of a class	As part of an organization	Other
Checked (1)	71	46	63	0	21	3
Not Checked (0)	78	103	86	149	128	146
Total	149	149	149	149	149	

indicate the type(s) of pre-Count training you experienced the last time you participated.								
	County training meeting	One-on-one meeting with County Coordinator	Through standard mail	"Virtual training" via ICF's website	Through email	Telephone	None	Other
Checked (1)	38	17	47	10	8	7	43	18
Not Checked (0)	111	132	102	139	141	142	106	131
Total	149	149	149	149	149	149	149	



Rating	Access to historic Crane Count data	Printed materials about crane ecology	Online materials about crane ecology	Online data entry process	Youth-centered Crane Count materials	Redrawn Site-location Maps	Site-location Maps available online	Knowing a Count site's history	A Crane Count brochure	Additional crane-related resources for County Coordinators to share	Other	Nothing more is needed to improve the experience
High (1)	23	17	18	21	11	18	23	37	15	10		Checked(1)
Moderate(2)	30	33	25	18	12	22	25	33	31	22		40
Weak(3)	16	12	10	23	23	15	17	8	10	12		Not Checked(0)
Checked, no rating(4)	0	0	1	2	0	0	0	1	1	2		109
Total Checked (1,2,3, or 4)	68	62	58	64	46	55	65	79	57	46	24	
Not Checked	81	87	91	85	103	94	84	70	92	103	125	Total
Total sum of responses (checked and unchecked)	149	149	149	149	149	149	149	149	149	149		149

Historic data access	Printed crane ecology materials	Online crane ecology materials	Online data entry	Youth-centered materials	Redrawn Site-location Maps	Site-location Maps online	Count site history	Crane Count brochure	Additional Coordinator resources	Other
68	62	58	64	46	55	65	79	57	46	24

What Crane Count materials do you use?					
	Data Sheet	Crane Count: Instructions in the Field	Site-location Map	Landowner Information Sheet	Other(s)
Very Useful(1)	87	48	58	21	
Useful(2)	40	47	51	15	
Slightly Useful(3)	2	6	3	13	
Checked, no rating(4)	6	4	4	1	
Total Checked	135	105	116	50	
Not Checked(0)	14	44	33	99	141
Total(Checked and Unchecked)	149	149	149	149	

477

Data Sheet	Instructions	Site-location Map	Landowner Information Sheet	Other(s)
135	105	116	50	8

Do you use the Crane Count Section on ICF's Website?					
	Yes	No, No internet access	No, Slow connection speed unable to handle ICF's website	No, Unable to locate Crane Count section of ICF's website	No, Other
Checked(1)	17	30	9	4	89
Not Checked(0)	132	119	140	145	60
Total (Checked and Not Checked)	149	149	149	149	

Yes	No	No, No internet access	No, Slow connection	No, Unable to locate	No, Other
17	132	30	9	4	89

If you answered "Yes" to question 11 and use the Crane Count section on ICF's website, please indicate what you use it									
	To learn more about the Crane Count program	To find out how to get in touch with my County Coordinator	To answer questions I have about participating in Crane Count	To print out Crane Count forms	To listen to Crane Calls	To learn more about cranes	To answer questions I have about cranes	To watch the Crane Count training video	Other
Very Useful(1)	3	0	1	3	8	6	3	3	
Useful(2)	6	1	5	2	6	4	4	3	
Slightly Useful(3)	0	3	1	1	0	1	0	0	
Checked, no rating(4)	0	0	0	0	0	0	0	0	
Total Checked (1,2,3, or 4)	9	4	7	6	14	11	7	6	0
Not checked(0)	140	145	142	143	135	138	142	143	149
Total(Checked and unchecked)	149	149	149	149	149	149	149	149	149

Learn more about Crane Count	Coordinator contact info	Answer questions (participate)	Print forms	Listen to Crane Calls	To learn (cranes)	Answer questions (cranes)	Training video	Other
9	4	7	6	14	11	7	6	0



What is your gender					
Male(1)	73	Male	Female	No Response	
Female(2)	63		73	63	13
Not Checked(0)	13				
Total(0,1,&2)	149				

What is your age?	
Years	
0-13	0
14-17	1
18-24	1
25-34	5
35-44	12
45-55	48
56-65	40
66 or older	41
No Response	1
Total number of responses, all ages	149

Are you currently attending school?	
Yes	3
No	142
No Response	4
Total # Responses	149

If you checked "Yes" for question 16, and are attending school, please indicate at what level you are attending.	
Elementary K-5 Grade	0
Middle School 6-8 Grade	0
High School 9-12 Grade	1
College	2
Advanced Degree	0
Not Checked (0)	148
Total # Responses	149

If you checked "No" for question 16, and are not attending school, please indicate the highest level of education completed.	
High School	30
College	69
Master's Degree	36
PhD	7
No Response/In School	7
Total # Responses	149

Are you a formal educator (classroom teacher)?	
Yes	14
No	116
Retired	14
No Response	5
Total # Responses	149

If yes, please indicate which of the following would encourage incorporation of the Crane Count into your educational program.	Crane Count-related curriculum	Curriculum tied to academic standards	Real-life subject matter usable in the classroom	Multidisciplinary topics
Checked	7	6	6	6
Not Checked	142	143	143	143
Total #responses	149	149	149	149

Crane Count-related curriculum	Curriculum tied to academic standards	Real-life subject matter usable in the classroom	Multidisciplinary topics
7	6	6	6



**APPENDIX Q:**  
**Focus Group Discussion Guide**

**Informed Consent to Participate in Crane Count Research  
County Coordinator Focus Group Discussion**

IF YOU ARE UNDER 18, PLEASE HAVE A PARENT OR LEGAL GUARDIAN SIGN THIS SHEET GIVING PERMISSION FOR YOU TO PARTICIPATE IN THIS DISCUSSION AND RESEARCH. PLEASE RETURN THE SIGNED SHEET.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from County Coordinators such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

As a part of this project, we would like to hear your insights and perspectives on the Annual Midwest Crane Count. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk to participating in this meeting.

**Safeguards:** The information gathered from this focus group discussion will remain anonymous. After transcription, the audio recording of this discussion will be deleted. Your name will not be associated with the data in any way. Participation in this discussion is completely voluntary.

**Benefits:** As a County Coordinator, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you, other County Coordinators, and future participants. Additionally, all participants involved in this meeting will receive a stipend of approximately \$100.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
Professor of Environmental Education  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-346-3764  
jpassine@uwsp.edu

If you have any concerns about participating in this study, please call or write:

Dr. Sandra Holmes, Chair  
Institutional Review Board for the Protection of Human Subjects  
Psychology Department  
University of Wisconsin-Stevens Point  
Stevens Point, WI 54481  
(715)-346-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

If you are a minor (17 years of age or younger) it is necessary to obtain the consent of your parent or legal guardian before you can participate in this discussion. Please have them review this document. If they consent to your participation, have them sign below.

**Parent or Legal Guardian:**

I have received a complete explanation of the study, and I agree that my child or legal dependent can participate.

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature of parent or legal guardian)

IF YOU ARE UNDER 18, PLEASE RETURN THIS FORM SIGNED BY A PARENT OR GUARDIAN.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.

**Informed Consent to Participate in Crane Count Research  
County Coordinator Focus Group Discussion**

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE READ THIS SIDE. IF YOU ARE UNDER 18, PLEASE USE THE REVERSE SIDE OF THIS PAGE.

Brian T. Barch, International Crane Foundation Education Research Associate and graduate student at the University of Wisconsin-Stevens Point is working to develop a Program Plan for the Annual Midwest Crane Count. A critical component of this Program Plan is input from County Coordinators such as yourself.

Partial support for this project is provided by a 2004-2005 Wisconsin Environmental Education Board grant (Grant #2004-0072).

Please take a few moments to fill out the enclosed questionnaire to provide your insights and perspectives. Information from this survey will be used in the Program Plan and to help improve the Crane Count. We thank you for volunteering your time for the Crane Count, and for helping us to make it even better in the future.

**Risk:** We do not believe there is any risk to participating in this discussion.

**Safeguards:** The information gathered from this focus group discussion will remain anonymous. After transcription, the audio recording of this discussion will be deleted. Your name will not be associated with the data in any way. Participation in this discussion is completely voluntary.

**Benefits:** As a County Coordinator, this is an opportunity to voice your views, impressions, and experiences with the Annual Midwest Crane Count. ICF staff will ultimately use this information in working to improve the Crane Count, benefiting you, other County Coordinators, and future participants. Additionally, all participants involved in this meeting will receive a stipend of approximately \$100.

**Questions:** If you have any questions about this study, please contact the project coordinators at UWSP:

Brian T. Barch  
Graduate Student  
College of Natural Resources, UWSP  
Stevens Point, WI 54481  
(715)-343-9548  
bbarch@uwsp.edu

Dr. Joseph Passineau  
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Stevens Point, WI 54481  
(715)-346-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

**I have received a complete explanation of the study, and I agree to participate.**

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature)

IF YOU ARE 18 YEARS OF AGE OR OVER, PLEASE RETAIN THIS PAGE FOR YOUR RECORDS.

This research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.

# Annual Midwest Crane Count: County Coordinator Focus Group Discussion Guide

## Focus Group Guide:

Moderator Name:

Date:

Location:

Time – Beginning: \_\_\_\_\_ End: \_\_\_\_\_

Duration: (hours & minutes)

Number present:

Names of those present:

Permission to record? Y/N

## Discussion Procedure Guide:

Introduction:

Welcome and thank you for coming. Each of you are involved in the success of the Annual Midwest Crane Count by being County Coordinators. By being here today, you are helping ICF to do the best possible job it can with the Crane Count – for other Coordinators, participants, and of course the cranes. We need your opinions and your feedback. I encourage you to talk a lot and share freely as there are no right or wrong answers to the questions we'll be discussing.

Participation in this discussion is completely voluntary. Please read over the provided Informed Consent Form, and sign it if you agree to participate in today's discussion.

## Focus Group Discussion Questions

First, please introduce yourself, and tell us how long you have been coordinating the Crane Count.

1. How long have you been Coordinating?
2. What makes you want to be a County Coordinator? Probe: What do you get out of the experience?
3. What do you believe are the most important things that the Crane Count accomplishes?
4. Tell us about the participants in your county. Probe: How many are there? Do most return year-after-year?
5. What ICF Crane Count materials do you use in your coordination work? Probe: How do these help you? How can these be improved? (Note: Printed materials will be on-hand for reference by the group.)
6. What ICF Crane Count materials do you not use? Probe: What about them makes them not useful? What improvements would make them useful to you?
7. What other resources would you like for your work as a Coordinator?
8. What training methods seem to work best in your county?
9. What do you think that participants find most useful in preparing for the Crane Count?
10. What would improve the coordinating experience for you? Probe: In what other ways could ICF help you?
11. Is there anything you would like to add or clarify?

Thank you for coming.

**APPENDIX R:**  
**Focus Group Discussion Transcript**

## Crane Count Focus Group Transcript (December 10, 2005)

- Introductions: First, please introduce yourself and tell us how long you have been coordinating the Crane Count.

W- couple of years

T – 3rd year

J – started in 80's as counter, took over

K – started in 80's, started in 70's

B – since 80's, assisting, after coord ret.

L – since mid 80's, current county, since about 7 yrs

The first time we ever counted we opened the door of the car quietly; and right there: cranes.

- Motivations: What makes you want to be a County Coordinator? What do you get out of the experience?

W – in 2003 I married a woman who lived in Horicon, WI and so I moved from IL up here and was at an estate sale in Beaver Dam in the middle of Beaver Dam and I looked overhead and there's these large birds flying over that I'd never seen before in my life and I've seen pictures of lesser sandhill cranes out in Nebraska but I've never seen a greater sandhill crane and about five of them flew over my head and I just about ducked and hit the dirt because I've never seen a bird like that and I wanted to make sure that those birds continue to fly over Beaver Dam, WI and the rest of the United States wherever they want to, as long as they want to.

T – I grew up in Milwaukee too and went to school for conservation and never really worked in the field so then when I moved up here we moved by the Necedah Wildlife Refuge and I got really interested in the cranes and started coming to the orientations but I never really got into volunteering until recently and just something I enjoy doing for the research and helping out.

J – Number one the cranes; I lived in Menomonie for a year, that was my first year in WI and I had not heard about them at that point but when I came down to this area I started teaching in this area back in the 70s, I had a chance to go to the original Crane Foundation over on the Sauvey Farm and ever since then I've been fascinated with not just the cranes but the growth of the organization.

K – I guess I have a lot of reasons. One was of course the cranes and when I started there were very few cranes in the state, there was still a very low population level and so it's a very important thing to start counting them and seeing how the changes have come about over the years. But once you start it's really hard to stop, you get really involved with the people so that would be the second reason is just going to the meetings and the post-meeting and seeing how excited everybody is and some of these people like you say they go from year to year to year and it's a tradition for them to be out there doing that whether it's that or the Christmas Bird Count or whether you're from a hunting tradition, it's that tradition. And it's something they can do for a couple of hours, and then too, I guess I have to say that I like to control the data, and if I turn it over to somebody else I'd worry about all the data. And I like to just know what's going on in my county, and if I wasn't coordinating, that probably wouldn't be true. And there's other reasons, and I'm a bird person too; just a bird junkie.

B – Well, I'm a birder too, and I think probably my reason's would be very close to K's, you know the crane research, at the beginning and the excited people, and then now, what keeps me going is, is sort of that cranes are just a real good ambassador bird for a number of things: the bird world, wetlands, and it's kind of having a one day thing and get people really excited about and it's just a great public education thing and I also think the long-term research is real important.

L – I would have a really hard time condensing all of the things I feel, but I'm going to give you a couple. I started because really don't have a "no" button to be pushed when it comes to trying to do things in environmental organizations. And I've been involved with the Crane Count and ICF now for a long time. And I would have to say that it is the single one of those organizations (and don't take this wrong WSO, because I haven't been involved with you very long, WSO, and I don't have any problems with WSO) the Crane Count and the Crane Foundation just seems to do it right as far as I'm concerned for involving people in environmental concerns. You always feel like you are contributing something, and that it's valued. And that you don't have to be a Ph.D. to be valued for what you do. And it's a great opportunity to expand peoples' knowledge and interest in all these issues and B's word 'ambassador' is the other thing that really, really matters to me. I think the Crane Foundation, and the Count, and the things that have grown out of the Count are some of the greatest diplomatic things that we do. I mean we really can get places and touch people in other parts of the world.

K – I think it really invests people in the cranes and the wetlands and everything else. Because what I find is the people counting, a lot of them don't have any connection with birds otherwise, or with the Crane Foundation or with anything else. They're coming from all walks of life, and all ages, and backgrounds.

L – Sometimes they just come for the breakfast.

K – But they do this for two hours, and they turn their data in and the rest of the year they're doing totally different things. It may be the only time of year they get outside and do bird-type things, and they know they're contributing.

T – It makes them realize what’s around them versus just going to work every day, seeing the city and the roads. And there’s more to it – there’s more out there.

L – But don’t you constantly, or at least occasionally hear from people that they’ve tried to volunteer in some type of organization; it doesn’t necessarily have to be an environmental organization, and they feel like they’re not used? They’re not valued for what they do? And I’m not really quite sure what it is, other than the ongoing, each year is a reminder that you’ve done this, you can do this, and then this is what we all did. We have these reminders and people. . .

J – Can I take this a step forward now, because this is one of my major concerns, because. . . What you’ve said is just beautiful, but I feel like we’re the connection now between ICF and these volunteers. I’m concerned that the ICF is not itself showing the value of these people. (Moderator: Could we hold off on that one a little while? I mean we will come back and address it. That is a very valid question and a valid point, but just as if you’ve looked at my little list of questions here because it’s transitioned. . . )

•Accomplishments of the Count: What do you believe are the most important things that the Crane Count accomplishes?

W – Raw data, for one.

T – I just think it gets people outside, gets them interested in something beyond their regular lives. Something that maybe they don’t focus on, seeing the cranes or seeing other animals in every day life. Makes them worried, concerned about them more so than normal.

J – I think its really an important indication of habitat change because that’s what I hear the most, ok, where the developments are coming in, how that’s affecting the crane population from year to year, and people are aware of that – at least the counters are. And extrapolate from that. . . environmental changes.

K – I don’t know if I could add to that. It is the data. The long-term data is always important, because we still don’t know everything. What happens when the population gets bigger? Obviously it’s moving into the other states, but we don’t really know. We thought we knew a lot at the beginning, didn’t we J?

J – Yup.

K – We thought that a pair of cranes needed a very large wetland, all to themselves, and as the population grew pretty soon they were numerous pairs on each marsh, or the bigger ones, anyway. And they’re moving into smaller and smaller pieces. They’ve been in downtown Lake Mills for twenty years. They’ve got a marsh that’s five acres. It was one of our two mandatory sites in the early years. It’s like well, who’s going to take that one? We’ll never have cranes there but we’ve got to do it. There are cranes there.

J – And it is probably one of the biggest public relations events for the Crane Foundation for that period of time. That, and the whoopers. Seems like those are the two times of year you see something either in the paper, or local papers, or local media.

B – Well, it’s just a great, even more specific to introducing people to other habitats and specifically wetlands. I mean wetlands are really kind of a yucky place to go to in the middle of summer because there are mosquitoes, you just aren’t going to get people there, but April – even though it’s a little cold some mornings, there a whole lot happening there, and it’s observable, the trees aren’t leafed out and there’s so much to see. The counters come back and they’re full of questions. What was it that they heard and saw. To me, the excitement of the people is part of the importance.

K – What’s most important is to get people really enthusiastic and they keep coming back and they keep being really enthusiastic. To get them to realize that they can go out at that early hour. Remember when we used to go out before they changed the time? It used to be we’d start at 3:30 to get to our sites by 4:30, in the early years. For people to realize that, and we always tell them, we always emphasize that they have to go no matter what the weather. Because the cranes are out there. They aren’t inside, they’re out there, you have to go. Then, when they get up at that early hour, they realize that, maybe they won’t do it the rest of the year, but they know that it’s something special to be out there at dawn.

B – I tell them they don’t have to get out of the car.

K – Oh we don’t tell them that.

B – I do this. Seriously. After what year was it? We had terrible rainstorms, and there was a guy who was next to a pine tree that got hit by lightning and the top of it burned. Ok, if it’s really bad and there’s lightning, get in the car!

•Participants: Tell us about the participants in your county. How many are there? Do they return year after year?

W – My participants range from world-class birders to research scientists to homemakers and farmers. There’s a huge gamut of interest in these birds and it shows by the range of people that we get to count them. I’ve had people who second

by second document their count and hand that in in triplicate to you. Every bird, every animal, every plant that he sees. And then I have it handed in to me on a paper towel – I saw three birds. It's something that. . . yes, we have these birders and have the scientists and scientifically-minded people, but we also have people who just have this emotional tie without the science involved in it and we have people who have just a curiosity also. And if I could, could I read a letter that I send out to the 4-H group leaders:

"To our Dodge County 4-H leaders: We would like to take this opportunity to invite your club on a scientific mission. This mission, should you accept it, will you're your members into wild country with wild animals. Actually, the wild part of the Crane Count is the early morning hours. We are inviting you to have lots of fun counting cranes from 5:30 to 7:30 am on Saturday, April 16th. If you would like to join us on this citizen science mission, we would appreciate it. Dodge County has a lot of sandhill cranes, and a lot of uncounted sites for this annual event. In order to be crane counters, the volunteers are required to watch a short video about crane identification and behavior observation. It's really easy to watch, and count, sandhill cranes. Interested crane counters will be assigned a site in Dodge County, and given the proper forms to fill out during the Count. Won't you please join us for this important and enjoyable weekend mission? If you want to be a crane counter, contact at the address, phone number, and email address below. The cranes are counting on you."

We try to get people interested in any of a wide variety of ways. By tying it to mission impossible, a television thing that people will recognize, saying it's a scientific mission and saying that the cranes have a. . . that this is important and then using very emotional ties to the cranes to do that. If I can improve this letter I would be glad to hear some of your suggestions on it.

J – What results did you get?

W – We got 4-H leaders, about five of them, and they send out five different crews.

T – I have a lot of veteran counters, like 90% of them are veterans and I just don't have the enthusiasm everyone's talking about. It's just kind of a thing they do every year and they're dedicated to do it, but I think I need the new people, try and get some new people and get something going there. And that's what I need help with, is getting the enthusiasm out there on it. I just don't have that in my county.

K – It's getting harder, because the veterans are either moving away or . . . they're passing on, or they're too old to count. Great letter.

All – requests for copy of letter.

J – That (the letter) would be something that could be included in our sample packets, as an example of what can be done.

K – Yeah. Because it could go to 4-H, or it could go to biology classes, boy-scouts. . .

L – Involving young people is one place that I'm intending to bear down on this year. I have a lot of counters that are well-established. I started with twelve, and now I have about fifty.

K – Have your sites increased also?

L – Yes, and that's partly because I've worked hard on that. I live, as you know, sort of up north, and it's been very interesting to me that each year we see more, but somewhat dependent on the season, of course, but we see more birds in the northern part of the county. Nobody ever wanted to count up there, because they wouldn't see the cranes. But the sites are expanding northward all the time and on into Barron. I really have in the western part of the county the hilly part of the county we have tons of wetlands. And just last year, we all know the excitement, with somebody who has gone out there year after year after year, dedicated, "I wanna see cranes, I wanna see cranes near my house" and I got back like a pamphlet of information, "We saw cranes!"

K – I like the letter, because that's maybe a little different new way to recruit people. We still always get a few new people in Jefferson county, and I think it's just because of our publicity – the press release that goes in the papers, mostly. It used to be easier for me to recruit because I worked at the library downtown, and anybody who checked anything out that had anything to do with birds, nature, anything that was even remotely close, I'd say, "Say – would you like to count cranes?" And I got most of my counters that way actually. And then C, who co-coordinates with me, we couldn't do it with one person in Jefferson, he worked at biology, he was a biology and ag teacher and would get his students involved in school. And he's still getting his neighbors involved, but he's retired. So we don't have that one-on-one anymore. And I don't belong to anything really in Jefferson, so I'm looking for different new ways to do recruitment. We've lost numbers over the years, we know that, and we know we have to try harder, but it takes time. I'm just not there to do that one-on-one. But that was very effective. And sometimes people did it only one year. I took two of my neighbors out in the canoe at some ungodly hour when it was dark and you couldn't even see the water but they had fun doing it once, but they weren't about to do it again. But actually Joe got them to go, because he didn't want to go with me, so he talked them into it.



L – You just brought up another factor and that’s the weather. I mean the weather has so much to do with whether or not a new counter is going to continue or not.

B – My youngest counter is probably a seventh grader right now, and the oldest is 91. And most of them, probably 80% are veterans, and keep coming back. And also, one of the counters is one of the fifth grade teachers in town and he was my son’s fifth grade teacher and I did some wetland work with him and the kids when my son was there. So he now, every year, offers extra credit to his fifth graders who will come to the meeting, but he doesn’t require them to count. But some of those then are, not every year, but every now and then I’ll get one who will show up with a parent to actually count on the morning. So that’s getting the kids at least educated and seeing the video, and see what we do. And then we also have a two-year UW campus in town and one of the instructors also offers extra credit to his biology students if they will help count. So some years I’ll have two or three young ones coming out and that’s always nice to have a little of that perspective. One of the young women made the best map I’ve ever seen. I think that publicity does help. We don’t have a lot of wetland in Richland County so I’m dealing with a smaller group. But it’s amazing how many more cranes continue to show up. I really don’t think we’ve got them all.

L – Can I add one more thing? And this is, I’ve always wondered, should I bring this up, or shouldn’t I? Because it’s one of those kind of things, could be personally touchy to somebody things. I’m a field artist, I’ll put it that way. Anyway, I make my own crane poster, and I post it here and there. And I always get people coming to the meeting because they’ve seen the poster. Last year, I was away ten days right before the time that the meeting was going to be held. And I was really busy getting ready and everything and so I used the announcement poster that comes out from the Foundation. And I posted it in all the same places including at our local food co-op where I always pick up a couple people at least. And I had a long-time counter, the one that finally saw a crane last year, and it was close to right down the middle when you come in, and this is ICF’s poster. And I held the meeting, and I didn’t get a soul at my meeting. And I thought it was maybe the weather or something, but then, my long-time counter, who works at the food co-op, called me up and said, “When are you having the meeting and when is the Crane Count, because there was no poster this year?” And I looked at the poster and I thought, boy, this really doesn’t show up very well. And it’s confusing, it looks like the crane count is on the date of the meeting. It’s kind of cute, but there’s too much information on it, and blah blah blah. So I think if you’re going to send out an announcement poster to use, count-wide, to coordinators, it probably needs to be updated and you know, people who do those sorts of things don’t like to hear that.

J – You’re not the only one! I’ve complained.

L – Well, as an artist, I don’t want to hear that my thing is. . .

K – Well, what does yours look like?

L – It has a flying crane up here, it has a standing crane here, they’re very simple line drawings, not an outline drawing, but a little line drawing. And I usually do them on colored stock, you know, bright paper. And the information varies, but to announce the meeting. It’s just like doing signage for a nature center, which I do. And so I’ve had to have a lot of training. You have to, you figure, that people give it six seconds max. And it has to be readable by a fourth grader or a fifth grader. And beyond that, you can have something else, but it’s got to be, for the dedicated, for the person like me that reads cereal boxes and prefaces. . .

K – You too?

L – Yeah, everything, everything. . . page numbers. So, something maybe. . . something that. . . I don’t do it big. I just do it so that it goes through the printer.

J – So it’s the same page size as the others?

L – Yup. But it’s bright. I kind of used that same crane coronet. I do a lot of Christmas notes that I send, “Hey – breakfast is at so and so’s this year.”

J – We’ve had to ask for the last two years, I think, for them.

Moderator – It’s been by request lately.

J – And they’ve been on the website.

K – We found they didn’t, they were a lot of work to put them up all around the county so we kind of gave up. . .

Moderator – for a while we used to have the “send everything back every year” and so it ended up costing tons of postage both ways and we just ended up with these piles and piles of posters.

J – You gave the reason why.

Moderator – Most people don't use them.

L – You knew that.

J – Yeah. And I complained too. I thought, I put them up, you can't see them, I like to at least put a couple up around the different towns, just to announce that it's happening.

L – I just remembered another thing I do that you probably at least some if not all do. If you have a Sierra Club checker that puts, or a watershed group or something that puts out a newsletter I announce it in that.

K – Yeah.

L – They like to have stuff to put in.

K – You have to do that real early though because some of the deadlines are very early. Supposedly the Crane Foundation was going to take that over because it had to be at an earlier time.

L – In some cases, but not all, they call me.

K – But kind of a generic. . . I think I filled it in and then photocopied it (Press Release) and then I didn't have to rewrite it. So one would be good. And that worked. The press release worked. And if it comes from me, they're more likely to print it, I think, than if it comes from ICF.

K – Poster: And it should always say Saturday, April 17, because I just got a notice, a public hearing notice, from the utility company and it had Wednesday the 15th, which is wrong. It's Wednesday the 14th. But then I knew that it was – it's always good to have the day and the date though, and then you can check.

L – What is the date this year?

K – I looked it up and found it on your website, but it's really hard to find it. The 22nd, after Easter. It's set for the next five years or so.

J – And it's in the packet.

K – It's in there somewhere. It's under Coordinator Notes.

T – Are you willing to let other people use your poster?

L – Oh yeah, but. . . I'm not Rembrandt.

K – Maybe we could have a contest of our people that count for us and they can do a drawing that they turn in at the Crane Count and then we'll use theirs for the next poster. The next year. I've had some great artwork come in.

L – Anything like that, it hooks people in.

K – I've got a couple of really good ones. Somebody gave me a carving out of a stick. It was a little stick, it had a leg, it was a flying crane.

L – The thing you want to be careful of is to keep it very graphic and very simple.

K – Well, you would just ask for a drawing or something – a crane, or a photo, I suppose. A photo. And they wouldn't do the whole poster, you would work that around the image. And you could always put your own image on.

Moderator – Yeah, I mean there's. . . We can provide stuff. It's not to say that it'll be the best or the most useful and it might just work better to make your own.

L – But some people don't feel comfortable doing that. So maybe we could make a point that people could share from other areas on the internet or something.

K – Even on a statewide basis instead of just in a county that would probably be better.

J – I do like the poster, just to put in a few spots. But my big complaint was that it just blended in.

L – Too much stuff on it.

J – Right. It needs to be brightly colored, and. . . I couldn't put my finger on it.

L – There’s a whole profession of figuring out how to make posters.

J – Because the 2005 one was terrible.

T – I agree, because I hung it in gas stations, I hung it in restaurants, and I got no one from any of those places. I’ve got to find better places to hang it.

J – Because I’m like her, I like the libraries, libraries are good, because that’s going to capture people. And so, I don’t think you need to put a lot out.

B – You’re in what county?

T – Juneau.

Moderator – That’s interesting. You have Necedah too.

T – Yeah, and I emailed people there, working there, and no one responded to do it.

J – Do others use them (posters)? Do you know how many requests? Because I know you have to request.

Moderator: That’s something that we could. . . I don’t have the information handy, but someone like Alyssa could look up the requests and see how many. On the questionnaire, I think there is a little question that says well what stuff do you use that you can check off and say that this is very useful and might have a comment that said it would be very useful if it actually looked nice or what have you.

J – And it’s something the Coordinators can request.

K – And if it’s on the website, even as a pdf or something you could run one off, and you don’t even have to use posterboard stock, you can use just paper, and run it off on any color you want, and it wouldn’t be that costly.

W – It keeps the trees from screaming.

K – But that works pretty well to do it. It’s the easiest quickest way.

Moderator – Some of you may be familiar with this. It’s the landowner information sheet. This was another thing where we had piles coming back. Do any of you still use this?

J – Very few. Some.

L – I use it occasionally, but I only use it in connection with one-on-one. I don’t routinely give it or send it to people.

J – Yeah, because most people sit out in the road, and they never contact the landowners.

L – In our county, with such enormous numbers of the sites are public land. In my township, 45% of them.

K – We have them available. You know, people are reading less and less.

W – I pass them out at the training session, with piles of everything.

L – I think you need to be careful to try to make people understand verbally, verbally you need to bear down on the fact that if they’re going to go tromping around on private lands that not only because it’s good PR for the Count but it’s good birding. And it’s safe, safer if you know what’s going on because lots of times it coincides with turkey hunting and stuff.

T – And this might be a dumb question but, is this what you give the landowner? Like someone would hand the landowner?

K – And it’s good to have a piece of paper when you go and do that too (contact a landowner).

L – Do you think that that might be something that would be useful to consider revising to a smaller amount of information?

K – The question and answer I think is good. It’s the part about wetlands, you know it’s got a lot of words that could be split up into headings or something.

T – What if it’s a large parcel of land and its private property but you don’t know who. . . how do you contact the landowner?

Like it doesn't really matter if there's no one there anyway?

K & J – A plat book.

J – The coordinator needs a plat book.

K – Yeah, some of them are absentee landowners though, some of the farmland.

Moderator – This was something we introduced a couple of years ago – the County Coordinator Instruction Handbook. Do you find this at all useful?

L – Oh yeah, I do.

B – I use it, but I've been doing it so long that some things are sort of automatic, but I flip through it to make sure I'm getting everything. I get all my ducks in a row and I'm doing it right.

K – Yeah. Same here.

B – I think it's good information.

L – I have one thing, I don't know if you want it now or later. But some of the instructions in there have to either be changed or. . . there are few instructions for us and like, for the data sheets, that are conflicting. Filling them out. I don't know if you want to talk about that now or later.

J – The biggest problem. . . the Summary Sheet. Ok, because I brought this up this year and last year and K just made reference to it in last year's. . . That my numbers of observers have been very very inflated. And that's due to how the results are tabulated. According to this, last year Columbia County had 209 observers. I tell you, I wish I had 209 observers. My observers usually run maximum if I'm lucky 150. That's because I was told because I have a large number of sites in my county I have a lot of people that do two to five sites. And so my question was how to count the observers? And in the instructions it says you only count your observer once. Well, then when I looked at these results, I said well, wait a minute. These were not counted once – they were counted for every site, as if they were a new set of observers. And when I discussed that this year, I was told again to count them as if they were a new set of observers for every site they did. So, as a result. . .

K – Do you have small sites?

J – I have all kinds of sites. Columbia County is one of the higher crane areas again. So this is something that needs to be taken care of, because. . .

L – I thought you were just supposed to count them once.

J – It's what the instructions here are.

Moderator – That's the way it's supposed to be.

J – And then when I got this (the results) in the mail last year I'm going wait a minute, those were not my numbers. And that's why I found that they had been changed, so that every observer had been counted. . .

L – And you checked on that and said they were doing every observer.

J – Yeah. And that's the way I was to do it this year.

K – See this, on mine, I made my own, always being cranky, anyway, like 32, I just put a dash here under observers as they also did 31. And they never added them in.

J – That's weird, because my calculations were like what you did, and I put little notes, "also did." But I never put dashes.

K – I put dashes, so that when you add them up it should come out right.

J – So what was interesting, you know, what you always get back the copy that they have checked and mine had two different people who had initialed it with two different numbers – the higher number and the lower number. And the higher number is what appeared in the results.

K – See and in this one, this person did five sites, because it was easy to do that, at that site. And so I just put a note here so he only got counted once.

Moderator – The way it's supposed to work, and the way it does work, can be two different things. Each person, you are correct, should be counted once. So that it should be like, ok, I counted five sites, but I'm only one observer. I think part of it, and I can't speak from personal experience within the past year and a half, might be a database management issue. Sometimes what happens in the process if you do a query, in the database incorrectly, instead of getting observers, you get observations. So it counts each person once, whereas it's supposed to be counting how many people.

J – I came in here and did my data right here this year, because of that. And I was told once again to count every observation versus observer.

Moderator – Well, I can pass it along.

K – Yeah, because otherwise you're inflating. That's really inflated. But mine has almost always come out right. There were a couple of problems last year.

W – I don't know of anybody that's counting two sites, because that's why I tell them, be at one site.

K – Sometimes I'm counting more than one site because I always wait until the last minute.

L – Yeah.

K – The day before, and then I pick a site, because I always have extras. And then sometimes I'm at one site, counting that, but I can hear cranes on two or three sites around me and I always add those into the data, because I know there's no one out there. I don't have anybody assigned out there, so I often have observations from those sites. And there's a couple of other people who traditionally live between sites and on two or whatever. So it's ideal to have them count one site.

W – Yeah.

K – But sometimes they'll tell me that they hear cranes off to the west, and there's a whole bunch of them. . . and I say fine, and I count it as a counted site. . . but if there's somebody on it. . .

J – Within that period of time, people can drive a mile to another site.

T – Aren't you missing what's going on in your site then?

J – No, they'll do. . . Because the activity is different on different sites,

K – Yeah, they would be somewhat. . . but some sites are so complex, because we do square miles that it would be really hard to stay, to see the whole area from one point. So some of them move from point to point. Or they have their brother over on the other side. But they use their walkie talkies, once somebody did that.

Moderator -- And there's some sites that are several square miles as well so there's significant variation.

K – Some traditional ones are bigger than they should be.

J – And people who count for years and years and years, they already know who's on their site. Actually, they already know the number of pairs. So that once they'll listen, and they're done in fifteen, twenty minutes. It's not uniform, no.

Moderator – I've got a bunch of other stuff here. Database management and getting things correct is an ongoing process. Hopefully it will improve. We'll do our best and see where it goes.

J – That is a major issue.

K – Yeah. That shouldn't be happening.

Moderator – My experience with the database is that it was done in some other programs throughout the 80s and 90s, and then around 1997, 8, or 9 it was put into Microsoft Access and then I think in about 2000 or 2001 we tried to tie participants to the sites so that we could say that, J and K, you counted together sites number 3,4, and 5 and so you could look up J and say the year 2004 J counted sites 3,4, and 5 and it would come up that way. I'm not very qualified in managing databases, I didn't put it together, and our GIS guy did a lot of the work for that, but it may need another look just to refine and take care of some of those major glitches like that. With these other materials, whether it's data sheets, or participants lists, or the instructions, the video, which probably could use another update, coordinator notes, any of these, is there anything that you particularly don't like or that you really do like or things that would improve them?

J – What is the status of the map?

Moderator – The map – the big giant map?

J – No, the little blue maps that the observers used to have to draw. Site-maps. What is the status of the maps?

Moderator – That one we said you can draw on a separate sheet of paper, and depending on the county it's a useful tool for some counters to go through and say "I had a crane here, flew over here" and keep track of it. But we found the vast majority of counters did not make maps. There was just a large open spot that would come back. And some had, I've seen some counties that would have their maps separate and they were printed out from GIS software on a computer and all fancy and others were little hand-drawn maps used year after year with different notes. So there's no one set status. Some counties use the map, other counties don't use the map.

J – Now, you used to collect the maps, so you're not doing that any more.

K – You're not? I thought you were.

Moderator – That map. . . it's not useful to us, really. We might use it once in a while to check some of the observations, if they had made one. Really what it's most useful for is the participants out there.

K – It's useful to me.

L – Coordinators. The one thing, the general thing that I found or would have found it useful for is a little bit esoteric. I have a number of lost sites from a period of time when things weren't handled real. . . it's like, you know, I want to do the data, keep track. And part of that is because there's these lost sites and there is an ongoing problem about a couple of places that we don't know what to number them. I mean we don't know what they are. We know they were counted in the past with a different number. I came, I spent a whole day with Alyssa going through. And one of the ways that we found four lost sites was looking at sheets that came back in and hand-drawn maps, because then I could figure it out from the roads and the whatever. But that's a little specific.

K – It used to be a problem, because they'd go out, and they'd be on the wrong sites. Not much any more.

J – Yeah, I had that happen in Columbia County.

K – It used to be pretty common in the early years.

Moderator – Would you like the hand-drawn site maps, would you like that officially reinstated as a "you must do this as a part of the process"?

K – Yeah, I think it's good for a number of reasons. One is for the ICF to have it as just good information. It adds to the data. So you know more about what's going on at that site. Because there could be a lot going on on some of the sites. It's useful to us as the coordinators, it helps me a lot, and I like to see some of those maps. And I think it's getting easier for some of the counters; we're suggesting that they pull the aerial maps, the aerial photos, or other things off the websites. And so they have it when they go out there. And it's easier for the counters, if they have that ahead of time, their map, that they can just draw right on it where they're seeing cranes or hearing cranes. If you're in one spot, that's one thing. But a lot of us like to go out and walk the site, and so you're in totally different places and it's real hard, you almost have to triangulate to figure out how many cranes you have. But I think it's good for people too, to map their site or to put the wetlands on there; it gets them involved more.

B – Although some people are real uncomfortable with drawing a map.

K – Right.

B – And some of them are terrible, some of them are wonderful.

K – And that's fine, you're never going to get those people to do more than a line here, but some of them have done these wonderful maps for me and then I photocopy all the best ones. I have my file of really good maps from the different sites. Which then, I could, if I need to, photocopy for the next crane counter if it changes. I don't usually do that. I want them to make a new map each year.

L – But it is helpful to let the new counters at least know where to go.

K – Or have it available at the meeting so they could look and see, where to observe, where to park the car, where to do all kinds of different things.

T – I think it would be helpful just because I'm new and I don't really know a lot of my sites and I don't really know if it's wetlands, if it's agriculture, if it's changed, if it's become a subdivision. I don't want to send people either. That's the problem I have. I don't know if the site's even good any more. So I don't know if I should be going out and looking at these sites before I send someone there.

J – I still use a lot of the old, old maps. I pull those out. And also in trying to get counters to some of these old sites.

L – Yeah, yeah. That then especially is important in Dunn County for a little bit because we are under horrendous development pressure from the Twin Cities. And one of the great sites is now underneath and interchange, you know?

T – Everything's for sale in Juneau County, it seems like. Like I don't want to send someone there, and it's a house or a building or something. And I just don't know how.

B – Do you have a meeting? A pre-Count meeting? So maybe you need to really emphasize that people go looking at a time, check their site out, so that you have a chance to give them a different site if it's not there any more. You shouldn't have to do all this yourself, because that's a lot of work!

T – But I just feel as a coordinator that I shouldn't send them somewhere where it's no good anymore.

L – You live up in Necedah?

T – Mmm hmm.

L – You know, one of the reasons I came down here is that I have family outside of Mauston. And they see cranes and I'll bully some people and get you some new counters.

B – Question about the summary sheet – are we going to talk more about it?

K – Ok, but is this new? Crane Count Instructions? December 2003? I don't remember seeing this.

Moderator – That's on the back of the Site-location Map.

K – Oh, which I don't get, so that's why I haven't seen it.

J – That was my main problem, if anybody has other questions. . . the summary sheet.

T – My big map is falling apart.

L – If anybody does that, requests a new DOT map, based on my own experience, what I would do is take the trouble to photocopy, even in sections the old one before you send it off and ask for a new one because some sites got lost on the new map.

K – See, when I do my data, I always try to first go through and fill in all the blanks that the counters didn't fill in, including the date. So that later, when somebody's using it twenty years later, hopefully it will be right. Or at least you'll be able to track it because sometimes, I think at one time the data sheets didn't include the year, or the county, or the weather or something that I thought was important. So I filled it all in.

L – I think that's an important thing that the coordinators need to do.

K – To think long-term.

L – It's go through, and make sure all of that is filled in.

K – Well I get all the way through and I start going through and doing something else and I realize that I've missed several, even though I was trying to be careful.

W – I don't want to reinvent the wheel or anything like that, but something to look to in the future is to redesign the whole Count, from the database to the actual site-maps and stuff like that. We're having these glitches and stuff like that, and if we follow some of the other counts like the Christmas Bird Count or something like that, they can make it a little bit easier on the counters. You can look out your window and count Christmas birds now, and you can put it on the internet. And you'll get the results immediately. It's something that, I don't know if they want to go in that direction, but obviously that direction is there.

B – Are you talking about online data?

W – Yeah.

K – Putting your data in online.

L – You know that when I answered that question on the County Coordinator's Questionnaire, I'm the person that said

"Please god no." Because a lot of my counters are, this is the way I put it: a great percentage of my counters are professionals and/or educators who firmly believe their observational skills are much better than their data sheets would indicate. I spend a lot of time calling people back up, or fixing their goofs, that I know I can fix. I mean you don't tinker with data, but. . .

B – People still don't read the directions.

L – No, they don't.

K – No, but I think I think we should too make it as strong a count as possible so that people that do want to give enough data that is worthwhile. The more research-oriented people can do that. You want to make it easy to do, but not simplify it so much that you're not getting something that's worthwhile also.

L – Maybe if they were doing it on the internet it should come through the coordinator before it goes on.

K – That's probably the coming thing, is to do it online somehow.

L – I think the Dunn County count would be so warped.

Moderator – Yeah, there's definitely considerations in saying well, participant direct data entry is one thing, if you as a coordinator entered their data in that would be a different thing. What would work, what wouldn't, I know, for a smaller county coordinator entering a few sites worth of data would be pretty simple, but say if you're in Marquette County that has 150, 200 people, that's a lot of. . .

K – I don't have time to do that. I don't think it would be easier for me to do it that way than to do it on a sheet of paper.

L – Oh, you're talking about having the coordinators enter the data, not. . . see I have people who ask if they can't just send it in electronically. And when I said to have it come through the coordinator, it might work if they wanted to fill it in electronically, send it to me, and then I could like fill in their name, and stuff if necessary.

K – See, they really need to fill in that form in the field. That's really important and so I'm not sure how they could do it online except for the end numbers. Because they need to fill that in and do their mapping in the field.

B – That's why I like the breakfast. I get people together. I go around and look at everybody's sheet, and I get the people together who are next to each other, and they agree right then and there whether or not this pair was the same pair now. And they talk about what they saw. So that eliminates my having to second guess well. . . let's see, do you suppose that was the same pair? And sometimes it's just so odd because what's on their map, I can't put it together. Well, if they talk about it, they can sometimes figure that out. And that's why I like the breakfast, because I can drag that. And at that point I'm also scanning their sheets to see what they forgot. It's hard to do because the all have these excited stories they want to talk to you about.

K – I can't do both. I can't do both.

B – But I think that can eliminate some of the work for you if you can.

J – The majority of mine are sent in, so. . .

B – My husband wrote a database in Access, so that I don't have to keep writing things over and over again. So I'm entering it into, and it adds it up for me, and it spits out a report. He designed a report form so it would look like the report form of the Crane Foundation. I'd like to eventually just send that in. It seems like that wouldn't be that hard to do electronically rather than you having then to add. If we had a. . . you know what I mean?

Moderator – Yeah, just send that, or a database file or something like that. I know one of the things you undoubtedly have some issue with as I do is why is it December and we still haven't gotten the results? And the answer is that when you have 3,000 peoples' names you're typing in, along with each and every site that they've counted. . .

K – See, that's what. . . I don't understand why ICF, at least for my county, is typing those names over again. Now, has that been taken care of? Do you know this past year? Because I have it in Excel now?

Moderator – That I don't know.

K – Because I had them all typed anyway, and I didn't see any reason for redoing this because I've already doublechecked it. And it was like a duplication of effort.

Moderator – I don't honestly know. The only thing I can say is that if it wasn't done it might just be a formatting and program issue where the way we type it in is each individual is associated with each site in these little access forms so in this



little box over here you put in what sites they counted and what county and what numbers.

K – Yeah, I use yours, ICF's this time, because I got it directly and then I transferred mine that I didn't have that way into this. So maybe that took care of that problem. But I didn't see any reason why. . .

Moderator – It may just be program compatibility issues and saying well if we do it this way, and this is done this way, they don't. . .

K – Because they weren't doing it right.

L – Because the last time you did it (ICF) which may have been like three years ago, it was so bizarre. People were in there in triplicate, and other people that had been dead for ten years were on there, and nobody new was on there.

K – It was terrible.

L – And I thought holy cow.

Moderator – That's one of the things I know we'd like to do is more database management and getting a lot of that taken care of and I think one challenge – L, you have mentioned you always get the ones with the most illegible handwriting, is that when you sit down to do the data entry, you have to look at the name and try and figure out what it says. And we have a search query where we put in the last name, but if you can't read it, you can't find it.

K – And that's fine, I've already done that. And I know these people and I've looked at their addresses if they didn't include it in the Jefferson County phone book. And it should come out right. And "Chunk," I have one observer named "Chunk," not "Chuck," "Chunk." And they keep trying to change it, you know?

B – I find that human impact on site area is problematic because a lot of people either ignore it or they don't fill it in. . . maybe that's ignoring it, but they think the area is not affected by agriculture or development when it is. So I think they don't know what that means. Does it mean ever, or since last year, or. . .

K – And how is it affected. . .

B – And so I think we need a little bit of help on that in terms of how to train people.

L – I wasn't thinking of it in terms of "ever." Like recent. Documenting changes.

T – Wouldn't it be current because it's filled out every year?

K – Well I did have once a really good wetland site and it got drained and farmed. That was a clear example of agriculture affecting the wetland – those cranes aren't there anymore. It was drained to that extent and it used to be a beautiful site. They were really upset about that when it happened. So that was, I think, the intent of that.

B – I think of it as more general. One of my sites has got a beautiful place and they're farming right up to the very edge. That's affected by agriculture where those people are putting pesticides on their corn and it drains right in there. To me, it's not a pristine site. I don't know. We need to kind of define things.

J – Because I know years ago, the question was asked, was why was that needed, and whoever was doing it at the time felt that those questions were very important that they were looked at. Because we often wondered what was looked at on these papers.

W – The Horicon Marsh was once an onion farm you know.

K – Used to be a lake. To look more closely at your site I think too was part of this, to really look at that site. And to get people to understand change.

T – If the numbers add up you can look back and say it used to be this, or it used to be that. Then you would know.

W – The farmers who are counters have little thin skins and they kind of might take that a little personal. "I'm a farmer, I'm bad," you know?

L – Sometimes those changes are positive. Like where I live in the hills, in the valleys, across the bluff, three years ago they restored a marsh at the bottom of a coulee draining, and I have cranes flying overhead now that live over there.

B – Yeah, some of the farmers are real attached to their cranes.

K – Oh yeah. Even though they eat corn.

J – At one time we were told that some of this data was sought after by developers or by government, like the DNR, I mean, is that the case?

Moderator – It is. For instance, just recalling my own experience, Pheasant Branch Conservancy down in Madison they were putting in, I think it was a bike trail or a walking trail, through their area and so they called us up and said “We’re putting it in this area, what can you tell us about the cranes that live here?” I was able to find out, well, what specific area are you referencing?, go back into the files and dig out each one and say it was first counted in say 1984, and 1985 was missed, but 88-89 were covered, and tell them the crane numbers, whether it appeared that there were consistently nesting pairs there, or if it was just maybe a stopping area and so they were able to use that information in planning where their path would be so that if the birds were there, it would be least likely to bother them or if it would bother them maybe they wouldn’t put it in at all. I’ve also had some calls from the DNR referencing a particular area just wanting to know the crane history of a particular place. And I’m sure there’s a lot of other examples of that.

J – People would want to know. Because they would want to know that this information is being used that way. Because that puts value on what they’re doing.

L – And it’s also one good thing to bring up when you get. . . I’ve had people. . . a couple that loved the cranes and have counted cranes for me and their daughter went off to college and decided that the Crane Count was providing data to the DNR so that we could have a hunt. So ICF was giving data to support hunting of cranes. And that issue is of course addressed in our handbook – how to answer those questions but I have to talk with them in a more professional way than I’m doing. But we could use that aspect of the data collection to counter.

Moderator – I think one of the challenges on our part is that it’s not kept track of. I can remember things that I’ve, where somebody called me up and said I’m interested in the cranes in this area – I can remember a few of those, but if we had a master file that people who called up, we would write down “Pheasant Branch Conservancy, June 2006, wanted to know about cranes for this,” and then just sort of have a nice little compilation. Say, here are the things.

J – I think that’s a good idea.

L – You don’t have that? I think that’d be a cool thing to do.

Moderator – It might be better than the general answer that we use it for information requests.

J – Right. That provides an example, yeah.

L – Because people could say, “Oh, yeah, you say that.”

J – Right.

W – You bring up hunting. My wife was out on her count, and a guy with a gun who was very irate came up to her and said “We only have one or two weekends a year to hunt turkeys and you’re out here scaring them all away.”

B – The nerve! I would say.

L – Yeah.

K – It’s a lot more than one or two weekends for one thing.

L – And I actually have turkey hunters, who give up. . . I have two of them, who give up their one morning to count.

T – I have one that goes out hunting and he’s counting as he’s looking out for turkeys.

L – Because we have so much public lands that turkey hunting is on, I always write a really strong paragraph about birding etiquette and so forth and so forth. And that hunters might be out there. I think the way I put it is that, just remember that guns trump binoculars. Some counters are really nervous about it in our area.

K – Well, then they should be on private land, check with the landowner who should know if they’ve given permission to turkey hunters. And then they wouldn’t be out there at the same time.

B – If you’re going out to public land, you may have run into turkey hunters. Well, I just worry more about people getting shot. You know, I tell people to wear bright clothing if they’re in an area. . . not red and blues.

K – So we have people dressed up – they went to St. Vincents and got orange vests, and then they got these big plastic flowers. . . we took pictures.

L – Plastic flowers?

K – I don't know. It was some school thing at St. Vinnies – you need these flowers that match. And they came in to the post Crane Count meeting with these bright orange. . . it was really a riot.

L – Well I tell people to be quiet, not to make noises like a turkey, take a flashlight. . . I mean being quiet is sensible anyway. But take a flashlight. . . turkeys don't take flashlights. And just remember that. . .

K – Yeah, We're sharing a resource. It might be something you could work with the DNR on when they're doing the turkey regulations or the publicity about turkey season, to let them know that we're going to be out there for one morning for two hours.

B – Yeah, that's what fired me up about your comment, was like, "One morning? Out of the whole year?"

L – But turkey hunters, they have to apply, and they might apply to hunt someplace they want to, and they get a permit for someplace else. And they just get this short opportunity. They don't get much opportunity.

W – And they spend a lot of money.

L – And I sound like I'm advocating for turkey hunting, but it is the case if you buy an expensive turkey permit, and you apply for it, and you could even be out of state – I live close enough to MN I get out of state people coming over in our area. You apply, you get where you're assigned, you don't necessarily get where you want to be.

K – Well, it's something we have to keep on top of. Give our counters something to say, how to respond to hunters.

Training that works best

J – The website is really important.

L – It's really helpful.

J – Ok, now, it needs to be more important.

K – It's buried.

J – You can't find it.

K – Oh yeah.

L – It's terrible.

T – I emailed and I said how do you get to the crane section because I had no idea how to get there.

J – And when I was here in June they were working back there and Brandon and I were back there and I was telling them hey, you know, these things are problems. And it's like they didn't consider that's important.

L – There should be a direct link.

T – Just like "Crane Count" underlined, and then you click on it and you go right there.

L – My husband is like a systems analyst, you know, and he's my source for finding everything and he swore the other day. I said go find the Crane Count site. And he swore.

K – Right now it's really buried.

L – I said you know, they've moved it and they've been fooling with it, and he said well, fiddled with it. They've taken it away. It's not on here anywhere.

K – It wouldn't have to be all year round necessarily.

L – You could add something to "What's New," I think it's what's new.

J – But see it needs to be there year round, number one.

L – A direct link.

J – Yeah, a direct link because students go there for projects. I’ve had students contact me to get data.

L – Yeah. It’s really bad.

J – Yeah, it’s terrible.

T – There needs to be a list of meetings on there, and I don’t see that on there anymore. Is that still on there? Because I didn’t see that this year.

Moderator – As far as I know, it is.

J – It still says under construction. And that. . . and some people don’t even go any further because they see that “Under Construction.” Well, it’s been under construction since last spring. And there needs to be a direct link to it.

T – Even if just around February and March.

J – Because it’s like, ok, Crane Count happens once and it’s over. That’s it. I have a feeling people are trying to get the data.

K – Or to find out when it is. And the only place I could find the date was under the coordinator notes, which was really buried. And I knew it was on there somewhere so I kept looking, because I needed it for something.

J – I mean the Crane Foundation has a beautiful website. And if this count is important to them, which it should be, it should have a prominent spot.

L – Well the old version, which wasn’t near so beautiful, had perfectly accessible.

J – Yeah, it did, and year round too.

T – It should be under volunteer opportunities. It’s not under there, is it?

K – It’s under research.

J – You have to go through four. . .

K – different layers.

J – Yeah, four different layers.

T – And then you have to keep going down through. . .

J – Then you have to read paragraphs to be able to click on the right thing to get what you want.

B – Actually, I have to say I don’t think the ICF website is as good as it could be because the font is way too small. Maybe that’s just because my eyes are getting older, but I have trouble reading the emails that I’m getting from them, and I can’t figure out how to get it bigger on my screen and I’ve got a big screen at home.

T – Your emails are small too?

B – Yeah, I’m on the whooping crane update list. And Joan Garland, I know Joan, so I should just contact her. But it’s in little tiny font, and it’s just a strain to read it. And there’s no reason that has to be in little tiny font. And I’m finding so many people using websites and email and all kinds of other things are doing them more and more in real tiny font. I can still see pretty good. My eyes are getting older but I can still see ok, it’s just a strain when it’s on the screen.

L – Yeah, when I send out my letter to all the old counters I told them step by step by step how to get to it because. . .

B – A lot of them are willing to do that, so it’s really useful, so I have, I’m emailing a lot of my counters now.

J – Yeah, 90-some percent.

K – I’m not up to that, but quite a few, and they are willing. And I ask them several questions – can you count this year, are you willing to get the form off the website, and most of them are.

B – I use all, a whole bunch of different things for training. We do have a pre-Count meeting and an amazing number of people continue to come to it and I think that they know that they don’t have to. But some of them who I ask, they like to be refreshed, just so that they have it clear in their heads about the unison call which is still confusing, because sometimes

you hear that in flight, and also just the data sheet maybe. . .

K – They want to see the video again. I like the new video because the old one was getting really worn out but I miss all the other species.

B – I do too. I really liked having a little bit about other things you will see out there because I thought it was a really good educational opportunity and people have questions about those things.

K – And the whooping cranes too.

B – Yes, and the whooping cranes. It would be nice to have a little bit of an update about something. I tell people about it and say go to the website, but people are very interested in that and they ask questions about whether or not we'll get them, and that kind of thing. Now whooping cranes will migrate, they won't usually be around by April. . .

Moderator – I can say honestly you never know. 2004 we had whooping cranes sighted.

K – It was close wasn't it? Close to the date last year?

Moderator – On the 17th we had Dane County, which was a confirmed sighting, and Fond du Lac County which was unconfirmed.

L – Maybe the whooping crane thing is a way I can encourage some of my veteran counters. I really think I need to make my veterans realize that they're not doing as accurate a job as they have or could. You know, in filling the sheets out and stuff. I'd like to get them all back to a meeting but I don't want to say you have to come to a meeting.

K – A lot of the people aren't going to come to meetings. But we always have some new people. And we always have those people that want to see the video for the tenth time.

L – Yeah and I work with them one-on-one if I have to but some of these people that I have are real convinced of their infallibility.

W – I'm kind of spoiled in Dodge County because we have the Horicon Marsh Bird Club and they support the Count and most of the members are counters also and we have a meeting every third Wednesday of the months in the winter time and so I have my education meeting during that meeting which is already set up and they advertise it, and they have refreshments and stuff like that.

K – That's a good group too.

W – So if people ask how do I become a crane counter, then I say, well, come to the meeting. And so it gets their name into other circles that it might not be in also. So it's good for them too. But any other organization like that with like interest I think is maybe potentially valuable – Audubon Society, stuff like that.

L – Do others of you get a lot of phone calls from people saying that the cranes are back? Do you get those?

T – I get emails.

L – So the reason I asked you that is this is starting to take up a lot of time for me when I'm busy at home getting things together. So we're setting up a website. Initially we thought about it as the county Crane Count website but it is really getting to be more of a birding website. And I'm hoping that I can use that with a lot of links to things you said, like a bird club, to get folks to listen to some retraining.

K – That would be a good idea.

B – I like having the sound on the ICF website because I have crane counters who use that for refreshing their memories.

L – Every year.

K – Also I've made up little tapes, little cassette tapes that I've given out to people too.

L – Now that's a good idea.

K – And they like to carry it in their car. From the old slide show.

B – Enthusiasm is catching. If you can find a few enthusiastic people, and use them for recruiters instead of you doing all of it. . .

T – And we don't really have any bird clubs or. . . we have the Necedah Wildlife Refuge, but. . .

B – Do they have a link? Do they send out an email to all of the people that they'd like to get to the festival?

T – I've been trying to get more involved with the festival.

B – So they could send a notice that you'd write up to that big group of people.

T – I definitely want to be part of it, with like a booth or something at the festival next year.

J – There's little coordination between that group and the Crane Foundation because people never know about the festival. People don't know about the festival. I didn't know about it for years.

L – What is really too bad, and this is not what we're here to talk about, but my sister lives in Adams Friendship, and is very nature oriented, and she didn't even know about the festival until I told her about it.

K – But it's hard to get word out, and even if you get word out, people see so many messages a day, and I can't remember how many it is, but I went to some training session for getting more members to our organization and it was something like 5,000 a day, if you include every newspaper thing you look at, radio, tv, when you're driving all the different billboards, it's all these things coming at you like this, so your message has to be like this poster – really clear. Or you have to repeat it several times before it sinks in. And so you can do all the publicity you want and it still might not reach the people that should hear about it.

B – There's a lot going on in May, you know.

J – I think the website is very important because I refer people to it, and a lot of people are going to it now, so that website really has to be better when it comes to the Crane Count.

Moderator – In addition to the accessibility issue, just being able to find it, and your comments about the font size, what else do you think would improve the website? Is there other stuff you would like to see up there or things that aren't there yet, but could be?

K – I was thinking about the press releases and I didn't read it through all the way, but did it say in there that the media that get the press release can get photos or some materials that they can add to their article if they're writing an article? Because that would be something you could have on the website. . . you have the website listed at the end I think. But you could say for photos, or graphics or something here's where the press can go to get that. Because they do like to run graphics with their stories. And maybe there's something on the website.

J – Is there any reason why as they get the information from the counties that they can't get the data on there, do they have to wait until every county is in and they've got everything punched in?

Moderator – Typically we have the deadline, I think it was May 31, that's in part because at that time everybody is out on tour with school children, and lately it's been moving more and more into the first couple of weeks of June, so we might even start in May as time permits, but it takes at least a few minutes to go into the database and enter each record. And so when we've got boxes, two or three boxes just filled with the. . .

J – So are they needing more help?

Moderator – I think it's a matter either of help, we've had some volunteers come in sometimes if we have one, and do data entry, if we don't have volunteers it's up to the staff. But we also have other responsibilities as staff. And admittedly it's an incredibly inefficient way to go about it. Like K, you mentioning "I've got the information right here and it's right," and it is, and there's us going, we wish we could do that. There's got to be a better way to do it, and hopefully we can refine things to find that way.

K – And so what ICF needs from us is so it's compatible. So it works, and so I'm not doing mine in an inefficient way for you, and I want to tweak mine.

Moderator – Or if we could have ours tweaked or yours tweaked or both.

K – Something.

Moderator – And that might be another opportunity for a meeting, to sit down with somebody who's more competent about databases.

K – Because I don't know anything about databases.

J – I don't know how major of a problem this is because this goes back to my earlier thing about getting participants and making them feel like they're valuable – they haven't had any results yet, in a year. This was in April.

K – Yeah, and is there some way, because I've always wanted to get back to our counters with results and I find it really hard to sit down at that time of year and get the results compiled, but it's before. . .

J – You mean your own?

K – Yeah.

L – That's one of the things we're going to do on our website is tell them, because people are always asking, how did we compare to last year?

K – Or even to tell a reporter who wanted to know the next day or the same afternoon, and I gave them a very general idea, because I did a quick count, but there's no way to give them an exact number of course. But yeah, that turnover, it's really hard to figure out, but I would like to.

J – Because those who do email, I get the results out to them and I tell them they're tentative because they usually get changed, but at least I don't hear from them after that. But I think that really should be a concern.

K – And I'd like to give more, the people at the training meeting too, we get fifteen or twenty even, it's not anywhere near, but more information or graphs, or that might be part of the video or slides, of how it's changed over the years. I've made up some of my own in years past of what the changes have been in the number of sites counted and the number of counties, the number of cranes and things. But to return the information to them in a usable way.

J – And also a big deal was made of 30 years. Nothing. There was nothing that occurred. Nothing happened.

K – Yeah, yeah.

J – At least we could buy sweatshirts after twenty years.

K – It is something one of my counters said to me a couple of years ago, is that they thought that the Crane Foundation was getting a lot of value out of the Count, and they've been doing it many years, and that there should be some small reward for the counters who are participating that year. And she was thinking about pins, or a hat or a something. And it could easily be something that would promote the Crane Foundation and cranes because that's why they're doing it. So like the sweatshirts, I think that everybody wished that it had this big crane on it, flying or something and it was this little tiny thing. They wanted something to promote cranes, I guess.

Moderator – Do the rest of you concur about volunteer recognition?

B – Yeah, I hadn't thought of it, but that would be very nice.

W – Only in that it would help me to get more people interested in it.

J – Well, keep some of it. I mean I've got people who've been counting since the beginning.

K – They want a little reward – a poster, or. . .

J – And these people are starting to drop out and I keep wondering if they're dropping out because they see no reason to continue any more.

L – Y'all could get, as far as that particular predicament, you're starting to get a little bit of drop-out possibly because people think oh, there's so many cranes now. You've got to keep like cheerleading.

K – I get those questions at meetings.

L – Whooping cranes.

J – Yeah, why are we doing this any more?

L – You've just got to bear down on that, why the Count is still important. It would be a good thing to emphasize.

J – Why is it still important to the Crane Foundation? Once again, we're not hearing why that is.

W – We had billions of passenger pigeons, and less than thirty years later they were zero.

B – Well a lot of research emphasis is on real short-term one or two year studies. It's very rare, for even the DNR to do anything long-term and long-term results, it's not really anything glamorous, but keeping track of things for a long time, the US Fish and Wildlife Breeding Bird Survey has been going on since '65, and they're starting to be able to do trends and stuff and it's so important.

J – I have a question now. How often do you get contacted by them during the year?

B – During the year? The counters? For the bird counts, not much. You pretty much get one mailing when you're going to do it. And then you send your stuff in. And then they have a little reward thing at a certain number of years. You get a pin or a hat or a something. But no, I don't get a lot of feedback. But they have a website where you can go look things up on what the returned results are in your area. So no, there's not a huge amount of feedback, but they have even more people.

J – Yeah, that's what I was wondering.

B – Yeah, it's a little different. I don't know how to make that sound glamorous, long-term results, but it's so important. Somebody's got a way to do that. Like little stories about why this is important.

L – And as an example, as well for other places, and other studies.

J – Yeah, mailings probably wouldn't do it anyway. See, that's where I think it keeps coming back to that website. People at least have to see that the Crane Count is important to the Crane Foundation, and the only way they're going to do that is to be able to go there, and there's a link, right there on the homepage.

K – And they can see the results, they can see the trends, they can see whatever it is, instead of doing it for the meeting or the slides or the video or something you could have it on the website. Graphics. Because other than volunteer Crane Count Coordinator they can put their photos up or something like that. That would be good too.

L – I think that's a good idea.

K – They can add their comments, a little more interaction between the website and the participants. Because more and more people are doing that.

J – And like you say when people come back so excited, and they have stories. . . now if they could go at home and get online, and have a place to share, like a message board among crane counters. Talk to somebody else who understands your excitement.

K – I think that it was Chunk that took these last year, good old Chunk, these were from Crane Count morning (photos). He went home and printed these before he came to the post-Crane Count meeting. And this is the Jefferson Marsh. So people are excited and they have the capability of taking photos and sharing them now, and they could do that on the website.

L – One of the only photos of me taken in my life I can stand to look at was on the Columbia County Crane Count sitting in my tree in my yellow anorak with the full moon behind me. You can't see me that well.

J – So these things I think are very valuable. What are being said right now.

K – And you can sell it this coming year because the governor is going to announce this next year, 2006, as the year of citizen science, so I've heard. He's announced a year each year: year of water, year of forestry. . .

L – Yeah, we have to do our little nature center

K – Year of land and water conservation last year, and I've heard he's going to do the year of citizen science. So you should all tap into that concept.



**APPENDIX S:**  
**Phone Interview Transcripts**

## Phone Interview Transcripts:

Phone interviews were conducted individually with three County Coordinators, using the questions from the Focus Group Discussion Guide. Recording the conversations verbatim was not feasible. Notes were taken on each question during the interview, and typed afterwards.

### •Phone Interview #1

Date: 12/21/05

Time: 10:15am to 11:30am

1. How long have you been coordinating?

-3 years, 3 times

-been involved since 1994, taught ornithology, offered to take over coordination duties to free up time of staff who had previously coordinated at the local nature center

2. What makes you want to be a County Coordinator? What do you get out of the experience?

-fundamental motivation: when it was ten below in January of '93, was introduced to birding through Peterson's Guide

-had never heard of birding before, and it became something to do outdoors that was free

-1994 "took off," it was fun, enjoyed meeting people, knew the naturalist at the local nature center, and decided the Crane Count sounded fun

-through birds, approach environmental issues

-religion a major motivator, the "stewardship of creation"

-systematic theology, fascinated by creation, with an interest in natural science being the culmination, working through birding, it all came together

-promotion: what happened with the Crane Count in the past was a lack of continuity, data were off. Now, foster continuity, stay connected with people, write a follow-up letter after the Count. Like to create an environment where people feel good and a sense of accomplishment

3. What do you believe are the most important things that the Crane Count accomplishes?

-now – why count? They're everywhere

-scientifically: mapping territorial expansion, tighter definition of "good breeding habitat" and stopovers

-public awareness: involve people, help in understanding, emotional attachments, aid in the development of environmental sensitivity, use an introduction to birding as an entrance to environmental issues (cranes are easy to see and identify)

4. Tell me about the participants in your county. How many are there? Do most return year after year?

-long involvement, build on a foundation, added a few, motivated them more

-see on Crane Count day or don't, mail in

-wildlife interest, hunters, birds, help out with the Crane Count

-bring in new people, train on the spot, "not another meeting," take out, use topo map or lend out, many didn't need training

-all sorts, majority older than 56

-only a few children, not many, problem to involve kids – how to make it fun for them, focus on curiosity, mostly a "dearth" of young

5/6. What ICF Crane Count materials do you use in your coordination work? How do these help you? How can these be improved? What ICF Crane Count materials do you not use? What about them makes them not useful? What improvements would make them useful to you?

-Data Sheet – the banded crane legs are backwards, right vs. left

-pairs and individuals – counting, what cranes are doing – there is perpetual confusion, and doesn't know how to fix it

-numbers don't add up, must check

-would be nice to have more detailed information, but the average volunteer can't handle it

-data management is problematic, avoiding errors and keeping them to a minimum

-there would be ways to improve this, but it would make data less comparable

-way of submitting online, like FeederWatch, by Coordinators would be good. Would help to protect data integrity and keep an eye on errors. This can be problematic even with veteran counters.

-one area that people don't easily recognize or understand is the unison calls. Requires training, but veterans are resistant to "change" and meetings

-the biggest error is confusion over pair determination, how to do it, and how to document it

-Training video is good

-Fix the labeling on the legs (on Data Sheet – banded crane portion)  
-Thought: understand the value of mapping, as well as the irritation it can cause. Provide a sheet for map – give to Coordinator, every 3-5 years, or new counter and have them do map then. Get habitat information over time, i.e. trees grew up. Sort out sites and habitat information. Idea of mapping is good. . . makes own maps, even without the form. Needed is some way to have a regular “map cycle” on an as-needed basis.

7. What other resources would you like for your work as a Coordinator?

-ICF is in a position to produce a “booklet.” Something small – “everything we know about sandhill cranes.” Behavior, etc., things known for sure, history of questions and answers compiled, basic yet detailed introductory text on cranes. This would help reduce the number of questions.

-Send out solid but readable information, and participants seem to appreciate it. They like to understand what they see.  
-Motivations, raise the Crane Count’s profile – through wildlife managers, public hearings, management plans, etc. We need “solid data to reduce criticism based on ignorance.”

•No other comments

•Phone Interview #2

Date: 12/22/05

Time: 10:00am-10:40am

1. How long have you been coordinating?

-3 years, but have been doing the Count about 5

2. What makes you want to be a County Coordinator? What do you get out of the experience?

-With current nature center position, it is part of the job description

-Do bird programs, with the geographical location there are lots of questions, it doesn’t take much to do, and it’s a good opportunity to meet new people and teach about cranes.

-People are very enthusiastic

3. What do you believe are the most important things that the Crane Count accomplishes?

-Overall, to open the public’s eyes to these species. It was almost the end for sandhills, but there was the rebound. Whooping cranes are getting a lot of attention.

-Once evoke emotion on a topic, there is a trickle effect. It broadens people’s horizons, who may not normally be involved. An environmentally friendly “domino effect.”

4. Tell me about the participants in your county. How many are there? Do most return year after year?

-Lucky – lots of repeats, about 36 sites with 1/3 to 1/2 veterans. People counting 10-20 years, very familiar with historical information.

-New participants – a lot of teachers, college students for class experience, high school introduction to the natural resources field. Landowners want to learn.

-Children are variable year-to-year. Some families. I.e. our exploration programs, “do work” with student and parent. Families, sometimes a father and daughter – not many, but the Crane Count is very early in the morning.

-Recruitment – not terrible – half of sites already taken. Advertise with press releases and flyers. Do a program with another Coordinator during the county meeting. Live raptor program brought people, invite people to get involved right after. Video is working, some people at least stay and learn a little.

5/6. What ICF Crane Count materials do you use in your coordination work? How do these help you? How can these be improved? What ICF Crane Count materials do you not use? What about them makes them not useful? What improvements would make them useful to you?

-Love the Coordinator Notes, tells what’s going on!

-Data Sheet – nearly impossible to figure out how to fill it out for participants – why is it so difficult? People unsure when to record calls, i.e. repeat calls – Despite Review! Many times behavior/vocalizations/community will just be filled in once. Miscommunication. We go through the sheet together with a scenario.

-We make our own post cards. We can put more information on there, and get the information to past counters.

-Participants List – there’s not good space for the site number. This item could be in an Excel database, and be printed rather than rewriting everything – if it were available online.

-Site-location Maps – The SLM’s are very out of date! Used plat book to photocopy the sites, as things have changed very much. It would be good to have both the Site-location Maps and Plat Book provided.

-Online components (such as data entry) would be great. It would save on postage, be easier and quicker, easy to enter

online.

-Website – Fantastic – everything is there, but it is hard to find. It's not spelled out on ICF's home page. There needs to be a connection to Crane Count on the home page.

-Participant vs. Coordinator Data Entry Online – With veteran counters it would probably be ok, but with new counters, would be very leery of discrepancies – i.e. right now it is possible to dialogue with counters and replay the scenario. Would rather interact with them and do it herself (and allow for correction of errors if scenario was misinterpreted).

7. What other resources would you like for your work as a Coordinator?

-Citizen Science – Monarchs – the University of Minnesota Spaulding (sp?) hypes things up – Help scientists do this and that about monarchs – You are a scientist.

-Hype up the Crane Count a bit more. People will be more receptive. This year, had at least 12 questions about why we're still doing this! Focus on the citizen science angle.

-Create a brochure/flyer – we do this (the Crane Count) because X, Y, and Z, so we need help because of . . . Help us achieve our goal! Evoke emotion, and people will be more likely to become repeat counters or positively change their attitudes.

-Participants don't understand why they're doing the Crane Count. Why? A solid explanation given to counters every year is needed. For example, look at the misconceptions about the proposed crane hunting season.

10. What would improve the coordinating experience for you? In what other ways could ICF help you?

-The only disadvantages and issues are minor.

-Turkey hunting – because of turkey hunting, sites don't often get counted. It's not so much safety, but. . . Concern of hunting and are cranes there? Some sites are land-locked, or will not allow counting.

-Reluctant, to a point, to add new sites (try to cover those that exist)

11. Is there anything you would like to add or clarify?

-Last year was first time Landowner Information Sheets were needed – had landlocked properties (sites) and disgruntled landowners. It would be good to have them available online, just as a good tool to add and have available.

•No other comments

•Phone Interview #3

Date: 1/6/06

Time: 6:30pm-7:10pm

1. How long have you been coordinating?

-Involved since the late '80s, started coordinating in the '90s, about 15 years

2. What makes you want to be a County Coordinator? What do you get out of the experience?

-I'm a crane freak.

-The more I got into swamps, their value and vulnerability – everything ends up in wetlands. It's the habitats more than just the birds.

-Drive a school bus, take kids in (to wetlands) every spring – kids, friends, neighbors.

-Into wildlife rehabilitation. Learning about the bird locks it in forever.

3. What do you believe are the most important things that the Crane Count accomplishes?

-Numbers, and what kind of habitat they have. Recruitment and survival (worried about crane hunting).

-Do the Crane Count and talk to people, increase bird awareness, the good side, negate damage.

4. Tell me about the participants in your county. How many are there? Do most return year after year?

-It's bad. There are hundreds of people here. I get 25. I can't get people to come out! It's hard to fill the sites, and be able to get people to know about it.

-Press release needs to be updated – needs pizzazz. It's very cut and dry, and hard to get in anyplace.

-Have rented places, locations, and ended up with nobody.

-Is there a way to involve schools? This needs attention.

-Once you get them (participants) they keep coming back.

5/6. What ICF Crane Count materials do you use in your coordination work? How do these help you? How can these be improved? What ICF Crane Count materials do you not use? What about them makes them not useful? What

improvements would make them useful to you?

-Materials are all very useful, and all there. They're good.

-People call with questions.

-Materials are explained well, with drawings.

-I question the numbers participants come up with – often the pairs – i.e. unison call heard, especially in the beginning, and hearing calls – how to make it plainer? Do they remember?

7. What other resources would you like for your work as a Coordinator?

-Resources (previous question) covered all the basics.

8. What training methods seem to work best in your county?

-Go through, explain each bit – what to look for, how to approach it, go through the papers.

-Use a mount, egg, and chick mount to attract attention (advantage of being a rehabilitator and educator) – people can see it up close. Seeing a “thing” makes it more real to people

10. What would improve the coordinating experience for you? In what other ways could ICF help you?

-Reaching more people – has locations that have not been touched – and doesn't know how to do it.

-There is a loss of interest, there's lots of cranes, they've made a comeback.

-Whooping cranes provide some interest, but there's more in sandhills.

11. Is there anything you would like to add or clarify?

-Do a colt count. It would be easy to do, and answer questions: “What is the recruitment?” How many made it out there? At least do so pre-migration – it's real important.

-A brochure is better than the newspaper – send it to nature centers and so many other places. People will pick it up and take it.

-Encourage more mentors with small groups of children. You never know what kids will get out of it.

•No more comments.

**APPENDIX T:**  
**Identification and Classification of Resources**

## Identification and Classification of Resources

### Coordinator Materials

#### County Coordinator Instruction Handbook

- Category: Instructional, Reference
- Purpose: The County Coordinator Instruction Handbook is a resource available to County Coordinators. It provides information on Coordinator responsibilities, participant recruitment, participant training, collection and compilation of results, and other information pertinent to facilitating the Count. For veteran Coordinators, the Handbook may serve primarily as a reference to be consulted as the need arises. For new Coordinators, the Handbook can serve as a guide to the process of coordinating.
- Goals and Objectives:
- Coordinator Use:
  - 88% (63/72 respondents) report making use of the County Coordinator Instruction Handbook
  - 57% of those using it rate it as "Very Useful," 35% as "Useful," and 8% as "Slightly Useful"

#### County Coordinator Checklist

- Category: Reference
- Purpose: The County Coordinator Checklist is a brief one-page summary of responsibilities and timelines for participant recruitment, training, and the collection and compilation of results.
- Goals and Objectives:

#### New Site Record Form

- Category: Form, Reference
- Purpose: The New Site Record Form is to be used when new Crane Count sites are created. The form details information such as the year in which the site is established, state, county, and specific location. Comments about the site and other pertinent information may be included with the Record. The Record is to be filed with the Data Sheets.
- Goals and Objectives: S.1.a
- Coordinator Use:
  - 72% (52/72 respondents) report using the New Site Record Form
  - 56% of those rate it as "Very Useful," 33% as "Useful," and 12% as "Slightly Useful"

#### Participants List

- Category: Form, Reference
- Purpose: The Purpose of the Participants List is to help Coordinators organize and keep track of participant contact information and specific sites counted. Space is provided for Count site numbers and participant contact information.
- Goals and Objectives:
- Coordinator Use:
  - 90% (65/72 respondents) report using the Participants List
  - \*75% of those rate it as "Very Useful," 23% as "Useful," and 2% use it but provided no rating

#### Summary Sheet

- Category: Form, Reference
- Purpose: The Summary Sheet is intended to consolidate some of the key information from a given county after the Crane Count – especially site number, number of sandhill cranes reported at each site, and number of sandhill pairs reported at each site.
- Goals and Objectives: S.1.a
- Coordinator Use:
  - 92% (66/72 respondents) report using the Summary Sheet
  - \*70% of those rate it as "Very Useful," 27% as "Useful," 2% as "Slightly Useful," and 2% use it but provided no rating

#### Coordinator Notes

- Category: Instructional, Reference, Educational
- Purpose: Coordinator Notes serve to provide a convenient means to update Coordinators with pertinent information, address possible Coordinator concerns, highlight selected "memories" from the past year's Coordinators, and answer Coordinator questions (often about cranes, crane ecology, crane hunting, coordination issues, etc.). Coordinator Notes are revised yearly and sent out to Coordinators with other program materials.
- Goals and Objectives: C.B.1.a, C.F.1.a
- Coordinator Use:
  - 72% (52/72 respondents) report using the Coordinator Notes
  - \*50% of those rate it as "Very Useful," 38% as "Useful," and 12% as "Slightly Useful"

#### Crane Count Poster

- Category: Recruitment
- Purpose: The purpose of the Crane Count Poster is to serve as a tool to assist Coordinators in their recruitment efforts. Posters can be placed by Coordinators on a local level to help attract new participants, and increase awareness of the upcoming Count.
- Goals and Objectives: C.A.1.b, C.E.1.a
- Coordinator Use:  
-35% (25/72 respondents) report making use of the County Press Release (46% of Coordinators (25/54) who actively seek new participants in their counties)

#### County Press Release

- Category: Recruitment, Educational
- Purpose: The purpose of the County Press Release is to provide Coordinators with a tool relevant to their region that can assist their recruitment efforts. Basic information is provided, with blanks left for county-specific information. Press Releases can be distributed to local media by the Coordinators. Additionally, the Press Release serves to help increase awareness of Crane Count and cranes.
- Goals and Objectives: C.A.1.b, C.B.1.b, C.E.1.a, C.F.1.a
- Coordinator Use:  
-66% (48/72 respondents) report making use of the County Press Release (88% of Coordinators (48/54) who actively seek new participants in their counties)

#### Master D.O.T. Map

- Category: Map, Reference
- Purpose: The purpose of the Master D.O.T. Map is to document and display the locations, borders, and numbers of all sites in each participating county.
- Goals and Objectives: S.1.a, S.1.c

#### Crane Count Training Video

- Category: Audio Visual, Instructional, Educational
- Purpose: The primary purpose of the Crane Count Training Video is to provide Coordinators with a tool to help train participants. Knowledge essential to participating in the Crane Count is covered in the video – how to fill out a data sheet, how to count cranes, document crane pairs, differentiate between crane calls, identify a unison call, differentiate cranes from similar looking birds, etc. In addition to the video's primary training purpose, it also serves to increase participant awareness and knowledge of cranes and their habitats.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.F.1.a
- Coordinator Use:  
-79% (57/72 respondents) report showing the video as part of training  
-86% (62/72 respondents) report using the Training Video  
\*77% of those rate it as "Very Useful," 19% as "Useful," and 3% as "Slightly Useful"  
-17% (12/72 respondents) report using the website to show the Crane Count Training Video

#### Participant Materials

##### Data Sheet

- Category: Form, Educational
- Purpose: The Data Sheet is a dual-purpose item. It serves to document participant observations, with resulting tallies of sandhill crane tallies, and sandhill crane pairs. It may also serve to assist participants in documenting the sightings of any banded cranes (whether sandhill or whooping) that they may see during the Count. In addition, the Data Sheet serves an educational function – to help participants increase their awareness of cranes, their behavior, ecology, and habitats at the site level.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.E.1.b, C.F.1.a, S.1.a, S.1.c
- Coordinator Use:  
-82% (59/72) report reviewing the Data Sheet as a part of training  
-97% (70/72 respondents) report making use of the Data Sheet:  
\*83% of those using it rate it as "Very Useful," 14% as "Useful," and 2% use it, but provided no rating
- Participant Use:  
-91% (135/149 respondents) report using the Data Sheet  
\*64% of those using it rate it as "Very Useful," 30% as "Useful," 1% as "Slightly Useful," and 4% use it, but provided no rating



#### Instructions in the Field

- Category: Instructional, Reference, Educational
- Purpose: The purpose of Instructions in the Field is to provide participants with a brief overview of essential requirements for participating in the Crane Count. Additionally, the Instructions cover identifying characteristics of sandhill and whooping cranes, with a small amount of ecological information to increase their awareness and knowledge levels.
- Goals and Objectives: C.A.1.a, C.B.1.a, C.F.1.a
- Coordinator Use:
  - 76% (55/72 respondents) report reviewing instructions as a part of training
  - 93% (67/72 respondents) report making use of Instructions in the Field
  - \*75% of those using it rate it as "Very Useful," and 25% as "Useful"
- Participant Use:
  - 70% (105/149 respondents) report using Instructions in the Field
  - \*46% of those using it rate it as "Very Useful," 45% as "Useful," 6% as "Slightly Useful," and 4% use it, but provided no rating

#### Site-location Map

- Category: Map, Reference
- Purpose: The purpose of the Site-location Map is to display the location of a participant's designated site, its identifying number, and boundaries.
- Goals and Objectives:
- Coordinator Use:
  - 96% (69/72 respondents) report making use of the Site-location Map
  - \*74% of those using it rate it as "Very Useful," 16% as "Useful," 9% as "Slightly Useful," and 1% use it, but provided no rating
- Participant Use:
  - 78% (116/149 respondents) report using the Site-location Map
  - \*50% of those using it rate it as "Very Useful," 44% as "Useful," 3% as "Slightly Useful," and 3% use it, but provided no rating

#### Landowner Information Sheet

- Category: Educational
- Purpose: The purpose of the Landowner Information Sheet is to provide participants with a resource that can be distributed to private landowners who may have questions about the Crane Count. Through this Sheet, landowners' knowledge and awareness of cranes, wetlands, and the Crane Count may be increased.
- Goals and Objectives: C.A.1.a, C.F.1.a
- Coordinator Use:
  - 69% (50/72 respondents) report making use of the Landowner Information Sheet
  - \*34% of those using it rate it as "Very Useful," 34% as "Useful," and 32% as "Slightly Useful"
- Participant Use:
  - 34% (50/149 respondents) report using the Landowner Information Sheet
  - \*42% of those using it rate it as "Very Useful," 30% as "Useful," 26% as "Slightly Useful," and 2% use it, but provided no rating

#### Crane Count Web Pages

- Goals and Objectives: C.A.1.b, C.B.1.b, C.E.1.a, C.F.1.a
- Coordinator Use:
  - 54% (39/72 respondents) report informing participants of available Crane Count resources on ICF's website
  - 51% (37/72 respondents) report making use of the Crane Count section of ICF's website – referred to below as "web-users"
  - 8% (6/72 respondents) indicate they have no internet access
  - 10% (7/72 respondents) indicate their slow connection speed is unable to handle ICF's website
  - 4% (3/72 respondents) indicate they are unable to locate the Crane Count section of ICF's website
  - 24% indicate other reasons for not using the Crane Count section of ICF's website (41% of these indicate they have not thought of it, the remainder list other reasons such as no need, no time, etc.)
- Participant Use:
  - 33% of Coordinators (24/72 respondents) use it to learn more about the Crane Count program (65% of the web-users)
  - \*42% of those who use it for this purpose provide a rating of "Very Useful," 42% as "Useful," 8% as "Slightly Useful," and 8% indicated use, but provided no rating
- Coordinator Use:
  - 28% of Coordinators (20/72 respondents) use it to find out how to get in touch with other County Coordinators (54% of the web-users)

\*30% of those who use it for this purpose provide a rating of "Very Useful," 45% as "Useful," 20% as "Slightly Useful," and 5% indicated use, but provided no rating

-26% of Coordinators (19/72 respondents) use it to answer questions they have about Coordinating the Crane Count (51% of the web-users)  
 \*47% of those who use it for this purpose provide a rating of "Very Useful," 37% as "Useful," 5% as "Slightly Useful," and 11% indicated use, but provided no rating

-33% of Coordinators (24/72 respondents) use it to print out Crane Count forms (65% of the web-users)  
 \*79% of those who use it for this purpose provide a rating of "Very Useful," 17% as "Useful," and 4% as "Slightly Useful"

-31% of Coordinators (22/72 respondents) use it to listen to crane calls (59% of the web-users)  
 \*59% of those who use it for this purpose provide a rating of "Very Useful," 27% as "Useful," 5% as "Slightly Useful," and 9% indicated use, but provided no rating

-33% of Coordinators (24/72 respondents) use it to learn more about cranes (65% of the web-users)  
 \*63% of those who use it for this purpose provide a rating of "Very Useful," 29% as "Useful," and 8% indicated use, but provided no rating

-31% of Coordinators (22/72 respondents) use it to answer questions they have about cranes (59% of the web-users)  
 \*50% of those who use it for this purpose provide a rating of "Very Useful," 32% as "Useful," 14% as "Slightly Useful," and 5% indicated use, but provided no rating

-25% of Coordinators (18/72 respondents) use it to answer questions participants have about cranes (49% of the web-users)  
 \*67% of those who use it for this purpose provide a rating of "Very Useful," 28% as "Useful," and 6% as "Slightly Useful"

-17% of Coordinators (12/72 respondents) use it to show the Crane Count Training Video (32% of the web-users)  
 \*75% of those who use it for this purpose provide a rating of "Very Useful," 17% as "Useful," and 8% as "Slightly Useful"

•Participant Use:  
 -7% (10/149 respondents) report participating in "Virtual Training" for the Crane Count via ICF's website

-11% (17/149 respondents) report making use of the Crane Count section of ICF's website – referred to below as "web-users"

-20% (30/149 respondents) indicate they have no internet access  
 -6% (9/149 respondents) indicate their slow connection speed is unable to handle ICF's website  
 -3% (4/149 respondents) indicate they are unable to locate the Crane Count section of ICF's website  
 -60% (89/149 respondents) indicate other reasons for not using the Crane Count section of ICF's website  
 \*40% (36/89 respondents) indicate they were unaware of the Crane Count section of ICF's website  
 \*13% (12/89 respondents) indicate they feel it is unnecessary (or equivalent)  
 \*13% (12/89 respondents) indicate they have never tried it  
 \*12% (11/89 respondents) gave no reason  
 \*4% or less (4/89 respondents or less) indicated reasons such as each of the following: minimal computer use, no desire, no time, a preference for other methods, or computer illiteracy

-6% of participants (9/149 respondents) use it to learn more about the Crane Count program (53% of the web-users)  
 \*33% of those who use it for this purpose provide a rating of "Very Useful," and 66% as "Useful"

-3% of participants (4/149 respondents) use it to find out how to get in touch with County Coordinators (24% of the web-users)  
 \*0% of those who use it for this purpose provide a rating of "Very Useful," 25% as "Useful," and 75% as "Slightly Useful"

-5% of participants (7/149 respondents) use it to answer questions they have about participating in the Crane Count (41% of the web-users)  
 \*14% of those who use it for this purpose provide a rating of "Very Useful," 71% as "Useful," and 14% as "Slightly Useful"

-4% of participants (6/149 respondents) use it to print out Crane Count forms (35% of the web-users)  
 \*50% of those who use it for this purpose provide a rating of "Very Useful," 33% as "Useful," and 16% as "Slightly Useful"

-9% of participants (14/149 respondents) use it to listen to crane calls (82% of the web-users)  
 \*57% of those who use it for this purpose provide a rating of "Very Useful," and 43% as "Useful"

-7% of participants (11/149 respondents) use it to learn more about cranes (65% of the web-users)

\*55% of those who use it for this purpose provide a rating of "Very Useful," 36% as "Useful," and 9% as "Slightly Useful"

-5% of participants (7/149 respondents) use it to answer questions they have about cranes (41% of the web-users)

\*43% of those who use it for this purpose provide a rating of "Very Useful," and 57% as "Useful"

-4% of participants (6/149 respondents) use it to watch the Crane Count Training Video (35% of the web-users)

\*50% of those who use it for this purpose provide a rating of "Very Useful," and 50% as "Useful"

#### Get Involved

- Category: Recruitment, Reference

- Purpose: The purpose of the Get Involved page is to direct potential participants to the necessary information they need in order to participate in the program.

- Goals and Objectives: C.E.1.a

#### Counter's Information

- Category: Reference, Educational

- Purpose: The purpose of the Counter's Information page is to provide crane counters with a directory of information pertinent to participating, and with further information that may be of interest. This includes pdf handouts (Instructions in the Field, Data Sheet), links to Sandhill Crane Identification and Calls, Whooping Crane Identification and Calls, County Coordinator Contact Information (by state), County Meeting Information (by state), and an online version of the Crane Count Training Video. Additionally, there is a Frequently Asked Questions section dealing with some commonly asked questions about cranes.

- Goals and Objectives: C.B.1.a, C.E.1.a

#### County Coordinator Resources

- Category: Reference, Educational

- Purpose: The purpose of the County Coordinator Resources section is to provide Coordinators with online access to updated versions of their primary resources. Most Coordinator and Participant Materials are available online here. In addition, there is a Frequently Asked Questions section that deals with Crane Count-Specific Questions, and Crane Behavior and Life Questions.

- Goals and Objectives: C.B.1.a

#### History and Articles

- Category: Reference, Educational

- Purpose: The purpose of this section is to provide a brief overview of the Crane Count's history (currently 1976-2005), and links to articles related to the Crane Count. At present, the page is limited to history only, and no articles are available on the page.

- Goals and Objectives:

#### Past Results and Data Use

- Category: Reference, Educational

- Purpose: The purpose of the Past Results and Data Use page is to provide access to past results, and information about how Crane Count data are or have been used. Current links include both the 2004 and 2005 Results Newsletter, and a Past Results Compilation. No information about how Crane Count data are or have been used is currently available on this page.

- Goals and Objectives: C.B.1.a, S.2.c

#### Results Newsletter

- Category: Educational, Reference

- Purpose: The purpose of the Results Newsletter is to provide participants with the tally of sandhill cranes seen and heard on a regional, statewide, and county level (both total tally of sandhill cranes and number of sandhill crane pairs reported). The Results Newsletter is also intended (typically) to provide an article or articles of interest to Crane Counters for educational purposes, and to thank participants for counting.

- Goals and Objectives: C.A.1.a, C.A.1.b, C.B.1.a, C.E.1.b, C.F.1.b, S.2.a, S.2.c

**APPENDIX U:**  
**Environmental Education Materials:**  
**Guidelines for Excellence**

Environmental Education Materials: Guidelines for Excellence (EEMGE)  
Review & Evaluation of Crane Count Materials  
Relative Rating Scale 1-5, 1=Guidelines Not Met, 5=Guidelines Met

1. Fairness and Accuracy, Rating: 3
2. Depth, Rating: 3
3. Emphasis on Skills Building, Rating: 1
4. Action Orientation, Rating: 1
5. Instructional Soundness, Rating: 2
6. Usability, Rating: 3

Summary:

Crane Count materials, as a whole, were evaluated in the context provided by Environmental Education Materials, Guidelines for Excellence.

As these materials are the primary method used to reach its audiences (Coordinators and participants), this evaluation points out a number of things relevant to the Crane Count's ability to address its goals and objectives.

The current materials are primarily limited in scope, and not very learning/application oriented in the context of issues-based environmental education. They serve important functions in supporting the accomplishment of several of the Crane Count's goals and objectives. For the most part, these consist of gathering data for a variety of uses, and a number of the lower-level Citizen-related items (i.e. awareness, knowledge, etc.). There is minimal emphasis on higher level objectives (i.e. action, decision-making).

The evaluation reveals that the Crane Count materials are, to an extent, rather piecemeal, with individual items remaining somewhat independent for one another. The mission, goals, and objectives of the Crane Count need to be both more fully and effectively addressed through the program materials. The importance of the program, key concepts, and connections amongst materials need to be emphasized, and demonstrate how they address the program objectives.

The EEMGE evaluation of program materials provides a framework outlining both the strengths and weaknesses of materials as they currently stand. This information can serve as a guide for both revision of current materials, and development of new materials in the future.

From this evaluation, what appears to be called for is an overall Crane Count curriculum, laying out a scope and sequence addressing the program's mission, goals, and objectives. The scope and sequence would demonstrate and indicate the programs components, and how each supports the mission, goals, and objectives of the Crane Count, and thereby ICF's overall mission.

Details follow for EEMGE's six key characteristics, detailing the current strengths and weaknesses of the Crane Count's materials as to whether or not they meet the "What to look for" indicators.

1. Fairness and Accuracy, Rating: 3

"EE materials should be fair and accurate in describing environmental problems, issues, and conditions, and in reflecting the diversity of perspectives on them."

Strengths in this Characteristic:

- Information in materials is largely provided in an educational manner, in appropriate language.
- Policies of ICF are clearly identified when presenting controversial issues (such as crane hunting).
- Presentations of positions on such issues are balanced, and multiple perspectives are mentioned.
- Materials generally communicate consensus (or it's lack) amongst scientists and crane experts.
- The educational and program tools (materials) support learners in forming their own opinions.
- Although this occurs rarely (as it is largely not applicable to most of the program), learners are encouraged to explore personal and societal values when examining issues.
- Materials promote an atmosphere of respect for different opinions, and an openness to new ideas.
- Although not a major emphasis, items such as the Crane Count Data Sheet do suggest that learners collect and analyze their own data, and draw their own conclusions (i.e. participation in eBird, involvement with a state-wide ornithological organization, other multi-species citizen science opportunities).

Weaknesses in this Characteristic:

- For the most part, Crane Count materials do not reference original sources of factual information (excluding Count data). It is therefore unknown if these sources are primary, secondary, or beyond.

- Original context, documentation, and explanation for facts is missing for most facts in the materials.
- Overall, a range of experts in appropriate fields have not reviewed or participated in the development of materials (though the Field Ecology Department and Crane Conservation Department are sometimes consulted).
- Experts in multicultural education and members of historically under-represented groups have not been involved in the materials development and review process.
- There is little or no documentation listing the people involved in materials review or development.
- Proponents of differing viewpoints do not review or help develop materials – all materials are ICF-produced and developed.
- There are few, if any, exercises that encourage learners to understand the opinions of their peers.
- Activities do not specifically encourage learners to become discerning readers and observers of media coverage of environmental matters.
- Readings and additional resources that present concepts and perspectives from different cultures are generally not offered within Crane Count materials.

## 2. Depth, Rating: 3

“EE materials should foster awareness of the natural and built environment, an understanding of environmental concepts, conditions, and issues, and an awareness of the feelings, values, attitudes, and perceptions at the heart of environmental issues, as appropriate for different developmental levels.”

Strengths in this Characteristic:

- Opportunities for learners to explore the world around them are provided (though not specifically based on developmental level).
- Activities provide opportunities for experiences that may increase learners’ awareness of natural and built environments.
- Facts and vocabulary words are presented and defined in context and support of important concepts.
- Ideas are presented logically and connected throughout materials.
- Though infrequent, environmental issues are explained in terms of specific concepts.
- Historical, ethical, cultural, geographic, economic, and sociopolitical relationships are addressed, as appropriate.
- Concepts are introduced through experiences relevant to learners’ lives.
- Some materials consider communities of different scales: site, county, state, and region. National and global are not specifically included.

Weaknesses in this Characteristic:

- Few materials help learners understand the interdependence of all life forms.
- Most exercises and activities do not specifically encourage students to identify and express their own positions regarding environmental issues.
- Concepts from environmental science and social science fields are not specifically presented according to developmental levels.
- Materials do not include a clearly articulated conceptual framework that states the concepts to be learned and relates them to each other.
- Learners are not frequently offered opportunities to examine multiple perspectives on issues, or to gain understanding of the complexity of issues. When these opportunities do occur, they are not targeted at the audience’s developmental levels.
- There are not further investigations to help learners probe more deeply into the ecological, social, and economic aspects of issues, and their interrelationships.
- Materials may help learners make connections among the concepts, but this is not an emphasis, nor is it measured.
- Learning is not specifically based on students constructing knowledge through research, discussion, and application to gain conceptual understanding.
- Materials do not specifically examine issues over a variety of temporal scales so that short-term and long-term problems, actions, and impacts are not clear.

## 3. Emphasis on Skills Building, Rating: 1

“EE materials should build lifelong skills that enable learners to address environmental issues.”

Strengths in this Characteristic:

- Materials offer learners the opportunity to practice collecting and organizing information, but little else in the way of critical thinking processes.
- When the crane hunting issue is presented in program materials, many of the indicators in this characteristic are met for that specific issue.
- Learners practice some interpersonal and communication skills.
- Learners are provided with the opportunity to develop some citizenship skills (as the Crane Count is a volunteer project, and participants actively contribute to it and ICF through their efforts).
- Materials and activities help students to sharpen field skills such as observation and data collection.
- Learners may use various forms of technology to help them develop and apply their skills – but not all learners do.

Weaknesses in this Characteristic:

- Materials offer learners little in the way of opportunities to practice critical thinking processes (problem definition, forming hypotheses, analyzing information, synthesizing, drawing conclusions, formulating possible solutions, and identifying opportunities for action).
- Materials generally do not provide learners with opportunities to practice creative thinking processes such as modeling, using metaphors and analogies, and formulating questions.
- Learners are not generally challenged to use higher level thinking processes such as identifying bias, inferring, relating, applying, and reflecting.
- Materials do not provide guidance for judging the validity of various sources of information, and therefore learners are not encouraged to apply these guidelines.
- Learners are not given opportunities to practice critical thinking skills individually or in groups (apart from collecting and organizing data about cranes).
- Materials generally do not help students learn to identify, define, and evaluate issues on the basis of evidence and different perspectives. Ethical and value considerations are not included. (The major exception to this is when the crane hunting issue is presented, in which case this indicator is met.)
- Materials generally do not provide a list of organizations and other resources that learners can use to explore the issue on their own, as appropriate for their developmental level. (The exception to this once again is crane hunting, when it is addressed, although developmental level is not a specific consideration.)
- There are not generally opportunities to use different methods of evaluating environmental issues and their potential solutions, appropriate for the intended age levels.
- Materials do not generally help learners understand the strengths, weaknesses, and biases of different means of evaluating an issue. (Crane hunting excepted.)
- While learners may develop their own solutions to issues, this has not been measured or otherwise assessed, and remains unknown.
- Environmental issues are generally not presented with a range of possible solutions or information about how the problems are currently being addressed. Materials generally do not compel learners to consider the implications of different approaches. (Crane hunting excepted.)
- Materials generally do not give learners an opportunity to learn basic skills for addressing environmental issues.
- Learners do not necessarily hone their ability to forecast and plan for the long-term (this is not assessed).
- Materials generally do not facilitate student learning of basic skills of applied science, including evaluating others' research and setting up an independent research proposal (though they due participate in environmental monitoring).

#### 4. Action Orientation, Rating: 1

"EE materials should promote civic responsibility, encouraging learners to use their knowledge, personal skills, and assessments of environmental problems and issues as a basis for environmental problems solving and action."

Strengths in this Characteristic:

- Learners are encouraged to share and celebrate the results of their actions (more specifically the results of their Count experience) with peers and other interested people.

Weaknesses in this Characteristic:

- In general, materials do not promote intergenerational and global responsibility, linking historic and current actions with future and distant consequences (though this is dealt with in a limited degree).
- Learners are not provided with specific opportunities to reflection on the effects of their actions and to sort out their opinions about what, if anything, they should do differently.
- Materials do not contain examples of people of different ages, races, genders, cultures, and education and income levels who have made a difference by taking responsible action.
- Materials do not specifically convey the idea that many individual actions have cumulative effects, both in creating and addressing environmental issues.
- Materials generally do not challenge learners to apply their thinking and act on their conclusions (Crane hunting excepted).
- Materials do not include a variety of individual and community strategies for citizen involvement and do not provide learners with opportunities to practice these strategies through projects they generate individually in their school or in the larger community.
- There are not examples of successful individual and collective actions.

#### 5. Instructional Soundness, Rating: 2

"EE materials should rely on instructional techniques that create an effective learning environment."

Strengths in this Characteristic:

- Activities may allow learners to build from previous knowledge and lead toward further learning.
- Learners (should – this is not measured) gain understanding through research, discussion, application, and practical experiences (i.e. participating in the Crane Count).

- Where appropriate (though rather limited in this respect), activities and projects use learner questions and concerns as a starting point. (This may take place before or after training, and Coordinators share some participant questions with ICF)
- Some opportunities are provided for students to learn from experience (this varies, involving parents, families, friends, other community members, etc.) in learning activities.
- Case studies and examples are relevant to the learner (content and illustrations all appropriate for the Upper Midwest region).
- Students learn in a diverse environment which consists of various field settings (Crane Count sites).
- Materials use examples that reflect real-world experiences (related to cranes and counting).
- Materials not only suggest, but require experiential learning activities in which students immerse themselves in an activity outside of the classroom – the Crane Count itself.
- The materials may help develop skills useful in other subject areas, such as reading comprehension, math, writing, and map reading and analysis, but this is not measured.
- Goals and objectives for learner outcomes are clearly stated.
- Lesson-related activities can be accomplished in the time specified (two hours on Count day) with the provided resources.
- Environmental responsibility is modeled in the design, underlying philosophy, and suggested activities of the lessons and materials.
- Learner outcomes are tied to the goals and objectives of the materials.
- Expectations for the Crane Count are made clear to students at its onset.

Weaknesses in this Characteristic:

- Instruction does not necessarily assist learners in undertaking their own inquiry.
- Materials do not facilitate learner participation in planning and assessing learning, and do not promote learner reflection on the process and content of learning.
- Materials do not encourage educators to experiment with a range of instructional methods to reach learners with a variety of learning styles. This is challenging, as opportunities to use such methods are somewhat limited.
- Important concepts are not necessarily conveyed in several ways so that all students can understand them (major focus is on the written word, with some visuals, and a small amount of auditory).
- Materials, activities, and content are not specifically developmentally appropriate for any designated grade – for the most part “one size fits all,” and participants range from youth to senior citizens. Materials are not specifically sensitive to individual differences in educational experience and learning mode.
- Opportunities are not provided for students to learn from expression (using music, art, poetry, etc.).
- Diverse sensory involvement is not a criterion for selecting learning activities.
- Learners are not specifically challenged to develop their multiple intelligences.
- Learning is not accessible to students with limited English proficiency.
- Concepts to be taught are not related directly to students’ experiences.
- Instructional materials may not be easy for students to use and understand (based on CED experience in examining completed Data Sheets, as well as County Coordinator feedback).
- Materials do not reflect cultural, gender, and age differences.
- Materials generally do not provide for continuing involvement throughout the year by the learner, both at home and at school. Means for involving the learners’ families or care givers are not suggested.
- Materials do not suggest partnerships with local civic organizations, businesses, religious communities, or governments to explore a local issue. (Crane hunting excepted.)
- Except in a very few cases, there are not partnerships with local universities, colleges, or technical schools to allow learners to participate in research, environmental monitoring, creative projects, etc. (Exceptions are the few counties in which coordination is run through a university organization, such as The Wildlife Society at UWSF)
- Materials generally do not suggest linkages to informal, experiential, and service learning opportunities in the community.
- Lists of written materials and other resources for further study are generally not included (except in some Coordinator materials).
- Materials do not clearly list the subject disciplines integrated into each lesson or lessons, and do not suggest tie-ins with other subject areas.
- The content may not be appropriate for fully addressing the objectives. Steps for accomplishing the objectives are not identified in written lesson or activity plans.
- Activities are not necessarily relevant, accurate, predictable, and suitable for target grade levels (youth to senior citizens), as they are currently “one size fits all.” Materials in general do not include suggestions for appropriate variations and extensions.
- Activities may not be efficient. The amount of time required may not be consistent with the importance of what is to be learned. Evaluation/assessment of goals and objectives is necessary to determine this.
- Materials do not state expected learner outcomes and do not provide examples of how to use specific performance-based assessments to indicate mastery.
- Means of assessing learners’ baseline understandings, skills and concepts at the beginning of each lesson are not included.



- Materials do not use current and appropriate educational assessment techniques.
- There are no practical and efficient assessment techniques currently suggested.
- Assessment is not ongoing, and is not tied to student learning.
- Students do not assess their own or other students' work.

#### 6. Usability, Rating: 3

"EE materials should be well designed and easy to use."

##### Strengths in this Characteristic:

- Materials are clearly written. Examples in the text are appropriate to the content.
- Instructions for educators are clear and concise.
- The following information is included in a straightforward manner:
  - Intended audience/grade level (youth to senior citizens)
  - Process skills addressed (observing, documenting)
  - Equipment needed
  - Safety precautions
  - Time needed for activity
  - Brief overview of activity
  - Instructions for conducting activity
- Background information for the educator (Coordinators) is present, and there are listings of some additional resources.
- Materials are organized sequentially, but may not be easy-to-use.
- Field work is clearly linked to related content material.
- Some illustrations, photographs, maps, graphs, and charts are useful, clear, and easy to read.
- Most materials are easy for educators for keep and use.
- Masters for student handouts and overhead transparencies are easily duplicated (and also available online).
- Most materials are available in electronic format online.
- Materials include information on where replacements and updates can be obtained (primarily online or through ICF).
- Most equipment and materials are listed, reasonably accessible, inexpensive, and simple to use.
- Student materials are sufficiently supplied. Consumable instructional materials are of good quality and sufficient quantity to support the objectives (though not all objectives are fully supported at the current time).
- Nonconsumable materials can be reused by another educator (or the same one).
- Continuing technical support for educators (Coordinators) is available.
- Materials include lists of essential resource and supporting materials (ICF/Coordinator contacts, website, etc.).
- The program provides for constant, but very limited feedback throughout the year.
- Program materials could be (but are not currently) correlated with national, state, or local requirements or learning objectives.
- Materials could be readily integrated into established curricula.

##### Weaknesses in this Characteristic:

- Materials may not be engagingly written.
- The following information is not included in a straightforward manner, and may not be included at all:
  - Instructional setting and optimal number of learners
  - Disciplines and concepts covered
  - Intended learner outcomes
  - Suggestions for assessing the activity
  - Pre- and post-activities
- Background information for the educator (Coordinators) may not be adequate – goals, objectives, etc. are currently not included.
- The layout of materials may not be appealing for educators and learners.
- Some illustrations, photographs, maps, graphs, and charts are not useful, clear, and easy to read.
- Suggestions are not provided for adapting lessons and activities for learners from particular ethnic or cultural backgrounds.
- Materials are not available in more than one language.
- There are not suggestions for finding low-cost or no-cost alternatives for the equipment and materials needed.
- Materials do not provide suggestions for adaptations for students with special learning needs, language needs, and physical needs.
- Materials do not offer ideas for adapting to different grade levels.
- Professional development programs for the Crane Count are not accessible to educators (Coordinators) either in this area or in the Upper Midwest.
- Instructional programs do not provide follow-up activities or evaluations, and do not help develop a network of practitioners.
- Claims of learning outcomes are not substantiated by systematic evaluation rather than merely by letters of endorsement and anecdotal comments from users.
- Materials were not field tested under conditions similar to their intended use and evaluated in terms of stated goals and objectives prior to wide scale implementation.

- The program provides for constant, but very limited feedback throughout the year.
- Educators (Coordinators) who work in the settings in which the material is intended to be used did not participate on the development team or review drafts of the materials.
- Experts in learning theory, evaluation, and other appropriate educational disciplines were not involved on the development team and did not review drafts of materials.

**APPENDIX V:**  
**Gap Identification and Summary**

Objective	Identified Gaps (2 or less materials associated with objective)	Number of Times a Program Material Item is Associated with an Objective	Associated Items
C.A.1.a	X	5	Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Results Newsletter
C.A.1.b	X	4	Crane Count Poster, County Press Release, Crane Count Web Pages, Results Newsletter
C.B.1.a	X	8	Coordinator Notes, Crane Count Training Video, Data Sheet, Instructions in the Field, Counter's Information (specific web page), County Coordinator Resources (specific web page), Past Results and Data Use (specific web page), Results Newsletter
C.B.1.b	Gap	2	County Press Release, Crane Count Web Pages
C.C.1.a	Gap	0	X
C.D.1.a	Gap	0	X
C.D.2.a	Gap	0	X
C.E.1.a	X	5	Crane Count Poster, County Press Release, Crane Count Web Pages, Get Involved (specific web page), Counter's Information (specific web page)
C.E.1.b	Gap	2	Data Sheet, Results Newsletter
C.F.1.a	X	7	Coordinator Notes, County Press Release, Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Crane Count Web Pages
C.F.1.b	Gap	1	Results Newsletter
C.F.1.c	Gap	0	X
S.1.a	X	4	New Site Record Form, Summary Sheet, Master D.O.T. Map, Data Sheet
S.1.b	Gap	0	X
S.1.c	Gap	2	Master D.O.T. Map, Data Sheet
S.2.a	Gap	1	Results Newsletter
S.2.b	Gap	0	X
S.2.c	Gap	2	Past Results and Data Use (specific web page), Results Newsletter
S.2.d	Gap	0	X
S.2.e	Gap	0	X

## Gap Identification Summary

### Objectives Currently Addressed with Associated Materials:

C.A.1.a: Public awareness of cranes, wetlands, and other wildlife will be increased through citizen participation in the Crane Count.

Associated Materials: Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Results Newsletter

C.A.1.b: Public awareness of cranes, wetlands, and other wildlife will be increased through publicity, ICF's website, and published research.

Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Results Newsletter

C.B.1.a: Participant knowledge about cranes and the ecosystems on which they depend will be increased through program materials and participation in the Crane Count.

Associated Materials: Coordinator Notes, Crane Count Training Video, Data Sheet, Instructions in the Field, Counter's Information (specific web page), County Coordinator Resources (specific web page), Past Results and Data Use (specific web page), Results Newsletter

C.E.1.a: ICF will recruit citizens from youth to seniors to participate in the Crane Count.

Associated Materials: Crane Count Poster, County Press Release, Crane Count Web Pages, Get Involved (specific web page), Counter's Information (specific web page)

C.F.1.a: The Crane Count will support citizens by increasing their level of awareness and knowledge about cranes and the ecosystems on which they depend.

Associated Materials: Coordinator Notes, County Press Release, Crane Count Training Video, Data Sheet, Instructions in the Field, Landowner Information Sheet, Crane Count Web Pages

S.1.a: The Crane Count will gather information on cranes in the abundance and distribution of cranes in the Upper Midwest.

Associated Materials: New Site Record Form, Summary Sheet, Master D.O.T. Map, Data Sheet

### Objectives Not Currently Addressed (identified gaps):

Gaps are defined as those objectives associated with two or less materials. Associated Materials are listed when applicable.

C.B.1.b: Citizen knowledge about cranes and the ecosystems on which they depend will be increased through publicity, ICF's website, and published research.

Associated Materials: County Press Release, Crane Count Web Pages

C.C.1.a: Citizens will have the opportunity to participate in the Crane Count to gain experience studying cranes and the ecosystems on which they depend.

C.D.1.a: Positive attitudes towards cranes and wetlands will increase through citizen participation in the Crane Count.

C.D.2.a: After participating in the Crane Count, citizens will take well-informed, independent action towards conservation and environmental protection.

C.E.1.b: ICF will make people aware of other opportunities for involvement through program materials.

Associated Materials: Data Sheet, Results Newsletter

C.F.1.b: The Crane Count will support citizen skills and decision-making, and suggest how citizens can get involved in conservation issues.

Associated Materials: Results Newsletter

C.F1.c: The Crane Count will allow citizens to develop skills and provide an opportunity for participation that can later transfer to other action outside of the Crane Count.

S.1.b: ICF will retain records gathered through the Crane Count, and maintain a long-term database.

S.1.c: The Crane Count will gather information on crane habitat and habitat use.

Associated Materials: Master D.O.T. Map, Data Sheet

S.2.a: ICF will provide summaries of data gathered yearly to all program participants.

Associated Materials: Results Newsletter

S.2.b: ICF will use Crane Count data for a variety of research and analysis purposes.

S.2.c: Crane Count data will be available to not only ICF staff, but organizations, government agencies, and citizens as an information source.

Associated Materials: Past Results and Data Use (specific web page), Results Newsletter

S.2.d: Crane Count data will be used to complement other ICF studies, as well as other researchers' studies.

S.2.e: Data will be used to evaluate crane population and habitat status, and for long-term monitoring of cranes and their habitats.

**APPENDIX W:**  
**Resources Database**

Resource Name (original)	Source	Reference	Description	Crane Count Objectives (Goals in bold standard text, currently addressed (b) in italics)	Number of Objectives potentially addressed (regas. addressed)	Priority Score	Priority Rating (High: 1-13, Moderate: 1-7, or Low: 1-4)
CBC Survey	<a href="http://www.audubon.org/eyecbc/petCBC_Survey_2005.pdf">http://www.audubon.org/eyecbc/petCBC_Survey_2005.pdf</a> CBC <a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	CBC	This is a brief survey directed at CBC participants to get input on CBC coverage in American Birds magazine, as well as the CBC website.		0	0	0 Low
"Data Entry" link	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	FW	Takes visitor to a login/password page before data can be entered.	C.C.1.a,	1 (1,0)	1	1 Low
"Featured Photos" link	<a href="http://www.audubon.org/eyecbc/getinvolved.html">http://www.audubon.org/eyecbc/getinvolved.html</a>	FW	Features and displays a few photos submitted by FW participants. Also includes a link to a gallery of previously submitted and featured photos.	C.D.1.a,	1 (1,0)	1	1 Low
CBC "Get Involved" link	<a href="http://www.audubon.org/eyecbc/getinvolved.html">http://www.audubon.org/eyecbc/getinvolved.html</a>	CBC	Describes current status of the CBC program for those wishing to get involved. Provides resources for CBC completers (the equivalent of Crane Counters County Coordinators). Includes text on the web itself, as well as pdf files. Resources include: important information, current timeline, completers manual, data entry manual, completers packet online (a variety of forms that completers may need), fee policy, editorial codes, and new count application information.	C.C.1.a, C.E.1.a,	2 (1,1)	2	2 Low
CBC "Completers Page" link	<a href="http://www.audubon.org/eyecbc/complet.html">http://www.audubon.org/eyecbc/complet.html</a>	CBC	Gives registered users/participants access through a login and password, presumably to enter and submit their CBC data or to review it. Actual review of this section is not possible due to registration restrictions.	C.C.1.a, C.E.1.a,	2, (1,1)	2	2 Low
CBC "Data Entry/Review" link	<a href="http://www.audubon.org/north/journey/north">http://www.audubon.org/north/journey/north</a>	CBC	Home page for Journey North, with a brief description of what it is, and links to its various projects.	C.B.1.b, C.C.1.a, C.B.1.a,	3 (2,1)	3	3 Low
Journey North Home Page	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	Journey North (JN)	Basic instructions on "how to" participate in FW. Step by step. Includes instructions on submitting data via paper forms or through an online process.	C.C.1.a, C.E.1.a, C.F.1.a,	3 (1,2)	3	3 Low
"Instructions" link	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	FW	Has links to a variety of things that may be of interest to FW participants. Many of them appear somewhat "fun" such as photo galleries, FW participant stories, etc. This area appears to highlight and build upon enthusiasm expressed by participants, and may be one form of recognition for their work.	C.C.1.a, C.F.1.a, C.B.1.a,	3 (2,1)	3	3 Low
"Participants corner" link	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	FW	Provides background on the western and eastern flocks of whooping cranes. Provides primary links for background knowledge and basic activities including: meet two flocks (western & eastern). Follow Migration Reports (updated throughout the season as the program progresses). Track the Migration (mapping and activities). Investigate Crane survival lesson. Learn About Radio Tracking Cranes, a Review of Crane Reintroduction, and Look at Reintroduction History.	C.D.1.a, C.D.2.a, C.F.1.b,	3 (3,0)	3	3 Low
JN "Getting Started" link for whooping cranes	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	JN	Links to a page that lists a variety of questions about whooping cranes (characteristics, life cycle, ecology, and conservation). Clicking on the questions leads to answers.	C.B.1.b, C.A.1.b, C.B.1.a, C.F.1.a,	4 (1,3)	4	4 Low
JN "Facts about Whooping Cranes" link	<a href="http://www.audubon.com/edu/pp1/CheckUserLogin">http://www.audubon.com/edu/pp1/CheckUserLogin</a>	JN	Links to a page that lists a variety of questions about whooping cranes (characteristics, life cycle, ecology, and conservation). Clicking on the questions leads to answers.	C.B.1.b, C.A.1.b, C.B.1.a, C.F.1.a,	4 (1,3)	4	4 Low



<a href="http://www.iamn.org/whoooping/crane/links/cbc">http://www.iamn.org/whoooping/crane/links/cbc</a>	JN	A variety of photos, videos, and booklets on whooping cranes centered towards youth can be accessed here.	CB.1.B, CA.1.D, CB.1.A, CF.1.A	4 (1,3)	4 Low
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	An activity designed to encourage youth to ask questions of the "experts" that they are unable to answer themselves. Includes background on meeting the expert, preparing questions, submitting questions, and answers as well. Previous answers are included in the whooping crane FAQ page.	CB.1.B, CD.1.A, CA.1.B, CE.1.A, CF.1.A	5 (2,3)	5 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Takes visitor to a page that asks a variety of basic questions about FeederWatch (i.e. What is it? What do data tell us? Etc.). Clicking on the questions quickly takes visitors to their answers.	CB.1.B, CD.1.A, CA.1.D, CE.1.A, CF.1.A	5 (2,3)	5 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Lists and briefly answers 7 commonly asked questions about the CBC. Includes items such as what it is, why it is useful, how to get involved, and fee information.	CC.1.A, CD.1.A, CD.2.B, CA.1.D, CE.1.A, CF.1.A	6 (2,3)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Derives as the primary menu for the JN whooping crane project/program, with a variety of links. JN works with citizen science focused on migration and seasonal change, primarily by providing students (K-12) in studying these topics. The "Migrator News" link is updated periodically as appropriate for the selected time period -- fall or spring.	CB.1.B, CD.1.A, CA.1.D, CE.1.A, CE.1.A, CF.1.A	6 (2,4)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Provides links to the basic "Setting Blarney" page mentioned above, as well as an extensive variety of lessons for spring and fall, and other supplementary lessons centered on whooping cranes.	CB.1.B, CD.1.A, CF.1.A, CA.1.D, CE.1.A, CF.1.A	6 (2,3)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Provides links to a variety of featured stories and scientific articles related to FW.	CB.1.B, CF.1.B, CD.2.B, CA.1.D, CE.1.A, CF.1.A	6 (3,3)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	A variety of links to various topics associated with birds and birding. Appears to be a good informational resource for program participants.	CB.1.B, CD.2.A, CF.1.B, CA.1.B, CE.1.A, CF.1.A	6 (3,3)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	A few FW participants have been selected and featured. Details include a brief biography related to birds and the program, and selected details and photos of when individuals and their sites have teamed or experienced through the FW program.	CB.1.B, CD.1.A, CF.1.B, CA.1.B, CE.1.A, CF.1.A	6 (3,3)	6 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Introduces and briefly describes the FeederWatch program, and provides a variety of links about the program, how to get involved, and other items of potential interest to participants or website visitors. Project booklets are provided on this page, as well as selected features (rare birds, live TV, photos, feeder cam, etc.)	CB.1.B, CD.1.A, CF.1.B, CA.1.B, CE.1.A, CE.1.A, CF.1.A	7 (2,4)	7 Moderate
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Portal to the online portion of the Christmas Bird Count (CBC). Introduces the current status of the CBC, and invites website visitors to make use of available resources. Includes direct links to key portions of online site, and links to other citizen science programs sponsored by Audubon.	CB.1.B, CD.1.A, CE.1.A, CF.1.B, CF.1.A, CA.1.D	8 (8,3)	8 High
<a href="http://www.iamn.org/whoooping/crane/links/faq">http://www.iamn.org/whoooping/crane/links/faq</a>	JN	Takes visitor to a page describing some benefits of citizen science. Includes links to Audubon's current citizen science programs, as well as several "iv" citizen science programs of some of their partner organizations.	CC.1.A, CD.1.A, CD.2.A, CE.1.B, CF.1.B, CA.1.D, CE.1.A, CF.1.A	8 (8,3)	8 High

CBC "History and Objectives" link	<a href="http://www.audubon.org/bird/cbc/history.html">http://www.audubon.org/bird/cbc/history.html</a>	CBC	Provides a brief history of the CBC, as well as a brief discussion of what the CBC accomplishes, some of its benefits, and examples of what it is used for.	C.B.1.b, C.D.1.a, C.F.1.b, 8.2.b, C.A.1.b, C.B.1.a, C.E.1.a, C.F.1.a, 8 (4,4)	8 High
CBC "Bibliography" link	<a href="http://www.audubon.org/bird/cbc/biblio.html">http://www.audubon.org/bird/cbc/biblio.html</a>	CBC	A fairly extensive bibliography of articles based on CBC data. Organizes articles by general topic, provides citation information, and thereby illustrates some of the uses to which CBC data have been put.	C.B.1.b, C.D.1.a, C.D.2.a, C.F.1.b, 8.2.b, C.A.1.b, C.B.1.a, C.F.1.a, 8 (5,3)	8 High
JIN "How You Can Help Whooping Cranes" link	<a href="http://www.learn.org/jin/help/cranehelp.html">http://www.learn.org/jin/help/cranehelp.html</a>	JIN	Provides a list of ways that children (or other people) can help whooping crane recovery efforts.	C.D.1.a, C.D.2.a, C.E.1.b, C.F.1.b, C.F.1.c, C.A.1.b, C.B.1.a, C.F.1.a, 8 (5,3)	8 High
CBC "Current Year's Results" link	<a href="http://cbc.audubon.org/current_year_results_table.html">http://cbc.audubon.org/current_year_results_table.html</a>	CBC	Allows website visitor to search out a current year's count results, and creates a table of the available information. Visitors can also search out results for a specific species.	C.B.1.b, C.D.2.a, C.F.1.b, C.F.1.c, 8.1.b, 8.2.a, 8.2.a, 8.2.d, C.A.1.b, C.B.1.a, C.F.1.a, S.1.a, 12 (8,4)	12 High
"Explore Data" link	<a href="http://watchbird.com/edu/PW/ExploreData">http://watchbird.com/edu/PW/ExploreData</a>	FW	Allows website visitor to view FW data summaries in a variety of formats (personal summaries, rare birds, trend graphs, etc.)	C.B.1.b, C.D.2.a, C.F.1.b, C.F.1.c, 8.1.b, 8.2.a, 8.2.a, 8.2.d, C.A.1.b, C.B.1.a, C.F.1.a, S.1.a, 12 (8,4)	12 High
CBC "Historical Results" link	<a href="http://www.audubon.org/bird/cbc/hindex.html">http://www.audubon.org/bird/cbc/hindex.html</a>	CBC	Allows visitors access to historic CBC data in a variety of formats. From this page, you can make maps of bird distribution, construct graphs of species trends over time, or see the raw count data. See what's happened on your count over time; look up your favorite species; many more discoveries await!	C.B.1.b, C.D.1.a, C.D.2.a, C.F.1.b, C.F.1.c, C.F.1.d, 8.1.b, 8.2.a, 8.2.a, 8.2.d, C.A.1.b, C.B.1.a, C.F.1.a, C.F.1.a, S.1.a, 13 (9,4)	13 High