



REQUEST FOR PROPOSALS (RFP)

Whooping Crane Monitoring

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

Office of the Executive Director
4111 4th Avenue, Suite 6
Kearney, Nebraska 68845

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**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
REQUEST FOR PROPOSALS (RFP)**

SUBJECT: Spring and Fall Whooping Crane Monitoring
REQUEST DATE: June 22, 2015
PRE-PROPOSAL MEETING: July 6, 2015
CLOSING DATE: July 24, 2015
POINT OF CONTACT: Dave Baasch
Headwaters Corporation
(308) 390-0456
baaschd@headwaterscorp.com

I. OVERVIEW

The Platte River Recovery Implementation Program (“Program” or “PRRIP”) initiated on January 1, 2007 between Nebraska, Wyoming, Colorado, and the Department of the Interior to address threatened and endangered species issues in the central and lower Platte River basin. The species considered in the Program, referred to as “target species”, are the whooping crane, piping plover, interior least tern, and pallid sturgeon.

A Governance Committee (GC) reviews, directs, and provides oversight for Program activities. The GC is comprised of one representative from each of the three states, three water user representatives, two representatives from environmental groups, and two members representing federal agencies. The GC has named Dr. Jerry Kenny to serve as the Program Executive Director (ED). Dr. Kenny established Headwaters Corporation as the staffing mechanism for the Program. Program staff is located in Nebraska and Colorado and are responsible for assisting in carrying out Program-related activities.

In 2007, the Program began its 13-year First Increment and implementation of an Adaptive Management Plan (“AMP”) to learn more about the physical processes of the central Platte River and the response of the four target species to management actions. The AMP includes several protocols for monitoring target species, habitat, and physical processes to better understand interrelationships and provide data for evaluating species response to management actions. This RFP related to the whooping crane monitoring protocol for the Program.

Information from this protocol will be used to help evaluate the biological response of whooping cranes and habitat to the land and water management activities of the Program. Several critical scientific and technical uncertainties about Program target species, physical processes, and the response of the target species to management actions will be the focus of the application of rigorous adaptive management in the First Increment through implementation of the Program’s AMP. These uncertainties are captured in statements of broad hypotheses on pages 14-17 of the AMP and, as a means of better linking science learning to Program decision-making, those uncertainties comprise a set of “Big Questions” that provide a template for linking specific hypotheses and performance measures to management objectives and overall Program goals (see PRRIP 2007-2010 Synthesis Report, 2011).

Two “Big Questions” relate directly to whooping cranes:

- **Big Question #5** – Do whooping cranes select suitable riverine roosting habitat in proportions equal to its availability?
- **Big Question #10** – How do Program management actions in the central Platte River contribute to least tern, piping plover, and whooping crane recovery?



49 These uncertainties led to the development of a specific management objective for the whooping crane and
50 indicators related to that objective, as noted in the AMP:

51
52 **Management Objective** *Contribute to the survival of whooping cranes during migration*

53 **Indicators** * Increase area of suitable roosting and foraging habitat

54 * Increase crane use days

55
56 To assess progress toward this objective and learn about the major whooping crane uncertainties, several
57 finer-scale priority hypotheses were developed by Program participants. In 2010, those hypotheses were
58 sequenced to develop a smaller set of Tier 1 hypotheses to receive focused attention in the First Increment.
59 For whooping cranes, those Tier 1 hypotheses are:

- 60
- 61 • **WC-1:** Whooping crane use will increase as a function of Program land and water management
62 activities.
 - 63 • **WC-3:** Whooping crane use is related to habitat suitability. Riverine habitat suitability for whooping
64 cranes is a function of channel characteristics such as water depth, channel width, and unobstructed-
65 view widths.
- 66

67 This monitoring protocol is intended to provide standard implementation guidance for collecting whooping
68 crane (# of use days) and habitat (i.e., channel characteristics at roost sites and landscape level attributes at
69 diurnal use sites) data necessary to test the Tier 1 whooping crane hypotheses, assess progress toward
70 meeting the whooping crane management objective, and evaluate learning related to the whooping crane
71 Big Questions. **As such, this is a validation monitoring protocol.** Use of the phrase “suitable channel
72 habitat” relates to the Program’s established minimum habitat criteria (see ILT-PP-WC Minimum Habitat
73 Criteria, 2008). This protocol will be used by the Program to gather information on whooping crane habitat
74 use and to provide an index of whooping crane abundance in the study area. It is understood that regardless
75 of survey method not all whooping cranes are certain of being detected during migration and therefore full
76 implementation of this or any other protocol will not represent complete whooping crane use of the central
77 Platte River valley.

78
79 The GC submits this Request for Proposals (RFP) to solicit proposals from Consultants to implement the
80 Program’s whooping crane monitoring protocol in the central Platte River (Nebraska) valley during the
81 annual spring and fall migrations. Monitoring results will serve as a tool for the GC to assist in determining
82 whooping crane habitat use and provide an index of abundance in the study area. The term Consultant shall
83 be used throughout this document to describe both the RFP Respondent providing the proposal and the
84 Consultant (the successful Respondent) who would be performing the work upon award of the project.

85
86 **This RFP describes a multi-year program of work encompassing annual whooping crane monitoring**
87 **activities twice a year (during the spring and fall migration periods) from August 2015 through July**
88 **2019. Annual budgets for implementing the protocol will be developed in conjunction with the**
89 **selected Consultant. A four-year program of monitoring and reporting will begin in 2015, with**
90 **potential extension beyond 2019. Under the final contract, annual written Notice to Proceed from the**
91 **Program Executive Director’s Office (EDO) will be required before work begins. All work will be**
92 **contingent on availability of Program funding.**

93



94 **II. PROJECT DESCRIPTION & SCOPE OF WORK**

95 The Consultant will rigorously implement the Program’s Whooping Crane Monitoring Protocol (see
96 Attachment A) for the purposes of collecting data on whooping crane occurrence and use in the central
97 Platte River valley during the fall 2015, spring and fall 2016-2018, and spring 2019 migration seasons.
98 The protocol provides extensive detail about the study area, timing, and survey/data collection methods.
99 Consultants responding to this RFP should provide information detailing their ability to implement all
100 aspects of the protocol in accordance with the established spring and fall migration survey periods and
101 reporting dates.

102
103 **Monitoring Tasks**

104 In particular, potential Consultants should be aware of the following details related to implementation of
105 the protocol:

106
107 1) Detect and confirm whooping crane stopovers in the study area (Appendix A) – systematic aerial
108 surveys of the study area will be conducted and the data will be used to comparatively evaluate changes in
109 the frequency and distribution of stopovers within the study area over time. Whooping Crane Tracking
110 Partnership telemetry project locations and opportunistic locates will also be used to detect whooping
111 crane stopovers in the study area; however, telemetry data will only be used by the Consultant to relocate
112 whooping cranes using the study area that were already observed by the monitoring crew. Additional
113 whooping crane stopover locations identified via telemetry will be reported to the Consultant after the
114 whooping crane group leaves the study area so that habitat data can be collected at these sites as well.

115
116 2) Landscape Data Collection – Basic landscape source data of whooping crane use-sites in the study
117 area will be collected through this protocol. This information will be used in future use/availability
118 analyses using aerial photography, Geographic Information System (GIS) information, and appropriate
119 landscape data collected from other protocols. Currently the Program has available a complete land
120 use/land cover GIS analyses of 1998 (baseline) and 2005 color infrared photography. Continued regular
121 collection of landscape data sources of the study area through other protocols such as aerial photographs,
122 LiDAR, geomorphology monitoring, GIS data, and annual habitat suitability analyses will enable future
123 habitat use/availability analyses.

124
125 **Data Analysis**

126 The successful Consultant will be expected to provide basic analyses of collected whooping crane and
127 associated habitat data in accordance with data needs as directed by the EDO. The Program is currently
128 undergoing a process of specifying the data needed, preferred analysis methods, and the preferred form of
129 analysis presentations (graphs, charts, text, etc.). This information will be communicated to the
130 successful Consultant prior to the start of the fall 2015 migration season and the Consultant will be
131 expected to stay in close communication with the EDO during the reporting process for each migration
132 season to respond to analysis needs and changes. **NOTE: Proposals submitted in response to the RFP**
133 **should provide a clear indication of the ability of the Consultant to provide basic statistical data**
134 **analysis and presentation.**

135
136 **Reporting**

137 The successful Consultant will generate a draft (Microsoft Word) and final (Microsoft Word and PDF)
138 report at the completion of each migration season that includes methods, results, data analysis (as
139 requested by the Program), photographs of field work, and other associated data. Reports will be
140 delivered electronically to the EDO for review and comment by the EDO and the Program’s Technical
141 Advisory Committee. The successful Consultant will also be required to prepare for, attend, develop an



142 Executive Summary for, and deliver a presentation at the Program’s annual Adaptive Management Plan
143 Reporting Session generally held in Denver, CO in early October of each year.

144

145 **III. PROJECT BUDGET**

146 An estimated project budget should be submitted in the proposal, on a not-to-exceed time and expense basis
147 for the work to be completed. A final budget will be established as part of the Project Scoping and Kickoff
148 and will depend upon the budget estimate provided in the proposal for the selected Consultant.

149

150 Proposals will be evaluated on criteria described in **Section VI** below, including understanding of the
151 objectives of the project, qualifications of the team members, and clarity/content of project schedule, scope,
152 and budget. **The work will not be awarded based solely on a lowest cost basis.**

153

154 **IV. FIELD AND OFFICE EQUIPMENT**

155 Potential Consultants will own or acquire all field and office equipment and software required to implement
156 the Whooping Crane Monitoring Protocol.

157

158 **V. CONTRACT TERMS**

159 The selected Consultant will be retained by: Nebraska Community Foundation
160 PO Box 83107
161 Lincoln, NE 68501

162

163 Proposal should indicate whether the Consultant agrees to the contract terms, as outlined in the attached
164 Program’s Consultant Contract (Attachment B), or provides a clear description of any exceptions to the
165 terms and conditions.

166

167 The initial term of the contract will be for a period beginning in August 2015 and terminating in July
168 2019 with an option to renew at the sole discretion of the GC. Contracted services will be performed on a
169 time and material not to exceed basis. Under the final contract, written Notice to Proceed from the
170 Executive Director will be required before works begins. All work will be contingent on availability of
171 Program funding.

172

173 **VI. SUBMISSION REQUIREMENTS**

174 All interested parties having interest in providing the services listed in this RFP are requested to submit a
175 proposal.

176

177 *Instructions for Submitting Proposals*

178 One electronic copy of your proposal must be submitted in PDF format to Dave Baasch at
179 baaschd@headwaterscorp.com no later than 5:00 p.m. Central time on Thursday, July 24, 2015.
180 Maximum allowable proposal PDF size is 8MB, and proposals are to be limited to a total of 50 pages or
181 less. A proposal is late if received any time after 12:00 p.m. Central time and will not be eligible for
182 consideration.

183

184 Questions regarding the information contained in this RFP should be submitted to Dave Baasch at
185 baaschd@headwaterscorp.com. A list of compiled Consultant questions and responses will be maintained
186 on the Program web site (www.PlatteRiverProgram.org) in the same location as this RFP solicitation.

187

188



189 RFP Schedule

190 The EDO expects to complete the selection process and notify the Consultant most likely to be awarded the
191 Contract by August 1, 2015; however, final Governance Committee approval of the Contract and notice to
192 proceed won't occur until September 9, 2015. The following table represents the RFP schedule:
193

Description	Date	Time (Central)
Issue RFP	June 22, 2015	NA
Pre-proposal meeting	July 6, 2015	1:00 PM
Last day for respondents to submit questions regarding the RFP	July 20, 2015	5:00 PM
Proposals due from respondents	July 24, 2015	5:00 PM
Evaluation of proposals	July 25, 2015 thru July 31, 2015	
Contrator Selection	On or before August 1, 2015	
Program Approval of Contract	September 9, 2015	
Completion of Work	Approximately July 31, 2019	

194
195 Pre-Proposal Meeting

196 A non-mandatory pre-proposal meeting of interested parties will be held on July 6, 2015 from 1:00 to 2:00
197 p.m. Central Time via conference call for the purpose of familiarizing the respondents with the work scope
198 and requirements included herein before submitting a response to this RFP. Please email Dave Baasch
199 (baaschd@headwaterscorp.com) for the conference call dial-in information along with a list of people from
200 your party expected to join in the pre-proposal conference call by 12:00 p.m. Central time on July 2, 2015.
201

202 The meeting will include a brief overview by the EDO regarding the objectives of the project, the scope
203 of services, and the timeline. It is the Consultant's responsibility, while at the pre-proposal
204 meeting/conference call, to ask questions necessary to understand the RFP so the respondent can submit a
205 proposal that is complete and in accordance with RFP requirements. It is highly recommended that all
206 prospective Consultants participate in the pre-proposal meeting/conference call as there shall be no
207 minutes distributed by the EDO regarding the meeting.
208

209 Proposal Content

210 Proposals should respond to the following general topics:
211

- 212 1) **Executive summary** that presents a brief firm overview that condenses and highlights the contents of
213 the proposal in such a way as to provide a broad understanding of the Consultant's qualifications and
214 proposal.
215
- 216 2) **Project understanding** that demonstrates the Consultant understands project goals and objectives and
217 identifies issues critical to project success.
218
- 219 3) **Project approach** that documents how the Consultant would organize and execute the scope of work
220 detailed in this RFP and provides project team organization, resumes, and responsibilities and specifies
221 which team members will work on each specific task.
222
- 223 4) **Qualifications and project experience** relevant to this project including the involvement/role of the
224 proposed team in those projects. Be clear which team members will work on specific tasks outlined in
225 the Project Approach and focus on those team members' qualifications specific to assigned task.
226



- 227 5) **Schedule** for completing the tasks identified in the project approach. Include potential constraints or
228 challenges based on the tasks described above.
229
- 230 6) **Compensation** for services to complete the project – see Section III above for additional details.
231 Assumptions used must be clearly stated and a total estimated cost must be included. Consultant must
232 specify the estimated number of labor hours for each team member, billable rate and estimated direct
233 expenses (e.g., travel), and total project cost to complete the each task/subtask detailed herein and
234 Consultant’s other recommended or optional tasks.
235
- 236 7) **Conflict of interest statement** addressing whether or not any potential conflict of interest exists
237 between this project and other past or on-going projects, including any projects currently being
238 conducted for the Program.
239
- 240 8) **Description of insurance** shall be provided with the proposal. Proof of insurance will be required
241 before a contract is issued. Minimum insurance requirements are described in the attached Program’s
242 Consultant Contract (Attachment B).
243
- 244 9) **Acceptance of the terms and conditions** as outlined in the attached Program’s Consultant Contract,
245 or clear description of any exceptions to the terms and conditions.
246

247 Criteria for Evaluating Proposals

248 The GC will appoint a Proposal Selection Panel that will evaluate all proposals and select a Consultant
249 based on the following principal considerations:
250

- 251 1. Understanding of the overall objectives of the project and approach to meeting those objectives and
252 addressing critical project tasks and issues.
253
- 254 2. Qualifications and the relevant experience of the proposed project team members.
255
- 256 3. Clarity and content of the project schedule, scope, and budget.
257

258 Award Notice

259 After completing the evaluation of all proposals and, if deemed necessary, interviews, the Proposal
260 Selection Panel will select a Consultant. That firm will negotiate with the EDO to establish a fair and
261 equitable contract. If an agreement cannot be reached, a second firm will be invited to negotiate and so on.
262 If the Program is unable to negotiate a mutually satisfactory contract with a Consultant, it may, at its sole
263 discretion, cancel and reissue a new RFP.
264

265 Program Perspective

266 The Governance Committee of the Program has the sole discretion and reserves the right to reject any and
267 all proposals received in response to this RFP and to cancel this solicitation if it is deemed in the best
268 interest of the Program to do so. Issuance of this RFP in no way constitutes a commitment by the Program
269 to award a contract, or to pay Consultant’s costs incurred either in the preparation of a response to his RFP
270 or during negotiations, if any, of a contract for services. The Program also reserves the right to make
271 amendments to this RFP by giving written notice to Consultants, and to request clarification, supplements,
272 and additions to the information provided by a Consultant.
273



274 By submitting a proposal in response to this solicitation, Consultants understand and agree that any
275 selection of a Consultant or any decision to reject any or all responses or to establish no contracts shall be
276 at the sole discretion of the Program. To the extent authorized by law, the Consultant shall indemnify, save,
277 and hold harmless the Nebraska Community Foundation, the states of Colorado, Wyoming, and Nebraska,
278 the Department of the Interior, members of the Governance Committee, and the Executive Director's
279 Office, their employees, employers, and agents, against any and all claims, damages, liability, and court
280 awards including costs, expenses, and attorney fees incurred as a result of any act or omission by the
281 Consultant or its employees, agents, sub-Consultants, or assignees pursuant to the terms of this project.
282 Additionally, by submitting a proposal, Consultants agree that they waive any claim for the recovery of any
283 costs or expenses incurred in preparing and submitting a proposal.
284

285 **VII. AVAILABLE INFORMATION**

286 The following pertinent Program-related documents can be accessed from the Program's website
287 (www.PlatteRiverProgram.org):
288

- 289 • *Platte River Recovery Implementation Program: Final Program Document*. October 24, 2006.
- 290 • *Platte River Recovery Implementation Program, Attachment 3: Adaptive Management Plan*. October
291 24, 2006.



ATTACHMENT A

PRRIP Whooping Crane Monitoring Protocol



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Whooping Crane Monitoring Protocol – Migrational Habitat Use in the Central Platte River Valley

I. INTRODUCTION

In 2007, the Platte River Recovery Implementation Program (“Program” or “PRRIP”) began its 13-year First Increment and implementation of an Adaptive Management Plan (“AMP”) to learn more about the physical processes of the central Platte River and the response of four target species to management actions: interior least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), and pallid sturgeon (*Scaphirhynchus albus*). The AMP includes several protocols for monitoring target species, habitat, and physical processes to better understand interrelationships and provide data for evaluating species response to management actions. This document serves as the whooping crane monitoring protocol for the Program.

Information from this protocol will be used to help evaluate the biological response of whooping cranes and habitat to the land and water management activities of the Program. Several critical scientific and technical uncertainties about Program target species, physical processes, and the response of the target species to management actions will be the focus of the application of rigorous adaptive management in the First Increment through implementation of the Program’s AMP. These uncertainties are captured in statements of broad hypotheses on pages 14-17 of the AMP and, as a means of better linking science learning to Program decision-making, those uncertainties comprise a set of “Big Questions” that provide a template for linking specific hypotheses and performance measures to management objectives and overall Program goals (see PRRIP 2007-2010 Synthesis Report, 2011) .

Two “Big Questions” relate directly to whooping cranes:

- **Big Question #5** – Do whooping cranes select suitable riverine roosting habitat in proportions equal to its availability?
- **Big Question #10** – How do Program management actions in the central Platte River contribute to least tern, piping plover, and whooping crane recovery?

These uncertainties led to the development of a specific management objective for the whooping crane and indicators related to that objective, as noted in the AMP:

Management Objective	<i>Contribute to the survival of whooping cranes during migration</i>
Indicators	<ul style="list-style-type: none"> * Increase area of suitable roosting and foraging habitat * Increase crane use days * Increase proportion of whooping crane population use

To assess progress toward this objective and learn about the major whooping crane uncertainties, several finer-scale priority hypotheses were developed by Program participants. In 2010, those hypotheses were sequenced to develop a smaller set of Tier 1 hypotheses to receive focused attention in the First Increment. For whooping cranes, those Tier 1 hypotheses are:

- **WC-1:** Whooping crane use will increase as a function of Program land and water management activities.
- **WC-3:** Whooping crane use is related to habitat suitability. Riverine habitat suitability for whooping cranes is a function of channel characteristics such as water depth, channel width, and unobstructed-view widths.

This monitoring protocol is intended to provide standard implementation guidance for collecting whooping crane use and habitat (i.e., landscape level attributes at roost sites and diurnal use sites) data necessary to test the Tier 1 whooping crane hypotheses, assess progress toward meeting the whooping crane management objective, and evaluate learning related to the whooping crane Big Questions. Use of the phrase “suitable channel habitat” relates to the Program’s established minimum habitat criteria (see



PRRIP Draft Whooping Crane Minimum Habitat Criteria (Updated 8-1-12)). This protocol will be used by the Program to gather information on whooping crane habitat use and to provide an index of whooping crane abundance in the study area. It is understood that regardless of survey method not all whooping cranes are certain of being detected during migration and therefore full implementation of this or any other protocol will not represent complete whooping crane use of the central Platte River valley.

II. PURPOSE

The purpose of this monitoring protocol is to describe the conceptual design, study methods, and procedures that will be used annually to gather repeatable information on whooping crane stopovers in the central Platte River valley, Nebraska. The protocol outlines information the Program's Whooping Crane Monitoring Consultant (Consultant) will collect in the field, as well as from FWS and state agencies, and describes the procedures to be used for these specific objectives:

- 1) Detect and confirm whooping crane stopovers in the study area (Appendix A) – systematic, but targeted aerial surveys of the river channel and wetlands within the study area will be conducted and the data will be used to comparatively evaluate changes in the frequency and distribution of stopovers within the study area over time. The Whooping Crane Tracking Partnership's (WCTP) telemetry project locations and opportunistic locates will also be used to detect whooping crane stopovers in the study area; however, telemetry data will only be used by the Consultant to relocate whooping cranes using the study area that were already observed by the monitoring crew. Additional whooping crane stopover locations identified via telemetry will be reported to the Consultant after the whooping crane group leaves the study area.
- 2) Landscape Data Collection – Basic landscape source data of whooping crane use-sites in the study area will be collected through this protocol. Habitat metrics will be collected at confirmed systematic, opportunistic, and telemetry-marked whooping crane use sites. This information will be used in future use/availability analyses using aerial photography, Geographic Information System (GIS) information, LiDAR data, and appropriate landscape data collected from other protocols. Currently the Program has available a complete land use/land cover GIS analyses of 1998 (baseline) and 2005 color infrared photography. Continued regular collection of landscape data sources of the study area through other protocols such as aerial photographs, LiDAR, geomorphology monitoring, GIS data, and annual habitat availability assessments will enable future habitat use/availability analyses.

III. DESIGN CONSIDERATIONS AND SPECIFICATIONS

III.A. Area of Interest

The area of interest for monitoring whooping crane migrational habitat use consists of an area 3.5-miles either side of the Platte River beginning at the junction of U.S. Highway 283 and Interstate 80 near Lexington, Nebraska and extending eastward to Chapman, Nebraska. When side channels of the Platte River extend beyond the 3.5-mile area, a 2-mile area is included around these channels (see Appendix A)).

III.B. Project Design

This protocol collects information on whooping cranes using the central Platte River, not necessarily on the entire whooping crane population. This may bias the sample for making inference to the entire whooping crane population. In addition, the results from this protocol may not be representative of the population, or subgroup of the population using the central Platte River, because of the use of multiple observations per crane group and/or the lack of use by unique crane groups in the analysis (i.e., pseudo-replication). Options for addressing pseudo-replication are discussed in Section IV.D.

III.B.1. Detecting/Locating Whooping Crane Stopovers

Whooping crane stopovers will be documented using systematic aerial surveys, telemetry locations, and opportunistic sighting reports. Crane groups detected with systematic aerial surveys will have probabilities of inclusion estimated for the sample while crane groups detected opportunistically will compromise a non-



probability based sample. Systematic riverine surveys cover the study area from east to west with equal effort, however, biases associated surveying the ‘main channel’ will be accounted for through detection trials. Inferences from analyses of riverine survey data will be applicable to all Platte River channels. Systematic return surveys cover the off-channel portion of the study area most likely to be used by whooping crane groups at or near sunrise. Targeted wetlands and all landcover within a ½ mile area of the return transect will be surveyed under this protocol. Inferences from analyses of return survey data are applicable to a ½ mile buffer surrounding the return transect. Inferences from analyses of opportunistic surveys will contain biases associated with unequal sampling effort that cannot be accounted for and therefore may not represent actual crane use of the study area. Telemetry data, public reports, and reports from other monitoring efforts in the valley will also be used to document occurrences of whooping crane stopovers in the study area. These sighting reports increase the opportunity to gather habitat use information.

Relative probabilities of detection and efficiency of sighting whooping crane groups using aerial surveys will be estimated through protocol implementation over the years (e.g., use of decoys, known birds in the area, etc.). As detection may differ across various habitat conditions surveyed (e.g., wide versus narrow channels, corn versus grassland, etc.), detection probabilities will be estimated via detection trials (i.e., decoys and/or telemetry-marked birds) and results will be used in analyses to account for potential biases.

Aerial Survey

Aerial surveys will be used to detect whooping crane use-site locations (i.e., roost locations) in the study area. Systematic, but targeted aerial surveys are necessary to develop information on the spatial and temporal distribution of whooping crane use site locations in and along the Platte River for comparative evaluations. The design of the aerial surveys is intended to maximize opportunities to observe whooping crane use sites throughout the study area. Daily flights will be conducted in early morning during the period when whooping cranes are most likely to be in route between the wintering and breeding grounds and at or near their roost location. Daily flights will take place over the main river channel (river transects) and upland areas with high densities of wetlands within the study area (return transects; Appendix B). The “main river channel” is defined as the widest channel when all channels have flowing water. It is recognized that this protocol only samples river channels and a 1-mile area surrounding the targeted wetland return transects and does not sample other areas of the study area (see inferences defined in III.B.1). River transects will be flown east to west and return transects will be flown west to east.

Ground Confirmation

The consultant will deploy at least 1 person on the ground daily to confirm sightings that cannot be confirmed from the air via photographs or positive identification. In the event more than 1 unconfirmed crane group is observed on the same day, one or more of the air crew members will return to the area the additional unconfirmed crane groups are located to attempt to confirm them as well. A minimum of 2 hours will be spent observing for crane groups to leave the roost to forage or to migrate. Once the crane group(s) are positively confirmed or 2 hours has been devoted to confirming the birds from the ground, monitoring will be complete for the day. All ground monitoring will be conducted from public roads unless the consultant has permission to enter a property.

Telemetry Locations

Locations of whooping crane use of the study area may be documented by the Whooping Crane Tracking Partnership. Once telemetry-marked whooping cranes leave the study area, information regarding use of the study area will be provided to the consultant to document all known whooping crane stopover occurrences in the database. All telemetry-marked whooping crane groups that use the study area will be included in detection trials. Similar to unmarked whooping cranes, the probability telemetry-marked whooping cranes are included in the systematic sample will be estimated for groups observed by systematic aerial surveys.



Opportunistic Locates

Birdwatchers, outdoor enthusiasts, farmers, and other survey efforts might make initial observations of whooping crane groups in the study area. Sighting reports from these and other groups (labeled “opportunistic locates”) may provide additional information on crane stopover occurrences, but the conclusions are only applicable to the areas searched by the people that would report a sighting. An analysis of habitat use by cranes sighted opportunistically is outlined in this protocol, however, locations of whooping cranes obtained through this method are biased and quantifying the bias due to the location and amount of effort expended to obtain these observations is not planned.

Survey Detection Rates

Telemetry-marked whooping cranes and/or decoys can be used to estimate the probability whooping crane groups are detected during aerial surveys. Decoys will be randomly placed on active Platte River channels and within ½ mile of the upland return transect. Decoys may be placed on private, Program, governmental or non-governmental organizations’ lands in which Program personnel (EDO staff, partners, etc.) have permission to access. Program personnel will place decoys within the same landcover class and as close to the randomly generated locations as possible (i.e., nearest location that conforms to Program Minimum Habitat Criteria) and will record the UTM location of the decoy. Aerial survey crews will not know the location of decoys while conducting the survey and detection rates will be calculated as the percentage of decoys observed. Detection trials will also be used in detectability models to account for unequal probabilities of inclusion in the sample associated with surveying the main channel and potential differences in detection within the various off-channel landcover classes.

III.C. Timing

Aerial surveys of the study area will be conducted in the spring from March 6 to April 29 and in the fall from October 9 to November 10. These dates encompass the fifth and ninety-fifth percentile of initial observation dates of whooping cranes in Nebraska, 2001–2012 as well as the scheduled monitoring seasons, 2001–spring 2013 (Appendix C & D). Opportunistic and telemetry locations will be documented throughout the year; however, data collection efforts described in this protocol may not be implemented outside the scheduled monitoring seasons.

IV. METHODS

IV.A. Definitions

Crane Group – one or more cranes in a migrating unit. The group may consist of an individual crane, a family unit, or small flock. The social make-up of crane groups should be recorded whenever possible.

Stopover – Use of the study area during spring or fall migration.

Use Location – A location of a crane group that occurs in any landcover class within the study area. A single crane group may, and likely will have more than one use location per day.

Use Site – A location of a crane group within a wetland landcover class (wetter channel, open water pit/pond/lake, etc.) in the study area. Use sites are a special type of use location in that they only occur in wetland habitat. Use sites will be assigned a *Use Site ID* (e.g., 01) as well as a *Location ID* (e.g., A). A single crane group may have more than one use site per day.

Sighting – observation of a crane group in the study area.

Confirmed Sighting - Observation made by a State or Federal biologist or officer or by other known qualified observer (trained ornithologist or birder with experience identifying of whooping cranes). A photograph may also be used to confirm sightings. Aerial survey crew with previous aerial whooping crane observations may confirm a crane group during the survey.

Probable Sighting - No confirmation made by State or Federal biologist or officer or by other known qualified observer, yet details of the sighting seem to identify the birds as whooping cranes. To be classified as a probable sighting each of the following factors must be met: (1) location of sighting is



within normal migration corridor and is an appropriate site for whooping cranes; (2) date of sighting is within period of migration; (3) accurate physical description; (4) number of birds is reasonable; (5) behavior of the birds does not eliminate whooping cranes; and (6) good probability that the observer would provide a reliable report.

Unconfirmed Sighting - Sighting details meet some, but not all six factors listed for a probable sighting.

Systematic Sighting – Aerial observation of whooping cranes made during a scheduled survey along specified transects as well as ground observations that are the result of such an aerial survey. Systematic observations do not include aerial observations made outside the scheduled monitoring season or off scheduled flight paths.

Opportunistic Sighting – Aerial observation of whooping cranes not made during a scheduled survey along specified transects as well as ground observations that are not the result of a scheduled aerial survey along transects. Opportunistic sightings include observations made outside the scheduled monitoring season, off scheduled flight paths, and observations made as the result of public, telemetry, etc. reports.

IV.B. Field Techniques

IV.B.1. Detecting/Locating Whooping Crane Stopovers

Three methods will be used to locate migrating whooping crane stopovers along the central Platte River during spring and fall migration: aerial surveys, telemetry data, and opportunistic locates. The Program's Technical Advisory Committee may choose to implement each protocol component as necessary to obtain needed information, for example changing the survey effort based on results of past surveys.

Aerial Survey

Daily aerial surveys, weather permitting, will be conducted along the central Platte River valley between Lexington and Chapman, Nebraska to locate spring and fall migrating whooping crane groups. Aerial surveys will take place from March 6 to April 29 in the spring and October 9 to November 10 in the fall. These dates encompass the fifth and ninety-fifth percentile of initial sighting dates for all recorded sightings of whooping crane groups in Nebraska, 2001 – 2012 (timeframe the monitoring protocol has been implemented) as well as 1975 – 1999 (Jane Austin, USGS Northern Prairie Wildlife Research Center, pers. comm.). This protocol intends to collect a sample during possible migration time and does not intend to survey the entire time-period it would be possible for a crane group to migrate through the study area. Therefore, the survey dates will not be extended during times of delayed migration or initiated earlier in times of early migration. However, if the survey period extends past the migration time in a given season, the surveys will be stopped using the following rules. For the spring survey, flights will be discontinued 5 days after the last normally migrating whooping cranes have departed Aransas, if no whooping cranes have been sighted in the central Platte valley for 5 days, and there are no recent (5 days) reports of whooping cranes in the Central Flyway south of the Platte River. For the fall survey, flights will be discontinued if no whooping cranes have been sighted in the central Platte valley for 5 days, and there are no recent (5 days) reports of whooping cranes in the Central Flyway north of the Platte River. The Program Manager or Biologist responsible for managing these surveys will be in contact with Wade Harrell (or other Aransas official) at (361) 286-3559 to obtain information related to bird departure/arrival from Aransas and will determine whether to continue aerial surveys or not.

A Cessna 172 or similar aircraft will fly at a speed of 100 mph, as safety allows. One plane will fly the area between Chapman and the Nebraska Highway 10 (Minden) Bridge (the east leg). The second plane will fly the area between the Minden Bridge and the Lexington Bridge (the west leg). Two observers in addition to the pilot will be in each plane. Surveys will begin between a half-hour before sunrise and sunrise, unless weather during this time period precludes beginning the survey. All attempts should be made to begin the survey a half-hour before sunrise. If the survey cannot begin during this time period due to weather/visibility requirements, the survey start time will be extended up to two hours after sunrise. Surveys may be canceled two hours after sunrise due to unsafe weather conditions (e.g., rain, snow, fog, high winds) or if there is significant snow cover on the ground that greatly impedes the surveyors chances



of locating a whooping crane group. Cancelled flights will be entered into the database with an explanation of why the flight was cancelled (i.e., include weather conditions, etc.).

All aerial surveys will be flown such that the flight direction when flying the river transect will be away from the rising sun. To help address the concern that one end of the river transect will always be flown early and the other late, there will be two start locations for each leg (east side and west side) of the study area. For the eastern section, on day one the flight will begin at Chapman, fly the river west to Minden, fly the primary wetland return transect back to Chapman, and fly the secondary wetland return transect back to the Burlington Northern railroad near Grand Island. On day two the flight will begin at the Wood River Bridge, fly the river transect west to Minden, fly the primary wetland return transect back to Chapman, fly the rest of the river transect from Chapman to Wood River, and finish up on the secondary wetland return transect between Wood River and HWY 281 near Grand Island. For the western section, on day one the flight will begin at Minden, fly the river west to Lexington, and then fly the primary wetland return transect back to Minden. On day two the flight will begin at the Odessa Bridge, fly the river transect west to Lexington, fly the primary wetland return transect back to HWY 10 south of the Minden Bridge, fly the rest of the river transect from Minden to Odessa, and then fly the secondary wetland return transect from Elm Creek back to HWY 10 north of the Minden Bridge. These patterns will continue through the survey period.

During the river transect, observers will be situated such that the main channel(s) can be clearly viewed by both observers looking out the passenger side of the plane. This will necessitate that the plane fly just south of the main channel. An exception to this rule occurs west of the Overton Bridge when the plane will fly over Jeffery Island and observers position themselves to observe both the north and south channel of the Platte River. On the return transect, observers will look out different sides of the plane so that they can survey a half-mile on each side of the targeted wetland return transect. This design provides a systematic aerial survey to locate whooping crane groups within the channel as well as outside the channel within the targeted wetland survey area. If additional wetlands are created or are identified, the Program's Technical Advisory Committee may choose to alter the return transects to sample these areas and indices of use (e.g., # whooping cranes/flight mile) may need to be adjusted to account for change in area surveyed. Again, it is recognized that this sampling scheme over-samples the river and targeted wetland areas compared to upland areas not covered by the return transects.

All transects will be flown at 750' altitude unless FAA regulation dictate a higher altitude (e.g., a minimum of 1000' altitude when flying over towns and cities). The 750' altitude for transects is selected for safety reasons. Extremely large numbers of migratory waterfowl are present in the central Platte River valley each spring. The 750' altitude allows pilots to fly over most of the airborne waterfowl and to decrease the chance of flushing additional waterfowl into the air as the plane approaches. If a suspected whooping crane is seen, the plane is encouraged to circle to an altitude of 500' (when safety allows) to provide a better viewing opportunity of the suspected whooping crane.

Each plane will have a global position system (GPS) unit to aid in flight-path orientation and documentation of crane group locations. UTM coordinates taken either from the plane's GPS system or hand held unit will be recorded on the data sheet. The aerial survey crew will photograph the whooping crane group and the general location using a digital camera with an 18 × 105 mm Vibration Reduction (VR) zoom lens or similar setup approved by the Program. All observations will be recorded on the aerial observation datasheet. Deviations from return transect flight paths may be implemented (and documented on the datasheet) to relocate or confirm crane groups in the area; however, river transects should be completed without interruption. If the crane group cannot be confirmed from the air, the plane will maintain visual contact with the crane group and direct a ground monitoring crew to the location to confirm the sighting.

Telemetry Location Data

The Program's Technical Point of Contact will not provide information about the use of the study area by radio-marked whooping cranes to the Consultant until they have first been observed and documented by



the Consultant's crew.

Opportunistic Locates

The quality and timing of public sighting reports are highly variable. For example, several reports of a single group may be made by different individuals; sightings may be reported after the group has left the area; geese, white sandhill cranes, pelicans, or egrets may be reported as whooping cranes; etc. In an effort to document the validity of a sighting in a timely manner, a toll free number will be used to relay reports of possible whooping crane sightings to US Fish and Wildlife Service. This number should be publicized at local areas frequented by birders, FWS offices, NGPC offices, and possibly in newspapers, to mail carriers, bus drivers, etc. The monitoring crew will attempt to confirm all “probable” and “unconfirmed” sightings reported to be in the study area.

The monitoring crew will fill out ground monitoring observation forms for all effort expended to locate probable and unconfirmed sightings of crane groups in the study area. Information on all confirmed and probable sightings made by the monitoring crew will be forwarded to the FWS Nebraska field office. Incidental observations reported to the monitoring crew from inside or outside the study area will be forwarded to the FWS Nebraska field office, Whooping Crane Migration Information Coordinator.

Survey Detection Rates

Whooping crane decoys will be placed at randomly selected locations in the riverine and upland survey areas in which Program personnel has permission to access. Aerial crews will not be aware of the presence of the decoys during the flight. When the aerial crew observes a decoy, the location of the sighting should be relayed to the consultant's designated point of contact for confirmation of the decoy location. Decoy observations will be recorded on the aerial observation datasheet and information pertaining to detected and undetected decoys will be entered into the Program's electronic database. Detected and undetected telemetry-marked whooping cranes can also provide the Program information on aerial detection rates.

Aerial flight crews shall not be notified of the location of whooping cranes in the study area as this information clearly influences detection probabilities. In the event aerial flight crews are notified of the location of whooping cranes in the study area, they will include a note in the datasheet indicating they were aware of the presence of whooping cranes prior to the survey and will describe how they were made aware of this information.

IV.B.2 Crane Group Numbering

The *Crane Group ID* will consist of the following information: year; “SP” for spring monitoring period or “FA” for fall; sequential number (e.g. 2002FA01, 2002FA02, 2002FA03, etc.). Any time a crane group is observed in the study area by the survey crew, a new *Crane Group ID* will be assigned unless the surveyor notes on the data sheets the reasons why they believe this is a previously recorded group (using their professional judgment). In this case, the same *Crane Group ID* will be used. FWS crane group numbers for confirmed sightings will be included in the Program database and linked to the Program crane group numbers. This will assist in future cross-referencing between unique whooping crane groups in the FWS and Program databases.

Photographs taken of crane use-sites observed from the air will be used to locate use sites on Google Earth or other aerial imagery and to improve the accuracy of locations recorded from the air. A general sketch of the area and/or photograph will be taken for each use-site. The *Use Site ID* variable connects locations used by each crane group. The *Use Site ID* is a sequential number (beginning with 01) assigned by the project manager and will be recorded on the datasheets with the corresponding *Crane Group ID*, *Location ID* and *Time*.

IV.C. Data Collection from State and Federal Agencies

The report will contain a summary of all whooping crane migrational sightings within Nebraska and specifically the central Platte River corridor as obtained from the FWS, Grand Island Field Office. FWS



crane group identification numbers will be recorded in the database to identify individual crane groups that use the study area for multiple days.

IV.D. Additional Metrics

Metrics outlined in Table 1 as well as additional metrics may be included in habitat selection analyses along with the physical characteristics of crane use locations that are recorded by the Consultant. All metrics will be measured remotely via GIS, LiDAR data, aerial imagery, HEC-RAS model, and data collected under other protocols (e.g., Geomorphology and In-channel Vegetation Monitoring Protocol).

Table 1. Additional metrics and measurements that may be included in whooping crane habitat selection analyses that generally will not be recorded or measured by the Consultant.

Metric	Metric Description	Use Site Data Source	Available Site Data Source
Proportion of Corn	Proportion of landcover surrounding use locations classified as corn	USDA NASS	USDA NASS
Proportion of Wet Meadow	Proportion of landcover surrounding use locations classified as wet meadow	PRRIP WM Coverage	PRRIP WM Coverage
Proportion of Grassland	Proportion of landcover surrounding use locations classified as grassland	PRRIP WM Coverage	PRRIP WM Coverage
Proportion of Forest	Proportion of landcover surrounding use locations classified as forest	PRRIP HA Coverage	PRRIP HA Coverage
Unforested Width	Width of river corridor unobstructed by riparian forest	Aerial Photo	Aerial Photo
Unvegetated Channel Width	Width of channel clear of dense vegetation	Aerial Photo and/or LiDAR	Aerial Photo and/or LiDAR
Total Channel Width	Total width of channel from left bank to right bank (ft)	HEC-RAS model	HEC-RAS model
Wetted Width	Top width of wetted channel	HEC-RAS model	HEC-RAS model
Proportion Wetted	Proportion of total channel width that is wetted	HEC-RAS model	HEC-RAS model
Mean Depth	Mean depth of the wetted portion of the channel (ft)	HEC-RAS model	HEC-RAS model
Unit Discharge	Flow (cfs) per linear foot of channel width (Split Flow/Total Channel Width)	HEC-RAS model	HEC-RAS model
Width Depth Ratio	Ratio of channel width to depth (Wetted Width / Mean Depth)	HEC-RAS model	HEC-RAS model

IV.E. Analysis Methods

Information collected through this protocol will be used to evaluate changes in distribution of use and habitat characteristics for whooping crane use-sites in the study area. As such, the Consultant will perform basic data analyses requested by the Program and will report findings that include explanatory as well as graphical representations of their findings on a migrational-season basis and will relate trends in findings such as an increase/decrease in use, increase/decrease in proportion of population stopping in the study area, stop-over duration, etc. to whooping crane population sustainability and growth. This protocol is designed to provide information on crane groups with an estimated probability of inclusion in the sample regardless of location in the study area. Since aerial survey provide this information, but opportunistically located cranes have an unknown probability of inclusion, separate analyses will be conducted for each of these types of data.



Habitat Use

Since the whooping crane is a rare species and identifying individual cranes is usually not possible, all analyses will need to balance small sample sizes with pseudo-replication. There are two options for analyzing habitat use, one will retain the sample size as the number of individual whooping crane groups, as identified by the FWS, as the first step of the analysis and the second will include every observation of each crane group and will contain multiple observations per group.

There are several analysis methods available for summarizing the habitat characteristics of whooping crane use-sites. The methods range from calculating means and variances, to modeling habitat use, to documenting changes through time, to methods that are not currently developed. With each analysis, the probability-based sample of whooping crane use-sites collected under this protocol will provide data adequate for inferences to all crane stop-over-sights within the central Platte River study area.

Indices of Use

Annual Indices of crane use will be developed using information obtained by this protocol. Indices of use will document the proportion of the population and number of cranes and crane groups observed per survey effort (flight, migration season, etc.) using Program defined and evaluated suitable habitat, Program habitat complexes, and habitat classified as ‘unsuitable’ by existing Program standards. Habitat availability assessments will be conducted annually under a separate Program contract and the results will be available to the Consultant. If the protocol is implemented in a consistent manner, a change in these indices through time will estimate changes in the frequency of use of the study area, Program habitat complexes, as well as Program-defined suitable and unsuitable habitat throughout the first increment.

V. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. Observers will be trained and tested in the methods used and on their ability to identify whooping cranes. Data forms will be completed on a daily basis. At the end of each survey day, each observer will be responsible for inspecting his or her data forms for completeness, accuracy, and legibility. The study team leader will review data forms to insure completeness and legibility, and correct the forms as needed. Any changes made to the data forms will be initialized by the person making the change.

To help train observers that will be conducting the aerial surveys, each individual will be required to fly practice transects, or a portion of one transect. During this flight there will be whooping crane decoys placed in the river channel to allow observers the opportunity to see a “whooping crane” from the air at the speed and altitude of the surveys.

Data will be entered into the Program’s database by qualified technicians. These files will be compared to the raw data forms and checked for errors. Irregular codes detected or any ambiguous data will be discussed with the observer and study team leader to clarify and document changes.

After data have been keyed and verified, the study team leader or QA/QC technician will check data forms against the final computer file and any problems identified will be traced back to raw data forms, observer(s), and data-entry personnel and corrections will be documented.

VI. DATA COMPILATION AND STORAGE

The Program’s database will be used to store, retrieve, and organize field observations. Microsoft Office InfoPath is required to enter data into the database. The data for each survey will be incorporated within the larger Program database. All field data forms, field notebooks, and electronic data files will be retained for ready reference.



VII. REPORT FORMAT

Data on whooping crane habitat use will be compiled, summarized, and incorporated within the larger Program database following each migration season. Migration-period reports will be submitted to the Program’s Executive Director’s Office (EDO) for review and distribution following each migration season. Draft and final reports that summarize findings and describes methods, analyses (including descriptive statistics of whooping crane use), results, and any conclusions that can be drawn will have both written and graphical components and will also contain maps and/or aerial photos showing crane use-sites. Reports will be submitted to the Program’s EDO for review and distribution to the Technical Advisory and Governance Committees.



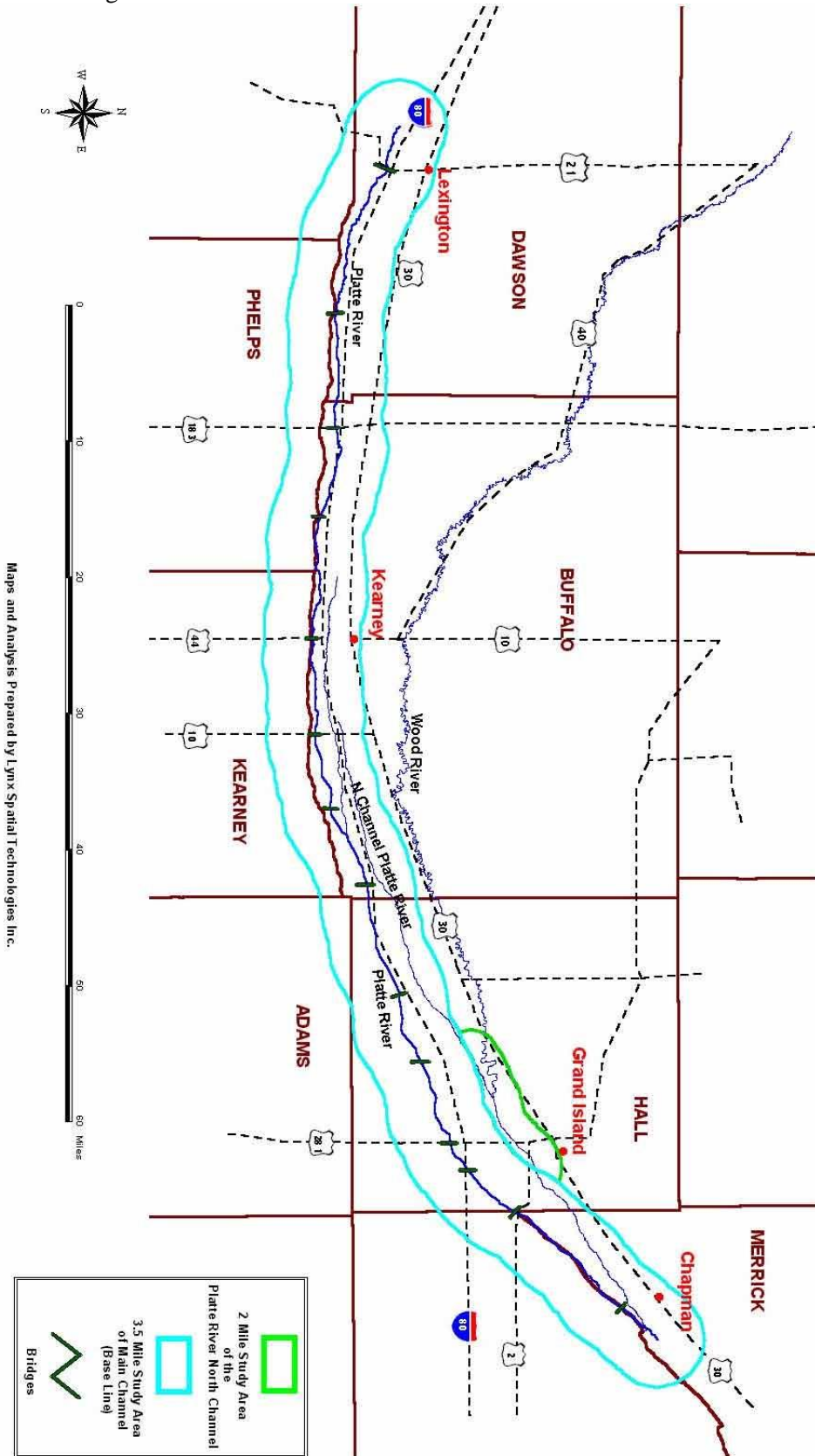
VIII. DATA SHEETS – *To be provided prior to survey implementation*

- Aerial Survey
- Aerial Observation



Appendix A. Program Associated Habitat Area.

Cooperative Agreement Platte River Study Area



Maps and Analysis Prepared by Lynx Spatial Technologies Inc.

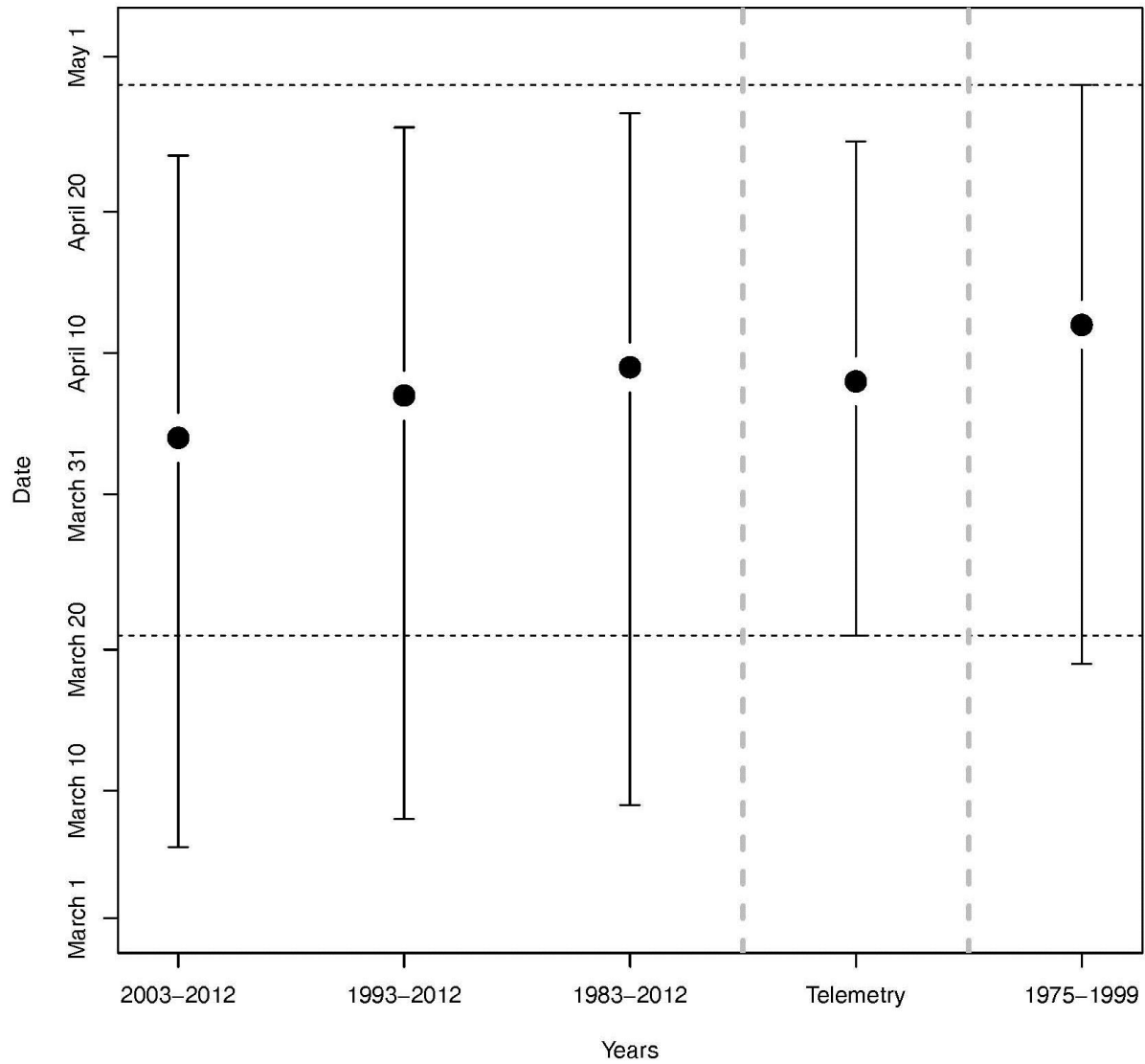


Appendix B. Riverine and targeted primary and secondary wetland return flight transects that will be flown daily during systematic aerial wetland roost surveys.



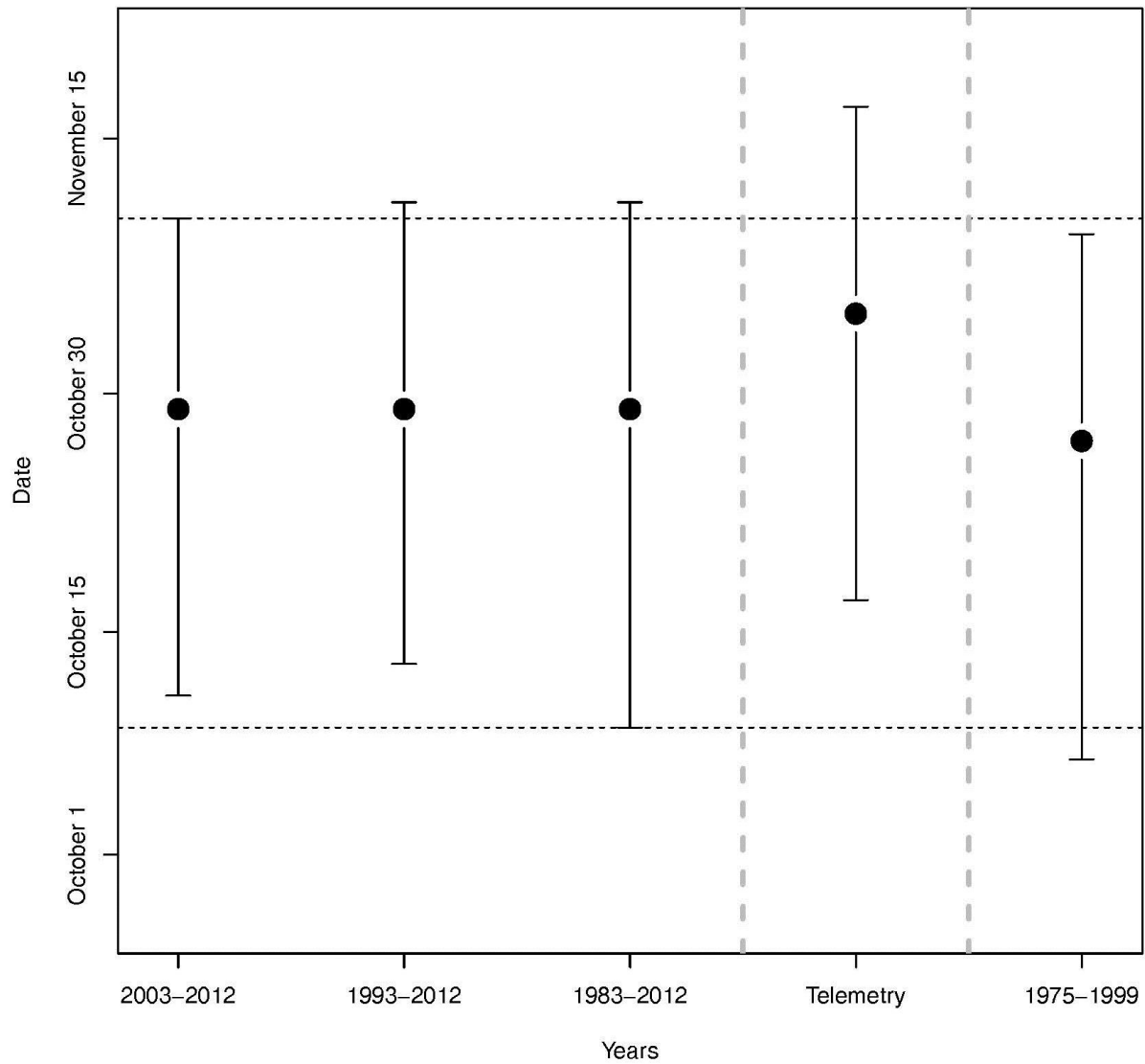


Appendix C. Median (dots) and fifth and ninety-fifth percentiles (bars) of initial observation dates of whooping cranes in Nebraska during spring migration. Horizontal dashed lines represent the spring monitoring season in the Program’s whooping crane monitoring protocol that that was implemented Spring 2001-Spring 2013. These dates were based on the fifth and ninety-fifth percentiles of initial observation dates of whooping cranes in Nebraska, 1975-1999 (~reproduced in the right plot). Vertical dashed lines separate the 10, 20, and 30 year analyses from analyses of telemetry data (2010–2013) and the 1975–1999 USFWS whooping crane data.





Appendix D. Median (dots) and fifth and ninety-fifth percentiles (bars) of initial observation dates of whooping cranes in Nebraska during fall migration. Horizontal dashed lines represent the fall monitoring season in the Program’s whooping crane monitoring protocol that was implemented Spring 2001-Spring 2013. These dates were based on the fifth and ninety-fifth percentiles of initial observation dates of whooping cranes in Nebraska, 1975-1999 (~reproduced in the right plot). Vertical dashed lines separate the 10, 20, and 30 year analyses from analyses of telemetry data (2010–2012) and the 1975–1999 USFWS whooping crane data.





ATTACHMENT B

PRRIP Consultant Contract



Company
Address 1
Address 2
TIN# 00-0000000

Nebraska Community Foundation, Inc.
PO Box 83107
Lincoln, NE 68501-3107
TIN# 47-0769903

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

Contract between Nebraska Community Foundation, Inc., Platte River Recovery Implementation Program, and [Company].

[Project Name]

1. **Parties.** This Contract is made and entered into by and between the Nebraska Community Foundation, Inc. (“**Foundation**”) of Lincoln, Nebraska, representing all signatories to the Platte River Recovery Implementation Program (“**Program**”) and [redacted] (“**Consultant**”). The following persons are authorized to represent the parties through this Contract: Diane Wilson of the Foundation, Dr. Jerry Kenny of the **Program**; and [Name] of the **Consultant**.

2. **Purpose of Contract.** The purpose of this Contract is to allow the **Foundation**, acting as the fiscal agent for the Governance Committee (GC) of the **Program**, to retain the services of the **Consultant** to render certain technical or professional services hereinafter described in connection with an undertaking to be financed by the **Program**, and to delegate the Executive Director’s Office (“**ED Office**”) through its Executive Director or his designee the authority to administer this Contract.

TERMS AND CONDITIONS

3. **Term of Contract and Required Approvals.** This Contract is effective when all parties have executed it and all required approvals have been granted. The term of this Contract is from (contract initiation date) through (contract expiration date). The services to be performed under this Contract will commence upon receipt of authorization to proceed. All services shall be completed during this term.

If the **Consultant** has been delayed and as a result will be unable, in the opinion of the **Program**, to complete performance fully and satisfactorily within this Contract period, the **Consultant** may be granted an extension of time, upon submission of evidence of the causes of delay satisfactory to the **Program**.

4. **Payment.**

A. Reimbursement of Expenses. The Program agrees to pay the Consultant an amount based on the approved budget depicted in Exhibit B and hourly rate and reimbursable expenses price schedules depicted in Exhibit C, attached to this Contract and incorporated by reference as part of this Contract, for the services described in Exhibit A, attached to this Contract and incorporated by reference as part of this Contract. Total payment under this Contract shall not exceed _____ dollars (\$_____).

B. Project Budget. The Project budget for each task included in Exhibit A is as follows:

<u>Task</u>	<u>Estimated Cost</u>
Phase I.	
Subtotal Phase I	
Phase II.	
Subtotal Phase II	
Total Project Cost	

The amounts for each task are estimates only, but are not to be exceeded unless authorized in writing by the Program. The Contract total amount is controlling. Payment shall be made directly to the Consultant. The Consultant shall maintain hourly records of time worked by its personnel to support any audits the Program may require. Billing reports shall be submitted no more often than monthly for activities and costs accrued since the last billing report. A brief project progress report summarizing project activities in the billing period must be submitted with each billing.

C. Billing Procedures. The Consultant shall send billing reports for services performed for the various tasks outlined in Exhibit A to the ED Office (address included below). The Program's Executive Director, upon receiving the billing report, will approve the bill and submit the bill for payment. The submittal for payment will then be reviewed by the Signatory Parties of the Program who will advise the Foundation of approval. The Foundation will make payment of these funds directly to the Consultant within 30 days of notice of approval by the Signatory Parties. Payments of bills are due within 60 days after the billing date of the Consultant.

Billing Point of Contact (Program):

Dr. Jerry F. Kenny, Executive Director
Platte River Recovery Implementation Program
Headwaters Corporation
4111 4th Avenue, Suite 6
Kearney, Nebraska 68845
Phone: (308) 237-5728
Fax: (308) 237-4651
Email: kennyj@headwaterscorp.com

D. Money Withheld. When the Program has reasonable grounds for believing that the Consultant will be unable to perform this Contract fully and satisfactorily within the time fixed for performance, then the Program may withhold payment of such portion of any amount otherwise due and payable to the Consultant reasonably deemed appropriate to protect the Program against such loss. These amounts may be withheld until the cause for the withholding is cured to the Program's satisfaction or this Contract is terminated pursuant to Section 8U. Any amount so withheld may be retained by the Program for such period as it may deem advisable to protect the Program against any loss. This provision is intended solely for the benefit of the Program and no person shall have any right against the Program by reason of the Program's failure or refusal to withhold monies. No interest shall be payable by the Program on any amounts withheld under this provision. This provision is not intended to limit or in any way prejudice any other right of the Program.

E. Withholding of Payment. If a work element has not been received by the Program by the dates established in Exhibit A, the Program may withhold all payments beginning with the month following that date until such deficiency has been corrected.

F. Final Completion and Payment. The final payment shall be made upon acceptance of the final report and receipt of the final billing.

5. Responsibilities of Consultant.

A. Scope of Services. The Consultant shall perform the specific services required under this Contract in a satisfactory and proper manner as outlined in Exhibit A. If there is any conflict between this Contract and the provisions of the specific requirements of Exhibit A, the specific requirements shall prevail.

B. Personnel. All of the services required hereunder will be performed by the Consultant or under its supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized, licensed, or permitted under state law to perform such services, if state law requires such authorization, license, or permit.

C. Subcontracts.

(i) **Approval Required for Subcontracts.** Any subcontractors and outside associates or consultants required by the **Consultant** in connection with the services, work performed or rendered under this Contract will be limited to such individuals or firms as were specifically identified in the proposal and agreed to during negotiations or are specifically authorized by the **Program** during the performance of this Contract. The **Consultant** shall submit a list of the proposed subcontractors, associates or consultants; the scope and extent of each subcontract; and the dollar amount of each subcontract prior to Contract execution to the **Program** for approval. During the performance of the Contract, substitutions in or additions to such subcontracts, associates, or consultants will be subject to the prior approval of the **Program**. The **Program** approval of subcontractors will not relieve the **Consultant** from any responsibilities outlined in this Contract. The **Consultant** shall be responsible for the actions of the subcontractors, associates, and subconsultants.

(ii) **Billings for Subcontractors.** Billings for subcontractor, associates or subconsultants services will not include any mark up. The subcontract costs will be billed to the **Program** at the actual costs as billed to the **Consultant**. Subcontract costs will be documented by attaching subcontractor billings to the **Consultant's** billing submittals.

(iii) **Copies of Subcontracts.** The **Consultant** shall provide to the **Program** copies of each subcontractor contract immediately following execution with the subcontractor. All subcontracts between the **Consultant** and a subcontractor shall refer to and conform to the terms of this Contract. However, nothing in this Contract shall be construed as making the **Program** a party of any subcontract entered between the **Consultant** and a subcontractor.

D. Requests from the Program. The **Consultant** shall be responsible and responsive to the **Program** and the **ED Office** in their requests and requirements related to the scope of this Contract.

E. Presentation of Data. The **Consultant** shall select and analyze all data in a systematic and meaningful manner so as to contribute directly in meeting the objectives of the Project, and shall present this information clearly and concisely, in a professional manner.

F. Draft of Final Report. The **Consultant** shall present the **Program** a draft of the final report covering all work elements of the Project including maps, charts, conclusions and recommendations prior to the publication of any final report and no later than the date specified in Exhibit A. Draft Reports will be provided to the Program in Microsoft Word format for distribution and review. The **Program** will respond with written comments to the **Consultant** as soon as possible. The **Consultant** will address the comments of the **Program** in the final report. Final Reports will be provided to the Program in Microsoft Word and PDF format.

G. Project Completion Report. A final project completion report in the form described in Exhibit A shall be submitted to the **Program** by the date specified in Exhibit A.

H. Reports, Maps, Plans, Models and Documents. One (1) copy of maps, plans, worksheets, logs, field notes and other reference or source documents prepared for or gathered under this Contract, and one (1) copy of each unpublished report prepared under this Contract shall be submitted to the **Program**. If the **Consultant** writes or uses a computer program or spreadsheet as a part of this project, the **Consultant** shall submit to the **Program** for approval all proposed program names and data formats prior to beginning work on that task. All data shall be submitted to **Program** in written and digital forms with the final report. Digital media shall be labeled by the **Consultant** to provide sufficient detail to access the information on the media. All user manuals shall be submitted by the **Consultant** to **Program** providing complete documentation of computer programs developed under this Contract. The user manual shall also specify the source code language and the type of computer equipment necessary to operate the program(s). Any programs or computer software generated as a part of this Contract shall be the sole property of the **Program**.

I. Inspection and Acceptance. All deliverables furnished by the Consultant shall be subject to rigorous review by the Program's **ED Office** prior to acceptance.

6. Responsibilities of the Program.

A. Designated Representative. The Executive Director of the **Program** shall act as the **Program's** administrative representative with respect to the **Consultant's** service to be performed under this Contract and shall have complete authority to transmit instructions, receive information, and interpret and define the **Program's** policies and decisions with respect to services covered by this Contract.

B. Data to be Furnished to the Consultant. All information, data, reports, and maps as are available to the **Program** and necessary for the carrying out of the Scope of Services set forth herein shall be furnished to the **Consultant** without charge and the **ED Office** shall cooperate with the Consultant in the carrying out of the project.

C. Review Reports. The **ED Office** shall examine all studies, reports, sketches, opinions of the construction costs, and other documents presented by the **Consultant** to the **Program** and shall promptly render in writing the **Program's** decisions pertaining thereto within the time periods specified in Exhibit A.

D. Provide Criteria. The **ED Office** shall provide all criteria and full information regarding its requirements for the project.

7. Special Provisions.

A. No Finder's Fees. No finder's fee, employment agency fee, or other such fee related to the procurement of this Contract shall be paid by either party.

B. Publication. It is understood that the results of this work may be available to the **Consultant** for publication and use in connection with related work. Use of this work for publication and related work by the **Consultant** must be conducted with prior authorization from the **Program's** Technical Point of Contact.

C. Publicity. Any publicity or media contact associated with the **Consultant's** services and the result of those services provided under this Contract shall be the sole responsibility of the **Program**. Media requests of the **Consultant** should be directed to the Director of Outreach and Operations in the **ED Office**.

D. Monitor Activities. The **Program** shall have the right to monitor all Contract related activities of the **Consultant** and all subcontractors. This shall include, but not be limited to, the right to make site inspections at any time, to bring experts and consultants on site to examine or evaluate completed work or work in progress, and to observe all **Consultant** personnel in every phase of performance of Contract related work.

D. Kickbacks. The **Consultant** certifies and warrants that no gratuities, kickbacks or contingency fees were paid in connection with this Contract, nor were any fees, commissions, gifts, or other considerations made contingent upon the award of this Contract. If the **Consultant** breaches or violates this warranty, the **Program** may, at its discretion, terminate this Contract without liability to the **Program**, or deduct from the Contract price or consideration, or otherwise recover, the full amount of any commission, percentage, brokerage, or contingency fee.

E. Office Space, Equipment, and Supplies. The **Consultant** will supply its own office space, equipment, and supplies.

8. General Provisions.

A. Amendments. Any changes, modifications, revisions or amendments to this Contract which are mutually agreed upon by the parties to this Contract shall be incorporated by written instrument, executed and signed by all parties to this Contract.

B. Applicable Law/Venue. The construction, interpretation and enforcement of this Contract shall be governed by the laws of the State of Nebraska. The Courts of the State of Nebraska shall have jurisdiction over this Contract and the parties.

C. Assignment/Contract Not Used as Collateral. Neither party shall assign or otherwise transfer any of the rights or delegate any of the duties set forth in this Contract without the prior written consent of the other party. The **Consultant** shall not use this Contract, or any portion thereof, for collateral for any financial obligation, without the prior written permission of the **Program**.

D. Audit/Access to Records. The **Program** and any of its representatives shall have access to any books, documents, papers, and records of the Consultant which are pertinent to this Contract. The **Consultant** shall, immediately upon receiving written instruction from the **Program**, provide to any independent auditor, accountant, or accounting firm, all books, documents, papers and records of the **Consultant** which are pertinent to this Contract. The **Consultant** shall cooperate fully with any such independent auditor, accountant, or accounting firm, during the entire course of any audit authorized by the **Program**.

E. Availability of Funds. Each payment obligation of the **Program** is conditioned upon the availability of funds and continuation of the Platte River Recovery Implementation Program. If funds are not allocated and available for the continuance of the services performed by the **Consultant**, the contract may be terminated by the **Program** at the end of the period for which the funds are available. The **Program** shall notify the **Consultant** at the earliest possible time of the services which will or may be affected by a shortage of funds. No penalty shall accrue to the **Program** in the event this provision is exercised, and the **Program** shall not be obligated or liable for any future payments due or for any damages as a result of termination under this section. This provision shall not be construed to permit the **Program** to terminate this Contract to acquire similar services from another party.

F. Award of Related Contracts. The **Program** may undertake or award supplemental or successor contracts for work related to this Contract. The **Consultant** shall cooperate fully with other contractors and the **Program** in all such cases.

G. Certificate of Good Standing. **Consultant** shall provide Certificate of Good Standing verifying compliance with the unemployment insurance and workers' compensation programs prior to performing work under this Contract.

H. Compliance with Law. The **Consultant** shall keep informed of and comply with all applicable federal, state and local laws and regulations in the performance of this Contract.

I. Confidentiality of Information. All documents, data compilations, reports, computer programs, photographs, and any other work provided to or produced by the **Consultant** in the performance of this Contract shall be kept confidential by the **Consultant** unless written permission is granted by the **Program** for its release.

J. Conflicts of Interest

(i) **Consultant** shall not engage in providing consultation or representation of clients, agencies or firms which may constitute a conflict of interest which results in a disadvantage to the **Program** or a disclosure which would adversely affect the interests of the **Program**. **Consultant** shall notify the **Program** of any potential or actual conflicts of interest arising during the course of the **Consultant's** performance under this Contract. This Contract may be terminated in the event a conflict of interest arises. Termination of the Contract will be subject to a mutual settlement of accounts. In the event the contract is terminated under this provision, the **Consultant** shall take steps to insure that the file, evidence, evaluation and data are provided to the **Program** or its designee. This does not prohibit or affect the **Consultant's** ability to engage in consultations, evaluations or representation under agreement with other agencies, firms, facilities, or attorneys so long as no conflict exists.

(ii) A conflict of interest warranting termination of the Contract includes, but is not necessarily limited to, representing a client in a adversarial proceeding against the Platte River Recovery Implementation Program, its signatories, boards, commissions or initiating suits in equity including injunctions, declaratory judgments, writs of prohibition or *quo warranto*.

K. Entirety of Contract. This Contract, consisting of (example) twelve (12) pages, Exhibit A, consisting of eleven (11) pages, **Exhibit B**, consisting of one (1) page, and **Exhibit C**, consisting of one (1) page, represents the entire and integrated Contract between the parties and supersedes all prior negotiations, representations, and agreements, whether written or oral.

L. Force Majeure. Neither party shall be liable for failure to perform under this Contract if such failure to perform arises out of causes beyond the control and without the fault or negligence of the nonperforming party. Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather. This provision shall become effective only if the party failing to perform immediately notifies the other party of the extent and nature of the problem, limits delay in performance to that required by the event, and takes all reasonable steps to minimize delays. This provision shall not be effective unless the failure to perform is beyond the control and without the fault or negligence of the nonperforming party.

M. Indemnification. The **Consultant** shall indemnify and hold harmless the **Foundation**, the **Program**, the **ED Office**, and their officers, agents, employees, successors and assignees from any and all claims, lawsuits, losses and liability arising out of **Consultant's** failure to perform any of **Consultant's** duties and obligations hereunder or in connection with the negligent performance of **Consultant's** duties or obligations, including but not limited to any claims, lawsuits, losses or liability arising out of **Consultant's** malpractice.

N. Independent Contractor. The **Consultant** shall function as an independent

contractor for the purposes of this Contract, and shall not be considered an employee of the **Program**, **Foundation** or **ED Office** for any purpose. The **Consultant** shall assume sole responsibility for any debts or liabilities that may be incurred by the **Consultant** in fulfilling the terms of this Contract, and shall be solely responsible for the payment of all federal, state and local taxes which may accrue because of this **Contract**. Nothing in this Contract shall be interpreted as authorizing the **Consultant** or its agents and/or employees to act as an agent or representative for or on behalf of the **Foundation** or the **Program**, or to incur any obligation of any kind on the behalf of the **Foundation** or the **Program**. The **Consultant** agrees that no health/hospitalization benefits, workers' compensation and/or similar benefits available to **Foundation** or **Program** employees will inure to the benefit of the **Consultant** or the **Consultant's** agents and/or employees as a result of this Contract.

O. Notices. All notices arising out of, or from, the provisions of this contract shall be in writing and given to the parties at the address provided under this Contract, either by regular mail, facsimile, e-mail, or delivery in person.

P. Notice and Approval of Proposed Sale or Transfer of the Consultant. The **Consultant** shall provide the **Program** with the earliest possible advance notice of any proposed sale or transfer or any proposed merger or consolidation of the assets of the **Consultant**. Such notice shall be provided in accordance with the notice provision of this Contract.

Q. Ownership of Documents/Work Product/Materials. All documents, reports, records, field notes, data, samples, specimens, and materials of any kind resulting from performance of this Contract are at all times the property of the **Program**.

R. Patent or Copyright Protection. The **Consultant** recognizes that certain proprietary matters or techniques may be subject to patent, trademark, copyright, license or other similar restrictions, and warrants that no work performed by the **Consultant** or its subcontractors will violate any such restriction.

S. Proof of Insurance. The **Consultant** shall not commence work under this Contract until the **Consultant** has obtained the following insurance coverages and provided the corresponding certificates of insurance:

(i) **Commercial General Liability Insurance.** **Consultant** shall provide coverage during the entire term of the Contract against claims arising out of bodily injury, death, damage to or destruction of the property of others, including loss of use thereof, and including products and completed operations in an amount not less than Five Hundred Thousand Dollars (\$500,000.00) per claimant and One Million Dollars (\$1,000,000.00) per occurrence.

(ii) **Business Automobile Liability Insurance.** **Consultant** shall maintain, during the entire term of the Contract, automobile liability insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000.00) per occurrence. Coverage will include bodily injury and property damage covering all vehicles, including hired vehicles, owned and non-owned vehicles

(iii) Workers' Compensation or Employers' Liability Insurance. The Consultant shall provide proof of workers' compensation coverage. Consultant's insurance shall include "Stop Gap" coverage in an amount not less than Five Hundred Thousand Dollars (\$500,000.00) per employee for each accident and disease.

(iv) Professional Liability or Errors and Omissions Liability Insurance. The Consultant shall provide proof of professional liability insurance or errors and omissions liability insurance to protect the Foundation, Program and ED Office from any and all claims arising from the Consultant's alleged or real professional errors, omissions or mistakes in the performance of professional duties in an amount not less than One Million Dollars (\$1,000,000.00) per claim.

T. Taxes. The Consultant shall pay all taxes and other such amounts required by federal, state and local law, including but not limited to federal and social security taxes, workers' compensation, unemployment insurance and sales taxes.

U. Termination of Contract. This Contract may be terminated, without cause, by the Program upon fifteen (15) days written notice. This Contract may be terminated immediately for cause if the Consultant fails to perform in accordance with the terms of this Contract.

V. Third Party Beneficiary Rights. The parties do not intend to create in any other individual or entity the status of third party beneficiary, and this Contract shall not be construed so as to create such status. The rights, duties and obligations contained in this Contract shall operate only between the parties to this Contract, and shall inure solely to the benefit of the parties to this Contract. The provisions of this Contract are intended only to assist the parties in determining and performing their obligations under this Contract.

W. Time is of the Essence. Time is of the essence in all provisions of the Contract.

X. Titles Not Controlling. Titles of paragraphs are for reference only, and shall not be used to construe the language in this Contract.

Y. Waiver. The waiver of any breach of any term or condition in this Contract shall not be deemed a waiver of any prior or subsequent breach.

9. Contacts.

Administrative Point of Contact (Foundation):

Diane M. Wilson
Chief Financial and Administrative Officer
Nebraska Community Foundation
PO Box 83107
Lincoln, Nebraska 68501-3107
Phone: (402) 323-7330
Fax: (402) 323-7349
Email: dwilson@nebcommfound.org

Technical Point of Contact (Program):

Name, Title
Platte River Recovery Implementation Prog.
Headwaters Corporation
Address 1
City, State ZIP
Phone: (000) 000-0000
Fax: (000) 000-0000
Email: email

Administrative Point of Contact (Consultant):

Name, Title
Company
Address 1
City, State ZIP
Phone: (000) 000-0000
Fax: (000) 000-0000
Email: email

Admin. Point of Contact (Program):

Dr. Jerry F. Kenny, Executive Director
Platte River Recovery Implementation Prog.
Headwaters Corporation
4111 4th Avenue, Suite 6
Kearney, Nebraska 68845
Phone: (308) 237-5728
Fax: (308) 237-4651
Email: kennyj@headwaterscorp.com

Media Point of Contact (Program):

Dr. Bridget Barron, Director of Outreach
Platte River Recovery Implementation Prog.
Headwaters Corporation
4111 4th Avenue, Suite 6
Kearney, Nebraska 68845
Phone: (308) 237-5728
Fax: (308) 237-4651
Email: barronb@headwaterscorp.com

Technical Point of Contact (Consultant):

Name, Title
Company
Address 1
City, State ZIP
Phone: (000) 000-0000
Fax: (000) 000-0000
Email: email

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10. Signatures. By signing this Contract, the parties certify that they have read and understood it, that they agree to be bound by the terms of the Contract, that they have the authority to sign it.

NEBRASKA COMMUNITY FOUNDATION

Diane M. Wilson
Chief Financial and Administrative Officer

Date

[CONSULTANT]

[Name, Title]

Date

**EXHIBIT “A”
SCOPE OF SERVICES**

A. PROJECT DESCRIPTION

1. Location: *[Text]*
2. Purpose: *[Text]*
3. History: *[Text]*

B. PROJECT REQUIREMENTS

1. Monthly Progress Reports and Billing Statements

The **Consultant** shall submit a brief monthly progress report outlining the study status, progress, and results to date, regardless of whether or not a billing statement is submitted, on or before the last working day of the month. The progress report will also show the percentage of the job completed by task and the percentage of budget spent. The progress report will also include a billing projection for the upcoming month for the purpose of Program reimbursement request planning.

Each billing statement must include a task-by-task report justifying the cost items contained in the billing statement. The monthly progress report may be used as the justification for the billing statement as long as all cost items covered in the billing statement are addressed in the progress report.

2. Computer Models, Statement of Assumptions, Project Work File

- a. If the **Consultant** writes or uses a computer program or spreadsheet as a part of this project, the **Consultant** shall submit to the **Program** for approval all proposed program names and data formats prior to beginning work on that task. All data shall be submitted to the **Program** in written and digital forms with the final report. Digital media shall be labeled by the **Consultant** to provide sufficient detail to access the information on the media. User manuals shall be submitted by the **Consultant** to the **Program** providing complete documentation of computer programs developed under this project. The user manuals shall also contain the source code language and the type of computer equipment necessary to operate the program(s). The computer programs and spreadsheets (written and digital forms) are due on the same date as the final report, which contains the information generated by the programs.

b. To facilitate the **Program**'s accurate evaluation of the **Consultant's** work product, computations, conclusions and recommendations, the **Consultant** shall:

* Include in the final report a section describing the assumptions and methodology used by the **Consultant** in generating the data and conclusions contained in that chapter.

* Maintain a project work file containing the materials used in project analysis. This file will be available for review by the **Program** and should be organized in such a way as to allow replication of the steps and procedures used by the **Consultant** to reach the conclusions described in the study.

* Prepare a project notebook containing a description of the assumptions and methodologies used in the project analysis. The notebook shall be organized in such a way as to allow replication of the steps, calculations, and procedures used by the **Consultant** to reach conclusions, described in the draft final report. The project notebook shall be submitted with the draft final report.

3. Final Report

The **Consultant** shall use the Contract Scope of Services as the outline for draft and final reports so that **Consultant** compliance with Contract provisions can be verified. If the final report contains information of an engineering nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by a Professional Engineer licensed in the State of Nebraska or other state if appropriate to location of project site. If the final report contains information of a geologic nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by a Professional Geologist licensed in the State of Nebraska. If the final report contains information of both an engineering and geologic nature, the cover of the final report, all plates, and the executive summary must be stamped and signed by both a Professional Engineer and a Professional Geologist licensed in the State of Nebraska. At a minimum, the reproducible original to be submitted as part of the deliverables required herein must utilize an original seal(s) and original signature(s).

4. Final Report - Digital Format

In addition to the paper submittal described in Section C.4 above, the **Consultant** shall also provide the final documents and related materials in a digital format. This digital report shall, to the extent feasible, be assembled into one file rather than separate files for text, tables, graphics, etc. This digital report shall be contained on a CD(s) or DVD(s), and shall be in both Word and Adobe Acrobat format. Any plates, figures, etc. not suitable for Word shall be in AutoCAD, ArcGIS, Adobe Acrobat, or compatible format. Other formats may be used if approved in advance by the **ED Office**. The final documents will also be provided

fully assembled into one file, in a complete “internet ready” digital format to facilitate their distribution via the Office website.

5. Project Access

The **ED Office** shall be responsible for obtaining access as required for project tasks.

6. Stand-By Time

The **Program** will not reimburse the **Consultant** for stand-by time charges for the Consultant's supervisory personnel.

SCOPE OF SERVICES

**EXHIBIT “B”
BUDGET**

**EXHIBIT “C”
HOURLY RATE AND REIMBURSABLE EXPENSES
PRICE SCHEDULE 2013**