TO: Governance Committee
FROM: Executive Director's Office
SUNJECT: Sole-Source Recommendation – Tern, Plover, & Whooping Crane Habitat Availability Analysis
DATE: November 29, 2011

Request
The ED Office (EDO) requests the Governance Committee (GC) approve entering into a contract with the Rainwater Basin Joint Venture (RBJV) for completion of tern and plover (LTPP) and whooping crane (WC) habitat availability analyses in the central Platte River associated habitats for the 2007 and 2012 (LTPP) and 2007 through 2012 (WC) nesting/migration seasons. Funding for work under this agreement is estimated at **$143,227** and would come from Program budget line item IMRP-6 (Habitat Availability Analysis), if approved by the GC in December 2011.

Summary of work to be performed:
- Addition of years 2007 and 2012 to current least tern and piping plover habitat availability analysis (current scope is 2008-2011)
- Whooping crane habitat availability analysis for 2007-2012 (six analysis years)

This request will be discussed with the Technical Advisory Committee during their November 30, 2011 meeting in Denver.

Background
In May 2011, the Governance Committee approved entering into a sole-source agreement with RBJV to perform tern and plover habitat availability analysis (TPHAA) using remote sensing. In October 2011, RBJV presented results from the first year of tern and plover analysis to the TAC. The RBJV discussed the methodology and shared the results, which were received well by the TAC. The EDO believes the same techniques can be applied in analyzing habitat availability for whooping cranes, and contacted the RBJV to assess their interest in the project and to discuss a project approach.

Initial habitat parameters for whooping cranes have not been developed to the same level of detail by the Program as has the tern and plover parameters. As such, the EDO proposed to RBJV a much more collaborative project approach than was presented for the 2008-2011 TPHAA. The EDO asked the RBJV to develop a scope and fee that provided for time and equipment commitment sufficient to perform analysis similar to the TPHAA, but with criteria not yet defined (and expected to be more complicated). With this approach, the TAC will retain a great deal of flexibility in the project as they actively define WC habitat parameters in 2012. The proposed agreement would be set up as an effort-based not-to-exceed agreement that will span from approximately January 2012 through June 2013. Under this agreement, the RBJV will perform TPHAA for 2007 and 2012, create land cover classification of annual aerial photography pertinent to whooping crane habitat for 2007 through 2012, create and employ a variety of data inputs such as channel widths and unobstructed view widths, make use of Program LiDAR and 1D model outputs, and combine all of these pieces to create a spatial model of habitat availability for whooping cranes.

The RBJV has extensive experience with spatial modeling and imagery analysis which are key components of the habitat availability analysis. Imagery analysis requires very expensive specialized software and requires high-powered computers, and even then can take multiple days of computer processing time to complete. The RBJV already possesses the specialized hardware and software

necessary to perform the work, have been doing these types of analyses for a number of years, and have already successfully applied these skills to the TPHAA for the Program.

The RBJV's project area, being located in south-central Nebraska adjacent to much of the PRRIP associated habitats, offers familiarity with the habitats found in the Platte basin and experience modeling these habitats. Some of the analyses performed by RBJV in the past (aside from PRRIP's TPHAA) include modeling of potential sandhill crane roost habitat, lesser prairie chicken habitat, and quality and availability of habitat for migratory waterfowl in the Rainwater Basins. There is a fair amount of skill involved in refining results of the computer modeling process so familiarity with the area will be very valuable in producing the best analysis possible. RBJV's physical location near the central Platte will make for a stronger working relationship with the Program through the EDO and TAC.

Budget Estimate

Table 1 below provides detail on budget categories and estimated costs for performing the tern and plover and whooping crane habitat availability analysis work described above. The work to be covered by the agreement described in this memo would be for completing all tern/plover and whooping crane habitat availability analysis from 2007 through 2012. That work would be completed in an 18-month timeframe with a total estimated cost of $143,227. Funding for annual habitat availability analysis in 2013 and beyond is estimated at $20,000 and could be conducted by RBJV through an amendment to this agreement or possibly completed by the EDO depending on the results of the 2007-2012 work. All of these funding estimates are built into budget line item IMRP-6 in the Program budget being discussed at the December 2011 GC meeting.

Table 1. Budget estimates for completing all 2007-2012 tern/plover and whooping crane habitat availability analyses.

Project Items	Time / Unit Cost	2012	2013	Total Cost
Tern and Plovers (Two Analysis Years 2007 & 2012) technician time	600 hrs x $15/hr	$ 6,000	$ 3,000	$ 9,000
Whooping Cranes (Six Analysis Years 2007 - 2012) technician time	6,255 hrs x $15/hr	$ 62,550	$ 31,275	$ 93,825
Computer Hardware	1 time / $18,300	$ 18,300	$ -	$ 18,300
Workstations	1 time / $7,000	$ 7,000	$ -	$ 7,000
RWBJV Analyst; Quality Assessment/Quality Control for Datasets	600 hrs x $25.17/hr	$ 10,068	$ 5,034	$ 15,102
	Totals	$ 103,918	$ 39,309	$ 143,227