



United States Department of the Interior

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IN REPLY REFER TO:

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TAILS: 06E24000-2012-F-0328

APRIL 4, 2012

Mr. John M. Cater
Federal Highway Administration
Colorado Division
12300 W. Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Dear Mr. Cater:

This final biological opinion is provided in response to your February 22, 2012, request to initiate formal consultation pursuant to section 7(a) (2) of the Endangered Species Act of 1973 (ESA), as amended. Your Biological Assessment (BA) described the potential effects of the Federal Highway Administration's Federal-Aid Highway Program (FAHP) in Colorado (Project), on federally listed species and designated critical habitat associated with the Platte River in Nebraska. Your February 22, 2012, letter made no determination on the effects the Project may have on listed species/critical habitat in Colorado; therefore, this opinion will not address any listed species in Colorado.

The Federal Action reviewed in this biological opinion is implementation of the FAHP in Colorado; completing numerous highway construction projects throughout the South Platte River basin. The Colorado Division of the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (COOT) share the responsibility for oversight of the FAHP in Colorado, including all programs and projects using federal-aid funds; FHWA provides approval for expenditure of federal funds on those programs and projects. The Project also includes the construction of portions of large-scale, long-term projects that recently completed the NEPA (National Environmental Policy Act) process and programmatic section 7 consultation; this includes the US 36 corridor, the North 1-25 corridor, and the 1-70 Mountain corridor (for those portions that are within the South Platte River basin). The Project specifically excludes highway construction projects that are 100 percent locally funded, even if those projects require a FHWA approval (such as an Interstate Access Request); formal consultation for those projects will be handled on a project-by-project basis. The Project also specifically excludes highway construction projects that are within the North Platte River basin. Overall, water needed for the construction-related activities has and would continue to be obtained from municipal sources throughout the basin; although occasionally, water has and would be obtained directly from waterways. This biological opinion will cover proposed water use for FAHP construction activities in Colorado for the years 2012-2019.

Background

On June 16, 2006, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) for the Platte River Recovery Implementation Program (PRRIP) and water-related activities' affecting flow volume and timing in the central and lower reaches of the Platte River in Nebraska. The action area for the PBO included the Platte River basin upstream of the confluence with the Loup River in Nebraska, and the mainstem of the Platte River downstream of the Loup River confluence.

The Federal Action addressed by the PBO included the following:

- 1) 2funding and implementation of the PRRIP for 13 years, the anticipated first stage of the PRRIP; and
- 2) continued operation of existing and certain new water-related activities² including, but not limited to, Reclamation and Service projects that are (or may become) dependent on the PRRIP for ESA compliance during the first 13-year stage of the PRRIP for their effects on the target species³, whooping crane critical habitat, and other federally listed species⁴ that rely on central and lower Platte River habitats.

The PBO established a two-tiered consultation process for future federal actions on existing and new water-related activities subject to section 7(a)(2) of the ESA, with issuance of the PBO being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations covered by the PBO. Under this tiered consultation process, the Service will produce tiered biological opinions when it is determined that future federal actions are "likely to adversely affect" federally listed species and/or designated critical habitat in the PRRIP action area and the project is covered by the PBO. If necessary, the biological opinions will also consider potential effects to other listed species and critical habitat affected by the

¹ The term "water-related activities" means activities and aspects of activities which (1) occur in the Platte River basin upstream of the confluence of the Loup River with the Platte River; and (2) may affect Platte River flow quantity or timing, including, but not limited to, water diversion, storage and use activities, and land use activities. Changes in temperature and sediment transport will be considered impacts of a "water related activity" to the extent that such changes are caused by activities affecting flow quantity or timing. Impacts of "water related activities" do not include those components of land use activities or discharges of pollutants that do not affect flow quantity or timing.

² "Existing water related activities" include surface water or hydrologically connected groundwater activities implemented on or before July 1, 1997. "New water-related activities" include new surface water or hydrologically connected groundwater activities including both new projects and expansion of existing projects, both those subject to and not subject to section 7(a)(2) of the ESA, which may affect the quantity or timing of water reaching the associated habitats and which are implemented after July 1, 1997.

³ The "target species" are the endangered whooping crane (*Grus americana*), the interior least tern (*Sternula antillarum*), the pallid sturgeon (*Scaphi,ynchusa/bus*), and the threatened northern Great Plains population of the piping plover (*Charadrius melodus*).

⁴ Other listed species present in the central and lower Platte River include the western prairie fringed orchid (*Platanthera praeclara*), American burying beetle (*Nicrophorus americanus*), and Eskimo curlew (*Numenius borealis*).

Federal Action that were not within the scope of the Tier 1 PBO (e.g., direct or indirect effects to hosted species occurring outside of the PRRIP action area).

Although the water depletive effects of this Federal Action to central and lower Platte River species have been addressed in the PBO, when "no effect" or "may affect" but "not likely to adversely affect" determinations are made on a site-specific basis for the target species in Nebraska, the Service will review these determinations and provide written concurrence where appropriate. Upon receipt of written concurrence, section 7(a)(2) consultation will be considered completed for those federal actions.

Water-related activities requiring federal approval will be reviewed by the Service to determine if: (1) those activities comply with the definition of existing water-related activities and/or (2) proposed new water-related activities are covered by the applicable state's or the federal depletions plan. The Service has determined that the Project meets the above criteria and, therefore, this Tier 2 biological opinion regarding the effects of the Project on the target species, whooping crane critical habitat, and the western prairie fringed orchid in the central and lower Platte River can tier from the June 16, 2006 PBO.

Consultation History

Table 11-1 of the PBO (pages 21-23) contains a list of species and critical habitat in the action area, their status, and the Service's determination of the effects of the Federal Action analyzed in the PBO.

The Service determined in the Tier 1 PBO that the Federal Action, including the continued operation of existing and certain new water-related activities, may adversely affect but would not likely jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern Great Plains population of the piping plover, western prairie fringed orchid, and bald eagle in the central and lower Platte River. Further, the Service determined that the Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to destroy or adversely modify designated critical habitat for the whooping crane. The bald eagle was subsequently removed from the federal endangered species list on August 8, 2007. Bald eagles continue to be protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. For more information on bald eagles, see the Service's webpage at: <http://www.fws.gov/midwest/eagle/recovery/biologue.html>

The Service also determined that the PBO Federal Action would have no effect to the endangered Eskimo curlew. There has not been a confirmed sighting since 1926 and this species is believed to be extirpated in Nebraska. Lastly, the Service determined that the PBO Federal Action, including the continued operation of existing and certain new water-related activities, was not likely to adversely affect the endangered American burying beetle.

The effects of the continued operation of existing and certain new water-related activities on the remaining species and critical habitats listed in Table II-1 of the PBO were beyond the scope of the PBO and were not considered.

The Service has reviewed the information contained in the BA submitted by your office on February 22, 2012. On March 26, 2012, we received an email from the FHWA with supplemental BA information. Highway construction activities under the FAHP in Colorado from its inception through 2011 have already been completed; estimates of the associated water use for years 2007-2011 ranged from 161 to 187 acre-feet (af) per year from the South Platte River basin (169 af average) for activities such as the mixing of concrete, compaction of road base, and dust suppression. Because the FHWA completed this construction prior to its February 22, 2012, request for formal consultation, we consider the past water use through 2011 to be part of the environmental baseline and not a part of the proposed action.

The NEPA process and separate programmatic section 7 consultations were recently completed for the construction of individual portions of large-scale, long-term projects, including the US 36 corridor, the North 1-25 corridor, and the 1-70 Mountain corridor (for those portions that are within the South Platte River basin). In those earlier consultations, a tiered process for consulting on Platte River depletions was described; however, this consultation will replace that process, with this opinion covering the three aforementioned individual projects.

We concur with your determinations of "likely to adversely affect" for the endangered whooping crane, interior least tern, pallid sturgeon, the threatened northern Great Plains population of the piping plover, and the western prairie fringed orchid in the central and lower Platte River in Nebraska. We also concur with your determination of "likely to adversely affect" for designated whooping crane critical habitat in Nebraska.

The Service concurs with your determinations of "not likely to adversely affect" for the endangered American burying beetle, and "no effect" for the endangered Eskimo curlew.

Scope of the Tier 2 Biological Opinion

The proposed Project is a component of "the continued operation of existing and certain new water-related activities" needing a Federal Action evaluated in the Tier 1 PBO, and flow-related effects of the Federal Action are consistent with the scope and the determination of effects in the June 16, 2006 PBO. Because CDOT, as a Colorado State agency, is a participant in the PRRIP, ESA compliance for flow-related effects to federally listed endangered and threatened species and designated critical habitat from the Project is provided to the extent described in the Tier 1 PBO.

This biological opinion applies to the Project's effects to listed endangered and threatened species and designated critical habitat as described in the PBO for the first thirteen years of the PRRIP (i.e., the anticipated duration of the first PRRIP increment).

Description of the Federal Action

The Federal Action is FHWA's approval for expenditure of federal funds on the FAHP in Colorado _to complete numerous highway construction projects throughout the South Platte River basin for the years 2012 through 2019. Highway construction projects under the FAHP in Colorado from its inception through 2011 have already been completed; from 2007-2011, the associated water use averaged 169 af per year from the South Platte River basin for construction-related activities. Because the FHWA completed this construction prior to its February 22, 2012, request for formal consultation, we consider the past water use through 2011 to be part of the environmental baseline and not a part of the proposed action.

The CDOT divided the State into six "engineering" regions for management purposes; the South Platte River basin encompasses all of Region 6, large portions of Regions 1 and 4, and a small portion of Region 2. The Project involves the portion of Colorado's FAHP that occurs within this basin; the locations of individual road projects would vary from year to year. The Project also includes the construction of portions of large-scale, long-term projects: the US 36 corridor, the North 1-25 corridor, and the I-70 Mountain corridor (for those portions that are within the South Platte River basin). Specifically excluded from the Project are highway construction projects that are 100 percent locally funded (even if those projects, such as an Interstate Access Request, require a FHWA approval); and highway construction projects that are within the North Platte River basin.

The FAHP began with the Federal-Aid Road Act of 1916 and the Federal Highway Act of 1921. These two Acts provided the foundation for the FAHP as it exists today. The FAHP has been continued or renewed through the passage of multi-year authorization acts ever since then. Federal funding is provided to assist states in providing transportation services. By law, the nature and majority of these federal programs is in the form of federal assistance for state administered programs. The FHWA and COOT share the responsibility for oversight of the FAHP in Colorado, including all programs and projects using Federal-aid funds. The FHWA provides approval for expenditure of federal funds on those programs and projects, including this Project. CDOT's statewide highway construction program is a little more than \$1 billion per year, and FHWA provides approximately 45 percent of that funding.

When cars became the preferred mode of transportation in the U.S., most roads were dirt or gravel, narrow, poorly designed for drainage, and followed the local topography. Only four percent were paved, and bridges were constructed primarily of timbers. Water was certainly used for road construction at that time, but the majority was likely used for compaction and dust suppression. As road-building technology advanced, concrete items such as concrete paving, bridges, and retaining walls began to be used; however, more than 80 percent of water used on construction sites was still used for compaction and dust suppression. Today, the FAHP includes such construction activities as rehabilitation and reconstruction of existing roadways and bridges, and occasionally, the construction of new roadways; however, it does not include highway maintenance activities.

Based on estimated water usage for FAHP projects conducted from 2007-2011, the Project would require an average use of 169 af of water per year from the South Platte River basin in Colorado for highway construction activities such as the mixing of concrete, compaction of road base, and dust suppression. As the Project consists of multiple years of road construction projects, the FHWA anticipates that water use would remain approximately the same for the remainder of the PRRIP's first 13 years (i.e., 2012 through 2019). Overall, water needed for these construction-related activities has and would continue to be obtained from municipal sources throughout the basin; although occasionally, water has and would be obtained directly from waterways.

Status of the Species / Critical Habitat

Species descriptions, life histories, population dynamics, status and distributions are fully described in the PBO on pages 76-156 for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat and are hereby incorporated by reference. Since issuance of the Service's PBO, there have been no substantial changes in the status of the target species/critical habitat other than the bald eagle delisting previously mentioned.

Environmental Baseline

The Environmental Baseline sections for the Platte River and for the whooping crane, interior least tern, piping plover, pallid sturgeon and western prairie fringed orchid, and whooping crane critical habitat are described on pages 157 to 219 of the Tier 1 PBO, and are hereby incorporated by reference. Since issuance of the Tier 1 PBO, there have been no substantial changes in the status of the target species/critical habitat in the action area other than the bald eagle delisting.

Effects of the Action

Based on our analysis of the information provided in your BA and supplemental BA for the Project, the Service concludes that the proposed Federal Action will result in a combination of existing and new depletions to the Platte River system above the Loup River confluence. These depletions are associated with the average use of 169 af of water per year from one or more established sources in the South Platte River basin for highway construction activities such as mixing of concrete, compaction of road base, and dust suppression. As the Project consists of an on-going program of construction projects, COOT anticipates that water use would remain approximately the same, at 169 af per year for the remainder of the PRRIP's first 13 years (i.e., through 2019). Consequently, the total water usage for the years 2012 through 2019 would be approximately 1,352 af.

As both an existing and new water-related activity, we have determined that the flow-related adverse effects of the Project are consistent with those evaluated in the Tier 1 PBO for the whooping crane, interior least tern, piping plover, pallid sturgeon, western prairie fringed

orchid, and whooping crane critical habitat, and these effects on flows are being addressed in conformance with the Colorado Plan for Future Depletions of the PRRIP.

Cumulative Effects

Cumulative effects include the effects of future State, local, or private (non-federal) actions that are reasonably certain to occur in the action area considered in this biological opinion. A non-federal action is "reasonably certain" to occur if the action requires the approval of a State or local resource or land-control agency, such agencies have approved the action, and the project is ready to proceed. Other indicators which may also support such a "reasonably certain to occur" determination include whether: a) the project sponsors provide assurance that the action will proceed; b) contracting has been initiated; c) State or local planning agencies indicate that grant of authority for the action is imminent; or d) where historic data have demonstrated an established trend, that trend may be forecast into the future as reasonably certain to occur. These indicators must show more than the possibility that the non-federal project will occur; they must demonstrate with reasonable certainty that it will occur. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act and would be consulted on at a later time.

Cumulative effects are described on pages 194 to 300 of the Tier I PBO, and are hereby incorporated by reference. Since the Tier I PBO was issued, there have been no substantial changes in the status of cumulative effects.

Conclusion

The Service concludes that the proposed FAHP Project in Colorado is consistent with the Tier I PBO for effects to listed species and critical habitat addressed in the Tier 1 PBO. After reviewing site specific information, including: 1) the scope of the Federal Action, 2) the environmental baseline, 3) the status of the whooping crane, interior least tern, piping plover, pallid sturgeon, and the western prairie fringed orchid in the central and lower Platte River and their potential occurrence within the project area, as well as whooping crane critical habitat, 4) the effects of the Project, and 5) any cumulative effects, it is the Service's biological opinion that the Project, as described, is not likely to jeopardize the continued existence of the federally endangered whooping crane, interior least tern, and pallid sturgeon, or the federally threatened northern Great Plains population of the piping plover, or western prairie fringed orchid in the central and lower Platte River. The Federal Action is also not likely to destroy or adversely modify designated critical habitat for the whooping crane.

Incidental Take Statement

Section 9 of ESA and federal regulations pursuant to section 4(d) of BSA prohibit the take of endangered and threatened species without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any

such conduct, and applies to individual members of a listed species. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of: the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

Sections 7(b)(4) and 7(o)(2) of ESA do not apply to the incidental take of federally listed plant species (e.g., Colorado butterfly plant, Ute ladies' tresses orchid, and western prairie fringed orchid). However, limited protection of listed plants from take is provided to the extent that ESA prohibits the removal and reduction to possession of federally listed endangered plants or the malicious damage of such plants on non-federal areas in violation of state law or regulation or in the course of any violation of a state criminal trespass law. Such laws vary from state to state.

The Department of the Interior, acting through the Service and Bureau of Reclamation, is implementing all pertinent Reasonable and Prudent Measures and implementing Terms and Conditions stipulated in the Tier 1 PBO Incidental Take Statement (pages 309-326 of the PBO) which will minimize the anticipated incidental take of federally listed species. In instances where the amount or extent of incidental take outlined in the Tier 1 PBO is exceeded, or the amount or extent of incidental take for other listed species is exceeded, the specific PRRIP action(s) causing such take shall be subject to reinitiation expeditiously. As an additional term and condition of this opinion, the FHWA should report to the Service, by February 1 of each calendar year (2013-2020), on the previous year's water use according to the same calculation method used for developing the estimated water use for the years 2007-2011. In addition, this report should include total water use for the Project, beginning with the year 2012; and compare that to the total amount covered in this biological opinion (1,352 af). If a trend develops that indicates the Project will exceed 1,352 af before the end of 2019, the FHWA should request reinitiation of formal consultation with this office.

Conservation Recommendations

Section 7(a) (1) of ESA directs federal agencies to utilize their authorities to further the purposes of ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of an action on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation recommendations are provided in the PBO (pages 328-329) and are hereby incorporated by reference.

Re-initiation and Closing Statement

Any person or entity undertaking a water-related activity that receives federal funding or a federal authorization and which relies on the PRRIP as a component of its ESA compliance in section 7 consultation must agree: (1) to the inclusion in its federal funding or authorization documents of reopening authority, including reopening authority to accommodate reinitiation upon the circumstances described in Section IV.E. of the Program document, which addresses program termination; and (2) to request appropriate amendments from the federal action agency as needed to conform its funding or authorization to any PRRIP adjustments negotiated among the three states and the Department of the Interior, including specifically new requirements, if any, at the end of the first PRRIP increment and any subsequent PRRIP increments. The Service believes that the PRRIP should not provide ESA compliance for any water-related activity for which the funding or authorization document does not conform to any PRRIP adjustments (Program Document, section VI).

Reinitiation of consultation over the FAHP Project in Colorado will not be required at the end of the first 13 years of the PRRIP provided a subsequent Program increment or first increment Program extension is adopted pursuant to appropriate ESA and NEPA compliance procedures, and, for a subsequent increment, the effects of the Project are covered under a Tier 1 PBO for that increment addressing continued operation of previously consulted-on water-related activities.

This concludes formal consultation on the actions outlined in the February 22, 2012, request from the FHWA. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded (e.g., a trend develops that indicates the Project will exceed 1,352 af of water use, the total amount covered in this opinion, before the end of 2019); 2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the specific action(s) causing such take shall be subject to reinitiation expeditiously.

Requests for reinitiation, or questions regarding reinitiation should be directed to the Service's Colorado Field Office at the above address. If you have any questions regarding this consultation, please contact Sandy Vana-Miller of my staff at (303) 236-4748.

Sincerely,



Susan C. Linner
Colorado Field Supervisor

ec: CDOT, J. Peterson
FWSR6/WTR, T. Econopouly
FWSR6/ES/NE, M. Rabbe
FWSR6/ES/LK, A. Michael, S. Vana-Miller

Literature Cited

Platte River Recovery Implementation Program document. 2006.

U.S. Department of the Interior. 2006. Platte River Recovery Implementation Program Final Environmental Impact Statement.

U.S. Fish and Wildlife Service. 2006. Biological opinion on the Platte River Recovery Implementation Program.