



U.S. Department
of Transportation
**Federal Highway
Administration**

Colorado Division

February 22, 2012

12300 W. Dakota Ave., Ste. 180
Lakewood, Colorado 80228
720-963-3000
720-963-3001

Ms. Susan Linner
US Fish and Wildlife Service
P.O. Pox 25486, DFC (MS 65412)
Denver, Colorado 80225
Attn: Alison Michael

Subject: Federal-Aid Highway Program in Colorado
Template Biological Assessment & Request for Formal Section 7 Consultation

Dear Ms. Linner:

This letter contains the Biological Assessment addressing potential impacts from implementation of the Federal-Aid Highway Program (FAHP) in Colorado ("Project") on federally-listed species in Nebraska. With this submission, we are requesting initiation of formal consultation under Section 7(a) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA), concerning the Whooping Crane (*Grus americana*), interior population of the Least Tern (*Sternula antillarum*), northern Great Plains population of the Piping Plover (*Charadrius melodus*), pallid sturgeon (*Scaphirhynchus albus*) (collectively referred to as the "target species"), and designated critical habitat of the Whooping Crane. We further request the initiation of formal consultation for the western prairie fringed orchid (*Platanthera praeclara*). We have determined that the Project is not likely to adversely affect the American burying beetle (*Nicrophorus americanus*) and will have no effect on the Eskimo Curlew (*Numenius borealis*).

The FAHP began with the Federal-Aid Road Act of 1916 and the Federal Highway Act of 1921. These 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 the majority of these federal programs is in the form of federal assistance for state administered programs. The Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) share the responsibility for oversight of the FAHP in Colorado, including all programs and projects using Federal-aid funds, and FHWA provides approval for expenditure of federal funds on those programs and projects. CDOT's statewide highway construction program is a little more than \$1 billion per year, and FHWA provides approximately 45% of that funding. The FAHP includes such construction activities as rehabilitation and reconstruction of existing roadways and bridges, and occasionally the construction of new roadways, but does not include highway maintenance activities. The locations of individual projects varies from year to year, but are spread throughout the South Platte River basin. CDOT has broken the state into six engineering regions for management purposes; the South Platte River basin encompasses all of Regions 4 and 6, a large portion of Region 1, and a small portion of Region 2 (see enclosed figure). The portion of Colorado's FAHP within the South Platte River basin will be referred to collectively as the "Project" for the remainder of this letter.

The Project consists of numerous individual highway construction projects throughout the basin. The Project includes the construction of portions of large-scale, long-term projects that have recently completed the NEPA process, including the US 36 corridor, the North I-25 corridor, and the I-70 Mountain Corridor (for those portions that are within the South Platte River basin). The Project specifically excludes highway construction projects that are 100% locally funded, even if those projects require an 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.

The Project will result in some amount of continuing historic and/or new depletions to the South Platte River associated with activities such as mixing of concrete, compaction of road base, and dust suppression for highway construction projects. In general, water for these actions is obtained from municipal sources throughout the basin, although occasionally water is taken directly from waterways. Although there may be some minor amounts of water that are obtained outside the basin for use within the basin, or vice versa, it is assumed that these amounts would offset each other. For estimating purposes it was assumed that projects inside the basin use water from within the basin, and projects outside the basin do not use basin water. Based on information from 2007-2011, the Project resulted in between 158 and 206 acre-feet of water use per year from the South Platte River basin, with an average use of 176 acre-feet¹. As the Project consists of an on-going program of construction projects, it is anticipated that water use will remain approximately the same at 176 acre-feet per year for the remainder of the consultation increment (i.e. through 2019). The total water usage for the years 2012 through 2019 would be approximately 1,408 acre-feet.

The Platte River Recovery Implementation Program (Program), established in 2006, is implementing actions designed to assist in the conservation and recovery of the target species and their associated habitats along the central and lower Platte River in Nebraska through a basin-wide cooperative approach agreed to by the States of Colorado, Nebraska, and Wyoming and the U.S. Department of the Interior [Program, I.A.1.]. The Program addresses the adverse impacts of existing and certain new water related activities on the Platte target species and associated habitats, and provides ESA compliance² for effects to the target species and designated critical habitat for the Whooping Crane from such activities including avoidance of any prohibited take of such species. [Program, I.A.2 & footnote 2.]. The State of Colorado is in compliance with its obligations under the Program.

¹ This calculation was based on those construction activities that use the most water: embankment, structure backfill, aggregate base source (ABC) compaction, and concrete (including concrete slope paving, and concrete sidewalks). Using the amounts of each of these activities that were paid for in the year and within the basin, a conversion factor was applied (based on best engineering judgment) to determine the amount of water consumed by each activity, and an additional 20% was added to account for water uses on construction sites that are not directly attributable to pay items. This data is enclosed.

² "ESA Compliance" means: (1) serving as the reasonable and prudent alternative to offset the effects of water-related activities that FWS found were likely to cause jeopardy to one or more of the target species or to adversely modify critical habitat before the Program was in place; (2) providing offsetting measures to avoid the likelihood of jeopardy to one or more of the target species or adverse modification of critical habitat in the Platte River basin for new or existing water-related activities evaluated under the ESA after the Program was in place; and (3) avoiding any prohibited take of target species in the Platte River basin.

For Federal actions and projects participating in the Program, the Platte River Recovery Implementation Program Final Environmental Impact Statement (FEIS) and the June 16, 2006 programmatic biological opinion (PBO) serve as the description of the environmental baseline and environmental consequences for the effects of the Federal actions on the listed target species, Whooping Crane designated critical habitat, and other listed species in the central and lower Platte River addressed in the PBO. These documents are hereby incorporated into this Biological Assessment by this reference.

Table II-1 of the PBO (pages 21-23) contains a list of species and designated critical habitat in the action area, their status, and the US Fish and Wildlife Service's (Service's) determination of the effects of the Federal action analyzed in the PBO. The Service determined in the PBO that the continued operation of existing and certain new water-related activities may adversely affect but would not likely jeopardize the continued existence of the endangered Whooping Crane, interior population of the Least Tern, and pallid sturgeon, or the threatened northern Great Plains population of the Piping Plover. Further, the Service found that the continued operation of existing and certain new water-related activities may adversely affect but would not likely jeopardize the threatened Bald Eagle and western prairie fringed orchid associated with the central and lower reaches of the Platte River in Nebraska, and 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.

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 above-described Project operations qualify as a "new water related activity" because such operations constitute a new surface water or hydrologically connected groundwater activity which may affect the quantity or timing of water reaching the associated habitats of the target species implemented after July 1, 1997 [Program, I.A. footnote 3]. The Project conforms to the following criteria in Section H of Colorado's Plan for Future Depletions [Program, Attachment 5, Section 9]:

1. The Project is operated on behalf of Colorado water users.
2. The Project does not involve construction of a major on-stream reservoir located on the mainstem of the South Platte River anywhere downstream of Denver, Colorado.
3. The Project is not a hydropower diversion/return project diverting water including sediments from the mainstem of the South Platte River anywhere downstream of Denver and returning clear water to the South Platte River.
4. The Project does not cause the average annual water supply to serve Colorado's population increase from "Wastewater Exchange/Reuse" and "Native South Platte Flows" to exceed 98,010 acre-feet during the February-July period.

Accordingly, the impacts of this activity to the target species, Whooping Crane critical habitat, and other listed species in the central and lower Platte River addressed in the PBO are covered and offset by operation of Colorado's Future Depletions Plan as part of the Program.

CDOT intends to rely on the provisions of the Program to provide ESA compliance for potential impacts to the target species and Whooping Crane critical habitat. FHWA intends to require, as a condition of any approval, that CDOT fulfill the responsibilities required of Program participants in Colorado, which includes participation in the South Platte Water Related Activities Program, Inc. (SPWRAP). CDOT, as part of the State of Colorado, is currently a member of SPWRAP. FHWA also intends to retain discretionary Federal authority for the FAHP, consistent with applicable regulations and Program provisions, in case reinitiation of Section 7 consultation is required.

In order to track the Project's on-going use of water, FHWA and CDOT intend to report by February 1 each year to the Service on the previous year's water use based on the same calculation method used for developing the estimated water use for the years 2007-2011. In addition, this report will include a total of water use beginning in 2012 and compare that to the amount consulted on in this letter (1,408 acre-feet in total). If a trend develops that indicates the Project will exceed 1,408 acre-feet before the end of 2019, FHWA will reinitiate Section 7 consultation.

This letter addresses consultation on all listed species and designated critical habitat, including the referenced Platte River target species and Whooping Crane critical habitat. Potential impacts from construction and operation of the Project to any other federally-listed threatened or endangered species and designated critical habitats will be addressed within the applicable biological opinion prepared by the Service, in accordance with the ESA.

If you have further questions regarding this matter, please contact Ms. Stephanie Gibson, of this office, at 720-963-3013.

Sincerely yours,



for John M. Cater
Division Administrator

Enclosures

cc: Ms. Stephanie Gibson, FHWA
Ms. Jane Hann, CDOT
Ms. Vanessa Henderson, CDOT
Mr. Jeff Peterson, CDOT
Mr. Kevin Urie, Denver Water
File 450.8

From: Gibson, Stephanie (FHWA)
To: [Gibson, Stephanie \(FHWA\)](#); ["Alison Michael@fws.gov"](#); ["Sandy Vana-Miller@fws.gov"](#); ["Thomas Econopouly@fws.gov"](#); ["Hann, Jane"](#); ["Peterson, Jeff"](#); ["Henderson, Vanessa"](#)
Cc: ["Urie, Kevin"](#)
Subject: Revisions to the Depletions Programmatic for Colorado
Date: Monday, March 26, 2012 10:37:00 AM
Attachments: [Revised CDOT Water Usage Calcs 2007-2011.xlsx](#)
[Revised South Platte River Basin Map.docx](#)
Importance: High

Sandy,

It was brought to FHWA's and CDOT's attention that we did not use the correct HUC level when calculating the water depletions to the South Platte River. We were up one level too many and had the Republican River Basin included which doesn't contribute to depletions of the Platte. As a result, the depletion calculations that were submitted to the USFWS for the BA in February were incorrect. I apologize for this and attached the recalculated depletions information to this e-mail. Alison Michael of your office provided us with a map of the S. Platte basin at the correct HUC level, which is also attached.

The following changes should be made to the Biological Assessment:

On page 1, the second to last sentence on the page should read: "CDOT has broken 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 (see enclosed figure)." This figure should be the revised figure included in this e-mail rather than the one provided previously.

Page 2, second paragraph, the last three sentences should read: "Based on information from 2007-2011, the Project resulted in between 161 and 187 acre-feet of water use per year from the South Platte River basin, with an average use of 169 acre-feet. As the Project consists of an on-going program of construction project, it is anticipated that water use will remain approximately the same at 169 acre-feet per year for the remainder of the consultation increment (i.e. through 2019). The total water usage for the years 2012 through 2019 would be approximately 1,352 acre-feet." (Note, the total water usage actually increased in 2009 and 2011 despite the reduction in area of the State included, probably due to updates in the database from which the data is extracted.)

Page 4, third paragraph, in the last two sentences the number 1,408 should be replaced with 1,352.

If you would like a letter with these revisions and revised attachments, or if you would like FHWA to re-submit the BA with the corrected information, please let me know. Otherwise, please consider this e-mail as a formal revision to the BA submitted to you in February.

Thank you.

Stephanie Gibson
Environmental Program Manager
Federal Highway Administration – Colorado Division
12300 West Dakota Avenue, Suite 180

Lakewood, CO 80228
Phone: 720-963-3013
Fax: 720-963-3001
Stephanie.Gibson@dot.gov

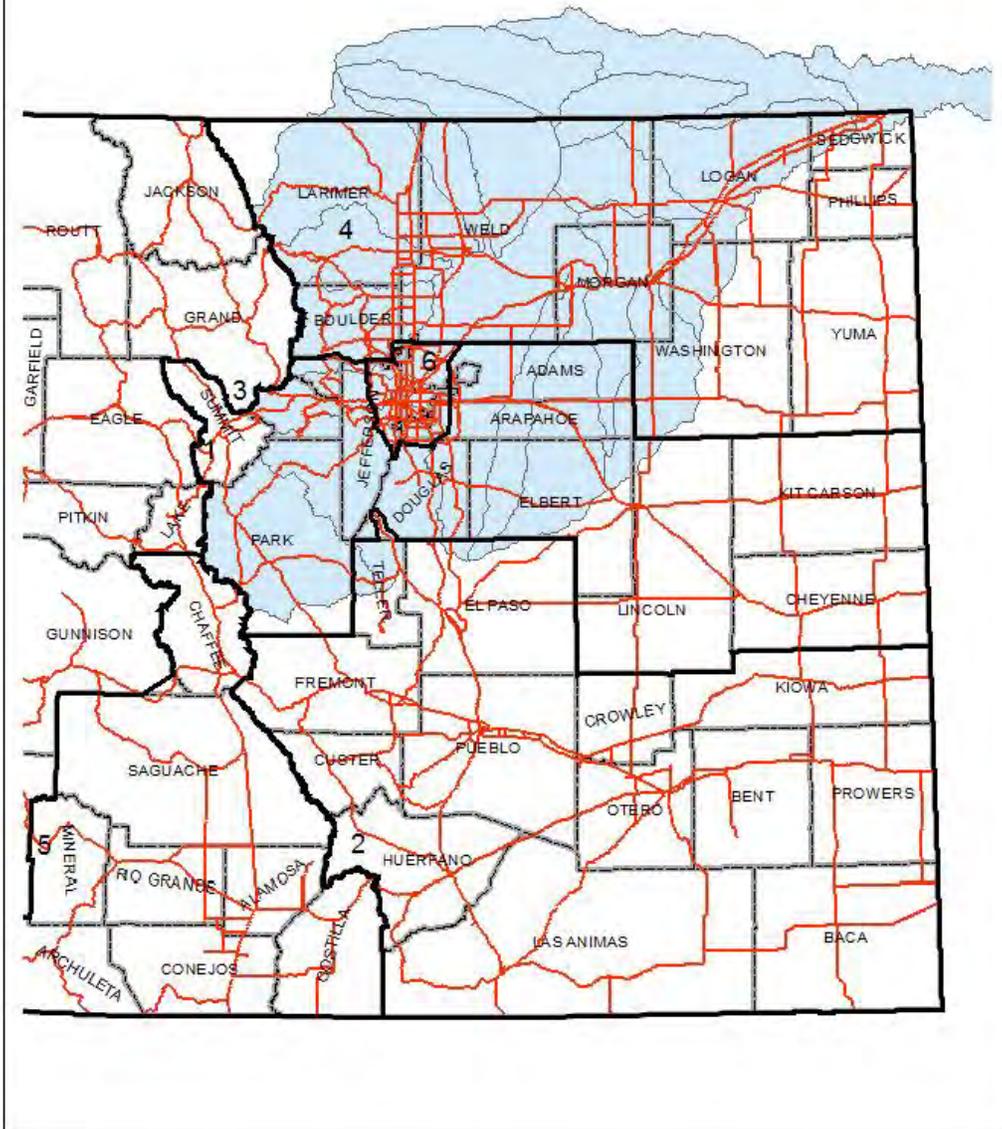
From: Gibson, Stephanie (FHWA)
Sent: Wednesday, February 22, 2012 3:06 PM
To: 'Alison_Michael@fws.gov'; 'Sandy_Vana-Miller@fws.gov'; 'Thomas_Econopouly@fws.gov'; 'Hann, Jane'; 'Peterson, Jeff'; 'Henderson, Vanessa'
Cc: 'Urie, Kevin'
Subject: Depletions Programmatic for Colorado - signed letter

The letter for the Programmatic BA went out in the mail today. Attached is the letter and the attachments.

Thank you for working with me on this. I look forward to USFWS's response.

Stephanie Gibson
Environmental Program Manager
Federal Highway Administration – Colorado Division
12300 West Dakota Avenue, Suite 180
Lakewood, CO 80228
Phone: 720-963-3013
Fax: 720-963-3001
Stephanie.Gibson@dot.gov

South Platte River Basin



Estimated Water Depletions for CDOT 2007 - 2011 (Revised 3/23/12)

Summary 2007-2011

Total water used (AF)		+20% for misc. water use (AF)
2007	136.12	163.3452
2008	136.75	164.0979
2009	142.45	170.9379
2010	133.81	160.5759
2011	155.67	186.8007
Average	140.9596	169.1515

203 - Embankment

REGION 1			REGION 2			REGION 4			REGION 6		
year			year			year			year		
2007	100739 CY		2007	0 CY		2007	834584 CY		2007	35615 CY	
	3022170 Gallons			0 Gallons			25037520 Gallons			1068450 Gallons	
	9.27 AF			0.00 AF			76.84 AF			3.28 AF	
2008	728986 CY		2008	6365 CY		2008	320866 CY		2008	15162 CY	
	21869580 Gallons			190950 Gallons			9625980 Gallons			454860 Gallons	
	67.12 AF			0.59 AF			29.54 AF			1.40 AF	
2009	429772 CY		2009	0 CY		2009	126852 CY		2009	226957 CY	
	12893160 Gallons			0 Gallons			3805560 Gallons			6808710 Gallons	
	39.57 AF			0.00 AF			11.68 AF			20.90 AF	
2010	204731 CY		2010	0 CY		2010	89634 CY		2010	673882 CY	
	6141930 Gallons			0 Gallons			2689020 Gallons			20216460 Gallons	
	18.85 AF			0.00 AF			8.25 AF			62.04 AF	
2011	43622 CY		2011	0 CY		2011	537011 CY		2011	479222 CY	
	1308660 Gallons			0 Gallons			16110330 Gallons			14376660 Gallons	
	4.02 AF			0.00 AF			49.44 AF			44.12 AF	

Total AF

2007	89.39
2008	98.64
2009	98.64
2010	89.14
2011	97.58

206 - Structure Backfill

REGION 1			REGION 2			REGION 4			REGION 6		
year			year			year			year		
2007	6070 CY		2007	0 CY		2007	65682 CY		2007	44536 CY	
	133540 Gallons			0 Gallons			1445004 Gallons			979792 Gallons	
	0.41 AF			0.00 AF			4.43 AF			3.01 AF	
2008	70497 CY		2008	509 CY		2008	14597 CY		2008	1629 CY	
	1550934 Gallons			11198 Gallons			321134 Gallons			35838 Gallons	
	4.76 AF			0.03 AF			0.99 AF			0.11 AF	
2009	168197 CY		2009	0 CY		2009	14519 CY		2009	75766.5 CY	
	3700334 Gallons			0 Gallons			319418 Gallons			1666863 Gallons	
	11.36 AF			0.00 AF			0.98 AF			5.12 AF	
2010	139361 CY		2010	0 CY		2010	8033 CY		2010	213996 CY	
	3065942 Gallons			0 Gallons			176726 Gallons			4707912 Gallons	
	9.41 AF			0.00 AF			0.54 AF			14.45 AF	
2011	9064 CY		2011	0 CY		2011	78498 CY		2011	501339 CY	
	199408 Gallons			0 Gallons			1726956 Gallons			11029458 Gallons	
	0.61 AF			0.00 AF			5.30 AF			33.85 AF	

Total AF

2007	7.85
2008	5.89
2009	17.45
2010	24.4
2011	39.76

304 - ABC Compaction

REGION 1		REGION 2		REGION 4		REGION 6	
year		year		year		year	
2007	7155 CY 157410 Gallons 0.48 AF	2007	0 CY 0 Gallons 0.00 AF	2007	19143 CY 421146 Gallons 1.29 AF	2007	4301.7 CY 94637.4 Gallons 0.29 AF
2008	3817 CY 83974 Gallons 0.26 AF	2008	0 CY 0 Gallons 0.00 AF	2008	56947 CY 1252834 Gallons 3.84 AF	2008	2463 CY 54186 Gallons 0.17 AF
2009	10138 CY 223036 Gallons 0.68 AF	2009	0 CY 0 Gallons 0.00 AF	2009	18982 CY 417604 Gallons 1.28 AF	2009	15581 CY 342782 Gallons 1.05 AF
2010	8599 CY 189178 Gallons 0.58 AF	2010	0 CY 0 Gallons 0.00 AF	2010	18736 CY 412192 Gallons 1.26 AF	2010	16475 CY 362450 Gallons 1.11 AF
2011	1090 CY 23980 Gallons 0.07 AF	2011	0 CY 0 Gallons 0.00 AF	2011	20219 CY 444818 Gallons 1.37 AF	2011	44103 CY 970266 Gallons 2.98 AF

Total AF

2007	2.07
2008	4.27
2009	3.02
2010	2.96
2011	4.42

412 - Concrete

REGION 1		REGION 2		REGION 4		REGION 6	
year		year		year		year	
2007	3072 CY 101376 Gallons 0.31 AF	2007	0 CY 0 Gallons 0.00 AF	2007	346085 CY 11420805 Gallons 35.05 AF	2007	59.7 CY 1970.1 Gallons 0.01 AF
2008	248707.3 CY 8207341 Gallons 25.19 AF	2008	0 CY 0 Gallons 0.00 AF	2008	9252.4 CY 305329.2 Gallons 0.94 AF	2008	5185 CY 171105 Gallons 0.53 AF
2009	6367.3 CY 210120.9 Gallons 0.64 AF	2009	0 CY 0 Gallons 0.00 AF	2009	121057 CY 3994881 Gallons 12.26 AF	2009	78929.2 CY 2604664 Gallons 7.99 AF
2010	3876 CY 127908 Gallons 0.39 AF	2010	0 CY 0 Gallons 0.00 AF	2010	213 CY 7029 Gallons 0.02 AF	2010	148888 CY 4913304 Gallons 15.08 AF
2011	36.4 CY 1201.2 Gallons 0.00 AF	2011	0 CY 0 Gallons 0.00 AF	2011	1573.2 CY 51915.6 Gallons 0.16 AF	2011	97845.4 CY 3228898 Gallons 9.91 AF

Total AF

2007	35.37
2008	26.65
2009	20.9
2010	15.1
2011	10.1

507 - Concrete Slope Paving

	REGION 1	REGION 2	REGION 4	REGION 6
year				
2007	1331.4 CY 43936.2 Gallons 0.13 AF	0 CY 0 Gallons 0.00 AF	1053 CY 34749 Gallons 0.11 AF	130 CY 4290 Gallons 0.01 AF
2008	255.9 CY 8444.7 Gallons 0.03 AF	0 CY 0 Gallons 0.00 AF	230.8 CY 7616.4 Gallons 0.02 AF	414.4 CY 13675.2 Gallons 0.04 AF
2009	348.9 CY 11513.7 Gallons 0.04 AF	0 CY 0 Gallons 0.00 AF	1128.9 CY 37253.7 Gallons 0.11 AF	835.8 CY 27581.4 Gallons 0.08 AF
2010	17 CY 561 Gallons 0.00 AF	0 CY 0 Gallons 0.00 AF	167.4 CY 5524.2 Gallons 0.02 AF	1231 CY 40623 Gallons 0.12 AF
2011	2.6 CY 85.8 Gallons 0.00 AF	0 CY 0 Gallons 0.00 AF	64 CY 2112 Gallons 0.01 AF	725 CY 23925 Gallons 0.07 AF

Total AF

2007	0.25
2008	0.09
2009	0.23
2010	0.14
2011	0.08

601 - Concrete

	REGION 1	REGION 2	REGION 4	REGION 6
year				
2007	201.9 CY 6662.7 Gallons 0.02 AF	0 CY 0 Gallons 0.00 AF	7631.2 CY 251829.6 Gallons 0.77 AF	3723 CY 122859 Gallons 0.38 AF
2008	7244.8 CY 239078.4 Gallons 0.73 AF	0 CY 0 Gallons 0.00 AF	2508.1 CY 82767.3 Gallons 0.25 AF	2056.5 CY 67864.5 Gallons 0.21 AF
2009	1193.1 CY 39372.3 Gallons 0.12 AF	0 CY 0 Gallons 0.00 AF	4993.3 CY 164778.9 Gallons 0.51 AF	14947.35 CY 493262.6 Gallons 1.51 AF
2010	2708 CY 89364 Gallons 0.27 AF	0 CY 0 Gallons 0.00 AF	3513.6 CY 115948.8 Gallons 0.36 AF	13658.8 CY 450740.4 Gallons 1.38 AF
2011	170.2 CY 5616.6 Gallons 0.02 AF	0 CY 0 Gallons 0.00 AF	8341.2 CY 275259.6 Gallons 0.84 AF	27883.9 CY 920168.7 Gallons 2.82 AF

Total AF

2007	1.17
2008	1.2
2009	2.14
2010	2.01
2011	3.69

608 - Concrete sidewalk

	REGION 1
year	
2007	0.8 CY 26.4 Gallons 0.00 AF
2008	41.4 CY 1366.2 Gallons 0.00 AF
2009	0 CY 0 Gallons 0.00 AF
2010	83.9 CY 2768.7 Gallons 0.01 AF
2011	7.8 CY 257.4 Gallons 0.00 AF

	REGION 2
year	
2007	0 CY 0 Gallons 0.00 AF
2008	0 CY 0 Gallons 0.00 AF
2009	0 CY 0 Gallons 0.00 AF
2010	0 CY 0 Gallons 0.00 AF
2011	0 CY 0 Gallons 0.00 AF

	REGION 4
year	
2007	118 CY 3894 Gallons 0.01 AF
2008	15.6 CY 514.8 Gallons 0.00 AF
2009	2.8 CY 92.4 Gallons 0.00 AF
2010	6.8 CY 224.4 Gallons 0.00 AF
2011	210.7 CY 6953.1 Gallons 0.02 AF

	REGION 6
year	
2007	62.1 CY 2049.3 Gallons 0.01 AF
2008	70.8 CY 2336.4 Gallons 0.01 AF
2009	738.7 CY 24377.1 Gallons 0.07 AF
2010	537.4 CY 17734.2 Gallons 0.05 AF
2011	200.4 CY 6613.2 Gallons 0.02 AF

Total AF

2007	0.02
2008	0.01
2009	0.07
2010	0.06
2011	0.04



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC (65412)
Denver, Colorado 80225-0486

IN REPLY REFER TO:

ES/CO: ES/LK-6-CO-12-F-020

TAILS: 06E24000-2012-F-0328

APR - 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 (CDOT) 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 I-25 corridor, and the I-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 activities¹ 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) funding 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 (*Scaphirynchus albus*), 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 listed 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 II-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 I-25 corridor, and the I-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 I-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 CDOT 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, CDOT 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 1 PBO, and are hereby incorporated by reference. Since the Tier 1 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 1 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 ESA 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.

REINITIATION 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

cc: 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.