

APPENDIX A8

WETLANDS TECHNICAL MEMORANDUM

FOR THE State Highway 9 Iron Springs Alignment Environmental Assessment

Prepared for

COLORADO DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

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ENVIRONMENTAL PROGRAMS BRANCH

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ACRONYMS

CDOT	Colorado Department of Transportation
CWA	Clean Water Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
NRCS	Natural Resources Conservation Service
ROD	Record of Decision
SH 9	State Highway 9
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

1 INTRODUCTION

2 This technical memorandum has been prepared in support of the State Highway (SH) 9 Iron
3 Springs Alignment Environmental Assessment (EA). This memorandum evaluates the effects of
4 the Iron Springs Alignment (Proposed Action) and the No Action Alternative (widening on the
5 existing alignment) with respect to wetlands in the project area.

6 *Federal Regulations/Policies*

7 Passed by the United States Congress in 1972, the Clean Water Act (CWA) establishes the basic
8 structure for regulating discharges of pollutants into “waters of the U.S.” Any discharge of
9 dredged or fill materials into a waters of the U.S., including wetlands, requires authorization by
10 the U.S. Army Corps of Engineers (USACE) pursuant to section 404 of the CWA. A water of the
11 U.S. is defined under section 404 as all traditional navigable waters and their tributaries, all
12 interstate waters and their tributaries, all wetlands adjacent to these waters, and all
13 impoundments of these waters. This definition does not include wetlands that lack a significant
14 nexus or surface connection to a regulated water, such as a perennial stream.

15 In addition to CWA requirements, projects with federal funding or oversight must comply with
16 Executive Order 11990 Protection of Wetlands. Executive Order 11990 directs the lead federal
17 agencies to protect isolated wetlands by avoiding direct or indirect support of construction in
18 wetlands when a practicable alternative is available. Therefore, regardless of CWA jurisdiction,
19 the Federal Highway Administration (FHWA) is responsible for ensuring the avoidance,
20 minimization, and compensatory mitigation of all wetlands within transportation projects having
21 a federal nexus.

22 For regulatory purposes under CWA, wetlands are defined as "those areas that are inundated or
23 saturated by surface or groundwater at a frequency and duration sufficient to support, and that
24 under normal circumstances do support, a prevalence of vegetation typically adapted for life in
25 saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas"
26 (USACE, 1995). More specifically a habitat is considered a wetland when three parameters are
27 met: hydrophytic vegetation, hydric soils, and wetland hydrology.

28 A rare type of wetland within Colorado is the fen wetland, or peatland, a primarily groundwater
29 driven permanently saturated system with high organic accumulations that require thousands of
30 years to develop. Because of its rarity and difficulty to recreate, fens receive special
31 consideration under the U.S. Fish and Wildlife Service’s (USFWS) *Peatland Mitigation Policy*
32 *Considerations* written in 1998 (amended 1999). Region 6 of the USFWS determined all its
33 functional fens fall within Resource Category 1 of the USFWS’s Mitigation Policy, “. . . because of
34 the irreplaceability of the type of habitat, every reasonable effort should be made to avoid
35 impacting that habitat type” (USFWS, 1999). In support of the USFWS policy, the USACE districts
36 in Colorado revoke most nationwide permits for activities impacting fens and those wetlands
37 adjacent to fens. Regional Condition Number 9 states, “All nationwide permits, with the
38 exception of 3, 5, 6, 20, 27, 32, 37, and 38, are revoked for activities located in fens and
39 wetlands adjacent to fens” (USACE, 2012). An individual 404 permit authorization is necessary
40 when project activities impacting fens or wetlands adjacent to fens cannot be authorized under
41 a nationwide permit as listed above.

1 *Local Regulations/Policies*

2 The Summit County Development Code (Summit County, 1996) includes water quality control
3 regulations to prevent degradation of water quality in Dillon and Green Mountain reservoirs.
4 Avoiding soil disturbance within wetlands and within a 25-foot wetland setback is part of the
5 regulations and is fully described in sections 7105-7105.06 of the code. Activities impacting
6 wetlands and/or the wetland setback must comply with state disturbance and mitigation plan
7 requirements after all alternatives to the impact are considered. A wetland disturbance plan
8 must be submitted pursuant to section 7105.04 of the county's code unless the activity is
9 exempted from the submittal.

10 Impacts to the 25-foot wetland setback have been determined in addition to impacts to CWA
11 jurisdictional waters and wetlands. The **Impact Summary** section discusses in detail the No
12 Action Alternative and Proposed Action CWA impacts and the additional County requirements.
13 The Colorado Department of Transportation (CDOT) will coordinate wetland mitigation plans
14 with the County to ensure the requirements are satisfied.

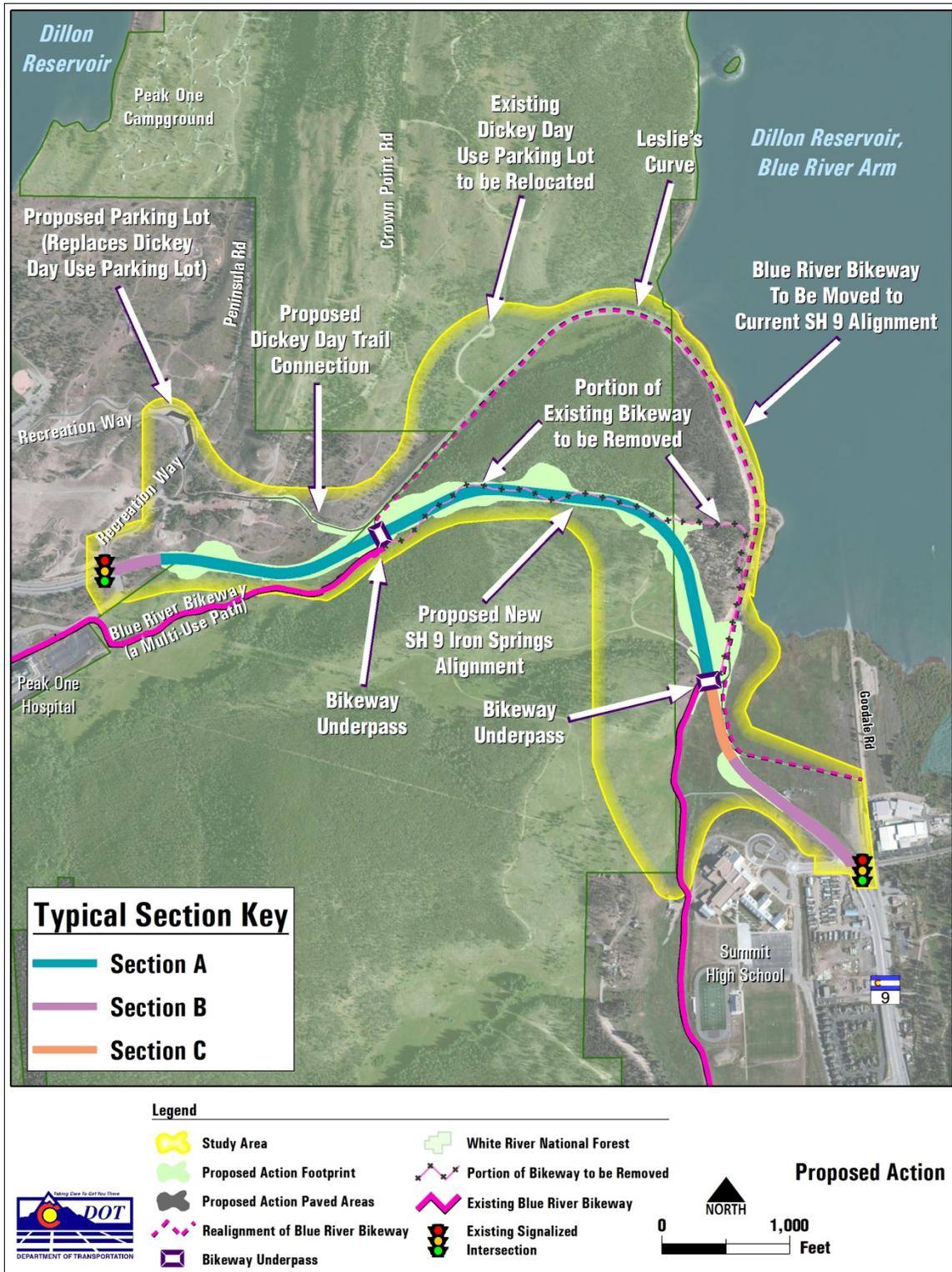
15 **PROPOSED ACTION**

16 As part of implementation of the SH 9 improvements between Frisco and Breckenridge, CDOT
17 and FHWA are proposing to realign approximately 1.3 miles of existing SH 9 just south of the
18 Town of Frisco, Colorado (see **Figure 1**). This stretch of SH 9, which falls between mileposts 93
19 and 95, would be realigned to provide a four-lane reduced section roadway away from Dillon
20 Reservoir. This Proposed Action, also referred to as the Iron Springs Alignment, would shorten
21 SH 9 by approximately 0.4 mile. The Proposed Action would provide roadway safety benefits, as
22 well as water quality and drinking water protection benefits, as a result of straightening the
23 highway to remove a tight, compound curve (known as Leslie's Curve), which is in close
24 proximity to Dillon Reservoir. The existing condition on Leslie's Curve is considered substandard
25 and contributes to accidents in the area.

26 The Proposed Action would include realignment of a portion of the existing Frisco-Farmer's
27 Korner-Blue River Bikeway (also referred to herein for brevity as the Blue River Bikeway or
28 bikeway). This portion of the bikeway would be moved to the alignment currently occupied by
29 SH 9, would be approximately 0.4 mile longer than the existing bikeway and would be at a
30 gentler grade than the current alignment. In addition, the Dickey Day Use Parking Lot would be
31 moved west to a new parking lot to be constructed as part of the project, with access provided
32 via Recreation Way using the existing signalized intersection at SH 9 and Recreation Way. A new
33 trail connection would be provided to link the proposed parking lot with the realigned bikeway
34 and existing trail, which currently begins at the old Dickey Day Use Parking Lot.

35 Additional detail regarding the Proposed Action, including typical sections, is provided in the EA
36 main text and the project drawings provided in Appendix A1 of the EA.

1 **Figure 1 Proposed Action**



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1 **NO ACTION ALTERNATIVE**

2 If the Proposed Action is not selected for implementation, SH 9 would be widened to provide a
3 four-lane reduced section roadway along the existing alignment as previously approved in the
4 SH 9 Frisco to Breckenridge Environmental Impact Statement (EIS) and Record of Decision (ROD)
5 (CDOT and FHWA, 2004a; 2004b) (**Figure 2**). The 2004 Preferred Alternative is considered the
6 “No Action Alternative” for this EA and is used as a baseline for comparison with the Proposed
7 Action. These improvements would be implemented if the Proposed Action is not selected.

8 Widening along the existing alignment would require large rock cuts and retaining walls
9 (problematic to design and construct), and the highway would remain in close proximity to
10 Dillon Reservoir. The length of SH 9 would remain the same as the existing highway. The tight
11 Leslie’s Curve would not be eliminated; however, safety features such as a barrier between
12 opposing lanes would be installed to improve safety.

13 With this alternative, approximately 0.8 mile of the existing Blue River Bikeway would be
14 realigned to allow space for the highway widening. The length of bikeway would not change
15 appreciably and the current relatively steep grades on the path would remain.

16 Additional detail regarding the No Action Alternative, including typical sections, is provided in
17 the EA main text and the project drawings provided in Appendix A1 of the EA.

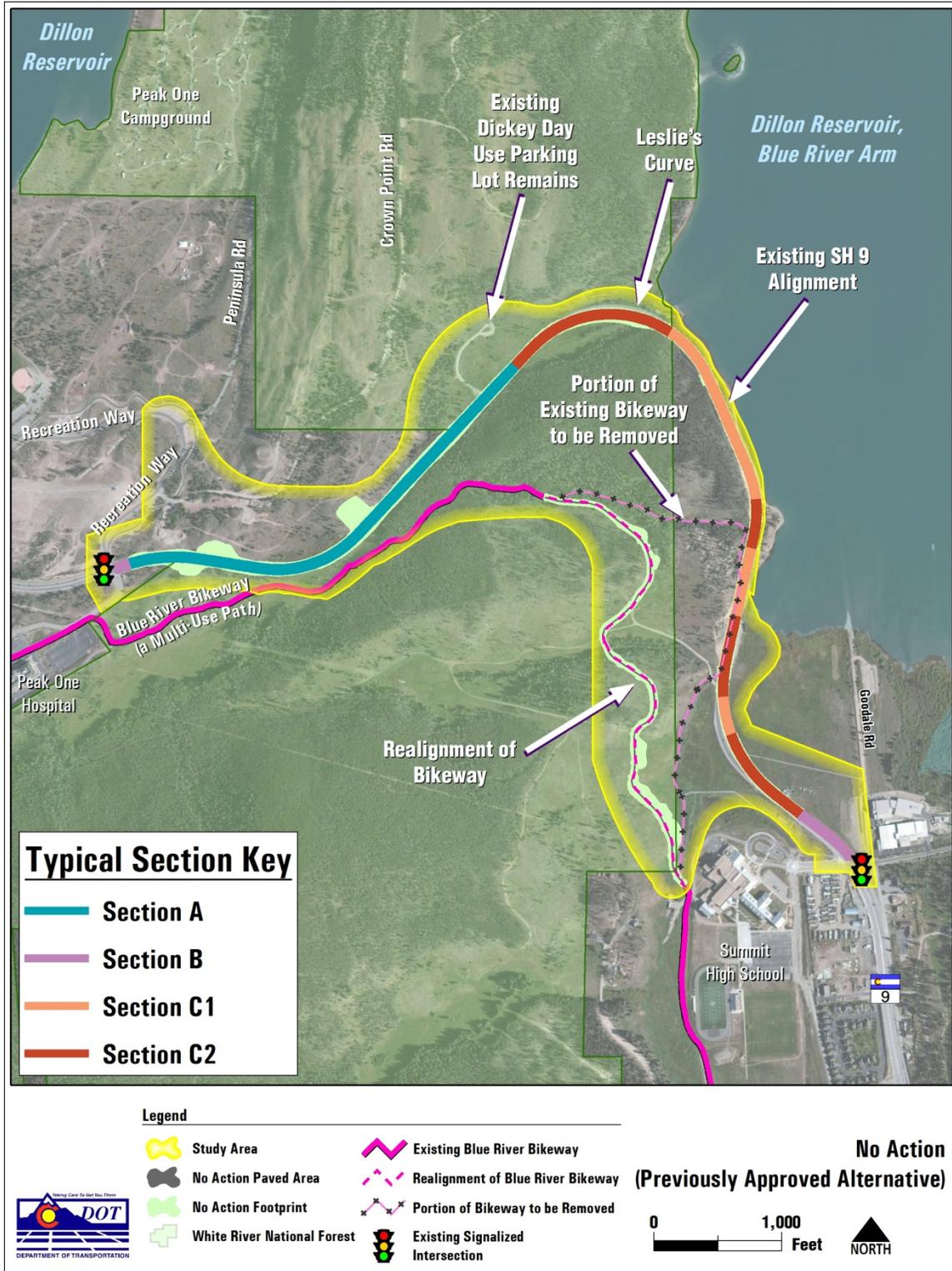
18 **METHODS**

19 Wetland delineations completed for the project prior to 2010 followed the guidelines outlined in
20 the *USACE Wetland Delineation Manual* (Environmental Laboratory, 1987). Wetland
21 survey/delineation work performed in 2010 and later used the guidelines outlined in the 1987
22 USACE manual and the *Regional Supplement to the USACE Wetland Delineation Manual:
23 Western Mountains, Valleys, and Coast Region* (Environmental Laboratory, 2010).

24 ERO Resources completed a wetland delineation (ERO, 2000) and submitted it to USACE in
25 support of the Final State Highway 9 Frisco to Breckenridge EIS (CDOT and FHWA, 2004a). The
26 study area included SH 9 from the intersection of Interstate 70 to the south end of Breckenridge
27 in Summit County, Colorado, as shown in **Figure 3**. The 2000 wetland study area included the
28 Iron Springs project area (illustrated as Figures 5 through 8 in the original document); USACE
29 verified the wetland and waters of the U.S. delineation in 2000. In 2002, CDOT and ERO
30 Resources field reviewed wetlands slated for impact and noted wetland changes since 1999.
31 Wetland maps were updated for use in the EIS.

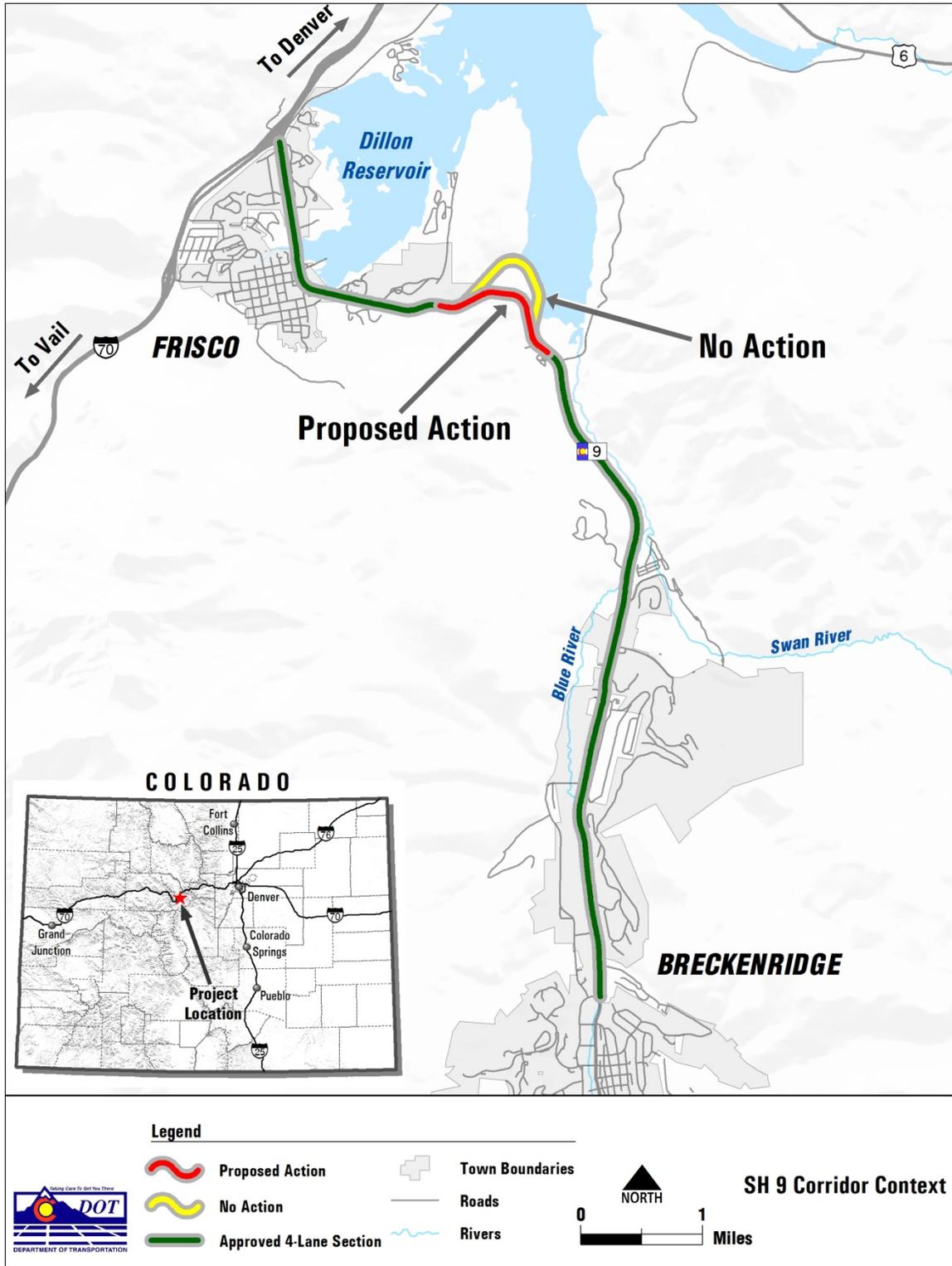
32 During the 2000 delineation, soil samples were collected from high organic areas and sent to
33 Colorado State University and Colorado Analytical Lab for analysis. Total percent organic carbon
34 and clay content was determined for each sample. Within the areas determined to be fen
35 wetlands (referred to as Wetlands 20 and 22), additional soil pits were dug to determine the
36 boundary of the fen.

1 Figure 2 No Action Alternative (Previously Approved)



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1 Figure 3 Project Area



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1 In 2005, PBS&J Corporation delineated wetlands within the project area along SH 9 from Valley
2 Brooke Road to Swan Mountain Road (approximately mileposts 88 to 93). The wetland survey
3 extended north of the project to include the fen wetland complex adjacent to Dillon Reservoir.
4 Soil samples were collected during the 2005 delineation and analyzed at a laboratory to
5 determine if each sampling point was within a fen. The fen boundary was documented as an
6 increase from the 1999 delineation boundary, and the EIS delineation was updated.

7 In 2010, CDOT led a field review and reassessment of the previous wetland delineations within
8 the SH 9 Iron Springs EA study area (Schrader, 2010). The reassessment included soil sampling
9 within the fen complex, a visual review of the 2005 delineation, and selected sampling points.

10 Changes to wetland boundaries within the Iron Springs EA study area included the identification
11 of a new wetland on the west end of the project (Wetland 71). The fen boundary remained the
12 same following the 2010 sampling points and soil analyses.

13 Rebecca Pierce, with CDOT, surveyed the No Action Alternative (EIS Preferred Alternative) and
14 Proposed Action alignments for wetlands during the summer of 2013. Wetland boundaries were
15 delineated based on soils, vegetation, and hydrology. Boundaries were mapped using a Trimble®
16 GeoXH™ global positioning system with sub-meter accuracy.

17 *Agencies Contacted*

18 *U.S. Army Corps of Engineers (USACE), Sacramento District, Colorado/Gunnison Basin Regulatory* 19 *Office*

- 20 • USACE attended project stakeholder meeting, 4/27/12
- 21 • Phone conversations and emails regarding project impacts and mitigations,
22 November 2012 to September 2013
- 23 • USACE/CDOT agency coordination meeting, conversation with Corps District chief
24 regarding mitigation possibilities, 1/28/13
- 25 • USACE attended project meeting regarding wetlands, 3/14/13

26 *U.S. Environmental Protection Agency (EPA), Region 8, Denver Office*

- 27 • EPA attended project stakeholder meeting, 4/27/12
- 28 • EPA attended project meeting regarding wetlands, 3/14/13

29 *U.S. Forest Service (USFS), White River National Forest Dillon Ranger District*

- 30 • USFS attended project stakeholder meeting, 4/27/12
- 31 • Phone conversations and emails regarding project mitigation, December 2012 to
32 September 2013

33 *State Land Board*

- 34 • Phone conversation regarding mitigation potential on State Land Board property,
35 2/21/13

36 *Summit County Open Space and Trails*

- 37 • County attended project stakeholder meeting, 4/27/12
- 38 • Phone conversations regarding mitigation opportunities, December 2012

39

1 *Setting*

2 The study area is within the Southern Rocky Mountains of Summit County and is typified by
 3 secondary growth lodgepole pine forests, aspen stands, and mountain sagebrush meadows. The
 4 White River National Forest Dillon Ranger District (National Forest lands) makes up more than
 5 half of the study area. Several small intermittent drainages flow through the area to Dillon
 6 Reservoir and are described in further detail in Appendix A6, *Water Resources and Water*
 7 *Quality Technical Memorandum for the State Highway 9 Iron Springs Alignment*. The Blue River
 8 drains approximately 675 square miles and feeds Dillon Reservoir. Blue River valley soils are
 9 generally Grenadier gravelly loams formed in glacial drifts.

10 **EXISTING CONDITIONS**

11 *Wetlands*

12 The following descriptions of wetland conditions involve a blend of information from the
 13 referenced past studies and field work completed in the fall of 2012 and summer of 2013.

14 Wetlands within the study area generally occur in depressional features or along small
 15 intermittent drainages formed by periodic flood events, springs, and roadside drainage. They
 16 range from wet meadows, scrub-shrub willow wetlands, to a mixture of the two. **Table 1** offers
 17 Cowardin wetland classification and location in decimal degrees for each wetland. [For a map
 18 illustrating the wetland locations, see **Figures 4** and **5** in this technical memorandum under the
 19 **Impact Summary** section.]

20 **Table 1 Wetland Summary – Type and Location**

Wetland ID Number	Cowardin Classification*	Decimal Degrees (latitude, longitude)
14	PEM w/ PSS	39.572833, -106.067156 to 39.576757, -106.062370
15	PEM/PSS	39.577846, -106.059072
16	PEM	39.578382, -106.058680
19	PEM	39.571407, -106.055733
20a	PEM	39.569711, -106.056156
20b	PEM	39.569361, -106.056297
22	PEM	39.569314, -106.057146
22a	PEM	39.568933, -106.057091
22b	PEM	39.568845, -106.056852
67	PEM w/ PSS	39.576424, -106.063326
69	PEM	39.575180, -106.064919
70	PEM	39.574992, -106.065051
71	PEM/PSS	39.573073, -106.067661
72	PEM/PSS	39.569981, -106.065005 to 39.570367, -106.057006
73	PEM/PSS	39.567368, -106.056747

21 *Source: Cowardin et al., 1979.

22 PEM = Palustrine Emergent Wetland

23 PSS = Palustrine Scrub-Shrub Wetland

1 Representative vegetation within the wet meadows and roadside depressions/ditches includes
2 beaked sedge (*Carex utriculata*), water sedge (*C. aquatilis*), reedtop (*Agrostis stolonifera*), and
3 tufted hairgrass (*Deschampsia caespitosa*). Shrub wetlands are dominated by mountain willow
4 (*Salix monticola*) and planeleaf willow (*S. planifolia*) with shrubby cinquefoil (*Dasiphora*
5 *fruticosa*) along the perimeter. Adjacent uplands consist primarily of sagebrush, cinquefoil, and
6 grasses.

7 Three ephemeral and two intermittent drainages flow through the project area and terminate in
8 the Dillon Reservoir. An intermittent drainage originates on Ophir Mountain and flows north
9 under SH 9 feeding Wetlands 14, 15, 16, 67, 69, 70, and 71. Wetlands 14, 67, 69, 70, and 71
10 likely also receive hydrology from roadway drainage during precipitation events. Wetland 16 is
11 adjacent to the reservoir and is likely influenced by fluctuations of the dammed water.

12 Wetland 19 is primarily fed by reservoir surface water. Wetland 73 is a detention area used by
13 the high school on the southern end of the project.

14 Soil data were taken from the Natural Resources Conservation Service (NRCS, 2013) Web Soil
15 Survey webpages to document general soil types in the project area. Mapped soil units within
16 the wetlands in the study area boundaries are Grenadier gravelly loam, 6 to 15 percent slopes;
17 Frisco-Peeler complex, 25 to 65 percent slopes; Cumulic cryaquolls (also Histic cryaquolls),
18 nearly level; Quander cobbly loam, 15 to 55 percent slopes; Youga loam, 6 to 15 percent slopes;
19 and Rocky outcrop – Cryoborolls complex. Among these, Grenadier gravelly loam, Frisco-Peeler
20 complex, and Cumulic cryaquolls are listed as hydric soils in Colorado.

21 Wetland functions will be determined through the use of CDOT Functional Assessment of
22 Colorado Wetlands methodology (CDOT, 2011)) during the final design and permitting phases.

23 **Fen Complex**

24 Along Iron Springs Road, a series of springs feed an iron-rich fen that makes up Wetland 72. This
25 fen is outside the project area, although the intermittent drainage that arises from it flows to
26 the reservoir passing beneath SH 9 and empties into Wetland 20a. Although no soil analysis has
27 been done for Wetland 72, the upper emergent part of this wetland is well known as being an
28 iron fen. Iron fens are considered even rarer in Colorado than a fen without iron oxide deposits.

29 Soils within Wetlands 20b, 22a, and 22b were analyzed with the results indicating the presence
30 of fen characteristics (CDOT, 2008). Wetlands 20a and 22 are hydrologically connected to fen
31 wetlands, thereby making up a greater fen complex. Wetlands 20a, 20b, 22, 22a, 22b, and 72
32 will be considered fen complexes for purposes of determining impacts under the No Action
33 Alternative and Proposed Action.

34 Dominant vegetation making up the fen complex adjacent to Dillon Reservoir is beaked sedge,
35 tufted hairgrass, and Arctic rush. The complex is supported by groundwater discharge at the toe
36 of Ophir Mountain, an unnamed ephemeral drainage terminating in the reservoir, precipitation,
37 stormwater runoff, and periodic raising of reservoir surface water. The influence of the reservoir
38 on the fen complex is unknown. A man-made channel separating Wetlands 22a and 22b
39 originates from the detention area at the southern end of the project (Wetland 73).

1 IMPACT SUMMARY

2 Impacts of highway improvements, whether the No Action Alternative or Proposed Action is
 3 chosen, on wetlands can result from:

- | | | |
|--|----------------------|---|
| 4 • Placement of fill within a wetland boundary
5
6 • Soil disturbance
7 • Vegetation removal | 8

9

10 | • Changing hydrology
• Pollutant discharge
• Changing adjacent land use |
|--|----------------------|---|

11 Each activity above can be categorized as a permanent or temporary impact and a direct or
 12 indirect impact. A permanent impact is one for which the habitat is no longer functioning as a
 13 wetland from the loss of at least one parameter that makes it a wetland – vegetation,
 14 hydrology, or soils. A temporary impact occurs when at least one parameter is impacted but can
 15 be restored to pre-construction condition at the same location. An impact is temporary only
 16 when the grade of the wetland is unchanged. A direct impact is one in which an activity impacts
 17 a wetland immediately, such as placing riprap. An indirect impact is one in which an activity has
 18 an impact later in time, such as an accidental release of fuel into a wetland. **Table 2** details the
 19 CWA jurisdiction impacts due to the No Action Alternative and Proposed Action by wetland.

20 **Table 2 Clean Water Act Jurisdiction Impact Summary**

Wetland ID Number	No Action Alternative		Proposed Action	
	Permanent Impacts (acre)	Temporary Impacts (acre)	Permanent Impacts (acre)	Temporary Impacts (acre)
14	0.590	0.047	0.409	0.203
15	0.243	0.121	0.041	0.051
16	--	--	--	--
19	--	--	--	--
20a*	0.124	0.081	0.001	0.049
20b**	0.074	0.032	--	0.001
22*	--	--	0.010	0.044
22a**	--	--	--	--
22b**	--	--	--	--
67	0.023	0.041	--	--
69	--	0.007	--	--
70	--	0.022	--	--
71	--	0.030	0,029	0.077
72**	0.002	0.004	0.057	0.018
73	--	0.009	--	--
TOTAL	1.056	0.394	0.547	0.443

Permanent impacts = impacts within the construction footprint

Temporary impacts = temporary impacts within a 15-foot buffer around the construction footprint

*Wetlands hydrologically connected to, or adjacent to, a fen wetland

**Wetlands delineated as fen wetland

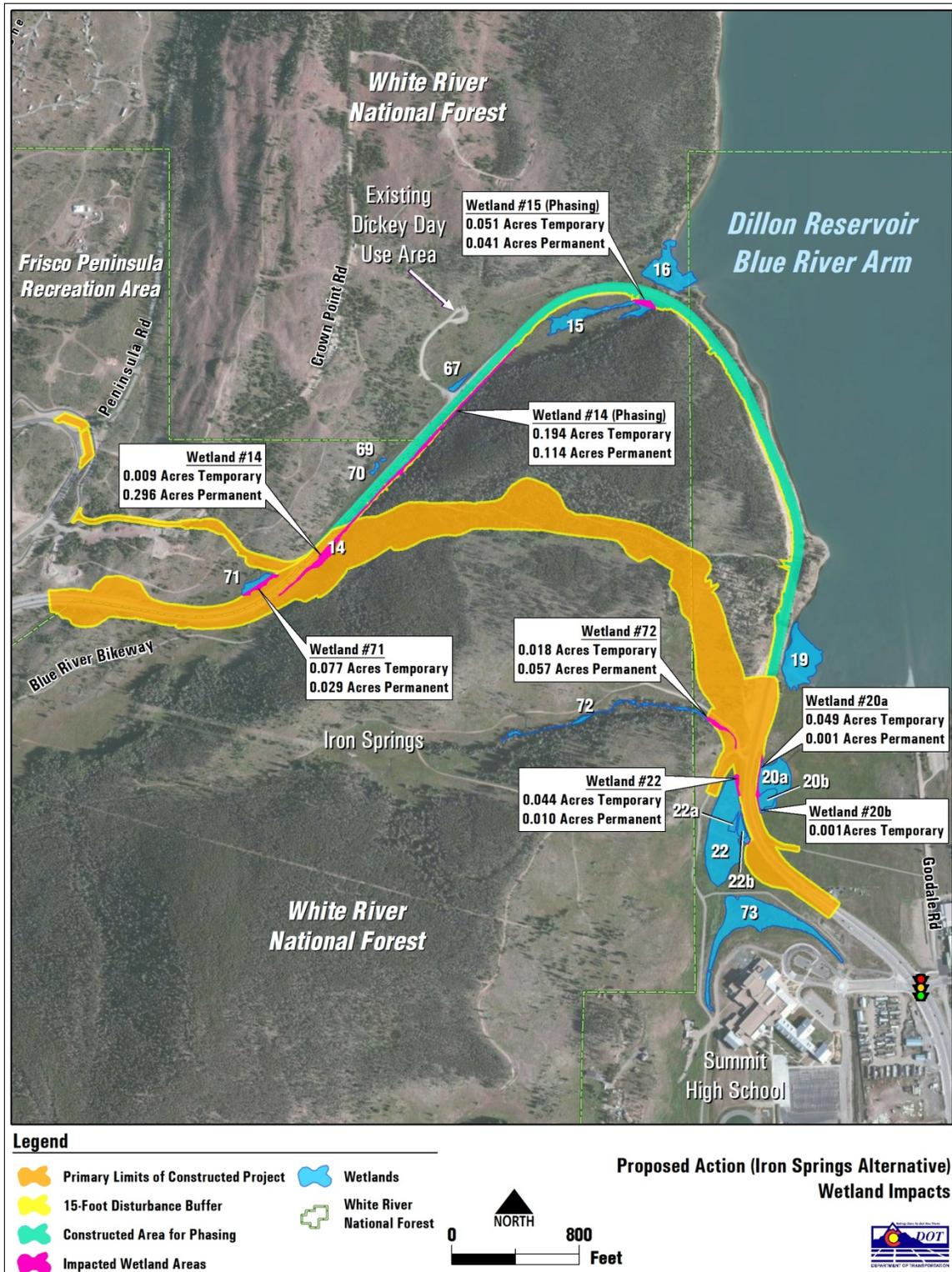
21 **Figures 4 and 5** illustrate impacted wetland areas within the construction footprint and a
 22 15-foot disturbance zone for the No Action Alternative and the Proposed Action, respectively.

1 Figure 4 No Action Alternative (Previously Approved) Wetland Impacts



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1 Figure 5 Proposed Action Wetland Impacts



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Wetlands for the State Highway 9 Iron Springs Alignment EA

Under the No Action Alternative, including the realignment of the multi-use path, impacts to the fen complex adjacent to Dillon Reservoir and Iron Springs total 0.200 acre of permanent and 0.117 acre of temporary impacts. The primary avoidance measure for the No Action Alternative was the incorporation of walls to lessen impacts to the fen complex. The Proposed Action would permanently impact 0.068 acre and temporarily impact 0.112 acre of the fen complexes. Avoidance and minimization measures have been incorporated throughout the design process. The roadway embankment through the fen complex near the reservoir was steepened to pull in the slopes. The structure at that location was designed as a cantilever wall system to minimize the wetland impact on both sides of SH 9. Compensatory mitigation options were explored only after determining the impacts could not be lessened further.

An additional impact assessment in **Table 3** includes the Summit County requirement to account for soil disturbances within a 25-foot setback from wetland boundaries. All areas within 25 feet of the CWA jurisdictional wetland boundaries, regardless of land use or habitat type, were added to this impact total if it overlapped the project footprint (permanent impact) or the disturbance buffer (temporary impact). Impacts in **Table 3** represent only those within the 25-foot setback.

Table 3 Summit County 25-Foot Wetland Setback Impact Summary

Wetland ID Number	No Action Alternative		Proposed Action	
	Permanent Impacts (acre)	Temporary Impacts (acre)	Permanent Impacts (acre)	Temporary Impacts (acre)
14	2.407	0.606	1.962	0.600
15	0.768	0.231	0.130	0.104
16	--	--	--	--
19	0.009	0.082	--	--
20a*	0.271	0.092	0.135	0.098
20b**	0.192	0.051	0.025	0.050
22*	--	--	0.161	0.195
22a**	--	--	--	--
22b**	--	--	0.006	0.056
67	0.142	0.075	--	--
69	0.030	0.023	--	--
70	0.056	0.041	--	--
71	0.110	0.107	0.206	0.121
72**	0.032	0.040	0.348	0.052
73	0.013	0.033	--	--
TOTAL	4.030	1.381	2.983	1.276

Permanent impacts = impacts within the construction footprint

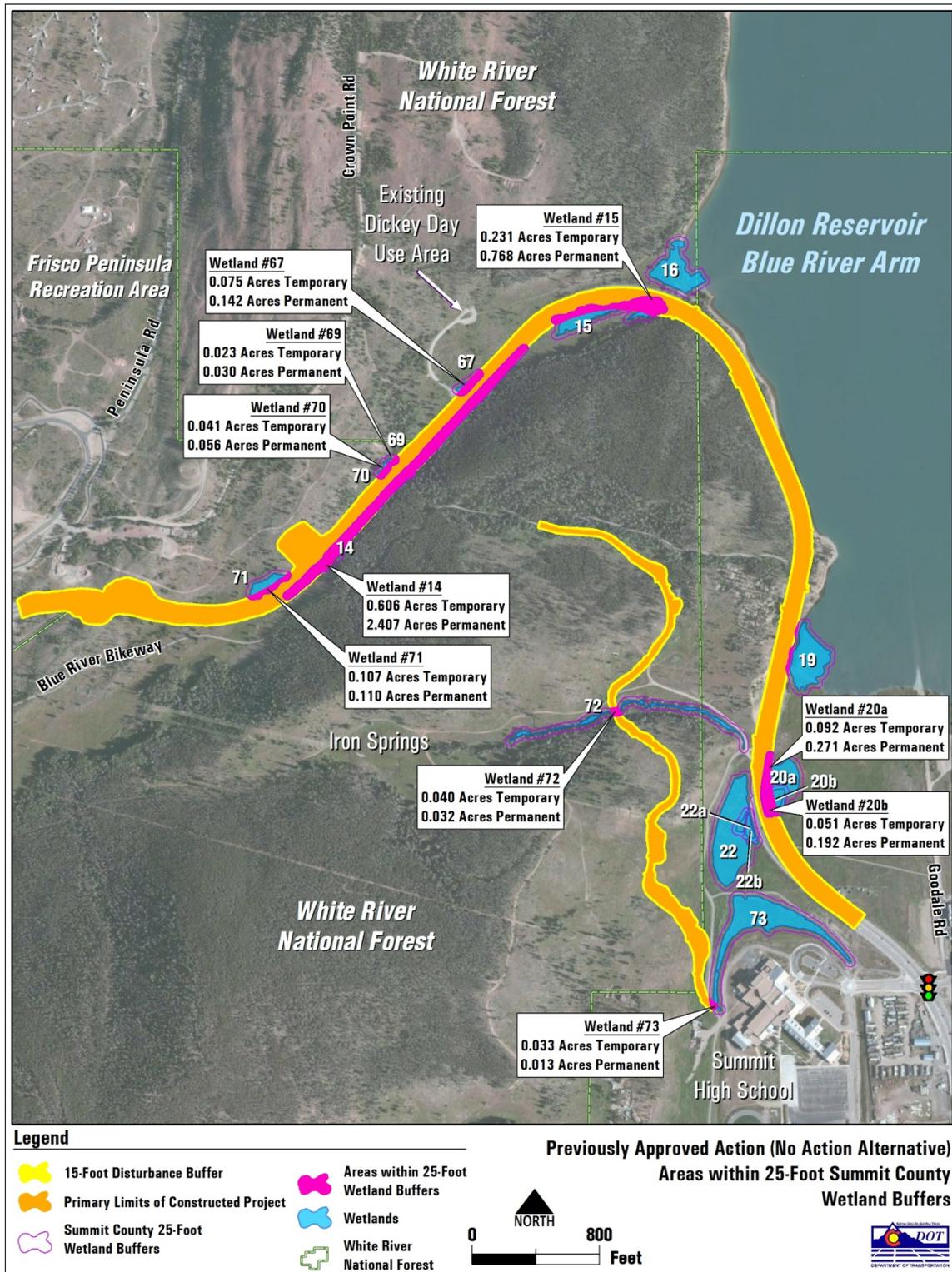
Temporary impacts = temporary impacts within a 15-foot buffer around the construction footprint

*Wetlands hydrologically connected to, or adjacent to, a fen wetland

**Wetlands delineated as fen wetland

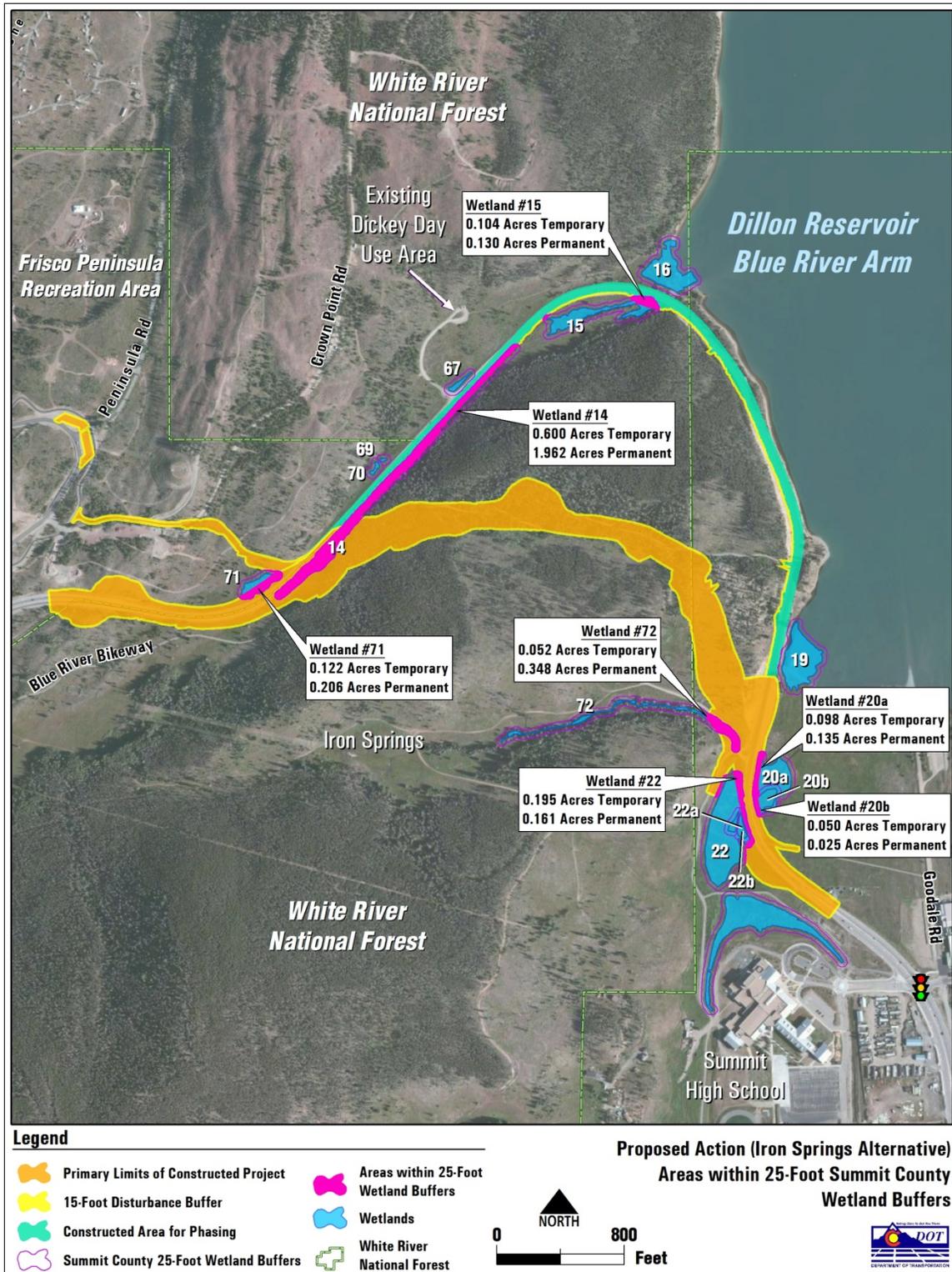
Figures 6 and 7 show impacts to the Summit County wetland setback area for the No Action Alternative and the Proposed Action, respectively.

1 Figure 6 No Action Alternative (Previously Approved) Areas within 25-Foot
 2 Summit County Wetland Setback



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1 **Figure 7** Proposed Action Areas within 25-Foot Summit County Wetland Setback



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1 *Summit County Code Impacts*

2 Permanent impacts to the area within the 25-foot setback range from 4.030 acres under the
3 No Action Alternative to 2.983 acres under the Proposed Action. These areas include habitat
4 made up primarily of upland grasses with sagebrush, mesic shrubs, and conifers. Most of the
5 setback surrounding project area wetlands lies on disturbed roadside slopes. Temporary impacts
6 within the 25-foot setback include the 15-foot disturbance buffer allowing for construction
7 equipment travel and staging, stockpiling, and other incidental activities. Temporary impacts to
8 the setback under the No Action Alternative total 1.381 acres and total 1.276 acres under the
9 Proposed Action.

10 **COMPENSATORY MITIGATION**

11 Mitigation for temporary wetland impacts will include the following measures:

- 12 • Fence wetlands to be protected during construction
- 13 • The structure at the fen location will be designed as a cantilever wall system to minimize
14 the wetland impact on both sides of SH 9
- 15 • After construction, remove temporary fill/materials used for protecting wetlands from
16 permanent impact and remove all construction debris from project area
- 17 • Temporary Best Management Practices (such as the installation of erosion logs, bales, silt
18 fence, etc.) will be used to capture sediments from disturbed areas during construction
- 19 • Seed and mulch disturbance areas adjacent to wetlands to reduce erosion and promote
20 revegetation
- 21 • Oversight of construction activities in and near wetlands
- 22 • Monitor temporary impact areas following construction to ensure impacts are temporary
- 23 • Plant supplemental vegetation, as needed

24 Several options are available to compensate for permanent wetland losses from the No Action
25 Alternative or the Proposed Action. Mitigation alternatives will be coordinated with Summit
26 County and USFS to identify a suitable wetland mitigation site meeting section 404 permit
27 requirements. Current alternatives include:

- 28 • During the development of the EIS, CDOT identified a potential mitigation site south of
29 SH 9 on Leslie's Curve. The site was proposed as a 0.462-acre expansion of an existing
30 wetland (Wetland 15). Portions of the mitigation site proposed in the EIS may now be
31 wetlands; therefore, the size of the mitigation site would likely be smaller if constructed
32 at that location. If mitigation is chosen at Leslie's Curve, it would be adjacent to the new
33 bikeway under the Proposed Action.
- 34 • The USFS identified potential restoration areas within the Blue River Watershed, many of
35 which contain degraded fen complexes. CDOT has spoken with the USFS about
36 partnering for mitigation by using National Forest land for CDOT's mitigation
37 requirements. The agencies will determine if a partnership for mitigation is possible.
- 38 • A wetland mitigation bank is being developed near the Town of Kremmling and may be
39 available for use in 2014.

1 REFERENCES

- 2 Colorado Department of Transportation (CDOT). 2000. Wetland Delineation State Highway 9
3 Frisco to Breckenridge. Denver: ERO Resources Corporation.
- 4 Colorado Department of Transportation (CDOT). 2008. Wetland Finding Report, SH 9 Frisco to
5 Breckenridge. Denver: PBS&J.
- 6 Colorado Department of Transportation (CDOT). 2010. Wetland and Fen Assessment Report
7 State Highway 9 North Iron Springs Cut-off. Centennial: PKM Design Group, Inc.
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