SECTION 7.7

Vegetation, Wildlife, and Wetlands

7.7 Vegetation, Wildlife, and Wetlands

This section describes the vegetation, wildlife, and wetlands that are known to occur at the Remaining Phase 1 sites and evaluates the impacts of the Proposed Project and alternatives on these resources. The discussion of biological resources is based on a focused literature review, informal consultation with resource agencies, and observations made during field visits.

7.7.1 Affected Environment/Environmental Setting

Plant Communities

The thirteen plant communities known to occur at the Remaining Phase 1 sites are listed in Table 7.7-1 (Figures 7.7-1a-f) and they are discussed in detail in the Master EIR (section 4.7).

Table 7.7-1. Plant Community Types Present at the Remaining Phase 1 Sites

	Acres					
Plant Community Types	**Sawmill**	**Upper Rush Creek**	**Lowden Ranch**	**Trinity House Gulch**	**Steel Bridge Day Use**	**Reading Creek**
Annual grassland	9.01	4.66	84.17	3.65	4.48	10.29
Barren	7.95	9.37	12.00	1.98	0.46	18.89
Foothill pine	0.52	0.18	0.00	8.38	0.00	0.01
Fresh emergent wetland	2.09	3.39	0.22	0.00	0.00	0.00
Klamath mixed conifer	12.42	17.76	25.00	1.95	0.00	23.71
Mixed chaparral	0.53	0.04	0.27	0.56	0.00	0.01
Montane hardwood	0.14	0.15	3.15	0.57	0.06	1.03
Montane-hardwood conifer	32.41	9.41	3.38	7.55	4.20	28.33
Montane riparian	26.09	19.46	38.37	13.42	7.08	34.32
Open water	0.47	0.05	0.00	0.00	0.00	0.01
Perennial grassland	3.77	12.16	27.06	0.93	0.00	6.18
Ponderosa pine	0.12	0.03	6.43	0.05	0.00	1.11
Riverine	7.96	15.02	11.91	4.57	6.19	11.99
TOTAL	**103.48**	**91.68**	**211.96**	**43.61**	**22.47**	**135.88**

Wildlife Resources

The wildlife species typically found in the plant communities listed above are discussed in the Master EIR (section 4.7).

Special-Status Species

Special-status species potentially occurring within, or in close proximity to, the boundaries established for the Remaining Phase 1 sites are discussed in the Master EIR (section 4.7) and Appendix C. Those species potentially occurring at the Remaining Phase 1 sites (based on site-specific information, including special-status plant surveys) are addressed in Table 7.7-2.

Table 7.7-2. Potentially Occurring Special-Status Plant and Wildlife Species

Common Name *Scientific Name*	Status1 (Fed/State/ CNPS)	General Habitat	Comments
		Federally or State-Listed Species	
American peregrine falcon *Falco peregrinus anatum*	D/E, FP	Forages in many habitats; requires cliffs for nesting.	**Absent as breeder.** Project sites lack suitable nesting habitat, but species may occur as a forager.
Bald eagle *Haliaeetus leucocephalus*	D/E	Uncommon to common in riverine and open wetland habitats. Requires large bodies of water or free-flowing rivers with abundant fish for foraging. Nests in large, live trees, usually near water and free from human disturbance.	**May be present.** Dense woodlands adjacent to the Trinity River may provide suitable nesting habitat. Bald eagles have been recorded on Lewiston Reservoir, less than 2 miles from the Sawmill site.
Little willow flycatcher *Empidonax traillii brewsteri*	†—/E	Rare summer resident in wet meadow and montane riparian habitats at 2,000 to 8,000 feet elevation.	**May be Present.** The montane riparian community in the region provides suitable habitat and the species has been observed along the Trinity River corridor (Wilson 1995; Miller, Ralph, and Herrera 2003; Herrera 2006).
Pacific fisher *Martes pennanti pacifica*	*†C/SC	Dens and forages in intermediate to large stands of old-growth forests or mixed stands of old-growth and mature trees with greater than 50% canopy closure. May use riparian corridors for movement.	**Absent as breeder.** Not expected to breed on the sites but may use the Trinity River as a travel corridor. The species was recorded along the Trinity River in 1997 less than 2 miles northwest of the Reading Creek site and in 1994 approximately 5 miles east of the Lowden Ranch and Trinity House Gulch sites (California Department of Fish and Game 2003).
		Other Special-Status Species	
Fox sedge *Carex vulpinoidea*	—/—/2	Freshwater marshes, swamps, and riparian woodlands (100-4,000 feet).	**Present.** Suitable habitat exists within the project study area. This species was detected in a large meadow complex at the Lowden Ranch site.
Foothill yellow-legged frog *Rana boylii*	*†—/SC	Cool, fast-moving, rocky streams in a variety of habitats.	**May be present.** The species is known to occur in the Trinity River from the Lewiston Dam to the North Fork Trinity River (California Department of Fish and Game 2003).

Table 7.7-2. Potentially Occurring Special-Status Plant and Wildlife Species

Common Name *Scientific Name*	Status1 (Fed/State/ CNPS)	General Habitat	Comments
Western pond turtle *Actinemys marmorata*	†—/SC	Slow water aquatic habitat with available basking sites. Hatchlings require shallow water with dense submergent or short emergent vegetation. Require an upland oviposition (egg laying) site near the aquatic site.	**May be present.** The species is known to occur in the Trinity River throughout the project area (California Department of Fish and Game 2003).
Black swift *Cypseloides niger*	—/SC	Nests in moist crevices or caves or sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons; forages widely over many habitats.	**Absent as breeder.** The project sites do not provide suitable breeding habitat; however, the species may forage over the sites as a migrant.
California yellow warbler *Dendroica petechia brewsteri*	—/SC	Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods.	**May be present.** Montane riparian habitat along the Trinity River in the project area provides suitable nesting and foraging habitats.
Golden eagle *Aquila chrysaetos*	—/SC, FP	Breeds on cliffs or in large trees or electrical towers, forages in open areas.	**Absent as breeder.** Suitable nesting habitat is absent from the sites; however, the species may occur as a forager. It was recorded approximately 2 miles southeast of the Reading Creek site in 2003 (California Department of Fish and Game 2003).
Northern goshawk *Accipiter gentiles*	†—/SC	Breeds in dense, mature conifer and deciduous forests, interspersed with meadows, other openings and riparian areas; nesting habitat includes north-facing slopes near water.	**May be present.** Woodlands along the Trinity River corridor provide suitable nesting and foraging habitats.
Vaux's swift *Chaetura vauxi*	—/SC	Prefers redwood and Douglas-fir habitats; nests in hollow trees and snags or, occasionally, in chimneys; forages aerially.	**May be present.** Suitable habitat is present in the project area.
Yellow-breasted chat *Icteria virens*	—/SC	Breeds in riparian habitats having dense understory vegetation, such as willow and blackberry.	**May be present.** Montane riparian habitat along the Trinity River in the project area provides suitable nesting and foraging habitats.

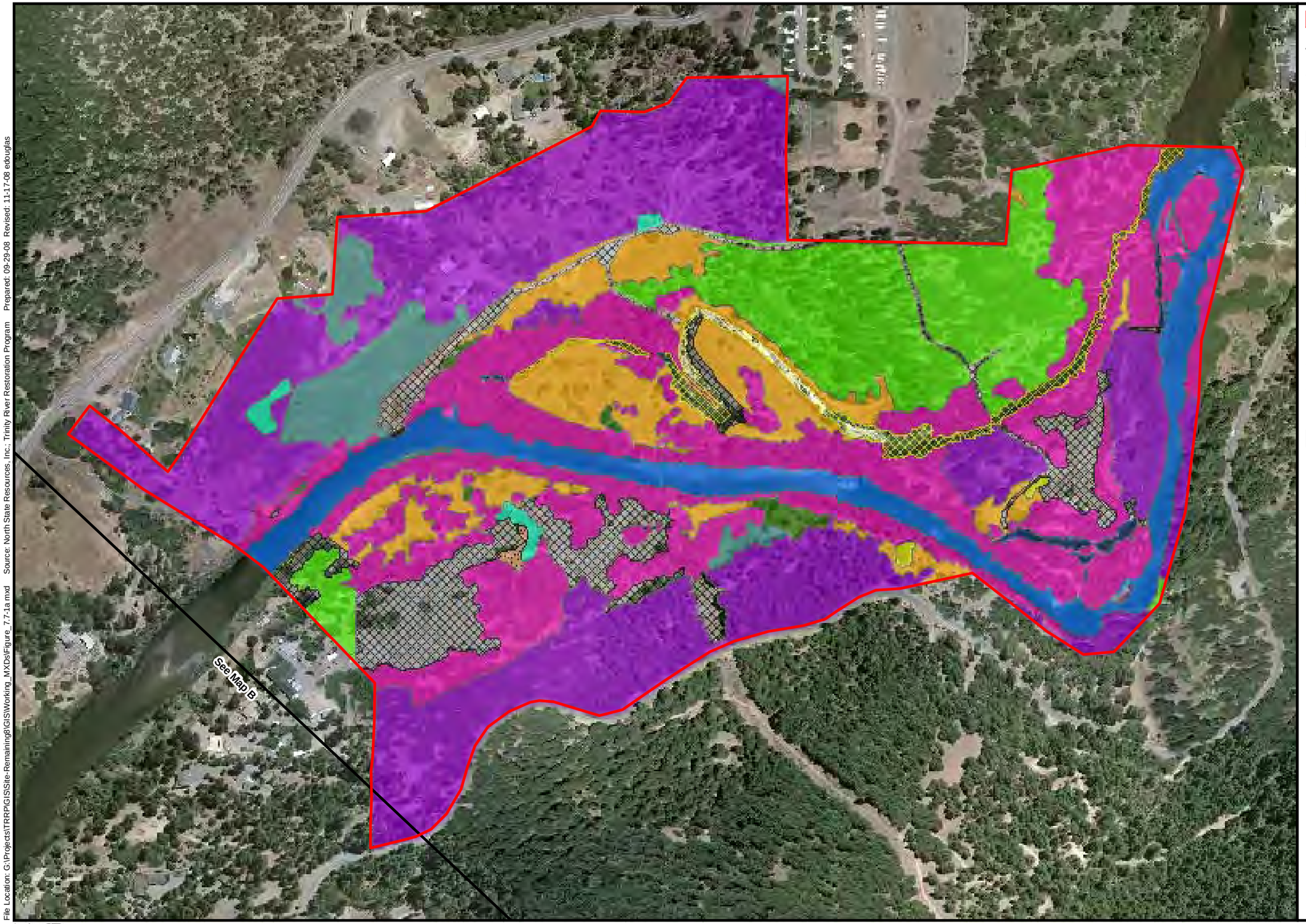
Table 7.7-2. Potentially Occurring Special-Status Plant and Wildlife Species

Common Name *Scientific Name*	Status1 (Fed/State/ CNPS)	General Habitat	Comments
Long-eared myotis *Myotis evotis*	*—/—	Found in most habitats, but prefers coniferous woodlands. Roosts in buildings, crevices, spaces under bark, and snags. Forages among trees and over brush, usually in close association with water.	**May be present.** Woodlands along the Trinity River corridor provide suitable roosting and foraging habitats.
Pallid bat *Antrozous pallidus*	*†—/SC	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves.	**May be present.** Suitable habitat may be present along the Trinity River corridor. The species was recorded in 1939 in the immediate vicinity of the Lowden Ranch and Trinity House Gulch sites (California Department of Fish and Game 2003).
Ring-tailed cat *Bassariscus astutus*	—/FP	Occurs in riparian habitats and brush stands of most forest and shrub habitats. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests.	**May be present.** Montane riparian habitat along the Trinity River in the project area provides breeding and foraging habitat.
Townsend's western big-eared bat *Corynorhinus townsendii*	*†—/SC	Roosts in colonies in caves, mines, bridges, buildings, and hollow trees in a range of habitats. Habitat must include appropriate roosting, maternity, and hibernacula sites free from disturbance by humans.	**May be present.** Suitable habitat is present along the Trinity River in the project area.
Yuma myotis *Myotis yumanensis*	*—/—	Forages over water such as ponds, streams, and stock tanks in open woodlands. Roosts in buildings, caves, mines, abandoned swallow nests, bridges, and rock crevices. Common and widespread in California.	**May be present.** Suitable habitat is present along the Trinity River in the project area.

[1]Status Codes:

Federal and State Codes: E = Endangered; T = Threatened; D = Delisted; C = Candidate; SC = Species of Special Concern (State); FP = California Fully Protected species

* = BLM Sensitive † = USFS Sensitive



Site Boundary (103.421 acres)

Matchline

WHR Habitat Type

- Annual Grassland (9.008 acres)
- Barren (7.949 acres)
- Foothill Pine (0.518 acre)
- Fresh Emergent Wetland (2.092 acres)
- Klamath Mixed Conifer (12.415 acres)
- Mixed Chaparral (0.528 acre)
- Montane Hardwood (0.135 acre)
- Montane Hardwood - Conifer (32.361 acres)
- Montane Riparian (26.094 acres)
- Open Water (0.472 acre)
- Perennial Grassland (3.773 acres)
- Ponderosa Pine (0.118 acre)
- Riverine (7.958 acres)

N

1:3,600

300 0 300

Feet

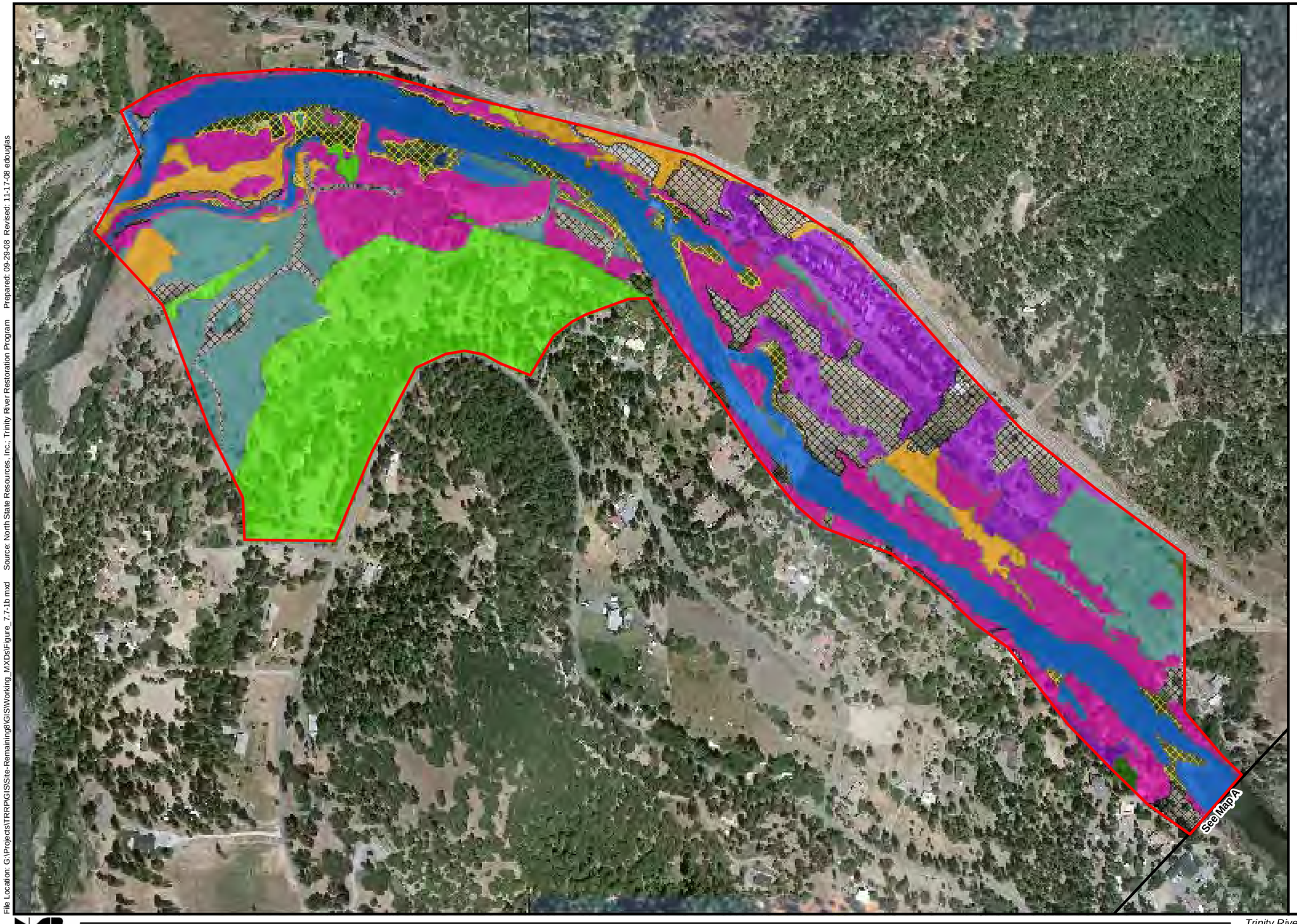
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7.7-1a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-17-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1a
Sawmill - WHR Habitats



Site Boundary (92.274 acres)
Matchline
Annual Grassland (4.693 acres)
Barren (9.561 acres)
Foothill Pine (0.201 acre)
Fresh Emergent Wetland (3.391 acres)
Klamath Mixed Conifer (17.760 acres)
Mixed Chaparral (0.039 acre)
Montane Hardwood (0.153 acre)
Montane Hardwood - Conifer (9.454 acres)
Montane Riparian (19.753 acres)
Open Water (0.049 acre)
Perennial Grassland (12.158 acres)
Ponderosa Pine (0.029 acre)
Riverine (15.033 acres)

N

1:4,200

350 0 350
Feet

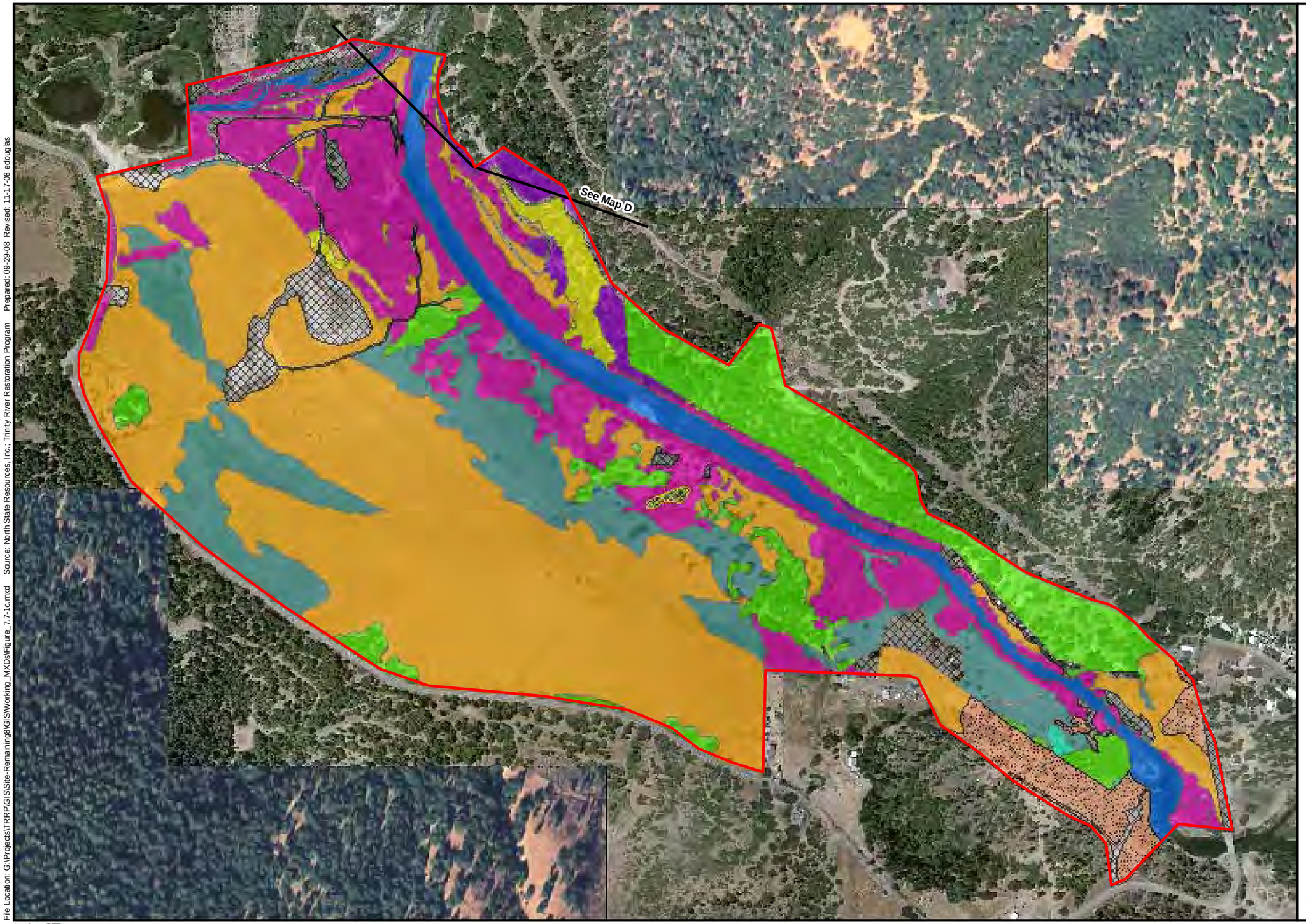
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7.7-1b.mxd Prepared: 09-29-08 Revised: 11-17-08 edouglas
Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1b
Upper Rush Creek - WHR Habitats



Site Boundary (211.769 acres)
Matchline
Annual Grassland (83.966 acres)
Barren (12.002 acres)
Fresh Emergent Wetland (0.219 acre)
Klamath Mixed Conifer (25.001 acres)
Mixed Chaparral (0.274 acre)
Montane Hardwood (3.146 acres)
Montane Hardwood - Conifer (3.384 acres)
Montane Riparian (38.372 acres)
Perennial Grassland (27.064 acres)
Ponderosa Pine (6.433 acres)
Riverine (11.908 acres)

N

1:5,400

450 0 450
Feet

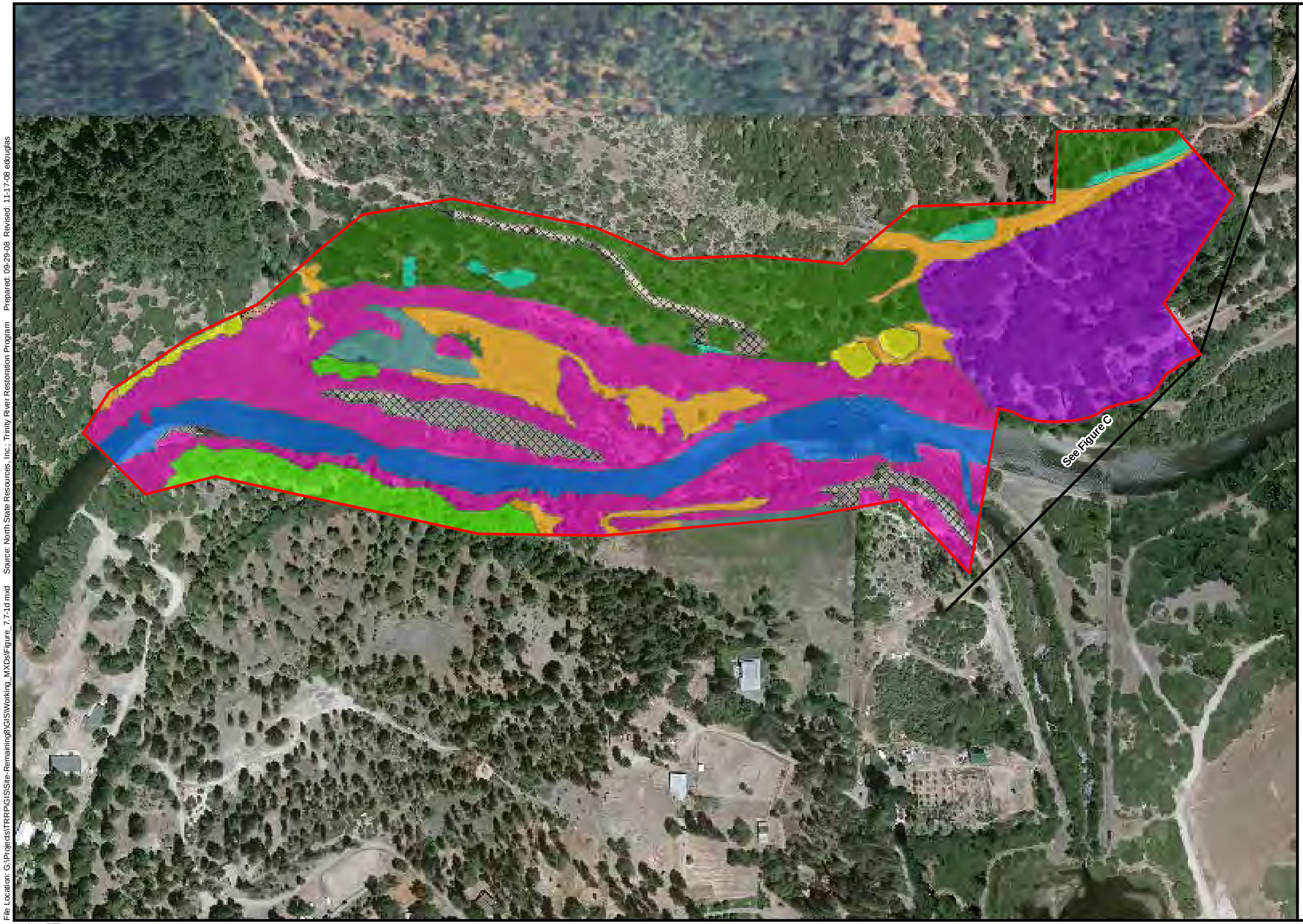
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.7-1c.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-17-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1c
Lowden Ranch - WHR Habitats



Site Boundary (43.695 acres)
Matchline
Annual Grassland (3.651 acres)
Barren (1.983 acres)
Foothill Pine (8.375 acres)
Klamath Mixed Conifer (1.947 acres)
Mixed Chaparral (0.556 acre)
Montane Hardwood (0.571 acre)
Montane Hardwood - Conifer (7.546 acres)
Montane Riparian (13.423 acres)
Perennial Grassland (0.932 acres)
Ponderosa Pine (0.046 acres)
Riverine (4.665 acres)

N

1:3,000

250 0 250
Feet

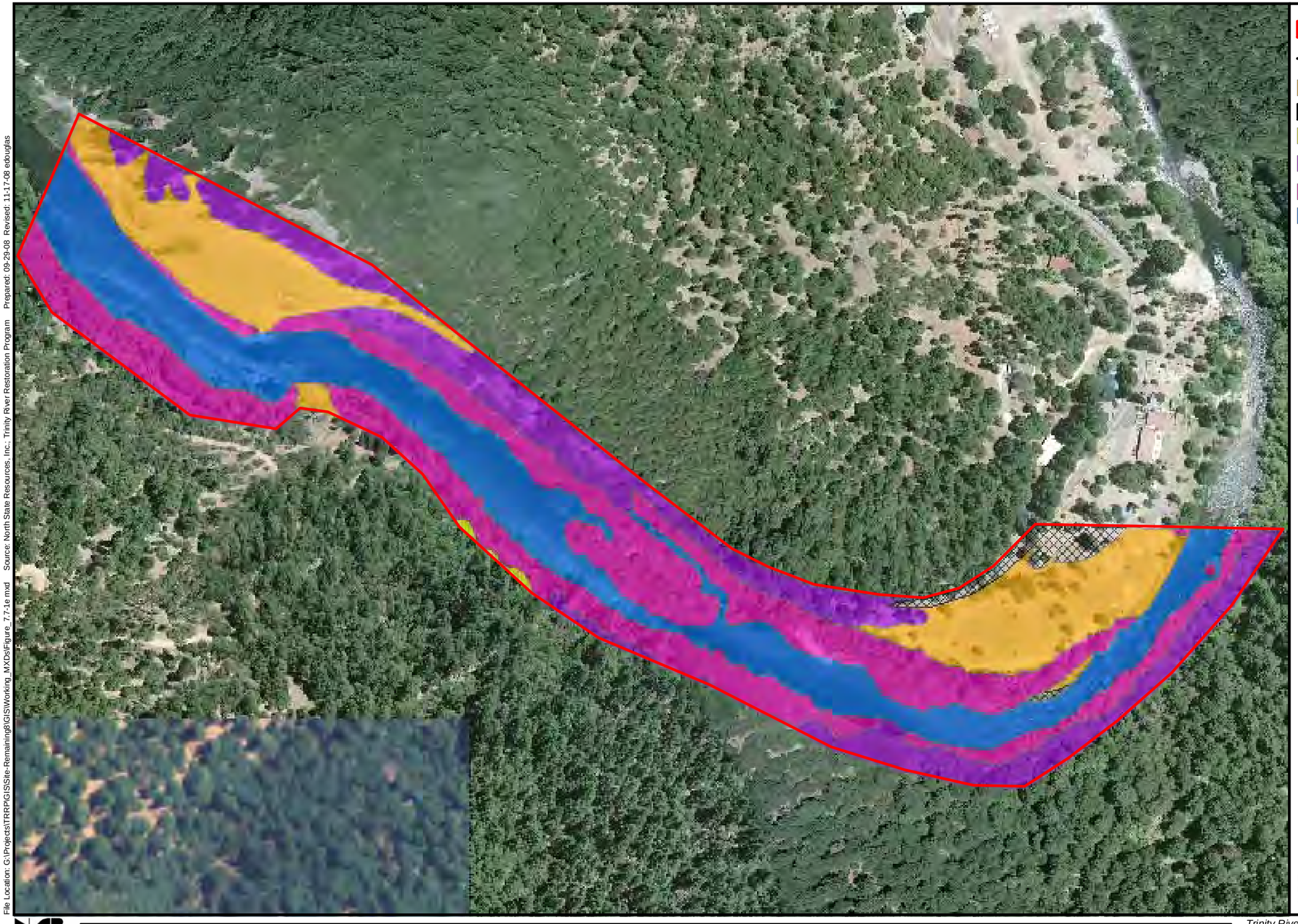
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7.7-1d.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-17-08 eduglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1d
Trinity House Gulch - WHR Habitats

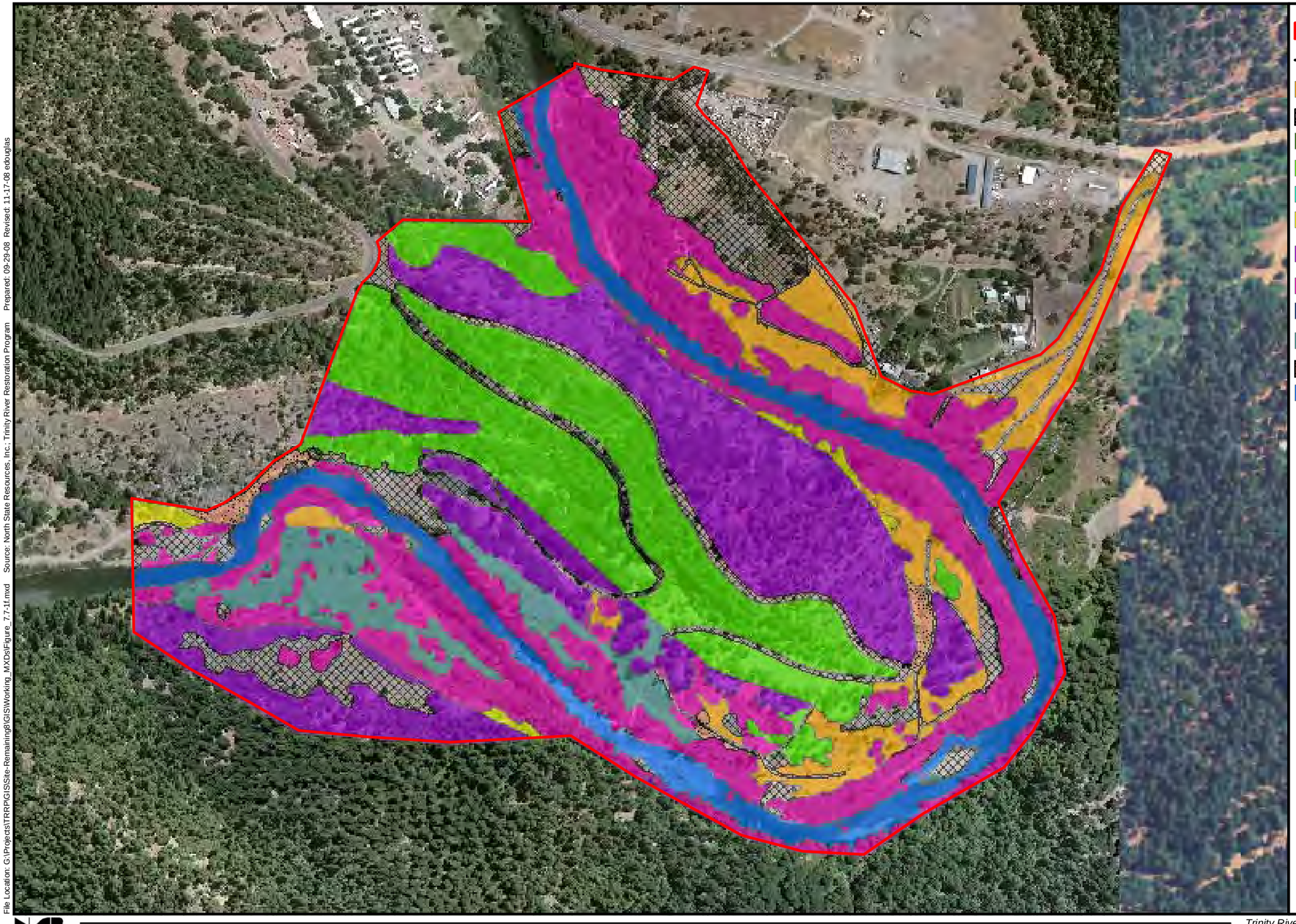


File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.7-1e.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-17-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1e
Steel Bridge Day Use - WHR Habitats



File Location: G:\Projects\TRRPGIS\Site-Remaining\GIS\Working_MXDs\Figure_7.7-1f.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-17-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-1f
Reading Creek - WHR Habitats

Vegetation Surveys

Botanical investigations, including floristic (vegetation) inventories and special-status plant surveys, were conducted May 24, June 18 and 19, and August 9, 2007. These surveys covered extensive portions of all Remaining Phase 1 sites (the boundaries of the sites have been enlarged slightly since these surveys were performed). The botanical investigations were conducted in accordance with guidelines developed by the CDFG (2000). Surveys were conducted when special-status plant species were most likely to be identifiable (i.e., during the blooming period). A comprehensive list of plant species observed at the sites is included as Appendix K. One special-status plant species, fox sedge (*Carex vulpinoidea*) (CNPS list 2), was detected at the Lowden Ranch site.

Non-Native and Invasive Plant Species

Non-native and invasive species potentially occurring at the Remaining Phase 1 and Phase 2 sites are discussed in the Master EIR (section 4.7). Additional information regarding the known occurrence of these species at each of the Remaining Phase 1 sites is provided in Table 7.7-3.

Table 7.7-3. Non-Native and Invasive Plant Species Known to Occur at the Project Sites

	Present at Project Site				
Species	**Sawmill/ Upper Rush Creek**	**Lowden Ranch**	**Trinity House Gulch**	**Steel Bridge Day Use**	**Reading Creek**
Linaria genistifolia ssp. *dalmatica* Dalmatian toadflax	X	X	X	X	X
Rubus discolor Himalayan blackberry	X	X	X	X	X
Centaurea solstitialis Yellow star-thistle	X	X	X	X	X
Hypericum perforatum Klamathweed	X	X	X	X	X
Taeniatherum caput-medusae Medusahead	X	X			

Jurisdictional Waters (Including Wetlands)

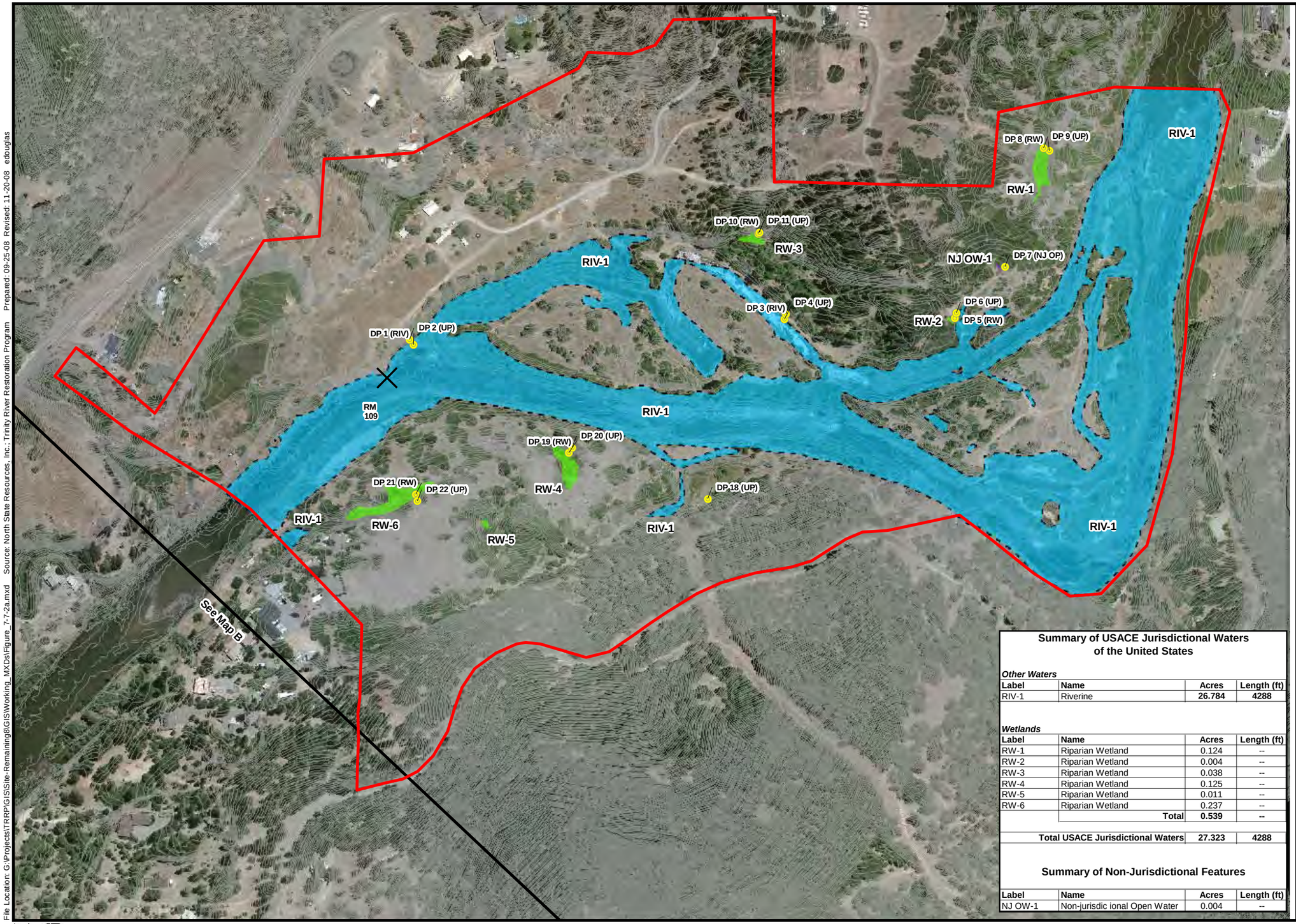
Eight jurisdictional water types, including wetlands and other waters, occur within the boundaries of the Remaining Phase 1 sites. Wetland types include riparian wetland, seasonal wet meadow, fresh emergent wetlands, and seasonal wetland. Other waters include riverine, intermittent stream, vegetated ditch, and non-vegetated ditch. These jurisdictional waters types are discussed in greater detail in the Master EIR (section 4.7). Table 7.7-4 summarizes the jurisdictional waters that occur at the Remaining Phase 1 sites as shown on Figures 7.7-2a-f.

Table 7.7-4. Summary of Jurisdictional Waters

	Sawmill	Upper Rush Creek	Lowden Ranch	Trinity House Gulch	Steel Bridge Day Use	Reading Creek
Wetlands (acres)						
Riparian wetland	0.54	0.00	3.31	3.56	0.00	3.40
Seasonal wet meadow	0.00	0.06	10.49	0.00	0.00	0.00
Fresh emergent wetland	0.00	0.00	1.43	0.00	0.00	0.00
Seasonal wetland	0.00	0.00	0.16	0.00	0.00	0.00
Total wetlands	**0.54**	**0.06**	**15.39**	**3.56**	**0.00**	**3.40**
Other Waters (acres)						
Trinity River (riverine)	26.78	39.83	34.16	10.67	15.07	31.50
Intermittent stream	0.00	0.01	0.04	0.04	0.00	0.00
Vegetated ditch	0.00	0.00	0.14	0.00	0.00	0.00
Non-vegetated ditch	0.00	0.00	0.03	0.00	0.00	0.00
Total other waters	**26.78**	**39.84**	**34.37**	**10.71**	**15.07**	**31.50**
Total Jurisdictional Waters (acres)	**27.32**	**39.90**	**49.76**	**14.27**	**15.07**	**34.9**

Other Biological Resources

Other biological resources (e.g., deer critical winter range, riparian habitat, and migratory birds) potentially occurring at the Remaining Phase 1 sites are discussed in the Master EIR (section 4.7).



Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
RIV-1	Riverine	**26.784**	**4288**

Wetlands

Label	Name	Acres	Length (ft)
RW-1	Riparian Wetland	0.124	--
RW-2	Riparian Wetland	0.004	--
RW-3	Riparian Wetland	0.038	--
RW-4	Riparian Wetland	0.125	--
RW-5	Riparian Wetland	0.011	--
RW-6	Riparian Wetland	0.237	--
	Total	**0.539**	**--**
	Total USACE Jurisdictional Waters	**27.323**	**4288**

Summary of Non-Jurisdictional Features

Label	Name	Acres	Length (ft)
NJ OW-1	Non-jurisdic ional Open Water	0.004	--

Site Boundary (103.421 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

1 ft Contour Interval

3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

Riverine (26.784 acres)

Wetlands

Riparian Wetland (0.539 acre)

Non-Jurisdictional Features

Open Water (0.004 acre)

N

1:3,600

300 0 300
Feet

Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

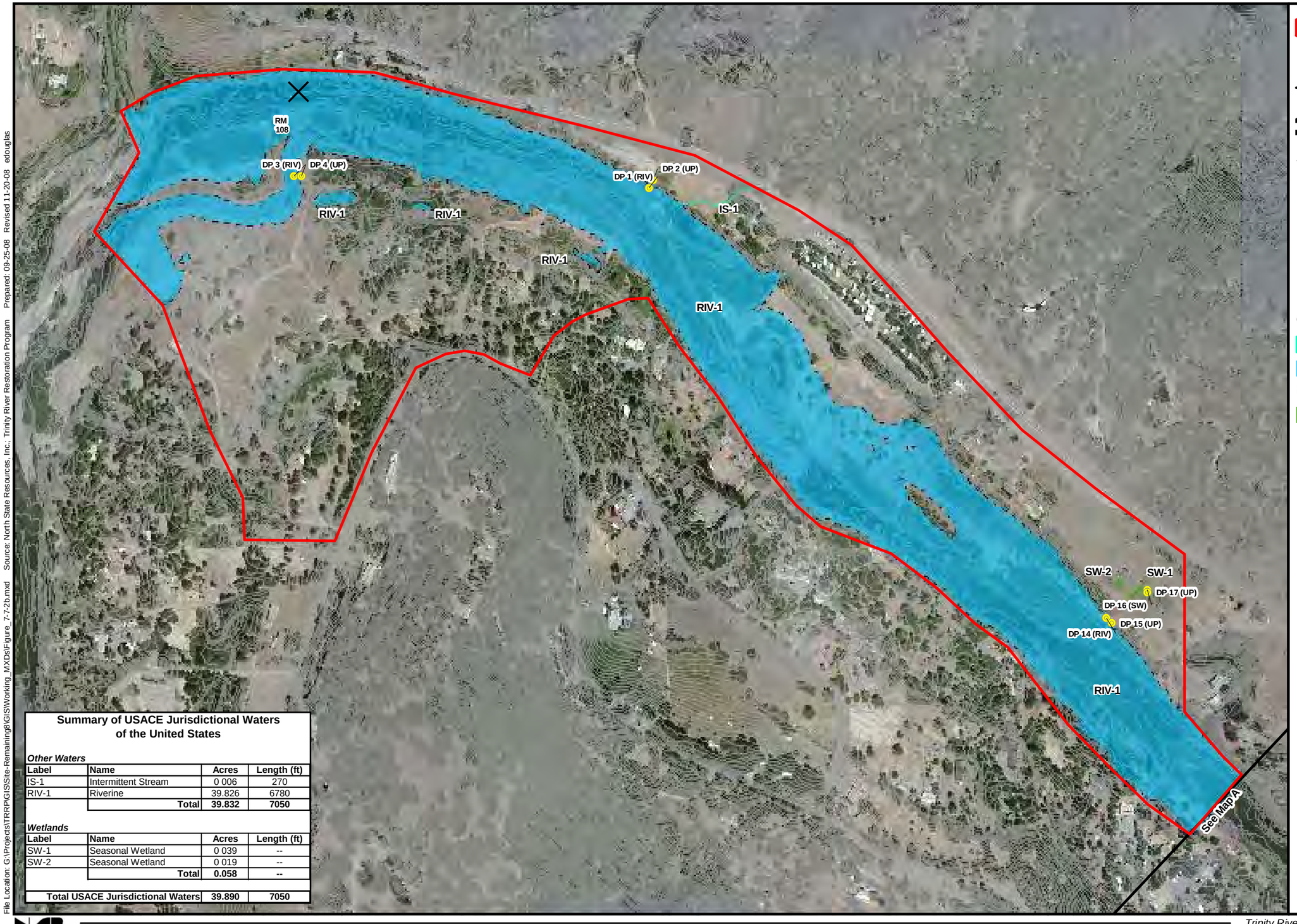
File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-2a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised: 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2a

Sawmill - Boundaries of Waters of the United States, Including Wetlands



Site Boundary (92.274 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

1 ft Contour Interval

3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.006 acre)

Riverine (39.826 acres)

Wetlands

Seasonal Wetland (0.058 acre)

N

1:4,200

350 0 350
Feet

Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
IS-1	Intermittent Stream	0 006	270
RIV-1	Riverine	39.826	6780
	Total	**39.832**	**7050**

Wetlands

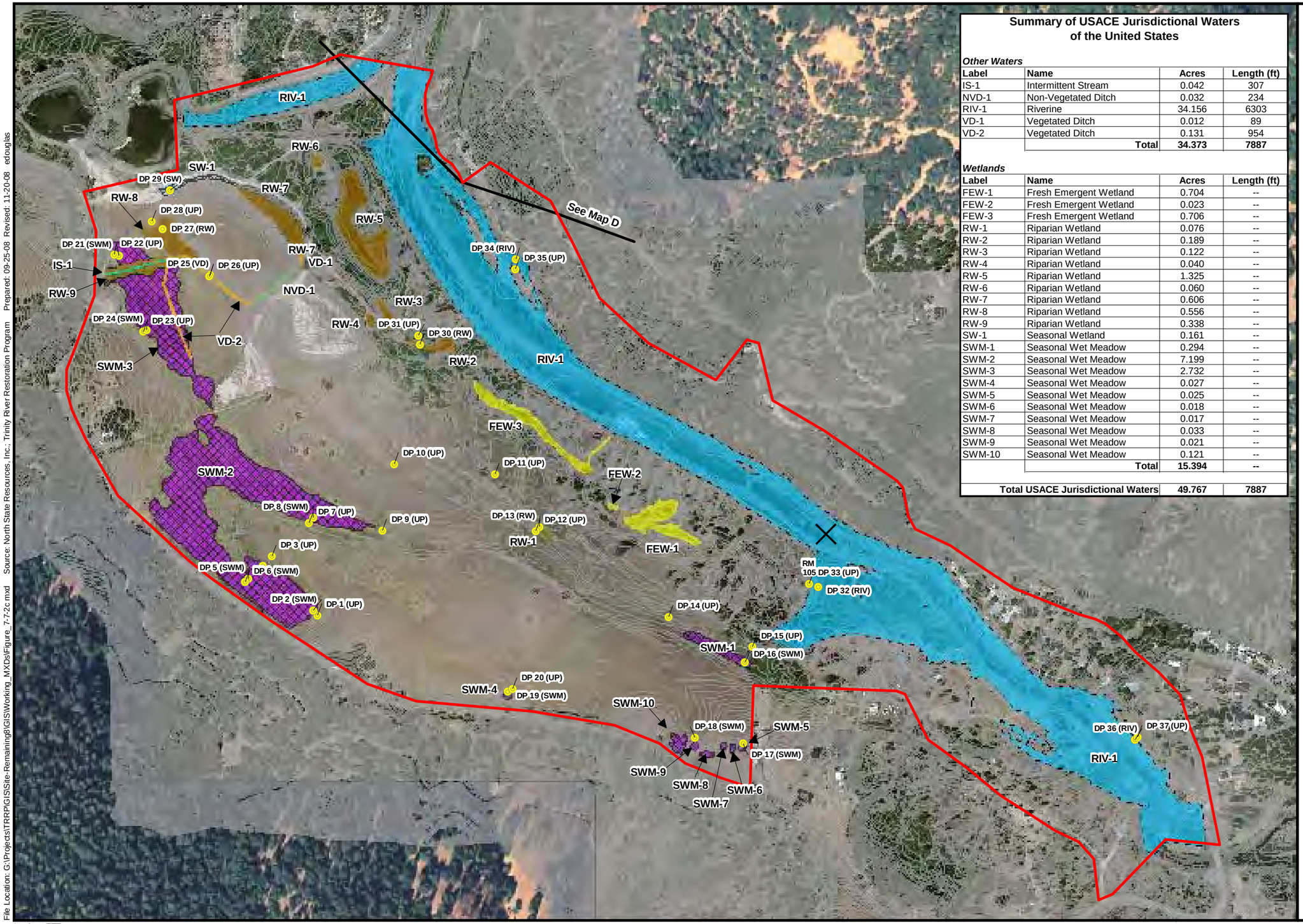
Label	Name	Acres	Length (ft)
SW-1	Seasonal Wetland	0 039	--
SW-2	Seasonal Wetland	0 019	--
	Total	**0.058**	**--**
Total USACE Jurisdictional Waters		**39.890**	**7050**

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7-7-2b.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2b
Upper Rush Creek - Boundaries of Waters of the United States, Including Wetlands



Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
IS-1	Intermittent Stream	0.042	307
NVD-1	Non-Vegetated Ditch	0.032	234
RIV-1	Riverine	34.156	6303
VD-1	Vegetated Ditch	0.012	89
VD-2	Vegetated Ditch	0.131	954
	Total	**34.373**	**7887**

Wetlands

Label	Name	Acres	Length (ft)
FEW-1	Fresh Emergent Wetland	0.704	--
FEW-2	Fresh Emergent Wetland	0.023	--
FEW-3	Fresh Emergent Wetland	0.706	--
RW-1	Riparian Wetland	0.076	--
RW-2	Riparian Wetland	0.189	--
RW-3	Riparian Wetland	0.122	--
RW-4	Riparian Wetland	0.040	--
RW-5	Riparian Wetland	1.325	--
RW-6	Riparian Wetland	0.060	--
RW-7	Riparian Wetland	0.606	--
RW-8	Riparian Wetland	0.556	--
RW-9	Riparian Wetland	0.338	--
SW-1	Seasonal Wetland	0.161	--
SWM-1	Seasonal Wet Meadow	0.294	--
SWM-2	Seasonal Wet Meadow	7.199	--
SWM-3	Seasonal Wet Meadow	2.732	--
SWM-4	Seasonal Wet Meadow	0.027	--
SWM-5	Seasonal Wet Meadow	0.025	--
SWM-6	Seasonal Wet Meadow	0.018	--
SWM-7	Seasonal Wet Meadow	0.017	--
SWM-8	Seasonal Wet Meadow	0.033	--
SWM-9	Seasonal Wet Meadow	0.021	--
SWM-10	Seasonal Wet Meadow	0.121	--
	Total	**15.394**	**--**
Total USACE Jurisdictional Waters		**49.767**	**7887**

Site Boundary (211.769 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

1 ft Contour Interval

3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

- Intermittent Stream (0.042 acre)
- Non-Vegetated Ditch (0.032 acre)
- Riverine (34.156 acres)
- Vegetated Ditch (0.143 acre)

Wetlands

- Fresh Emergent Wetland (1.433 acres)
- Riparian Wetland (3.313 acres)
- Seasonal Wet Meadow (10.487 acre)
- Seasonal Wetland (0.161 acre)

N

1:5,400

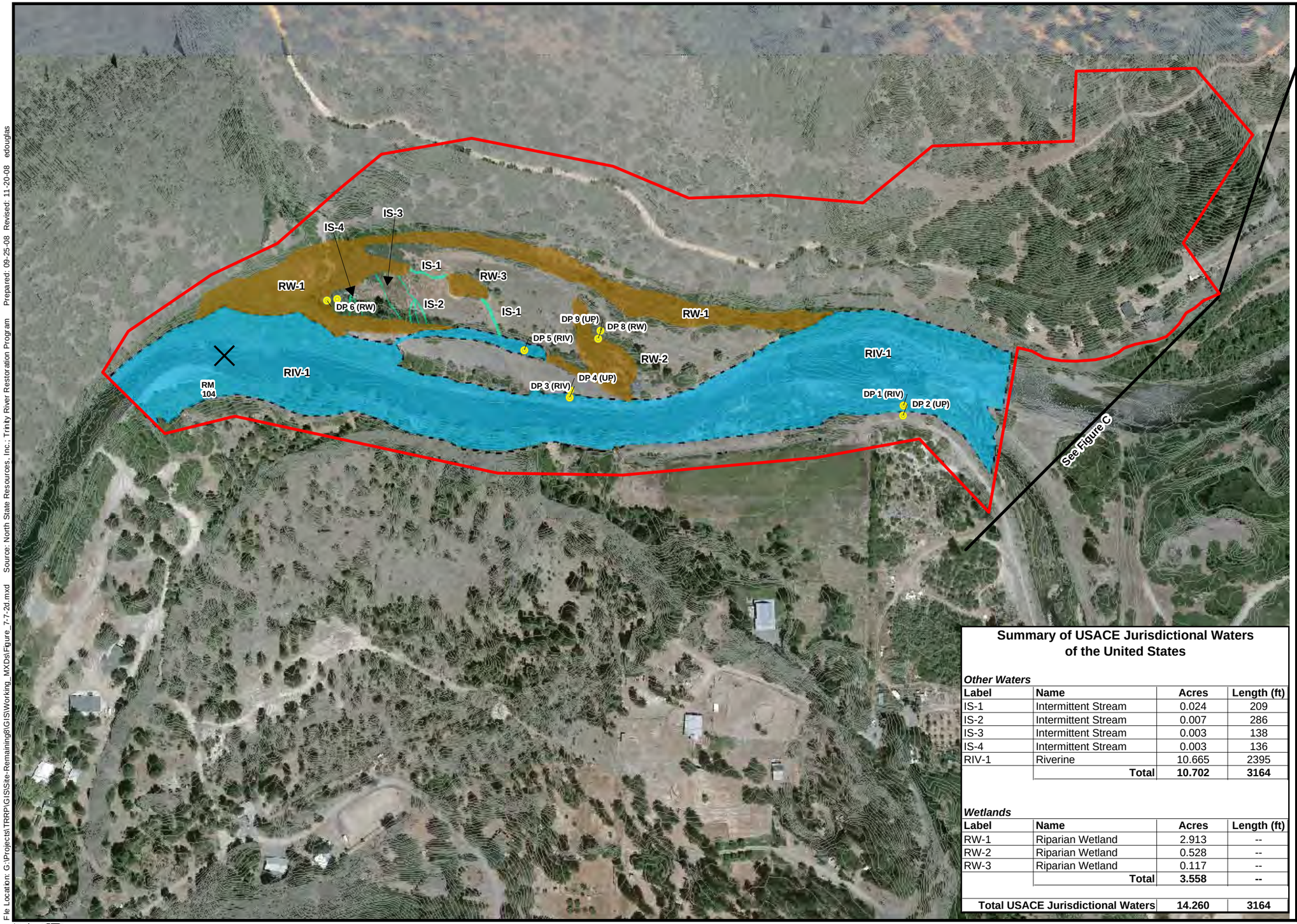
450 0 450
Feet

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.7-2c.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised: 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2c
Lowden Ranch - Boundaries of Waters of the United States, Including Wetlands



Site Boundary (43.695 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

1 ft Contour Interval

3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.037 acre)

Riverine (10.665 acres)

Wetlands

Riparian Wetland (3.558 acres)

Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
IS-1	Intermittent Stream	0.024	209
IS-2	Intermittent Stream	0.007	286
IS-3	Intermittent Stream	0.003	138
IS-4	Intermittent Stream	0.003	136
RIV-1	Riverine	10.665	2395
	Total	**10.702**	**3164**

Wetlands

Label	Name	Acres	Length (ft)
RW-1	Riparian Wetland	2.913	--
RW-2	Riparian Wetland	0.528	--
RW-3	Riparian Wetland	0.117	--
	Total	**3.558**	**--**
Total USACE Jurisdictional Waters		**14.260**	**3164**

N

1:3,000

250 0 250
Feet

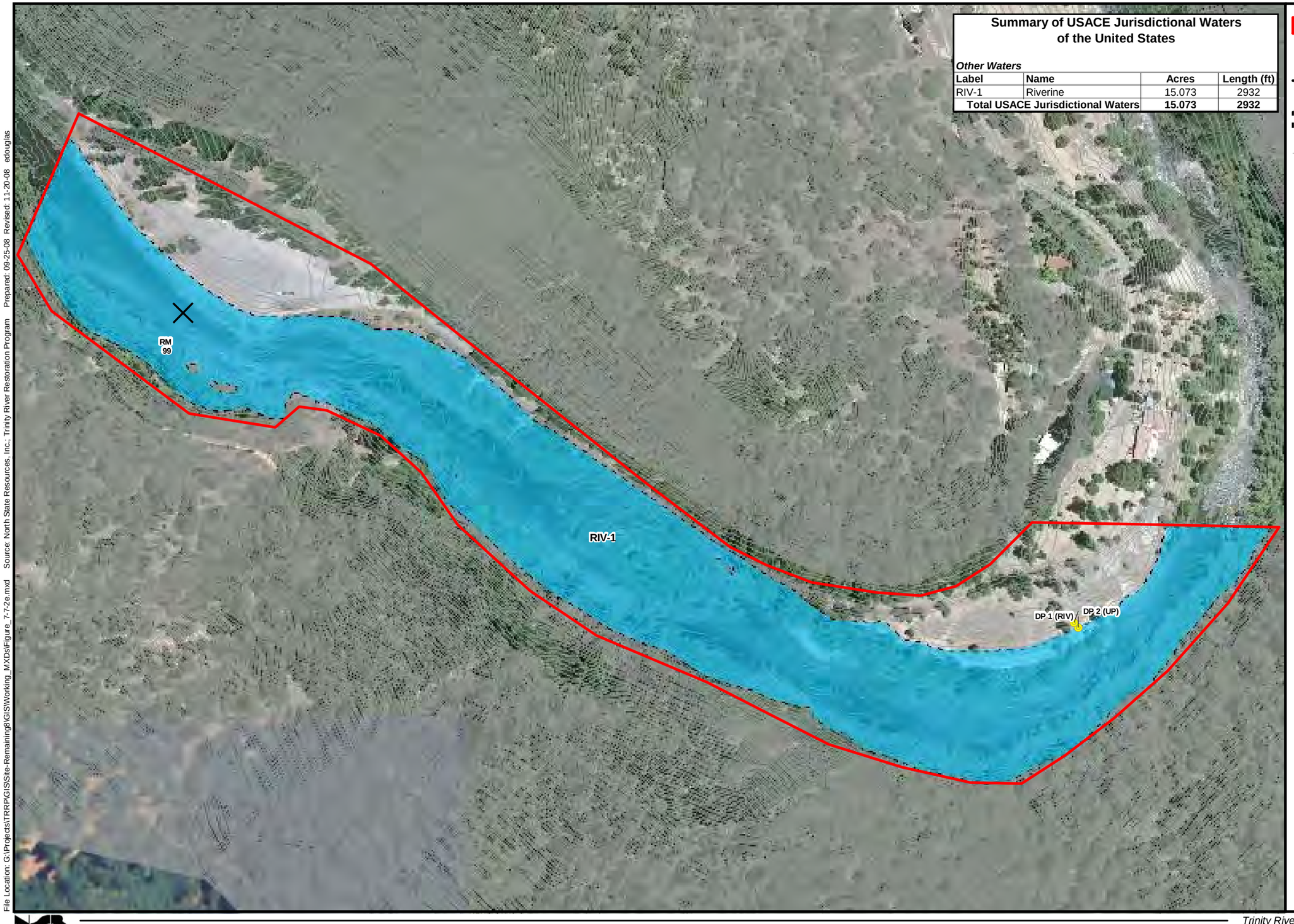
Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-2d.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised: 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2d
Trinity House Gulch - Boundaries of Waters of the United States, Including Wetlands



Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
RIV-1	Riverine	15.073	2932
Total USACE Jurisdictional Waters		**15.073**	**2932**

Site Boundary (22.475 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

1 ft Contour Interval

3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

Riverine (15.073 acres)

N

1:2,400

200 0 200
Feet

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-2e.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised: 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2e
Steel Bridge Day Use - Boundaries of Waters of the United States, Including Wetlands

Summary of USACE Jurisdictional Waters of the United States

Other Waters

Label	Name	Acres	Length (ft)
RIV-1	Riverine	31.494	9504
RIV-2	Riverine	0.010	--
	Total	**31.504**	**9504**

Wetlands

Label	Name	Acres	Length (ft)
RW-1	Riparian Wetland	0.553	--
RW-2	Riparian Wetland	0.035	--
RW-3	Riparian Wetland	1.057	--
RW-4	Riparian Wetland	0.089	--
RW-5	Riparian Wetland	0.094	--
RW-6	Riparian Wetland	0.026	--
RW-7	Riparian Wetland	0.391	--
RW-8	Riparian Wetland	0.028	--
RW-9	Riparian Wetland	0.302	--
RW-10	Riparian Wetland	0.820	--
	Total	**3.396**	**--**
Total USACE Jurisdictional Waters		**34.900**	**9504**

RIV-1
DP 3 (RIV)
DP 1 (RIV)
DP 2 (UP)
RIV-2
DP 4 (UP)
DP 5 (RIV)
RW-1
RIV-1
DP 13 (RIV)
DP 14 (UP)
DP 7 (UP)
DP 6 (RW)
RW-2
RW-9
RW-8
RM 93
RW-4
DP 15 (RW)
RW-10
RW-6
RW-5
DP 8 (RW)
DP 9 (UP)
RW-3
RW-7
DP 12 (UP)
DP 10 (RIV)
DP 11 (RW)
RIV-1

Site Boundary (135.871 acres)
River Mile (RM)
Matchline
Ordinary High Water Mark (OHWM) - 6000 cfs
1 ft Contour Interval
3-parameter Data Point (DP)

RIV=Riverine
RW=Riparian Wetland
UP=Upland
NJ OW=Non-jurisdictional Open Water

USACE Jurisdictional Waters of the United States

Other Waters

Riverine (31.504 acres)

Wetlands

Riparian Wetland (3.396 acres)

N

1:4,200

350 0 350
Feet

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.7-2a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-25-08 Revised: 11-20-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-2f
Reading Creek - Boundaries of Waters of the United States, Including Wetlands

7.7.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.7-5 summarizes the potential vegetation, wildlife, and wetlands impacts that would result from the No-Project Alternative, the Proposed Project, and Alternative 1.

Table 7.7-5. Summary of Potential Vegetation, Wildlife, and Wetland Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.7-1. Construction activities associated with the project could result in the loss of jurisdictional waters including wetlands.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-2. Implementation of the project would result in the loss of upland plant communities.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.7-3. Construction of the project could result in the loss of individuals of a special-status plant species.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-4. Construction activities associated with the project could result in impacts to the state-listed little willow flycatcher.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-5. Construction activities associated with the project could result in impacts to foothill yellow-legged frogs.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-6. Construction activities associated with the project could result in impacts to western pond turtles.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-7. Construction activities associated with the project could result in impacts to nesting Vaux's swifts, California yellow warblers, and yellow-breasted chats.				
No impact	Significant	Significant	Less than significant	Less than significant

Table 7.7-5. Summary of Potential Vegetation, Wildlife, and Wetland Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.7-8. Construction activities associated with the project could result in impacts to nesting bald eagles and northern goshawks.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-9. Construction activities associated with the project could result in impacts to special-status bats and the ring-tailed cat.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.7-10. Construction activities associated with the project could result in the temporary loss of non-breeding habitat for several special-status birds.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.7-11. Construction activities associated with the project could result in impacts to BLM and USFS sensitive species.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.7-12. Construction activities associated with the project could restrict terrestrial wildlife movement through the project area.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.7-13. Implementation of the project could result in the spread of non-native and invasive plant species.				
No impact	Significant	Significant	Less than significant	Less than significant

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.7-1: Construction activities associated with the project could result in the loss of jurisdictional waters including wetlands. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no loss of jurisdictional wetlands would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

Table 7.7-6 lists acres of jurisdictional waters that would be affected by the Proposed Project (Figures 7.7-3a-f) and Alternative 1 (Figures 7.7-4a-f). Construction of the Proposed Project would result in a direct temporary impact to 57.74 acres of jurisdictional waters and construction of Alternative 1 would result in a direct temporary impact to 46.18 acres. This impact would be significant.

Mitigation Measures

No-Project Alternative

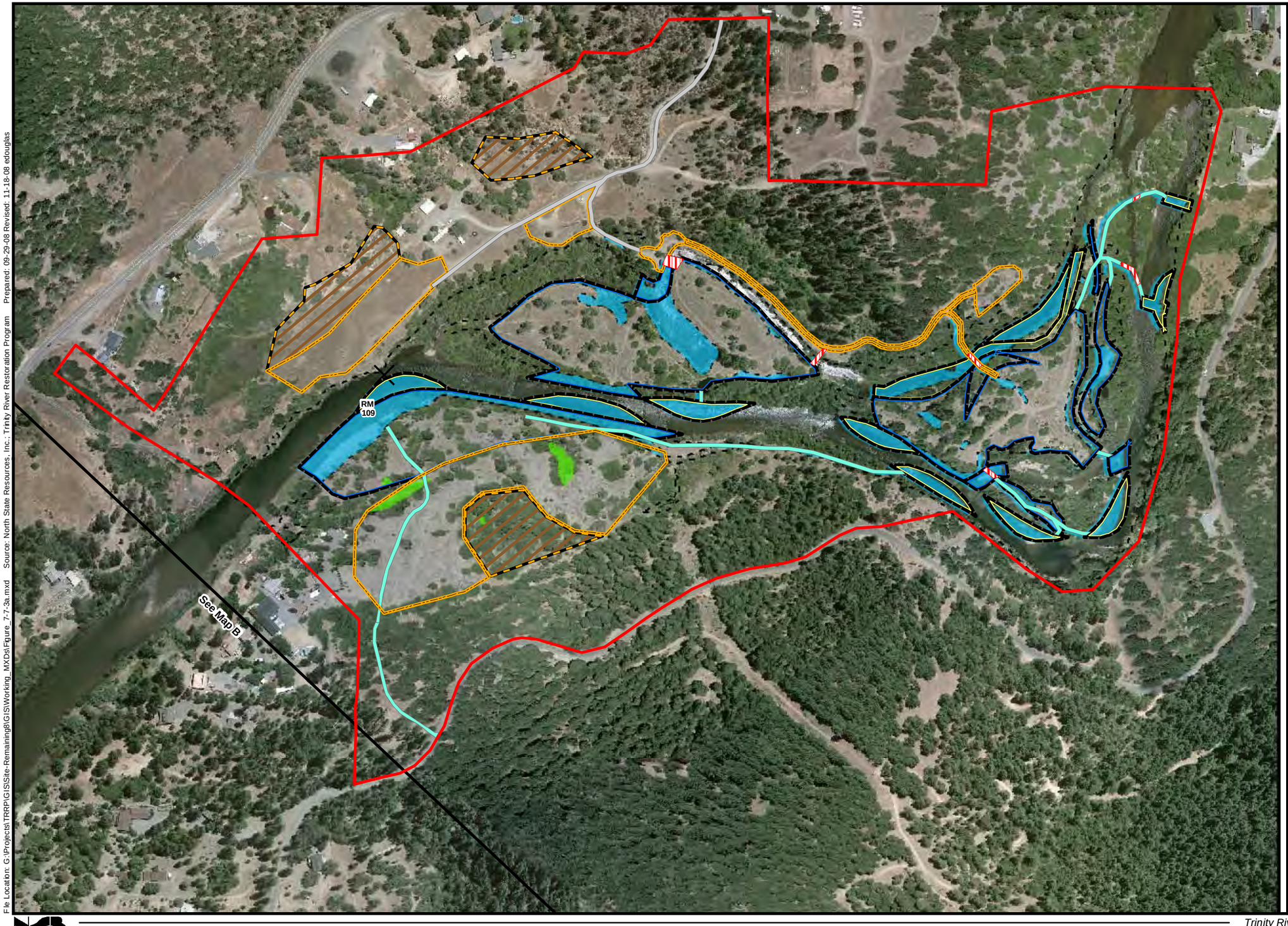
No significant impact was identified; therefore, no mitigation is required.

Table 7.7-6. Expected Maximum Areas of Temporary Impacts to Jurisdictional Waters

Jurisdictional Water Type	Approximate Area of Disturbance (Acres)	
	Proposed Project	Alternative 1
Sawmill		
Riparian wetland	0.28	0.28
Fresh emergent wetland	0.00	0.00
Seasonal wetland	0.00	0.00
Seasonal wet meadow	0.00	0.00
Trinity River (riverine)	6.87	6.87
Intermittent stream	0.00	0.00
Vegetated ditch	0.00	0.00
Non-vegetated ditch	0.00	0.00
Sawmill Total	**7.15**	**7.15**
Upper Rush Creek		
Riparian wetland	0.00	0.00
Fresh emergent wetland	0.00	0.00
Seasonal wetland	0.00	0.00
Seasonal wet meadow	0.00	0.00
Trinity River (riverine)	10.07	6.47
Intermittent stream	0.00	0.00
Vegetated ditch	0.00	0.00
Non-vegetated ditch	0.00	0.00
Upper Rush Creek Total	**10.07**	**6.47**
Lowden Ranch		
Riparian wetland	1.06	1.06
Fresh emergent wetland	1.33	1.33
Seasonal wetland	0.00	0.00
Seasonal wet meadow	7.54	7.54

Table 7.7-6. Expected Maximum Areas of Temporary Impacts to Jurisdictional Waters

Jurisdictional Water Type	Approximate Area of Disturbance (Acres)	
	Proposed Project	Alternative 1
Trinity River (riverine)	16.68	11.67
Intermittent stream	0.02	0.02
Vegetated ditch	0.14	0.14
Non-vegetated ditch	0.03	0.03
Lowden Ranch Total	**26.80**	**21.79**
Trinity House Gulch		
Riparian wetland	0.73	0.73
Fresh emergent wetland	0.00	0.00
Seasonal wetland	0.00	0.00
Seasonal wet meadow	0.00	0.00
Trinity River (riverine)	1.40	1.40
Intermittent stream	0.03	0.03
Open water	0.00	0.00
Ephemeral drainage	0.00	0.00
Trinity House Gulch Total	**2.16**	**2.16**
Steel Bridge Day Use		
Riparian wetland	0.00	0.00
Fresh emergent wetland	0.00	0.00
Seasonal wetland	0.00	0.00
Seasonal wet meadow	0.00	0.00
Trinity River (riverine)	2.37	2.06
Intermittent stream	0.00	0.00
Vegetated ditch	0.00	0.00
Non-vegetated ditch	0.00	0.00
Steel Bridge Day Use Total	**2.37**	**2.06**
Reading Creek		
Riparian wetland	1.17	1.17
Fresh emergent wetland	0.00	0.00
Seasonal wetland	0.00	0.00
Seasonal wet meadow	0.00	0.00
Trinity River (riverine)	8.02	5.38
Intermittent stream	0.00	0.00
Vegetated ditch	0.00	0.00
Non-vegetated ditch	0.00	0.00
Reading Creek Total	**9.19**	**6.55**



Site Boundary (103.421 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (6.866 acres)

Wetlands

Riparian Wetland (0.284 acre)

N

1:3,600

300 0 300

Feet

Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

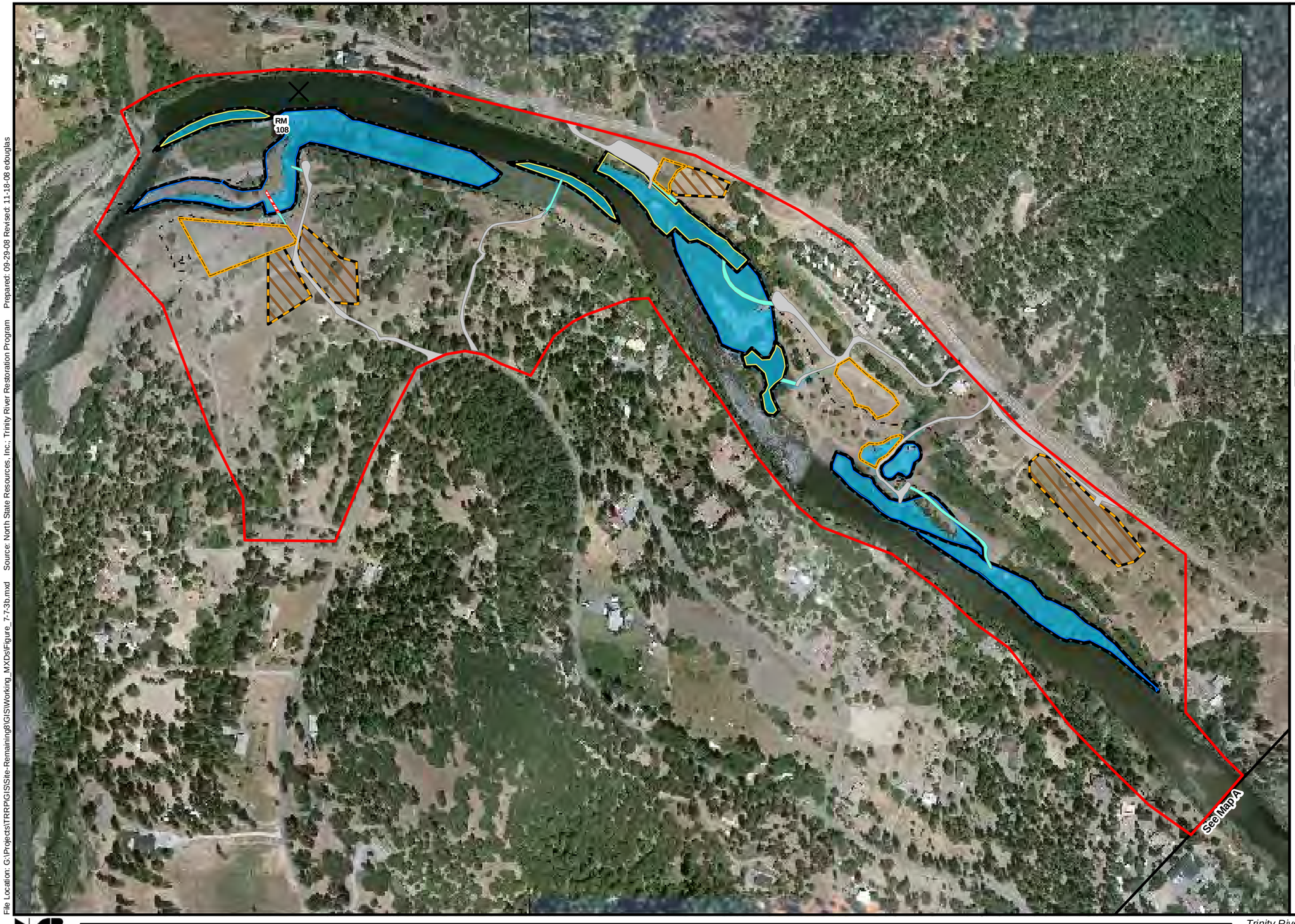
File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7-7-3a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3a

Sawmill - Impacts of Proposed Project to Waters of the United States, Including Wetlands



Site Boundary (92.274 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (10.074 acres)

N

1:4,200

350 0 350

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

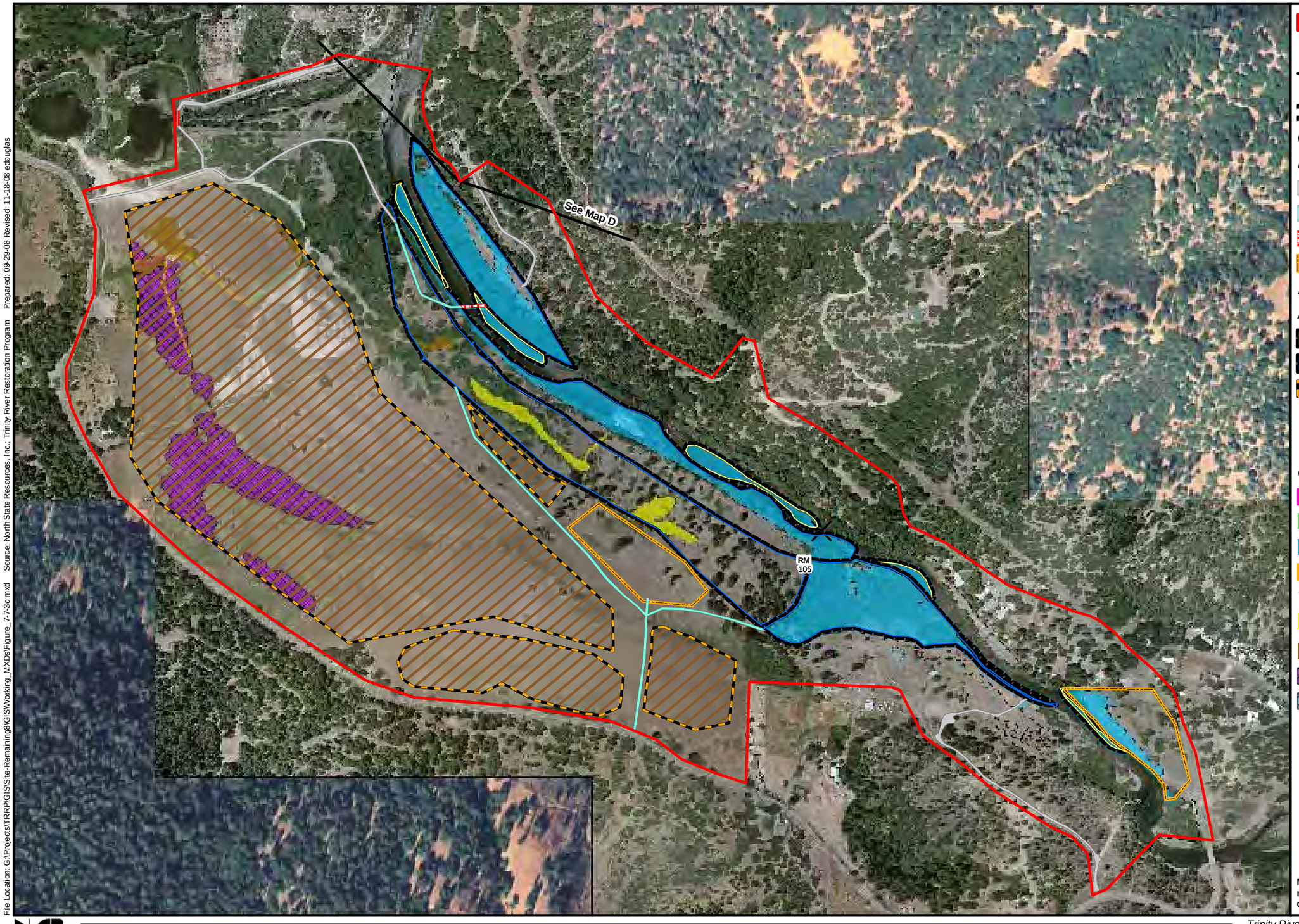
File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-3b.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3b

Upper Rush Creek - Impacts of Proposed Project to Waters of the United States, Including Wetlands



Site Boundary (211.769 acres)
River Mile (RM)
Matchline
Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing
Access Road - New
Crossing
Staging Area

Activity Areas

Area

In Channel
Riverine
Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.023 acre)
Non-Vegetated Ditch (0.032 acre)
Riverine (16.677 acres)
Vegetated Ditch (0.143 acre)

Wetlands

Fresh Emergent Wetland (1.327 acres)
Riparian Wetland (1.063 acres)
Seasonal Wet Meadow (7.536 acre)
Seasonal Wetland (0.001 acre)

N

1:5,400

450 0 450
Feet

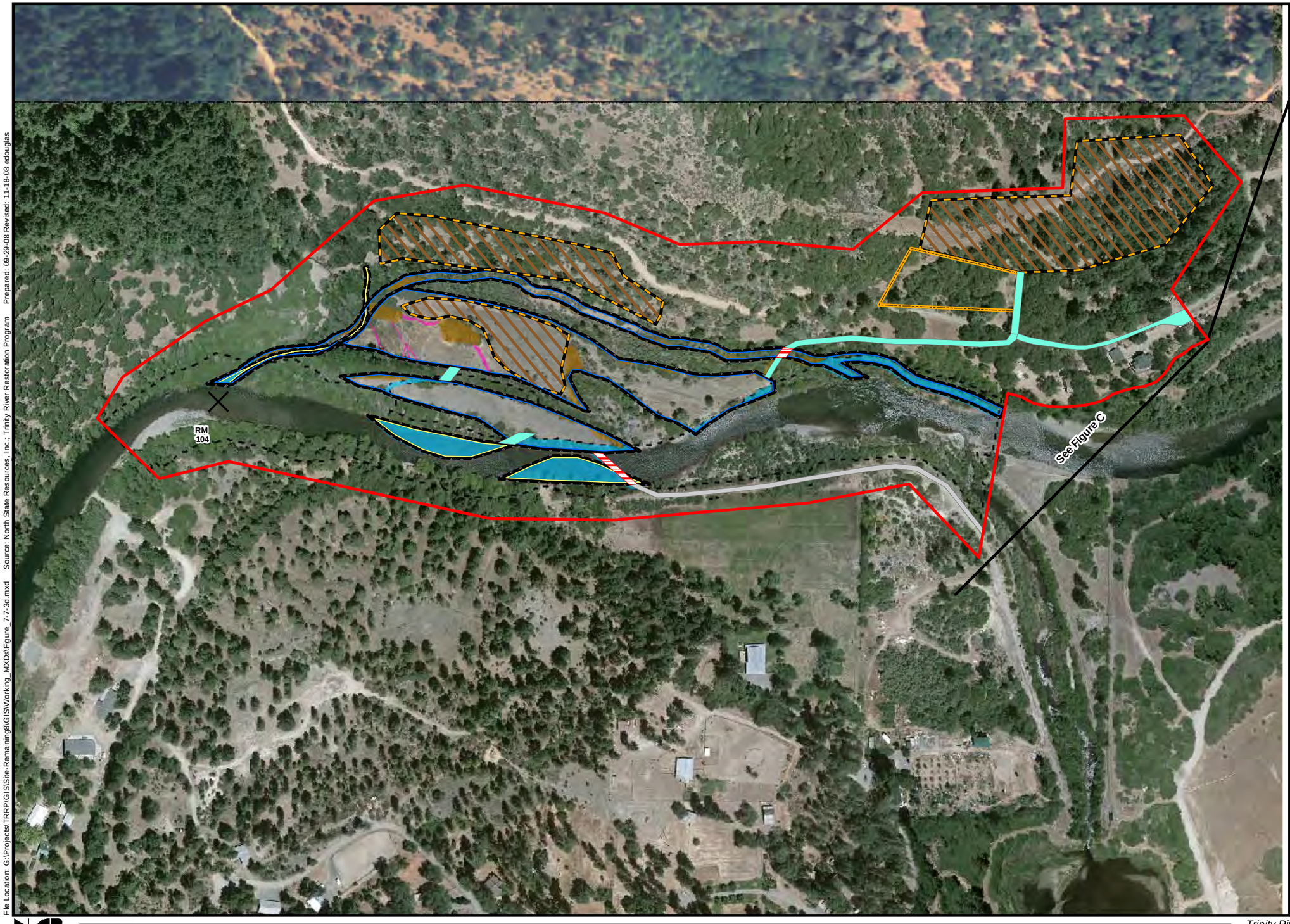
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-3c.mxd Prepared: 09-29-08 Revised: 11-18-08 edouglas
Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3c
Lowden Ranch - Impacts of Proposed Project to Waters of the United States, Including Wetlands



Site Boundary (43.695 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.030 acre)

Riverine (1.404 acres)

Wetlands

Riparian Wetland (0.729 acre)

N

1:3,000

250 0 250

Feet

Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-3d.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3d

Trinity House Gulch - Impacts of Proposed Project to Waters of the United States, Including Wetlands

Site Boundary (22.475 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (2.373 acres)

N

1:2,400

200 0 200

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GISWorking_MXDs\Figure_7-7-3e.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3e

Steel Bridge Day Use - Impacts of Proposed Project to Waters of the United States, Including Wetlands

Site Boundary (135.871 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (8.023 acres)

Wetlands

Riparian Wetland (1.169 acres)

N

1:4,200

350 0 350

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

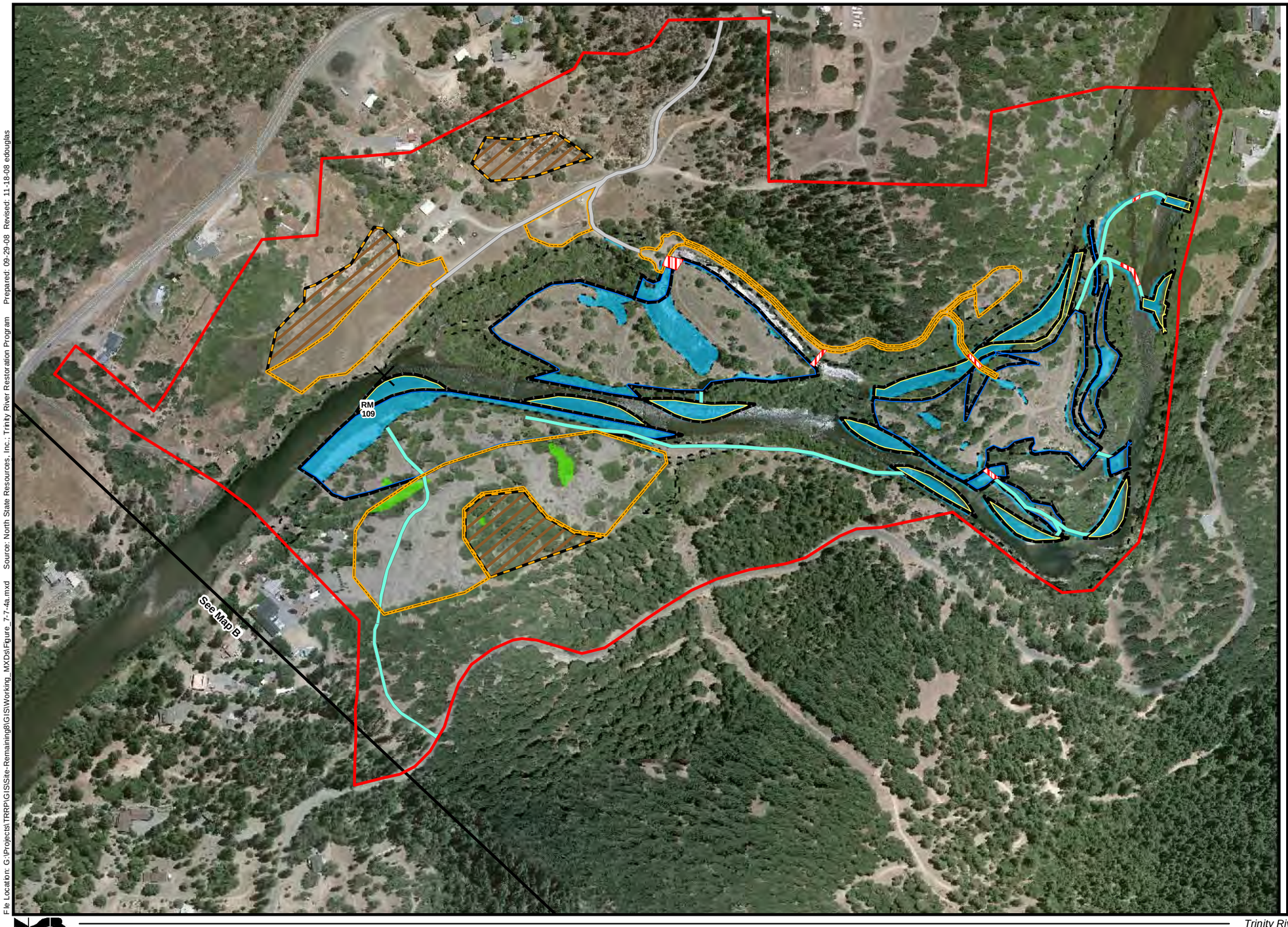
File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-3f.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-3f

Reading Creek - Impacts of Proposed Project to Waters of the United States, Including Wetlands



Site Boundary (103.421 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (6.866 acres)

Wetlands

Riparian Wetland (0.284 acre)

N

1:3,600

300 0 300

Feet

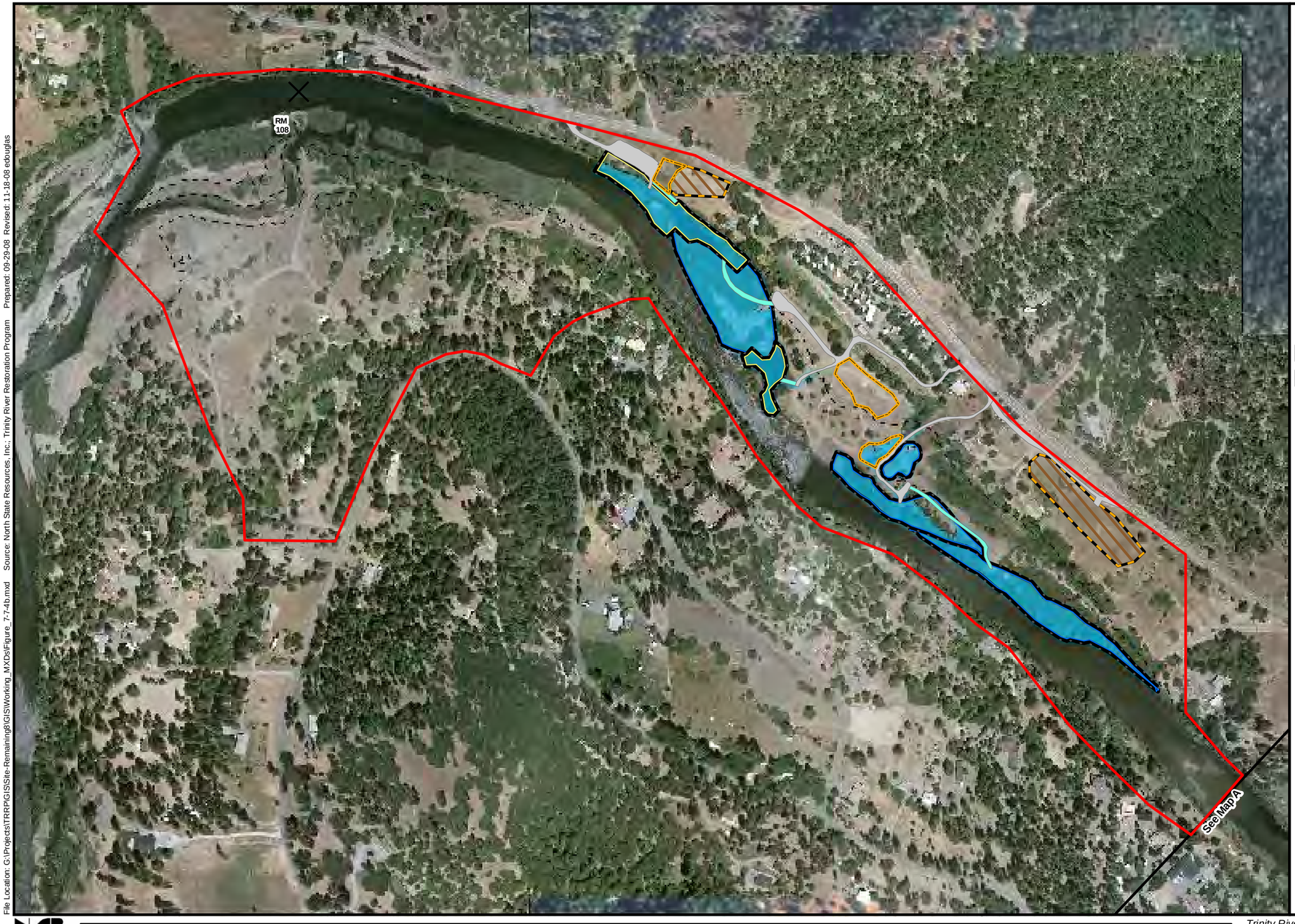
Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7-7-4a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4a
Sawmill - Impacts of Alternative 1 to Waters of the United States, Including Wetlands



Site Boundary (92.274 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (6.474 acres)

N

1:4,200

350 0 350

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

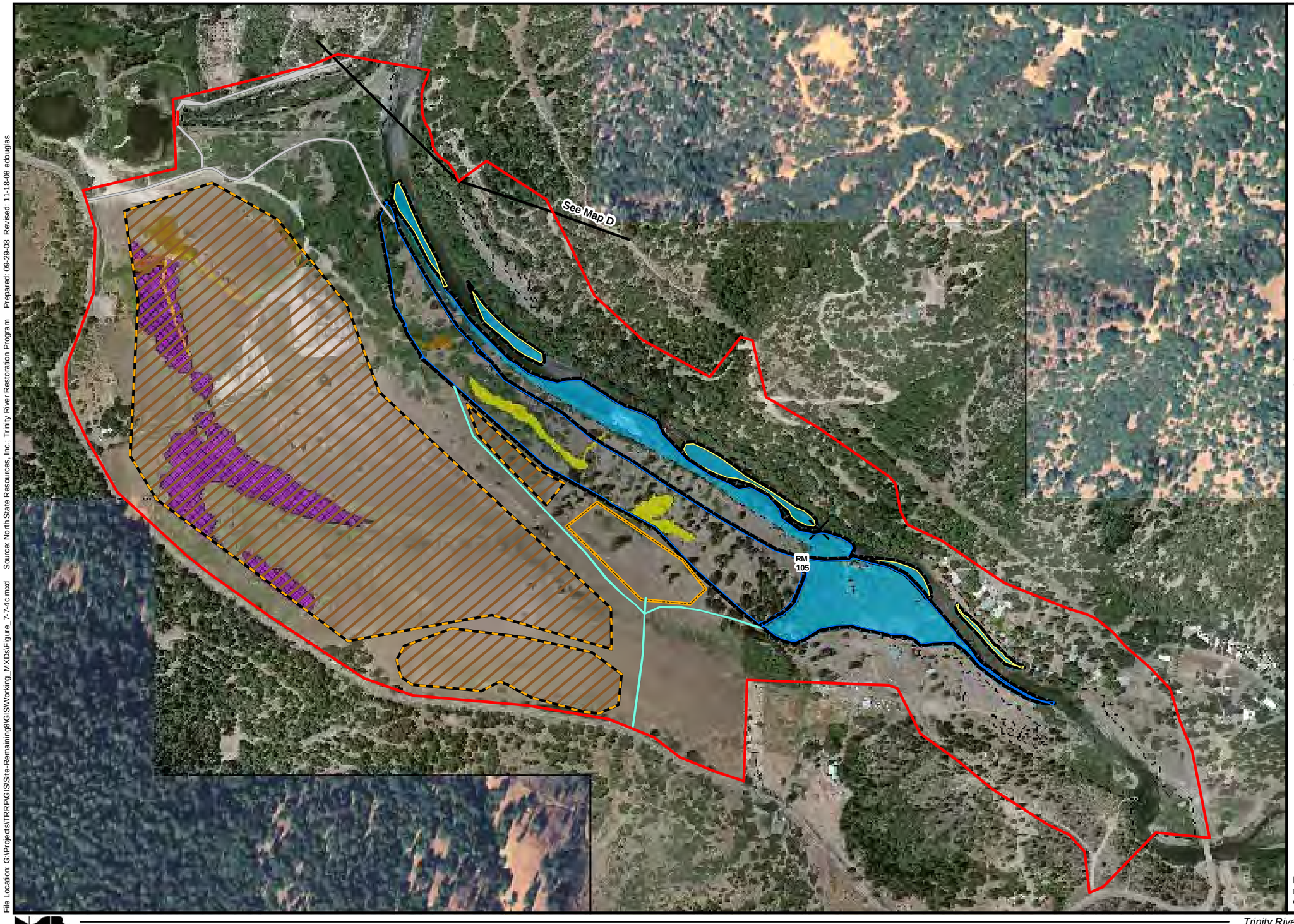
File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-4b.mxd Prepared: 09-29-08 Revised: 11-18-08 edouglas Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4b

Upper Rush Creek - Impacts of Alternative 1 to Waters of the United States, Including Wetlands



Site Boundary (211.769 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.023 acre)

Non-Vegetated Ditch (0.032 acre)

Riverine (11.665 acres)

Vegetated Ditch (0.143 acre)

Wetlands

Fresh Emergent Wetland (1.327 acres)

Riparian Wetland (1.063 acres)

Seasonal Wet Meadow (7.536 acre)

Seasonal Wetland (0.001 acre)

N

1:5,400

450 0 450

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

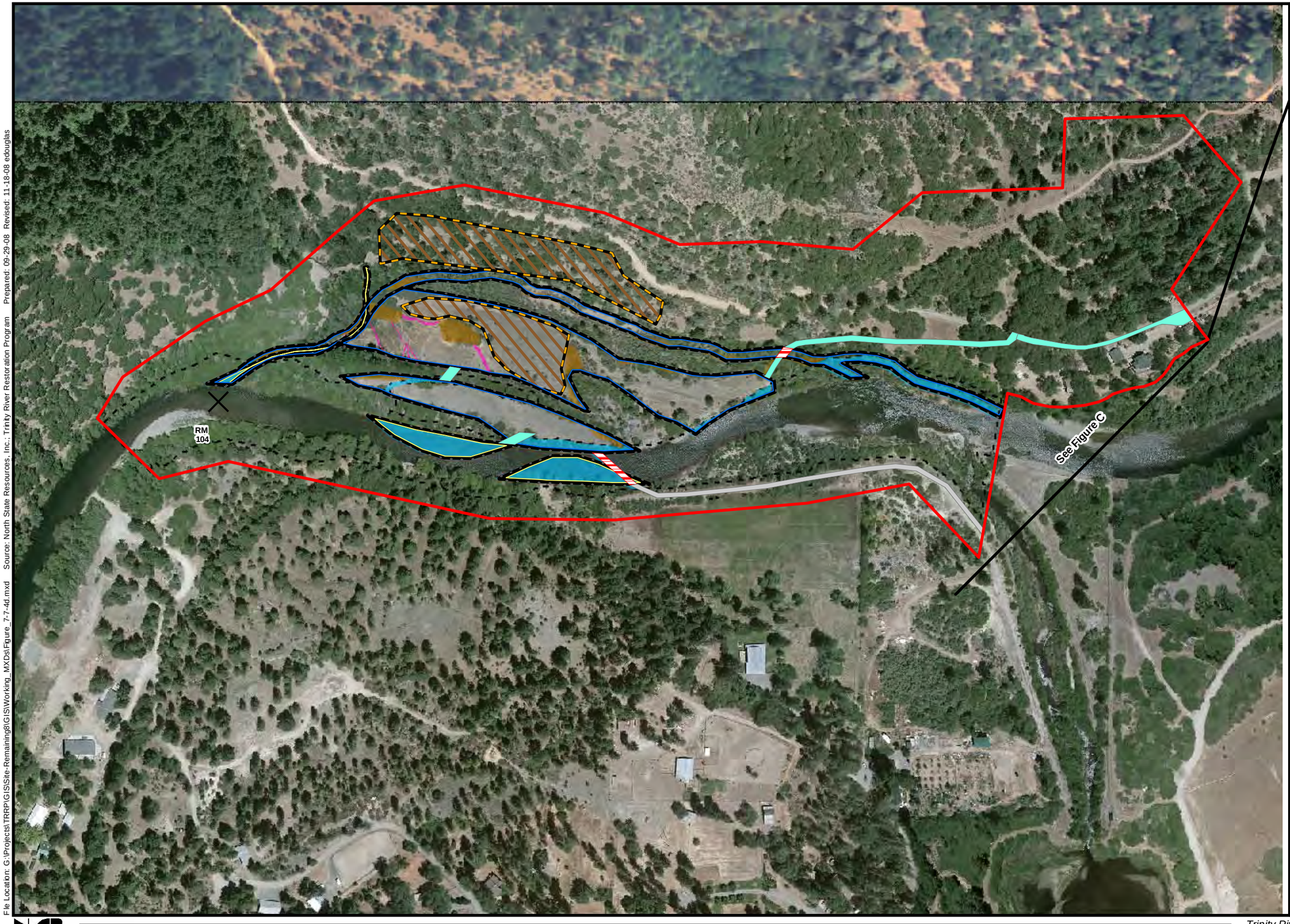
File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-4c.mxd Prepared: 09-29-08 Revised: 11-18-08 edouglas
Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4c

Lowden Ranch - Impacts of Alternative 1 to Waters of the United States, Including Wetlands



Site Boundary (43.695 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Crossing

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Intermittent Stream (0.030 acre)

Riverine (1.404 acres)

Wetlands

Riparian Wetland (0.729 acre)

N

1:3,000

250 0 250

Feet

Note: Legend symbol swatches do not necessary reflect map symbology based on rotation angle of north angle.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-4d.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4d

Trinity House Gulch - Impacts of Alternative 1 to Waters of the United States, Including Wetlands

Site Boundary (22.475 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - New

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (2.061acres)

N

1:2,400

200 0 200

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-4e.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4e

Steel Bridge Day Use - Impacts of Alternative 1 to Waters of the United States, Including Wetlands

Site Boundary (135.871 acres)

River Mile (RM)

Matchline

Ordinary High Water Mark (OHWM) - 6000 cfs

Construction Areas

Name

Access Road - Existing

Access Road - New

Staging Area

Activity Areas

Area

In Channel

Riverine

Upland

Impacts to Jurisdictional Waters of the United States

Other Waters

Riverine (5.381acres)

Wetlands

Riparian Wetland (1.169 acres)

N

1:4,200

350 0 350

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-7-4f.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 09-29-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.7-4f

Reading Creek - Impacts of Alternative 1 to Waters of the United States, Including Wetlands

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-1 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-2: Implementation of the project would result in the loss of upland plant communities. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to upland plant communities would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.7-3: Construction of the project could result in the loss of individuals of a special-status plant species. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to a special-status plant species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

No federal or state listed plant species are expected to occur within the boundaries of any of the Remaining Phase 1 sites. However, one special-status plant, fox sedge, is known to occur at the RC site and additional occurrences of this or other special-status species (see Table 4.7-1) may occur in the

unsurveyed portions of the project sites. Because these species are considered special-status pursuant to CEQA, removal of individuals or habitat for these species could result in a potentially significant impact.
Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-3 in the Master EIR apply (section 4.7.2). Mitigation measure 4.7-3a shall apply only to those portions of the sites not previously surveyed. No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-4: Construction activities associated with the project could result in impacts to the state-listed little willow flycatcher. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to the little willow flycatcher would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-4 in the Master EIR apply are (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-5: Construction activities associated with the project could result in impacts to the foothill yellow-legged frog. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to the foothill yellow-legged frog would occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-5 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-6: Construction activities associated with the project could result in impacts to the western pond turtle. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to the stern pond turtle would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-6 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-7: Construction activities associated with the project could result in impacts to nesting Vaux's swifts, California yellow warblers, and yellow-breasted chats. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to nesting California yellow warblers, yellow-breasted chats, and Vaux's swifts would occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-7 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-8: Construction activities associated with the project could result in impacts to nesting bald eagles and northern goshawks ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to active raptor nests would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-8 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-9: Construction activities associated with the project could result in impacts to special-status bats and the ring-tailed cat. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to breeding special-status bats or the ring-tailed cat would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-9 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-10: Construction activities associated with the project could result in the temporary loss of non-breeding habitat for special-status birds. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to non-breeding habitat for sensitive species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be less than significant.

Mitigation

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.7-11: Construction activities associated with the project could result in impacts to BLM and USFS sensitive species (Pacific fisher). ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1 except for the Pacific fisher, and less-than-significant impact for the Proposed Project and Alternative 1 for the Pacific fisher.***

No-Project Alternative

Under the No-Project Alternative, no construction-related impacts to BLM or USFS sensitive species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

Several of the special-status wildlife species with potential to occur at the sites are designated BLM or USFS sensitive species: foothill yellow-legged frog, western pond turtle, northern goshawk, little willow flycatcher, Pacific fisher, long-eared myotis bat, pallid bat, Townsend's western big-eared bat, and Yuma myotis bat. With the exception of the Pacific fisher, potential impacts to these species are discussed as separate impacts above.

The impact to the Pacific fisher is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. The impact to the Pacific fisher would be less than significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project, and Alternative 1

Mitigation measures detailed under Impact 4.7-11 in the Master EIR for special-status species apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.7-12: Construction activities associated with the project could restrict terrestrial wildlife movement through the project area. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, construction-related restriction of terrestrial wildlife movement through the sites would not occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.7-13: Implementation of the project could result in the spread of non-native and invasive plant species. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, the spread of non-native and invasive plant species would not occur as a result of construction activities because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.7.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.7-13 in the Master EIR apply (section 4.7.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

SECTION 7.8

Recreation

7.8 Recreation

This section describes the recreation resources that are known to occur within the boundaries of the Remaining Phase 1 sites and evaluates the effects of the Proposed Project and its alternatives on these resources. The project's conformance with the federal and state Wild and Scenic Rivers Acts (WSRAs) is also evaluated.

7.8.1 Affected Environment/Environmental Setting

There are a variety of residential subdivisions, commercial enterprises, and public facilities along the corridor of the Trinity River in the vicinity of the Remaining Phase 1 sites. Developed and dispersed recreation facilities located within, or in close proximity, to the boundaries of the Remaining Phase 1 sites are shown in Figure 7.8-1 and are summarized in Table 7.8-1.

Table 7.8-1. Recreation Facilities in the Vicinity of the Remaining Phase 1 Sites

Developed Recreation	
Trinity River Resort and RV Park	Privately owned facility that provides overnight accommodations (RV and tent camping), restrooms, laundry, convenience store, phone, and recreation area, as well as river access and boat launch ramp.
Rush Creek River Access	BLM-owned river access point that provides public restrooms and trash receptacles.
Bucktail Hole River Access	BLM river access point that provides public restrooms and trash receptacles.
Steel Bridge Day Use Area	BLM-owned river access point that provides public restrooms, picnic tables, and trash receptacles.
Steel Bridge Campground and river access site	BLM-managed campsite that provides overnight and day-use facilities, river access sites, and a primitive boat launch site.
Franks Trinity River Mobile Home and RV Park	Privately owned facility that provides overnight accommodations.
Trinity Island Resort	Privately owned facility that provides overnight accommodations (RV and tent camping).
Douglas City River Access	BLM-owned river access point that provides public restrooms and trash receptacles.
Douglas City Campground	BLM-managed campsite that provides overnight and day-use facilities, river access sites, and a primitive boat launch site.
Dispersed Recreation	
River access sites	There are numerous undeveloped river access sites located within the project boundaries. Situated on both private and public lands, these sites provide fishing access and primitive boat launch sites for rafts, canoes, kayaks, and other watercraft that can be carried to the Trinity River's edge.

7.8.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.8-2 summarizes the potential recreation impacts resulting from implementation of the project.

Table 7.8-2. Summary of Potential Recreation Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.8-1. Construction associated with the project could disrupt recreation activities, such as boating, fishing, and swimming, in the Trinity River.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.8-2. Construction of the project could result in an increased safety risk to recreational users or resource damage to recreational lands within the project boundaries.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.8-3. Construction activities associated with the project could lower the Trinity River's aesthetic value for recreationists by increasing its turbidity.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.8-4. Implementation of the project could affect Wild and Scenic River values.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

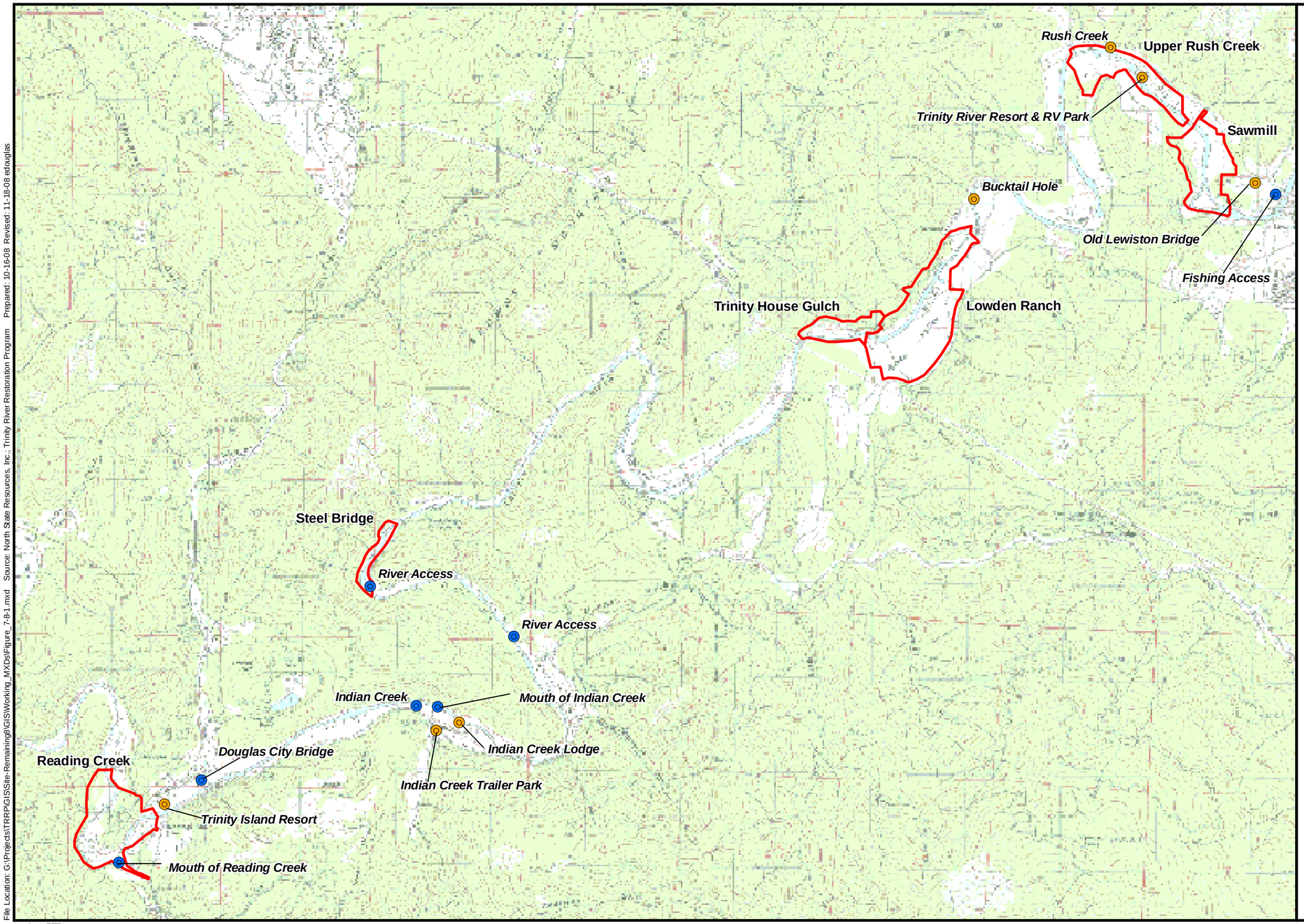
Impact 7.8-1: Construction associated with the project could disrupt recreation activities such as boating, fishing, and swimming in the Trinity River. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no disruption of recreation activities in the Trinity River, such as boating, fishing, and swimming, because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

This impact is evaluated in detail in the Master EIR (section 4.8.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is significant.



Site Boundary

Recreation Access Type

- Developed
- Dispersed

N

1:40,000

3,500 0 3,500

Feet

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7-8-1.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-16-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.8-1
Recreation Sites

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Alternative 1

As discussed in section 4.8, Impact 4.8.1, Alternative 1 is, in general, a reduced activity impact. Under this alternative, all but the SMl site (which would involve the same level of activities under either action alternative) would involve significantly fewer construction activities. As shown in Figures 2.2a-f, the number of crossings would be decreased. Crossings would not be constructed at the UR, LR, and RC sites. In the absence of these river crossings, Alternative 1 would not include construction activities in the uplands and along the bank of the left side of the river at the UR and RC sites. Construction activities would be significantly reduced on the right side of the LR site as well as on the right side of the THG site. Under Alternative 1, the proposed upstream activity areas at the SB site would be eliminated.

Although the footprint of the proposed activity areas would be reduced in each of the sites (with the exception of the SM site), project construction would still have a temporary, but significant impact on recreational activities.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.8-1 in the Master EIR apply (section 4.8.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.8-2: Construction of the project could result in an increased safety risk to recreational users or resource damage to lands within the project boundaries. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no safety risks to recreational users or resource damage to lands within the project boundaries because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Low water river crossings proposed at five of the Remaining Phase 1 sites would be maintained for the duration of construction at each site. These crossings would consist of a gravel pad wide enough to

accommodate construction equipment and vehicles moving from one side of the river to the other. Crossings would be approximately 18 inches below the low-flow water surface (under flows of approximately 300 to 450 cfs) to allow enough freeboard for the safe passage of drift boats, rafts and kayaks. Access to these crossings will be restricted to authorized personnel during construction. Upon completion of construction activities, the pad would be modified to prevent any further use as a vehicle crossing; fluctuations in river flows would be used to disperse the gravel downstream over time.

Steel Bridge Road, which leads into the SB site, is a particularly narrow, winding road that passes through a residential neighborhood. For this reason, the Proposed Project would utilize onsite gravel processing rather than the transport of excavated material through this residential area. While the presence of such an onsite activity could further impede temporary recreational use of this site, it would benefit public safety by minimizing the number of project-related trips via Steel Bridge Road.

All other potential impacts are described in the Master EIR (section 4.8.2). No additional impacts are anticipated. Potential impacts would be temporary, but significant.

Alternative 1

The potential effects of Alternative 1 on recreational users and resources occurring on recreational lands within the project boundaries are similar to those described under the Proposed Project. However, the reduced scope of activities proposed under Alternative 1, including the elimination of in-channel crossings at the UR, LR, and RC sites would reduce the potential hazard to boaters and rafters passing through these sites. In-channel construction activities and the movement of construction equipment and vehicles throughout the project area would continue to pose a safety threat to recreational users.

Under this alternative, gravel would be processed onsite at the SB site and the location, type, and magnitude of activity would be reduced relative to the Proposed Project. There would be no construction activities in the uplands and along the bank of the left side of the river at the UR and RC sites. Construction activities would be significantly reduced on the right side of the LR site as well as on the right side of the THG site. These reductions in project actions would reduce the safety threat to land-based recreationists using these specific portions of the sites, but the overall potential safety hazard to recreationists posed by project activities would remain significant.

This impact would be temporary, but significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.8-2 in the Master EIR apply (section 4.8.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.8-3: Construction activities associated with the project could lower the Trinity River's aesthetic values for recreationists by increasing its turbidity. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1***

No-Project Alternative

Under the No-Project Alternative, turbidity levels in the Trinity River would not increase because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.8.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is temporary, but significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.8-3 in the Master EIR apply (section 4.8.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.8-4: Implementation of the project could affect Wild and Scenic River values. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no adverse impacts to Wild and Scenic River values because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.8.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.9

Socioeconomics, Population, and Housing

7.9 Socioeconomics, Population, and Housing

This section evaluates potential impacts on socioeconomic conditions, population, and housing from implementation of the Proposed Project and its alternatives for the Remaining Phase 1 sites. A detailed discussion of regional socioeconomic conditions, population, and housing is provided in the Master EIR (section 4.9). Information regarding poverty rates and population by race and ethnicity is included in section 4.18, Environmental Justice. Much of the information in this section is derived from Trinity County 2007: Economic and Demographic Profile (Center for Economic Development 2007).

7.9.1 Affected Environment/Environmental Setting

Labor Market, Population, Housing

The labor market, population, and housing discussions in the Master EIR (section 4.9) provide general information that applies to the Remaining Phase 1 project sites.

7.9.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.9-1 summarizes the potential socioeconomic impacts that could result from implementation of the No-Project Alternative, the Proposed Project, and Alternative 1.

Table 7.9-1. Summary of Potential Impacts on Socioeconomics for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
7.9-1. Construction of the project would provide temporary employment opportunities for construction workers in Trinity County.				
No impact	Beneficial	Beneficial	Not applicable[1]	Not applicable[1]
7.9-2. Implementation of the project could result in the disruption or displacement of local businesses.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
7.9-3. Implementation of the project would result in an increased demand for housing during construction.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
7.9-4. Implementation of the project would result in concentrated population growth.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is beneficial or less than significant, no mitigation is required.

Impact 7.9-1: Construction of the project would provide temporary employment opportunities for construction workers in Trinity County. ***No impact for No-Project Alternative; beneficial impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no employment opportunities would be created because the project would not occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

Implementation of both the Proposed Project and Alternative 1 at the Remaining Phase 1 sites would generate temporary construction-related employment in Trinity County. The generation of employment would be a beneficial effect in the local economy, even if the employment is short-lived. The number of design, construction, and clerical positions required to complete the Proposed Project at the Remaining Phase 1 sites is undetermined, but implementation of the rehabilitation activities is expected to add a small percentage to existing local jobs annually for approximately three to five years. The duration of employment would be dependent on the length of the contracting and construction period (anticipated to be approximately six to ten months). Alternative 1 would generate similar types of employment opportunities as the Proposed Project; however, the duration and/or extent of these opportunities for Alternative 1 would be less due to reduced construction activity. Although the Proposed Project and Alternative 1 would provide direct local employment opportunities only if workers are hired from the local labor force, this potential impact would be beneficial.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.9-2: Implementation of the project could result in the disruption or displacement of local businesses. ***No impact for No-Project Alternative, less-than-significant impact for Proposed Project, and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no disruption or displacement of local businesses would take place because the project would not occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

Several existing businesses are located within or directly adjacent to the boundaries of the Remaining Phase 1 sites. However, local businesses in the vicinity of these sites would not be disrupted or displaced by activities associated with either the Proposed Project or Alternative 1. Construction equipment and

vehicle access would not impair access to these local businesses, and business operations would not be impaired. Businesses that operate on the river, such as rafting and fishing guides, would not be able to use certain river access points along the Trinity River for short periods during construction activity at specific sites (i.e., Rush Creek river access, portions of the Steel Bridge Day Use area, and the Douglas City campground). However, Remaining Phase 1 activities would take place over the course of three to five years and would leave the majority of the river access sites in these communities available. Therefore, the impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.9-3: Implementation of the project would result in an increased demand for housing during construction. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project, and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no increased demand for housing during construction would take place because the Proposed Project would not occur. Therefore, there would be no impact.

Proposed Project, Alternative 1

The area surrounding the communities of Lewiston and Douglas City is primarily a rural residential area, and few rental opportunities are available. What rental property does occur in adjacent rural residential areas is typically seasonal rental property available for recreational users. More readily available short-term apartment and single-family rentals are concentrated in the nearby community of Weaverville and, to a lesser degree, Hayfork.

Implementation of either the Proposed Project or Alternative 1 for the Remaining Phase 1 sites would not result in the displacement of any individual from his or her home. A short-term increase in the demand for housing in Weaverville could occur as a result of construction workers seeking lodging during the project staging and construction period (primarily April through October). However, based on the estimated increase in annual employment generated by the project (approximately 20 to 30 persons), this would be a less-than-significant impact, both regionally and locally. In addition to accommodating the short-term demands for housing during previous TRRP rehabilitation projects, the nearby communities have been capable of meeting short-term increases in housing demands resulting from a large influx of fire suppression personnel on a recurring basis. This project would generate a much smaller number of housing needs in comparison to the housing demands generated by wildland fires, and the impact would occur only in the short term. Therefore, the impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.9-4: Implementation of the project would result in concentrated population growth. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project, and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no population increases would occur during or after activities are implemented because the Proposed Project would not occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

Implementation of either the Proposed Project or Alternative 1 for the Remaining Phase 1 sites would require about 20 to 30 individuals at any given rehabilitation site during implementation. Any increase in population would likely occur annually on a seasonal basis. Based on current populations in the local communities, the projected number of workers that could move to the greater Weaverville area would result in a localized increase of less than 1 percent on a periodic basis. This amount would not constitute a significant change in population.

Workers could also be drawn from the local work force, which would further lessen population growth associated with project implementation. Overall, this impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.10

Cultural Resources

7.10 Cultural Resources

This section provides a detailed discussion of cultural resources within the Remaining Phase 1 sites and summarizes the findings of a cultural resources records search and cultural resources report relevant to this area prepared by Reclamation. Section 4.10 describes the prehistory, ethnography, and history of the Trinity River basin in the vicinity of the Remaining Phase 1 sites. It also provides a general context for understanding the importance, origin, and types of cultural resources that are located within the APEs established for the Remaining Phase 1 sites. Specific archaeological details of the Remaining Phase 1 sites are discussed in a confidential report, entitled *Archaeological Investigation of the Remaining Phase I Sites of the Trinity River Restoration Program, Trinity County, California*, Report #08-NCAO-148 (U.S. Bureau of Reclamation 2008). This report is on file at the Bureau of Reclamation, Sacramento, California. The results of this investigation are summarized in this chapter.

7.10.1 Affected Environment/Environmental Setting

Site Assessment

An APE for cultural resources was defined for each Remaining Phase 1 site. The field survey and inventory of the APE, performed by Reclamation archaeologists from July 29–31, 2008, were intended to identify and subsequently evaluate any cultural resources eligible for listing on the National Register of Historic Places (NRHP). Eleven new cultural resource sites were recorded and site CA-TRI-1464H was relocated in the APE established for the SB site. Nine of the newly recorded sites are derived from placer mining; a component of site 08-TRRP-002 is a localized scatter of historic artifacts, and site 08-TRRP-009 is the remains of a river crossing near Lowden Ranch. Table 7.10-1 summarizes the identified cultural resources.

Table 7.10-1. New Cultural Resources Recorded in the APE

Field Number	Site Description
08-TRRP-001	Drag-line dredge tailings near Reading Creek
08-TRRP-002	Ground sluice placer tailings and historic artifacts near Reading Creek
08-TRRP-003	Drag-line dredge tailings near Reading Creek
08-TRRP-004	Drag-line dredge tailings near Reading Creek
08-TRRP-005	Hydraulic mining cut at Sawmill west of Lewiston
08-TRRP-006	Placer tailings at Sawmill west of Lewiston
08-TRRP-007	Drag-line dredge tailings at Sawmill west of Lewiston
08-TRRP-008	Bucket-line dredge tailings at Sawmill west of Lewiston
08-TRRP-009	River crossing near Lowden Ranch in Grass Valley
08-TRRP-010	Drag-line dredge tailings near Lowden Ranch in Grass Valley
08-TRRP-011	Drag-line dredge tailings near Trinity House Gulch in Grass Valley

08-TRRP-001 Reading Bar Drag-line Tailings

This site comprises about 8.8 acres of drag-line dredge tailings near the mouth of Reading Creek. This feature is situated in a slightly crescent-shaped arrangement generally paralleling the Trinity River on the

right bank around the bend. The feature averages 160 feet to 370 feet wide and is about 1,600 feet long, as measured down the long axis. The characteristic drag-line pattern with rows of cone-shaped tailings is visible in various portions throughout the site. The visible rows of the feature are generally oriented perpendicular to the river. The height of the tailings averages between 20 and 25 feet. The center portion of the site has retained the most intact features characteristic of drag-line dredging. The site is about 40 percent overgrown with pine trees, grasses, and blackberries, mostly located in the low points among the tailings. The tailings may be reasonably attributed to the Placer Exploration Company, Viking Dredging Company, and Sunshine Company, which are documented to have operated in this area from about 1939 to the 1940s (California Division of Mines and Geology 1964, Trinity County Historical Society 1974, Jones 1981, U.S. Bureau of Reclamation 2007). Additional details are provided in the confidential site record.

Integrity Considerations

The entire feature is within the APE established for the RC site in close proximity to BLM's Douglas City Campground. The campground was developed around and through the tailings feature. The central portion of the tailings has been flattened in several places and roads have been graded through and around the margins of the site. The western margin of the feature, along the river, shows evidence of erosion from flooding.

08-TRRP-002 Reading Ground Sluice Placer Tailings and Historic Artifacts

This site, characteristic of ground sluice mining, consists of a 2.4-acre area of placer tailings and features within the APE established for the RC site. Ditches, drains, and tailing features (i.e., hand-stacked stones) are located on a terraced hillside with drain outlets along the edge to the lower terrace. The terrace is roughly square, measuring about 400 feet long at the base of the west hillside and about 190 feet long at the southwest terrace margin. From the hillside, the terrace extends southwest about 370 feet to the terrace edge through the center of the site. The excavated area in the hillside measures about 40 feet high on average. The ditches and drains appear to have been constructed to support placer mining activities; features also include stacked stones or bedrock excavations. One feature has a very vertical profile of stacked stones characteristic of a wall. There are four clearly defined drain outlets (ditches) at the terrace edge, into which connect other portions of the water delivery/drainage system. The first ditch (southeast terrace margin nearest the historic artifact scatter) is about 15 feet deep and 15 feet wide, with an opening of about 6 feet at the terrace edge. The second ditch is about 8 feet deep and 8 feet wide. The third ditch is about 10 feet deep by 10 feet wide. The fourth ditch is a 3-way drain that has eroded to look more like a natural drainage, though one opening has a stacked-stone check dam structure. A segment of ditch is located around the base of the terrace below the fourth ditch. The site is moderately overgrown; primarily with conifers, hardwoods, shrubs, and grass. Several trees with diameters in excess of 2 feet were observed within the boundaries of this site.

There is a very localized historic artifact scatter located in a small flat space on the southeastern margin on the terrace edge near the first ditch. Artifacts include fragments of a lap-seam metal can, metal stove pipe (flattened), other metal fragments, a glazed brownware lip and base, painted white porcelain (pink and green floral), an off-white porcelain Chinese bowl base, and milled lumber. The Chinese bowl base

has a partial painted pattern. The lap-seam can is diagnostic to the late 1800s, which would coincide with the adjacent ground sluice placer mining. There is also a lens of broken brownware (dark brown) ceramic shards. The scatter appears to be limited to a surface deposit with no sub-surface deposition. Several artifacts were observed over the edge of the terrace on the slope. The site was moderately vegetated with short grasses growing out of a cobble-gravel matrix with little soil development. Additional details are provided in the confidential site record.

Integrity Considerations

An existing access road cuts through the northwest portion of this site. There is also evidence of grading within the stacked stone piles. Subsequent to the initial placer mining activities, a steep road/trail was constructed to access the lower terrace in the southeast portion of the site and may have destroyed a drain feature. Given the extent of the surrounding mining features, it seems likely that the historic artifacts were deposited around the time placer mining took place at this site. Erosion may have removed historic artifacts on the edge of the terrace.

08-TRRP-003 Poverty (Mud) Bar Drag-line Tailings

The site is composed of a 1-acre area of drag-line dredge tailings within the APE established for the RC site. It is located downstream of the Douglas City Campground on the left side of the river. The tailings are located on an upper terrace downstream of the campground. The conical piles of closely stacked tailings are arranged in parallel rows perpendicular to the river. The rows average about 8 feet high and 8 feet wide and are roughly oriented east-west. The visible tailings cover an area averaging 600 feet long by 200 feet wide. The east side of the feature extends downslope onto a lower terrace that transitions into the floodplain. The west margin of the feature abuts the base of the hill. The tailings may be reasonably attributed to the Placer Exploration Company, Viking Dredging Company, and Sunshine Company, which operated in this area from about 1939 to the 1940s (California Division of Mines and Geology 1964, Trinity County Historical Society 1974, Jones 1981, U.S. Bureau of Reclamation 2007). Additional details are provided in the confidential site record.

Integrity Considerations

Much of the tailings have been mechanically flattened to the west and south. Some grading has also occurred in the northern portion of the site.

08-TRRP-004 Smith Flat Drag-line Tailings

This site consists of a 5.3-acre area of drag-line dredge tailings within the APE established for the RC site. It is located on the left bank upstream of the confluence of the Trinity River and Reading Creek. The cone-shaped piles are arranged in closely stacked, parallel rows that are perpendicular to the river on an elevated terrace. The rows average about 10 feet high by 10 feet wide and range between 40 and 150 feet long. The deposit roughly measures about 230 feet by 170 feet. The southeastern margin of the feature abuts the base of a hill, and the northwest margin extends downslope towards the lower terrace. Ponderosa pine trees ranging from 6 inches to 1 foot in diameter are growing out of the tailings. One 2-foot diameter ponderosa pine was observed growing within the perimeter of the feature. The edges of the

feature are completely vegetated. The tailings may be reasonably attributed to the Placer Exploration Company, Viking Dredging Company, and Sunshine Company, whose operations are documented in this area from about 1939 to the 1940s (California Division of Mines and Geology 1964, Trinity County Historical Society 1974, Jones 1981, U.S. Bureau of Reclamation 2007). Additional details are provided in the confidential site record.

Integrity Considerations

Residential development north and south of this site has likely eliminated the actual extent of the tailings deposit.

08-TRRP-005 Sawmill Hydraulic Cut

This site consists of a 1.5-acre area associated with hydraulic mining within the APE established for the SM site. The hydraulic cut face, adjacent to Lewiston Cemetery Road, is oriented roughly north-south and averages about 770 feet long and 30 feet high. One ditch remnant, measuring about 2 feet deep by 4 feet wide, parallels the cut face on top. Other small ditch remnants are also present. No associated artifacts were observed, only landscape features. This site coincides with the Sulphur Spring Mine patented in 1899 by Virgil M. Chamberlain, who leased the claim to a group of Chinese to conduct hydraulic mining. Chamberlain established the first ranch at the junction of Rush Creek and the Trinity River in 1850, known as the Chamberlain Ranch. The ranch was later bought by Jacob and Louisa Paulsen in 1874 (Jones 1981). Additional details are provided in the confidential site record.

Integrity Considerations

This site has been eroded by run-off over the cut face that has created multiple drainage channels. Construction of a 3-pole power line (oriented east-west) and Rush Creek Road have erased much of the ditch network that likely connected to the uphill portion of the site. Adjacent residential construction has also probably eliminated the actual extent of hydraulic mining at this site.

08-TRRP-006 Sawmill Placer Tailings

This site includes two discernable areas of placer tailings, totaling 2 acres within the APE established for the SM site. The most obvious remnants are in the center of the south (0.3 acre) and north (1.7 acres) portions of a north-south river bar on river right. Given the proximity to the river and site no. 08-TRRP-008, the tailings likely resulted from dredge mining, though it is unclear what kind of dredge produced these tailings. The visible tailings are mounded with no defining features, except for the massive quantity of gravel and cobbles. The tailings may be reasonably attributed to the Gold Bar dredge, operated between 1933 and 1939, undocumented drag-line dredging, or both. Additional details are provided in the confidential site record.

Integrity Considerations

Portions of the SM site have been subjected to previous channel restoration and fish improvement projects. Specifically, the side-channels on the right side of the river were modified extensively over the past several decades to enhance salmon spawning habitat. An east-west constructed channel nearly

bisects the north-south river bar. Roads have been graded around the constructed channel and portions of the river bar have been flattened. Tailings are clearly present, but no longer exhibit characteristics that would identify the type of dredging that produced them.

08-TRRP-007 Sawmill Drag-line Tailings

This site consists of a 1.5-acre area of drag-line dredge tailings within the APE established for the SM site. The tailings deposit is located at a 90-degree bend on a river bar at river right. The visible tailings consist of mostly conical piles 10 to 20 feet high with an average width of about 10 feet arranged in linear rows roughly perpendicular to the river (about NE-SW). Most of the tailings are situated on the southwest tip of the river bar. No drag-line dredges have been documented to have worked in this area. Additional details are provided in the confidential site record.

Integrity Considerations

These tailings have been mined for gravel and otherwise altered by grading as well as flooding. Roads have been graded through the site, and the remnant tailings show evidence that gravel has been mechanically removed.

08-TRRP-008 Sawmill Bucket-line Tailings

The site consists of a 10.5-acre area of bucket-line dredge tailings within the APE established for the SM site. Located on the left side of the river, the tailings deposit is roughly oblong, measuring about 1,000 feet long (slightly northwest to southeast) and 480 feet at the widest point. The tailings average about 35 feet high, have vaguely defined rows roughly oriented north-south, and a weak washboard pattern of closely stacked individual piles. The crest length of the individual piles averages about 20 feet in length. The western margin of the site abuts the hillside, while the western margin looks like it has been flattened, forming a terrace above the floodplain. The tailings may be reasonably attributed to the Gold Bar dredge, which was operational between 1933 and 1939 (Trinity County Historical Society 1974, Jones 1981, U.S. Bureau of Reclamation 2007). Additional details are provided in the confidential site record.

Integrity Considerations

Residential development on the north side has probably eliminated the northern extent of the tailings. Roads have been graded on the sides to access the top of the tailings deposit and continue along the long axis of the site.

08-TRRP-009 Lowden Crossing

This site consists of bridge and road features within the APE established for the THG site, immediately downstream of the LR site. This site extends over an area of about 0.6 acres. A concrete and river cobble formed pier (intact) is located on right side of the river. The pier measures about 20 feet tall, 10 feet wide, and 6 feet thick in the center with vertical iron bands and bolts reinforcing the structure. The pier is roughly diamond-shaped and appears to have been built, in whole or in part, with forms. The structure is composed of stacked cobbles in mortar. Remnants of a possible pier or abutment were observed on the right bank, closer to the river. The base fragments of this second feature appear to be about 10 feet wide

with similar construction. Also on the right bank north of the intact pier is a terrace with two walls. The lower wall is about 8 feet high, 40 feet long, and 2 feet wide and is made of mortared cobbles. This wall has a 4-foot terrace on top and another wall measuring 3 feet high, 40 feet long, and 2 feet wide. The larger terrace on top is roughly square, measuring 65 feet by 90 feet, and is cut into the hillside. The materials for constructing the pier and retaining walls appear to have been locally obtained from a conglomerate outcrop on the north bank of the river near the terrace and existing access road.

A raised road grade is located on the left side of the river and is about 6 feet high and 15 feet wide nearest the river. It is composed of earth and gravels and is overgrown with grasses near the river. Ponderosa pine trees, including a 2-foot-diameter tree, are growing out of the southern portion of the remnant road, which is also densely overgrown by blackberry. A straight line can be drawn along the alignment of the road bed to the pier. The east boundary of the walled terrace is about 40 feet west of this alignment.

It is likely that these are the remains of *Lowden's Crossing* referenced in the General Land Office records. The Trinity County Historical Society had several bridge drawings in their archive identifying Lowden's Crossing. Additionally, General Land Office records illustrate a road and bridge crossing the Trinity River in this general location. Additional details are provided in the confidential site record.

Integrity Considerations

Very few structural remains of a bridge crossing are physically present. After the bridge stopped being maintained, materials were probably scavenged and flood events eroded what remained.

08-TRRP-010 Lowden Drag-line Tailings

This site includes about 6 acres of drag-line dredge tailings within the APEs established for the LR and THG sites. The conical tailings are about 5 to 6 feet high and closely stacked in rows roughly perpendicular (NW-SE) to the river. These rows average between 70 and 100 feet in length, 10 feet tall, and 20 feet wide at their base. There is an L-shaped, densely vegetated drainage that bisects these tailings. There is a round metal culvert that allows water to drain to the river. The tailings south of this drainage cover an area about 490 feet long and 350 feet wide, while those north of the drainage are 380 feet long and 350 feet wide. Two oblong-shaped ponds are located just northeast of this drainage; the larger of the two, approximately 230 feet long by 40 feet wide, abuts the rows of drag-line tailings on the SE side. The smaller pond measures approximately 150 feet long and 25 feet wide. Southeast of the bend in this drainage, there is a single conical pile of tailings that is about 70 feet in diameter and 55 feet tall with conifers growing out of it.

Another set of tailings upstream of the drag-line tailings covers about 1 acre. This feature is arranged in two rows that parallel the river. The rows are about 20 feet high, 40 feet wide, and range in length from 50 to 500 feet long. The tops of the piles have been flattened, and it is unclear if this deposit is a result of drag-line or bucket-line dredging. There are conifers growing out of and adjacent to this feature. The tailings may be reasonably attributed to the Poker Bar Mining Company, operational between 1923 and 1940, and possibly the Gardella Dredge between 1922 and 1925 in the northern portion of the site (Jones

1981, Trinity County Historical Society 1974, O'Brien 1965, U.S. Bureau of Reclamation 2007, U.S. Bureau of Land Management 2008). Additional details are provided in the confidential site record.

Integrity Considerations

An unknown quantity of these tailings appears to have been bladed flat for a road and other purposes. Flattened gravels extend north from the main group of drag-line tailings along the river. The upstream set of tailings has been similarly affected by grading and erosion associated with episodic flooding.

08-TRRP-011 Trinity House Gulch Tailings

This site consists of a 0.2-acre area of remnant drag-line dredge tailings on the right side of the river within the APE established for the THG site. It appears that these tailings were probably more extensive, but have been eroded over time. One area of drag-line dredge tailings measures 4 feet high with an approximate diameter of 8 feet. There are several discernible parallel rows of closely stacked conical piles perpendicular to the river, oriented slightly northeast-southwest. The remnant rows measure between 15 and 40 feet in length. Overall, the visible remains cover a triangular area generally measuring about 200 feet by 160 feet by 170 feet. The visible tailings may be reasonably attributed to the Poker Bar Mining Company, operational between 1923 and 1940 (Jones 1981, Trinity County Historical Society 1974, O'Brien 1965, U.S. Bureau of Reclamation 2007, U.S. Bureau of Land Management 2008). Additional details are provided in the confidential site record.

Integrity Considerations

The evidence of dredge mining seems to have been erased by subsequent grading and flood events. The site is situated entirely within the floodplain.

Steel Bridge Water Works for Union Hill Ditch (CA-TRI-1464H)

A concrete pier on the east bank of the Trinity River was relocated as part of the referenced site (CA-TRI-1464H). This feature is within the APE established for the SB site. The steel bridge water works was recorded as part of the Union Hill Ditch by Trudy Vaughan in 1999. No other features associated with this site remains within the APE. The steel bridge supported an inverted siphon crossing the Trinity River, connecting the Union Hill Ditch from Grass Valley Creek to the Union Hill Mine. The bridge was a 165-foot-long steel span on two concrete piers and wide enough for a 30-inch pipe and a wagon. The bridge was dismantled for scrap during World War II (Jones 1981). One of the bridge piers is still standing within the APE. The bridge complex was recorded as part of site CA-TRI-1464H by Eric W. Ritter in 1991.

Determinations of Eligibility

Reclamation applied the NRHP criteria of evaluation to sites 08-TRRP-001 and 08-TRRP-003 through 08-TRRP-011 pursuant to 36 CFR Part 60 and determined that they were not eligible for listing on the NRHP. Sites 08-TRRP-001 and 08-TRRP-003 through 08-TRRP-011 do not convey a significant association with, nor illustrate, the pattern and type of placer mining that contributed to the economic growth of Trinity County. Site 08-TRRP-002 was determined eligible for listing on the NRHP because

the historic artifacts and associated ground sluice placer mining are diagnostic of a period and type of mining activity related to the settlement and economy of Trinity County in the late 1800s.

08-TRRP-002 Ground Sluice Tailings and Historic Artifacts

Site 08-TRRP-002 has retained integrity of location and design in that the site has experienced little modification since the last episode of mining. The small deposit of historic artifacts with two diagnostic features, a broken Chinese bowl and lap-seam can dating to the late 1800s, is consistent with the period of mining at this site. Site 08-TRPP-002 is a typical example of ground sluice mining associated with the broad patterns of settlement, mining, and economic development in Douglas City and Trinity County. The site is, therefore, eligible under Criterion A. While the site is clearly associated with the historic pattern of ground sluice mining, neither the physical characteristics nor the documented mining on the Trinity River, relate the site to a notable individual or company; therefore, the site is not eligible under Criterion B. The layout of the ground sluice mining with regular drains, channels, and hand-stacked stone features embodies the distinct characteristics of the ground sluicing method of mining. Given the integrity and organization of features, the site is eligible for listing on the NRHP under Criterion C. Site 08-TRRP-002 is located on a steep hillside and appears to have been mostly excavated into bedrock. The historic artifacts appear to be limited to a surface deposit with little or no soil development. It is unlikely that a subsurface component exists at this site. Recording this site in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation has exhausted the information potential. Therefore, this site is not eligible for listing on the NRHP under Criterion D.

Dredge Mining Sites

Sites 08-TRRP-001, 08-TRRP-003, 08-TRRP-004, 08-TRRP-006, 08-TRRP-007, 08-TRRP-008, 08-TRRP-010, 08-TRRP-011 do not demonstrate integrity of design, materials, workmanship, and feeling that would have characterized the sites at the time they were dredged. Gravel mining, flood events, and residential and recreational development subsequent to the last episode of placer mining in the respective APEs have compromised site integrity. Tailings have been removed or graded flat in the course of gravel mining, and residential development has modified their characteristics of depositional form and distribution. Periodic flood events have also physically altered the tailings deposits. Given this lack of integrity, the site is not eligible under Criterion A. While these sites are clearly associated with the historic pattern of dredge mining on the Trinity River that helped shape the economy and development of Trinity County, the sites themselves have no specific characteristics that associate them with that event. Neither the physical characteristics nor the documented mining on the Trinity River specifically relate the tailings at these sites to a notable individual or dredge company (Jones 1981, Trinity County Historical Society 1974, U.S. Bureau of Reclamation 2007). The physical features also do not illustrate how the actual gold recovery process worked. Therefore, the sites are not eligible under Criteria B or C. Given the nature of the tailings deposits and their lack of integrity, these sites have no potential to yield information important to the history of mining on the Trinity River and are, therefore, ineligible under Criterion D (U.S. Park Service 1997).

08-TRRP-005 Sawmill Hydraulic Cut

Much of site 08-TRRP-005 has been destroyed by erosion as well as utility, road, and residential construction since the last episode of hydraulic mining around 1900. This site coincides with a placer mineral patent identified as the Sulphur Spring Mine owned by Virgil M. Chamberlain. The hydraulic mining at this site was a relatively small operation and would have had little importance compared to other such operations along the Trinity River. Therefore, the site is not eligible for listing on the NRHP under Criterion A. Chamberlain leased the claim to a group of Chinese, who conducted hydraulic mining. Chamberlain established the first ranch at the junction of Rush Creek and the Trinity River in 1850, known as the Chamberlain Ranch. The ranch was later bought by Jacob and Louisa Paulsen in 1874 (Jones 1981). Chamberlain does not stand out as an important person in history, nor is there evidence documenting the contribution of Chinese miners to the development of mining. Therefore, the site is not eligible for listing on the NRHP under Criterion B. The hydraulic mining at site 08-TRRP-005 is neither unique nor illustrates the process of gold recovery using hydraulic techniques. Therefore, the site is not eligible for listing on the NRHP under Criterion C. The methods and techniques of hydraulic mining are well documented, and there is no additional information that this site can add to the existing body of knowledge. Recording this site in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation has exhausted the information potential. Therefore, the site is not eligible for listing on the NRHP under Criterion D.

08-TRRP-009 Lowden Crossing

Site 08-TRRP-009 does not demonstrate integrity of design, materials, workmanship, and feeling that would have characterized the site when it was built and subsequently utilized and maintained. The site consists of a bridge footing and a portion of raised road bed that mark the location identified as "Lowden's Crossing" in the General Land Office, Trinity County Courthouse, and Trinity County Historical Society records. While it is associated with the first wagon road in the county, it does not retain the structural features and characteristics associated with that early river crossing. Therefore, the site is not eligible for listing under Criterion A. William Lowden, who built the bridge and wagon road, was a prominent person who significantly contributed to the survey and development of transportation in Trinity County. Even though the bridge can be reasonably associated with Lowden, very little of the physical bridge remains intact and it cannot be directly associated with Lowden. Therefore, the site is not eligible for listing on the NRHP under Criterion B. The bridge pier and raised road grade do not constitute an architectural example of the form and function characteristic of an early bridge crossing the Trinity River and is not eligible for listing on the NRHP under Criterion C. Given that there are so few physical remains left of the bridge crossing, the site has no potential to yield information important to the development of transportation in Trinity County. Recording this site in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation has exhausted the information potential. Therefore, the site is not eligible for listing on the NRHP under Criterion D.

CA-TRI-1464H Steel Bridge Water Works for Union Hill Ditch

The Union Hill Ditch/Steel Bridge Water Works was determined eligible for listing on the NRHP through a consensus determination with the State Historic Preservation Officer in 1999.

7.10.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.10-2 summarizes the potential cultural resource impacts resulting from construction and operation of the project.

Table 7.10-2. Summary of Potential Cultural Resources Impacts for the No-Project Alternative, the Proposed Project and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.10-1: Implementation of the proposed project could cause a substantial adverse change in the significance of a known cultural resource.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.10-2: Implementation of the proposed project could potentially result in disturbance of undiscovered prehistoric or historic resources.				
No impact	Potentially significant	Potentially significant	Less than significant	Less than significant

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.10-1: Implementation of the proposed project could cause a substantial adverse change in the significance of a known cultural resource. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no effects on cultural resources. Therefore, there would be no impact.

Proposed Project and Alternative 1

Implementation of either the Proposed Project or Alternative 1 would not adversely affect historic properties pursuant to 36 CFR Part 800.5(b). As previously discussed, the APEs were surveyed for the presence of cultural resources. Eleven new cultural resources were recorded, and site CA-TRI-1464H was relocated. Given that the proposed river restoration activities, test pits, and piezometer installation within the APEs established for the SB and RC sites will not affect the remaining concrete pier of site CA-TRI-1464H or the placer mining features and historic artifacts at site 08-TRRP-002, there will be no adverse affects to historic properties from the proposed river restoration activities. Any impacts associated with the Proposed Project or Alternative 1 would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts have been identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.10-2: Implementation of the proposed project could potentially result in disturbance of undiscovered prehistoric or historic resources. ***No impact for No-Project Alternative; potentially significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no effects on cultural resources because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

In the unlikely event that any cultural resources or human remains are encountered during project implementation, all work in the area of the find will halt and Reclamation's Regional Archeologist will be immediately notified. Reclamation will follow the stipulations of the Programmatic Agreement for compliance with the National Historic Preservation Act. If the discovery is determined to be a historic property that would be adversely affected by the rehabilitation activities, Reclamation will resolve the adverse affect by preparing a Historic Property Treatment Plan (HPTP) in accordance with Section III(d) of the Programmatic Agreement. If human remains are discovered and identified as Native American, they will be treated according to provisions set forth in Section IV of the Programmatic Agreement as well as the Native American Graves Protection and Repatriation Act. Any such impact related to the Proposed Project or Alternative 1 would be potentially significant.

Mitigation Measures

No-Project Alternative

No significant impacts have been identified; therefore, no mitigation is required.

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.10-2 apply (section 4.10.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

SECTION 7.11

Air Quality

7.11 Air Quality

This section evaluates the air quality impacts associated with implementation of the No-Project Alternative, Proposed Project, and Alternative 1 for the Remaining Phase 1 sites. Air emissions from project activities are measured against federal and state standards.

7.11.1 Affected Environment/Environmental Setting

Climate and Topography

Climate and topography in the vicinity of the Remaining Phase 1 sites are discussed in detail in the Master EIR (section 4.11.1). As discussed in section 4.11, specific local ambient air quality data is not available for Lewiston or Douglas City. However, ambient air quality data is available from the Weaverville air monitoring station, which is located approximately 6 miles from the Remaining Phase 1 sites.

The Lewiston and Douglas City community plans note that air quality in these communities is generally good. According to these community plans, current commercial use and vehicle emissions do not significantly affect the overall air quality in Lewiston or Douglas City. However, certain activities, such as slash burning, fire wood burning, driving on dirt roads, and wildland fires, cause temporary declines in air quality in the Lewiston and Douglas City communities (Trinity County 1986,1987).

7.11.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.11-1 summarizes the potential air quality impacts that would result from the No-Project Alternative, the Proposed Project, and Alternative 1.

Table 7.11-1. Summary of Potential Air Quality Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
7.11-1. Construction activities associated with the project could result in an increase in fugitive dust and associated particulate matter (PM_{10} and $PM_{2.5}$) levels.				
No impact	Significant	Significant	Less than significant	Less than significant
7.11-2. Construction activities associated with the project could result in an increase in construction vehicle exhaust emissions.				
No impact	Significant	Significant	Less than significant	Less than significant

Table 7.11-1. Summary of Potential Air Quality Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
7.11-3. Construction activities and removal of vegetation associated with the project could result in vegetative materials that managers will decide to burn.				
No impact	Significant	Significant	Less than significant	Less than significant
7.11-4. Construction and transportation activities associated with the project could result in an increase of greenhouse gas emissions and effects on climate change.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
7.11-5. Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences and schools.				
No impact	Significant	Significant	Less than significant	Less than significant

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.11-1: Construction activities associated with the project could result in an increase in fugitive dust and associated particulate matter (PM_{10} and $PM_{2.5}$) levels. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1***

No-Project Alternative

Under the No-Project Alternative, there would be no construction-related increase in fugitive dust and associated particulate matter levels because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

This impact is evaluated in detail in the Master EIR (section 4.11.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.11-1 apply (section 4.11.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.11-2: Construction activities associated with the project could result in an increase in construction vehicle exhaust emissions. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no increase in construction vehicle exhaust emissions would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.11.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.11-2 apply (section 4.11.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.11-3: Construction activities and removal of vegetation associated with the project could result in vegetative waste materials that managers may decide to burn. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no vegetative waste materials that would need to be burned because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.11.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.11-3 apply (section 4.11.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.11-4: Construction and transportation activities associated with the project could result in an increase of greenhouse gas emissions and effects on climate change. ***No Impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

Transportation and construction activity associated with implementation of the Proposed Project would generate GHG emissions from diesel- and gasoline-powered vehicles and equipment. Burning vegetation would also emit CO_2, which is a GHG. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the combustion of fossil fuels. Use of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 38 percent of the total GHG emissions in the state (California Environmental Protection Agency Climate Action Team 2006). A byproduct of fossil fuel combustion is CO_2.

In order to determine the significance of the impact, a "carbon foot-print" was estimated based on the Proposed Project's generation of GHGs (primarily CO_2) at the Remaining Phase 1 sites. Project activities that would offset potential impacts were weighed into the equation. The following quantities of combustible fuel and vegetation disturbance were used to determine the carbon foot-print: an average of

285 gallons/day of diesel fuel would be used by construction equipment[1] and a total of 212 acres of vegetation could be removed. It would take approximately 140 days to complete construction activities for the Remaining Phase 1 sites.

Based on these estimates, the Proposed Project would produce approximately 3 metric tons of CO_2 per day over the life of the project. Total GHG emissions resulting from the Remaining Phase 1 activities would be approximately 424 metric tons of CO_2.[2] Vegetation replanting and natural re-seeding within the existing riparian area would offset approximately 4 metric tons of CO_2 over a five-year period. Additionally, project activities may result in opportunities to increase the amount of riparian and upland vegetation.

Based on the above calculations, which estimate the project's carbon emission, the Proposed Project would not generate significant increases in GHGs or an ongoing increase in the demand for off-site energy production because there would be no new facilities constructed. While the project's GHG emissions associated with the use of heavy equipment would be measurable over the course of the project, GHG emissions would be similar to the types of construction and forest management activities that take place on a reoccurring basis throughout Trinity County and would not result in a significant increase in the GHG level in the atmosphere nationally or globally. This impact would be less than significant.

GHG emissions associated with Alternative 1 would be less than that generated by the Proposed Project because less construction activity would occur and, therefore, less combustion associated with engines, possibly less vegetation burning, and less project generated transportation. The following quantities of combustible fuel and vegetation disturbance were used to determine the carbon foot-print for Alternative 1: an average of 285 gallons/day of diesel fuel would be used by construction equipment and an average of 29 acres of vegetation could be removed per site. It would take approximately 120 days to complete construction activities for Alternative 1.

Based on the above estimates, Alternative 1 would produce approximately 85 percent of the GHG emissions produced by the Proposed Project. Total GHG emissions resulting from Alternative 1 would be approximately 360 metric tons of CO_2. Vegetation replanting and natural re-seeding would offset the total project GHGs emissions by approximately 3 metric tons of CO_2. Based on the above calculations, which estimate the project's carbon emission, Alternative 1 would not generate significant increases in GHG or an ongoing increase in the demand for off-site energy production because there would be no new facilities constructed. Similar to the Proposed Project, the impact of Alternative 1 relative to GHG and effects on climate change would be less than significant.

[1] The amount of fuel used by the project is based on operating three of the six pieces of heavy equipment, which have an average fuel consumption of 95 gallons per day. Types of heavy equipment used for construction activities would include a 321 excavator, D7 dozer, 325 off road dump truck, 627 scraper, 966 loader, and 160H motor grader.

[2] The mobile combustion CO_2 Emissions Calculation Tool was used to calculate GHG emissions for combust ble fuel (Greenhouse Gas Protocol Initiative 2005), and the Construction Carbon Calculator was used to calculate GHG emissions for vegetation loss (BuildCarbonNeutral 2007). The calculation is based on 23 days of construction per site as estimated for the Remaining Phase 1 sites and includes diesel fuel combustion and loss of vegetation.

Mitigation Measures

No-Project Alternative, Proposed Project, Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.11-5: Construction activities would generate short-term and localized fugitive dust, gas, and diesel emissions, and smoke that could affect adjacent residences and schools. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction or transportation activities would occur because the project would not be implemented. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.11.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is significant.

Mitigation Measures

No-Project Alternative

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.11-5 apply (section 4.11.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

SECTION 7.12

Aesthetics

7.12 Aesthetics

This section describes the aesthetic values and visual resources that are known to occur within the Remaining Phase 1 site boundaries and evaluates the effect that the Proposed Project and its alternatives could have on these values and resources.

7.12.1 Visual Assessment Process

The assessment process used to evaluate the visual environment is described in the draft Master EIR (section 4.12.1).

Viewshed

Visual assessment units (VAUs) within the boundaries of the Remaining Phase 1 site have been defined based on visibility from surrounding homes or public access areas along Rush Creek Road, Sawmill Road, Goose Ranch Road, Browns Mountain Road, Lewiston Road, Steel Bridge Road, Riverview Road, and Steiner Flat Road. These VAUs are representative of visually sensitive resources associated with the rehabilitation sites. Thirty nine discrete key observation points[1] (KOPs) (some including multiple aspects) were established within 13 distinct VAUs distributed across the six Remaining Phase 1 sites.

Light and Glare

Factors that contribute to light and glare are discussed in the draft Master EIR (section 4.12.1).

Viewer Groups

The Remaining Phase 1 sites are subject to the perceptions of the following three distinct viewer groups (described in the Master EIR, section 4.12.1): motorists, residents, and recreationists.

7.12.2 Affected Environment/Environmental Setting

Visual Environment of the Remaining Phase 1 Sites

The locations and boundaries of the Remaining Phase 1 sites are illustrated in Figure 1-2. These sites, which are in some cases contiguous and in others separated by several miles, are integral to the rehabilitation efforts of the TRRP. The visual character of these sites as a whole is typified by the river channel, bordered by bands of riparian vegetation interspersed between homes, businesses, and, occasionally, deposits of dredge tailings. The riparian vegetation transitions to upland vegetation (e.g., annual grassland and Klamath mixed conifer) as the viewer moves away from the river. Views of the river within the site boundaries are limited by vegetation stringers; residential, commercial, and recreational development; river meanders; and the distance of most area roads from the floodplain.

Although none of the Remaining Phase 1 sites are visible from either of the two scenic byways that pass through Trinity County (SR 299 and SR 3), most are adjacent to county roads, such as Lewiston Road and

[1] Points from which the project boundary or portions thereof are visible from sensitive receptor areas such as major travel routes and/or surrounding homes.

Rush Creek Road. Residential, and to some extent commercial, development exists along these roads. Other county and private roads provide access to residential developments in the communities of Lewiston and Douglas City. These roads offer varying degrees of river views, and many of the homes in these communities have unobstructed views of the river, including homes within and adjacent to the Remaining Phase 1 sites. From the river, portions of each site can be seen, although views from the river may vary dramatically due to changes in flow and seasonal variation in vegetation. The following paragraphs provide a brief characterization of the aesthetic resources associated with each site.

Sawmill

From the right bank of the Trinity River, the SM site is one of the least publicly visible of the Remaining Phase 1 sites. Access to the site from the right bank is made via Old Cemetery Road, a single-lane gravel roadway that terminates on CDFG lands. Dense upland and riparian vegetation obscure any views of the river from the road and parking area, and views of the river from access trails are limited by vegetation and topography. A footbridge located along one of the trails crosses over a constructed side-channel.

Views of this site from the left bank of the river, however, dominate the fore- and mid-ground landscape when seen from Goose Ranch Road. This road is elevated above the river, and numerous openings in the roadside vegetation afford motorists brief panoramic views of the upper half of the site. While there are a few homes situated adjacent to Goose Ranch Road near the upstream end of the site, views looking downstream into this site are limited by vegetation and topography. The portion of the site visible from Goose Ranch Road is not visible from any adjacent homes.

Upper Rush Creek

The UR site is a highly visible location. With relatively few trees between the Trinity River and Rush Creek Road, motorists, residents, and recreationists can see much of the river from the right bank. Numerous homes, an RV park, and a BLM river access area occur between Rush Creek Road and the right bank of the river within and adjacent to the site boundary.

Views of the UR site from the left bank are somewhat limited by vegetation and topography. Several tertiary roads and private driveways extend off of Goose Ranch Road and lead towards the river. Aside from a few homes that front the river bank, most homes along the left side of the river do not have views of the UR site.

Lowden Ranch

The LR site is one of the more publicly visible sites, primarily due to its large size. Although the river channel itself is somewhat obscured from the view of motorists using Lewiston Road, the large meadow that makes up most of the site is highly visible and dominates the landscape. Views from the right bank of the river are limited by dense vegetation and topography, and access to the right bank is limited to Browns Mountain Road, upslope of the site. Several homes along Browns Mountain Road have varying degrees of river views encompassing this site, ranging from unobstructed and wide-ranging to narrow glimpses.

A public trail used by pedestrians and equestrians provides access to much of the LR site. The trail begins at a public parking area on DWR land adjacent to Lewiston Road and provides access to the river near the confluence of Grass Valley Creek. It follows the river upstream before crossing the dredge tailings and the meadow, eventually looping back to the parking area.

Trinity House Gulch

The THG site is one of the more remote, less accessible Remaining Phase 1 sites. Browns Mountain Road, on the right side of the Trinity River, provides the only public access to this site. Views from this road are limited due to steep topography and dense vegetation. A small number of homes on the left bank of the river have partial views of portions of this site.

Steel Bridge Day Use

The SB site is located within a narrow canyon of the Trinity River that contains a number of residences along Steel Bridge Road on the left side of the river. The site is within a day use recreation area managed by the BLM that provides for parking, river access, and picnicking. Isolated, but dense stands of riparian vegetation occur between the parking area and the river. Several nearby homes are adjacent to the site, with views that look directly into the site. There are no residences upstream of the day use area; however, Steel Bridge Road continues upstream to a BLM campground near the end of the road. Steep canyon walls form the right bank of the river; there are no homes, roads, or vehicular access on the this side.

Reading Creek

Despite its close proximity to the community of Douglas City, the RC site is fairly remote and the private parcels within the site restrict public access, primarily on the left bank. Two public recreational areas are located in this site along the right side of the river. The Douglas City Campground, an improved tent/trailer camping and group picnic area, and the primitive Douglas City River Access are both operated by the BLM. The Douglas City Campground is situated upslope of the river, and most views of the river are obscured by trees and topography. The river bends sharply as it passes through this site, and portions of the channel can be viewed only from the bank or within the channel itself. Recreationists accessing the river from the campground have opportunities for extended views of the channel and adjacent dredger tailings. Similarly, the Douglas City River Access, which allows for undeveloped campsites along the river and in the surrounding uplands, affords the same scenic views as those seen by users accessing the area from the campground or the river (boaters).

Little of the downstream portion of the site is visible from the adjacent Steiner Flat Road due to topography and vegetation. Parts of the upstream end of the RC site can be seen from Frank's Trinity River Mobile Home Park located at the end of Riverview Road. Views of the river from the left bank are limited to boaters and a few homes along the adjacent uplands.

Visual Assessment Units and Key Observation Points

VAUs, areas of distinct visual character within the viewshed, provide a framework for comparing the visual effects of a proposed project. Within each VAU, KOPs were established along commonly traveled routes or other likely observation points from which a representative group (residents, recreationists, or

motorists) could view the proposed rehabilitation sites. Locations of VAUs and KOPs are shown on Figures 7.12-1a-f. Table 7.12-1 provides a brief description of the KOPs, and photographs taken from each KOP are included as Appendix M.

Table 7.12-1. Key Observation Points

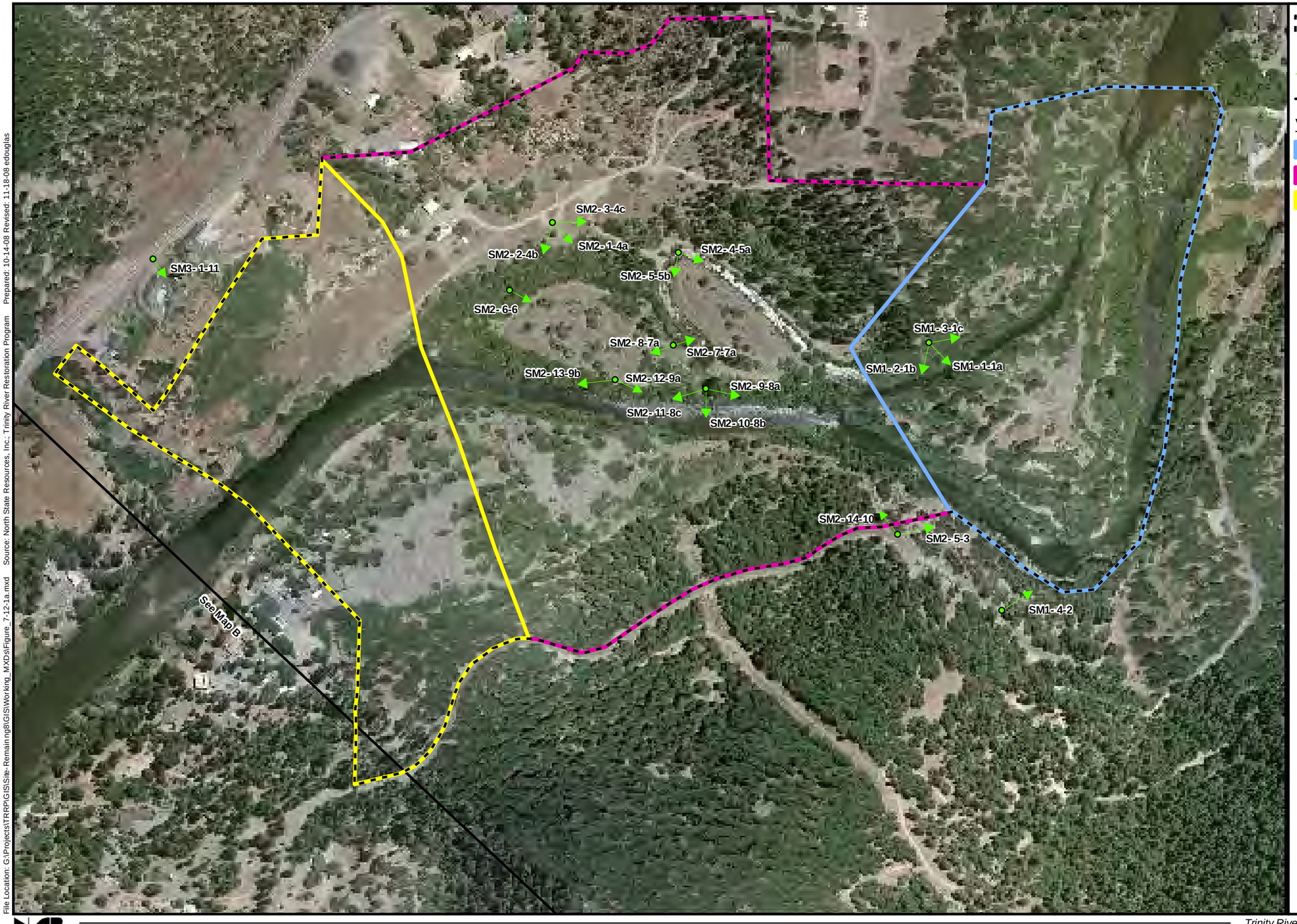
VAU	KOP	Photo	Description of Key Observation Points
Sawmill (see Figure 7.12-1a)			
SM1	1	1a	View from river right, looking southwest toward river.
SM1	2	1b	View from river right, looking west toward river.
SM1	3	1c	View from river right, looking south toward river.
SM1	4	2	View of the Sawmill site looking upstream from Goose Ranch Road.
SM1	5	3	View of the Sawmill site looking upstream from Goose Ranch Road.
SM2	1	4a	View looking southwest toward river from the Sawmill site parking area.
SM2	2	4b	View looking west toward river from the Sawmill site parking area.
SM2	3	4c	View looking south toward river from the Sawmill site parking area.
SM2	4	5a	View of oxbow, looking downstream.
SM2	5	5b	View of oxbow, looking upstream.
SM2	6	6	View of oxbow from the footbridge.
SM2	7	7a	View from left bank, looking at island created by oxbow.
SM2	8	7b	View looking west from left bank of oxbow.
SM2	9	8a	View upstream from right bank of river, south of the power line crossing.
SM2	10	8b	View across river from right bank of river, south of the power line crossing.
SM2	11	8c	View downstream from right bank of river, south of the power line crossing.
SM2	12	9a	View upstream from right bank of river, north of the power line crossing.
SM2	13	9b	View downstream from right bank of river, north of the power line crossing.
SM2	14	10	View of the Sawmill site looking downstream from Goose Ranch Road.
SM3	1	11	View towards river from Rush Creek Road.

Table 7.12-1. Key Observation Points

VAU	KOP	Photo	Description of Key Observation Points
Upper Rush Creek (see Figure 7.12-1b)			
UR1	1	12	View towards river from Rush Creek Road at downstream end of rehabilitation site near Upper Rush Creek site boundary.
UR1	2	13	View towards river from residences east of the Trinity River Lodge RV Park.
UR1	3	14	View towards river from the Trinity River Lodge RV Park.
UR2	1	15a	View upstream from the BLM Rush Creek River Access.
UR2	2	15b	View across river from the BLM Rush Creek River Access.
UR2	3	15c	View downstream from the BLM Rush Creek River Access.
UR3	1	16	View from Rush Creek Road near downstream end of rehabilitation site.
UR3	2	17a	View upstream from end of Partridge Lane.
UR3	3	17b	View across river from end of Partridge Lane.
UR3	4	17c	View downstream from end of Partridge Lane.
Lowden Ranch (see Figure 7.12-1c)			
LR1	1	18	View downstream from Bucktail Road near Salmon Drive.
LR2	1	19	View from Browns Mountain Road at Mountain Springs Road intersection.
LR2	2	20	View from west side of residence on Browns Mountain Road.
LR2	3	21	View upstream from Browns Mountain Road at downstream end of rehabilitation site near Trinity House Gulch site boundary.
LR2	4	22a	View looking south from Lewiston Road near north end of rehabilitation site.
LR2	5	22b	View looking west from Lewiston Road near north end of rehabilitation site.
LR2	6	23a	View looking north from the Lowden Ranch Trailhead.
LR2	7	23b	View looking west from the Lowden Ranch Trailhead.
LR2	8	24	View looking north from the Lowden Ranch Trail, west of trailhead parking area.
LR2	9	25	View looking east from the Lowden Ranch Trail near downstream end of rehabilitation site.
LR2	10	26	View of the Lowden Ranch Trail near downstream end of rehabilitation site at point where trail parallels left bank of river.
LR2	11	27a	View looking downstream from the Lowden Ranch Trail river access near downstream end of rehabilitation site.

Table 7.12-1. Key Observation Points

VAU	KOP	Photo	Description of Key Observation Points
LR2	12	27b	View looking upstream from the Lowden Ranch Trail river access near downstream end of rehabilitation site.
LR2	13	28	View of dredger tailings from the Lowden Ranch Trail near downstream end of rehabilitation site.
LR2	14	29	View from gate near ponds, west of trailhead parking area.
Trinity House Gulch (see Figure 7.12-1d)			
THG1	1	30	View from Browns Mountain Road.
THG1	2	31	View from Browns Mountain Road.
THG1	3	32	View from Browns Mountain Road.
THG1	4	33	View from residence at end of Wellock Road.
Steel Bridge Day Use (see Figure 7.12-1e)			
SB1	1	34a	View from left bank of river, looking upstream at the day use area.
SB1	2	34b	View from left bank of river, looking downstream at the day use area.
SB1	3	34c	View from left bank of river, looking across river at the day use area.
SB1	4	35a	View from left bank of river near upstream end of rehabilitation site, looking upstream.
SB1	5	35b	View from left bank of river near upstream end of rehabilitation site, looking downstream.
SB1	6	35c	View from left bank of river near upstream end of rehabilitation site, looking south.
Reading Creek (see Figure 7.12-1f)			
RC1	1	36	View of upstream end of rehabilitation site from Frank's Trinity River Mobile Home Park.
RC3	1	37a	View from right bank of river south of the BLM Reading Creek Campground, looking south.
RC3	2	37b	View from right bank of river south of the BLM Reading Creek Campground, looking downstream.
RC3	3	37c	View from right bank of river south of the BLM Reading Creek Campground, looking upstream.
RC3	4	38a	View looking upstream at river bend.
RC3	5	38b	View looking across river at river bend.
RC4	1	39a	View looking upstream from BLM river access near downstream end of rehabilitation site.
RC4	2	39b	View looking downstream from BLM river access near downstream end of rehabilitation site.



Site Boundary (103.421 acres)
KOP Point
Direction of View
Matchline

Visual Assessment Unit

SM1
SM2
SM3

N

1:3,600

300 0 300
Feet

File Location: G:\Projects\TRRPG\S\Site-Remaining\GIS\Working_MXDs\Figure_7-12-1a.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1a
Sawmill - VAUs and KOPs

Site Boundary (92.274 acres)
KOP Point
Direction of View
Matchline

Visual Assessment Unit

UR1
UR2
UR3

N

1:4,200

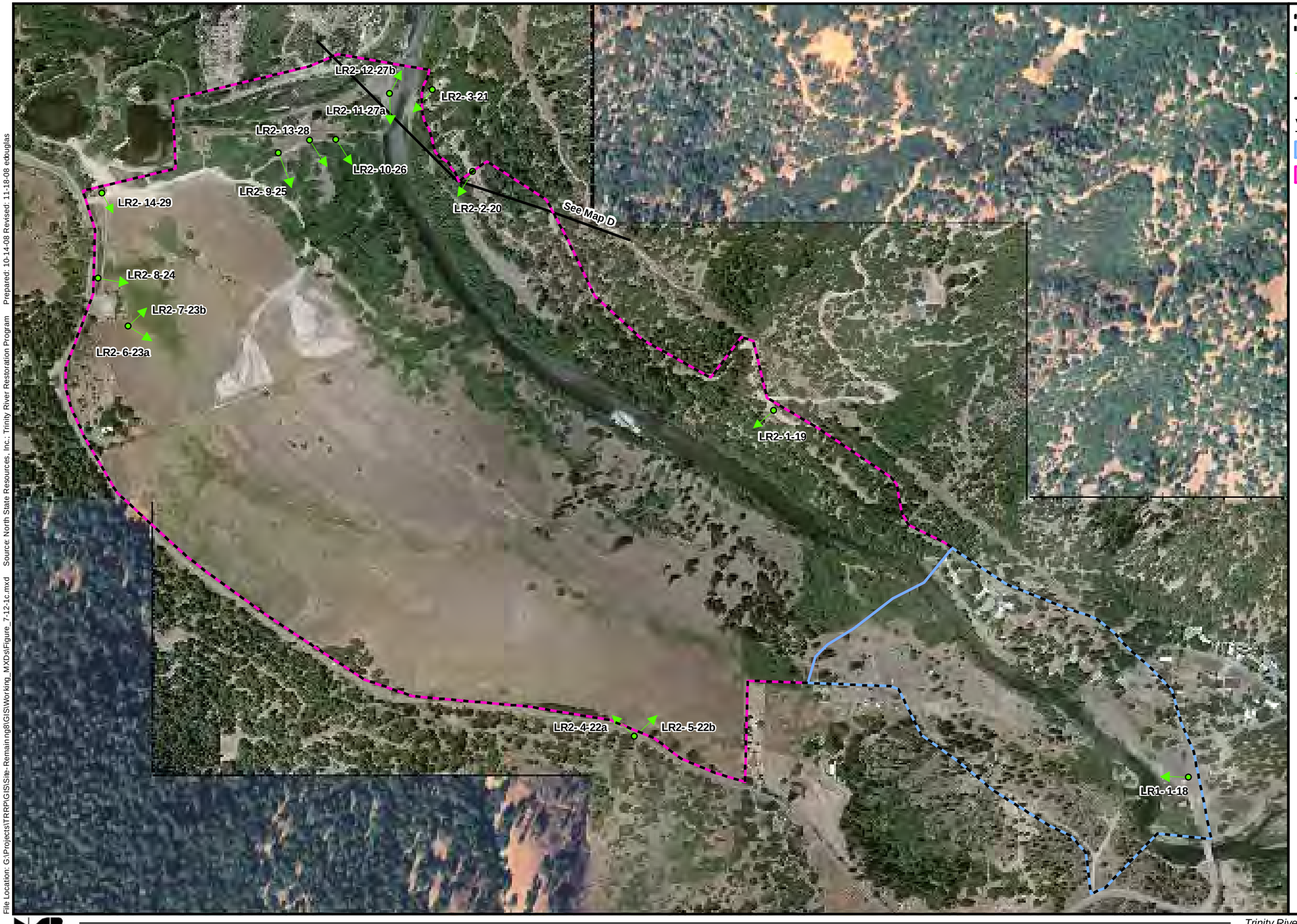
350 0 350
Feet

File Location: G:\Projects\TRRP\GIS\Site- Remain ng\GIS\Working_MXDs\Figure_7.12-1b.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1b
Upper Rush Creek - VAUs and KOPs



Site Boundary (211.769 acres)

KOP Point

Direction of View

Matchline

Visual Assessment Unit

LR1

LR2

N

1:5,400

450 0 450

Feet

File Location: G:\Projects\TRRPG\S\Site-Remaining\GIS\Working_MXDs\Figure_7-12-1c.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1c
Lowden Ranch - VAUs and KOPs

Site Boundary (43.695 acres)
KOP Point
Direction of View
Matchline

Visual Assessment Unit

THG1

N

1:3,000

250 0 250
Feet

File Location: G:\Projects\TRRP\GIS\Site-Remain ng8\GIS\Working_MXDs\Figure_7-12-1d.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 eduglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1d
Trinity House Gulch - VAUs and KOPs

Site Boundary (22.475 acres)
KOP Point
Direction of View
Matchline

Visual Assessment Unit

SB1

N

1:2,400

200 0 200
Feet

File Location: G:\Projects\TRRP\GIS\Site-Remaining\Working_MXDs\Figure_7-12-1e.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1e
Steel Bridge Day Use - VAUs and KOPs

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7-12-1f.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-14-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.12-1f
Reading Creek - VAUs and KOPs

Following is a discussion of the VAUs and associated KOPs that have been identified for the proposed activity areas.

Sawmill

VAU SM1

VAU SM1, located at the extreme upstream end of this site, begins approximately 0.5 mile downstream of the Old Lewiston Bridge. This VAU includes both the mainstem Trinity River channel and a constructed side-channel that are visible from Goose Ranch Road to varying degrees. This VAU was established based on the visibility of in-channel activities proposed on the right bank of the river. Construction activities on the in-channel island (including new roads, excavation, recontouring, and vegetation removal) and the staging areas on the right bank of the river would be apparent from KOPs 4 and 5 (photos 2 and 3). Homes at the extreme upstream end of this VAU may have limited views of activity areas X-4 and IC-1. In-channel recreationists such as rafters will have unobstructed views of much of the R-1 through R-5 and IC-1 through IC-8 activity areas.

In order to observe project activities taking place in VAU SM1 from the right bank of the river, a viewer would have to walk onto the site. KOPs 1 through 3 (photos 1a through c) illustrate the density of riparian vegetation common to the Trinity River and, specifically, to this VAU. Much of the upland and adjacent riparian vegetation on the right bank of the river in this VAU would remain intact. Its presence would also block views of the activity areas from nearby roads and the Old Lewiston Bridge RV Park located east of the VAU.

VAU SM2

VAU SM2 consists of the portion of the SM site most easily accessed by the public. This VAU is adjacent to Old Cemetery Road and includes a parking area from which recreationists can walk into the site. From the public stretch of Old Cemetery Road, direct views of the river are obscured by dense riparian vegetation and topography. Activity areas U-2 and C-1 would be prominently visible from the public access parking area as well as the adjacent private home located on the east side of Old Cemetery Road.

Beyond activity areas C-1, C-2, and, further down the river access trail, C-3, those walking onto the site would first encounter the constructed side-channel that meanders along the right side of the floodplain before reentering the main-stem channel. As illustrated by KOPs 1 through 3 (photos 4a through c), which fall within activity areas C-3, R-8, and X-1, activities will be readily apparent from this general location. Similar to VAU SM1, the upper half of VAU SM2 is visible from Goose Ranch Road (KOP 10 (photo 8b)); however, aside from a glimpse when heading west, the lower portion of VAU SM2 cannot clearly be seen by motorists traveling on Goose Ranch Road.

Proposed activities on the left side of the river would be shielded from the view of most viewer groups by surrounding topography and vegetation. Recreationists passing through the area while rafting or fishing would see activity areas IC-9 through IC-11 and portions of activity areas R-10, C-5, and C-13.

VAU SM3

VAU SM3 (KOP 1 (photo 11)) illustrates the view of the downstream end of the SM site from Rush Creek Road. Topography, vegetation, and distance from the river obscure views of the river and proposed activity areas from this location.

Upper Rush Creek

VAU UR1

Several homes and a commercial RV park (Trinity River Lodge RV Park) located on the south side of Rush Creek Road (river right) have unobstructed views of most of VAU UR1 (see KOPs 1 and 2 (photos 12 and 13)). In addition, Rush Creek Road decreases in elevation as it passes by this VAU, allowing motorists traveling in either direction relatively unobstructed views of the unit. The proposed location of activity area U-1, immediately adjacent to Rush Creek Road, and use of the road shoulder for activity area C-17 would make these areas highly visible to motorists and homes within VAU UR1. Retention of a vegetation buffer between activity areas U-1 and C-17 and activity areas R-1 and R-2 would obstruct most views of construction from the road and nearby homes. Farther downstream, views of these areas from Trinity River Lodge and RV Park would also be buffered by vegetation, although use of an existing access road at the east end of the park for construction access would expose some homes and guests to construction traffic during project implementation. Only a few homes, located on the left bank of the river, have views of the channel and right bank, though these views are limited by vegetation and topography.

Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

VAU UR2

VAU UR2 includes a BLM river access/boat launch facility with a public restroom and parking area on the right bank of the river. Activity areas C-6, C-7, C-9, and U-2 are within or adjacent to this facility, and activity areas IC-2, IC-3, and R-4 are in close proximity to this facility. Views of the channel from this location, both up- and downstream, are only marginally obstructed by riparian vegetation along the bank (see KOPs 1 and 3 (photos 15a and 15c), respectively). Motorists passing by this reach of the river on the adjacent Rush Creek Road can also clearly view the channel from either direction.

A home located on the left bank, opposite the BLM river access, looks out onto the river. Up- and downstream views from this location are somewhat limited by riparian vegetation and topography. However, use of existing roads C-1, C-12, and C-13 would cause construction traffic to pass through residential areas on the left side of the river.

The river channel makes a gradual bend to the left through VAU UR2, and a series of oxbows and inlets that extend into VAU UR3 have been constructed along the left bank. Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

VAU UR3

VAU UR3 is situated at the downstream end of the Upper Rush Creek site. The river through this VAU bends sharply away from Rush Creek Road and river views from the roadway decrease as the distance from the river increases. Several homes adjacent to the site boundary along the right bank have varying views of the channel, depending on vegetation and aspect. KOP 1 (photo 16) illustrates the view of VAU UR3 available to homes upslope from the right bank of the river relative to activity areas R-5 and IC-4. Activity areas C-2, C-3, C-16, U-3, and U-4 would be visible to varying degrees from river right. Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Along the left bank, homes are set back some distance from the channel and floodplain. A private road (C-1) provides access to this portion of the VAU, continuing beyond the adjacent homes to the floodplain. Dense pockets of riparian vegetation and altered topography obscure most views of the channel from nearby homes; however, these homes do look out onto the floodplain. KOPs 2 through 4 (photos 17a through c) illustrate views of the channel, primarily the side-channel, which is visible from the floodplain at the end of Partridge Lane. Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Lowden Ranch

VAU LR1

VAU LR1 consists of a relatively small upstream portion of the LR site. As viewed from Browns Mountain Road near Bucktail Bridge, views of the river channel are completely blocked by dense riparian vegetation (KOP 1). Portions of activity area C-7 would be visible from KOP 1 (photo 18), but in-channel work would not be apparent from this locale.

Homes on both sides of the river, in and adjacent to VAU LR1, have very limited views of the river as a result of the dense riparian vegetation that lines the entirety of the right bank of the Trinity River through the LR site boundary. Homes adjacent to the left bank of the river in this VAU would have unobstructed views of activity area R-1 and to some extent IC-2.

VAU LR2

VAU LR2 is composed of the remainder of the LR site, which includes a large meadow, the Trinity River, and an accumulation of dredge tailings (as shown for KOPs 4 through 14 (photos 22 through 29)). Because this site is associated with a meadow and accompanying wetland features, little residential development has occurred. Instead, the part of the site that makes up the left side of VAU LR2 has been opened to the public for use as a loop walking trail. The trailhead leaves a public parking area that is accessed via Lewiston Road and meanders through the pastureland and dredge tailings to the Trinity River. Although the river channel itself cannot clearly be seen from Lewiston Road or the trailhead parking area because of vegetation along the river and in the areas of dredge tailings, the trail leads recreationists to the river's edge, from which extended views of the river both up- and downstream are available (KOPs 11 and 12 (photos 27a and b)). The general openness of this VAU would result in most

of the activity areas being visible to varying degrees from numerous points throughout this VAU. The affected viewer groups would primarily consist of motorists and recreationists, because there are no homes on the left side of the river in close proximity to this VAU.

Browns Mountain Road parallels the right side of the river upslope, coincident with the site boundary. As it ascends the mountainside, the road moves through densely forested areas from which the river cannot be seen. Small openings in the vegetation allow for sporadic, restricted views of the river from this road. Several homes located along the unpaved portion of the road are at an elevation sufficient to allow for some views of the river, dredge tailings, and the meadow located on the opposite (left) side of the river (see KOPs 1, 2, and 3 (photos 19 through 21)). Activity areas R-4, IC-5, IC-6, X-1, and C-3 would be visible from some homes located in the uplands at the downstream end of VAU LR2. Typically, however, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Trinity House Gulch

VAU THG1

There are few views of VAU THG1 available from Browns Mountain Road. As it passes along the hillside above the right side of the site, Browns Mountain Road ascends further upslope, eventually turning away from the river. Small openings in the upland vegetation allow for limited views of the site; thus, parts of some of the construction activity areas proposed for the right bank of the river would be visible to varying degrees from Browns Mountain Road (as shown by KOPs 1 through 3 (photos 30 through 32)).

From the left bank, several homes located at the end of a private road (Partridge Lane) have views of the river channel, but these views are limited by topography and accumulations of vegetation (as shown by KOP 4 (photo 33)). Vegetation would obscure most views of the construction activity areas from homes in the uplands adjacent to the right side of the channel. Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Steel Bridge Day Use

VAU SB1

Views of the Trinity River from the parking area at the SB site are obstructed by dense upland and riparian vegetation. However, the site currently provides a large riverside beach that can easily be accessed from the parking area. The site is situated at the apex of a tight bend in the river. KOPs 1 through 5 (photos 34 and 35) illustrate the extent of river views available from the left side of the river. Virtually the entire site is proposed for some type of activity, and such activities would be highly visible to visitors, as well as from homes immediately adjacent to this VAU. Surrounding homes can see various parts of the site depending on aspect. Farther upstream towards the Steel Bridge Campground, recreationists would encounter activity areas C-4 and C-5. Steep topography on the right side of the river prevents any residential development and limits recreational use. Typically, project-related visual

changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Reading Creek

VAU RC1

VAU RC1 at the RC site is only partially visible from Frank's Trinity River Mobile Home Park (as shown by KOP 1 (photo 36)). Because this facility is located upslope from the river, a short distance upstream of the RC site boundary, vegetation and topography limit views of the channel, and none of the proposed activity areas in this VAU would be visible in their entirety from this location. Typically, project-related visual changes to the environment would be most apparent to in-channel recreationists such as rafters and fishermen.

Several homes located upslope of VAU RC1, on the left bank of the river, also have limited views of the VAU due to vegetation, topography, and distance. These homes would not have a view of any proposed construction activity areas.

VAU RC2

Views from VAU RC2 are limited by the steep topography of the river's right bank and the dense vegetation that occurs along both sides of the river. Although access to the right side of this VAU is through the Douglas City Campground, most of the VAU is likely only accessed by a few recreationists, such as anglers and rafters.

Similar to VAU RC1, homes located on the left bank of the river have only limited views of the river due to vegetation, topography, and distance. Portions of activity areas R-1, R-2, IC-1, IC-2, and IC-3 would be visible from homes upslope from the left side of the river. Some homes in this VAU would also have views of activity areas U-1, C-4, C-6, C-14, and C-15.

VAU RC3

VAU RC3 is located at the apex of a sharp bend in the river. Views from the floodplain on the right bank are limited by topography, as shown by KOPs 1 through 5 (photos 37 and 38). From the floodplain, pockets of riparian and upland vegetation partially obscure views of dredge tailings. Topography and vegetation would block views of most of activity area U-3 from both the campground and the river. Most proposed staging areas would also be blocked from much of the public's view (including boaters) by the surrounding topography and vegetation, although construction traffic would make use of the campground's existing roads (C-1 and C-13) to access the river. Thus, if construction were to occur during a period when the campground is open to the public, campers could be exposed to construction traffic as it moves through the campground. In this VAU there is no development on the left bank of the river.

VAU RC4

VAU RC4 includes a BLM-designated primitive camping area that allows for dispersed camping and other recreational use along the river. The views of the river channel and floodplain vary as a result of vegetation growth and topography modified by dredge tailings. KOPs 1 and 2 (photos 39a and b) illustrate views up- and downstream from the proposed location for activity area C-8. In-channel recreationists have lengthy views of the channel and banks through this reach.

Wild and Scenic Rivers

All of the Remaining Phase 1 sites are located within the corridor of the Trinity River designated under the federal and state Wild and Scenic Rivers acts. For additional information on this topic, please refer to section 4.12 of the Master EIR.

7.12.3 Environmental Consequences/Impacts and Mitigation Measures

Table 7.12-2 summarizes the potential aesthetic impacts resulting from implementation of the No-Project Alternative, Proposed Project, and Alternative 1.

Table 7.12-2. Summary of Potential Aesthetic Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.12-1. Implementation of the project could result in the degradation and/or obstruction of a scenic view from key observation areas.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.12-2. Implementation of the project could substantially change the character of, or be disharmonious with, existing land uses and aesthetic features.				
No impact	Less than Significant	Less than Significant	Not applicable[1]	Not applicable[1]
Impact 7.12-3. The project may be inconsistent with federal and state Wild and Scenic River acts or Scenic Byway requirements.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.12-4. The project could generate increased daytime glare and/or nighttime lighting.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.12-1: Implementation of the project could result in the degradation and/or obstruction of a scenic view from key observation areas. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, the degradation and/or obstruction of a scenic view from key observation areas would not occur as a result of construction activities because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

As previously discussed, the Remaining Phase 1 sites include thirteen distinct VAUs. The potential impacts of the Proposed Project and Alternative 1 on KOPs are discussed below by VAU.

Sawmill

VAU SM1

VAU SM1 includes KOPs 1, 2, and 3 (views of activity areas IC-4, R-2, R-4, X-3, and C-4) and KOPs 4 and 5 (views of activity areas R-1 through R-7; IC-1 through IC-6; X-3 through X-5; and C-4, C-8 through C-10).

Essentially the entire gravel bar located at the upstream end of this VAU is visible from Goose Ranch Road (KOPs 4 and 5 (photos 2 and 3)). Consequently, under the Proposed Project, virtually all of the construction activities in this portion of the SM site would have a noticeable effect on the view's aesthetic quality. Impacts would be less apparent to viewers accessing the site from the right bank, since this VAU is located away from the site's primary parking area and access point, and dense vegetation (KOPs 1 through 3 (photos 1a through c)) would limit most views of project activity areas. Homes at the extreme upstream end of this VAU may have limited views of activity areas X-4 and IC-1. In-channel recreationists such as rafters will have unobstructed views of portions of activity areas R-1 through R-5 and IC-1 through IC-8.

Impacts to aesthetics in this unit would be potentially significant, particularly when viewed from KOPs 4 and 5. Proposed activities in the channel would have a significant impact on the visual environment. However, because Proposed Project activities are intended to restore the form and function of an alluvial river, potentially adverse visual impacts occurring during construction would be temporary, lasting only until natural processes take over. No project activities are proposed upstream of this unit.

VAU SM2

VAU SM2 includes KOPs 1, 2, and 3 (views of activity areas C-1, C-2, and C-6; and U-1 and U-2); KOPs 4, 5, 6, 7, and 8 (views of activity areas R-8 and R-9, C-3 and C-4, and X-1); KOPs 9, 10, 11, 12, and 13 (views of activity areas IC-8 through IC-11; R-8 and R-10; and C-5, C-11, and C-13); and KOP 14 (view of activity area R-8).

From the public access parking area located on the right side of the river, staging areas would be apparent to viewers as would upland materials storage areas. Vegetation retained between the parking area and the river would buffer additional activity areas. Visitors walking through the site towards the river would encounter additional staging areas and the large constructed inundation surfaces resulting from R-8 construction activities. Low-flow channel reconstruction (R-9) would also be directly encountered by site visitors. Grading, vegetation removal, and channel reconstruction would alter the existing appearance of the area. In-channel recreationists would have unobstructed views of the in-channel work and most riverine work.

Impacts to aesthetics within this unit would be potentially significant; however, because Proposed Project activities are intended to restore the form and function of an alluvial river, potentially adverse visual impacts occurring during construction would be temporary, lasting only until natural processes take over.

VAU SM3

VAU SM3 includes KOP 3 (no views of the SM site are available from this location).

As shown in the photograph taken at KOP 3 (photo 11), topography, vegetation, and distance obstruct views of the SM site from this location. Construction activities proposed at the SM site would have a less-than-significant effect on the visual environment as viewed from VAU SM3.

Upper Rush Creek

VAU UR1

VAU UR1 includes KOPs 1, 2, and 3 (views of activity areas U-1, C-5, C-11, C-17, and R-3).

As shown by KOPs 1, 2, and 3 (photos 12 through 14), topography, vegetation, and distance limit the extent of views of the site as seen by motorists traveling along Rush Creek Road and residents living in homes or staying at the commercial RV park adjacent to the site. Some activity areas will, however, have a significant, but temporary, effect on the aesthetics of Rush Creek Road through this VAU. Upland materials storage area U-1 would figure prominently on the landscape, being visible for a long, straight stretch of Rush Creek Road adjacent to this VAU. The effect on aesthetics during construction would be significant in this area, but would be temporary.

VAU UR2

VAU UR2 includes KOPs 1, 2, and 3 (views of activity areas IC-2 and IC-3; C-6, C-7, C-9 and C-13; and R-4).

Because VAU UR2 is located at an established public river access point, activities in this area would be very noticeable. Upland, riverine, and in-channel work proposed for this area would significantly affect the existing aesthetics of this river access point. However, construction impacts relative to staging and access would be temporary, lasting only for the duration of project construction, and Proposed Project activities intended to restore the form and function of the alluvial river would affect the view only for as long as it would take natural processes to reestablish. Motorists passing by this reach of the river on the

adjacent Rush Creek Road can also clearly view the river from either direction. Project-related visual changes in this area would also be apparent to in-channel recreationists.

VAU UR3

VAU UR3 includes KOP 1 (views of activity areas IC-4 and R-5) and KOPs 2, 3, and 4 (views of activity areas R-5; X-1; C-1 through C-3, and C-16; U-3 and U-4).

From Rush Creek Road, views of proposed in-channel and riverine construction areas (IC-4 and R-5, respectively) are available to westbound motorists. The elevation of the road allows for expansive views of the river corridor and the left side of the floodplain. Construction activities on the left side of the river in the VAU would occur adjacent to residential areas. KOPs 2, 3, and 4 (photos 17a, b, and c) are located at the end of Partridge Lane. These KOPs illustrate unobstructed views that some surrounding homes may have of the area proposed for low-flow side-channel construction. The openness of the floodplain in this vicinity would also cause the proposed staging areas and upland materials storage areas to significantly alter the aesthetic quality of the existing view. However, construction impacts relative to staging, access, and materials storage would be temporary, lasting only for the duration of project construction, and Proposed Project activities intended to restore the form and function of the alluvial river would affect the view only for as long as it would take natural processes to reestablish. Project-related visual changes to the environment in this area would also be apparent to in-channel recreationists.

Lowden Ranch

VAU LR1

VAU LR1 includes KOP 1 (view of activity area C-7).

Only a staging area (C-7) would be apparent to motorists and residents around this part of Browns Mountain Road (KOP 1 (photo 18)). While the impact on aesthetics would be significant given the proximity of this staging area to the road, construction activities would be temporary.

VAU LR2

VAU LR2 includes KOPs 1 (no views are available of the LR site from this location); KOPs 2 and 3 (views of activity areas R3, R-4, C-6, and U-4); KOPs 4 and 5 (views of activity areas U-1 through U-4, C-1 and C-2, and R-3); KOPs 6, 7, and 8 (views of activity areas U-3 and U-4; R-3; and C-1, C-2, and C-6); KOPs 9, 10, and 13 (views of activity area C-6); and KOPs 11 and 12 (views of activity areas R-2 through R-4, X-1, and IC-5 and IC-6).

KOPs 1 through 3 (photos 19 through 21) illustrate the limited views of the LR site available from Browns Mountain Road. At some points along the road, portions of the site, primarily areas on the opposite (left) side of the river, would be partially visible by motorists and some of the residences located on the hillside adjacent to Browns Mountain Road.

All of the upland materials storage areas proposed for the LR site would be highly visible to motorists using Lewiston Road, as well as recreationists using the trails that meander through the site. Changes in

the aesthetic environment of the open pastureland that makes up a majority of the site would be a significant impact. KOPs 4 through 8 (photos 22 and 23) illustrate the expansive views afforded by the openness of the site.

Floodplain construction and vegetation removal, such as that proposed for activity areas R-2 and R-3, would significantly affect the existing appearance of the left river bank illustrated by KOPs 9, 10, and 13 (photos 25, 26, and 28). Grading, vegetation removal, and channel reconstruction would significantly alter the appearance of the area. Recreationists would be the viewer group most affected by these changes since the walking trail passes through the length of these proposed activity areas, which are also immediately adjacent to the river and therefore unavoidably visible to in-channel recreational users. However, construction impacts would be temporary, lasting only for the duration of project construction, and Proposed Project activities intended to restore the form and function of the alluvial river would affect the view only for as long as it would take natural processes to reestablish.

In-channel work (e.g., IC-4, 5, and 6, and X-1) would be apparent primarily to in-channel recreationists (see KOPs 11 and 12 (photos 27a and b)), although some residences on the uplands of the right bank may have partial views of some of these activity areas.

Impacts to the aesthetics of the LR site would be significant.

Trinity House Gulch (THG)

VAU THG1

VAU THG1 includes KOPs 1 and 2 (views of activity areas U-2, R-1, and R-2); KOP 3 (views of activity areas U-2 and U-3, R-1 through R-3, C-1 and C-4, IC-1 and IC-2, and X-1); and KOP 4 (view of activity area C-1).

KOPs 1 through 3 (photos 30 through 32) illustrate the limited views of the THG site available from Browns Mountain Road. Steep topography and dense vegetation obscure most views of the site from the roadway (see KOPs 1 and 2), although glimpses of some proposed activities may be visible to motorists. It should be noted that east of KOPs 1 and 2, Browns Mountain Road passes directly through a sizable proposed upland materials storage area (U-1) and a proposed staging area (C-6). Both of these proposed activity areas would have a significant effect on the aesthetics of the affected areas; however, these impacts would be temporary, lasting only for the duration of construction.

KOP 3 affords a more expansive view of the right bank floodplain and the channel within the THG site. Viewers would see upland materials storage areas (U-2 and U-3), several areas of riverine construction activities (R-1 through R-3), in-channel construction (IC-1 and IC-2), and the proposed river crossing (X-1).

Few homes occur on the left side of the THG site. Those that are present are set back some distance from the floodplain, and river views are buffered for the most part by vegetation. KOP 4 (photo 33) illustrates the view of the site from a home on Wellock Road. An existing road visible from this KOP would be used for construction access (C-1). Construction impacts would have a significant effect on the aesthetics

of the affected areas, but these impacts would be temporary, lasting only for the duration of project construction. Proposed Project activities intended to restore the form and function of the alluvial river would last only as long as it would take natural processes to reestablish.

Impacts to the aesthetics of the THG site would be significant.

Steel Bridge Day Use

VAU SB1

VAU SB1 includes KOPs 1 through 6 (views of activity areas U-1, R-1 and R-2, C-1 through C-3, and IC-2 and IC-3).

KOPs 1 through 5 (photos 34 and 35) illustrate the extent of river views available from the left side of the river. Since virtually the entire site is proposed for some type of construction activity, such activities would be highly visible from homes immediately adjacent to this VAU, as well as being highly visible to visitors to the area. From surrounding homes, viewers can see various parts of the site, depending on aspect. Farther upstream at the Steel Bridge Campground, recreationists would encounter staging areas (C-4 and C-5). In-channel recreationists would have views of proposed in-channel construction activities (IC-1 through IC-3) as well as proposed riverine action area R-1. Views of the project site from the channel would be influenced by bends in the river.

Impacts to the aesthetics of the SB site would be significant.

Reading Creek

VAU RC1

VAU RC1 includes KOP 1 (no views are available from this location of proposed activity areas in the RC site).

As shown by the photograph taken at KOP 1 (photo 36), vegetation obstructs views of the RC site from this location. In-channel recreationists would see noticeable changes in the existing aesthetics of the area; however, construction impacts would be temporary, lasting only for the duration of project construction. Proposed Project activities intended to restore the form and function of the alluvial river would affect the view only for as long as it would take natural processes to reestablish.

Several homes located upslope of VAU RC1, on the left bank of the river, have limited views of the VAU, obstructed by vegetation, topography, and distance. These homes would not have a view of the any proposed activity area.

Construction activities proposed in the RC site would have a less-than-significant effect on the visual environment as viewed from VAU RC1.

VAU RC2

No KOPs were established within the boundaries of VAU RC2; however, potential impacts to the aesthetics of this area can be extrapolated from aerial photographs. Recreationists would be the viewer group most affected by project activities proposed for this site. Parts of the riverine activity areas (R-1 and R-2) and the in-channel construction activity areas (IC-1 through IC-3) proposed for VAU RC2 would be visible from homes in the uplands adjacent to the left side of the river. Some homes in the area would also have views of the proposed upland materials storage area (U-1) and the contractor staging areas (C-4, C-6, C-14, and C-15). These impacts would be significant.

VAU RC3

VAU RC3 includes KOPs 1 through 5 (views of project activity areas R-4 and R-5 and IC-4).

Topography and vegetation would block most of the proposed upland materials storage area (U-3) from both the campground and the river. Most proposed contractor staging areas would also be blocked from much of the public's view (including recreationists utilizing the river channel) by the surrounding topography and vegetation.

Grading and vegetation removal proposed under riverine activity R-4 and R-5 would be sizable and noticeable by in-channel and land-based recreationists. As shown by KOPs 1 through 5 (photos 37 and 38), the floodplain is long and straight through this VAU, which would allow for extended views of the R-4 and R-5 construction areas. Topography and dense vegetation would obstruct most views of these proposed activity areas from the campground. Impacts to aesthetics in this VAU would be significant.

VAU RC4

VAU RC4 includes KOPs 1 and 2 (views of project activity areas R-4 and R-5, IC-5, C-8 and C-9, and X-1).

KOPs 1 and 2 (photos 39a and b) were established in a proposed staging area (C-8), near the point of a proposed river crossing (X-1). Although this BLM public access area is primitive and is somewhat more difficult to access than the nearby campground, it is frequently used by recreationists, such as fishermen. Therefore, changes in the aesthetic quality of the area would be noticeable. The openness of the floodplain adjacent to KOPs 1 and 2 allows for unobstructed views of proposed riverine activity areas (R-4 and R-5) as well as in-channel construction (IC5). In-channel recreationists would also see noticeable changes in the existing aesthetics of the area; however, construction impacts would be temporary, lasting only for the duration of project construction. Proposed Project activities intended to restore the form and function of the alluvial river would last only as long as it would take natural processes to reestablish.

Impacts to the aesthetics of the RC site would be significant.

Alternative 1

Sawmill

All VAUs

Impacts to aesthetics described under the Proposed Project would be the same under Alternative 1 for all VAUs.

Upper Rush Creek

VAU UR1

Impacts to aesthetics described under the Proposed Project would be the same under Alternative 1 for VAU UR1.

VAU UR2 and UR3

Impacts to aesthetics described under the Proposed Project for activities proposed on the right side of the river and in the river channel itself would be the same under Alternative 1 for VAU UR2 and UR3. However, Alternative 1 would exclude all proposed activities on the left side of the river. From KOPs 2 and 3(photos 15b and c) in VAU UR2, views would not be affected by the construction of R-5, IC-3, and IC-4. In VAU3, there would be no impacts to views described for KOPs 1 through 4 (photos 16 and 17) because there would be no activity occurring on the left side of the river or within sight of any of the KOPs established for this VAU. Under Alternative 1, there would continue to be a significant effect on aesthetics as viewed from VAU UR2, but no impact on aesthetics as viewed from VAU UR3.

Lowden Ranch

VAU LR1

Impacts to aesthetics described under the Proposed Project would be the same under Alternative 1 for VAU LR1.

VAU LR2

Impacts to aesthetics described under the Proposed Project would be essentially the same under Alternative 1 for VAU LR2, although the footprint of some proposed construction activity areas would be slightly reduced. Under Alternative 1, proposed river crossing X-1 would be excluded; thus, the view from KOP 11 (photo 27a), and from within the channel itself, would no longer include activities related to X-1. Under Alternative 1, there would continue to be a significant effect on aesthetics as viewed from VAU LR2.

Trinity House Gulch

VAU THG1

Impacts to aesthetics described under the Proposed Project would occur in essentially the same locations as described in the Proposed Project for VAU THG1, but under Alternative 1 the footprint of most of the proposed construction activity areas would be significantly reduced in size. Although still significant,

such a reduction would lessen the extent of impacts on aesthetics as viewed from KOPs 1 through 4 (photos 30 through 33).

Steel Bridge Day Use

VAU SB1

Impacts to aesthetics described under the Proposed Project would be the same under Alternative 1 for VAU SB1. However, under Alternative 1 proposed construction activities upstream in the vicinity of the Steel Bridge Campground would no longer be included in the project description and, thus, there would be no effect on aesthetics in the campground vicinity.

Reading Creek

VAU RC1

Under Alternative 1, all proposed construction activities on the left side of the river would be excluded. There would be no impact on aesthetics as viewed from VAU RC1 because no construction activities are proposed on the right side of the river in this VAU.

VAU RC2 and VAU RC3

Impacts to aesthetics described under the Proposed Project would be the same under Alternative 1 for VAU RC2 and VAU RC3. A minor exception would be the exclusion of the proposed riverine activity area R-5; the extreme upstream end of which would be visible from VAU RC3. However, because all other proposed construction activities would be implemented under Alternative 1, the impact on aesthetics would continue to be significant.

VAU RC4

Under Alternative 1, proposed river crossing X-1 would no longer be included. Thus, no project activities on the left side of the river would be implemented. However, the impact on aesthetics as seen from KOPs 1 and 2 (photos 39a and b) within VAU RC4 would continue to be significant since in-channel project activities and those proposed on the right side of the river would still be included in the project description.

Mitigation Measures

No-Project Alternative

No significant impacts have been identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under the Master EIR Impact 4.12-1 apply (section 4.12.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.12-2: Implementation of the project could substantially change the character of, or be disharmonious with, existing land uses and aesthetic features. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, the proposed project would not be constructed. No changes would occur to the character or harmony of aesthetic features and existing land uses. Therefore, there would be no impact.

Proposed Project and Alternative 1 (All VAUs)

This impact is evaluated in detail in the Master EIR (section 4.12.3). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts have been identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.12-3: The project may be inconsistent with the federal or state Wild and Scenic River Acts or Scenic Byway requirements. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, the proposed project would not be constructed. No changes would occur that would be inconsistent with the federal or state Wild and Scenic Rivers acts or Scenic Byway requirements. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the draft Master EIR (section 4.12.3). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts have been identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.12-4: The project could generate increased daytime glare and/or nighttime lighting. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no changes in daytime glare or nighttime lighting would occur because the proposed project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.12.3). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts have been identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.13

Hazards and Hazardous Materials

7.13 Hazards and Hazardous Materials

7.13.1 Affected Environment/Environmental Setting

This section evaluates hazards and hazardous materials that may currently be present within the Remaining Phase 1 site boundaries. Hazardous materials and the potential for health hazards to be generated by implementation of the Proposed Project or its alternatives in the Remaining Phase 1 sites are also assessed in this section.

Toxins

Toxins typically found in the project region, including the Remaining Phase 1 sites, are discussed in the Master EIR (section 4.13).

Flooding

A review of the FEMA Flood Insurance Rate maps (FIRM) that include the Remaining Phase 1 sites indicate that these sites are within areas for which the base flood elevations (BFE) have been determined. All sites occur in a designated floodway. Areas such as the Remaining Phase 1 sites, which have been designated by FEMA as being within "Zone X", are subject to a 100-year flood with average depths of less than 1 foot or with drainage areas of less than 1 square mile. Trinity River flows through these sites are moderated by the TRD below Lewiston Dam.

Seismic Events

Seismic activity known to occur in the project region, including in the vicinity of the Remaining Phase 1-sites, is discussed in the Master EIR (sections 4.3 and 4.13).

Roadways

The following describes the roadways and access routes that would be used to transport hazardous materials or hazardous waste related to rehabilitation activities.

Sawmill

Access to the right side of the SM site is made from Cemetery Road, an unpaved, dead-end road that ties into Rush Creek Road. The primitive nature and limited public use of this dirt road keeps traffic speeds low; thus, posing little risk to people using this road as an access to the site. Although the left side of this site lies between the Trinity River and Goose Ranch Road, it cannot be accessed by vehicle from Goose Ranch Road due to extremely steep topography.

Upper Rush Creek

The UR site is immediately adjacent to Rush Creek Road, one of the more heavily traveled arterial roadways in the Lewiston area. Numerous residences, a commercial resort, and public river access occur within this site, between the river and Rush Creek Road. The northern boundary of this site is contiguous with Rush Creek Road. In the general vicinity of this site, this stretch of the road is relatively straight,

two-lanes, with visibility that allows for fairly high rates of speed (greater than 45 mph). The left side of the UR site is accessed from several short, unpaved roads, which are little more than private driveways that extend toward the Trinity River from Goose Ranch Road.

Lowden Ranch

The LR site is bordered by Lewiston Road to the south and Browns Mountain Road to the north. The two-lane stretch of Lewiston Road adjacent to this site is relatively straight and wide, allowing for fairly high speed travel, although a sweeping curve at the south end of its alignment, downstream of the site, requires vehicles to slow down to negotiate the curve. Access to the left side of this site can be made from a public access parking area/trailhead or a gated, unpaved road, both or which are located near the southern end of the site.

Browns Mountain Road, which extends along the northern boundary of the LR site, is a fairly steep, winding, unpaved road that climbs from the Trinity River upwards into the steep, forested uplands. There is no public access into this site from Browns Mountain Road.

Trinity House Gulch

The THG site, between Lewiston and Douglas City, is one of the more remote Remaining Phase 1 sites. Although it shares a common border with the downstream (western) end of the LR site, it is not immediately adjacent to either Browns Mountain Road or Lewiston Road. On the right bank, the THG site is south, and downslope of Browns Mountain Road, which becomes increasingly narrow and curvy as it becomes coincident with the project site boundary. The left side of this site can only be accessed by private driveways that extend off tertiary streets, which branch off Lewiston Road.

Steel Bridge Day Use

The SB site is located along Steel Bridge Road, a very narrow (often one-lane) paved roadway that winds through a rural residential area adjacent to the Trinity River. This site is near the end of Steel Bridge Road, which ends at the BLM campground approximately 0.5 mile beyond the site boundary. Because the road is closely aligned with the river, its grade remains fairly level.

Reading Creek

The RC site is located adjacent to the Douglas City Campground off of Riverview Road near Douglas City. This site is accessed via several narrow, unpaved roads that descend downslope from Riverview Road toward the river. A four-wheel drive road runs parallel to the right side of the river on the floodplain providing vehicle access to most of the site. The left side of the river is not accessible by the public, although several private driveways provide access via SR 3.

Hazardous Material and Hazardous Waste

The potential for using hazardous materials or generating hazardous waste in conjunction with rehabilitation activities is discussed in the Master EIR (section 4.13).

Wildland Fire

The potential for wildland fire to occur in the project region, including the Remaining Phase 1 sites, is discussed in the Master EIR (section 4.13).

Evacuation Routes

Rush Creek Road would serve as the primary evacuation route for the right (north) sides of the SM and UR sites. Goose Ranch Road to either Lewiston Road or Trinity Dam Boulevard would provide an evacuation route for the portions of the project sites (particularly the UR site) located on the left (south) side of the river.

Lewiston Road and Browns Mountain Road to Lewiston Road would provide the primary evacuation routes for the LR and THG sites. Although Browns Mountain Road is an unpaved County road that is not maintained, it does ultimately connect to SR 299 approximately 5 miles west of the project sites near Weaverville.

The only evacuation route option for the SB site is Steel Bridge Road south to SR 299. The steep topography of this area precludes any alternative routes.

Riverview Road to SR 299 is the primary evacuation route from the RC site. Private driveways also provide access to SR 299 via SR 3.

7.13.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.13-1 summarizes the potential hazards and hazardous materials impacts that could result from construction of the project.

Table 7.13-1. Summary of Hazards and Hazardous Materials Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.13-1. Implementation of the project could increase the potential for release of, or exposure to, potentially hazardous materials that could pose a public health or safety hazard.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.13-2. Construction activities associated with the project may interfere with emergency response and evacuation plans by temporarily slowing traffic flow.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

Table 7.13-1. Summary of Hazards and Hazardous Materials Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.13-3. Implementation of the project may contribute to wildland fire potential and catastrophic fire behavior in the project area.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.13-4. Implementation of the project may contribute to an increased risk of landslides and flooding.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.13-1: Implementation of the project could increase the potential for release of, or exposure to, potentially hazardous materials that could pose a public health or safety hazard. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, construction activities that could potentially release hazardous substances (e.g., oil, gas, diesel, and mercury) into the environment at levels that could pose a health or safety hazard to the public would not occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.13.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.13.2: Construction activities associated with the project may interfere with emergency response and evacuation plans by temporarily slowing traffic flow. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, construction activities that could interfere with emergency response and evacuation plans would not occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.13.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.13.3: Implementation of the project may contribute to wildland fire potential and catastrophic fire behavior in the project area. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, implementation of the project would have no impact on wildland fire potential or catastrophic fire behavior because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.13.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.13.4: Implementation of the project may contribute to an increased risk of landslide or flooding. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

The No-Project Alternative would have no impact on the potential for landslides or flooding because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.13.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.14

Noise

7.14 Noise

This section evaluates the potential noise impacts associated with implementation of proposed activities at the Remaining Phase 1 sites. The evaluation is based on a review of local land use plans and policies pertaining to noise and field reconnaissance used to identify potential sensitive receptors within and adjacent to the boundaries of these sites.

7.14.1 Affected Environment/Environmental Setting

A detailed discussion of methodology used to quantify noise is provided in the Master EIR (section 4.14).

Noise in the general vicinity of the Remaining Phase 1 sites is primarily the result of local residential vehicle traffic and miscellaneous ambient sources, such as river flow, river recreationists, overhead aircraft, barking dogs, and children at play. Most of these sites are located away from the area's larger roads, in areas accessed via private driveways or collector roads where traffic noise is at a minimal level. Even at the sites immediately adjacent to more heavily traveled roads, such as the UR site, which is adjacent to Rush Creek Road, and the LR site, which is adjacent to Lewiston Road, traffic-generated noise is generally infrequent and buffered by vegetation and topography.

Sensitive Noise Receptors

All of the Remaining Phase 1 sites have one or more sensitive noise receptors (e.g., homes, wildlife, or recreational areas) in close proximity to their site boundary. The following discussion summarizes the occurrence of sensitive noise receptors relative to each of these sites.

Sawmill

Although the SM site is close to Lewiston, it is also one of the sites most isolated from stationary human sensitive receptors. There is only one home immediately adjacent to the upstream boundary of the site; it is located on the left bank of the river. There is little in the way of a vegetative buffer between the site and the home; however, downstream of the home, the river makes a 90 degree bend, thus topography and downstream vegetation would act as a noise buffer between the home and a majority of the activity areas. Similarly, topography, vegetation, and distance would buffer the nearby Old Lewiston Bridge RV Resort from project activity noise. The resort, located approximately 0.2 mile northeast of the SM boundary would be exposed to short duration, temporary construction vehicle noise as it passes by the resort on the access road leading into the site.

A home located immediately north of the primary access point into the site (just north of the site's center point) would be subject to the noise of equipment accessing the site. The relatively flat, open area within the boundary of this site adjacent to the right bank of the river may be used as a staging area.

Several homes are located on both sides of the river near the downstream end of the SM site. While there is little vegetation between these homes and the site, topography provides a buffer from noise along the river. These homes are closer to the county roads than they are to the activity areas.

Upper Rush Creek

Homes within the boundary of the UR site are subject to traffic noise from the adjacent Rush Creek Road and Goose Ranch Road. The general vegetative openness and canyon-like topography of this site can concentrate and amplify sound. The Trinity River Resort and the BLM river access, both of which are within the boundaries of the UR site, offer public river access, including a primitive boat launch at the latter. Homes on the left side of the river are set back away from the floodplain, but there is little to buffer noise emanating from the locations throughout this site.

Lowden Ranch

The left side of the LR site consists primarily of a large pasture with a dense buffer of riparian vegetation extending immediately along both sides of the Trinity River. There are several homes located at the upstream end of the site that have varying densities of vegetation between them and the various activity areas. Because these homes sit upslope of the floodplain, noise from the river can be readily apparent; however, noise from the adjacent roadways such as Lewiston Road and Browns Mountain Road are buffered by distance and topography.

The majority of the LR site is public land managed by the BLM and DWR. A public hiking trail loops through the site, starting at a public parking area off Lewiston Road. A portion of this trail parallels the left side of the river bank and passes through the riparian forest. The trail, in particular the forested section, affords hikers solitude and wildlife viewing opportunities. The river and wind through the riparian corridor are the primary sources of existing ambient noise at this site. Downstream, a few widely scattered homes along the right bank overlook the site. The elevation of these homes above the floodplain, facing southeast toward the Lowden Ranch pasture, makes them susceptible to noise sources such as traffic on Lewiston Road.

Trinity House Gulch

The lightly populated THG site is located away from the region's larger roads. The primary source of noise in this area is related to periodic timber management activities further upslope. Similar to homes located at the downstream end of the adjacent LR site, homes in close proximity to this site are located above the floodplain, facing toward the river with no vegetative or topographic features to buffer noise generated in the site's project activity areas.

Steel Bridge Day Use Area

Several homes are within or adjacent to the SB site. All of these homes are located along the left side of the Trinity River and accessed by Steel Bridge Road. Steel Bridge Campground, which is farther upstream and at the end of the road, is surrounded by forest, with no homes in the immediate vicinity. These BLM recreational facilities are located in a very narrow canyon where noise can be easily disseminated in all directions from its initial source. Because the site provides river access and day use facilities, recreationists routinely add to the ambient noise levels experienced by local residents; such increases typically are of short duration (few minutes to several hours). The right bank of the river adjacent to the site is extremely steep and undeveloped as are the lands surrounding the campground.

Reading Creek

The reach of the Trinity River that passes through the RC site bends sharply around a steep ridge on its right side and a steep hillside on its left. There are no homes within this site; however, various residences are present on both sides of the river downstream of the Douglas City Bridge. Within the site, BLM operates the Douglas City Campground, which is located adjacent to the right bank of the river. To varying degrees, the campground and river access areas were considered and avoided when establishing the activity areas during the alternative development process. A primitive BLM campground further downstream, but still within the site, is located at the site's extreme downstream end. This lower portion of the site is within the floodplain, and dense pockets of vegetation have formed along the bank.

7.14.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.14-1 summarizes the potential noise impacts resulting from implementation of the No-Project Alternative, Proposed Project, and Alternative 1.

Table 7.14-1. Summary of Potential Noise Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.14-1. Construction activities associated with the project would result in noise impacts to nearby sensitive receptors.				
No impact	Significant	Significant	Less than significant	Less than significant

Impact 7.14-1: Construction activities associated with the project would result in noise impacts to nearby sensitive receptors. ***No impact for No-Project Alternative; significant impact for Proposed Project and Alternative 1***

No-Project Alternative

Under the No-Project Alternative, no change in ambient noise levels would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

This impact is evaluated in detail in the Master EIR (section 4.14.2). No additional impacts at the Remaining Phase 1 sites have been identified. This impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.14-1 in the Master EIR apply (section 4.14.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

SECTION 7.15

Public Services and Utilities/Energy

7.15 Public Services and Utilities/Energy

This section describes the public services and utilities related to the Remaining Phase 1 sites, and evaluates impacts on these resources from implementation of the Proposed Project and its alternatives.

7.15.1 Affected Environment/Environmental Setting

Water Supply and Distribution

The majority of the residential, commercial, and recreational developments within or adjacent to the Remaining Phase 1 sites are served by private water systems that derive water from individual wells, springs, and river-intake systems. Surface water sources are more frequently used for domestic purposes along the river corridor than groundwater sources and often require varying levels of treatment prior to use. Several residents at the upstream end of the LR site are served by the Bucktail Mutual Water Company, which is a community system serving the entire Bucktail subdivision. Residences in the Douglas City community core, located near the Reading Creek site, are served by the WCSD.

Surface Water

The Trinity River is the primary surface water body near the Remaining Phase 1 sites; bisecting all six sites. Surface water is used primarily for domestic purposes, including gardens, livestock, and fire protection. Residents either divert the surface water through direct intakes or through stilling wells that intercept shallow subsurface flow adjacent to the river. These developed sources are typically located within the active channel or floodplain and involve a collection system, pump, and distribution system to serve individual residences. As described previously, the TRRP has been working with landowners in the general vicinity of the Remaining Phase 1 sites to relocate surface water intake systems affected by post-ROD flows.

Groundwater

Groundwater wells provide drinking water, irrigation water, and fire protection for residences within or adjacent to the Remaining Phase 1 sites. All project activities occurring in the Remaining Phase 1 sites have been designed to ensure that known groundwater wells are avoided.

Wastewater Treatment and Collection

There are no community wastewater treatment services available in the general vicinity of the Remaining Phase 1 sites. Individual, on-site septic tanks and drain fields provide wastewater treatment for all of the uses in the vicinity of the Remaining Phase 1 project sites. Proposed project activities have been planned located away from known septic tanks and leach fields.

Solid Waste Collection and Disposal

Trinity County operates nine solid waste transfer stations throughout the county, where waste is collected for shipment by truck to the Anderson Landfill in Shasta County. None of these transfer stations is located in the Lewiston or Douglas City communities. Residents of these communities rely on

commercial waste management firms or transport their solid waste, presumably to the nearest waste transfer station in Weaverville

Law Enforcement

The TCSD provides law enforcement for the county. The TCSD headquarters is located in Weaverville, approximately 5 miles north of Douglas City and approximately 15 miles from Lewiston. Resident officers in Weaverville serve as the primary points of contact for people in the Lewiston and Douglas City communities.

The CHP operates from an office in Weaverville and serves as the primary law enforcement agency for state facilities and transportation corridors. The CHP works closely with the TCSD to provide law enforcement coverage throughout Trinity County.

The BLM and the USFS provide law enforcement services in association with their land management responsibilities. Although the focus of BLM and USFS officers are actions on public lands, these federal agencies work closely with other agencies to provide law enforcement support throughout Trinity County.

CDFG wardens in Trinity County also provide law enforcement coverage in association with their fish and wildlife protection responsibilities.

Fire Protection and Emergency Services

Fire protection for the Remaining Phase 1 sites in the Lewiston community (SM, UR, LR, and THG) is provided by the LCSD and Cal Fire. Fire protection for the Remaining Phase 1 sites in the Douglas City community (SB and RC) is provided by the DCCVFD and Cal Fire. The LCSD and the DCCVFD are the primary fire protection agencies for structural fires.

Cal Fire generally provides fire protection services in the Remaining Phase 1 project area between May and late October. During the winter, Cal Fire responds from Weaverville with one engine, if personnel are present. During the summer, Cal Fire is equipped to provide three engines with 2,250 gallons of water and 12 to 13 firefighters. Two engines respond from Fawn Lodge, and another engine can respond from Weaverville. Minimum response time in these areas is 10 to 15 minutes or longer, depending on access (15 to 20 minutes on average). Half of these responses are typically for structure or flue fires and half are for wildland fires.

Medical Services

Medical services in the Remaining Phase 1 project area are limited. A health clinic located in Weaverville and run by the Trinity County Public Health Department serves the Lewiston and Douglas City communities. In addition, Mountain Community Medical Services (formerly Trinity Hospital) in Weaverville provides 24-hour emergency services. Trinity Life Support Ambulance and Southern Trinity Area Rescue (STAR) provide ambulance services, and the TCSD maintains a search and rescue team. Due to the limited medical services available in Trinity County, many residents of these communities travel west to Humboldt County and east to Shasta County for medical care.

Telephone Service

Residents in the general vicinity of the Remaining Phase 1 sites receive telephone service through AT&T (formerly SBC). Cellular telephone service is provided primarily by Verizon Wireless and Cal North Cellular.

Electrical Service

Trinity Public Utilities District serves the area surrounding the Remaining Phase 1 sites. Some commercial or residential development in this area is served by individual on-site systems, such as solar power or small hydroelectric systems.

Schools

Two elementary schools, Lewiston Elementary and Douglas City Elementary, serving students in grades kindergarten through eight, are located in Lewiston and Douglas City in the general vicinity of the Remaining Phase 1 sites. The elementary school districts provide bus services for local residents. The Lewiston Elementary School is located on Old Lewiston Road, about a half mile from the SM site and approximately 2 miles from the THG site. The Douglas City Elementary School is located on School House Road, near the junction of SR 299 and SR 3, approximately one-quarter mile from the RC site. Trinity High School, consisting of grades 9–12, is the only high school serving residents in the vicinity of the Remaining Phase 1 sites

7.15.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.15-1 summarizes the potential impacts on public services and utilities that could result from implementation of the Proposed Project and its alternatives at the Remaining Phase 1 sites.

Table 7.15-1. Summary of Public Services and Utilities Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.15-1. Implementation of the project could disrupt existing electrical and phone service during construction activities.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
Impact 7.15-2. Construction of the project could result in the generation of increased solid waste.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

Table 7.15-1. Summary of Public Services and Utilities Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.15-3. Implementation of the project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities.				
No impact	Significant	Significant	Less than significant	Less than significant
Impact 7.15-4. Construction of the project could result in a substantial use of nonrenewable energy resources.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.15-1: Implementation of the project could disrupt existing electrical and phone service during construction activities. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no construction-related disruption to existing electrical or telephone service would occur because the project would not be implemented. Therefore, there would be no impact.

Proposed Project and Alternative 1

Under either the Proposed Project or Alternative 1, no activities would occur to disrupt electrical or telephone service within or adjacent to the Remaining Phase 1 sites. Utility poles and/or underground lines located within the boundaries of these sites have been identified by the TRRP, and activities described in Chapter 2 have been designed to avoid impacts to these facilities. A number of electrical and phone lines cross access roads to these sites, typically in a manner that provides adequate vehicular clearance for phone lines and utility lines. These clearances would be adequate to allow access by construction equipment. Therefore, potential impacts on electrical and phone utilities and services in the project area as a result of the Proposed Project or Alternative 1 would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.15-2: Construction of the project could result in the generation of increased solid waste. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Increased quantities of solid waste would not be generated under the No-Project Alternative because there would be no construction activities. Therefore, there would be no impact.

Proposed Project and Alternative 1

Under either the Proposed Project or Alternative 1, construction at the Remaining Phase 1 sites would result in the generation of solid waste associated with the removal of substantial amounts of vegetation and other construction-related waste (e.g., garbage, containers, and oil). Vegetative materials (e.g., stumps, roots, and branches) would be disposed of within each Remaining Phase 1 site. Disposal methods for vegetative materials could include chipping to provide mulch, burial, piling to provide wildlife habitat on site, burning, or integration into the activity areas to provide structural habitat for juvenile fish. Solid waste generated by construction activities would either be disposed of at a local transfer station (Weaverville) or transported by truck to the Anderson Landfill in Shasta County. The Anderson landfill currently has sufficient capacity and the necessary permits to accommodate non-hazardous construction waste.

The contractor would be responsible for ensuring appropriate disposal of any hazardous waste, as approved by Reclamation. Disposal of potentially hazardous waste is evaluated in sections 4.13 and 7.13, Hazardous Materials.

Temporary access routes built for project implementation would be closed and/or decommissioned to ensure that the number of public access points on public lands would not increase, which could require the provision of public services (e.g., solid waste disposal) at locations that are inconsistent with agency management plans, guidelines, and policies. Therefore, this impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significant after Mitigation

Not applicable

Impact 7.15-3: Implementation of the project could result in disruption to emergency services, school bus routes, or student travel routes during construction activities. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Since there would be no construction activities associated with implementation of the No-Project Alternative, emergency services, school bus routes, and student travel routes would not be disrupted. Therefore, there would be no impact.

Proposed Project and Alternative 1

Construction activities at the Remaining Phase 1 sites associated with either the Proposed Project or Alternative 1 would be confined within the project boundaries described in Chapter 2. Construction personnel and service vehicles would use designated routes to and from the Remaining Phase 1 construction sites. Traffic control associated with Remaining Phase 1 activities would be minimal and is not expected to cause more than minimal disruptions to public services. Access for mobilization and demobilization of heavy equipment, however, may require a higher level of traffic control for local roadways and may disrupt traffic flow and circulation before, during, and after construction. Therefore, effects on emergency services, school bus routes, and student travel routes resulting from heavy equipment would be significant.

No road/bridge closures are planned for project implementation at the Remaining Phase 1 sites; however, in the event that it becomes necessary to close temporarily a road or bridge as a result of project activities, the road/bridge closures would be implemented during non-peak hours to avoid traffic circulation impacts associated with emergency services and school bus services. A closure, even during non-peak hours (i.e., 11:00 p.m. to 6:00 a.m.) could have the potential to increase significantly the response time for law enforcement, fire protection, and other emergency services.

In the event that road closures would be required during the school year (mid-August through mid-June), these closures could delay school bus services. While this impact would be temporary, it could interfere with student access to bus service and, thus, school attendance.

Because of the potential for temporary traffic controls on local roadways, increased response time for emergency services, and interference with student travel, the impact would be significant.

Mitigation Measures

No-Project Alternative

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

Mitigation measures detailed under Impact 4.15-3 in the Master EIR apply (section 4.15.2). No additional mitigation measures are required.

Significance after Mitigation

Less than significant

Impact 7.15-4: Construction of the project could result in a substantial use of nonrenewable energy resources. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

No use of nonrenewable energy resources would occur under the No-Project Alternative because construction activities would not occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

Energy expenditures associated with construction at the Remaining Phase 1 sites under either the Proposed Project or Alternative 1 would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be part of that direct energy use. Indirect energy use typically represents about three-quarters of total construction energy usage, with direct energy use constituting the remaining quarter. Though construction energy would be consumed only during the construction phase, it would represent an irreversible consumption of finite natural energy resources.

Construction would directly consume fuel and electricity. Construction would also indirectly consume fuel and electricity because of the energy used to provide the materials necessary for construction. Fuel would be consumed by both construction equipment and construction-worker vehicle trips. Electricity would be used by construction equipment, such as welding machines, power tools, and pumps. Energy consumed by power equipment during construction would be relatively minimal.

Construction energy consumption would be a short-term impact and would not be an ongoing drain on finite natural resources. Alternative 1 would use less energy than the Proposed Project during construction activities because overall there would be a reduction in the location, type, and magnitude of construction activities. Construction under either the Proposed Project or Alternative 1 would consume energy primarily in the form of fuel from local commercial sources and would not have a significant effect on local or regional energy sources. Therefore, this impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.16

Transportation/Traffic Circulation

7.16 Transportation/Traffic Circulation

This section describes the existing transportation and traffic conditions in proximity to the Remaining Phase 1 sites and evaluates the potential impacts to transportation resources and traffic circulation from implementation of the Proposed Project and alternatives.

7.16.1 Affected Environment/Environmental Setting

Regional and local roadways and circulation in the vicinity of the Remaining Phase 1 sites are described in section 4.16. Roads in the communities of Lewiston and Douglas City would be used in the implementation of the Proposed Project or Alternative 1 at the Remaining Phase 1 sites. Table 7.16-1 identifies and characterizes the access roads for the Remaining Phase 1 sites, and Figures 7.16-1a through 7.16-1d illustrate the local roadways in the vicinity of the sites. Due to the rural nature of these communities, none of the roadways described in Table 7.16-1 have designated pedestrian or bicycle lanes. Based on reconnaissance information provided by TRRP staff and members of the design team, the roads identified in the following table are maintained to varying degrees by the responsible party. No improvements to these roads resulting from project activities described in Chapter 2 are anticipated.

Table 7.16-1. Roadway Characteristics for Access Roads Serving the Remaining Phase 1 Sites

Roadway Name	Remaining Phase 1 Site(s)	Jurisdiction	Number of Lanes	Surface Type	Traffic Counts (ADT)	Cross Streets
SR 299	Steel Bridge Day Use (SB) Reading Creek (RC)	Caltrans	2–3	Paved	1,675	Steel Bridge Road SR 3 Steiner Flat Road
SR 3	Reading Creek (RC)	Caltrans	2-3	Paved	1,650	SR 299
Rush Creek Road	Sawmill (SM) Upper Rush Creek (UR)	Trinity County	2	Paved	409	Trinity Dam Boulevard
Old Lewiston Road	Sawmill (SM) Upper Rush Creek (UR) Lowden Ranch (LR) Trinity House Gulch (THG)	Trinity County	2	Paved	827	Trinity Dam Boulevard
Browns Mountain Road	Lowden Ranch (LR) Trinity House Gulch (THG)	Trinity County/BLM	2	Paved	Not available	Lewiston Road via Bucktail/ SR 3
Cemetery Road	Sawmill (SM)	Trinity County/CDFG	1-2	Aggregate	Not available	Rush Creek Road

Table 7.16-1. Roadway Characteristics for Access Roads Serving the Remaining Phase 1 Sites

Roadway Name	Remaining Phase 1 Site(s)	Jurisdiction	Number of Lanes	Surface Type	Traffic Counts (ADT)	Cross Streets
Goose Ranch Road	Sawmill (SM) Upper Rush Creek (UR)	Trinity County	2	Paved	Not available	Lewiston Road/ School House Road
Steel Bridge Road	Steel bridge Day Use (SB)	Trinity County/BLM	1-2	Paved	177	SR 299
Douglas City Campground Road	Reading Creek (RC)	BLM	1-2	Paved	Not available	Steiner Flat Road
Marshall Road	Reading Creek (RC)	Trinity County/Private	1-2	Aggregate	Not available	SR 3

Sources: Caltrans Information: http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/; Jan Smith, Trinity County Department of Transportation, pers. comm. 2008

7.16.2 Environmental Consequences/Impacts and Mitigation Measures

Table 7.16-2 summarizes the potential transportation and traffic impacts that would result from implementation of the project.

Table 7.16-2. Summary of Potential Transportation Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
7.16-1. Construction activities would reduce/close existing traffic lanes.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]
7.16-2. Construction activities would generate short-term increases in vehicle trips.				
No impact	Significant	Significant	Less than significant	Less than significant
7.16-3. Implementation of the project would obstruct access to adjacent land uses.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

Table 7.16-2. Summary of Potential Transportation Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
7.16-4. Construction activities would increase wear and tear on local roadways.				
No impact	Significant	Significant	Less than significant	Less than significant
7.16-5. Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians.				
No impact	Significant	Significant	Less than significant	Less than significant
7.16-6. Construction activities could affect the form or function of bridges under the jurisdiction of Caltrans, Trinity County, or private parties.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.16-1: Construction activities would reduce/close existing traffic lanes. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no construction-related reduction or closure of traffic lanes. Therefore, there would be no impact.

Proposed Project and Alternative 1

Project construction activities associated with either the Proposed Project or Alternative 1 would be managed to ensure that the public and private roads serving as access for the Remaining Phase 1 sites would remain open to through-traffic. This includes the following roads: SR 299, Rush Creek Road, Cemetery Road, Old Lewiston Road, Brown's Mountain Road, Goose Ranch Road, Steel Bridge Road, SR 3, Riverview Road, Steiner Flat Road, Douglas City Campground Road, and Marshall Road. Temporary traffic control may be necessary during the mobilization and demobilization of heavy equipment; however, no road closures are planned. Passage for emergency vehicles would not be restricted. The adequate passage of traffic within and through the construction area in the event of an emergency evacuation is discussed in sections 4.13 and 7.13, Hazards and Hazardous Materials. Because any traffic control requirements associated with project access roads would be temporary, this impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.16-2: Construction activities would generate short-term increases in vehicle trips. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, short-term increases in vehicle trips would not occur because there would be no construction activities. Therefore, there would be no impact.

Proposed Project, Alternative 1

Construction activities associated with rehabilitation activities would require truck and worker vehicle trips on roads leading to and from the project sites. Vehicle trips would increase on the roads listed in Table 7.16 above, and could increase on several private roads or driveways in the event that additional access is granted by landowners. Construction equipment (e.g., large trucks, excavators, and back-hoes) would be mobilized to the six Remaining Phase 1 sites prior to rehabilitation activities and would be removed upon completion of these activities. During the construction period, when the greatest number of workers and trucks would be required, up to 20 construction workers and their vehicles would need access to the site daily. These vehicle trips would be added to area roads on a recurring basis for the duration of rehabilitation activities at each site (approximately 1 to 3 years for channel rehabilitation work).

As noted in Chapter 2, the transport of excavated materials within and between Remaining Phase 1 sites could occur. In some instances, materials may be transported to off-site locations in the event that on-site storage and use is not feasible or is cost prohibitive. The transport and placement of material at an off-site facility would be consistent with the County's authorization under SMARA as described in sections 4.3 and 7.3. If necessary, this activity would occur between August 1 and October 15. These activities could generate the equivalent of up to 36 truck loads of material per day from an individual rehabilitation site, which would be potentially significant.

Local roads that could be affected in Lewiston include Goose Ranch Road, Lewiston Road, Old Lewiston Road, Rush Creek, and Trinity Dam Boulevard. Local roads that could be affected in Douglas City include Browns Mountain Road, Steel Bridge Road, and Steiner Flat Road. Project implementation would also result in vehicle traffic on SR 299 and possibly SR 3. A number of private roads adjacent to the river could also be affected by project-generated vehicle traffic. The affected roadways would be used only by permission of the property owners.

Site Boundary

Local Roadways

State

County

Private

N

1:8,400

700 0 700

Feet

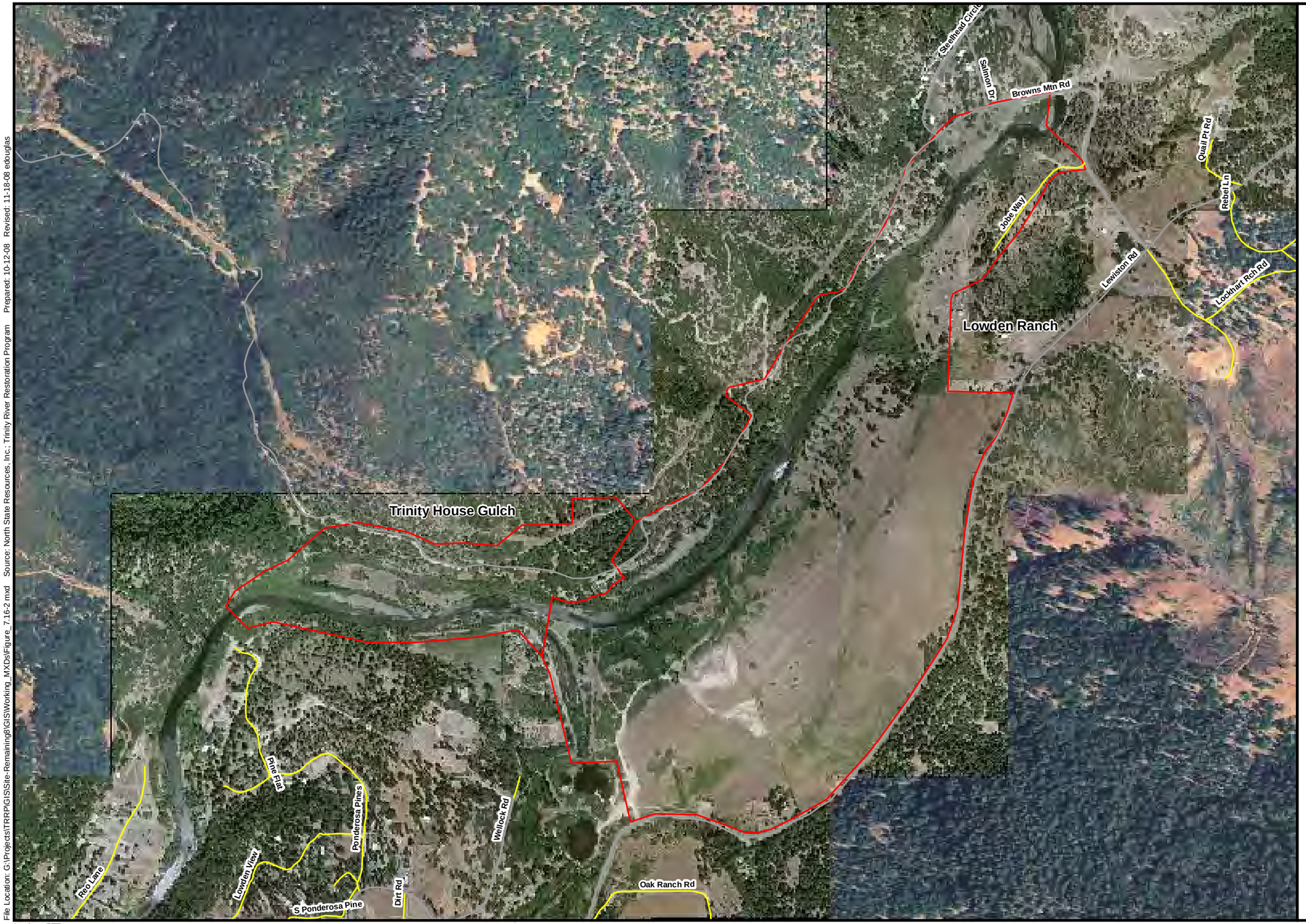
Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7.16-1.mxd Prepared: 10-12-08 Revised: 11-18-08 edouglas Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.16-1a
Local Roadways: Sawmill and Upper Rush Creek Sites



File Location: G:\Projects\TRRP\GIS\Site-Remaining\GIS\Working_MXDs\Figure_7.16-2.mxd Prepared: 10-12-08 Revised: 11-18-08 edouglas Source: North State Resources, Inc.; Trinity River Restoration Program

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.16-1b
Local Roadways: Lowden Ranch and Trinity House Gulch Sites

Site Boundary

Local Roadways

State

County

Private

N

1:3,600

300 0 300

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.16-3.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-12-08 Revised: 11-18-08 eduglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.16-1c
Local Roadways: Steel Bridge Day Use Site

Site Boundary

Local Roadways

State

County

Private

N

1:4,800

400 0 400

Feet

Note: Legend symbol swatches do not necessarily reflect map symbology based on rotation angle of north arrow.

File Location: G:\Projects\TRRP\GIS\Site-Remaining8\GIS\Working_MXDs\Figure_7.16-4.mxd Source: North State Resources, Inc.; Trinity River Restoration Program Prepared: 10-12-08 Revised: 11-18-08 edouglas

North State Resources, Inc.

Trinity River Restoration Program: Remaining Phase 1 Sites

Figure 7.16-1d
Local Roadways: Reading Creek Site

Throughout construction, Reclamation would limit the amount of daily construction equipment traffic by staging the construction equipment and vehicles in the project boundary for the duration of work at each site. Post-construction activities (i.e., revegetation, maintenance, and monitoring) would require intermittent access for 3 to 5 years.

Existing traffic volumes along SR 299 and SR 3 are moderate, and the potential increase in traffic generated from construction would be localized and minimal, consistent with other efforts to reduce GHG emissions. However, off-site gravel hauling and gravel injection activities could result in short-term increases in vehicle trips that would be significant.

Post-construction sediment management activities (e.g., gravel injection and fine sediment removal) associated with the Proposed Project could occur at the locations shown on Figure 1-2, primarily upstream of Indian Creek. Based on projected gravel needs, up to 15,000 tons of gravel could be hauled to these locations on a yearly basis. This could amount to approximately 600 truck loads (which would equal 1,200 truck trips when accounting for travel to and from the sites – numbers are based on a 25-ton double loader truck). Gravels excavated within rehabilitation sites would be used for this purpose where available, which would minimize the amount of gravel that would need to be hauled to the site. The associated traffic impact on local roads would also be minimized as a result. Precise determinations of the amount of gravel that would be needed for gravel injection purposes are difficult because the need for gravel injection is based on factors that are unknown at this time (such as future water-year type and resulting Trinity River flows). Based on the 15,000-ton estimate, this impact would be potentially significant.

Alternative 1

Under Alternative 1, the location, number, and magnitude of activities would be not be as great as under the Proposed Project at the six Remaining Phase 1 sites. This alternative would decrease the location, type, and magnitude of activities relative to the Proposed Project, particularly in terms of the amount of material that will be excavated and transported within or between sites. While this alternative would result in substantially fewer vehicle trips compared to the Proposed Project, the increase in vehicle trips under Alternative 1 would be a significant impact.

Mitigation Measures

No-Project Alternative,

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

The mitigation measure detailed under Impact 4.16-2 in the Master EIR applies (section 4.16.2). No additional mitigation measures are required.

Significance after Mitigation

Less than Significant

Impact 7.16-3: Implementation of the project would obstruct access to adjacent land uses. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1***

No-Project Alternative

Under the No-Project Alternative, access to adjacent land uses would not be affected because no construction activities would occur. Therefore, there would be no impact.

Proposed Project and Alternative 1

As described in section 7.2, land uses in and adjacent to the Remaining Phase 1 sites consist mainly of public and private resource lands and private residential areas. As previously described, construction activities associated with rehabilitation sites in Lewiston would use primary access points on Rush Creek Road, Goose Ranch Road, Cemetery Road, Lewiston Road, and Old Lewiston Road, as well as various private roads. Construction activities associated with rehabilitation sites in Douglas City would use primary access points on SR 299, SR 3, Browns Mountain Road, Steel Bridge Road, River View Road, Steiner Flat Road, Douglas City Campground Road, and various private roads.

Access to adjacent public and private lands could be restricted for short periods of time using traffic control measures. Short-term recreational access to the Trinity River could be restricted, to varying degrees, within and adjacent to the Remaining Phase 1 sites during construction activities. However, several public access points would be available throughout these stretches of river during the project implementation period, both upstream and downstream. Impacts related to recreational access and other recreational resources are discussed under section 7.8, Recreation. Short-term access limitations coupled with the construction criteria described in Chapter 2 (Traffic Control/Detour) would result in an impact that is less than significant for the Remaining Phase 1 sites.

Mitigation Measures

No-Project Alternative, Proposed Project and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Impact 7.16-4: Construction activities would increase wear and tear on local roadways. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, there would be no wear and tear on local roadways. Therefore, there would be no impact.

Proposed Project, Alternative 1

SR 299 and SR 3 are designated truck routes that were built to withstand occasional use by heavy equipment. Other local roads over which project-related trucks and heavy equipment must pass may not be constructed or maintained to support substantial volumes of truck traffic. Numerous local roadways would provide access for construction-related activities at the Remaining Phase 1 sites, including roads under the jurisdiction of federal, state, and local agencies. In some instances, private roads will also be used to access activity areas. Use of these roads by project-related trucks and heavy equipment would increase wear and tear on the local roadways and could result in adverse impacts on the road conditions. The degree of impact would depend on roadway design and existing condition prior to the onset of TRRP activities. Because SR 299 and SR 3 were designed to accommodate a mix of vehicle types, including heavy trucks, the project is not expected to add significantly to roadway wear-and-tear on these highways.

While construction equipment would generally be staged on-site during construction, additional truck travel on local and private roads would be required when excavated material is used to replenish river gravel supplies. Project planning to use on-site coarse sediment would minimize heavy equipment use on local roads needed for access to the majority of the Remaining Phase 1 sites. Additionally, trucks carrying heavy equipment or coarse sediment (i.e., gravel) would operate within the legal weight limits as determined by the state. The number and types of activities could require some level of road reconstruction at select sites before or after the Proposed Project. The level of construction traffic could also require additional maintenance for some road segments in conjunction with various activities. Although standard construction and transportation practices would be implemented to reduce the potential adverse impacts on roadway conditions, the potential wear and tear on some roads under the Proposed Project would be a significant impact.

Alternative 1

Under Alternative 1, the location, number, and magnitude of activities would not be as great as under the Proposed Project at the Remaining Phase 1 sites. This alternative would limit the types of activities to those associated with removal of the riparian berms and reestablishment of functional side-channels at select locations. This reduction or elimination of some activities would translate to an overall reduction in the volume of excavation (cut and fill) at the sites; a decrease in the overall number of roads and staging areas; minimization of the number of in-channel activities, including crossings; and limitation of the overall amount of material that would be transported within or between sites. While this alternative would result in less wear and tear on local roadways compared with the Proposed Project, the potential wear and tear on some roads under Alternative 1 would be a significant impact.

Mitigation Measures

No-Project Alternative

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project and Alternative 1

The mitigation measure detailed under Impact 4.16-4 in the Master EIR applies (section 4.14.2). No additional mitigation is required.

Significance after Mitigation

Less than significant

Impact 7.16-5: Construction activities could pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians. ***No impact for the No-Project Alternative; significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

The No-Project Alternative would not pose a safety hazard to motorists, bicyclists, pedestrians, and equestrians because there would be no construction activities. Therefore, there would be no impact.

Proposed Project, Alternative 1

Traffic safety hazards could arise for motorists, bicyclists, pedestrians, and equestrians in the vicinity of the Remaining Phase 1 construction access routes as a result of the movement of project-related trucks and heavy construction equipment. Truck and equipment access to the Trinity River through each of the Remaining Phase 1 sites during construction activities would be limited to identified routes to minimize public exposure to construction traffic. Trucks entering and exiting access roads off SR 299 and SR 3 may pose a particular hazard to motorists, cyclists, and equestrians using the roadway. The safety hazard would be limited to brief and intermittent time periods; nevertheless, it would be significant.

Mitigation Measures

No-Project Alternative

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

Proposed Project, Alternative 1

The mitigation measure detailed under Impact 4.16-5 in the Master EIR applies (section 4.14.2). No additional mitigation is required.

Significance after Mitigation

Less than significant

Impact 7.16-6: Construction activities could affect the form or function of bridges under the jurisdiction of Caltrans, Trinity County, or private parties. ***No impact for the No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

The No-Project Alternative would not affect bridges under the jurisdiction of Caltrans, Trinity County, or private parties because there would be no construction activities. Therefore, there would be no impact.

Proposed Project and Alternative 1

A number of bridges over the Trinity River and/or its tributaries will be used to access various Remaining Phase 1 sites. The hydraulic model (HECRAS) described in section 4.4 Water Resources has been used to integrate the hydraulic controls established by these constructed features. Modification of the form or function of these structures would not be affected by rehabilitation activities in close proximity to these sites. Therefore, this impact would be less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impacts were identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.17

Tribal Trust

7.17 Tribal Trust

The United States has a trust responsibility to protect and maintain rights reserved by, or granted to, federally recognized Indian tribes and individual Indians by treaties, statutes, and executive orders. These rights are sometimes further interpreted through court decisions and regulations. The Secretary of the Interior is the trustee for the United States on behalf of Indian tribes and individuals. The trust responsibility requires that all federal agencies, including Reclamation, take all actions reasonably necessary to protect and maintain Indian trust assets.

Indian trust assets are legal interests in property held in trust by the federal government for federally recognized Indian tribes or individual Indians. "Assets" are anything owned that has monetary value. "Legal interest" means that a property interest exists for which there is a legal remedy, such as compensation or injunction, if there is improper interference. Indian trust assets do not include things in which an Indian tribe or individual Indians have no legal interest.

Indian trust assets can be real property, physical assets, or intangible property rights, such as a lease or a right of use. Indian trust assets cannot be sold, leased, or otherwise alienated without the approval of the United States. While most Indian trust assets are located on-reservation, they can also be located off-reservation. Examples of Indian trust assets include, but are not necessarily limited to, land, natural resources, native plants and wildlife, cultural resources, minerals, hunting and fishing rights, water rights, and instream flow.

7.17.1 Affected Environment/Environmental Setting

The need to restore and maintain the natural production of anadromous fish in the mainstem Trinity River is derived in part from the federal government's trust responsibility to protect the fishery resources of the region's Indian tribes. The Trinity River Basin Fish and Wildlife Restoration Act of 1984 (Public Law 98-541) expressly acknowledges tribal interests in the basin's fishery resources by declaring that the measure of successful restoration of the Trinity River fishery includes the "ability of dependent tribal…fisheries" to participate fully, through enhanced in-river "harvest opportunities, in the benefits of restoration." In addition, the 1992 CVPIA specifically recognizes the federal trust responsibility in regard to the Trinity River fishery. The project could potentially affect anadromous fish, non-anadromous fish, water, wildlife, vegetation, and overall riverine health; these impacts in turn could affect the sociocultures and economics of tribes.

This section focuses principally on the interests of the Hoopa Valley and Yurok tribes because, of the Indian tribes of the Klamath/Trinity Region, their interests could be the most directly affected by the project. It should be understood, however, that potential project impacts are pertinent to the Karuk and Klamath people as well, since they share a common regional heritage.

Regional Setting

The United States' recognition of the importance of rivers and fish to the Indian people of the Klamath/Trinity Region is exemplified by the shape and location of the lands first set aside for their

reservations. The Secretary's own instructions at the time were "to select these reservations from such 'tracts of land adapted as to soil, climate, water privileges, and timber, to the comfortable and permanent accommodation of the Indians'" (U.S. Fish and Wildlife Service et al. 2000). In 1855, Indian Agent S. Whipple, when speaking of the Yurok, noted that, "The river is abundantly supplied with Salmon. A fine large fish quite easily taken by the Indians and which is very properly regarded by the Indian as his staff of life" (U.S. Fish and Wildlife Service et al. 2000).

In that same year, President Pierce established the Klamath River Reservation. The reservation (not to be confused with the Klamath Reservation in Oregon) was designated as a strip of territory commencing at the Pacific Ocean and extending 1 mile in width on each side of the Klamath River for a distance of approximately 20 miles. This reservation was created entirely within the aboriginal territory of the Yurok. Although the federal government's intent was to eventually move all the region's Indians onto the Klamath River Reservation, only some Yurok and Tolowa were moved. Flooding along the Klamath River in 1862 led to the closing of the area's Indian Bureau office and contributed to the erroneous belief that the reservation had been abandoned, although it was still occupied by the Yurok (U.S. Fish and Wildlife Service et al. 2000).

In 1864, the Department of the Interior (DOI) issued a proclamation and instructions that established the Hoopa Valley Reservation on the Trinity River pursuant to legislation enacted by Congress that same year. The reservation is 12 miles square and bisected by 15 miles of the river (it has often been called the Square or the 12-mile Square). In 1876, President Grant issued an Executive Order formally establishing the boundaries of the Hoopa Valley Reservation and provided that the land contained within those boundaries "be withdrawn from public sale, and set apart in California by act of Congress approved April 8, 1864" (U.S. Fish and Wildlife Service et al. 2000).

Efforts soon began to provide a single contiguous homeland for the region's Indian people by connecting the Klamath River Reservation to the Hoopa Valley Reservation. Paris Folsom, a Special Agent for the DOI, proposed that the two reservations be connected in his "Report of Special Agent on Conditions and Needs of Non-Reservation Klamath Indians," sent to the Commissioner of Indian Affairs in 1885.

In 1891, President Harrison extended the Hoopa Valley Reservation from the mouth of the Trinity River to the ocean, thereby encompassing and including the Hoopa Valley Reservation, the original Klamath River Reservation, and the intervening connecting strip. By that time, as a result of the Dawes Act of 1887, much of the Klamath River Reservation and extension lands (the 20-mile strip that connected the two reservations is commonly referred to as the "Connecting Strip" or "Extension") not already claimed as allotments by resident Indians had been opened up to non-Indian settlement. This led to checkerboard ownership of the Yurok portions of both the Extension and former Klamath River Reservation. Through various means, several timber companies consolidated and logged much of this land.

From 1891 through 1988, the Hoopa Valley Reservation was composed of the Hoopa Valley Square, the Extension, and the original Klamath River Reservation. In 1988, Congress, under the Hoopa-Yurok Settlement Act, separated the Hoopa Valley Reservation into the present Yurok Reservation (a

combination of the original Klamath River Reservation and Extension) and Hoopa Valley Reservation. Figure 7.17-1 shows the current reservation boundaries.

Indian Federally Reserved Rights

By first creating reservations "for Indian purposes," the United States sought to provide the Hoopa Valley and Yurok tribes with the opportunity to remain mostly self-sufficient, exercise their rights as sovereigns, and maintain their traditional ways of life (U.S. Fish and Wildlife Service et al. 2000). Implicit in this objective was an expectation that the federal government would protect the tribes and their resources, a protection that extended beyond reservation borders.

The United States has a trust responsibility to protect tribal trust resources. In general, this tribal trust responsibility requires that the United States protect tribal fishing and water rights, which are held in trust for the benefit of the tribes (U.S. Department of the Interior 1995). This trust responsibility is one held by all federal agencies. For projects under the auspices of the TRRP, Reclamation is obligated to ensure that these projects do not interfere with the tribes' senior water rights. Pursuant to its trust responsibility and consistent with its other legal obligations, Reclamation must also prevent activities under its control that would adversely affect Tribal fishing rights, even when those activities take place off-reservation.

Fishing Rights

Salmon, steelhead, sturgeon, and lamprey that spawn in the Trinity River pass through the Hoopa Valley and Yurok Reservations and are harvested in tribal fisheries. The fishing traditions of these tribes stem from practices that far pre-date the arrival of non-Indians. Accordingly, when the federal government established what are today the Hoopa Valley and Yurok Indian Reservations on the Trinity and lower Klamath Rivers, it reserved for the benefit of the Indian tribes of those reservations a right to the fish resources in the rivers running through them. The Yurok and Hoopa Valley tribes' federally reserved fishing rights entitle them to take fish for ceremonial, subsistence, and commercial purposes. The United States has long recognized the rights of the Hoopa Valley and Yurok tribes of the Klamath/Trinity River basin to fish. The federal government, as trustee, has as affirmative obligation to manage federally reserved Indian rights for the benefit of federally recognized Indian tribes. Federally reserved Indian fishing rights are vested property rights held in trust by the United States for the benefit of the Indians. These rights have been acknowledged and confirmed by the executive, legislative, and judiciary branches of the federal government in a number of authorities including (1) Secretarial Issue Document on Trinity River Fishery Mitigation, issued January 14, 1891; (2) Opinion of the Solicitor of the DOI re: Fishing Rights of the Yurok and Hoopa Valley Tribes (M-36979: October 4, 1993); (3) the CVPIA (3406 (b) (23)); and (4) *Parravano v. Babbitt*, 837 F. Supp. 1034 (N.D. Calif. 1993), 861 F. Supp. 914 (N.D. Calif. 1994), affirmed 70 F.3d 539 (9th Cir. 1995), cert. denied, 518 U.S. 1016 (1996).

In most cases, federally reserved Indian fishing rights cannot be supplanted by state or federal regulation. The above-referenced 1993 Solicitor's opinion (1) reaffirms the historic and legal basis of the federally reserved fishing rights of the Hoop Valley and Yurok tribes; (2) acknowledges the federal government's cognizance of the importance of fish to these Indians at the time it first established reservations on their behalf; (3) concludes that the tribes' federally reserved fishing rights entitle them to harvest quantities of

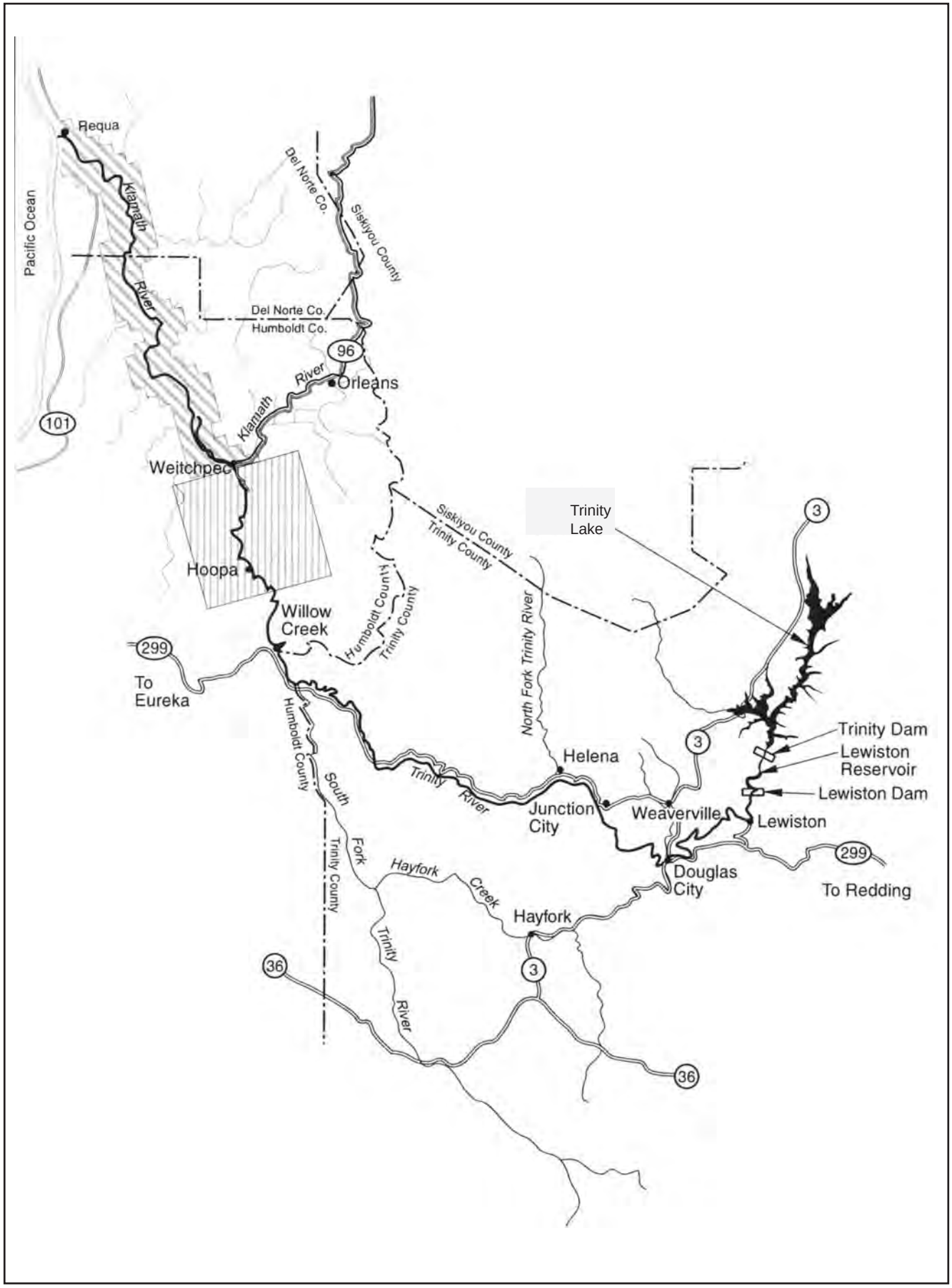


Figure 7.17-1
Trinity River Basin Reservations

fish on their reservations sufficient to support a moderate standard of living, or 50 percent of the harvestable share of the Klamath-Trinity basin fishery, whichever is less; (4) recognizes that under the current depleted condition of the fishery, a 50 percent allocation does not adequately meet the tribes' needs; and (5) argues that it was the degree of the Hoopa Valley and Yurok tribes' dependence on fisheries at the time their reservations were first created or expanded, and not the tribes' specific uses of the fish, that is relevant in quantifying their federally reserved fishing rights.

Today, the reserved fishing right includes the right to harvest quantities of fish that the Indians require to maintain a moderate standard of living, unless limited by the 50 percent allocation. Specifically, the tribes have a right to harvest all trust species of Klamath River and Trinity River fish for their subsistence, ceremonial, and commercial needs. Tribal harvest of these species is guided by conservation requirements outlined in carefully developed tribal harvest management plans.

Water Rights

In addition to fish, the tribes have reserved rights to water. The concept of reserved rights in general, and Indian reserved water rights specifically, originated just after the start of the 20th century with *Winters v. United States*, 207 U.S. 564 (1908). The ruling in this case, commonly referred to as the Winters Doctrine, states that when the federal government established a reservation, it implicitly reserved a quantity of water necessary to fulfill the purpose of said reservation. Generally, all original documents related to the establishment of reservations—treaty, executive order, or statute—indicate, at a minimum, that the purpose of the reservations is to provide a permanent home for the tribe(s) in question. In cases where reservations have been created with specific language stating or implying reserved fishing, hunting, gathering, or other rights, the Winters Doctrine has been interpreted to mean that adequate water supplies for these purposes have been reserved (even in addition to more general uses; see *U.S. v. Adair*, 723 F.2d 1410 [9th Cir. 1983]).

The DOI Solicitor's office reaffirmed these rights with respect to Reclamation's activities, stating "Reclamation is obligated to ensure that project operations not interfere with the Tribes' senior water rights. This is dictated by the doctrine of prior appropriations as well as Reclamation's trust responsibility to protect tribal trust resources" (U.S. Department of the Interior 1995). The Solicitor's office also noted that the Secretary, "through Reclamation, must operate reclamation projects consistent with vested, fairly implied senior Indian water rights" (U.S. Department of the Interior 1995). Further, absent a "completed adjudication or other determination of the senior water rights," projects must be "operated based on the best available information."

Rights to Wildlife and Vegetation Resources

While the focus of the legal history surrounding Indian rights to resources has concentrated on water and fisheries, other resources, such as wildlife and vegetation, are also extremely important to the tribes, and the tribes have assessed that these resources are no less reserved. In the case of the Hoopa Valley and Yurok tribes, the decline in the health of the region's rivers has limited the availability of grasses and other plants important to traditional basketry, art, and medicine. Thus, while anadromous fish are the

focus of the TRRP, other trust assets, such as vegetation, are embodied in the federal government's trust responsibility and, accordingly, need to be considered in the decision-making process.

Potentially Affected Indian Trust Assets

Indian tribes of the Klamath/Trinity Region have firmly established federally protected rights to numerous natural resources. These general resource groupings represent culturally important Indian trust assets. A partial list of trust assets is presented in Table 7.17-1. While each tribe has its own uses for the species and resources listed, the table provides a general summary of what these uses are.

Table 7.17-1. Partial List of Klamath/Trinity Region Tribal Assets

Asset	Primary Uses by Tribes
Aquatic Resources[1]	
Water	Subsistence, ceremonial, commercial, medicine
Fall Chinook salmon	Subsistence, ceremonial, commercial
Spring Chinook salmon	Subsistence, ceremonial, commercial
Summer steelhead	Subsistence, ceremonial, commercial
Fall steelhead	Subsistence, ceremonial, commercial
Winter steelhead	Subsistence, ceremonial, commercial
Coho salmon	Subsistence, ceremonial, commercial
Pacific lamprey	Subsistence, ceremonial, commercial
Sturgeon	Subsistence, ceremonial, commercial
Eulachon	Subsistence, ceremonial, commercial
Terrestrial Resources	
Willow shoots	Basketry, ceremonial
Cottonwood	Basketry
Wild grape	Basketry
Bulrush	Basketry
Hazel sticks	Basketry and weaving, ceremonial
Tules	Medicine
Spearmint	Medicine, subsistence
Blackberries	Subsistence
Bear	Subsistence
Bald eagle	Ceremonial
Blue heron	Ceremonial
Mallard	Ceremonial

[1]While many of the fish listed are not currently commercially harvested by the tr bes of the region, all these trust species were historically used for commercial purposes and the tribes continue to have the right of commercial harvest.

Cultural Environment

Native uses of natural resources and the cultural significance of those resources have developed over many centuries, during the time that native people have lived in the heavily forested drainages of the Klamath and Trinity rivers and adjacent streams in northwestern California. Hunting, fishing, and gathering were the foundation of their societies. Tribes in the area included the Chilula, Hoopa Valley, Nongatl, Tsnungwe, and Whilkut, which spoke Athabascan languages; the Chimariko, Karuk, and Shasta, which spoke Hokan languages; the Wintun, which spoke a Penutian language; and the Wiyot and Yurok, which spoke Algonkian languages.

Some of these tribes, such as the Chilula, no longer exist. Others, including the Chimariko and Wintu, have not been officially recognized by the United States as a distinct and sovereign people. Among the Indian peoples still present in the region, only the Hoopa Valley, Karuk, Klamath, and Yurok tribes have received this recognition.

The aboriginal lands of the Hupa people are centered on the drainages of the Hoopa Valley of the Trinity River. The aboriginal lands of the Yurok were generally centered on the Klamath River drainage from the mouth of the river at the Pacific Ocean up to and including the Slate Creek drainage. Yurok ancestral territory also extends up the Trinity River to Tank Creek and includes the village of Oslegoits, 6 miles from the Trinity's confluence with the Klamath.

Strong social, cultural, and economic ties have existed through history among the tribes of the Klamath/Trinity basin, based in large part on a shared reliance on the region's rivers and associated resources, particularly salmon. This reliance extends well beyond subsistence and commerce to the cultural and social fabric of their societies, as evidenced by their traditional, ceremonial, and spiritual ways of life that focus and center on the rivers and the fish, wildlife, and vegetation they support. For Indians of the Klamath/Trinity basin, the interaction and identification with the natural environment define their cultures, lifestyles, and religions; therefore, the degradation of the natural environment has had a profoundly devastating impact.

Local Setting

Based on consultation with the tribes and Reclamation, the Remaining Phase 1 sites discussed in this document (see Figure 1-2) contain Trust assets, including fish, vegetation, and wildlife. Corresponding sections of this document provide discussions of these resources. While no specific use of these sites by the tribes has been identified, the Trinity River provides a valuable corridor that connects these resources to the Hoopa Valley and Yurok tribes.

7.17.2 Environmental Consequences/Impacts and Mitigation Measures

The purpose of this section is to evaluate the potential impacts of the alternatives on tribal trust assets and the subsequent effects those impacts may have on the Indian tribes of the Klamath/Trinity basin.

Methodology

While the project is aimed at improving the river's anadromous fisheries, an assessment of how project construction may actually affect the Indian trust assets of the Hoopa Valley and Yurok Tribes must be performed, as directed in the DOI Departmental Manual (Part 512, Chapter 2), and Reclamation's Indian Trust Asset Policy. Toward this end, the Indian trust asset impact evaluation focuses on the potential effects of the rehabilitation activities described in Chapter 2 on the health of the Trinity River. Because the river's overall health is a primary factor in determining the availability of fish, the potential tribal trust impacts are not evaluated on an asset-by-asset basis.

Significance Criteria

Under CEQA, lead agencies are not explicitly required to consider projects' impacts on tribal trust assets as a distinct category of impacts. With its focus on the physical environment, CEQA requires agencies to focus on impacts to environmental resources, some of which, such as fish, wildlife, and water quality, would be indirectly related to tribal trust values. Therefore, the significance criteria applied in this evaluation of potential consequences on tribal trust assets are general and based on the potential for components of the Proposed Project and its alternatives to result in any modification of, or change in, the quantity or quality of tribal trust assets.

Although CEQA does not expressly require the application of specific significance criteria for potential impacts to Indian trust assets, federal lead agencies evaluating proposed actions under NEPA typically include the evaluation of potential impacts to Indian trust assets as a distinct category of impacts. Accordingly, this evaluation assessed the impacts of the proposed activities described in this document relative to any modification or change in the value, use, quantity, quality, or enjoyment of downstream Indian trust assets.

Impacts and Mitigation Measures

Table 7.17-2 summarizes potential impacts on Indian trust assets that would result from implementation of the project.

Table 7.17-2. Summary of Potential Tribal Trust Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.17-1.	Implementation of the project may reduce the quantity or quality of Tribal trust assets.			
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.17-1: Implementation of the project may reduce the quantity or quality of Tribal trust assets. ***No impact for No-Project Alternative; less-than-significant impact for Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, mechanical channel rehabilitation activities would not be implemented; therefore, no direct impact to Tribal trust assets would occur. However, implementation of the No-Project Alternative would mean that the proposed activities to improve the fishery and other resources of the mainstem Trinity River would not be undertaken. Thus, under the No-Project Alternative, the related Tribal trust assets would be maintained in their current condition but not receive the benefits associated with river rehabilitation.

Proposed Project and Alternative 1

Under either the Proposed Project or Alternative 1, the Trinity River would continue to support tribal trust assets. The short-term impacts described in sections pertaining to geology, fluvial geomorphology, and soils; water quality; fishery resources; and vegetation, wildlife, and wetlands would occur if the project is implemented. These impacts are expected to be short-term and to be outweighed by the overall benefits to Tribal trust assets gained through implementation of the overall TRRP. Therefore, this impact is less than significant.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation is required.

Significance after Mitigation

Not applicable

SECTION 7.18

Environmental Justice

7.18 Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," dated February 11, 1994, requires federal agencies to identify and address adverse human health or environmental effects of their actions on minorities and low-income populations and communities as well as the equity of the distribution of the benefits and risks of their decisions. Environmental justice addresses the fair treatment of people of all races and incomes with respect to actions affecting the environment. Fair treatment implies that no group of people should bear a disproportionate share of negative impacts from an environmental action.

To comply with the environmental justice policy established by the Secretary of the Interior, all DOI agencies are to identify and evaluate any anticipated effects, direct or indirect, from a project, action, or decision on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks. Accordingly, this section examines the anticipated impacts associated with the alternatives with respect to potentially affected minority and economically disadvantaged groups. Socioeconomic issues, including population and housing, are evaluated in this document in the sections pertaining to Socioeconomics, Population, and Housing. This section does not function as part of the EIR portion of this joint document, because CEQA does not require state or local agencies to address environmental justice concerns in an EIR. In other words, environmental justice is not a CEQA issue.

7.18.1 Affected Environment/Environmental Setting

Regional Setting

Poverty Rate

The U.S. Census uses a set of income limits that vary by family size and composition to determine who is poor. If a family's total income is less than the income limit, then that family, and every individual in it, is considered poor. Poverty income level thresholds are nationwide standards set by the Census. The formula for the poverty rate is the number of persons below the poverty level divided by the number of persons for whom poverty status is determined. A comparison of the poverty rates calculated for Trinity County and California between 1989 and 2004 is depicted in Table 7.18-1.

Table 7.18-1. Poverty Rate, Trinity County and California

	1989	2004
Trinity County	18.5%	14.2%
California	12.5%	13.2%

Source: Center for Economic Development (2007)

In 2004, 14.2 percent of the population in Trinity County was living in poverty. The 2004 median household income for Trinity County was $30,307, which is 39 percent less than the median California income (Center for Economic Development 2007).

Population by Race/Ethnicity

Population by race and ethnicity is estimated annually by the California Department of Finance, Demographic Research Unit. Population by race and ethnicity is compiled by what the respondents to the U.S. Census indicate as their primary ancestry. White, black, American Indian, and Asian are racial designations, while Hispanic is an ethnic designation that can be a mixture of white, black, and American Indian races. The Hispanic population is separated from the four main racial groups because many Hispanic people associate their ancestry with their ethnicity rather than their race.

According to the data compiled by the Center for Economic Development (2007), the vast majority of the population in Trinity County (approximately 84 percent), as measured in 2006, consists of white non-Hispanic individuals. The largest minority population in the county is the American Indian population. In 1990, American Indians constituted 4.6 percent of the total county population. By 2006, the percentage had increased to 5.4 percent, compared to less than 1 percent for California. In 1990, the Hispanic population was 3.3 percent of the county's total population. By 2006, the percentage had increased to 5.3 percent of the total, compared to 36 percent in California.

In 1990, Trinity County's non-Hispanic white population was 91 percent of the county's total population. By 2006, the percentage had decreased to 84 percent (Center for Economic Development 2007). The percentage of black and Asian residents in the county remained small (each less than 1 percent).

Local Setting

The Trinity River is a valuable economic resource for Trinity County. Its popularity as a recreation destination, particularly for fishing, white-water recreation, gold panning, and as an access point to the Salmon-Trinity Alps, directly benefits communities such as Lewiston, Douglas City, and Junction City through increased business patronage. Campgrounds and river access points occur in close proximity to the project sites. These businesses benefit during peak recreation-use periods (e.g., rafting, kayaking, and fishing). Other economic opportunities such as agriculture are severely limited by the surrounding topography; thus, minimizing the attraction for a transitional labor pool.

The Lewiston community is predominately white (89.9 percent) (U.S. Census Bureau 2000). The proportion of people living below the poverty level is higher (20.2 percent) for this area than for the balance of the United States (12.4 percent) (U.S. Census Bureau 2000). The Lewiston Community Plan area has few multiple family units (Trinity County 1986); however, numerous single-family homes are located adjacent to the boundaries of the Remaining Phase 1 sites.

Census statistics are not available for Douglas City. However, statistics are available for the zip code (96024) that includes Douglas City (U.S. Census Bureau 2008). This community is predominately white (90.4 percent) and, according to the 2000 census, the proportion of people in this area living below the poverty level (18.0 percent) is higher than for the balance of the United States (12.4 percent). The Douglas City Community Plan area has virtually no multiple family units; however, numerous single-family homes are located within or adjacent to the boundaries of the Remaining Phase 1 sites.

The Lewiston Elementary School, which includes grades kindergarten through eight (approximately 92 students), is located at 685 Lewiston Road. This school is composed of 76.1 percent white (not Hispanic), 6.5 percent Hispanic or Latino, 6.5 percent American Indian or Alaska Native, 6.5 percent African American, and 3.3 percent Pacific Islander (California Department of Education 2008). The ethnicity of the children attending the Lewiston Elementary School corresponds to the general ethnic composition of the Lewiston community and its environs. At the Lewiston Elementary School, 88 percent of the children participate in the free/reduced-fee lunch program (California Department of Education 2008).

The Douglas City Elementary School, which includes grades kindergarten through eight (approximately 117 students), is located at 100 Schoolhouse Road. The Douglas City School District encompasses 125 square miles of mountainous terrain with scattered residences, no industry, and only a handful of small businesses. This school is composed of 88.9 percent white (not Hispanic), 5.1 percent Hispanic or Latino, 3.4 percent American Indian or Alaska Native, 0.9 percent Asian, and 0.9 percent Pacific Islander (California Department of Education 2008). The ethnicity of the children attending the Douglas City Elementary School corresponds to the general ethnic composition of the Lewiston community and its environs. At the Lewiston Elementary School, 48.7 percent of the children participate in the free/reduced-fee lunch program (California Department of Education 2008).

State averages for ethnic composition of public schools are 29.4 percent white (not Hispanic), 48.1 percent Hispanic or Latino, 8.1 percent Asian, 0.8 percent Native American or Alaska Native, 0.6 percent Pacific Islander, 7.6 percent African American, and 2.6 percent Filipino (California Department of Education 2008)

7.18.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

The EPA compares three factors—minority representation, low-income representation, and environmental burden—for a community of concern and one or more reference areas—for example, an entire county—to analyze potential environmental justice impacts. A community of concern can be defined in a number of ways, including a municipality, a census block group, a user-defined radius around a source of pollution, or a boundary drawn along physical features such as streets, streams, or railroad tracks. The demographic data for the community of concern can then be analyzed to determine whether there would be a potential environmental justice concern in the area.

As part of this analysis, poverty levels and minority population levels were examined for Trinity County as a whole, as well as the communities of Lewiston and Douglas City. Detailed information on the residential areas associated with the Remaining Phase 1 sites was unavailable.

Significance Criteria

Because environmental justice is not a CEQA issue, specific significance criteria were not applied in evaluating potential environmental justice consequences. Instead, any modification or change in environmental justice factors that would occur in response to the Proposed Project and its alternatives is evaluated in accordance with NEPA requirements.

Impacts and Mitigation Measures

Table 7.18-2 summarizes the potential environmental justice impacts that would result from implementation of the project.

Table 7.18-2. Summary of Potential Environmental Justice Impacts for the No-Project Alternative, Proposed Project, and Alternative 1

No-Project Alternative	Proposed Project	Alternative 1	Proposed Project with Mitigation	Alternative 1 with Mitigation
Impact 7.18-1. Implementation of the project could adversely affect a minority or low-income population and/or community.				
No impact	Less than significant	Less than significant	Not applicable[1]	Not applicable[1]

[1]Because this potential impact is less than significant, no mitigation is required.

Impact 7.18-1: Implementation of the project could adversely affect a minority or low-income population and/or community. ***No impact for No-Project Alternative; less-than-significant impact for the Proposed Project and Alternative 1.***

No-Project Alternative

Under the No-Project Alternative, no impact to a minority or low-income population or community would take place because the project would not be constructed. Therefore, there would be no impact.

Proposed Project and Alternative 1

Although minority and low-income residents live in the vicinity of the project, the impacts would generally be experienced by residents in relationship to their proximity to the project sites, regardless of their racial or income characteristics. There is no evidence to suggest that the project would cause a disproportionately high adverse human health or environmental effect on minority and low-income populations compared to other residents of the area. The known health risks to residents that could be associated with the project are evaluated in the sections of this document related to Water Quality, Air Quality, Hazardous Materials, and Noise. For the most part, these health risks are associated with the construction aspects of the project, in that residents and construction workers could be exposed to hazardous materials that may be associated with the project. Possible health risks also include construction-related accidents. Reclamation will manage the project to minimize these risks, as required by applicable federal and state safety regulations. Therefore, no specific or disproportionate health risks or other impacts to low-income groups would be associated with the project.

Mitigation Measures

No-Project Alternative, Proposed Project, and Alternative 1

No significant impact was identified; therefore, no mitigation measures are required.

Significance after Mitigation

Not applicable

CHAPTER 8

Cumulative Effects and Other Statutory Considerations

Chapter 8
Cumulative Effects and Other Statutory Considerations

This chapter addresses certain statutory considerations, including cumulative impacts, that must be evaluated pursuant to NEPA and CEQA. Some of these considerations are similar to those discussed in Chapter 5 (Part 1, the Master EIR for the Remaining Phase 1 and Phase 2 sites).

8.1 Introduction

As explained in Chapter 6, Part 2 of this document provides the site-specific environmental analysis necessary for compliance with NEPA and CEQA for the Remaining Phase 1 sites. The relationship of Part 2 to the Master EIR is discussed in section 6.1.2. The two statutes are briefly compared in section 6.1.3. This chapter addresses the following topics:

- cumulative impacts;
- the irreversible and irretrievable commitments of resources;
- relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and
- environmental commitments and mitigation measures.

8.2 Cumulative Impacts

8.2.1 Regulatory Framework

The regulatory framework for the assessment of cumulative impacts under CEQA is discussed in Chapter 5, section 5.2.1.

Under NEPA, the CEQ NEPA implementing regulations state that "cumulative actions" are among the types of actions that should be considered by lead agencies because, in combination with other actions, such actions may have cumulatively significant impacts requiring analysis in the environmental document (40 CFR 1508.25(a)(2)). Cumulative impacts result from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) undertakes the other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

8.2.2 Methodology and Analysis

The methodology for the cumulative impact analysis in this document is described in Chapter 5, section 5.2.2. As discussed in that section, the methodology involved the assessment of the potential cumulative effects of the Proposed Project when considered in combination with a list of related projects within a

defined geographical area. The assessment of cumulative impacts for the Remaining Phase 1 sites is considered in the same cumulative context—i.e., using the same list of related projects and programs and the same geographical area.

The issue-specific analysis of cumulative impacts in Chapter 5 identifies the potential cumulative impacts related to the Remaining Phase 1 and Phase 2 sites for a variety of resource areas. For these resource areas, no additional cumulative impacts have been identified that are specific only to the Remaining Phase 1 sites. The previous issue-specific analysis in Chapter 5 sufficiently addresses the cumulative impacts of the Proposed Project, and no clearly discernable differences arise in the consideration of the Remaining Phase 1 sites separately.

Two additional topics, which stem primarily from federal mandates and responsibilities, are addressed below.

8.2.3 Tribal Trust Assets

Tribal trust assets are discussed in section 7.17. Restoration and maintenance of the natural production of anadromous fish in the mainstem Trinity River is consistent with the federal government's trust responsibility to protect the fishery resources of the region's Indian tribes. Implementation of either the Proposed Project or Alternative 1 as mitigated would benefit, rather than adversely affect, Tribal Trust assets in the long term, as would most of the other related projects and programs described in Chapter 5.

The related projects and programs (described in Chapter 5), in combination with the Proposed Project, are expected to cumulatively result in beneficial effects to the tribal trust assets, including the overall health of the Trinity River and its fishery resources. No significant cumulative impacts to tribal trust assets are anticipated to occur as a result of implementation of either the Proposed Project or Alternative 1.

8.2.4 Environmental Justice

Activities evaluated in terms of cumulative impacts are specific to the Trinity River basin. Most of these activities, particularly those within the riverine areas, are intended to rehabilitate the Trinity River and restore the river's fishery resources. Implementation of the Remaining Phase 1 and Phase 2 sites, in conjunction with the other related projects and programs (described in Chapter 5), is anticipated to provide a net benefit to the local communities by helping to restore the Trinity River's fishery resources. No disproportionate environmental effects on minority or low-income populations have been identified for either the Remaining Phase 1 or Phase 2 sites, and no significant cumulative impacts to environmental justice are anticipated to occur as a result of the implementation of either the Proposed Project or Alternative 1.

8.3 Irreversible and Irretrievable Commitments of Resources

Under NEPA (Section 102) and the CEQ NEPA implementing regulations (40 CFR 1502.16), an environmental impact statement must include a discussion of "any irreversible and irretrievable

commitments of resources which would be involved in a Proposed Action should it be implemented." By extension, this requirement is also addressed in this environmental assessment.

Additionally, Section 15126.2(c) of the CEQA Guidelines requires a discussion of the significant irreversible environmental changes that would result from a proposed project should it be implemented. This section of the CEQA Guidelines states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The No-Project Alternative would not directly involve the use of resources or cause significant irreversible environmental effects other than those previously described in the Trinity River Mainstem Fishery Restoration FEIS (U.S. Fish and Wildlife Service et al. 2000) and incorporated by reference in other sections of this document.

Implementation of either the Proposed Project or Alternative 1 would not involve the substantial use of nonrenewable resources in such a way that would result in conditions that would be irreversible though removal or nonuse thereafter. Future generations would not be committed to irreversible consequences or uses; the effect on future generations would be beneficial as a result of the enhanced and maintained river system and related fishery resources. No irreversible damage from environmental accidents would be foreseeable in association with either action alternative.

Implementation of either action alternative would result in the use of fossil fuels, a nonrenewable form of energy. Energy resources in general are an increasingly important concern at state, national, and international levels in terms of the environment, the global economy, and U.S. security A relatively minor amount of nonrenewable resources would be used in the mechanical rehabilitation of the river channel, transport of gravel, and related construction and management activities at the Remaining Phase 1 and Phase 2 sites, as described in Chapter 2. The material requirements for this project would be relatively minor compared to the overall demand for such materials, and the use of these materials would not have a significant adverse effect on their continued availability. The project objectives and project purpose and need support the expenditure of these resources.

As discussed in section 5.4.3, the environmental analysis conducted for the Proposed Project in Part 1 did not identify any significant irreversible effects. Mechanical changes in the river channel and riverbank profile are not irreversible changes nor are changes in the extent or structure of riparian vegetation. Over time, river flows will modify the rehabilitated structure of the channel and redistribute introduced sediment through natural processes. Changes in channel profile, sediment, and riparian vegetation are

dynamic, but not irreversible, and such changes are expected to be significant, beneficial effects in terms of restoring the river's complex structure and ecology for the benefit of the river's fisheries.

8.4 Relationship between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Section 102 of the CEQ NEPA Regulations and CFR 1501.16 require that an environmental document include a discussion of "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity." Although this requirement applies to environmental impact statements, this consideration is incorporated into this environmental assessment.

The Proposed Project does not involve a trade-off between a "local short-term use" of the environment and the maintenance and enhancement of the environment in the sense contemplated by NEPA. Implementation of the Proposed Project at the Remaining Phase 1 sites and Phase 2 sites is intentionally aimed at maintaining and enhancing the long-term biological and environmental productivity of the river system. Implementation of the Proposed Project would not sacrifice the long-term productivity of the project area for short-term uses during construction.

The short-term impacts on the environment associated with implementation of the Proposed Action are considered minimal compared to the long-term benefits and productivity that would result from the Proposed Action in conjunction with other objectives of the TRRP. Construction-related impacts on natural resources, including water quality, fisheries, wildlife, vegetation, and wetlands, will be mitigated to less-than-significant levels. Land use conflicts associated with noise, aesthetics, air quality, and traffic would be short-term, occurring only during the construction phase of the project. While such impacts are considered significant (in a CEQA sense), they will be mitigated to less-than-significant levels.

8.5 Environmental Commitments and Mitigation Measures

Reclamation's NEPA implementation guidance recommends that a list of environmental commitments for the preferred alternative be included in an EA. The list should contain all mitigation measures and management actions that are incorporated in the project as part of the proposal.

Because this document is a joint NEPA/CEQA document, mitigation measures have been identified for potentially significant impacts in compliance with CEQA requirements. These mitigation measures have been identified in various sections of this document and compiled in the Draft MMRP.

As discussed in section 5.5, under CEQA, lead agencies are required to adopt a program for monitoring or reporting on the revisions that they required to be made in the project and other measures required to mitigate or avoid significant environmental effects. The Draft MMRP for the implementation of the Proposed Project complies with Reclamation's practice to include a list of environmental commitments in an EA. The Draft MMRP is included as Appendix E to this document.

CHAPTER 9

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Chapter 9
References

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Chapter 4

Section 4.1

None

Section 4.2

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CHAPTER 10

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