APPENDIX B

B1: BIOLOGICAL RESOURCE ASSESSMENT
B2: WETLAND DELINEATION REPORT

BIOLOGICAL RESOURCE ASSESSMENT
FOR THE
EAST MAIN STREET/IDAHO MARYLAND ROAD ROUNDABOUT STUDY AREA

CITY OF GRASS VALLEY, NEVADA COUNTY, CALIFORNIA

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FOR THE
EAST MAIN STREET/IDAHO MARYLAND ROAD ROUNDABOUT STUDY AREA

INTRODUCTION

Project Location and Setting

North Fork Associates (NFA) conducted a Biological Resource Assessment for the approximately 1.81-acre East Main Street/Idaho Maryland Road (EMIM) Roundabout in the city of Grass Valley, Nevada County, California. The study area is located in the lower Sierra Nevada at approximately 2,420 to 2,430 feet in elevation. The project site is located northwest of and adjacent to Highway 20/49, approximately ½ mile northeast of the downtown area. It is within Section 26 of Township 16 North, Range 8 East on the Grass Valley 7 ½ minute USGS quadrangles (Figure 1). The approximate latitude and longitude for the center of the study area are 39º13'18.28" north and 121º3'9.55" west.

Most of the study area is paved, supporting existing roadways. Matson Creek runs north to south and crosses East Main. A portion of Matson Creek is within the study area (north of East Main Street) and supports a narrow band of riparian vegetation. Matson Creek drains into Wolf Creek southwest of the study area, after Wolf Creek crosses underneath Highway 49. However, no portion of Wolf Creek occurs within the study area. A ditch carrying storm water and urban runoff occurs in the southeast corner of the study area. The ditch contains emergent vegetation, such as cattails.

Adjacent land uses are commercial and include the former location of Hills Flat Lumber Company, a Chevron gas station, and Kubota Tractor store. Highway 49 borders to the study area to the south (Figure 2).

Project Description

The proposed project includes construction of a partial two-lane roundabout at the intersection of East Main Street/Idaho-Maryland Road.

Objectives

- Identify and describe the biological communities present on the project site.
- Record plant and animal species observed on the project site.
- Evaluate and identify sensitive resources and special status plant and animal species that could be affected by project activities.
- Provide recommendations, including a preliminary assessment of potential impacts and mitigation alternatives.

METHODS

Available Literature and other Information

A variety of resources were used in this assessment. Coastland Civil Engineering supplied an aerial photograph of the study area. Soil information was obtained from the Nevada County soil survey (USDA 1975), and geological information was taken from the *Geologic Map of California, Chico Sheet* (California Department of Conservation, Division of Mines and Geology 1962).

The following publications were reviewed to provide information on life history, habitat requirements, distribution, and conservation status of regionally occurring animal species: *California's Wildlife*, Volumes I-III (Zeiner et al. 1988, 1990a, 1990b), *A Field Guide to Western Reptiles and Amphibians* (Stebbins 1985), *Mammals of the Pacific States* (Ingles 1965), *The Peterson Field Guide to Hawks of North America (*Clark and Wheeler 1987) and *The Sibley Field Guide to Birds of Western North America* (Sibley 2003).

Special Status Species Reports

NFA queried the California Natural Diversity Data Base (CNDDB) (CDFG 2007) for location records for special status species known to occur in the region surrounding the project site. Quadrangles included in the query were Grass Valley, French Corral, Nevada City, North Bloomfield, Chicago Park, Colfax, Lake Combie, Wolf, and Rough and Ready. NFA biologists also reviewed the special status animal species lists for the Grass Valley USGS quadrangles created by the U.S. Fish and Wildlife Service. The California Native Plant Society Inventory was checked for special status plants occurring in the area.

For the purposes of this report, special status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the federal Endangered Species Act (including candidates and species proposed for listing),
- listed as endangered or threatened under the California Endangered Species Act (including candidates and species proposed for listing),
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code,
- designated a Species of Concern by the California Department of Fish and Game,
- defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA), or
- occurring on List 1, 2, 3 or 4 maintained by the California Native Plant Society.

Field Surveys

The field assessment portion of the study was conducted on June 1, 2007 by Barry Anderson and Erin Gottschalk (botany) and on June 11, 2007 by Gaylene Tupen (wildlife). A wetland delineation was also conducted as part of the study during the June 1, 2007 site visit. Site surveys were conducted to assess habitat conditions and determine the potential for occurrence of special status plant and wildlife species. Surveys consisted of walking the site, recording notes of species observed or their respective sign, and assessing habitat conditions. Appendix A

is a list of plants observed, and Appendix B is list of wildlife observed on site. Plant names are according to *The Jepson Manual* (Hickman 1993), except for changes obtained from the Jepson Interchange, an online database maintained by the University and Jepson Herbaria of the University of California.

RESULTS

Geology and Soils

The EMIM Roundabout study area is situated on Mesozoic granite and volcanic rocks (California Department of Conservation, Division of Mines and Geology 1962). These geological formations are not known to support soil-specific special status plant species that occur primarily in the Sierra Nevada foothills.

Two soil units are mapped on the study area (USDA 1975):

- SIC – Sites loam, 9 to 15 percent slopes
- Ao – Alluvial land, clayey

Sites soils are Xeric Haplohumults. Sites loam soils consist of well-drained soils underlain by tilted metasedimentary and metabasic rock. These soils are undulating to steep. The subsoil is about 56 inches of yellowish-red clay loam and red clay, and light clay. Permeability is moderately slow in the subsoil. Runoff is medium.

Alluvial land, clayey is a miscellaneous land type consisting of narrow areas of alluvial material deposited along small stream channels and drainage ways. This moderately well drained to poorly drained material formed in fine-textured alluvium derived dominantly from metabasic and granitic rock. Permeability is moderately slow to very slow in this land type. Runoff is slow. This land is sometimes flooded during the rainy season.

Hydrology

The EMIM Roundabout study area is in the Upper Bear Watershed (Hydrologic Unit Code (HUC) 18020126). The main hydrologic feature crossing the study area is Matson Creek, a perennial drainage that runs north to south and crosses East Main Street. This feature is not represented as a blue-line feature on the USGS map and may not have historically been a perennial feature. With an increase in urban runoff, it appears that Matson Creek contains flowing water year-round. Matson Creek drains into Wolf Creek southwest of the study area. Wolf Creek drains into the Bear River at the Nevada/Placer County line. The Bear River drains into the Feather River, which ultimately connects with the Sacramento River at the Yolo/Sutter County line. The EMIM Roundabout study area also supports a roadside ditch that collects storm water and urban runoff.

Biological Communities

Three habitat types were observed within the EMIM Roundabout study area and include paved, riparian, and emergent vegetation (Figure 3). Site photographs are included in Figure 4.

Table 1
Biological Communities

Biological Community	Estimated Acreage
Paved	1.77
Riparian	0.02
Emergent Vegetation	0.02
Total	**1.81**

Plants

The study area supports a highly disturbed and modified landscape. The majority of the area supports pavement, part of the existing East Main Street and Idaho-Maryland Road intersection. This paved area is devoid of vegetation except for a few ornamental perennials and fruit trees bordering the Chevron parking lot.

A narrow band of emergent vegetation occurs in the ditch in the southeastern corner of the intersection (Figure 4c). The ditch is dominated by broad-leaved cattail; other plant species include common monkeyflower, water cress, Brazilian vervain, and smartweed. This habitat is disturbed, as observed throughout the year, the ditch undergoes regular maintenance and the cattails are cut.

A narrow band of riparian vegetation is associated with Matson Creek in the northwestern corner of the intersection (Figure 4a). The vegetation is limited to the creek channel and adjacent banks. Species include red willows and Himalayan blackberry (Figure 4b).

Wildlife

The project site provides minimal habitat value for wildlife due to the presence of paved, impervious surfaces, minimal amount of vegetative cover, and ongoing traffic disturbance. Only a few species of wildlife were observed or detected in the vicinity of the project site during the field survey and included: song sparrow, Brewer's blackbird, western scrub jay, northern mockingbird, western fence lizard, and Pacific chorus frog. Most of the species were observed in association with Matson Creek. The roadside ditch located on the eastern side of the project site was mostly dry during the mid-June field survey and provided little habitat for wildlife. Matson Creek contained minimal surface water flow at the time of the field survey, with depths measuring approximately six inches or less. Aquatic habitat associated with this drainage is only expected to support various aquatic insects, smaller amphibians, such as Pacific chorus frog, and smaller non-native fish species. Southwest of the project site, the drainage flows into Wolf Creek, which may provide higher quality habitat for native aquatic and semi-aquatic species in areas located downstream of the City of Grass Valley. No raptors known from the project region are expected to nest within the project site due to the absence of taller trees and close proximity to high traffic use areas.

Waters of the United States

North Fork Associates delineated waters of the United States and prepared a wetland delineation report in tandem with this biological resource assessment. Two categories of waters of the United States (perennial stream and ditch) have been mapped on the site. Descriptions of these features are summarized in the following paragraphs.

Perennial stream

Perennial streams, unlike ephemeral or intermittent streams, flow year-round. They typically exhibit bed-and-bank morphology. One perennial stream, Matson Creek, is located within the study area. It flows from north to south through the western section of the study area. A fifty-foot above ground portion of Matson Creek travels through the area before it enters a culvert on the north side of East Main Street. It then travels for 100 feet in the culvert before leaving the study area on the south side of East Main Street. During the time of the survey, the creek supported flowing water. Much of the water is likely coming from urban irrigation and runoff. Water in Matson Creek drains into Wolf Creek, which is hydrologically connected to the Sacramento River. Matson Creek's channel was largely devoid of vegetation, supporting medium-sized rocks, small pebbles, and silt. At the time of our field survey, the creek contained approximately four to six inches deep of flowing water. The ordinary high water mark is approximately 10 feet. The bankside riparian vegetation consists of red willows and Himalayan blackberry (Figure 4b). Paved surfaces are adjacent to the creek banks (Figure 4a).

Ditch

The vegetated roadside ditch in the southeastern corner of the study area serves to carry storm water and urban runoff. It was excavated in an upland area to prevent flooding of Highway 49 and the East Main Street/Idaho-Maryland Road intersection. During our site visit on June 1st, the ditch contained a very small (0.5 inch deep) of flowing water; however, by June 11th the ditch was mostly dry. Water from the ditch enters a culvert and crosses under the Highway 49 on/off ramps and ultimately drains into Matson/Wolf Creeks west of the study area. The ditch supports emergent vegetation dominated by cattails. The ditch undergoes maintenance and the cattails are cut periodically.

Special Status Species

Appendix C is a list of potentially occurring special status plants, and Appendix D is a similar list of special status wildlife compiled from our queries described in the Methods section above. Species requiring habitats not occurring in or around the study area and species occurring far outside the study area are not considered in Appendices C or D. This refined list of special status species in the region of the project site includes 12 plants and six animals. Field surveys and the best professional judgment of NFA biologists were used to determine whether any of the species in Appendices C or D have potential to occur within the study area.

None of the special status plants listed in Appendix C are anticipated to occur within the study area due to the lack of suitable habitat and the ongoing disturbance and maintenance. Likewise, none of the special status animals listed in Appendix D are expected to occur within or in the immediate vicinity of the project site. However, three semi-aquatic animal species known from the broader project region have limited potential to occur in aquatic habitats

located downstream of the project site and the City of Grass Valley, including downstream reaches of Wolf Creek. These species are discussed in more detail in the following paragraphs.

Plants

The study area does not support suitable habitat for the special status plant species that occur in the project region (Appendix C). Moreover, the high disturbance and ongoing maintenance within the study area precludes the potential for these species to occur. The majority of the special status plant species that occur in the region, such as Stebbin's false bindweed (*Calystegia stebbinsii*) and Pine Hill flannelbush (*Fremontodendron californicum* ssp. *decumbens*), are associated with serpentine or gabbro soils, which do not occur within the study area. Other special status species' habitat requirements are not present within the study area, including cismontane woodland, rock outcrops within coniferous forests, or marshes/swamps, for species such as Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*), Cantelow's lewisia (*Lewisia cantelovii*) or red-anthered rush (*Juncus marginatus* var. *marginatus*).

Wildlife

Due to existing levels of development, the presence of impervious surfaces, and reduced amount of vegetative cover, none of the special status wildlife species documented as occurring in the broader project region (refer to Appendix D) would be expected to occur within or near the project site. Northern goshawk (*Accipiter gentilis*) and Pacific fisher (*Martes pennanti pacifica)* are known only from coniferous forest habitats located at higher elevations, and were therefore eliminated from further consideration. While the coast horned lizard (*Phrynosoma coronatum*) is known to occur in the vicinity of Grass Valley, the absence of vegetative cover and suitable substrates eliminates the potential for occurrence of this species within or adjacent to the project site. Suitable habitat for remaining sensitive species listed as occurring in the project region is also absent from the project site. However, there is some limited potential for California red-legged frog (*Rana aurora draytoni*), Foothill yellow-legged frog (*Rana boylei*), and Northwestern pond turtle (*Clemmys marmorata marmorata*), to occur in suitable reaches of stream located a substantial distance downstream of the project site and the City of Grass Valley, mainly along downstream reaches of Wolf Creek. Brief descriptions of these semi-aquatic species and their potential for occurrence in the project region are provided below.

California red-legged frog (*Rana aurora draytonii)*, a federally threatened species and California species of special concern, historically ranged from Marin County southward to northern Baja California. This species is still locally abundant within portions of the San Francisco Bay area and along the central coast. Only isolated populations of California red-legged frog (CRLF) have been documented in the Sierra Nevada and foothills region. CRLF prefers aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 0.7 meters (2.3 feet), and the presence of fairly sturdy underwater supports such as cattails. The largest densities of CRLF are typically associated with dense stands of overhanging willows and a fringe of sturdy emergent vegetation (USFWS 2006). CRLF typically breeds from January to July, with peak breeding occurring in February. Eggs are attached to subsurface vegetation, and hatched tadpoles require eleven to twenty weeks to metamorphose.

The closest documented occurrence of CRLF within the project region is from the east side of Sailor Flat, approximately eight miles northeast of the project site (CDFG 2007). This 2003 occurrence consisted of four adult and one tadpole CRLF located in a perennial pond between

the South Yuba River and Harmony Ridge. Suitable habitat for CRLF does not occur within or in the immediate vicinity of the project site. However, there is some limited potential for CRLF to occur in deeper reaches of stream located a substantial distance downstream of the project site, in less developed areas. It is expected that portions of Wolf Creek located downstream of the project site and the City of Grass Valley could provide potential habitat for the species.

Foothill yellow-legged frog (*Rana boylii*) is found in partially shaded, shallow rocky streams in a variety of habitats throughout the foothills of the Sierra Nevada. This species is rarely found far from permanent water. Adults often bask on exposed rocks near streams and dive into the water to take refuge beneath rocks when disturbed. The typical diet of foothill yellow-legged frog (FYLF) consists of both aquatic and terrestrial invertebrates. Breeding commences between mid-March to May, depending on local water conditions. Eggs are deposited in clusters and attached to gravel or rocks in moving water near stream margins, and hatch in about five days. Tadpoles reach a size of about two inches and transform in approximately three to four months. For aquatic habitats to be considered suitable for FYLF, surface water must be present in scattered locations for at least 15 weeks to allow for metamorphosis (Zeiner et al., 1988).

The closest documented occurrence of FYLF is from the South Yuba River, five to six miles northwest of the project site (CDFG 2007). This 2006 occurrence consisted of observation of several juvenile frogs in a backwater area along the main river channel. Suitable habitat for FYLF does not occur within or in the immediate vicinity of the project site. However, there is some limited potential for this species to occur in aquatic habitats located downstream of the project site and the City of Grass Valley, possibly in scattered reaches along Wolf Creek.

Northwestern pond turtle (*Clemmys marmorata marmorata)* occurs in association with streams, rivers, and ponds containing suitable cover and basking sites. This subspecies can be associated with both permanent and ephemeral water sources, including perennial and intermittent streams with permanent pools. Suitable basking sites along streams or ponds include partially submerged logs, rocks, mats of floating vegetation or open streambanks. Suitable upland habitat (i.e., sandy banks, grassy fields) located adjacent to the aquatic habitat is required for egg-laying. Nesting of northwestern pond turtle (NWPT) may take place in a variety of soil types from loose sandy soils to compact soils, and in a variety of habitat types. Females move overland for up to 300 feet away from aquatic habitats to find a suitable nesting site. Eggs are laid from March to August, depending on local climate and water conditions. Incubation ranges from 73 to 80 days (Zeiner et al., 1988).

NWPT is known to occur in the project region and is documented as occurring along Wolf Creek, in areas located south of the City of Grass Valley (CDFG 2007). No suitable aquatic or upland habitat for NWPT occurs within or in the immediate vicinity of the project site. However, there is some potential for NWPT to occur in portions of Wolf Creek located a substantial distance downstream of the project site and the City of Grass Valley.

RECOMMENDATIONS

Waters of the United States

1) The EMIM Roundabout study area has features determined to be waters of the United States. Impacts to these features below the ordinary high water mark (including temporary impacts, such as replacing a culvert or culvert features) would require a permit from the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the

federal Clean Water Act. These activities would also require a water quality certification from the Regional Water Quality Control Board pursuant to Section 401 of the Clean Water Act.

Streams, Pond, and Riparian Habitat

2) Activities in streams and riparian habitat on the site would require a stream and lakebed alteration agreement with the California Department of Fish and Game (CDFG) pursuant to Section 1602 of the California Fish and Game Code.

Special Status Plants

3) As discussed above, no suitable habitat for regionally occurring special status plant species occurs within the EMIM Roundabout study area. Therefore, no further surveys or mitigation alternatives are recommended.

Special Status Wildlife

4) Six sensitive animals are documented by the CNDDB (CDFG 2007) as occurring in the project region and are listed in Appendix B. Two of the species, including northern goshawk and Pacific fisher, are associated with dense coniferous forest habitats that do not occur on site. Coast horned lizard, a species known to occur in the Grass Valley region, was rejected from further consideration due to the absence of specific habitat requirements, including scattered shrubs with loose soils. Three semi-aquatic species known from the project region, including California red-legged frog, foothill yellow-legged frog, and northwestern pond turtle, were also determined to have no potential for occurring within the project site due to the absence of specific aquatic habitat components. However, based on the proximity to documented occurrences of these species, it is expected that suitable habitat could occur in areas located a substantial distance downstream of the project site, along Wolf Creek. While proposed project activities would not result in direct disturbance of habitat for these species, indirect disturbance of potential habitat for these and other native aquatic species could result if sedimentation occurs within Matson Creek, and ultimately, within downstream reaches of Wolf Creek. To avoid indirect disturbance of potential habitat for these sensitive species and other native species that may occur downstream of the project site and the City, appropriate erosion control measures should be implemented as part of the proposed project.

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APPENDIX A

Plant Species Observed within the East Main Street/Idaho Maryland Road Roundabout Study Area

Appendix A

Plant Species Observed within the EMIM Roundabout Study Area

Ferns and Allies

Equisetaceae

Equisetum sp.	Horsetail

Angiosperms - Dicots

Apiaceae

**Conium maculatum*	Poison hemlock
**Daucus carrota*	Queen Anne's lace
**Scandix pecten-veneris*	Venus' needle
**Torilis arvensis*	Field hedge-parsley

Asteraceae

Bidens sp.	Sticktight
**Carduus pycnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow star-thistle
**Lactuca saligna*	Willow lettuce
**Lactuca serriola*	Prickly lettuce
**Matricaria discoidea*	Pineapple-weed
**Sonchus asper*	Prickly sow-thistle

Brassicaceae

Cardamine oligosperma	Few-seed bitter cress
**Hirschfeldia incana*	Short-podded mustard
**Nasturtium officinale*	Water cress
**Sisymbrium orientale*	Sisymbrium

Caryophyllaceae

**Stellaria media*	Common chickweed

Fabaceae

**Lathyrus latifolius*	Perennial sweet pea
Lotus purshianus var. purshianus	Spanish-clover
**Medicago polymorpha*	California burclover
**Trifolium hirtum*	Rose clover

Moraceae

**Ficus carica*	Fig

Onagraceae

Epilobium brachycarpum	Summer cottonweed
Epilobium ciliatum	Hairy willow-herb
Epilobium densiflorum	Dense-flower spike-primrose
Epilobium torreyi	Brook spike-primrose

Polygonaceae

Persicaria hydropiperoides	Waterpepper
**Polygonum aviculare*	Common knotweed

* Indicates a non-native species

Rosaceae

**Cotoneaster sp.*	Cotoneaster
**Rubus discolor*	Himalayan blackberry

Rubiaceae

**Galium aparine*	Goose grass

Salicaceae

Salix laevigata	Red willow

Scrophulariaceae

Mimulus guttatus	Common monkeyflower

Simaroubaceae

**Ailanthus altissima*	Tree of heaven

Vitaceae

**Parthenocissus quinquefolia*	Virginia creeper
Vitis californica	California wild grape

Angiosperms -Monocots

Poaceae

**Aegilops triuncialis*	Barbed goatgrass
**Avena barbata*	Slender wild oat
**Bromus diandrus*	Ripgut grass
**Cynosurus echinatus*	Hedgehog dogtail
**Lolium multiflorum*	Italian ryegrass
**Poa annua*	Annual bluegrass

Typhaceae

Typha latifolia	Broad-leaved cattail

Appendix B

Wildlife Species Observed within the East Main Street/Idaho Maryland Road Roundabout Study Area

Appendix B

Wildlife Species Observed within the EMIM Roundabout Study Area

Amphibians	
Pacific chorus frog	*Pseudacris regilla*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*
Birds	
Band-tailed pigeon	*Columba fasciata*
Black phoebe	*Sayornis nigricans*
Western scrub-jay	*Aphelocoma californica*
Northern mockingbird	*Mimus polyglottos*
Brewer's blackbird	*Euphagus cyanocephalus*
House sparrow	*Passer domesticus*

Appendix C

Special Status Plant Species Known to Occur in the East Main Street/Idaho Maryland Road Roundabout Study Area Region

Appendix C

Special Status Plant Species Known to Occur in the EMIM Roundabout Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Convolvulaceae				
Calystegia stebbinsii Stebbins' false bindweed	Fed: FE State: CE CNPS: List 1B.1	May-June	Chaparral (openings); cismontane woodland; [serpentinite or gabbroic].	None. Suitable habitat (serpentinite or gabbroic) does not occur within study area.
Cyperaceae				
Rhynchospora capitellata Brownish beakrush	Fed: - State: - CNPS: List 2.2	July-August	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest / mesic; elevation range 455 - 2000 meters (approx. 1,493 - 6,652 feet).	None. Suitable habitat (coniferous forest, meadows, marshes, seeps) does not occur within study area.
Juncaceae				
Juncus marginatus marginatus Red-anthered rush	Fed: - State: - CNPS: List 2.2	July-July	Marshes and swamps.	None. Suitable habitat (marshes and swamps) does not occur within study area.
Lamiaceae				
Monardella follettii Follett's monardella	Fed: - State: - CNPS: List 1B.2	June-June	Lower montane coniferous forest (rocky, serpentinite).	None. Suitable habitat (lower montane coniferous forest) does not occur within study area.
Liliaceae				
Chlorogalum grandiflorum Red Hills soaproot	Fed: - State: - CNPS: List 1B.2	May-June	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. Suitable habitat (serpentinite or gabbroic) does not occur within study area.
Fritillaria eastwoodiae Butte County fritillary	Fed: - State: - CNPS: List 3.2	March-May	Chaparral; cismontane woodland; lower montane coniferous forest (openings); [sometimes serpentinite].	None. Suitable habitat (chaparral, woodland, or serpentinite) does not occur within study area.

Appendix C

Special Status Plant Species Known to Occur in the EMIM Roundabout Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Lycopodiaceae				
Lycopodiella inundata Northern bog club-moss	Fed: - State: - CNPS: List 2.2	September-September	Bogs and fens (coastal); marshes and swamps (lake margins); lower montane coniferous forest (mesic).	None. Suitable habitat (marshes, swamps, coniferous forest) does not occur within study area.
Malvaceae				
Sidalcea stipularis Scadden Flat checkerbloom	Fed: - State: CE CNPS: List 1B.1	July-August	Marshes and swamps (montane freshwater).	None. Suitable habitat (marshes and swamps) does not occur within study area.
Mielichhoferiaceae				
Mielichhoferia elongata Elongate copper-moss	Fed: - State: - CNPS: List 2.2	September-November	Cismontane woodland (metamorphic rock, usually vernally mesic); 500-1,300 meters.	None. Suitable habitat (woodland) does not occur within study area.
Onagraceae				
Clarkia biloba brandegeeae Brandegee's clarkia	Fed: - State: - CNPS: List 1B.2	May-July	Chaparral; cismontane woodland [often on roadcuts].	None. Suitable habitat (chaparral or woodland) does not occur within study area.
Portulacaceae				
Lewisia cantelovii Cantelow's lewisia	Fed: - State: - CNPS: List 1B.2	May-October	Broad-leaved upland forest; chaparral; cismontane woodland; lower montane coniferous forest; [mesic, granitic].	None. Suitable habitat (chaparral, woodland, or coniferous rock outcrops) does not occur within study area.
Pottiaceae				
Didymodon norrisii Norris's beard-moss	Fed: - State: - CNPS: List 2.2	September-November	Cismontane woodland; lower montane coniferous forest [intermittently mesic, rock].	None. Suitable habitat (woodland or coniferous forest) does not occur within study area.

Appendix C

Special Status Plant Species Known to Occur in the EMIM Roundabout Study Area

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Sterculiaceae				
Fremontodendron californicum decumbens Pine Hill flannelbush	Fed: FE State: CR CNPS: List 1B.2	April-June	Chaparral; cismontane woodland; [gabbroic or serpentinite].	None. Suitable habitat (serpentinite or gabbroic) does not occur within study area.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CSC - California Species of Special Concern

CNPS (California Native Plant Society - List.RED Code):
List 1A - Extinct
List 1B - Plants rare, threatened, or endangered in California and elsewhere
List 2 - Plants rare, threatened, or endangered in California, more common elsewhere
List 3 - Plants about which more information is needed, a review list
List 4 - Plants of limited distribution, a watch list
RED Code
1 - Seriously endangered (>80% of occurrences threatened)
2 - Fairly endangered (20 to 80% of occurrences threatened)
3 - Not very endangered (<20% of occurrences threatened)

Appendix D

Special Status Wildlife Species Known to Occur in the East Main Street/Idaho Maryland Road Roundabout Study Area Region

Appendix D

Special Status Wildlife Species Known to Occur in the EMIM Roundabout Study Area

	Status*	Habitat	Probability on Project Site
Amphibians			
California red-legged frog *Rana aurora draytonii*	Fed: FT State: CSC Other: -	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	None. No suitable aquatic habitat present within or near project site. Requires deeper water with shrubby or emergent riparian vegetation. Closest documented occurrence is from the east side of Sailor Flat approximately 8 miles northeast of site.
Foothill yellow-legged frog *Rana boylii*	Fed: - State: CSC Other: -	Found in partially shaded, shallow streams with rocky substrates. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	None. No suitable habitat present within project site. Prefers higher gradient streams with rocky substrate. Closest documented occurrence is from approximately 5.5 miles northwest of site, near the South Yuba River.
Reptiles			
Northwestern pond turtle *Actinemys marmorata marmorata*	Fed: - State: CSC Other: -	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	None. No suitable aquatic habitat present on or near site. Prefers deeper, slow-moving sections of streams or ponds. Known from project region.
Coast horned lizard *Phrynosoma coronatum*	Fed: - State: CSC Other: -	Open lowlands, washes, sandy areas in a variety of habitats.	None. No suitable habitat present within project site, due to presence of impervious surfaces and absence of cover. Prefers sandy washes or loose substrates with scattered shrubs for cover. Known occurrences within vicinity of Grass Valley.
Birds			
Northern goshawk *Accipiter gentilis*	Fed: - State: CSC Other: -	Dense, mature coniferous and decidous forests interspersed with open areas. Nests on ground in shrubby vegetation, usually at the edge of a marsh.	None. No suitable habitat present on or near site. Prefers nesting in coniferous forests at higher elevations. Closest documented occurrence is from approximately 11 miles northeast of the site, near the South Yuba River.
Mammals			
Pacific fisher *Martes pennanti pacifica*	Fed: FC State: CSC Other:	Occurs in intermediate to large-tree stage coniferous forests and riparian woodlands with a high percent level of canopy closure.	None. No suitable habitat present on or near site. Prefers dense coniferous forests at higher elevations, with minimal human disturbance.

Appendix D

Special Status Wildlife Species Known to Occur in the EMIM Roundabout Study Area

	Status*	Habitat	Probability on Project Site

***Status**	Federal:	State:	Other:
	FE - Federal Endangered	CE - California Endangered	Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game.
	FT - Federal Threatened	CT - California Threatened	
	FPE - Federal Proposed Endangered	CR - California Rare	
	FPT - Federal Proposed Threatened	CC - California Candidate	
	FC - Federal Candidate	CFP - California Fully Protected	
	FPD - Federal Proposed for Delisting	CSC - California Species of Special Concern	