

**From:** Greg Matuzak, Principal Biologist  
Greg Matuzak Environmental Consulting LLC  
471 Sutton Way, Suite #210  
Grass Valley, CA 95945  
Phone: (530) 557-5077  
Email: [gmatuzak@gmail.com](mailto:gmatuzak@gmail.com)

**To:** Rise Grass Valley Inc.  
PO Box 271  
Grass Valley, CA 95945

**Date:** June 19, 2020

**Re: Technical Memorandum for Centennial Industrial Site:  
Remedial Action Plan Project – Biological Resources Impact Assessment**

The prepared Technical Memorandum (“Technical Memo”) is a Biological Resources Impact Assessment of the Centennial industrial Site for the proposed Remedial Action Plan (“RAP”) pursuant to a Voluntary Cleanup Agreement (VCA) between Rise Grass Valley Inc. (“Rise”) and the California Department of Toxic Substances Control (DTSC). The Remedial Action Plan Project (“Project” or “RAP Project”) is related to soil contamination at Rise’s Centennial Industrial Site. This Technical Memo is based on the results of the Centennial Industrial Site Biological Resources Assessment (“BRA”) Report (Matuzak, 2019a) and Aquatic Resources Delineation Report (Matuzak, 2019b). The two reports prepared by Greg Matuzak Environmental Consulting LLC for Rise include review, evaluation, and assessment of the sensitive biological resources that have the potential to occur within the Centennial Industrial Site.

The purpose of this Technical Memo is to present the results of the site specific impact assessment for sensitive biological resources based on the proposed RAP Project components. Additionally, avoidance, minimization, and mitigation measures are presented to ensure that the proposed surface disturbance would not have a significant impact on such sensitive biological resources. This Technical Memo, along with the BRA for the Centennial Industrial Site, satisfies the Nevada County General Plan and Nevada County Land Use and Development Code requirements for the development of such biological resource assessments.

## **1 PROJECT UNDERSTANDING**

Rise proposes to conduct remedial activities, pursuant to a Voluntary Cleanup Agreement with DTSC, related to historic soil contamination at the Centennial Industrial Site.

Rise is the property owner of the 56-acre Centennial Industrial Site. The Centennial Industrial Site consists of six contiguous parcels zoned Light Industrial ("M-1") located in Nevada County, CA. The Centennial Industrial Site borders the City of Grass Valley city limits along Idaho-Maryland Road and Centennial Drive.

Zones within the approximate 56-acre Centennial Industrial Site contain elevated metal concentrations from historical land use. The Centennial Industrial Site was historically used by the Idaho-Maryland Mine to deposit mine tailings. These mine tailings were never compacted. Some of the materials used to build the tailings berm and small quantities of gold ore brought in from other mines in the region by the historic operator for processing contains elevated metals. As a result, under existing conditions, the majority of the Centennial Industrial Site cannot be developed because of unstable soils and/or contamination.

Rise is working with DTSC to fully remediate the site by developing a plan that consolidates and caps the contaminated soils in a manner consistent with current federal and state regulations.

The environmental cleanup work at the Centennial Industrial Site will be completed under the DTSC voluntary cleanup program. It is estimated that the cleanup program will cause a surface disturbance of approximately 28 acres.

## **2 BIOLOGICAL RESOURCE INVENTORY – KEY FINDINGS**

### **2.1 "Waters of the U.S.", including Wetlands, and "Waters of the State of California"**

A total of 4.97 acres of "waters of the U.S.," including wetlands, and "waters of the State of California" was identified and mapped within the Centennial Industrial Site in 2019. The 4.97 acres of wetland-waters includes 4.37 acres of mapped wetlands and 0.60 acres of mapped "other waters of the U.S.," including the main stem of Wolf Creek, as well as several intermittent and ephemeral streams.

### **2.2 Identified Special-Status Plant Species**

The results of the BRA developed for the Centennial Industrial Site included the following identified special-status plant species:

- Pine Hill flannelbush (*Fremontodendron decumbens*), a species listed on the federal Endangered Species Act (ESA), has been potentially identified and mapped within the southern portion of the Centennial Site. Sixty individual mature and flowering plants occupy an absolute area of 0.22 acres over approximately 4.5 acres of the Centennial Industrial Site. Genetic work has been conducted by Dr. Shannon Still from U.C. Davis that has confirmed that Pine Hill flannelbush is known to occur in Nevada County, but this work is still in press (Bill Wilson, personal communication 2019). During protocol level field surveys conducted for the species within the Centennial Industrial Site in 2019, the plants in the population

were confirmed to have morphological characteristics, the floral and habit, of the Pine Hill flannelbush.

- The Centennial Industrial Site contains two (2) unlisted plant species. Neither species is rare nor threatened. The two California Native Plant Society (CNPS) Lists the species as "List 4 Species", including the Humboldt lily (*Lilium humboldtii ssp. humboldtii*) and the Sierra brodiaea (*Brodiaea sierra*). A large population with thousands of individual Sierra brodiaea covering almost a quarter of the Centennial Industrial Site was mapped during 2019 field surveys and a single occurrence of the Humboldt lily consisting of 10 individuals in an area less than 110 sq. feet was also documented in the Centennial Industrial Site during 2019 field surveys. Impacts to these species (CNPS List 4) do not require mitigation under CEQA Guidelines Section 15380.

### **2.3 Vegetation Communities and Associated Special-Status Species**

Vegetation communities within the Centennial Industrial Site and associated mapped acreages are presented in Table 1.0 (Matuzak, 2019a) and a figure identifying the vegetation communities mapped within the Centennial Industrial Site is attached in the appendices to this Technical Memo (see Appendix B).

The BRA for the Centennial Industrial Site considered special-status species based on a current review of regulatory agency database information provided by the California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and California Native Plant Society (CNPS), as well as the biological surveys implemented for the entirety of the Centennial Industrial Site. Table 1.0 includes the vegetation communities identified, mapped acreages, and special-status species that have the potential to occur within the associated vegetation community for the Centennial Industrial Site.

**TABLE 1.0 Centennial Industrial Site Vegetation Communities, Mapped Acreages, and Associated Special-Status Species (Matuzak, 2019a)**

Vegetation Community	Mapped Acreage (Acres)	Associated Special-Status Species
Montane Hardwood-Conifer	5.29	Brandegee's clarkia (Rank 4.2), Dubious pea (Rank 3), Cedar Crest popcorn flower (Rank 3), Chaparral sedge (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra blue grass (Rank 1B.3), Cantelow's lewisia (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2)  Cooper's hawk and other nesting raptors and migratory birds (CDFW)
Montane Hardwood	0.48	Dubious pea (Rank 3), Brandegee's clarkia (Rank 1B.2), Cedar Crest popcorn flower (Rank 3), Chaparral sedge (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra blue grass (Rank 1B.3), Cantelow's lewisia (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2)  Cooper's hawk and other nesting raptors and migratory birds (CDFW)
Wolf Creek and Montane Riparian	20.07	Sierra blue grass (Rank 1B.3)  Foothill yellow-legged frog (CSC), Western pond turtle (CSC), nesting migratory birds (CDFW)
Mixed Chaparral	16.24	Pinehill flannelbush (FE/CR), Stebbins' morning glory (FE/CE), Brandegee's clarkia (Rank 4.2), finger rush (Rank 1B.1), Chaparral sedge (Rank 1B.2), Cantelow's lewisia (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2)  Coast horned lizard (CSC) and nesting migratory birds (CDFW)
Annual Grassland	9.74	Cedar Crest popcorn flower (Rank 3) and Brownish beaked-rush (Rank 2B.2)
Freshwater Emergent Marsh Wetland	0.58	Scadden Flat checkerbloom (FT/CT) and Brownish beaked-rush (Rank 2B.2)  California red-legged frog (FT, CSC), Western pond turtle (CSC), and California black rail (CT)
Wet Meadow	4.01	Brownish beaked-rush (Rank 2B.2) and finger rush (Rank 1B.1)
<b>TOTAL</b>	<b>56.41</b>	

Additional details pertaining to identified habitats and associated special-status species with the potential to occur within the Centennial Industrial Site is located in the results of the BRA for the Centennial Industrial Site (Matuzak, 2019a) and include the following:

- Perennial marsh wetlands within the eastern section of the Centennial Site contain potentially suitable habitat for several special-status aquatic wildlife species, including the California State ESA (CESA) listed threatened California black rail (*Laterallus jamaicensis coturiculus*) and the federally ESA listed California red-legged frog (*Rana aurora draytonii*). None of these species have been observed within the Centennial Site and they are considered to have a low potential to occur within the Centennial Site.

- The main stem of Wolf Creek along the northern boundary of the Centennial Site includes a perennial stream and riparian vegetation. The perennial stream contains marginal suitable habitat for the foothill yellow-legged frog (*Rana boylei*), a California State Candidate for listing under CESA. This species has never been observed within the Centennial Site and it is considered to have a low potential to occur within the Centennial Site.
- Woodlands and grasslands within the Centennial Site contain suitable nesting habitat for some raptors and birds. None of these species have been observed within the Centennial Site and they are considered to have a low to moderate potential to occur and nest within the Centennial Site.

### **3 PROJECT AREA DISTURBANCE IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES**

The proposed RAP Project would have no impact on the mapped Pine Hill flannelbush plants identified within the Centennial Industrial Site. See the figure attached to Appendix A for the location of mapped plants in relation to proposed surface disturbance activities.

Estimated acreage impacts to vegetation communities from the proposed RAP Project footprint within the Centennial Industrial Site are presented in Table 2.0 below.

The proposed surface disturbance of the RAP Project will impact mapped wetlands and mapped streams within the Centennial Industrial Site. It is estimated that 4.35 acres of mapped wetlands and 0.19 acres of mapped streams will be impacted as part of the site remediation activities. Table 3.0 and Table 4.0 below include the estimated disturbance of the proposed Project on the mapped wetlands and streams within the Centennial Industrial Site. See the figure attached to Appendix A for the location of mapped wetlands and streams in relation to proposed surface disturbance activities. Fill or dredge impacts to any features regulated under Sections 404 and 401 of the Clean Water Act (CWA) require mitigation.

**Table 2.0 Vegetation Community Impacts from Proposed Project**

<b>Vegetation Community</b>	<b>Impacted by RAP Project (Acres)</b>	<b>Associated Special-Status Species</b>
Montane Hardwood-Conifer	1.5	Brandegee's clarkia (Rank 4.2), Dubious pea (Rank 3), Cedar Crest popcorn flower (Rank 3), Chaparral sedge (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra blue grass (Rank 1B.3), Cantelow's lewisia (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2) Cooper's hawk and other nesting raptors and migratory birds (MBTA)
Montane Hardwood	0.01	Dubious pea (Rank 3), Brandegee's clarkia (Rank 1B.2), Cedar Crest popcorn flower (Rank 3), Chaparral sedge (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra blue grass (Rank 1B.3), Cantelow's lewisia (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2) Cooper's hawk and other nesting raptors and migratory birds (MBTA)
Wolf Creek and Montane Riparian	14.1	Sierra blue grass (Rank 1B.3) Foothill yellow-legged frog (CSC), Western pond turtle (CSC), migratory birds (MBTA)
Mixed Chaparral	2.3	Pinehill flannelbush (FE/CR), Stebbins' morning glory (FE/CE), Brandegee's clarkia (Rank 4.2), finger rush (Rank 1B.1), Chaparral sedge (Rank 1B.2), Cantelow's lewisia (Rank 1B.2), Red Hills soaproot (Rank 1B.2), Sierra brodiaea (Rank 4.3), Humboldt lily (Rank 4.2), Butte County fritillary (Rank 3.2) Coast horned lizard (CSC)
Annual Grassland	6.2	Cedar Crest popcorn flower (Rank 3) and Brownish beaked-rush (Rank 2B.2)
Freshwater Emergent Marsh Wetland	0.55	Scadden Flat checkerbloom (FT/CT) and Brownish beaked-rush (Rank 2B.2) California red-legged frog (FT, CSC), Western pond turtle (CSC), and California black rail (CT)
Wet Meadow	3.6	Brownish beaked-rush (Rank 2B.2) and finger rush (Rank 1B.1)
<b>TOTAL</b>	<b>28</b>	

**TABLE 3.0 AREA OF DISTURBANCE TO MAPPED WETLANDS WITHIN THE CENTENNIAL SITE**

No.	Wetland Type	Wetland ID Number	Size (Acres)	Impacted by RAP Project (Acres)
1	Meadow wetland	WM-4	1.57	1.57
2	Meadow wetland	WM-5	0.86	0.86
3	Meadow wetland	WM-6	0.003	-
4	Meadow wetland	WM-7	0.004	0.004
5	Meadow wetland	WM-8	0.004	0.004
6	Marsh	MA-1	0.21	0.21
7	Marsh	MA-2	0.1	0.1
8	Meadow wetland	WM-9	0.02	0.02
9	Meadow wetland	WM-10	0.001	0.001
10	Meadow wetland	WM-11	0.04	0.04
11	Meadow wetland	WM-12	0.27	0.27
12	Riparian	RI-1	1.18	1.18
13	Meadow wetland	WM-13	0.03	0.03
14	Meadow wetland	WM-1	0.01	-
15	Meadow wetland	WM-2	0.006	-
16	Meadow wetland	WM-3	0.05	0.05
17	Meadow wetland	WM-14	0.01	0.01
		<b>TOTAL</b>	<b>4.37</b>	<b>4.35</b>

**TABLE 4.0 AREA OF DISTURBANCE TO MAPPED STREAMS WITHIN THE CENTENNIAL SITE**

No.	Stream Type	Wetland ID Number	Size (Acres)	Impacted by RAP Project (Acres)
1	Perennial Stream	Wolf Creek - 1	0.377	-
2	Intermittent Stream	I - 1	0.161	0.161
3	Intermittent Stream	I - 2	0.006	0.006
4	Ephemeral Stream	E - 1	0.002	0.002
5	Ephemeral Stream	E - 2	0.005	0.005
6	Ephemeral Stream	E - 3	0.015	0.001
7	Ephemeral Stream	E - 4	0.018	0.01
8	Ephemeral Stream	E - 5	0.011	0.011
		<b>TOTAL</b>	<b>0.6</b>	<b>0.19</b>

#### **4 RECOMMENDED MITIGATION FOR PROJECT AREA DISTURBANCE AND ITS POTENTIAL IMPACT ON SENSITIVE BIOLOGICAL RESOURCES**

The proposed avoidance, minimization, and mitigation measures for potential impacts to the sensitive biological resources from the RAP Project at the Centennial Industrial Site are presented below. The impact assessment is based on the results of the BRA (Matuzak, 2019a), Aquatic Resources Delineation (Matuzak, 2019b), and RAP Project components.

##### **4.1 Potential Impacts to Special-Status Wildlife Species**

The Townsend's big-eared bat and coast horned lizard are not listed under the state or federal Endangered Species Acts and have only a low potential to occur within the Centennial Industrial Site. These species are in addition to potential nesting raptors, CDFW regulated nesting bird species, and special-status aquatic species that have the potential to occur within the Centennial Industrial Site as discussed in the BRA and in detail below.

###### Townsend's big-eared bat

**Occurrence:** The Townsend's big-eared bat has the potential to roost within the abandoned structures, such as the existing decant towers, within the Centennial Industrial Site. However, the species has not been documented within the Centennial Industrial Site and it has a low potential to occur within the Centennial Industrial Site.

**Mitigation:** Prior to disturbance of any structures within the Centennial Industrial Site, a pre-construction bat roosting survey should be conducted to identify the presence or absence of roosting bats. If any Townsend's big-eared bats (or any other species of bat) are identified during roosting surveys, passive removal the roosting bats prior to disturbance to such structures should be implemented to avoid impacts to this species. Passive removal includes allowing roosting bats to freely leave the roost site (and structure). Once the roosting bats have been passively removed from the structure(s), the structure(s) would be closed off from recurring bat roosting within the structure and the proposed work within the structure(s) would no longer pose a risk to individuals of the species.

###### Coast horned lizard

**Occurrence:** There is potential suitable habitat within the sandy and rocky locations within the Centennial Industrial Site. In addition, the Centennial Industrial Site includes the required open areas of exposed, sandy soils for this species. Therefore, this species has a low potential to occur within the Centennial Site though the species has not been identified within the Centennial Industrial Site.

**Mitigation:** Prior to disturbance within the areas of the Centennial Industrial Site that

contain suitable habitat for the species, a pre-construction survey for the species shall be conducted prior to any disturbance within those areas of the Centennial Industrial Site in order to avoid direct impacts to the species. If the species is documented during pre-construction surveys, a qualified wildlife biologist (approved by CDFW) would have the authority to move individual coast horned lizards outside of the proposed disturbance area(s) in order to avoid an impact to this species. Once the coast horned lizard(s) have been removed from the disturbance area(s) and out of harms way, the proposed work would no longer pose a risk to individuals of the species.

#### **4.2 Potential Impacts to Special-Status Aquatic Species**

##### Foothill yellow-legged frog

**Occurrence:** Suitable habitat for this species occurs within the Centennial Industrial Site (main stem of Wolf Creek); however, the species has a very low potential to occur within the Centennial Industrial Site given the species has not been documented within the Centennial Industrial Site or the Wolf Creek watershed. Protocol-level surveys for this species were not implemented within Wolf Creek as part of the development of the BRA for the Centennial Industrial Site. The species was not found by any of the special-status species surveys.

**Mitigation:** Any proposed disturbance within the perennial stream (Wolf Creek) or within the riparian zone of the perennial stream would require a pre-construction survey for the species prior to such proposed disturbance. The pre-construction survey shall be conducted to identify the presence or absence of this species following CDFW recommended visual encounter survey (VES) methods.

If this species is documented during pre-construction VES method surveys, disturbance to the stream and occupied species habitat should be avoided until a qualified wildlife biologist with a CDFW handling permit for the species and with approval from CDFW moves individuals out of the disturbance areas to avoid impacting this species. If adult frogs are identified, the individuals can also be monitored and allowed to move out of the way of the disturbance zone prior to continuing with any disturbance within or directly adjacent to individuals of this species.

##### Western Pond Turtle

**Occurrence:** The main stem of Wolf Creek, a perennial stream, and the large marsh wetlands within the eastern section of the Centennial Industrial Site containing perennial water/ponding are considered suitable habitat for this species. The species has not been documented within 5 miles of the Centennial Site and has not been identified on the site by any of the species surveys, it therefore has a low potential to occur within the Centennial Industrial Site.

**Avoidance:** If the species is found on site, any development within these perennial water sources or within 325 feet of these perennial water sources during spring and early

summer (March through July) should be avoided to minimize any potential impacts to this species.

**Mitigation:** If these perennial water sources can't be avoided from direct impacts or if these perennial water sources can't be avoided by a minimum of 325 feet during the spring and early summer months, a pre-construction survey shall be conducted to identify the presence or absence of this species within the areas to be disturbed. If this species is documented during pre-construction surveys, it should be allowed to move out of the way of the disturbance zone on its own or a qualified wildlife biologist with a CDFW handling permit for the species can move individuals out of the disturbance areas to avoid impacting this species.

### California red-legged frog (CRLF)

**Occurrence:** Potential suitable reproductive habitat for this species may occur within the large marsh wetlands with perennial water/ponding in the eastern section of the Centennial Industrial Site. It is unknown if there are suitable breeding locations within 1.25 miles of the Centennial Industrial Site and connected by barrier-free dispersal habitat that is at least 300 feet in width, which would be required for suitable dispersal habitat to be located within the Centennial Site. However, the species has not been documented within the Centennial Industrial Site, it has not been documented in the watershed, and was not documented by the species surveys conducted. Therefore, this species has a very low potential to occur within the Centennial Industrial Site.

**Avoidance:** Potential suitable reproductive habitat for this species may occur within the larger marsh wetlands with perennial water/ponding within the eastern section of the Centennial Industrial Site. Therefore, if found on site, avoidance of the large, perennial marsh wetlands within the eastern section of the Centennial Industrial Site by a minimum of 100 meters would ensure that the species would not be impacted if present.

**Mitigation:** If found on site, and avoidance of a minimum of 328 feet (100 meters) from suitable habitat for the species within the Centennial Industrial Site is not feasible, then pre-construction surveys for CRLF shall be implemented to ensure that no CRLF are present during the proposed disturbance within the species suitable habitat. A qualified wildlife biologist approved by USFWS would be required to implement the pre-construction surveys. The *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog* (USFWS Guidance, August 2005) should be implemented as part of the pre-construction surveys to avoid disturbance and take of the species. If no CRLF are identified during the pre-construction surveys, then the proposed disturbance within 328 feet (100 meters) of suitable breeding habitat for the species could occur with no further requirements.

If CRLF are identified during the pre-construction surveys, coordination and potential consultations with the USFWS would be required through an ESA Section 7 or Section 10 process. As part of the consultation process, specific avoidance, minimization, and mitigation measures would be required to be implemented, which could include, but may not be limited to the following: additional pre-construction surveys and daily

monitoring to ensure that the proposed site disturbance will not disturb individual CRLF, environmental awareness training to contractors working within or adjacent to CRLF habitat, and exclusionary fencing installation between CRLF aquatic habitat and disturbance areas.

Additionally, a Habitat Management Plan (HMP) would also be required for any state or federally listed special-status wildlife species if documented within the Centennial Industrial Site. The HMP would be developed for the special-status species as part of compliance with the Nevada County Land Use and Development Code, Section L-II 4.3.12 and it would include the avoidance, minimization, and mitigation measures outlined above and as part of any coordination or consultation with the USFWS compliance with the Nevada County Land Use and Development Code, Section L-II 4.3.12.

### California black rail

**Occurrence:** Suitable habitat for this species occurs within the large marsh wetlands within the eastern section of the Centennial Industrial Site where there is permanent ponding of water and dense vegetation. The species has not been documented within the Centennial Industrial Site but has been identified within 5 miles to the southeast and southwest of the Centennial Industrial Site. This species has a very low likelihood of occurring within the Centennial Industrial Site.

**Avoidance:** Avoidance of the large, perennial marsh wetlands within the eastern section of the Centennial Industrial Site would ensure that the species would not be impacted if present.

**Mitigation:** To identify the presence or absence of the species within the Centennial Industrial Site for any proposed disturbance within or immediately adjacent to those larger wetlands, pre-construction surveys for the species shall occur prior to the implementation of any such disturbance within or directly adjacent to the species habitat. The pre-construction surveys would include conducting call back/response surveys. This species is most active between 2 hours before and 3 hours after sunrise; therefore, surveys should start at sunrise and continue no later than 0930. If evening surveys are to be conducted, they should be paired with a morning survey, and all sites should have surveys conducted at both time periods. The preferred method for conducting surveys via the call-back/response protocol of Evens et al (1991). If a positive call back is identified during the surveys, then the species is assumed to be present and the area should be avoided from disturbance in order to avoid impacts to individuals of the species, if feasible.

Given the species is a CESA listed species, coordination with CDFW shall occur if a positive response to the call-back/response surveys occurs and if any proposed disturbance may impact the species. Any area containing this species would likely need to be avoided in order to avoid impacts to and take of this species, if feasible, or additional mitigation measures would be required in coordination with CDFW to minimize and avoid impacts to such species. Additional avoidance measures could include, but may not be limited

to the following: environmental awareness training, daily construction monitoring by a CDFW qualified biologist when disturbance related activities occur within or directly adjacent to the species habitat, and exclusionary fencing installation between the species habitat and the proposed disturbance areas. Additionally, an Incidental Take Permit (ITP) could be required by CDFW if complete avoidance of the species is not feasible. Areas where no positive response to the call-back/response surveys are assumed to not contain individuals of the species and therefore, disturbance in those areas would have no impact on this species.

#### **4.3 Potential Impacts to Nesting Raptors and CDFW Regulated Bird Species**

**Occurrence:** The Centennial Industrial Site contains many larger trees and many of those trees contain suitable habitat for nesting raptors, including suitable nesting sites for Cooper's hawk. In addition, the Centennial Industrial Site also includes smaller riparian trees and shrubs as well as grasslands that provide suitable nesting habitat for other protected bird species. The breeding season for raptors and other protected bird species in the vicinity of the Centennial Industrial Site is generally from February 1 to August 31 varies depending on the species and localized weather patterns.

**Avoidance:** Vegetation clearing or tree removal outside of the breeding season for such bird species and/or avoidance of such potential nesting habitat would not require the implementation of any avoidance, minimization, or mitigation measures.

**Mitigation:** Construction or disturbance activities during the breeding season could disturb or remove occupied nests of raptors and/or protected bird species and would require the implementation of a pre-construction survey within and adjacent to any proposed disturbance area within the Centennial Industrial Site for nesting raptors and other protected bird species within 7 days prior to disturbance. The nesting survey radius around the proposed disturbance would be identified prior to the implementation of the protected bird nesting surveys by a CDFW qualified biologist and would be based on the habitat type, habitat quality, and type of disturbance proposed within or adjacent to nesting habitat.

If any nesting raptors or protected birds are identified during such pre-construction surveys, trees or shrubs or grasslands with active nests should be not be removed or disturbed and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a CDFW qualified wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors should be analyzed by a qualified wildlife biologist to make an appropriate decision on buffer distances based on the species and level of disturbance proposed in the vicinity of an active nest.

#### **4.4 Mitigation Measures for Potential Impacts to Clean Water Act Regulated “Waters of the U.S.,” Including Wetlands**

Each of the mapped wetland features and stream features included as part of the Centennial Industrial Site Aquatic Resources Delineation Report (Matuzak, 2019b) are assumed to fall under Corps jurisdiction pursuant to Section 404 of the CWA. The RWQCB pursuant to Section 401 of the CWA also has jurisdiction over areas subject to regulation by the Corps under Section 404 of the CWA. As detailed in the CWA, any proposed action that would place fill or dredge material within areas identified as Corps jurisdictional wetlands or waters would require a Department of the Army Section 404 permit and a RWQCB Section 401 Water Quality Certification, or waiver thereof, prior to the placement of fill or dredge material within such features. Fill or dredge impacts to any features regulated under Sections 404 and 401 of the CWA would be required to be mitigated at a minimum of a 1:1 ratio. Compensatory mitigation would be included as a Section 404 and Section 401 permit condition to be implemented prior to the placement of such dredge and fill material within a “waters of the U.S.,” including wetlands, and would ensure the no net loss of such features within the Centennial Industrial Site.

#### **Project Related Impacts**

Disturbance within the Centennial Industrial Site for the proposed RAP Project is estimated to fill a maximum of 4.54 acres of wetlands as well as intermittent and ephemeral streams mapped within the Centennial Industrial Site (see Table 3.0, Table 4.0, and Figure in Appendix A). The estimated maximum fill from the implementation of the RAP Project includes a maximum fill of 4.35 acres of mapped wetlands and 0.19 acres of intermittent and ephemeral streams within the Centennial Industrial Site. No proposed fill or dredge material will occur within the main stem of Wolf Creek (perennial stream) as part of the Project.

#### **Section 404 Permit Authorization**

Under the CWA, any fill within “waters of the U.S.,” including wetlands of 0.5 acres or greater would not meet the general conditions of any previously authorized Nationwide Permit and therefore, an Individual Permit would be required prior to the filling of 0.5 acres or greater of such CWA regulated features. Typically, an Individual Permit has a longer timeline than a Nationwide Permit for approval given it includes a 404(b)(1) alternatives analysis that demonstrates that the proposed project has minimized and reduced impacts to the aquatic environment. Given the proposed RAP Project would include fill and dredge related impacts that are greater than 0.5 acres, the proposed disturbance within the Centennial Industrial Site would most likely not fit under a pre-authorized Nationwide Permit such as a Nationwide Permit #38 for Cleanup of Hazardous and Toxic Waste and a Section 404 Individual Permit authorization will most likely be required for the RAP Project fill related impacts to “waters of the U.S.,” including wetlands.

Once an application is deemed complete for an Individual Permit process with the Corps, the Corps Sacramento District states that a minimum of 120 days is required for an

Individual Permit approval. As part of the Individual Permit process a functional assessment of the wetlands and waters to be impacted by the proposed site disturbance should be conducted. Based on the results of the functional assessment and coordination with the Corps, an approved Compensatory Mitigation Plan that mitigates for impacts to such CWA regulated features at a minimum of a 1:1 ratio is required. The total mitigation requirement will be partially calculated based on the results of the functional assessment (higher quality wetlands for instance may have to be mitigated at a higher compensatory mitigation ratio compared to lower quality wetlands). Compensatory mitigation can include but is not limited to the following: onsite and/or offsite wetland creation and/or restoration, payment of an in-lieu fee, and/or purchase of mitigation credits at an approved Corps wetland mitigation or conservation bank.

#### **4.5 Mitigation Measures for Potential Impacts to Stream and Riparian Zones Under CDFW Jurisdiction**

Perennial, intermittent, and ephemeral streams within the Centennial Industrial Site would likely fall under CDFW jurisdiction as these areas each contain a bed and bank. Any substantial alteration of the bed or bank of any stream river or lake would most likely require a Streambed Alteration Agreement from the CDFW pursuant to Section 1600 *et. seq.* of the California Fish and Wildlife Code prior to construction, including any disturbance within the main stem of Wolf Creek or other mapped streams within the Centennial Industrial Site.

#### **Project Related Impacts**

The proposed Project disturbance within the Centennial Industrial Site would cause an estimated 0.19 acres of direct, permanent impacts to mapped streams within the Centennial Industrial Site. Riparian zones, adjacent to impacted mapped intermittent and ephemeral streams within the Centennial Industrial site, will also be permanently impacted by the proposed RAP Project. RAP Project impacts to the mapped streams within the Centennial Industrial Site will be permanent impacts and there will be no temporary impacts requiring restoration as part of the RAP Project.

Specific to the main stem of Wolf Creek, no direct impacts to the perennial creek are proposed. In addition, surface disturbance will remain outside of the creek's riparian habitat zone and the 100-year floodplain boundary.

#### **Streambed Alteration Agreement**

Therefore, the proposed disturbance within the mapped stream zones within the Centennial Industrial Site would be subject to CDFW jurisdiction and a Streambed Alteration Agreement from the CDFW pursuant to Section 1600 *et. seq.* of the California Fish and Wildlife Code would be required prior to disturbance within such CDFW jurisdiction.

For impacts to any stream that includes the removal of native trees within the stream

would require prior consultation and approval by CDFW for native trees with a diameter at breast height of 4 inches or greater. A site revegetation plan would be required to be developed and approved by CDFW as part of a Streambed Alteration Agreement permit condition and native trees planned for removal with a diameter at breast height of 4 inches or greater would need to be replanted and impact zones revegetated, with clear success criteria identified, monitoring and reporting required, and corrective actions to be taken if mitigation measures do not meet the proposed success criteria. If the stream geomorphology and flow regimes are impacted by the proposed project, then CDFW could also require a Restoration Plan by a qualified engineer, geologist, or stream restoration specialist to ensure recovery or enhancement of stream form, and fish and wildlife resource values.

#### **4.6 Compliance with the Nevada County Land Use and Development Code**

##### **Aquatic Resources Management Plan**

A Management Plan would be required to be developed for the Centennial Industrial Site for RAP Project related impacts to protected aquatic resources in order to comply with Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3 17C.3 (Ordinance Number 2033). The ordinance requires the development of such a Management Plan for project related impacts within non-disturbance buffers, including areas that are within 100 feet of the high water mark of perennial streams, watercourses, and wetlands, 50 feet from the high water mark of intermittent watercourses, and 100 feet upslope or 20 feet downslope from an NID canal (Nevada County 2000. Land Use and Development Code, Chapter II: Zoning Regulations. Effective July 27, 2000). Therefore, the development of such a Management Plan would be required for the proposed RAP Project given the proposed impacts to such aquatic resources and their non-disturbance buffers.

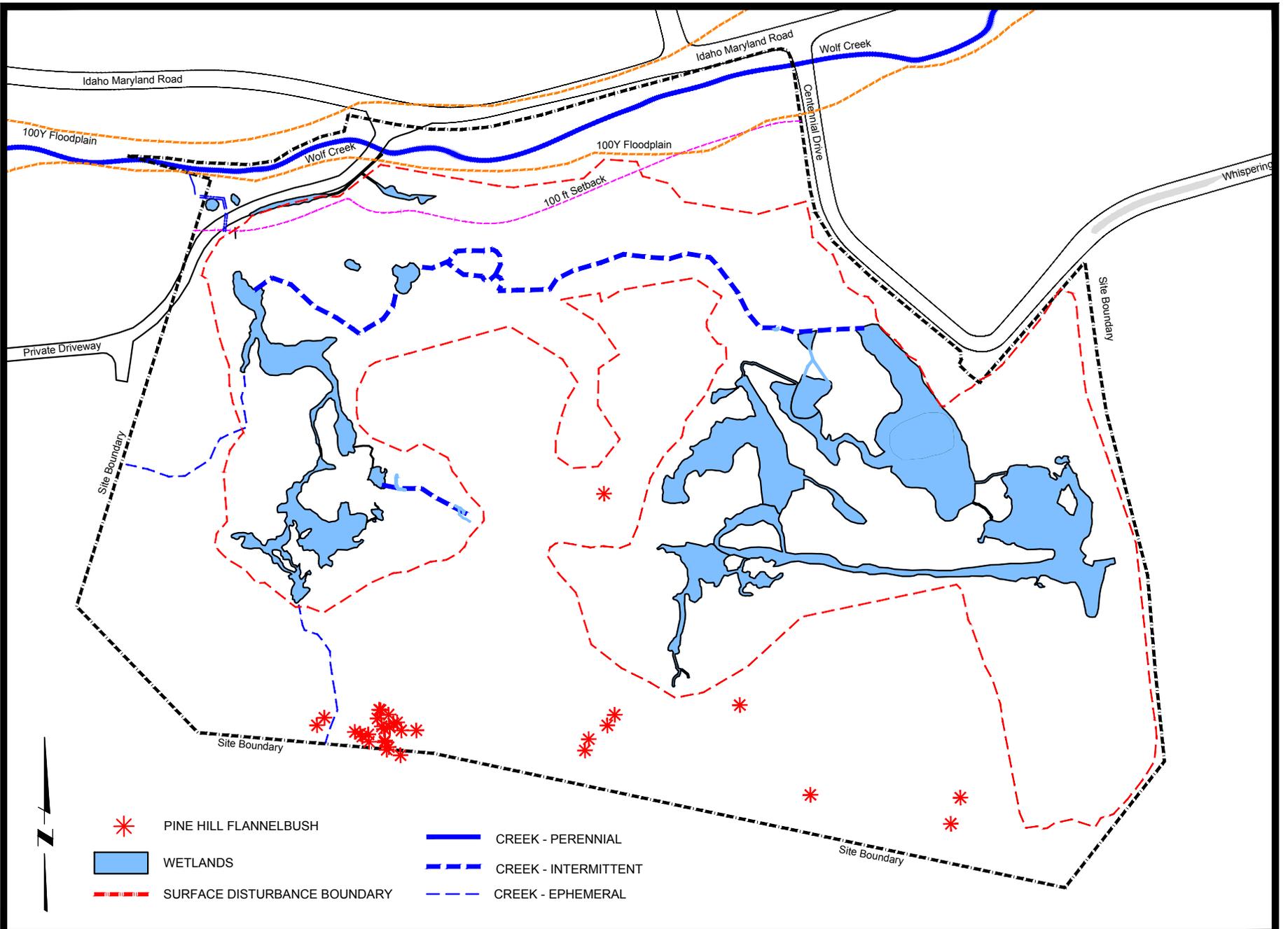
The development of such a Management Plan for the proposed RAP Project within the Centennial Industrial Site would meet the requirements of the Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3 17C.3 (Ordinance Number 2033). Specific to the main stem of Wolf Creek, no direct impacts to the creek itself are proposed and any disturbance would remain outside of the creek's riparian habitat zone and the 100-year floodplain boundary; however, the proposed RAP Project would encroach within the 100-foot non-disturbance buffer to Wolf Creek as well as within the non-disturbance buffers of several wetlands and other intermittent and ephemeral streams within the Centennial Industrial Site (see Appendix A). The development of a Management Plan for the proposed RAP Project would include measures to minimize and mitigate for impacts to such aquatic resources and their non-disturbance buffers.

## **5 REFERENCES**

- Evens, J., Page, G.W., Laymon, S.A. and R.W. Stallcup. 1991. Distribution, Relative Abundance and Status of the California Black Rail in Western North America. *The Condor* 93(4) 952 November 1991.
- Matuzak, Greg. 2019a. Centennial Industrial Site Biological Resources Assessment (Greg Matuzak Environmental Consulting LLC).
- Matuzak, Greg. 2019b. Centennial Industrial Site Aquatic Resources Delineation of Waters of the United States and State of California (Greg Matuzak Environmental Consulting LLC).
- United States Fish and Wildlife Service (USFWS). 2002. Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills. Portland, Oregon. Technical Report 200623.
- United States Fish and Wildlife Service (USFWS). 2005. Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog (August 2005).

## **Appendix A**

### **Proposed RAP Project Surface Disturbance Activities**



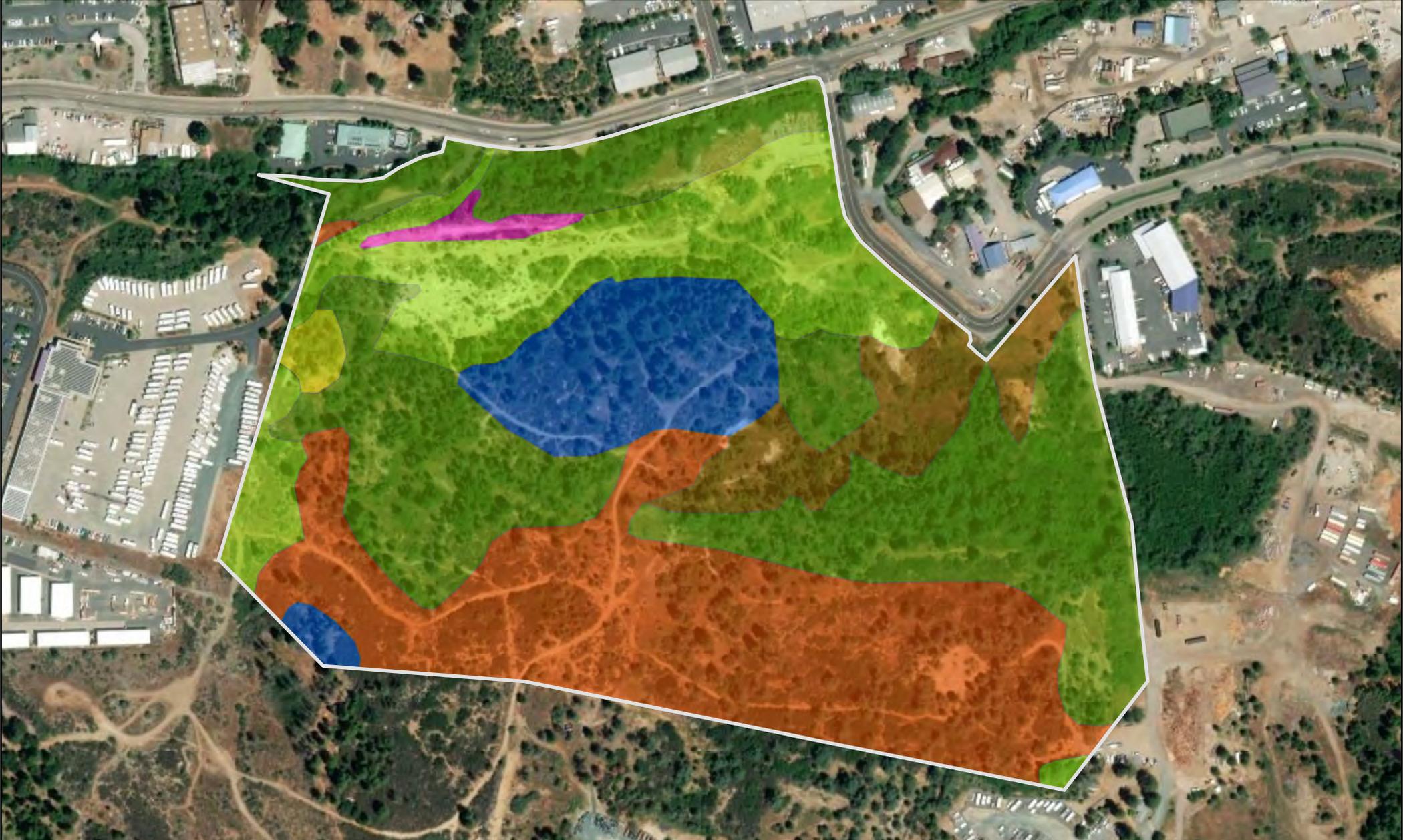
- \* PINE HILL FLANNELBUSH
- CREEK - PERENNIAL
- WETLANDS
- - - CREEK - INTERMITTENT
- - - SURFACE DISTURBANCE BOUNDARY
- - - CREEK - EPHEMERAL



<b>TITLE: CENTENNIAL INDUSTRIAL SITE</b> Remedial Action Plan	
Drawn by: Rise	Scale: NTS
Date: 2020/06/18	Approval:                      Date:
File:	

## **Appendix B**

### **Vegetation Communities of the Centennial Industrial Site**



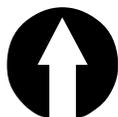
**Figure. Vegetation Communities Mapped in the Centennial Industrial Site**

Grass Valley, CA  
 Grass Valley 7.5 minute USGS quadrangle  
 T16N, R8E Section 26

Coordinate System: NAD 83 Zone 10N  
 Projection: Transverse Mercator  
 Datum: D\_North\_American\_1983

**Legend**

- |   |  |
|---|--|
|  Centennial Industrial Site Study Area |  Montane Hardwood-Conifer |
| <b>Vegetation Type</b>  |  Montane Hardwood         |
|  Annual Grassland                      |  Montane Riparian         |
|  Fresh Emergent Wetland                |  Wet Meadow               |
|  Mixed Chaparral                       |  |



**SCALE: 1 inch = 300 feet**