

SECTION 4.4
BIOLOGICAL RESOURCES

4.4 BIOLOGICAL RESOURCES

This section evaluates the potential impacts of the project on biological resources. The analysis will include issues such as jurisdictional wetlands on the property and special status species both on and in the vicinity of the project site. The impact analysis is based primarily upon studies conducted by Miriam Green Associates and Glazner Environmental Consulting, along with other documents. These studies are included as Appendix D in this document.

4.4.1 SETTING

HABITAT TYPES

Most of the project site has been altered by the milling operations that occurred from 1957 to 1989. Four habitat types have been identified within the project site boundaries: ruderal, grassland, mixed woodland and open water.

Ruderal

Because most of the project site functioned as a lumber mill, the natural topography has been altered to create the mill ponds and flat areas used to hold logs and to store lumber. These alterations have created large expanses of ruderal habitat, or habitat dominated by weeds. Dominant plant species growing among the remaining slash, graveled areas, former mill ponds and cement pads include medusa-head (*Taeniatherum caput-medusae*), prickly lettuce (*Lactuca serriola*), turkey mullein (*Eremocarpus setigerus*), yellow star-thistle (*Centaurea solstitialis*), horseweed (*Conyza canadensis*), gumplant (*Grindelia* sp.) and slender wild oat (*Avena barbata*). Few wildlife species are found in the ruderal habitat. The western fence lizard (*Sceloporus occidentalis*) uses remnant slash for basking, and small mammals (*Peromyscus* sp. and *Microtus* sp.) are likely to occur in areas that have suitable plant cover. Birds forage in this often low-growing habitat, including Brewer's blackbird (*Euphagus cyanocephalus*), horned lark (*Eremophila alpestris*), American goldfinch (*Carduelis tristis*) and sparrows.

Grassland

Grassland habitat occurs in small patches among the ruderal areas on the valley floor. Dominant plants include panic grass (*Panicum capillare*) and meadow barley (*Hordeum jubatum*). Medusa-head is also present, often at the transition area between grassland and ruderal habitat. Wildlife found in the grassland habitat is similar to that found in the ruderal habitat. Additional species found in grasslands include Botta's pocket gopher (*Thomomys bottae*), killdeer (*Charadrius vociferus*), American robin (*Turdus migratorius*), western kingbird (*Tyrannus verticalis*) and European starling (*Sturnus vulgaris*).

Mixed Woodland

Mixed woodland habitat is found along the western and southern boundaries of the project site. It is also located at the top of the bluff along the eastern boundary of the site. The woodland is

4.4 BIOLOGICAL RESOURCES

dominated by Ponderosa pine (*Pinus ponderosa*) and Oregon oak (*Quercus garryana*), with California black oak (*Quercus kelloggii*) interspersed, mostly at the southern end of the project site. Tree canopy cover varies in the mixed woodland, but most of the site is open, with 50 percent or less canopy cover. Understory shrub cover is more prevalent where tree cover is lower. Dominant understory species include antelope brush (*Purshia glandulosa*), rabbit brush (*Chrysothamnus nauseosus*), gooseberry (*Ribes* sp.), squaw carpet (*Ceanothus prostratus*) and manzanita (*Arctostaphylos* sp.). Sagebrush (*Artemisia tridentata*) is also present. The herbaceous layer is sparse and dominated by grasses.

Several wildlife species are found in the mixed woodland habitat. Acorns from the oak trees provide important food for the Stellar's jay (*Cyanocitta stelleri*), acorn woodpecker (*Melanerpes formicivorus*), western gray squirrel (*Sciurus griseus*) and mule deer (*Odocoileus hemionus*). Ponderosa pines provide food and cover for the yellow pine chipmunk (*Eutamias amoenus*), hairy woodpecker (*Picoides villosus*), northern flicker (*Colaptes auratus*), dark-eyed junco (*Junco hyemalis*) and common raven (*Corvus corax*). The mixture of shrubs and herbaceous cover is used by the valley quail (*Callipepla californica*) and mountain quail (*Oreotyx pictus*), as well as a variety of small mammals. Other common bird species in the mixed woodland include white-breasted nuthatch (*Sitta carolinensis*), western wood-pewee (*Contopus sordidulus*) and western bluebird (*Sialia mexicana*). Mountain lion (*Felis concolor*) and gray fox (*Urocyon cinereoargenteus*) are occasionally observed on the project site.

Open Water

A small pond, approximately 0.21 acres in size, is located in the southeastern corner of the project site (Figure 4.4-1). According to Hat Creek Construction personnel, this pond contains water year-round (Miriam Green Associates, 1999). During spring field visits by Miriam Green Associates in



Figure 4.4-1
Permanent Pond on Project Site

1999, several pockets of standing water were present on the project site, in the old logging ponds and along the base of the bluff. By mid-May, most of the standing water had dried up, and by June only the pond and two small pockets at the base of the bluff contained standing water. Most of the areas with standing water have been disturbed by human activities, have slash wood present in them, and support few wetland plants typical of ponds or seasonal wetlands in the region. Little or no vegetation is found in the former log ponds.

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4.4-2

4.4 BIOLOGICAL RESOURCES

Wildlife use of the pond and pockets of standing water appears to be minimal. No fish were observed in the pond. A pair of mallards (*Anas platyrhynchos*) and wood ducks (*Aix sponsa*) were observed around the permanent pond. Mallards may have nested at the pond, although no young were observed. Pacific chorus frogs (*Pseudacris regilla*) have been heard calling from the edges of the pond during the spring, and tadpoles have been observed in the pond.

DEER AND ELK

Portions of the project site, especially the mixed woodland at the top of the bluff, probably receive moderate use by deer. Although key browse species (e.g., bitterbrush, wedge-leaved ceanothus) are not dominant vegetation in the area, young Oregon oaks provide good browse, and mature oaks provide acorns. The project site would be considered part of the winter range, with an influx of animals possibly occurring during the autumn months. However, the project site is not in a migratory corridor for deer. The bluff on the east side of the project site is steep, with little access that would allow deer to traverse. Two "skid" trails on the southeastern end of the project site would allow deer to move from the bluff to the grassland area. However, since the bluff naturally grades into the landscape approximately 0.5 miles south of the project site, the area south of the project site would be a more likely location for deer movements.

Elk may occasionally be observed in the project vicinity. A small herd of native Roosevelt elk (*Cervus elaphus roosevelti*) or introduced Rocky Mountain elk (*Cervus elaphus nelsoni*) frequents a private ranch west of SR 89, a few miles from the project site. Elk typically require seclusion from human interference and mature stands of deciduous and coniferous forest habitats, but individual elk may occasionally venture onto the project site.

SPECIAL-STATUS SPECIES

For the purposes of this evaluation, special-status species are plant or animal species that are one of the following:

- Listed as rare, threatened, or endangered by the State or Federal government.
- Proposed as state or federal candidates for threatened or endangered status.
- Identified as Species of Concern by the U.S. Fish and Wildlife Service (USFWS) or by the California Department of Fish and Game (CDFG).
- Included on the California Native Plant Society (CNPS) List as category 1A, 1B, and 2.

The osprey (*Pandion haliaetus*) is the only special status wildlife species known to occur in the immediate project area. One nest structure, likely belonging to an osprey was observed approximately 0.25 to 0.5 miles southeast of the proposed quarry. Other special status wildlife species that may be found on the project site include the bald eagle (*Haliaeetus leucocephalus*) and the northern harrier (*Circus cyaneus*). Bald eagles are known to nest along the shores of Lake Britton, the Pit River, Hat Creek, Canyon Creek and Rising River Lake. They may occasionally be observed flying over the project site. However, no suitable foraging habitat for bald eagles is available on the project site, because the open water on the site does not support fish. Although

northern harriers may be found onsite, the habitat is marginal due to the isolated nature of the grassland.

In 1996, the CDFG indicated the possibility that a special-status plant species may exist on the project site. The species, the slender Orcutt grass (*Orcuttia tenuis*), is listed as an endangered species by the State. Its habitat is associated with vernal pools, shallow areas of standing water which typically are dry by late spring. In that same year, North State Resources conducted a field inspection and examined aerial photographs of the project site, and concluded that vernal pools did not exist on the project site. In addition, North State Resources conducted a search of the California Natural Diversity Database (CNDDDB) for the presence of slender Orcutt grass in the vicinity. It was found that Orcutt grass existed in the project vicinity, but occupied landscape and soil types unlike those occurring on the project site (Reilly, 1996).

JURISDICTIONAL WETLANDS

Jurisdictional wetlands are wetland areas that are considered “waters of the United States,” and thus fall under the permitting provisions of Section 404 of the Clean Water Act, as administered by the U.S. Army Corps of Engineers (ACOE). To determine if such wetlands exist on the project, a wetland delineation was conducted in 1999. The delineation identified three wetland areas, the small pond and two pockets of standing water. The pond has wetland vegetation along its banks near the waterline. The two pockets of standing water, in shallow depressions located along the base of the bluff, contain thick layers of decaying logs and bark, which are debris from former logging and log stockpile activities. By contrast, the small pond contains minor amounts of debris. The total wetland area classified as “waters of the United States” is 0.71 acres. The remaining areas of the project site are dry by summer and do not meet the criteria for wetlands used by the ACOE (Glazner, 1999).



Figure 4.4-2
Seasonal Pond between Bluff and Eastern Dike

4.4.2 REGULATORY FRAMEWORK

FEDERAL ENDANGERED SPECIES ACT

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce, jointly have the authority to list a species as threatened or endangered (16 USC 1533[c]). Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the agency is required to

4.4 BIOLOGICAL RESOURCES

determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered "significant" in this EIR.

The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under FESA. The candidate species are taxa for which the USFWS has sufficient biological information to support a proposal to list as Endangered or Threatened. Project impacts to such species would be considered "significant" in this EIR.

CALIFORNIA ENDANGERED SPECIES ACT (CESA)

Under the California Endangered Species Act (CESA), CDFG has the responsibility for maintaining a list of threatened species and endangered species (California Fish and Game Code 2070). CDFG also maintains a list of "candidate species" which are species that CDFG has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, CDFG encourages informal consultation on any proposed project which may impact a candidate species. Project-related impacts to species on the CESA endangered list and threatened list would be considered "significant" in this EIR.

FEDERAL WETLAND REGULATIONS

Under Section 404 of the Clean Water Act (CWA), the U. S. Army Corps of Engineers (ACOE) regulates fill of "waters of the United States." Waters of the U.S. include navigable waters, tributaries to navigable waters, and isolated wetlands. Isolated wetlands include swamps, marshes, bogs, vernal pools, and similar areas. The ACOE is responsible for issuing permits for any projects that propose to discharge any material into waters of the U.S. Section 401 of CWA and a stipulation in the Corps permit require water quality certification (or waiver of certification) from the Regional Water Quality Control Board (RWQCB) for any project that will result in fill being placed in jurisdictional waters of the U.S.

The ACOE Permits under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, as amended, are required for the placement of dredge or fill materials into all waters of the United States, including wetlands and "other waters." Projects are permitted under either individual or general (e.g., nationwide) permits. Specific applicability of permit type is determined by the ACOE on a case-by-case basis. Usually, under the Section 404 process, the permit applicant must show that there is no practicable alternative to filling the wetland area before a permit is granted. Under ACOE regulations that went into effect on June 7, 2000, an individual permit is

4.4 BIOLOGICAL RESOURCES

required for the fill of wetlands greater than 0.5 acres in size. For wetlands greater than 0.1 acres but not greater than 0.5 acres, no permit to fill is necessary, but advance notification to the ACOE is required.

CALIFORNIA FISH AND GAME CODE

Any entity proposing an activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFG, must receive a discretionary Stream Alteration Agreement (Section 1603 permit) from the CDFG. Generally, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources. Since the project proposes to backfill a portion of the abandoned irrigation ditch from Burney Creek, this portion of the project may be subject to CDFG scrutiny.

Other CDFG regulations include special protection for birds of prey. It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird (California Fish and Game Code 3503.5).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

The California Regional Water Quality Control Board (RWQCB), Central Valley Region, is responsible for enforcing water quality criteria and protecting water resources in the project area. The RWQCB is responsible for controlling discharges to surface waters of the state by issuing waste discharge requirements (WDRs), or commonly by issuing conditional waivers to WDRs.

A request for water quality certification (including WDRs) by the RWQCB would be required for any project which would need a Section 404 permit from the ACOE. A Notice of Intent application for a General Permit for Storm Water Discharges Associated with Construction Activities is required for any project which would result in the disturbance of five or more acres.

SHASTA COUNTY GENERAL PLAN

The County General Plan contains the following objectives and policies concerning biological resources that pertain to the project:

Fish and Wildlife Habitat

Objectives

- FW-1 Protection of significant fish, wildlife and vegetation resources.

- FW-2 Provide for a balance between wildlife habitat protection and enhancement and the need to manage and use agricultural, mineral extraction and timberland resources.

Policies

FW-c Projects that contain or may impact endangered and/or threatened plant or animal species, as officially designated by the California Fish and Game Commission and/or the U.S. Fish and Wildlife Service, shall be designed or conditioned to avoid any net adverse impacts on those species.

4.4.3 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines indicates that a project may have significant impacts on biological resources if it does any of the following:

- 1) Has a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- 2) Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- 3) Has a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means. Federally protected wetlands include, but are not limited to, marsh, vernal pools and coastal wetlands.
- 4) Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- 5) Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- 6) Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

METHODOLOGY

PMC reviewed all pertinent documents concerning biological resources. Two studies were the primary sources of information on biological resources within and surrounding the project site.

4.4 BIOLOGICAL RESOURCES

Miriam Green Associates prepared a report in July 1999 presenting the results of a survey for special-status species on the project site. Also in July 1999, Glazner Environmental Consulting conducted a delineation of jurisdictional wetlands. Information for this section was also obtained from a letter by Tim Reilly of North State Associates to Stuart Busby of Hat Creek Construction in February 1996, which described a field reconnaissance of the project site for slender Orcutt grass.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact 4.4.1 The project may affect bald eagle and osprey habitat in the vicinity. [PSM]

The Miriam Green Associates study identified one possible osprey nest approximately 0.25 to 0.5 miles southeast of the proposed quarry. It is not known whether the nest had been used in recent years. In mid-April 1999, most of the nest had been blown down, but one osprey was observed in the nest tree. The project site does not provide suitable foraging habitat for osprey or bald eagles, since the permanent pond and identified wetlands do not support fish. Bald eagles and osprey are known to nest and forage in the Lake Britton area, approximately three miles north of the project site. Since most of the proposed activities would be located in treeless areas, it is not likely that either species would be directly affected.

The various activities on the project site may have an impact on offsite bald eagle and osprey nesting habitat. Although, as of June 28, 1999, the previously identified nest had not been reconstructed, the potential exists for that nest and/or other nests to be constructed in the immediate project vicinity. Noise generated from blasting at the quarry may disturb the nesting habits of eagles and osprey. An evaluation of noise impacts, described in Section 4.8, Noise, indicates that noise impacts would not be significant outside the project site. The blasting would occur infrequently, only six times per year. However, blasting has the potential to disturb eagles and osprey nesting in the project vicinity. Impacts, therefore, are considered *potentially significant and subject to mitigation*.

Mitigation Measures

MM 4.4.1a The project applicant shall retain a qualified wildlife biologist to conduct an annual survey for active bald eagle and osprey nests within one-quarter mile of the active operational areas of the quarry. The survey shall be conducted on May 15 of each year. If an active nest is found within one-quarter mile of the active operational areas of the quarry, no blasting shall occur until the young have fledged. The biologist shall submit a report to the Planning Division after completion of the survey. This measure does not preclude blasting activities occurring prior to the survey date.

Timing/Implementation: May 15 of each year.

Enforcement/Monitoring: Shasta County Department of Resource Management - Planning Division

Implementation of the mitigation measure would minimize disruption of active bald eagle and osprey nests, and ensure that quarry activities do not inadvertently violate CDFG regulations concerning raptors. Once project activities begin, it is unlikely that bald eagles and osprey would establish nests in the vicinity of the quarry, as they would avoid the noise generated by project activities. Impacts after mitigation would be *less than significant*.

Impact 4.4.2 The project would require the fill of jurisdictional wetlands. [SM]

The wetland delineation conducted in 1999 concluded that there are 0.71 acres of wetland area that are classified as “waters of the United States”. Such wetlands are subject to the permitting process of ACOE. The project applicant proposes to fill approximately 0.32 acres of these wetlands. Under new ACOE regulations, a fill permit for the wetland area is not required, but ACOE must be notified in advance of the fill. Nevertheless, since the project would result in a decrease in wetland area, the impact of the project on jurisdictional wetlands is *significant and subject to mitigation*.

Mitigation Measures

The following mitigation measures were proposed by the Initial Study for the project:

MM 4.4.2a Other than the proposed 0.32-acre fill area, the wetlands on the site shall be designated as a non-disturbance area. The project applicant shall be required to place a fence around the wetlands at a minimum of 25 feet horizontally from the edge of the water. The fence shall remain in place for the duration of the project and through the process of reclamation. The wetlands shall be maintained in perpetuity after reclamation unless the property owner obtains and complies with all necessary mitigation agreements and permits from the California Department of Fish and Game, the U.S. Army Corps of Engineers, and any other governmental agencies which have wetland-related permit authority.

Timing/Implementation: Prior to commencement of site preparation and/or operations, and thereafter as part of an annual mine inspection.

Enforcement/Monitoring: U.S. Army Corps of Engineers, California Department of Fish and Game, Shasta County Department of Resource Management - Planning Division.

Implementation of the mitigation measure would ensure that project activities would avoid all unfilled wetlands on the project site. Impacts after mitigation would be *less than significant*.

Impact 4.4.3 Project activities may disturb sensitive habitats located outside previously surveyed areas on the project site. [PSM]

The 1996 survey for vernal pools and slender Orcutt grass conducted by North State Resources was

4.4 BIOLOGICAL RESOURCES

limited mainly to the former lumber mill site. While it is anticipated that most site construction and operations would be within the survey area, it is possible that some activities may disturb land outside the survey area, such as vehicle and equipment movement. Since such areas have not been surveyed by North State Resources, it cannot be stated with certainty that no vernal pools or slender Orcutt grass exist there. This impact is considered *potentially significant and subject to mitigation*.

Mitigation Measures

MM 4.4.3a No site development or other disturbance shall be permitted outside the vernal pool and rare plant survey boundary, as shown on an aerial photograph of the project site, marked by North State Resources and attached to its letter to Stuart Busby of Hat Creek Construction dated February 23, 1996. If development is proposed on a part of the site that was not surveyed, a vernal pool and rare plant survey shall be conducted.

Timing/Implementation: Prior to approval of any proposed development in the unsurveyed area.

Enforcement/Monitoring: Shasta County Department of Resource Management - Planning Division.

MM 4.4.3b The boundary of the vernal pool and rare plant survey conducted by North State Resources shall be permanently marked on the project site. The boundary shall be flagged or fenced to be clearly identifiable to equipment operators. The flags or markings shall be spaced a maximum of 50 feet apart, with each marker clearly visible from the immediately adjacent markers. The flagging or fencing shall be maintained for the life of the use permits.

Timing/Implementation: Installation within 60 days of the approval of the use permits.

Enforcement/Monitoring: Shasta County Department of Resource Management - Planning Division.

Implementation of the mitigation measures would avoid damage to any sensitive habitats located outside the survey area caused by future development or project activities. Impacts after mitigation would be *less than significant*.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.4.4 **The project is expected to have little significant effect on biological resources in the vicinity. [LS]**

The Miriam Green study did not identify any special-status species or sensitive ecological communities on the project site. Most of the area surrounding the project site is within National

4.4 BIOLOGICAL RESOURCES

Forest land or State Park land; thus, future development is expected to be limited to primarily the project site. The proposed fill of the seasonal wetland would not significantly decrease the amount of wetlands in the vicinity. Cumulative impacts of the project on biological resources, therefore, are considered *less than significant*.

REFERENCES

California Department of Parks and Recreation. *McArthur-Burney Falls Memorial State Park General Plan*. Sacramento, Calif., June 1997.

Glazner Environmental Consulting. *Wetland Delineation for the 343± Acre Eastside Aggregates Project, Shasta County, California*. Auburn, Calif., July 1999.

Miriam Green Associates. *Results of Special-Status Wildlife Surveys at the Proposed Eastside Aggregates Project Site*. Sacramento, Calif., July 1999.

Tim Reilly, North State Resources. "Field Reconnaissance of the Proposed Highway 89 at Hat Creek Way Rock Crushing Project, Phase I (NSR 95)." Letter to Stuart Busby, Hat Creek Construction, Inc., February 14, 1996.