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PROJECT REFERENCE NO.: CUP 5170-1. Ozena Valley Sand and Gravel – Ozena Valley Ranch Surface Mine and Processing Facility.	**PROJECT PLANNER:** Scott Ellison
DATE: 21 May 2004. Site visit conducted in 30 April 2004.	**PROJECT BIOLOGIST:** David L. Magney and Cher Batchelor of David Magney Environmental Consulting (DMEC)

PROJECT LOCATION: The project site is located in Ozena Valley within a portion of the Cuyama River floodplain adjacent to/north of Lockwood Valley Road, approximately 1.2 miles from its intersection with State Route 33 (SR33). The project site is located at N½ NW¼ S20 T7N, R23W, Reyes Peak, California Quadrangle [USGS 7.5-minute Series Topographic Map]; and at approximately 34.69215° North, 119.34596° West.

PROJECT ADDRESS: APN 002-0-140-075.

DESCRIPTION OF PROJECT: A surface mining project is proposed to excavate a second agricultural stockpond, approximately 15 acres in size, and to process the excavated materials for sale as construction-grade aggregate utilizing the existing processing facilities. In addition to serving as a water source for irrigation of crops grown on the surrounding property, this proposed second stockpond would provide a water source for the U.S. Forest Service in the event of a wildfire in the area, and it will be used to cultivate mosquito fish for sale to the California Department of Fish and Game (CDFG).

ENVIRONMENTAL SETTING: The landscape in the vicinity of the project site is relatively flat, and the approximate elevation onsite is 3,570 feet. The entire project site is within the active floodplain of the upper Cuyama River. Portions of site have been actively farmed and/or grazed by livestock. The proposed mining area is located within the Cuyama River floodplain, but is only infrequently flooded. The active riverbed is located a short distance to the south. Vehicle access to the mining expansion area is via a fair-weather crossing over two culvert pipes under a compacted dirt road.

RESULTS OF FIELD SURVEY: The proposed Ozena Valley Ranch stockpond area was walked over briefly by DMEC on 30 April 2004, and all plant and wildlife species observed were recorded. Garmin eTrex GPS units were used to track walking routes and to take waypoints of specific points of interest. Prior to the field survey, DMEC conducted a search of the CDFG's California Natural Diversity Database (CNDDB) RareFind3 (CDFG 2004) to account for all CNDDB-tracked (and reported) special-status species and habitats in the vicinity of the project site. Voucher specimens were collected for several observed plant species, according to California Native Plant Society (CNPS 2001) and CDFG (1991) protocols. Voucher specimens, collected to support the findings of this Initial Study, are available for examination and verification at the Herbarium of the University of California, Santa Barbara (UCSB).

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A total of 73 vascular **plant species** were observed in the vicinity of the proposed stockpond area, during the 30 April survey, and those species are listed in the Table 1, Vascular Plants Observed at the Ozena Ranch Mining Expansion Site, below.

surveys conducted during same years

Table 1. Vascular Plants Observed at the Ozena Ranch Mining Expansion Site

Botanical Name[1]	Common Name	Habit[2]	Family
Ambrosia acanthicarpa	Burweed	AH	Asteraceae
Amsinckia menziesii* var. *menziesii	Common Fiddleneck	AH	Boraginaceae
Anemopsis californica	Yerba Mansa	PH	Saururaceae
Artemisia douglasiana	Mugwort	PH	Asteraceae
Artemisia dracunculus	Tarragon	PH	Asteraceae
Artemisia tridentata ssp. *tridentata*	Great Basin Sagebrush	S	Asteraceae
Asclepias fascicularis	Narrowleaf Milkweed	PH	Apochynaceae
Astragalus douglasii* var. *douglasii	Douglas Milkvetch	PH	Fabaceae
Baccharis salicifolia	Mulefat	S	Asteraceae
*Bromus diandrus**	Ripgut Brome	AG	Poaceae
*Bromus hordeaceus**	Soft Chess	AG	Poaceae
Bromus madritensis ssp. *rubens**	Red Brome	AG	Poaceae
Bromus tectorum var. *tectorum**	Downy Chess	AG	Poaceae
*Cardaria pubescens**	White-top	PH	Brassicaceae
Castilleja liniariifolia	Linaria-leaved Indian Paintbrush	PH/S	Veronicaceae
*Centaurea solstitialis**	Yellow Star-thistle	AH	Asteraceae
*Chenopodium album**	White Goosefoot	AH	Chenopodiaceae
Chenopodium californicum	California Goosefoot	PH	Chenopodiaceae
Chrysothamnus nauseosus* ssp. *consimilis	Common Rubber Rabbitbrush	S	Asteraceae
Cirsium occidentale* var. *venustum	Red Thistle	BH	Asteraceae
*Cnicus benedictus**	Blessed Thistle	AH	Asteraceae
Cryptantha simulans	Pine Forget-Me-Not	AH	Boraginaceae
Conyza canadensis	Horseweed	AH	Asteraceae
Descurainia pinnata* ssp. *halictorum	Western Tansy Mustard	AH	Brassicaceae
*Descurainia sophia**	Tansy Mustard	AH	Brassicaceae
Distichlis spicata	Saltgrass	PG	Poaceae
Eriastrum densifolium* ssp. *elongatum	Elongate Woolly Star	PH	Polemoniaceae
Eriodictyon crassifolium var. *nigrescens*	Thickleaf Yerba Santa	S	Fabaceae
Eriogonum sp.	Annual Buckwheat	AH	Polygonaceae
Eriogonum fasciculatum var. *polifolium*	Hoary California Buckwheat	S	Polygonaceae
*Erodium cicutarium**	Redstem Filaree	AH	Geraniaceae
Eschscholzia california	California Poppy	A/PH	Papaveraceae
Euthamia occidentalis	Western Goldenrod	PH	Asteraceae
Frankenia salina	Alkali Heath	PH	Frankeniaceae

[1] * = Introduced/nonnative plant species. Scientific names follow Hickman (1993).
Bold type indicates the special-status plant species observed onsite.

[2] Habit definitions: AG=annual grass; AH=annual herb; BH=biennial herb; PG=perennial grass; PH=perennial herb; S=shrub; T=tree.

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Botanical Name[1]	Common Name	Habit[2]	Family
Glycyrrhiza lepidota	American Licorice	PH	Fabaceae
Heliotropium curassavicum	Alkali Heliotrope	PH	Boraginaceae
*Hirschfeldia incana**	Summer Mustard	PH	Brassicaceae
Hordeum murinum ssp. *leporinum**	Hare Barley	AG	Poaceae
Juncus arcticus var. *mexicanus*	Wire Grass	PH	Juncaceae
*Lactuca serriola**	Prickly Wild Lettuce	AH	Asteraceae
Lepidospartum squamatum	Scalebroom	S	Asteraceae
Leymus triticoides	Creeping Wildrye	PG	Poaceae
*Lolium multiflorum**	Italian Ryegrass	AG	Poaceae
*Melilotus indica**	Yellow Sweetclover	AH	Fabaceae
Mentzelia veatchiana	Stickleaf	AH	Loasaceae
Penstemon centranthifolius	Scarlet Bugler	PH	Veronicaceae
Pinus monophylla	Single-leaf Pinyon Pine	T	Pinaceae
Poa secunda ssp. *secunda*	One-sided Bluegrass	PG	Poaceae
*Polygonum arenastrum**	Common Knotweed	AH	Polygonaceae
*Polypogon monspeliensis**	Rabbitsfoot Grass	AG	Poaceae
Populus fremontii ssp. *fremontii*	Fremont Cottonwood	T	Salicaceae
Populus balsamifera ssp. *trichocarpa*	Black Cottonwood	T	Salicaceae
Purshia tridentata* var. *glandulosa	Antelope Bush	S	Rosaceae
Rosa californica	California Wild Rose	S	Rosaceae
Salix exigua	Narrowleaf Willow	S	Salicaceae
Salix laevigata	Red Willow	T/S	Salicaceae
Salix lasiolepis	Arroyo Willow	T/S	Salicaceae
*Salsola tragus**	Russian Thistle	AH	Chenopodiaceae
*Schismus arabicus**	Mediterranean Grass	AG	Poaceae
Schoenoplectus* [*Scirpus*] *acutus* var. *occidentalis	Common Tule	PH	Cyperaceae
Senecio flaccidus var. *douglasii*	Douglas Butterweed	S	Asteraceae
Sidalcea neomexicana	Salt Spring Checkermallow	PH	Malvaceae
*Sisymbrium officinale**	Hedge Mustard	AH	Brassicaceae
Solanum xantii var. *xantii*	Chaparral Nightshade	S	Solanaceae
*Sonchus asper**	Prickly Wild Lettuce	AH	Asteraceae
Tamarix sp.*	Tamarisk	S/T	Tamaricaceae
Typha domingensis	Southern Cattail	PH	Typhaceae
Uropappus lindleyi	Silver Puffs	AH	Asteraceae
Urtica dioica ssp. *holosericea*	Giant Stinging Nettle	PH	Urticaceae
*Veronica anagallis-aquatica**	Common Speedwell	PH	Veronicaceae
Vulpia microstachys* var. *pauciflora	Side-oats	AG	Poaceae
Vulpia myuros var. *myuros**	Rattail Fescue	AG	Poaceae

The project site vegetation is comprised of five predominant **habitat types**, including Southern Cottonwood-Willow Riparian Forest, Southern Willow Scrub, Great Basin Sagebrush Scrub, Scalebroom Floodplain Scrub, and Alkali Meadow. These habitat types observed during the field survey are described below.

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Southern Cottonwood-Willow Riparian Forest (Holland 1986) was observed along the western boundary of the proposed pond area. The CDFG *List of California Terrestrial Natural Communities* (CDFG 2002) lists Southern Cottonwood-Willow Riparian Forest as a sensitive habitat; however, this plant community is not tracked by CNDDB RareFind3 (CDFG 2004) in the vicinity of the project site.

Southern Cottonwood-Willow Riparian Forest is co-dominated by two broad-leaved winter-deciduous trees, *Populus fremontii* ssp. *fremontii* (Fremont Cottonwood) and *Salix lasiolepis* (Arroyo Willow). The National List of Wetland Plants lists *P. fremontii* and *S. lasiolepis* as facultative wetland species (FACW), or species that are usually found in wetlands (Reed 1988).

Southern Cottonwood-Willow Riparian Forest, or Freemont Cottonwood-Arroyo Willow Series (Sawyer and Keeler-Wolf 1995), occurs in intermittently or seasonally flooded or saturated freshwater wetland habitats, such as riparian corridors, floodplains, low-gradient depositions along rivers/streams, and seeps, and occurs at elevations below 2,400 meters. This series forms an intermittent to open tree canopy less than 25 meters tall, growing over sparse shrub layer and a variable ground layer. The cottonwood-willow woodland onsite includes three additional important tree and shrub canopy contributors: *Populus balsamifera* ssp. *trichocarpa* (Black Cottonwood), *Salix exigua* (Narrowleaf Willow), and *Salix laevigata* (Red Willow). The cottonwood-willow woodland understory includes scattered shrubs associates, such as *Artemisia tridentata* ssp. *tridentata* (Great Basin Sagebrush), *Baccharis salicifolia* (Mulefat), and *Lepidospartum squamatum* (Scalebroom), *Senecio flaccidus* var. *douglasii* (Shrubby Butterweed).

The ground layer consists predominantly native herbaceous plant species, such as *Ambrosia acanthicarpa* (Burweed), *Artemisia douglasiana* (Mugwort), *Artemisia dracunculus* (Tarragon), *Chenopodium californicum* (California Goosefoot), *Descurainia pinnata* ssp. *halictorum* (Western Tansy Mustard), *Euthamia occidentalis* (Western Goldenrod), (*Heliotropium curassavicum* (Alkali Heliotrope), and *Urtica dioica* ssp. *holosericea* (Giant Creek Nettle). Annual grasses observed throughout this (and most other) plant series include: *Bromus* spp. (including Ripgut Grass, Soft Chess, Red Brome, and Cheat Grass), *Hordeum murinum* ssp. *leporinum* (Hair Barley), *Lolium multiflorum* (Italian Ryegrass), *Schismus arabicus* (Mediterranean Grass), and *Vulpia myuros* var. *myuros* (Rattail Fescue).

The **Southern Willow Scrub** (Holland 1986) observed onsite is dominated by *Salix exigua* (Narrowleaf Willow), which is a silvery, linear-leaved shrub that is common along streamsides, marshes, and wet ditches. The National List of Wetland Plants lists *S. exigua* as an obligate wetland species (OBL), or a species that almost always occurs in wetlands (Reed 1988). The CDFG *List of California Terrestrial Natural Communities* (CDFG 2002) lists Southern Willow Scrub as a sensitive habitat; however, this plant community is not tracked by CNDDB near the project site.

Southern Willow Scrub, or Narrowleaf Willow Series (Sawyer and Keeler-Wolf 1995), forms a continuous shrub canopy less than seven meters tall with a variable groundlayer. This series occurs in seasonally flooded and/or saturated freshwater habitats, including floodplain areas and depositions along rivers and streams from sea level to 2,700 meters in elevation. This series was observed along the northern boarder of the proposed stockpond area, and is predominantly a pure stand with no emergent trees. Narrowleaf Willow Series was observed as dense large patches throughout the Alkali

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Meadow habitat (discussed below), and the understory herbaceous associates include many of the species mentioned below in the Alkali Meadow description.

Great Basin Sagebrush Scrub is dominated by *Artemisia tridentata* ssp. *tridentata* (Great Basin Sagebrush), which is a silky, silvery-leaved upland shrub that inhabits valleys and benches. Great Basin Sagebrush Series (Sawyer and Keeler-Wolf 1995) forms variable canopy densities (less than three meters tall) with emergent pine trees, and the groundlayer is typically sparse or grassy. This series inhabits upland habitats, such as bajadas, pediments, alluvium, valleys, and dry washes; requires well-drained, gravelly soils; and occurs at elevations between 300 and 3,000 meters.

Great Basin Sagebrush Scrub was observed north of the proposed pond area and north of the above mentioned Southern Willow Scrub, and was observed west of the proposed pond area. An occasional emergent *Pinus monophylla* (Singleleaf Pinyon Pine) tree was observed inhabiting the Great Basin Sagebrush Scrub onsite, while the important associate shrub species include *Chrysothamnus nauseosus* ssp. *consimilis* (Common Rubber Rabbitbrush), *Eriogonum fasciculatum* var. *polifolium* (California Buckwheat), *Lepidospartum squamatum*, *Purshia tridentata* ssp. *glandulosa* (Antelope Bush), *Senecio flaccidus* var. *douglasii*, and *Solanum xantii* var. *xantii* (Chaparral Nightshade). The understory species include the annual grasses mentioned above in Southern Cottonwood-Willow Riparian Forest, as well as several native herbs, including *Amsinckia menziesii* var. *menziesii* (Ranchers Fire), *Asclepias fascicularis* (Narrow-leaved Milkweed), *Cirsium occidentale* var. *venustum* (Red Thistle), *Descurainia pinnata* ssp. *halictorum*, *Eriastrum densifolium* ssp. *elongatum* (Elongate Woolly Star), *Penstemon centranthifolius* (Scarlet Bugler), and *Poa secunda* ssp. *secunda* (One-sided Bluegrass).

Scalebroom Floodplain Scrub is dominated by *Lepidospartum squamatum* (Scalebroom), which is a round-topped, woolly, broom-like native shrub with scale-like leaves and yellow flowers. Scalebroom has a wetland indicator status of FACW (as suggested by the author). Scalebroom Floodplain Scrub is a broad-leaved, phreatophytic, evergreen scrub type that is restricted to riverine cobbles, boulders, and sand of floodplain habitats (flooded every five to ten years) (Magney 1992). Many species of Great Basin Sagebrush Scrub are ecotonal to this floodplain habitat. Scalebroom Floodplain Scrub is a subset of Riversidian Alluvial Fan Sage Scrub (Holland 1986) habitat, and the CDFG *List of California Terrestrial Natural Communities* (CDFG 2002) lists Riversidian Alluvial Fan Sage Scrub as a sensitive habitat, but is not tracked near the project site.

Scalebroom Floodplain Scrub, or Scalebroom Series (Sawyer and Keeler-Wolf 1995), typically forms a continuous to intermittent canopy (less than 1.5 meters tall) growing under emergent trees and growing over a variable or grassy ground layer. This series occurs in rarely flooded slopes and in low-gradient deposits along streams, at elevations below 1,800 meters. Species composition differs greatly among Scalebroom stands, and disturbance may account for this high variation.

Scalebroom Floodplain Scrub was observed along the southern/southwestern boarder of the proposed stockpond area, and included small linear stands of *Salix lasiolepis* and *Salix exigua*. In addition to the willows, the Scalebroom Series onsite consists of several important shrub and herbaceous components, including many of those listed above in Great Basin Sagebrush Scrub. Additional shrub species observed include *Baccharis salicifolia*, *Castilleja liniariifolia* (Liniaria-leaved Indian Paintbrush), *Eriodictyon crassifolium* var. *nigrescens* (Yerba Santa), and *Rosa californica* (California

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Wild Rose), while other important herbaceous species include *Ambrosia acanthicarpa*, *Artemisia dracunculus*, *Cryptantha simulans* (Pine Forget-me-not), *Eriastrum densifolium* ssp. *elongatum*, *Hirschfeldia incana* (Summer Mustard), *Leymus triticoides* (Creeping Wildrye), and *Mentzelia veatchiana* (Stickleaf).

Alkali Meadow is a plant community dominated by hydrophytic perennial grasses and forbs with a contribution of the annual grasses and herb species typical of Annual Grassland. This plant community forms a low, dense, often matted groundlayer (less than one meter tall) on permanently moist or wet soils. Alkali Meadow occupies the landscape transitional between upland grassland habitats and the wetter Freshwater Marsh/Riparian Scrub habitats, and has potential for higher species richness compared to adjacent plant communities. An Alkali Meadow, such as Saltgrass Series (Sawyer and Keeler-Wolf 1995), which is dominated by *Distichlis spicata* (Saltgrass), requires irregular flooding or permanently saturated soils with a shallow water table and tolerates haline to saline water chemistry. Alkali Meadow was observed throughout the northern border of the proposed stockpond/mining area, and was observed as an understory to the above-mentioned Southern Willow Scrub. It is predominated by native and introduced grasses, including *Distichlis spicata*, *Leymus triticoides*, *Hordeum marinum* ssp. *gussoneanum*, *Lolium multiflorum*, and *Polypogon monspeliensis* (Rabbitsfoot Grass). The predominant perennial herbs of the Alkali Meadow onsite include *Anemopsis californica* (Yerba Mansa), *Frankenia salina* (Alkali Heath), *Juncus arcticus* var. *mexicanus* (Wire Grass), *Polygonum arenastrum* (Common Knotweed), and *Schoenoplectus* [*Scirpus*] *acutus* var. *occidentalis* (Common Tule). *Sidalcea neomexicana* (Salt Spring Checkerbloom), a special-status plant species, was also observed growing in this habitat. All of the dominant plants of this plant community are hydrophytes.

Very few **wildlife species** were observed in the immediate proposed stockpond area during the 30 April 2004 survey, since this area is highly disturbed due to agricultural land uses. However, several wildlife species were observed in the surrounding habitats (discussed above), including:

- Side-blotched Lizard (*Uta stansburiana*)
- Mallard (*Anas platyrhynchos*)
- California Quail (*Callipepla californica*)
- Mourning Dove (*Zenaida macroura*)
- Western Scrub Jay (*Aphelocoma californica*)
- Common Raven (*Corvus corax*)
- American Crow (*Corvus brachyrhynchos*)
- Cliff Swallow (*Hirundo pyrrhonota*)
- European Starling (*Sturnus vulgaris*)
- Killdeer (*Charadrius vociferus*)
- Western Meadowlark (*Sturnella neglecta*)
- Audubon Cottontail (*Sylvilagus audubonii*)
- California Ground Squirrel (*Spermophilus beecheyi*)
- Coyote (*Canis latrans* [scat])

Bumgardner Environmental Consulting (Bumgardner 2003) reported 54 wildlife species from throughout the entire Ozena Valley Ranch property, and they reported several special-status wildlife species as well (special-status wildlife species are discussed in further detail below).

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IV. BIOLOGICAL RESOURCES:	PROJECT IMPACT DEGREE OF EFFECT[3]				CUMULATIVE IMPACT DEGREE OF EFFECT			
What level of impact will the proposal have on:	**N**	**LS**	**PS-M**	**PS**	**N**	**LS**	**PS-M**	**PS**
A. Endangered, Threatened, or Rare Species				X				X
B. Wetland Habitat			X				X	
C. Coastal Habitat	X				X			
D. Migration Corridors			X				X	
E. Locally Important Species/Communities			X				X	
Will the proposal:								
a) Have a substantial adverse effect, either directly or through habitat modifications, 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?				X				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X				X	
c) Have a substantial adverse effect on federally protected wetland as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X				X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X				X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X				X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	X				X			

[3] N = No Impact; LS = Less Than Significant; PS-M = Potentially Significant Impact Unless Mitigation Incorporated; PS = Potentially Significant Impact.

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ADDITIONAL COMMENTS OR EXPLANATIONS:

The proposed project has potential to significantly impact one or more special-status species, included federally listed wildlife species. Bumgardner Environmental Consulting (2003) conducted a reconnaissance-level biological resources investigation of the entire Ozena Valley Ranch property in April and May 2003. Bumgardner Environmental Consulting reported 94 vascular plant taxa onsite, and reported that no special-status plant species were observed onsite. It should be noted that of the 94 plant species observed by Bumgardner Environmental Consulting, at least 18 taxa (~20%) are rare in Ventura County (defined as those plants with ten or fewer populations in the County (Magney 2004)). Some of the 16 taxa represent new records for Ventura County and/or the Cuyama Badlands; or they are only known in Ventura County from the project site, representing a significant biological resource. In either case, their presence onsite is significant. Impacts to the following reported taxa may considered a significant impact due to their rarity in Ventura County:

- *Astragalus asymmetricus* (locally rare - only 1 other occurrence known in Ventura County)
- *Atriplex polycarpa* (locally rare - only 4 other occurrences in Ventura County)
- *Castilleja attenuata* (locally rare - only 1 other occurrence in Ventura County)
- *Coreopsis calliopsidea* (locally rare - only 2 other occurrences in Ventura County)
- *Encelia farinosa* (locally rare - only reported occurrence in Ventura County – it might be *Encelia actonii* also a locally rare species)
- *Ephedra californica* (locally rare - only 3 other occurrences in Ventura County)
- *Gilia tricolor* (locally rare - only reported occurrence in Ventura County)
- *Linanthus ciliatus* (locally rare - only 2 other occurrences in Ventura County)
- *Mentzelia micrantha* (locally uncommon - only 8 other occurrences in Ventura County)
- *Osmorhiza brachypoda* (locally uncommon - only 8 occurrences in Ventura County)
- *Pluchea sericea* (locally rare - only 2 other occurrences in Ventura County)
- *Purshia tridentata* var. *glandulosa* (locally uncommon - only 7 other occurrences in Ventura County)
- *Rumex hymenosepalus* (locally rare - only 4 other occurrences in Ventura County)
- *Saxifraga californica* (locally rare - only 3 other occurrences in Ventura County)
- *Shepherdia argentea* (locally rare - only 3 occurrences in Ventura County)
- *Tropidocarpum gracile* (locally rare - only 3 other occurrences in Ventura County)

This number of 16 locally rare plant taxa is expected to be higher since many taxa are not identified completely to species, subspecies, or variety levels, which is necessary to determine their complete identity and to determine if they are indeed rare.

DMEC's site visit on 30 April 2004, by David Magney and Cher Batchelor for this Initial Study, found 14 plants considered rare in Ventura County or otherwise listed as a special-status species. Most of these species occur outside of the proposed stockpond area and occur in the surrounding habitats that are not likely to be impacted by the construction of the stockpond. The following is a list of the rare plants observed by DMEC:

- *Amsinckia menziesii* var. *menziesii* (locally uncommon - only 8 occurrences in Ventura County)
- *Astragalus douglasii* var. *douglasii* (locally rare - only 5 occurrences in Ventura County)
- *Castilleja linariifolia* (locally rare - only 5 occurrences in Ventura County)
- *Chrysothamnus nauseosus* ssp. *consimilis* (locally uncommon - only 8 occurrences in Ventura County)
- *Cirsium occidentale* var. *venustum* (locally uncommon - only 8 occurrences in Ventura County)
- *Cryptantha simulans* (locally uncommon - only 6 occurrences in Ventura County)

- *Descurainia pinnata* ssp. *halictorum* (locally rare - only 5 occurrences in Ventura County)
- *Eriastrum densifolium* ssp. *elongatum* (locally uncommon - only 10 occurrences in Ventura County)
- *Mentzelia veatchiana* (locally uncommon - only 7 occurrences in Ventura County)
- *Purshia tridentata* var. *glandulosa* (locally uncommon - only 7 occurrences in Ventura County)
- *Schoenoplectus* [*Scirpus*] *acutus* var. *occidentalis* (locally rare - only 5 occurrences in Ventura County, only known occurrence in the Cuyama Badlands portion of Ventura County)
- *Sidalcea neomexicana* (locally rare - only 5 occurrences in Ventura County, CNPS List 2)
- *Vulpia microstachys* var. *pauciflora* (locally rare - only 5 occurrences in Ventura County)

Of these 14 rare plant species, only one is a mutual species observed by both Bumgardner Environmental Consulting and DMEC (*Purshia tridentata* var. *glandulosa*); however; DMEC surveyed a smaller area, focusing on the excavation area. Combined, 29 special-status (locally rare or otherwise listed) plant species exist at the Ozena Valley Ranch. However, of these 29 locally rare taxa, one species, *Sidalcea neomexicana*, is also listed as CNPS List 2 (R-E-D Code 2-2-1) (CNPS 2001).

Definitions of special-status species are defined and explained in the following tables (Tables 2-4).

Table 2. CNPS List Definitions

CNPS List	Definition
1A	Presumed Extinct in California
1B	Rare or Endangered in California and elsewhere
2	Rare and Endangered in California, more common elsewhere
3	Need more information
4	Plants of Limited Distribution

Table 3. CNPS R-E-D Code Definitions

CNPS R-E-D Code	
Rarity (R)	
1	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
2	Distributed in a limited number of occurrences, occasionally more if each occurrence is small
3	Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported
Endangerment (E)	
1	Not endangered
2	Endangered in a portion of its range
3	Endangered throughout its range
Distribution (D)	
1	More or less widespread outside California
2	Rare outside California
3	Endemic to California

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Table 4. CNDDB Global and State Ranking Definitions

Global Ranking (G-Rank)	
G1	<6 viable element occurrences (pops for species), OR < 1,000 individuals, OR < 809.4 hectares (ha) (2,000 acres [ac]).
G2	6 to 20 element occurrences OR 809.4 to 4,047 ha (2,000 to 10,000 ac).
G3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac).
G4	Apparently secure; this rank is clearly < G3, but factors exist to cause some concern (i.e. there is some threat, or somewhat narrow habitat).
G5	Population, or stand, demonstrably secure to ineradicable due to being commonly found in the world.
GH	All sites are **historic**; the element has not been seen for at least 20 years, but suitable habitat still exists.
GX	All sites are **extirpated;** this element is extinct in the wild.
GXC	Extinct in the wild; exists in cultivation.
G1Q	The element is very rare, but there is a taxonomic question associated with it.
Subspecies Level: Subspecies receive a **T-rank** attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. For example: *Chorizanthe robusta* var. *hartwegii* is ranked G2T1. The G-rank refers to the whole species range (*Chorizanthe robusta*), whereas the T-rank refers only to the global condition of the variety (var. *hartwegii*).	
State Ranking (S-Rank)	
S1	Less than 6 element occurrences OR less than 1,000 individuals OR less than 809.4 ha (2,000 ac). S1.1 = very threatened S1.2 = threatened S1.3 = no current threats known
S2	6 to 20 element occurrences OR 3,000 individuals OR 809.4 to 4,047 ha (2,000 to 10,000 ac). S2.1 = very threatened S2.2 = threatened S2.3 = no current threats known.
S3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac). S3.1 = very threatened S3.2 = threatened S3.3 = no current threats known
S4	Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern. NO THREAT RANK.
S5	Demonstrably secure to ineradicable in California. NO THREAT RANK.
SH	All Calif. sites are **historic**; the element has not been seen for at least 20 years, but suitable habitat still exists.
SX	All California sites are **extirpated;** this element is extinct in the wild.
Notes	
1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. Aerial views are important when ranking sensitive elements rather than simply counting element occurrences.	
2. Uncertainty about the rank of an element is expressed in two major ways: by expressing the rank as a range of values (e.g. S2S3 means the rank is somewhere between S2 and S3), and by adding a ? to the rank (e.g. S2?). This represents more certainty than S2S3, but less than S2. (Natural Diversity Data Base 2002.)	

In addition to the observed Ventura County locally rare plant species listed above (Magney 2004), a search of CDFG's CNDDB RareFind3 (CDFG 2004) resulted in 13 special-status plant species and 12 special-status wildlife species tracked by the CNDDB. The results of the CNDDB search are provided in the following table. The likelihood of occurrence (low, possible, high, known), which are based on the presence of a species' required habitat, known or reported occurrences of the species, direct observation, and best professional judgment - is provided for each species as well.

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Table 5. Results of CNDDB Database Search

Scientific Name	Common Name	Status				General Habitat	Micro Habitat	Likelihood of Occurrence
		G-Rank/ S-Rank[4]	Fed/ CA List[5]	CDFG [6]	CNPS List/ RED Code[7]			
Plants								
Astragalus leucolobus	Big Bear Valley Woollypod	G2/S2.2	-/-	-	1B/2-2-3	Lower montane coniferous forest, pebble plain, Pinyon-Juniper Woodland, upper montane conifer forest.	Dry pine woods, gravelly knolls among sagebrush, or stony lake shores in the pine belt. (425-)1,670 to 2,515 meters.	Low
Calochortus palmeri var. *palmeri*	Palmer's Mariposa Lily	G2T2/S2.1	-/-	-	1B/2-2-3	Meadows and seeps, chaparral, lower montane coniferous forest.	Vernally moist places in yellow-pine forest, chaparral. 600 to 2,245 meters.	Low
Calochortus weedii var. *vestus*	Late-Flowered Mariposa Lily	G3?T2/S2.2	-/-	-	1B/2-2-3	Chaparral, cismontane woodland.	Dry, open coastal woodland, chaparral; on serpentine. 270 to 1,910 meters.	Low
Caulanthus californicus	California Jewelflower	G1/S1.1	E/E	-	1B/2-2-3	Chenopod scrub, valley and foothill grassland, Pinyon-Juniper Woodland.	Historical from various valley habitats in both Central Valley and Carrizo Plain. 65 to 900 meters. (Magney 1988.)	Possible
Caulanthus coulteri var. *lemmonii*	Lemmon's Jewelflower	G4T2/S2.2	-/-	-	1B/2-2-3	Pinyon-Juniper Woodland, valley and foothill grassland.	80 to 1,220 meters.	Possible
Eriogonum kennedyi var. *alpigenum*	Southern Alpine Buckwheat	G4T2/S2.3	-/-	-	1B/2-1-3	Alpine boulder and rock fields, subalpine coniferous forest.	Dry granitic gravel. 2,600 to 3,500 meters.	Low
Fritillaria ojaiensis	Ojai Fritillary	G1/S1.2	-/-	-	1B/3-2-3	Broadleaved upland forest (mesic), chaparral, lower montane coniferous forest.	Rocky sites; one reported as "moist shale talus." 300 to 670 meters.	Low
Layia heterotricha	Pale-Yellow Layia	G1/S1.1	-/-	-	1B/3-3-3	Pinyon-Juniper Wld., valley and foothill grassland. Many historical, extirpated occurrences.	Alkaline or clay soils; open areas. 270 to 1,365 (2,675) meters.	Possible
Monardella linoides ssp. *oblonga*	Flax-Like Monardella	G5T2/S2.2	-/-	-	1B/3-1-3	Lower montane coniferous forest, upper montane coniferous forest, Pinyon-Juniper Woodland.	On dry slopes of yellow pine forest, decomposed granitic soils; also in roadside disturbed areas. 1,695 to 2,470 meters.	Low
Monolopia congdonii	San Joaquin Woolly-threads	G3/S3.2	E/-	-	1B/2-2-3	Chenopod Scrub and valley and foothill grassland. Endemic to San Joaquin Valley.	Alkaline or loamy plains; sandy soils, often with grasses and within chenopod scrub. 60 to 800 meters.	Possible
Navarretia peninsularis	Baja Navarretia	G3?/S2.2	-/-	-	1B/2-2-2	Lower montane coniferous forest, chap.	Wet areas in open forest. 1,500 to 2,425 meters.	Possible
Oxytheca parishii var. *abramsii*	Abrams's Oxytheca	G4?T2/S2.2	-/-	-	1B/2-2-3	Chaparral. Known only from Santa Barbara and Ventura Counties.	Shale to sandy places. 1,150 to 2,060 meters.	Low

[4] G-Rank = Global-Rank; S-Rank = State-Rank. See following Special-Status Species Definition tables for G- & S-rank definitions.

[5] E = designated "Endangered; T = designated "Threatened".

[6] CSC = CDFG designated "Species of Special Concern".

[7] RED Code = CNPS's Rarity-Endangerment-Distribution Code. See the following Special-Status Species Definition tables for CNPS List and R-E-D Code definitions.

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Scientific Name	Common Name	Status				General Habitat	Micro Habitat	Likelihood of Occurrence
		G-Rank/ S-Rank[4]	Fed/ CA List[5]	CDFG [6]	CNPS List/ RED Code[7]			
Sidalcea neomexicana	Salt Spring Checker-bloom	G4?/S2S3	-/-	-	2/2-2-1	Alkali playas, brackish marshes, chap, coastal scrub, lower montane conifer for, desert scrub.	Alkali springs and marshes. 0 to 1,500 meters.	Observed in Alkali Meadow (30 Apr. 04)
				Wildlife				
Bufo californicus	Arroyo Toad	G2G3/S2S3	E/-	CSC	-	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Possible
Charina bottae umbratica	Southern Rubber Boa	G5T2T3/ S2S3	-/T	-	-	Restricted to the San Bernardino and San Jacinto Mtns; variety of montane forest habitats.	Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs.	Low
Emys marmorata pallida	Southwestern Pond Turtle	G3G4T2T3Q/ S2	-/-	CSC	-	Inhabits permanent or nearly permanent bodies of water in many habitat types.	Require basking sites such as partially submerged logs, vegetation mats, or open mud banks. Need suitable nesting sites. < 6,000 ft.	Known – 4 reported (Bumgardner 2003) in pond May 2003
Ensatina eschscholtzii croceator	Yellow-Blotched Salamander	G5T2T3/ S2S3	-/-	CSC	-	Forests and well shaded canyons, as well as oak woodlands and old chaparral.	Need surface objects, such as logs, boards, and rocks. Also need old rodent burrows or other underground retreats.	Low
Falco mexicanus	Prairie Falcon	G5/S3	-/-	CSC	-	(Nesting) inhabits dry, open terrain, either level or hilly.	Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Low
Gambelia sila	Blunt-Nosed Leopard Lizard	G1/S1	E/E	-	-	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief.	Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	Possible
Gila orcutti	Arroyo Chub	G2/S2	-/-	CSC	-	Los Angeles Basin southern coastal streams.	Slow water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation & associated invertebrates.	Low
Gymnogyps californianus	California Condor	G1/S1	E/E	-	-	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges; moderate altitude.	Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Known - forages in entire region
Perognathus inornatus inornatus	San Joaquin Pocket Mouse	G4T2T3/ S2S3	-/-	-	-	Typically found in grasslands and Blue Oak Savannas.	Needs friable soils.	Low
Tamias speciosus callipeplus	Mount Pinos Chipmunk	G4T1T2/ S1S2	-/-	-	-	Open forests with mixed shrubs & trees on upper slopes and summit of Mt. Abel/Mt. Pinos and Mt. Frazier.	Arboreal habits - rarely ventures far from tree cover.	Low
Thamnophis hammondii	Two-Striped Garter Snake	G3/S2	-/-	CSC	-	Coastal California from vicinity of Salinas to northwest Baja California.	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth. From sea to approv.7,000 ft. in elev.	Possible

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Scientific Name	Common Name	Status				General Habitat	Micro Habitat	Likelihood of Occurrence
		G-Rank/ S-Rank[4]	Fed/ CA List[5]	CDFG [6]	CNPS List/ RED Code[7]			
Vulpes macrotis mutica	San Joaquin Kit Fox	G4T2T3/ S2S3	E/T	-	-	Annual grasslands or grassy open stages with scattered shrubby vegetation.	Need loose-textured sandy soils for burrowing, and suitable prey base.	Possible

Bumgardner Environmental Consulting (2003) also reported the following special-status wildlife species, summarized in Table 6.

Table 6. Rare Wildlife Species of the Project Area

Scientific Name	Common Name	Status[8] Fed./CA/Other	Comment
Phrynosoma coronatum frontale	California Horned Lizard	FSC/CSC/none	An individual was **recorded** approximately 3,000 feet west of the project site during their May 2003 survey
Salvadora hexalepis virgultea	Coast Patch-nosed Snake	none/CSC/none	Suitable **habitat** is present onsite, and there are known historical occurrences of this taxon in region
Melanerpes lewis	Lewis's Woodpecker (nesting)	FSC/none/none	**Observed** during their April 2003 survey, but was not nesting onsite
Lanius ludovicianus	Loggerhead Shrike (nesting)	FSC/CSC/none	Suitable **habitat** is present onsite, and project site is within the known nesting range of the species
Toxostoma redivivum	California Thrasher	FSC/none/none	**Recorded** in two locations immediately downstream of project site
Icteria virens	Yellow-Breasted Chat (nesting)	none/CSC/none	**Recorded** at two locations immediately downstream of project site, and has high potential to nest in vicinity of the project site
Spizella breweri	Brewer's Sparrow (nesting)	MNBMC/none/ none	**Recorded** on the project site during their May 2003 survey, and has high potential to nest in vicinity of the project site
Agelaius tricolor	Tricolored Blackbird (nesting)	FSC/CSC/none	Documented **nesting** on the project site during their May 2003 survey
Carduelis lawrencei	Lawrence's Goldfinch (nesting)	FSC/none/none	**Recorded** immediately adjacent to the project site during their May 2003 survey, and suggest the species is nesting onsite
Taxidea taxus	American Badger	none/none/none	Species is widespread in the region, likely uses river as travel corridor, and is **likely** to occur onsite

Recommendations:

1. Only reconnaissance-level botanical surveys of the project site have been conducted during the spring by Bumgardner Consulting (25 April 2003) and DMEC (30 April 2004). Numerous special-status species in the Cuyama Badlands region are only identifiable during the summer months and would not likely be detected or identifiable during the spring. Focused botanical field surveys should be conducted during late-June or early July, and late-August to early September to account for and map all special-status species potentially onsite. Botanical surveys should follow CNPS and CDFG survey protocols, and voucher specimens should be collected to provide for independent verification. The surveys should be conducted by a qualified botanist familiar with the flora of Ventura County.

[8] FSC = U.S. Fish and Wildlife Service (USFWS) designated "Species of Concern"; MNBMC = USFWS designated "Migratory Non-game Bird of management Concern"; CSC = CDFG designated "Species of Special Concern"

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2. Lichens and bryophytes have not been conducted onsite. Potential exists for one or more special-status lichen or bryophytes species to occur in the region and onsite (but not likely at the excavation site). Surveys of the lichen and bryophyte floras are recommended to determine if any of the lichen or bryophyte species present are considered rare by the California Lichen Society (Magney 1999) or CNPS (2001 for bryophytes) or if any are of local significance.

3. Focused seasonal, summertime, field surveys for special-status reptiles should be conducted onsite to determine if the Federally listed Blunt-nosed Leopard Lizard is present onsite. It is known to occur in similar habitat in northwestern Ventura County and has potential to occur onsite. The surveys should follow U.S. Fish and Wildlife Service protocols for this species. Minimum temperatures for such surveys are around 90°F. The surveys should be conducted by a qualified biologist familiar with the species.

4. Focused field surveys (nighttime spotlight and detailed daytime periods) should be conducted to determine if the Federally listed Arroyo Toad is present onsite. The project site contains suitable habitat and the Arroyo Toad may occur onsite. The surveys should follow U.S. Fish and Wildlife Service protocols for this species. The surveys should be conducted by a qualified biologist familiar with the species.

5. All wetland areas should be classified and mapped according to County General Plan policies. A simple delineation for U.S. Army Corps of Engineers regulatory purposes should also be conducted, but should only be considered a subset of the wetlands present onsite. Since the site has been disturbed, an "Atypical Situation" exists onsite, which requires delineation of wetlands according to specific protocols prescribed by the U.S. Army Corps of Engineers to determine Corps jurisdiction.

6. Since the project is located within the floodplain of the Cuyama River, and adjacent wetlands are present immediately adjacent (north of) to the excavation/mining area, an assessment of direct, indirect, and cumulative impacts the project will have on onsite wetlands should be performed, such as by using a hydrogeomorphic assessment model (HGM). Such an assessment is needed to determine project-related changes in one or more wetland functions of the Cuyama River and the adjacent wet meadow. Potential exists for indirect impacts to the adjacent wet meadow north of the excavation/mining area through a lowering of the existing water table after groundwater becomes exposed in the ponds, and evaporates.

7. Since transplantation of rare plants has usually failed as mitigation (Fiedler 1991), avoidance of such impacts is recommended. Alternative sites for the proposed project may be feasible on the large parcel; however, surveys of all suitable alternative sites should be conducted as part of the alternatives analysis.

8. Natural vegetation should be classified, mapped, and quantified at the plant association level and sensitive or unique communities identified. All wetland habitats and other sensitive plant communities should be included in this analysis and assessment.

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