

Pacific Gas & Electric's Shasta County Land Transfers

Draft Mitigated Negative Declaration



*CPUC
Application
Numbers
00-05-029 &
00-05-030*

September 18, 2001

Prepared for:
**California Public
Utilities Commission**



PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

**NOTICE OF PUBLICATION OF A NEGATIVE DECLARATION****To All Interested Parties:**

On May 15, 2000, Pacific Gas and Electric Company (PG&E) applied to the California Public Utilities Commission (CPUC) for approval to market value and exchange certain lands for equivalently valued lands owned by the California Department of Parks and Recreation (DPR). The application (A00-05-030) also addressed Pacific Gas and Electric Company's proposal to subsequently transfer the land received from the DPR to a non-profit entity known as the California Waterfowl Association (CWA). The lands that Pacific Gas and Electric Company will transfer to DPR are commonly known as "Burney Falls" and "Bowman Ditch." The land that Pacific Gas and Electric Company will receive from DPR and then transfer to CWA is referred to as the "Ahjumawi Property." All of the lands are located within Shasta County.

In a separate but related action, PG&E filed an application (A00-05-029) with the CPUC to market value and transfer certain property to the CWA. The property consists of land in Shasta County commonly referred to as McArthur Swamp, the Glenburn Dredge Site, and a dredge used to maintain certain levees associated with those properties. The transaction includes a Conservation Easement and other terms designed to maintain existing land uses, enhance habitats, and preserve cultural and historical resources.

In accordance with the California Environmental Quality Act (CEQA), the CPUC conducted an Initial Study of potential impacts related to PG&E's divestiture application. The Commission used the Initial Study as a "decision point" document to determine that issuing a Mitigated Negative Declaration is the appropriate action under CEQA. Through this document, the CPUC determined that the actions taken as a result of approving PG&E's divestiture application would not have significant impact on the environment. In the limited instances where the environment could be potentially affected by divestiture, appropriate mitigation measures are recommended for adoption.

Documents Available for Review

The Commission's proposed Mitigated Negative Declaration and Initial Study conducted on the PG&E divestiture application area available for review at the following locations:

Eastern Shasta County Library
37038 Siskiyou Street
Burney, CA 96031
530-335-4317

Fall River Mills Main Library
PO Box 176
Fall River Mills, CA 96028
530-336-6445

The full text of both documents will also be made available on the Internet
“<http://www.pgedivest.com>”; additional information regarding the overall electric utility
restructuring process is available at “<http://www.cpuc.ca.gov>”.

Time for Review:

This Negative Declaration and Initial Study will undergo a public review process from
October 1, 2001, to November 1, 2001. Comments on the documents must be received in
writing by 5:00 pm (Pacific Standard Time) on November 1, 2001, at the following
address:

Billie C. Blanchard, CPUC
c/o Environmental Science Associates
700 University Ave., Ste. 130
Sacramento, California 95825

Comments can also be submitted by the same deadline by voicemail at 877-779-2782, or
by facsimile to: (916) 564-4501.

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PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

**MITIGATED NEGATIVE DECLARATION**

**PACIFIC GAS AND ELECTRIC COMPANY
APPLICATIONS NO. 00-05-029 AND 00-05-030
PROPOSAL FOR DIVESTITURE**

PROJECT DESCRIPTION

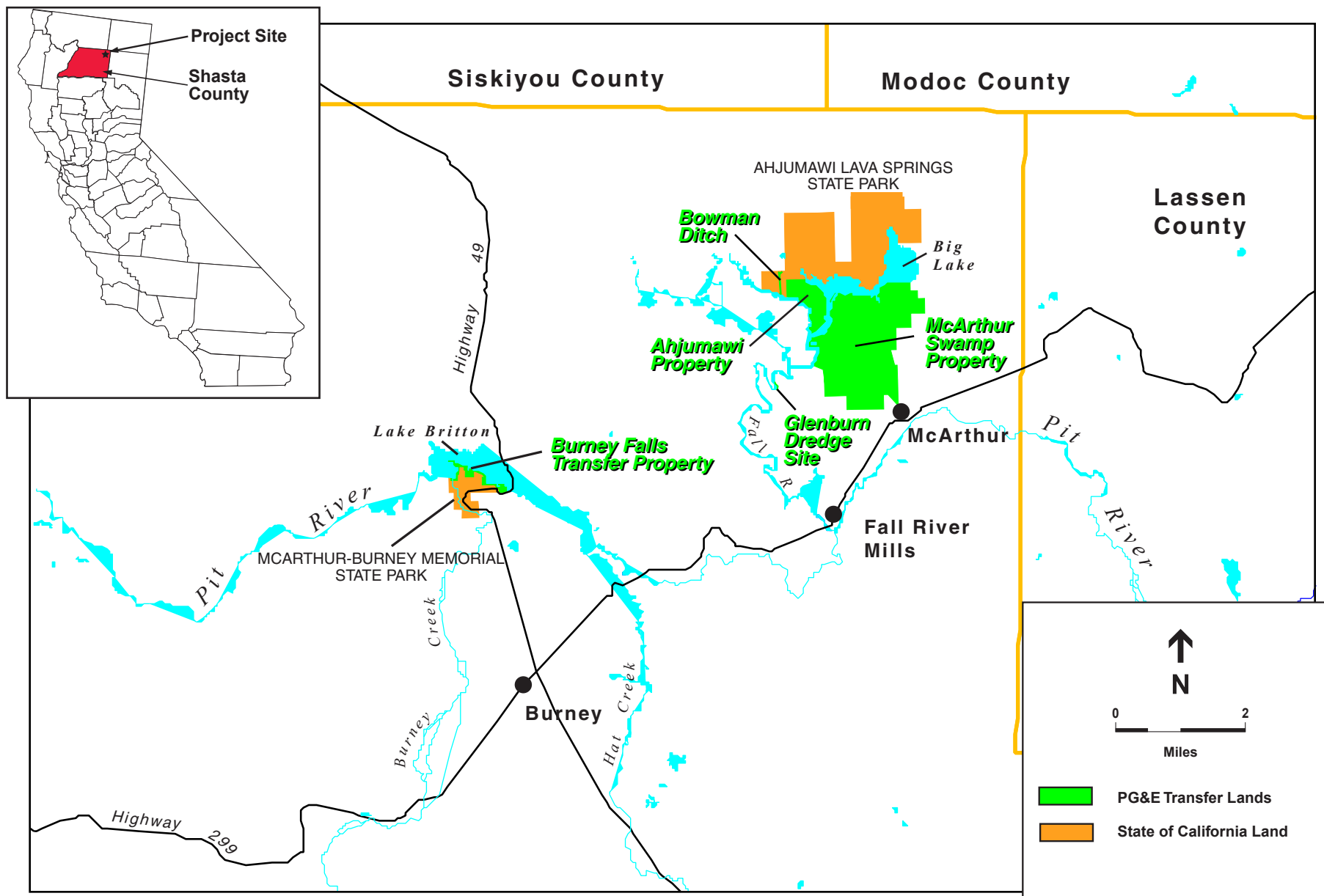
To enhance competition, the California Public Utilities Commission (CPUC) requested that Pacific Gas and Electric (PG&E) voluntary divest ownership of some its generating capacity. PG&E's divestiture applications (Application No. 00-05-029 and 00-05-030) originally filed in May 2000, responds to the CPUC's request for voluntary divestiture and seeks authority to transfer and donate certain lands in the Federal Regulatory Commission's (FERC's) Pit 1, 2, 3, and 4 Hydroelectric Projects. Approval of the transfer and donation is now being considered by the CPUC.

PG&E currently possesses transmission and distribution lines, a gauging station, and a canal diversion on McArthur Swamp. Control of the land also allows PG&E to prevent others from acquiring or using water rights that might interfere with hydroelectric production at the downstream Pit River Powerhouses. With adequate easements and reservations of ownership in water rights and the transmission and distribution facilities, however, it is not foreseeable that the fee interest in the properties will ever again be useful for public utility purposes.

The donation of McArthur Swamp, the Glenburn Dredge Site, and the dredge to the California Waterfowl Association (CWA) is in the economic interest of PG&E's ratepayers and also provides many societal benefits (Application 00-05-029). Removal of McArthur Swamp from the Pit 1 Project License will reduce the overall costs of that license and, at the same time, will increase the Pit 1 Project's market value. Such removal, however, can only be accomplished with the approval of FERC.

PG&E also seeks to market value McArthur Swamp and the Glenburn Dredge Site in response to AB 1890. AB 1890 requires the Commission to market value all non-nuclear generating facilities by December 31, 2001. AB 1890 specifies that the market value of generation assets may be determined through a sale, appraisal or other divestiture.

The transfers proposed as part of the Burney Falls Application 00-05-30 grew out of discussions between State Department of Parks and Recreation (DPR) and PG&E



SOURCE: Teal Data Center and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1
Locations of Pacific Gas and Electric Company's
Transfer and Donation Lands

concerning potential liability for failing to maintain the State Park Levee, north of the McArthur Swamp, as well as discussions with various resource agencies about adjusting the Pit 1 Project License boundaries to remove McArthur Swamp and transfer certain levee maintenance obligations outside the license. The combined transactions that have resulted from these discussions have the benefit of (1) resolving a potential dispute, (2) facilitating the FERC's approval to remove McArthur Swamp from the Pit 1 Project boundaries, (thereby reducing costs and enhancing the project's value), (3) preserving existing land uses for conservation and recreational purposes (4) preserving water rights and water flows that support hydroelectric operations, and (5) relieving PG&E and its ratepayers of obligations of land ownership, such as responsibility for taxes or environmental liabilities. PG&E also seeks to market value Burney Falls and Bowman Ditch in response to Assembly Bill 1890 (AB 1890). These lands would be transferred for the Ahjumawi Property from DPR.

Approval of the specific divestiture plans by the CPUC is required by the Public Utilities Code Section 851 prior to the transfer of these mentioned lands. It is the responsibility of the CPUC to determine whether the proposed divestiture plans "will be adverse to the public interest."

The transfer and donation of these lands would include the transfer of land entitlements, permits, conservation easement, and a management plan. A more detailed project description is included in the attached Initial Study.

ENVIRONMENTAL DETERMINATION

An initial study (attached) was prepared to assess the potential effects on the environment of the divestiture project, and the respective significance of those effects. Based on the Initial Study, the proposed divestiture of PG&E's hydroelectric assets will have less than significant effects or no impact in the areas of:

- Land Use Planning
- Population and Housing
- Transportation/Circulation
- Mineral Resources
- Hydrology and Water Quality
- Public Services
- Aesthetics
- Utility and Service systems
- Recreation
- Hazards and Hazardous Substances
- Geology and Soils
- Biological Resources
- Noise
- Cumulative Impacts

The Initial Study indicates that PG&E's proposed divestiture would have potentially significant impacts in the areas of:

- Air Quality
- Cultural Resources

Each of the identified impacts can be mitigated to avoid the impact or reduce it to a less than significant level. The mitigation measures, which PG&E has agreed to include in the project, are as follows:

Air Quality

Mitigation Measure III.1

During construction the following measures shall be implemented to control fugitive dust and particulate emissions in compliance with SCAPCD SMMs. The SMMs shall be included as conditions of approval to the grading permit issued by the Shasta County Environmental Health Department and, as appropriate shall appear on the final construction plans submitted for the permit's approval. A copy of the grading permit shall be submitted to the CPUC's Mitigation Monitor prior to the commencement of ground disturbing activities.

- All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air quality standards. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.
- All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.
- All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.
- All land clearing, grading, earth moving or excavation activities on the project site shall be suspended when winds are expected to exceed 20 miles per hour.
- All inactive portions of the development site shall be seeded and watered until a suitable grass cover is established.
- The contractor shall be responsible for applying non-toxic stabilizers (according to manufacturers specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours), in accordance with the Shasta County Grading Ordinance.
- All trucks hauling dirt, sand, soil or other loose material shall be covered or shall maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114. This provision is enforced by local law enforcement agencies.
- All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.

- During initial grading, earth moving, or site preparation, the project shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the project site from the adjacent paved road(s).
- Paved streets adjacent to the development site shall be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site.
- After construction, the transfer recipient shall re-establish ground cover on the construction site through seeding and watering in accordance with Shasta County Grading Ordinance.

Monitoring Action: The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) of a commitment to adhere to the terms of the grading permit for five years, and shall give notice of such commitment to the air quality regulations to the SCAPCD.

Responsibility: CPUC

Timing: Prior to approval of the final construction plans submitted for the permit's approval.

Cultural Resources

McArthur Swamp

Mitigation Measure V.1a

Prior to the transfer of title of the McArthur Swamp, the applicant shall include specific language in the proposed Conservation Easement and MSMP requiring CWA to appoint a Professional Archaeologist (who is a member of the Registry of Professional Archaeologists), or Archaeologists, at least 15 days prior to the start of project-related vegetation clearance ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or natural areas resulting from habitat improvements pursuant to the MSMP. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. As shall be specified in this new language, CWA shall provide the CPUC with the name(s) and statement of qualifications of its designated Professional Archaeologist (s) who will be responsible for implementation of all project-related cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the Archaeologist(s) meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register (United States Department of the Interior 1997).

At least 10 days prior to the start of any project-related activity defined above, CWA shall confirm in writing to the CPUC Mitigation Monitor that the approved designated Professional Archaeologist will be available at the start of project activities and is prepared to implement the protocol specified in the MSMP.

At least 10 days prior to the replacement of a designated cultural resource specialist, CWA shall obtain the CPUC approval of the proposed replacement Professional Archaeologist.

Monitoring Action: The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological mitigation program.

Responsibility: CPUC

Timing: Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title.

Mitigation Measure V.1b

Prior to the transfer of title of the McArthur Swamp and Glenburn Dredge Site, the applicant shall amend the proposed Conservation Easement and MSMP to include specific language requiring that prior to the commencement of construction and/or ground disturbing activities, the designated Professional Archaeologist shall provide all construction personnel with environmental training in a manner that will inform them of the possibility of encountering cultural or historical resources. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. All construction personnel will be trained in the identification of archaeological resources (which could include flaked stone, projectile points, mortars, pestles, soil containing shell and bone, or human burials), historic resources (which could include stone features, such as adobe foundations or walls, structures and remains with square nails, and refuse deposits), human remains, and paleontological resources (which could include true and/or trace fossils). In addition, the construction personnel would be trained on the appropriate protocol to follow if any resources are found, as discussed in Mitigation Measures V.3, V.4, and V.5.

Monitoring Action: The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed construction personal training program.

Responsibility: CPUC

Timing: Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title and prior to the commencement of any construction and/or ground disturbing activities.

Mitigation Measure V.1c

Prior to the transfer of title of the McArthur Swamp, the applicant shall amend the proposed Conservation Easement and MSMP to include specific language requiring that in the event that previously unidentified historic, archaeological, and/or paleontological resources are encountered during habitat improvement activities, the construction crew will halt work within a 100-foot radius of the find and not collect or disturb the materials until the Professional Archaeologist has evaluated the location and determined an appropriate mode of action. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. The Professional Archaeologist retained by CWA shall evaluate

such resources for California Register of Historical Resources eligibility ensuring that the evaluations are supervised by individuals meeting the Secretary of the Interior's proposed Historic Preservation Qualification Standards (United States Department of the Interior 1997) for each particular resource type. An evaluation form shall be submitted to the CPUC, CWF, and the California Historical Resources Information Center. If the Professional Archaeologist determines that the resources are eligible for the California Register of Historical Resources, the Professional Archaeologist shall determine the appropriate action to be taken with preference given to preserving the resources in situ. If it is infeasible to be consistent with the objectives of the MSMP to leave the resources in place, the Professional Archaeologist shall conduct data recovery, if determined necessary to mitigate any significant project-related effects. If cultural resources are encountered during construction, Construction may resume once the Professional Archaeologist has determined (and implemented, if appropriate) an appropriate mode of action and has given the authorization to proceed.

Upon approval of this plan by the CPUC Mitigation Monitor, mitigation measures will be implemented prior to any project-related activities within 100 feet of the resource's boundary.

<i>Monitoring Action:</i>	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.
<i>Responsibility:</i>	CPUC
<i>Timing:</i>	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Upon approval of this plan by the CPUC Mitigation Monitor, mitigation measures will be implemented prior to any project-related activities within 100 feet of a newly discovered resource's boundary.

Mitigation Measure V.1d

Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to include language requiring CWA to notify a qualified paleontologist of unanticipated paleontological discoveries, made by either the Professional Archaeologist or construction personnel responding to their environmental training classes, and document the discovery as needed. In the event of an unanticipated discovery of true or trace fossil remains during construction, excavations within a 100-foot radius of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils shall be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

<i>Monitoring Action:</i>	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a
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	commitment to participate in the CPUC proposed archaeological monitoring program.
<i>Responsibility:</i>	CPUC
<i>Timing:</i>	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title.

Mitigation Measure V.1e

Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA's contractors to immediately stop all work in the event human remains are found during the MSMP's activities within a 100-foot radius of the find. Following any such discovery, the Professional Archaeologist shall be notified immediately and will, in turn, immediately notify the Shasta County coroner, in compliance with Section 7050.5 of the California Health and Safety Code.

If the human remains are determined to be Native American in origin, the Shasta County coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of the find. The most likely descendent shall be given an opportunity to make recommendations to the CWA and its contractors for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Where conditions A, B, and/or C under Section 15064.5 (e) (2) occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

<i>Monitoring Action:</i>	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.
<i>Responsibility:</i>	CPUC
<i>Timing:</i>	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title.

Mitigation Measure V.1f

Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA to provide the opportunity for a Native American monitor, if interested, to be present on-site during project-related vegetation clearance, ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or the movement or parking of heavy equipment or other vehicles onto or over the project surface, within 500 feet of the boundary of known prehistoric resources and within 500 feet of the locations of modern and historic streams.

The Native American monitor shall be a member of the Ahjumawi Tribe and will serve in addition to the Professional Archaeologist. Monitoring by the cultural group representative is

required within 500 feet of such sites. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

<i>Monitoring Action:</i>	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.
<i>Responsibility:</i>	CPUC
<i>Timing:</i>	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. A Native American monitor shall be notified 10 days prior to any project-related activities within 500 feet of the boundary of known prehistoric resources and within 500 feet of the locations of modern and historic streams.

Glenburn Dredge Site

Mitigation Measure V.2

Prior to the transfer of title, the Conservation Easement shall be amended to include the portion of the Glenburn Dredge Site property that is bounded by the fence required by this mitigation measure and the Fall River. The Conservation Easement shall include language requiring that the new owner establish permanent protection of sensitive resources. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. The new conservation easement shall restrict any uses of this area of the site, except for the sole purpose of preserving the integrity of the sensitive resource. In addition, the Conservation Easement and MSMP shall be amended to include a requirement to reconfigure the existing fence layout at Glenburn to restrict access on and around sensitive resources. The Conservation Easement and MSMP, as amended, shall provide that a four-strand barbed-wire fence effective to serve as a barrier to human and livestock access and shall be constructed at a location 100 feet from the boundary of the sensitive site or along the property line where it is closer than 100 feet from the boundary of the sensitive site (but not along the river). Construction of the fence shall comply with the protocols specified in Mitigation Measures **V.1a-V.1f**. The Conservation Easement and MSMP shall further be amended to provide for regular inspection and maintenance of the fence to ensure that it continues to be a barrier to access.

<i>Monitoring Action:</i>	The donating and receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.
<i>Responsibility:</i>	CPUC
<i>Timing:</i>	Newly amended language contained in the Conservation Easement and MSMP prior to the transfer of title. Establishment of the reconfigured fencing layout prior to reintroducing public access to the Fall River at the Glenburn site.

Pacific Gas & Electric's Shasta County Land Transfers

Expanded Initial Study

*CPUC
Application
Numbers
00-05-029 &
00-05-030*

September 18, 2001

Prepared for:
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CHAPTER 1.0

DESCRIPTION OF THE PROPOSED PROJECT

SECTION 1.0

DESCRIPTION OF THE PROPOSED PROJECT

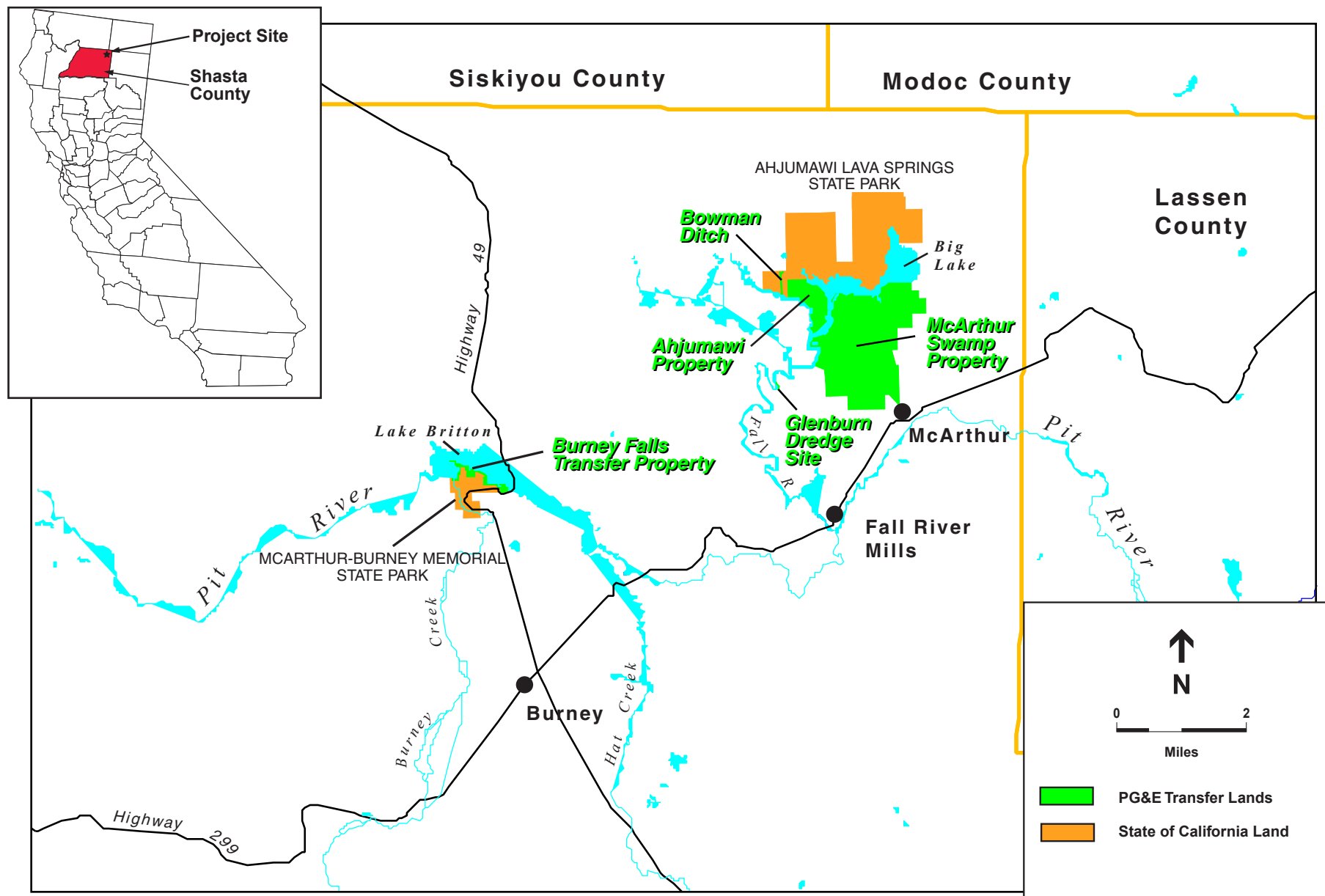
1.1 INTRODUCTION

Pacific Gas and Electric Company (PG&E) currently owns a fragmented network of land in northeastern Shasta County totaling approximately 15,137 acres, associated with the Pit 1, 3, 4 and 5 Hydroelectric Projects (FERC No. 2687 & 233). These lands are situated in three distinct areas including the McArthur-Burney Falls Memorial State Park (Burney Falls), Ahjumawi Lava Beds State Park, and an area south of the Ahjumawi Lava Beds State Park, referred to herein as the McArthur Swamp (**Figure 1-1**). The following document considers PG&E's proposal to market value, transfer and donate a portion of these lands to the California Department of Parks and Recreation (DPR), and the California Waterfowl Association (CWA). The California Public Utilities Commission (CPUC) is considering these actions under two separate applications, A.00-05-029 and A.00-05-030, however for purposes of CEQA analysis, these activities are considered in a single document because of the similarity of the two actions, their interrelatedness and geographic proximity.

1.2 PROJECT LOCATION AND SUMMARY

Burney Falls is located along Highway 89, approximately 20 miles northeast of the town of Burney. Ahjumawi Lava Beds State Park and McArthur Swamp are located immediately northwest of the town of McArthur in the Fall River Valley. The Ahjumawi Lava Beds State Park is currently accessible only by watercraft, due to its location on the northern side of the Tule River. The McArthur Swamp encompasses the entire land area between Ahjumawi Lava Beds State Park and the town of McArthur.

The Proposed Project consists of two separate but related land transfer actions. In May of 2000, PG&E applied to the CPUC for approval to market value and exchange specific lands for equivalently valued lands owned by DPR. The application also addressed PG&E's proposal to subsequently transfer the land received from DPR to CWA, which is a non-profit entity. Lands proposed by PG&E for transfer to DPR are commonly known as "Burney Falls" and "Bowman Ditch." Lands, which will be received by PG&E from DPR (subsequently transferred to CWA), are commonly referred to as the "Ahjumawi Property." A summary of acreages associated with the proposed action is shown on (**Table I-1**). This proposal represents the first action addressed in this document.



SOURCE: Teal Data Center and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-1
Regional Location Map

The second land transfer under evaluation as part of this environmental documentation is a proposal to market value and transfer certain properties to CWA. These land properties consist of areas in Shasta County commonly referred to as the McArthur Swamp, the Glenburn Dredge Site, Ahjumawi Property and a dredge used to maintain certain levees associated with those properties. The transaction includes a Conservation Easement and other terms designed to maintain existing land uses, enhance certain habitat types, and preserve cultural and historical resources. Each of these proposals is described in detail below and summarized in **Table 1-1**.

TABLE 1-1
SUMMARY OF THE PROPOSED ACTION

Land Area	Acreage (approx.)	Transfer Party	Initial Receiving Party	Ultimate Receiving Party
Burney Falls Area				
Burney Falls	182.0	PG&E	DPR	DPR
Bowman Ditch	4.0	PG&E	DPR	DPR
Ahjumawi Property	544.0	DPR	PG&E	RMA
McArthur Swamp				
McArthur Swamp	7,400.0	PG&E	CWA	RMA
Glenburn Dredge Site and Dredge	5.5	PG&E	CWA	Wildlife Conservation Board (CDFG)
TOTAL	8,135.5			

SOURCE: Pacific Gas and Electric Company, PEAs for Application's A.00-05-029 and A.00-05-030, October 23, 2000

1.3 PROJECT PURPOSE AND NEED

1.3.1 BURNEY FALLS AND McARTHUR SWAMP TRANSFER

As described by PG&E in the Proponent's Environmental Assessment (PEA) Application No. 00-05-030, the transfers proposed in the Burney Falls application grew out of discussions with DPR concerning PG&E's potential liability for failing to maintain about 4.3 miles of levees (referred to as the State Park Levee), which separate the Ahjumawi Property from the Tule River, as well as discussions with various resource agencies about adjusting the Pit 1 Project License boundaries to remove McArthur Swamp and transfer certain levee maintenance obligations outside the license. According to PG&E the combined transactions that have resulted from these discussions have the benefit of (1) resolving a potential dispute, (2) facilitating the Federal Energy Regulatory Commission's (FERC's) approval to remove McArthur Swamp from the Pit 1 Project boundaries, (thereby reducing costs and enhancing value of the Pit 1 Hydro Project), (3) preserving existing land uses for conservation and recreational purposes (4) preserving water rights and water flows that support hydroelectric operations, and (5) relieving PG&E and its ratepayers of obligations of land ownership, such as responsibility for taxes or environmental liabilities. PG&E also seeks to market value Burney Falls and Bowman Ditch in response to Assembly Bill 1890 (AB 1890). AB 1890 required PG&E to market value all non-nuclear generating facilities by December 31, 2001. Any net value in excess of the book value of the assets is to be credited to ratepayers, while any

combined book value of all assets in excess of the market value is to be considered a transition cost, and may be collected from ratepayers. AB 1890 specified that the market value of generation assets may be determined through a sale, appraisal, or other divestiture.

1.3.2 McARTHUR SWAMP TRANSFER

PG&E's assets on McArthur Swamp (Application No. 00-05-029) consist of transmission and distribution lines, a gauging station, and a canal diversion. Control of the land has also historically allowed PG&E to prevent others from acquiring or using water rights that might interfere with hydroelectric production at the downstream Pit River Powerhouses.

PG&E contends that the donation of McArthur Swamp, the Glenburn Dredge Site, and the dredge to CWA is in the economic interest of ratepayers and also provides many societal benefits. Removal of McArthur Swamp from the Pit 1 Project License will reduce the overall costs of that license and, at the same time, will increase the Pit 1 Project's market value. Such removal, however, can only be accomplished with FERC's approval.

Given concerns that FERC staff raised in the Final Environmental Assessment (FEA) for the Pit 1 Hydro Project, FERC is likely to give its approval only if removal can be shown to be consistent with the safety, environmental, and recreational values that inclusion in the license currently serves. For that reason, a purely commercial sale of McArthur Swamp without the Conservation Easement is not considered feasible. Donation on the terms proposed, which generally has the support of various resource agencies involved by PG&E in the Pit 1 Project License proceeding is judged by PG&E to be the most advantageous way to realize the benefits of removing McArthur Swamp from the license. PG&E also seeks to market value McArthur Swamp and the Glenburn Dredge Site in response to AB 1890.

According to PG&E the property transfer and rate making proposed accomplishes the following objectives:

- Allows PG&E continued access to the transmission and distribution equipment necessary or useful to its utility operation,
- Reserves water rights that support operations in conformance with FERC license requirements and past practices,
- Ensures continued responsible stewardship of natural resources,
- Restores local control and preserves recreational and grazing uses important to the local economy,
- Allows ratepayers to avoid costs and realize the increased market value of the Pit 1 Project.

1.4 BURNEY FALLS TRANSFER

1.4.1 LAKE BRITTON PROPERTY

Approximately 182 acres (of the 15,137 total acres comprising McArthur-Burney Falls Memorial State Park) are proposed for transfer to DPR under this action. The land consists of the south shoreline of Lake Britton, as shown in **Figure 1-2**. Approximately 112 acres of the property is currently within the boundaries of the Pit 3, 4, and 5 hydroelectric project boundary and are subject to the terms and conditions of a FERC License. DPR currently manages Burney Falls as part of the State Park, pursuant to a license agreement with PG&E originally instituted on August 8, 1955. The term of this license has been extended several times and currently expires on October 31, 2003.

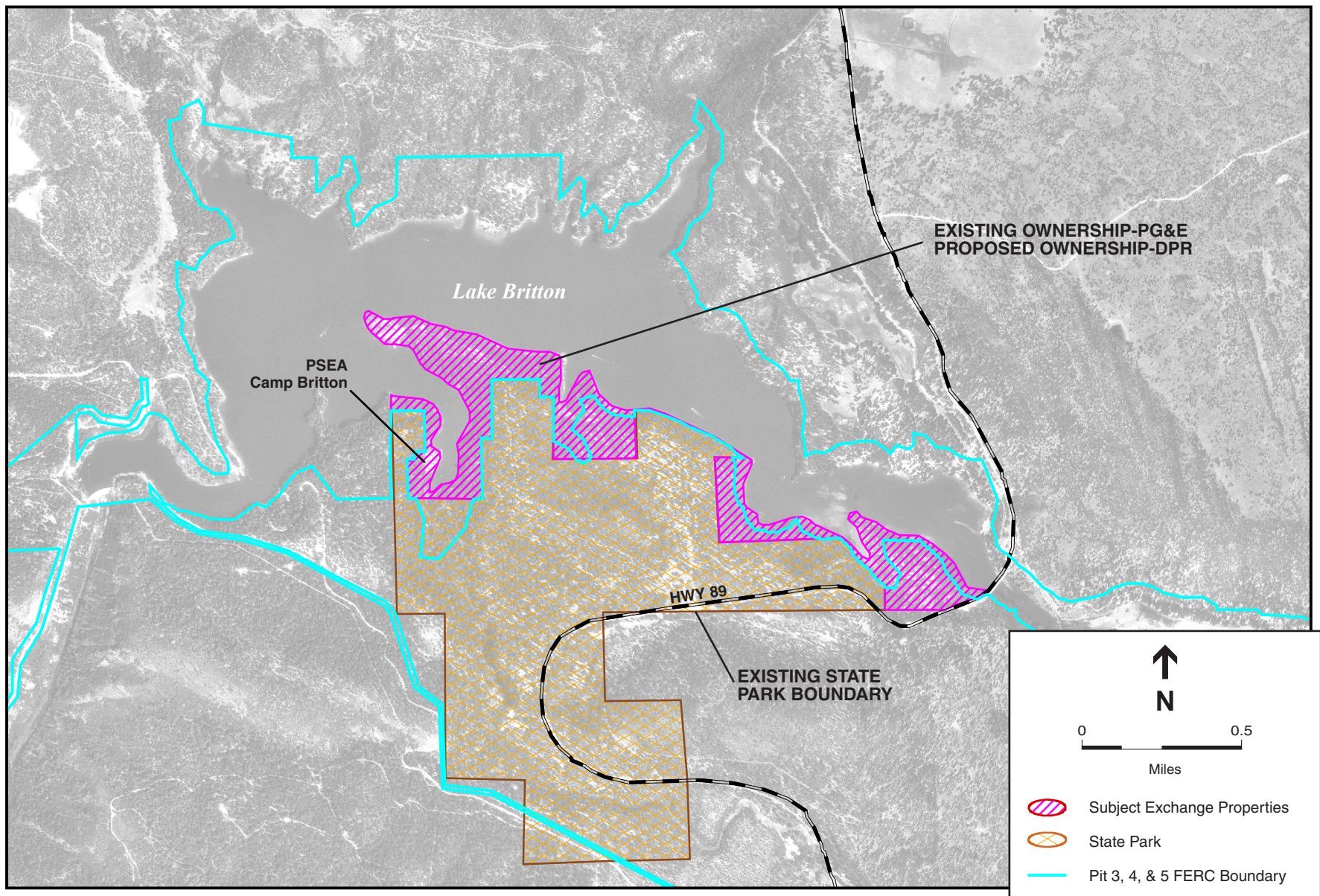
1.4.2 CAMP BRITTON

PG&E has also licensed a portion of the subject property to the Pacific Service Employees Association (PSEA), an association of PG&E's employees, for use as a recreational camp. This area is commonly referred to as "Camp Britton." The Camp Britton License will expire in 2005. If the proposed transfer occurs, the PSEA can continue to utilize Camp Britton under the terms of the existing agreement until expiration. At this time, DPR is undecided regarding future plans or operations of Camp Britton, once the License agreement expires. Once DPR gains control over this property, any future modifications or development of this property would be included in an amendment to the General Plan for the park, subject to CEQA.

Under the proposed terms of this transfer, PG&E will convey to DPR fee interest in the subject property. DPR will take the property subject to the PSEA license agreement, and will assume all of PG&E's rights and obligations under that agreement. PG&E will retain a distribution power line used to provide electricity to Camp Britton, and will reserve easements sufficient to access and maintain that line. PG&E will reserve water rights and easements deemed necessary to operate and maintain the Pit 3, 4, and 5 Project consistent with FERC requirements and past practices.

On June 29, 2000, PG&E applied to FERC for approval to transfer the Burney Falls fee title to DPR without modifying the current boundary for the Pit 3, 4, and 5 Projects. FERC approved this transfer on September 8, 2000. DPR will thus take the property subject to the federal license and its attendant conditions. Should changes to the Pit 3, 4, and 5 Project become desirable later, modifications would be proposed and addressed in the FERC relicensing process for the Pit 3, 4 and 5 Projects.¹

¹ The license for Pit 3, 4, and 5 expires on October 30, 2003. PG&E will likely file the application for relicensing on or about October 30, 2001.



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-2
McArthur-Burney Falls SP Transfer Property

1.4.3 BOWMAN DITCH TRANSFER

Bowman Ditch, built in the early 1940s, is a four-acre strip of land contained within the license boundary for PG&E's Pit 1 Project. (See **Figure 1-3**). It is located approximately two miles northwest of McArthur Swamp and is bordered on three sides by the Ahjumawi Lava Beds State Park.² The ditch was built sometime in the early 1940s. Bowman Ditch collects water emanating from springs located to the north and conveys the water to the Little Tule River, which eventually flows through PG&E's Pit River Powerhouses.

PG&E has determined that fee ownership of the Bowman Ditch and certain other areas currently within the Pit 1 Project License boundary are not necessary to support hydroelectric operations. PG&E has therefore petitioned FERC to remove these lands from the license boundary, and proposes to divest these lands.

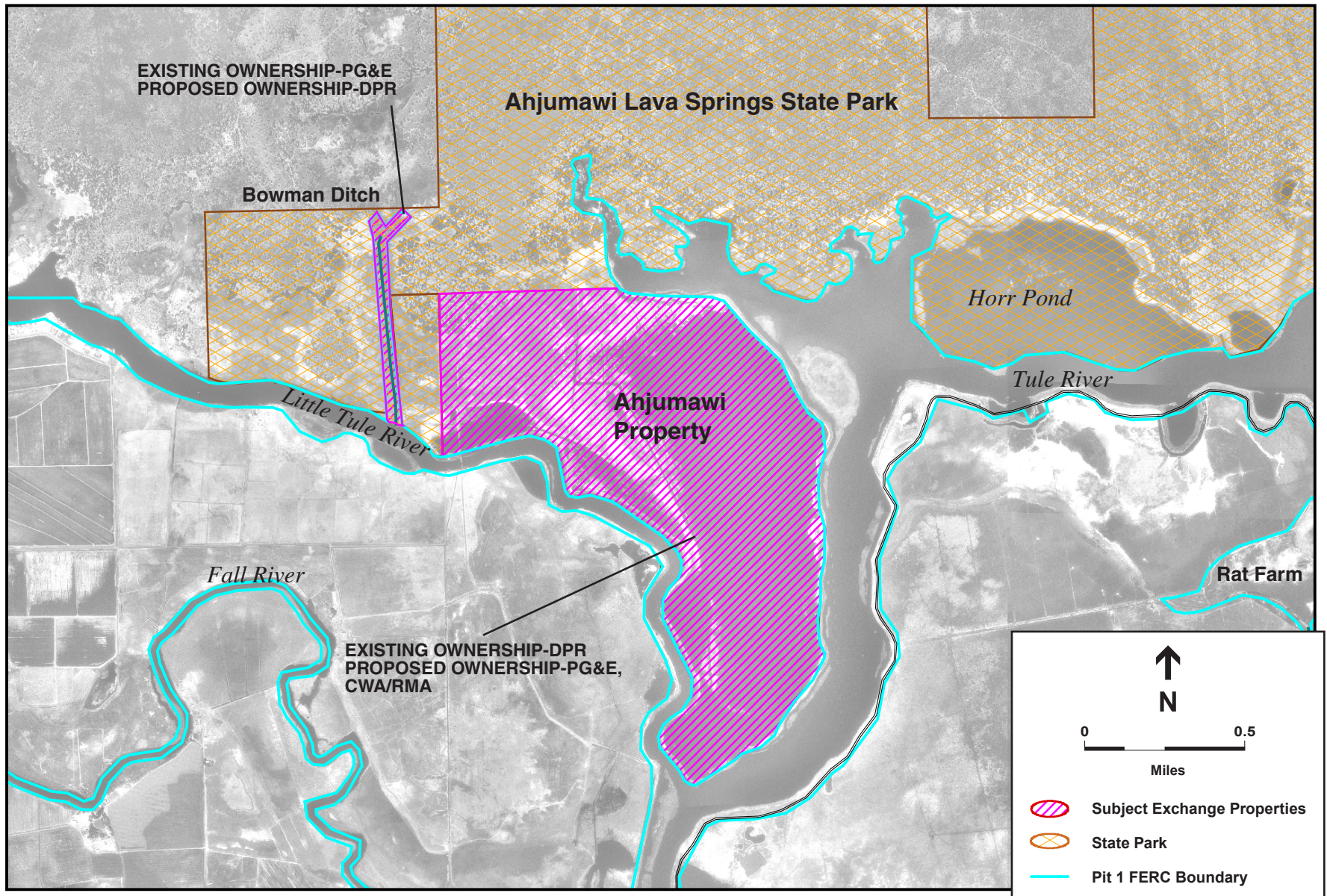
As part of this project, PG&E proposes to reserve water rights associated with Bowman Ditch, including property access for monitoring and enforcement of these rights. DPR cannot legally divert the water flowing to the Little Tule River (then to the Fall River and the Pit River Powerhouses) without the permission of PG&E.

1.4.4 AHJUMAWI PROPERTY TRANSFER

The Ahjumawi Property is located adjacent to PG&E's Pit 1 Project and is immediately north of PG&E's property at McArthur Swamp. (See **Figure 1-3**). DPR currently owns and maintains the Ahjumawi Property as part of the Ahjumawi Lava Beds State Park as a natural wilderness setting with primitive camping sites and pit toilets. Water is available from the many springs at the park, but it must be purified. DPR has not prepared a General Plan for the area, but its use is governed and restricted by the general provisions pertaining to lands classified as a "state park." Public access to the State Park is limited to watercraft only. As a condition of the Pit 1 Project License, PG&E provides a boat launch and day use area on the south shore of Big Lake located at the terminus of an access road referred to as Rat Farm Road, see **Figure 1-4**. This boat launch is the primary point of departure for access to Ahjumawi Lava Beds State Park.

In exchange for Burney Falls and Bowman Ditch, DPR will transfer the approximately 544-acres of property which forms a peninsula between the Little Tule and Tule Rivers. Previously, about 4.3 miles of levees (the State Park Levee) have separated the Ahjumawi Property from the rivers. Although the State owns the levees, they are project features included within the boundary for the Pit 1 Project license. As such, PG&E has in the past taken steps to maintain the levees, and FERC may require additional maintenance in the future. In recent years, however, the levees have been damaged by storms, erosion, and muskrats resulting in flooding of a portion of Ahjumawi Lava Beds State Park, including almost all of the Ahjumawi Property that is the subject of the proposed transfers.

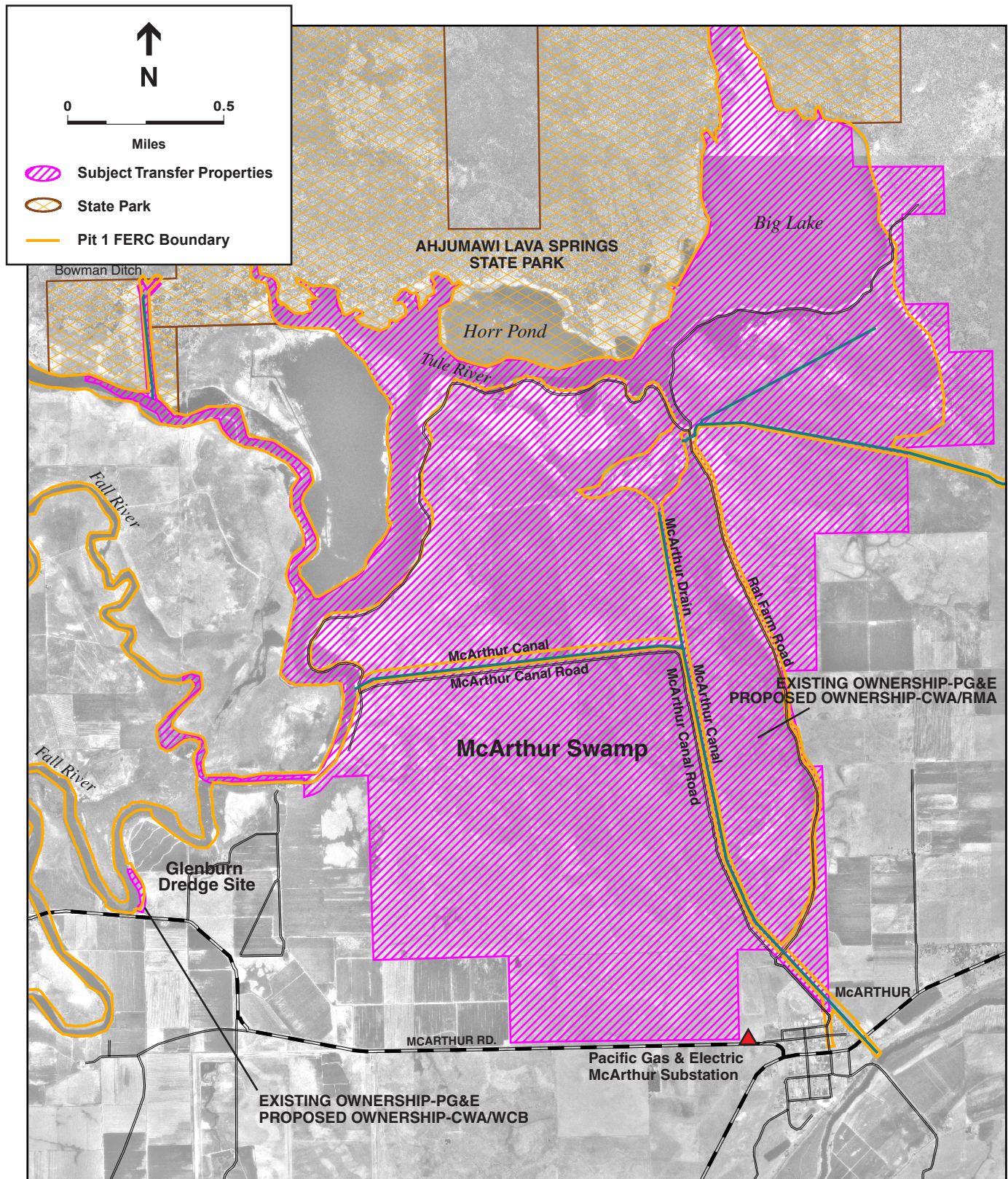
² McArthur Swamp is an area of about 7,400 acres that includes Big Lake, portions of the Tule and Little Tule Rivers, and several thousand acres of grasslands and wetlands south of Big Lake and to the east of the rivers, described in a subsequent section of this document.



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-3
Ahjumawi Lava Beds - SP Transfer Properties



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-4
McArthur Swamp Donation Properties

DPR will convey the Ahjumawi Property title subject to deed restrictions that prohibit hunting, grazing, subdivision, commercialization, construction or reconstruction of roads, or structures, dumping of refuse, toxic materials or hazardous waste, mining or any ground disturbing activity, including the maintenance of the levees.

PG&E owned the Ahjumawi Property until the 1940s and, thus, already owns water rights appurtenant to the property. As a result of a series of transactions, however, the DPR has a long-term agreement to take up to 1,040 acre-feet (ac-ft) of water annually until 2019. Upon the transfer of the Ahjumawi Property to PG&E, DPR has agreed to reduce the amount of water it is entitled to take under the license by 300 ac-ft / year (see **Figure 1-2**).

**TABLE 1-2
SUMMARY OF CHANGES IN EXISTING WATER RIGHTS**

Land Area	Proposed Changes in Allocated Water Rights
Burney Falls	PG&E would retain all water rights pertaining to the Burney Falls Property
Bowman Ditch	PG&E would retain all water rights associated with the Bowman Ditch
Ahjumawi Property	DPR would amend its 1969 Agreement with PG&E, by reducing its current allocation of 1,040 acre-feet / year by 300 acre-feet / year. DPR's new allocation of water would then equal 740 acre-feet / year.
McArthur Swamp	PG&E will retain all of its existing water rights, except for allocating 300 acre-feet / year of water to CWA for wetland restoration and management purposes.
Glenburn Dredge Site	PG&E would retain all water rights pertaining to the Glenburn Dredge Site.

SOURCE: Pacific Gas and Electric Company, Applications A.00-05-029 and A.00-05-030, October 23, 2000

PG&E has also agreed to remove four wooden power poles on the DPR property, which are not being transferred to PG&E. The original power line crossed the Little Tule River west of Bowman Ditch, entered Ahjumawi Lava Beds State Park, and traversed northeasterly across Bowman Ditch to Ja She Creek.

1.5 MCARTHUR SWAMP PROPERTY DONATION

The portions of the Tule and Little Tule River that adjoin the Ahjumawi Property are part of the McArthur Swamp property that PG&E proposes to donate to CWA once McArthur Swamp is removed from the Pit 1 Project License boundary (see **Figure 1-4**). The McArthur Swamp transfer will take place subject to a Transfer and Maintenance Agreement (**Appendix A**) and a permanent Conservation Easement (**Appendix B**) that will require the maintenance of existing land uses, the preservation and restoration of habitat and protection of cultural and natural resources, including endangered species.

CWA will accept the Ahjumawi Property subject to the deed restrictions that DPR will impose when DPR conveys the land to PG&E. The Ahjumawi Property will also be subject to the

Conservation Easement with similar terms proposed to govern the McArthur Swamp area. The law requires an entity other than the fee owner to hold the easement. California Wetlands Foundation (CWF) will enforce the Conservation Easement with the advice and assistance of Technical Review Team (TRT) whose members include the California Department of Fish and Game (CDFG), University of California Cooperative Extension (UCCE), United States Fish and Wildlife Service (USFWS), the McArthur Swamp Resource Management Association (RMA), DPR, and CWA. The proposed deed restrictions and the Conservation Easement do not impose any obligation to repair the levees, and severely restrict the kind of ground disturbing activities that would be necessary to make such repairs. The transaction terms proposed by the project will result in the Ahjumawi Property permanently remaining in its undeveloped, flooded state, thereby restoring natural wetland conditions.

As part of the proposed action to transfer the Ahjumawi Property to CWA, PG&E will reserve all riparian and appropriative water rights, as well as water rights gained through the DPR exchange. Additionally, PG&E will reserve easements necessary to monitor those water rights.

Once the proposed Ahjumawi Property and McArthur Swamp land transfers are complete, CWA will enter into a two-year grazing lease with RMA. RMA is a limited liability company whose shareholders consist of the eleven ranchers who currently hold grazing licenses at McArthur Swamp. Under the lease with CWA, RMA will have responsibility, under the supervision of CWA, CWF, and the TRT, for ensuring compliance with the deed restrictions and the Conservation Easement. After two years, RMA will have the right to acquire the fee title to McArthur Swamp and to assume all liabilities and obligations under the Conservation Easement and McArthur Swamp Management Plan (MSMP). Should RMA exercise its right of acquisition it will also take fee title to the Ahjumawi Property subject to the deed restrictions and the Conservation Easement, and will assume CWA's obligations to maintain the land in its natural state. At that point, CWF will convey the Conservation Easement to CWA, which will thereafter be responsible for its enforcement. All provisions of the Conservation Easement and the MSMP, including the TRT oversight mechanisms, will remain in place after these subsequent transfers. The respective roles of CWA and RMA concerning the Ahjumawi Property and other lands that PG&E will donate to CWA are outlined in the MSMP, which is incorporated into the Conservation Easement. The MSMP included with this document as **Appendix C** and is described below.

1.5.1 SUBSEQUENT ACTIONS

Over the 5-year period following the transfer of McArthur Swamp to CWA, the MSMP calls for CWA, and its successors, to take specified actions to improve wildlife habitat, stabilize levees, protect and create habitat for the Shasta crayfish, and improve grazing and vegetation management. These activities are summarized in **Table 1-3** and described in detail in the following paragraphs:

Develop Fresh Emergent Wetlands

This development will occur primarily in two places, Hollenbeak Field and Ash Field Pond (see **Figure 1-5**, Existing Site Configuration and **1-6**, Activities Required as part of the MSMP).

**TABLE 1-3
SUMMARY OF SUBSEQUENT ACTIVITIES PURSUANT TO THE MSMP**

Activity	Location	Area/Acreage	Responsible Party
McArthur Swamp Levee Improvement	Land side along south shore of Big Lake / south and east banks of the Tule River	4.8 linear miles	CWA
Fresh Emergent Wetland Creation	Hollenbeak Field and Ash Field Pond	700 acres	CWA
Reverse Cycle Wetland Creation	Fields S-2 and S-1/S-2	20 acres plus brood habitat	CWA
Nesting Habitat Creation	Field E-3 and Field S-1/S-2	254 acres	CWA
Proposed Goose Pasture	Fields A-1, A-2, N-1, N-2, N-3A, N-3B, N-4A, and N-4B	1269 acres	CWA
Water Delivery and Management	Well site McArthur Drain	N/A	CWA

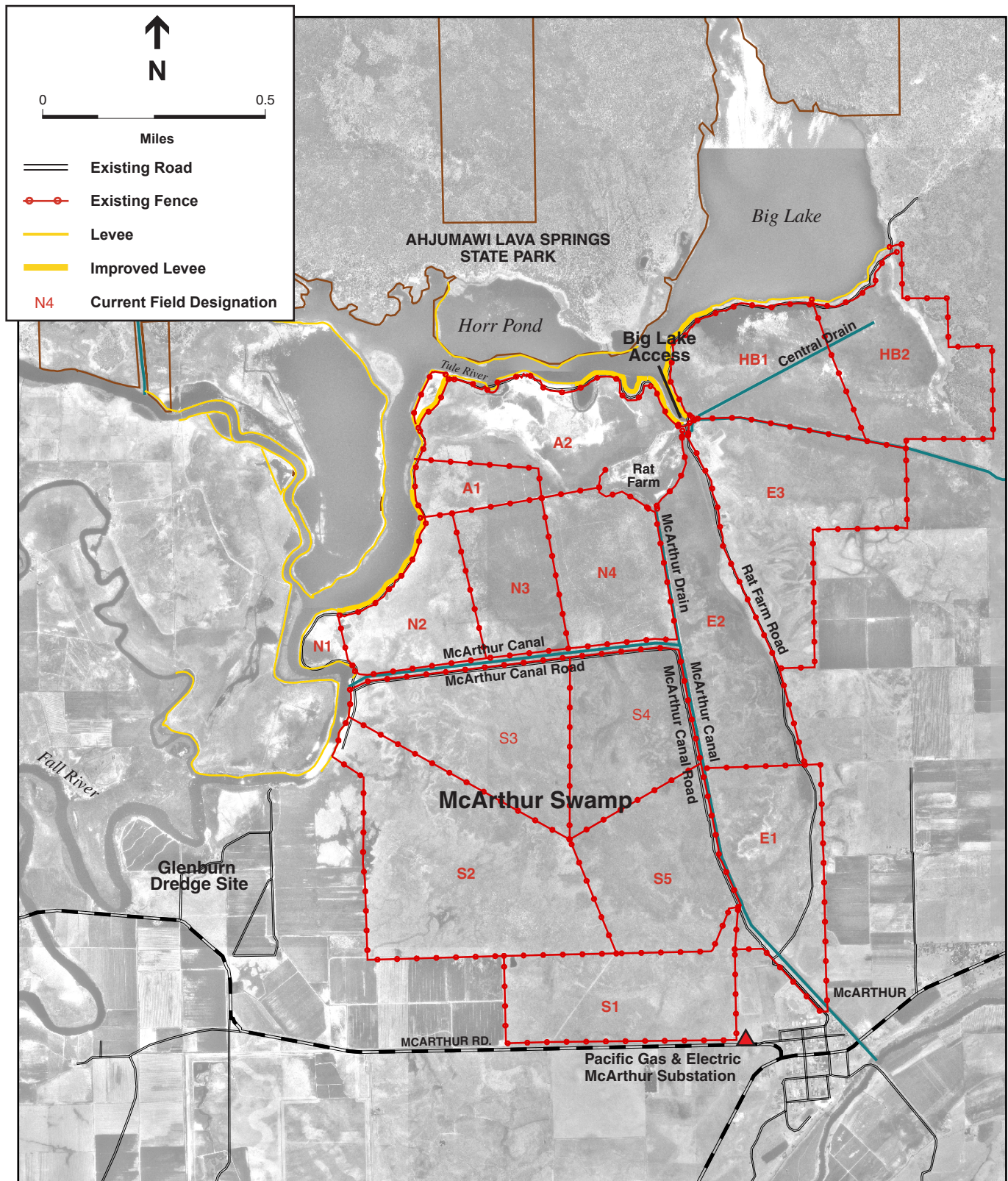
SOURCE: Pacific Gas & Electric Co., PEA for Application A.00-05-029 Oct. 23, 2000 and ESA 2001.

Hollenbeak Field

The Hollenbeak Field is approximately 675 acres. An estimated 670 acres of this land will be re-contoured, fenced, and water control structures will be engineered and installed to manage the area as a seasonal wetland for geese and for production of waterfowl forage plants. Grazing in this area will be monitored by the TRT and the Resource Manager to ensure nest success and production, and grazing will be permitted only if it does not impact the production of waterfowl forage plants.

Ash Field Pond

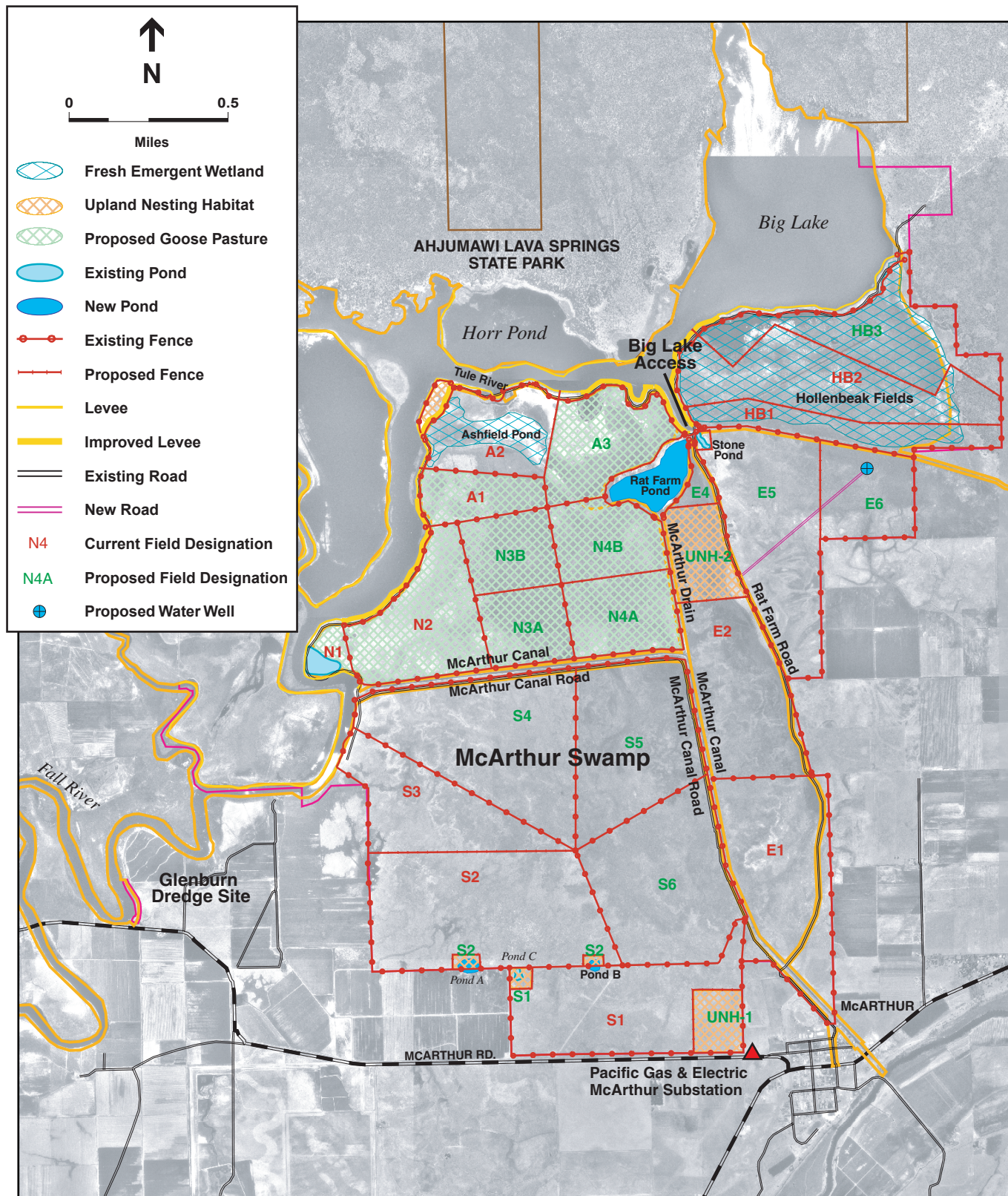
An 89-acre pond will be created west of the McArthur Drain in the Ash Field. The management goals for this pond are similar to the Hollenbeak Field with limited forage available for livestock grazing. Fencing will be utilized to leave part of the pond available to livestock to ascertain the impact of managed livestock use on waterfowl habitat.



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-5
Existing Site Configuration



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure 1-6
Activities Required as part of the MSMP

Develop Reverse Cycle Wetlands

This activity will involve a total of four areas, the S-2 and S-1/S-2 Ponds and the Rat Farm Pond (see **Figure 1-5**, Existing Site Configuration and **1-6**, Activities Required as part of the MSMP):

Brood Ponds

A total of three ponds will be constructed in Fields S-1 and S-2 for nesting, rearing, and development of the brood. Each pond will be approximately 10 acres in size with additional acreage set aside for brood habitat. The ponds will be fenced to limit access by livestock. Depending on rainfall, limited grazing may occur in September and October.

Rat Farm Pond

Habitat development and improvement in and around the Rat Farm Pond will be achieved through vegetation management and repairing existing fences. This area will be incorporated into a regular grazing rotation.

Development of Nesting Habitat

Development of nesting habitat will occur primarily on two areas of McArthur Swamp, Field E-3 and Field S-1 (see **Figure 1-5** and **1-6**):

Field E-3 - Field E-3 will be fenced to provide approximately 100 acres of nesting habitat. The objective is to have standing vegetation 18 to 24 inches tall to provide nesting cover in the spring (March-May). Livestock grazing will be allowed in early and mid-summer and then removed to reach the desired residual vegetation objectives.

Field S-1 - This field has supported annual grasses and brush that should provide nesting habitat during average or better precipitation years. Approximately 115 acres located in the eastern portion will be fenced to limit livestock access. The management of this area for upland nesting habitat will limit early season grazing. The elimination of grazing in this relatively small area will not have a significant impact on the overall carrying capacity of the property.

Goose Pasture

Development of goose habitat will be encouraged through careful grazing practices in the northwest portion of the McArthur Swamp. The goal is to produce vegetation with an average height of three inches by the first frost. This will be achieved through careful late season grazing in the A-1, A-2, N-1, N-2, N-3A, N-3B, N-4A, and N-4B fields as shown in **Figure 1-6**. Additionally, the U.S. Fish and Wildlife Service (USFWS) will conduct cackling geese surveys at McArthur Swamp in order to monitor and track populations.

Water Delivery and Management

CWA will install an irrigation well capable of providing approximately 2,000 gpm. This well can only be installed in the area south of the Lee Drain and east of the McArthur Canal, due to local ground water conditions. The water pumped from it will be used for the specific purpose of

maintaining permanent wetland habitats on the property, as previously discussed. (See **Figure 1-6**). The RMA will also provide up to five cubic feet per second (cfs) of water from the Lee Drain from September 15 through November 15 for wetland management and flooding during the migration season.

CWA will also install water diversions and control structures in the McArthur and Central Drains to effectively divert water for wetland management. Delivery lines will be constructed from the irrigation well to the various areas described above. Water management berms will be constructed and flash-board risers and swales will be installed to apply and manage water on the wetlands to be created and/or restored at Hollenbeak Field, Rat Farm Pond, Ash Field Pond, and Brood Ponds S-2 and S-1/S-2.

Grazing Management

CWA will take McArthur Swamp subject to nine existing grazing licenses. The licensees, who are all shareholders of the RMA, will assume day-to-day management of the grazing, subject to the MSMP. At first, this will be pursuant to a lease with CWA, but RMA may eventually assume title in its entirety. The MSMP will allow approximately 10,000 Animal Unit Months (AUMs) of grazing, which will be managed to avoid interference with the restoration and maintenance of wetland habitats. Grazing will occur on a rotational basis at various areas of McArthur Swamp. Cross fencing and gates will be constructed and utilized to improve the timing and duration of grazing (see **Figure 1-5** and **1-6**). A manager will be hired by RMA to balance the grazing activities and habitat conservation objectives of the MSMP.

Monitoring of Habitat and Waterfowl Development

CWA will be responsible for a variety of monitoring and resource management tasks, including observations of breeding duck populations and reproductive success, vegetation surveys in nesting habitat and livestock exclusion areas, measuring the height and density of vegetation at nesting sites, and conducting duck brood surveys to determine habitat associations and survival rates.

Cultural Resource Surveys

CWA has agreed that, prior to the commencement of any activity on the property that may materially disturb the ground at McArthur Swamp (e.g., development of ground water, grading, construction, excavations, etc.), a site survey will be conducted to determine if any cultural resources exist in the area of the proposed activity and if so a specific protocol for dealing with the resource will be followed, with avoidance as the first priority.

Restoration of Recreational Access at the Glenburn Dredge Site

Upon obtaining the Glenburn Dredge Site (described below), CWA plans to enter into an agreement with an adjacent property owner to re-establish public access to the existing boat launching facilities. CWA eventually intends to transfer ownership of this property to the California Wildlife Conservation Board (CWCB) (a part of CDFG) to comply with a recommendation made in FERC's FEA of the initial Pit 1 Relicensing Proposal requesting assurances for continued public access to the Fall River.

Use of the Dredge “Frances”

CWA intends to keep the dredge moored at the Glenburn Dredge Site, but will use the dredge only as a back-up method of levee maintenance. (Maintenance will be performed primarily by importing materials by land via roads built on top of the levees.) All dredge use will be consistent with the conditions and restrictions of the current United States Army Corps of Engineers (USACOE) Permit. This permit will be assigned to CWA. Among other things, the permit specifically prohibits dredging where the Shasta crayfish is present beyond what has been termed the geographic line of demarcation.

Preservation of Free Public Access to the Ahjumawi Lava Beds State Park via McArthur Swamp

CWA will continue to ensure free public access to DPR’s Ahjumawi Lava Beds State Park via the Big Lake Access at McArthur Swamp. CWA will maintain this area and public access consistent with the existing practices mandated by the FERC license for the Pit 1 Project.

Subsequent Transfer of the Properties

For an initial two-year period, CWA will hold title and lease the land to RMA, which will have responsibilities for actually carrying out terms of the MSMP. After a two-year holding period, RMA will have an option to acquire the title for McArthur Swamp and the dredge, upon payment of acquisition costs and assumption of obligations imposed by the Conservation Easement and the MSMP. If CWA transfers title to these properties, the Conservation Easement, with CWA, thereafter monitoring and enforcing RMA’s fulfillment of the easement and the MSMP. All provisions of the easement and the MSMP, including the TRT oversight mechanisms, will remain in place.

CWA plans to enter into an agreement with an adjacent property owner to re-establish public access to the existing boat launching facilities located at the Glenburn Dredge Site. CWA eventually intends to transfer ownership of this property to the CDFG or the CWCB to assure continued public access to the Fall River.

Indemnification of PG&E for Environmental Liabilities

PG&E has conducted a Phase I Environmental Site Assessment that did not identify any “recognized environmental conditions.” CWA has acknowledged that it has the right to investigate McArthur Swamp and the Glenburn Dredge Site further. It also agrees that PG&E will not be responsible to CWA for the presence of hazardous materials either on or affecting these properties. In addition, CWA has agreed to execute and deposit with the title company prior to the close of escrow a Release and Indemnity Agreement containing a general release in which it waives and relinquishes any and all rights it may have under Section 1542 of the California Civil Code to limit the release from environmental liabilities that it grants to PG&E.

1.5.2 GLENBURN DREDGE SITE

The Transfer Agreement between CWA and PG&E also covers the transfer of an approximately 5.5-acre strip of property located nearly one and one-half miles due west of McArthur Swamp. This property abuts the east bank of the Fall River and is north of, but not directly accessible from, McArthur Road. It is known as the Glenburn Dredge Site because the dredge used for levee maintenance at McArthur Swamp is moored at this location. The property is currently within the boundaries of the Pit 1 Project (see **Figure 1-4**). PG&E has proposed to remove this property from the Pit 1 Project and to transfer both the dredge and the property to CWA when it transfers McArthur Swamp.

One of the Pit 1 Project FEA was to provide public access to the Fall River at the Glenburn Dredge Site. Public access had previously been provided by the CWCB in cooperation with PG&E and an adjacent landowner. PG&E provided space for a parking lot and car-top boat launch facility. The CWCB leased access from the adjoining landowner. In 1996, the CWCB did not renew the lease allowing access to the site and the site was closed to the public. To provide public access at the Glenburn Dredge Site, CWA will enter into an arrangement with the adjacent and willing property owner to secure public access to the existing boat launching facilities. This will likely be done by swapping some of the land in the Glenburn Dredge Site for a small strip of land needed to connect the site to the McArthur Road. To ensure permanent access for the public, CWA intends to eventually transfer the site to the CWCB, which previously had responsibility for managing the area.

To allow flexibility for a land swap with the adjacent landowner and a subsequent transfer to the State, PG&E proposes that the Glenburn Dredge Site will not be directly encumbered by the Conservation Easement. However, the Transfer Agreement and the MSMP both require the provision of permanent public access to the Fall River from this site, as recommended by FERC staff in its FEA.

1.5.3 THE DREDGE

The dredge “Frances” proposed for donation by PG&E to CWA is a Dutra dredge that was manufactured in the 1960s. The dredge has been used exclusively to maintain the levees at or near McArthur Swamp. In recent years, concerns about the Shasta crayfish and other issues have limited the usage of the dredge. It is not practical, however, to dismantle the dredge or move it to other PG&E lands. Moreover, CWA may need the dredge to assist in its compliance with the Conservation Easement and the MSMP.

1.5.4 SUMMARY OF LAND TRANSFERS

In summary, a number of land ownership changes would occur as a result of the proposed action, as shown in Table 1-1. Application 00-05-030 would involve the transferring of fee title ownership over the 182-acre Burney Falls Property within McArthur-Burney Falls State Park and the 4-acre Bowman Ditch from PG&E to DPR. DPR would ultimately end up with an additional 186-acres in total. In return, DPR would transfer fee title ownership of the 544-acre Ahjumawi Property to

PG&E, who would then donate the property to CWA. This property would then be subject to the Conservation Easement, which would be granted to CWF. CWA ultimately gains the addition of 544-acres to its holdings.

Application 00-05-029 involves the donation of the 7,400-acre McArthur Swamp property and the 5.5-acre Glenburn Dredge Site to the CWA. After a two-year period, CWA would convey title of the McArthur Swamp property under the provisions to the RMA. Ultimately, the RMA will gain a total of 7,400-acres. At the same time, CWA will transfer title of the 5.5 acre Glenburn Dredge Site over to the Wildlife Conservation Board (WCB).

1.6 GOVERNMENTAL AGENCY APPROVALS

FERC Approval

Portions of both McArthur Swamp and the Glenburn Dredge Site are located within the boundaries of the Pit 1 Project. Removal of the properties from that license boundary is a condition of the agreement to donate the properties to CWA. The transaction with CWA has been structured to meet concerns raised by FERC, and, based on the proposed transaction, a number of resource agencies and local interests have submitted letters to FERC endorsing the license boundary adjustment. Thus, PG&E anticipates that FERC will remove McArthur Swamp and the Glenburn Dredge Site from the Pit 1 Project License boundary when it relicenses the project. To date, the FERC has not issued a license for the Pit River project and is waiting for the USFWS to complete a Biological Opinion (BO) for the project.

Legislative Approval for DPR's Transfer of the Ahjumawi Property

DPR and the California Department of General Services do not have the unilateral authority to dispose of surplus property. The departments have already approved the transfer of Ahjumawi Property. However, those authorizations are subject to legislative approval. SB 1778 sought the legislative approval necessary for DPR to transfer the Ahjumawi Property to Pacific Gas and Electric Company. On September 26, 2000, SB 1778 was signed by the Governor and filed with the Secretary of State on September 27, 2000. Because SB 1778 is deemed "non-urgent," the law (and the corresponding approval for DPR's transfer of the Ahjumawi Property) became effective on January 1, 2001.

Other Regulatory Aspects

PG&E proposes to transfer to CWA the riparian right to 300 ac-ft of water along with McArthur Swamp. Notice of this transfer must be given to the State Water Resource Control Board (SWRCB) so that the Board may communicate with the new owner (*i.e.*, CWA). The SWRCB does not, however, perform any discretionary review of the transfer, so CEQA does not apply.

Relationship of the Two Applications

On August 7, 2000, the CPUC's Administrative Law Judge (ALJ) consolidated the McArthur Swamp Application (A.00-05-029) with the Burney Falls Application (A.00-05-030). The proposed transfer of McArthur Swamp, the Glenburn Dredge Site, and the dredge is not dependent

upon the CPUC's approval of the Burney Falls Application. Both PG&E and CWA request approval of this Application for authority to transfer McArthur Swamp and the dredge regardless of whether the Burney Falls, Bowman Ditch, and Ahjumawi Property transfers discussed in A.00-05-030 are approved. The plan to transfer the Ahjumawi Property to CWA that is addressed in A.00-05-030, however, is contingent upon the approval of the McArthur Swamp transfer; that is, CWA will not take the Ahjumawi Property unless it receives McArthur Swamp as well.

1.7 APPLICANT PROPOSED MEASURES

PG&E has included several provisions as part of the proposed transactions to avoid or minimize environmental impacts.

The following mitigation measures proposed by PG&E are the result of multi-party negotiations and are designed to meet specific concerns raised by FERC staff in its FEA for the Pit 1 Project relicensing proceeding. Provisions incorporated into the proposed transactions that also serve to minimize environmental impacts include the following: All of the property will be transferred to either a state agency or a non-profit organization charged with the responsibility and purpose of preserving natural, scenic, cultural, and ecological resources.

- Over one-half of Burney Falls will remain subject to the FERC license for the Pit 3, 4, and 5 Project.
- CWA will take the Ahjumawi Property subject to certain deed restrictions and a Conservation Easement. These restrictions will preserve the existing beneficial uses of the Ahjumawi Property (primarily wetland habitat), and limit use of the property in a way that will foster local community cohesiveness and ecological stability. The subsequent transfer to RMA will occur subject to the use restriction and obligations imposed at the time of the initial transfer.
- Information regarding cultural resources and sensitive species and habitats will be transferred to the State or to CWA along with the property transfers.
- PG&E will retain water rights that support existing flows and usage of water for operations of the Pit 1 and Pit 3, 4, and 5 Powerhouses.

1.8 AREAS OF CONTROVERSY

Protection of Cultural Resources of the Pit River Tribe

The Pit River Tribe has expressed a concern about the protection of cultural resources on certain lands at or near PG&E's Pit River and Hat Creek hydroelectric projects. The PEA states that previous correspondence from the Tribe is somewhat ambiguous as to the specific lands that are the subject of these concerns. However, PG&E acknowledges that concerns do apply at least in part to McArthur Swamp.

There is evidence that Native Americans occupied certain areas of McArthur Swamp in an earlier era. Based on a recommendation in the FEA for the relicensing of the Pit 1 Project, PG&E has

worked with FERC, SHPO, the Pit River Tribe, and the Advisory Council on Historic Preservation to design a Programmatic Agreement to survey a portion of McArthur Swamp within the FERC-defined “Area of Potential Effect.” PG&E completed these surveys of the McArthur Swamp area within the FERC project boundary.

Under the Conservation Easement proposed as part of the project, CWA agrees to protect and preserve any such sites that exist or may be found in the future. Additionally, CWA has agreed that, prior to the commencement of any activity on the property which may materially disturb the ground at McArthur Swamp (e.g., development of ground water, grading, construction, excavations), a site survey shall be conducted to determine if any cultural materials or sites exist in the area of the proposed activity.

Property Claims by the Pit River Indian Tribe

The Tribe’s letter to the Energy Division also alleges that it has a property right in certain lands belonging to PG&E, including McArthur Swamp and the Glenburn Dredge Site. PG&E contends that it acquired a clear and valid fee title to almost all of this land from its predecessor in interest, the Mount Shasta Power Company, in 1936, and acquired a fee simple patent for the remainder (an 80-acre piece of property near Big Lake) directly from the United States Government in 1967. Title reports contained in the application demonstrate that PG&E continues to hold clear and valid title to these properties.

At times, the Pit River Tribe has also alleged a property interest in a 100-mile square piece of land that encompasses McArthur Swamp and the Glenburn Dredge Site, as well as several California municipalities, national parks, and a good portion of Mount Shasta. The Pit River Tribe makes this claim based in part on their interpretation of a finding of the Indian Claims Commission in Docket No. 347.

PG&E acknowledges that the Indian Claims Commission determined that the Pit River Tribe once held the property interest in the 100-mile square. However, the Claims Commission also determined that the United States Government had taken title to that property. The Federal Government and the Pit River Tribe entered into a settlement, compensating the tribe for the taking of the property interest in the 100-mile square. Although the Pit River Tribe challenged that settlement, alleging, *inter alia*, “that the attorneys for United States misled the Indians as to the value of the property in question,” that settlement was upheld by the United States Court of Claims in *Andrade v. United States*.

1.9 REFERENCES

Pacific Gas and Electric, 2000a. Proponent’s Environmental Assessments for Burney Falls and McArthur Swamp and McArthur Swamp (Application Numbers 00-05-030 and 00-05-029).

Pacific Gas and Electric Application 00-05-029, 2000. Application of Pacific Gas and Electric, a California corporation, and the California Waterfowl Association, a California public benefit corporation, for an Order Market Valuing and Authorizing the Former to Transfer

to the latter Certain lands in Shasta County (McArthur Swamp) and Related Property Pursuant to Public Utilities Code Sections 367(b) and 851.

Pacific Gas and Electric Application 00-05-030, 2000. Application of Pacific Gas and Electric, a California corporation, the State of California, acting by and through its Department of Parks and Recreation, with approval of its Department of General Services (DPR), and the California Waterfowl Association, a California public benefit corporation (CWA), for Orders Pursuant to Public Utilities Code Sections 367(b) and 851 (1) Establishing the Market Value of and Authorizing Pacific Gas and Electric to Transfer to DPR Certain Pieces of Land in Shasta County (Burney Falls) in Exchange for Land Currently Owned by DPR (Ahjumawi Property), and authorizing Pacific Gas and Electric to donate the Ahjumawi Property to CWA.

CHAPTER 2.0

ENVIRONMENTAL CHECKLIST AND EXPANDED EXPLANATIONS

SECTION 2.0

ENVIRONMENTAL CHECKLIST AND EXPANDED EXPLANATIONS

- 1. Project Title:** Pacific Gas and Electric Company Shasta County Land Transfers
- 2. Lead Agency Name and Address:** California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102-3298
- 3. Contact Person and Phone Number:** Billie C. Blanchard, Regulatory Analyst III
(415) 703-2068
- 4. Project Locations:** McArthur-Burney Falls Memorial State Park
and
McArthur Swamp and Glenburn Dredge Properties
located north of McArthur, California
- 5. Project Sponsor's Name and Address:** Pacific Gas and Electric Company
77 Beale Street
P.O. Box 77000
San Francisco, CA 94177-0001
- 6. General Plan Designation:** Various (refer to description of land use)
- 7. Zoning:** Various (refer to description of land use)
- 8. Description of Project:** *(Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)*

Refer to Section 1.0, Project Description.
- 9. Surrounding Land Uses and Setting.** *(Briefly describe the project's surroundings.)*

Refer to description of land use.
- 10. Other public agencies whose approval is required** *(e.g., permits, financing approval, or participation agreement.)*

California Public Utilities Commission and the Federal Energy Regulatory Commission *(refer to the Project Description)*

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|--|---|
| ☐ Aesthetics | ☐ Agricultural Resources | ☒ Air Quality |
| ☐ Biological Resources | ☒ Cultural Resources | ☐ Geology / Soils |
| ☐ Hazards & Hazardous Materials | ☐ Hydrology / Water Quality | ☐ Land Use / Planning |
| ☐ Mineral Resources | ☐ Noise | ☐ Population / Housing |
| ☐ Public Services | ☐ Recreation | ☐ Transportation / Traffic |
| ☐ Utilities / Service Systems | ☒ Mandatory Findings of Significance | |

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal

standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) **Supporting Information Sources:** A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Issues (and Supporting Information Sources):

I. AESTHETICS – Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

SETTING

The Lake Britton property is highly valued as a scenic resource, as is much of the surrounding property administered by DPR and by the US Forest Service (Shasta National Forest). The PG&E property along the south shore of the lake offers important scenic views of Lake Britton and of the mountains and forest beyond the lake. Similarly, the property itself is part of scenic vista viewed by boaters in the lake, and hikers and campers on the north shore of the lake. The Pacific Crest National Scenic Trail runs along the south shore immediately to the west of the PG&E property before climbing around Burney Falls to the south of the lake. Lake Britton, including the PG&E property, is visible from many portions of the trail. Also running through the PG&E property is State Highway 89, running north and south across the lake at about its midpoint, before turning sharply to the west towards Burney Falls. Highway 89 across Lake Britton is designated as a scenic route on most highway maps, but is classified only as “Eligible State Highway – Not Officially Designated” by the California Department of Transportation.

The Ahjumawi Property, like McArthur Swamp discussed below, is a relatively low-quality scenic resource. The Ahjumawi property is surrounded on three sides by levees that have fallen into general disrepair, causing repeated flooding of the property that DPR desires to transfer to PG&E. Access to the Ahjumawi Lava Springs State Park is by boat only across Big Lake, with the vast majority of visitors accessing the lake at a PG&E-maintained boat launch on the south shore of the lake at the end of Rat Farm Road. Because of the extensive flooding, the lack of access roads or trails, and the relative distance to the main features of the State Park, the property that DPR desires to transfer to PG&E is seldom if ever seen by visitors to the park. The area is not viewable from any highway, and only visible in the distance from one trail that runs to the north and west of the property. The trail is a former access road that has no official designation. The Ahjumawi Property would be subject to a Conservation Easement that would govern the McArthur Swamp area, as described below.

AESTHETICS IMPACT DISCUSSION

The lands in question are currently administered by PG&E under the restrictions of its FERC licenses for the Pit hydroelectric projects, or by DPR under the General Plan for the McArthur-Burney Falls Memorial State Park. DPR has not prepared a GP for Ahjumawi Lava Beds State Park, but the general provisions pertaining to lands classified as “state park” restrict its use. Because the Conservation Easements and adaptive management plan that govern the targeted lands subject to these applications would remain in effect and would specify various improvements to return the lands to a more natural state, the project would likely have an overall beneficial effect on aesthetic resources in the region. The extent to which those improvements are accomplished, and the quality of the work done, would largely depend on the resources that are brought to bear to accomplish the goals of the improvement plans. Therefore, the analysis of the potential impact to aesthetic resources largely hinges on the ability of the various organizations involved to secure the monetary and human resources needed to carry out the provisions of the management plans that will govern the areas involved. Because the organizations involved are well established and apparently well funded, it is reasonable to assume that they will carry out the requirements of the applicable management plans. Therefore, the project is not likely to create significant impacts to aesthetic resources.

- a) Because the lands subject to the transfers proposed in the two applications would generally be returned to a more natural state, the project is not likely to have a substantial adverse effect on a scenic vista.
- b) There are no officially designated state scenic highways in the project area, therefore the project is not likely to create substantial (or even any) damage to scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.
- c) Because it generally calls for making improvements that would restore the lands subject to these applications, the project likely would not substantially degrade the existing visual character or quality of the site and its surroundings.
- d) The project does not involve construction of any new facilities or buildings, and therefore would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

REFERENCES

California Department of Transportation web site on State official scenic highways:
http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

ESA site visit, January 2001.

Issues (and Supporting Information Sources):

II. AGRICULTURAL RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☒	☐

SETTING

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Currently the Burney Falls area is primarily used for public recreational activities, which are described in detail in the Recreation section. The State Park General Plan currently restricts any agricultural uses, including grazing and timber extraction, on State Park premises. Small-scale timber extraction operations are ongoing on adjacent Shasta National Forestlands; however, these operations are not anticipated to affect any of the proposed land transfer properties within the State Park. The Bowman Ditch and Ahjumawi Property are located on the western and southwestern portions of the Ahjumawi Lava Beds State Park, respectively. These lands are located along the northern banks of the Little Tule River and Tule River.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

The McArthur Swamp and Glenburn Dredge site are located in the Fall River Valley, which consists of approximately 35,000 to 40,000 acres at elevations ranging from 3,300 to 3,400 feet above mean sea level (Shasta County, 1996). A majority of the rainfall occurs during the winter months, from November through March, and averages around 17 inches annually with an average snowfall of approximately 14 inches (Shasta County, 1996). The Fall River Valley is a modestly productive region with the average growing season lasting approximately 130 days. Livestock production is the major industry in the area with over 5,000 animals being marketed annually. Hay production is the second major agricultural industry with over 150,000 tons cut each year

(PG&E, 2000). Specialty crops, such as wild rice and strawberry nursery operations, have also become substantial revenue producers.

There are approximately 2,500 acres within the Fall River Valley that are planted with wild rice. The westerly portion of the valley facilitates rice production, due to the heavier clay soils. Although wild rice production has been relatively successful, this crop is considered to be a high-risk specialty crop, due to its need for excessive irrigation. Strawberry plant production within the Valley is generally limited to nursery stock and requires aerated sandy loam soils in the eastern portion of the valley. This crop typically generates a higher return to the grower. However, the soil conditions are critical for its production and there is little additional land available to expand this industry (PG&E, 2000).

McArthur Swamp

With the construction of levees along the southern portion of the Tule River back in the 1930s, the McArthur Swamp has facilitated livestock grazing for approximately 1,000 head of cattle on an annual basis. PG&E currently provides access on the property to nine livestock owners with grazing licenses for spring and summer forage and are renewable on an annual basis. The primary forage species in the annual upland areas include medusahead (*Taeniatherum*), small fescue (*Festuca*), and cheatgrass (*Bromus tectorum*). These species are generally poor quality feed, but do provide adequate spring forage prior to drying and developing seed heads and awns within the medusahead. The perennial uplands include species such as annual hairgrass (*Deschampsia danthonioides*), Kentucky bluegrass (*Poa pratensis*), California barley (*Hordeum californicum*), and bentgrass (*Agrostis*) (PG&E, 2000).

In a natural state without the maintenance of existing levees, McArthur Swamp would consist of seasonal and annual wetlands. The forage species on moister, lower lying soils include sedge (*Cyperaceae*), reed canary grass (*Phalaris arundinacea*), wheatgrass (*Elymus californicus*), ladino clover (*Trifolium*), and several other grass and legume species (*Leguminosae*). These low-lying areas provide superb forage production for livestock grazing as well as habitat for various waterfowl and other wildlife species.

Currently, the McArthur Swamp is managed essentially for rotational grazing. Individual fields are grazed at various times during the grazing season based on the condition and availability of the above-mentioned forage species. The property is currently divided into 16 fields through a network of perimeter and cross-fencing, 19 stockpond watering systems, and some access improvements. The perimeter and cross fencing is estimated to consist of 189,000 feet, all of which is in relatively good condition (PG&E, 2000). Fencing is essential to the management of livestock on designated fields and to achieve the maximum carrying capacity. Each field has a forage carrying capacity based on the number of Animal Unit Months (AUMs) that can potentially feed on the field during the season. Currently, the entire McArthur Swamp land area facilitates approximately 10,000 AUMs (RMA, 2000). The total carrying capacity for the various fields are summarized in **Table II-1**.

**TABLE II-1
CURRENT CARRYING CAPACITY FOR MCARTHUR SWAMP**

Field Name	Carrying Capacity (AUMs)
Hollenbeak Fields	1,120
Ashfield Fields (A Field)	1,098
N Fields	2,200
E Fields	3,422
S Fields	2,935
Totals	10,775

Source: PG&E Proponents Environmental Assessment, 2000.
Figure II-1 illustrates the relative location of each of the existing grazing fields

The source for the livestock water consists of well, two 10,000-gallon storage tanks, and a system of canals that drain water to the southeast corner of the property along McArthur Road. The water distribution system includes about 50,600 linear feet of buried PVC pipelines (PG&E, 2000). There are 18 concrete watering tanks with automatic water control valves and the existing water system has the ability to support between 8,000 and 12,500 AUMs.

The existing grazing plan includes approximately 5,949 acres and provides for the approximately 10,000 AUMs during the period of April to November (RMA, 2000). Of the total 5,949 acres, 146 acres include the southern levees along the Tule River, wetlands in field N-1, and the Rat Farm Pond, which are currently excluded from livestock operations for wildlife habitat. Livestock are typically introduced in mid-April into the upper S-1 and E-1 fields. Through May and June, additional livestock are placed on the remaining S fields and E fields. During the month of June, livestock grazing in the S-1 and E-1 fields is rotated into the N fields. The spatial layout of the current fencing system is as depicted in **Figure 1-5**.

Livestock are introduced to the Ashfield (A field) in July and the Hollenbeak field (HB field) in August. The Ashfield and Hollenbeak fields provide seasonal wetland habitat for numerous bird species during the spring and early summer grazing season. Specific bird species found in the area and wetland classifications are discussed in detail in **Section IV, Biological Resources**. The existing grazing rotation recognizes the value of these seasonal wetlands and, therefore, livestock are introduced later in the summer, and only allowed to graze for a month before being rotated into another field. The Ashfield is grazed only in July and September, while the Hollenbeak field is grazed in August and October.

Glenburn Dredge Site

The Glenburn Dredge Site is located on the eastern bank of Fall River along McArthur Road and is approximately one and a half miles west of southwestern corner of McArthur Swamp. The Glenburn Dredge Site has been used historically to moor the dredge “Francis” and as a recreation access point to the Fall River. There is no agricultural use associated with the Glenburn Dredge Site.

REGULATORY SETTING

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The Burney Falls and McArthur Swamp is designated under the Shasta County General Plan as Public Land (PL) and Timberland (T), however, the McArthur-Burney Falls Memorial State Park General Plan supersedes these land use designations. The State Park General Plan designates the currently leased PG&E properties as either Open Space or Day Use and, therefore restricts agricultural uses and timber extraction operations (DPR, 1997). The State Park General Plan specifically states in its directive that, “Livestock grazing is prohibited within the Park” (DPR, 1997).

The Bowman Ditch and Ahjumawi Property are located within the eastern and southern portions of the Ahjumawi Lava Beds State Park, which too, is under the jurisdiction of DPR. Currently the Ahjumawi Lava Beds State Park lacks a General Plan, however, uses at the park are governed and restricted by the general provisions pertaining to lands classified as “state parks”. Parcel 016-320-013, which is located adjacent to the Bowman Ditch, is currently designated under the Shasta County General Plan as Full Time Agricultural Cropland (A-C). However, the Shasta County General Plan designation is superseded by restrictions pertaining to lands classified as “state parks” and consequently, the parcel is currently restricted from grazing uses.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

STATE REGULATORY OVERSIGHT

California Land Conservation Act

Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the County to maintain agricultural or open space use of their lands in return for a reduced property tax assessment. However, since the McArthur Swamp is currently owned by PG&E and is considered a utility property by the County, none of the parcels involved with the land transfer are currently encumbered under Williamson Act Contracts.

Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has set up the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion

of the state's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of ten acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" two years. The FMMP is an informational service only and does not constitute state regulation of local land use decisions. Four categories of farmland, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are considered valuable and any conversion of land within these categories is typically considered to be an adverse impact. Shasta County is currently not covered under the FMMP, however the County has developed a similar system for classifying the quality of its agriculturally designated lands by using Land Capability Classifications and Soil Story Indexes, which are made available by the Natural Resource Conservation Service (NRCS), Soil Survey Division.

SHASTA COUNTY REGULATORY OVERSIGHT

Shasta County General Plan

All of the parcels within the McArthur Swamp and Glenburn Dredge site are designated under the Shasta County General Plan for either Full Time Agricultural Cropland (A-C) or Public Lands / Open Space (PL/OS) (see Land Use Section for specific APN designations). In the Fall River Valley, the A-C designation limits the minimum parcel size to 40 acres for cropland and 160 acres for irrigated pasture. This designation was designed to provide protection to lands containing highly desirable soil characteristics and sources of water that provide irrigation to full time agricultural activities (Shasta County, 1996). The following agricultural policies govern land use activities on these lands and would apply to the proposed land transfers:

Agricultural Policies

Policy AG-a - Agricultural lands in Shasta County shall be classified according to three (one of which is applicable to the Proposed Project) general categories based on the following criteria:

Land designated on the land use maps as **A-C** capable of supporting crop production by full-time operators, including:

- Existing croplands used for full-time agricultural purposes.
- Lands which are not now but could be used for full-time agriculture based on resource characteristics (soils, climate, access to water) and compliance with the applicable parcel size minimums as shown in Table AG-3 of the General Plan. (Shasta County, 1996)

Policy AG-f - All lands classified as full-time agricultural lands shall be placed in a corresponding agricultural zone district and shall be eligible to enter into a contract, as provided by the Williamson Act (also known as the California Land Conservation Act of 1965) and applicable Shasta County agricultural preserve standards which require a minimum of 100 acres

of Class 1 equivalent soil based on the Soil Conservation Service's soil capability system and soil equivalencies adopted by the Shasta County Board of Supervisors (Shasta County, 1996).

Policy AG-h - The site planning, design, and construction of on-site and off-site improvements for non-agricultural development in agricultural areas shall avoid unmitigatable short- and long-term adverse impacts on facilities, such as irrigation ditches, used to supply water to agricultural operations (Shasta County, 1996).

Zoning Information

Each of the parcels within the McArthur Swamp are zoned either for Exclusive Agriculture (EA) or are Unclassified (U) with certain parcels containing the F2 designation; indicating that they are within a potential flood zone. The Glenburn Dredge Site is zoned (EA). These zoning designations are described below:

Exclusive Agricultural District (EA)

The purpose of the Exclusive Agricultural (EA) District is to preserve lands with agricultural value that have the combination of size and quality, sometimes in conjunction with other lands, to make their use for agriculture economically feasible, and within which agricultural preserves may be created for the purpose of utilizing provisions of the law relating to agricultural preserves. This district may also be applied to parcels that do not have these characteristics, but are located in an area where the predominant land use pattern meets the criteria of this district. This district is consistent with the Agricultural-Croplands (A-C) general plan designation. This district may also be applied to other areas within, which the parcels have a combination of size and quality to be used for full-time agriculture, provided there are no conflicts with other general plan policies.

Unclassified District (U)

The unclassified (U) district is intended to be applied as a holding district until a precise principal zone district has been adopted for the property. All new uses in this district shall be consistent with all applicable policies of the General Plan. According to this zoning designation, if a parcel is larger than ten acres, agricultural uses permitted in this zone are those agricultural uses permitted without a use permit in Exclusive Agriculture (EA) zoning districts.

AGRICULTURAL RESOURCES IMPACTS DISCUSSION

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

- a) Properties within the Burney Falls, Bowman Ditch, and Ahjumawi Property are currently not utilized for agricultural purposes. Furthermore, according to the Shasta County General Plan all of the properties are designated as Public Land (PL), except for the parcel adjacent to the Bowman Ditch, which is designated for Full Time Agricultural Cropland (A-C). However, since the DPR has jurisdiction over the parcel, agricultural activities on the parcel are restricted. Furthermore, due to the parcel's inaccessibility, grazing operations

would be economically infeasible on the property. Therefore, the proposed land transfer of the McArthur-Burney Falls Memorial State Park property, Bowman Ditch, and Ahjumawi Property would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. As a result, no impact is expected.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

- a) The transfer of the McArthur Swamp and Glenburn Dredge Site from PG&E to the CWA, and subsequently to the RMA, would result in substantial changes to the current grazing pattern within McArthur Swamp. With the adoption of the MSMP, current grazing activities would still be permitted, however, the existing grazing rotation would be reconfigured to enhance migratory bird habitat. The reconfigured design of the fencing system is illustrated in **Figure 1-6**. As shown in **Table II-2**, the reconfigured fencing layout would actually provide a minimal increase (1 %) in the existing carrying capacity of the entire McArthur Swamp land base and therefore, no reduction in the land's current agricultural productivity is expected. However, as shown in **Table II-2**, certain portions of the McArthur Swamp land base would actually experience substantial reductions in their current AUM capacity, due to proposed habitat modifications.

**TABLE II-2
PROPOSED CARRYING CAPACITY FOR MCARTHUR SWAMP**

Field Name	Current Carrying Capacity (AUMs)	Proposed Carrying Capacity (AUMs)	Change in AUM Capacity	Percent Change
Hollenbeak Fields	1,120	540	- 580	- 52 %
Ashfield Fields (A Field)	1,098	538	- 560	- 50 %
N Fields	2,200	2,755	+ 555	+ 25 %
E Fields	3,422	3,314	- 108	- 3 %
S Fields	2,935	3,758	+ 823	+ 28 %
Totals	10,775	10,905	+ 130	+ 1 %

Source: PG&E Proponents Environmental Assessment, 2000.

The FMMP currently does not provide coverage for Shasta County and therefore, to analyze any potential reductions in the quantity of locally productive farmlands, this analysis is based on information obtained from the Intermountain Soil Survey for California. According to NRCS Land Capability classifications shown in **Table 6-1**, a number of the soil types that reside within the McArthur Swamp and Glenburn Dredge Sites are classified as II or III when drained and irrigated, and consequently are classified

as Prime Farmland. The proposed transfer of McArthur Swamp and adoption of the MSMP would involve the conversion of currently grazed lands to non-grazing uses. However, since there is no proposed change in land use, the land transfer would not preclude potential agricultural uses. Furthermore, as shown in Table 2-2, a net increase of 130 AUM is expected, due to a more efficient grazing rotation system.

Since a number of habitat modifications are required as part of the Conservation Easement and subsequent adoption of the MSMP, each of these habitat modifications is evaluated below in order to assess potential impacts to agriculture.

In the development of nesting habitat, fencing and a reduction or seasonal exclusion of grazing to protect and foster nesting habitat in Field E-3 will reduce this field's value for agricultural uses. However, it is expected that this reduction can be offset through forage planning and stockpiling feed in Fields N4-A and N4-B for use in September and October. A small portion at the southeastern corner of Field S-1 will also be fenced and livestock grazing limited to protect and foster nesting habitat (see **Figure 1-6**). Since this field is somewhat brushy, it is expected that management of the area for upland nesting habitat will have a less-than-significant impact on its grazing value.

The development of fresh emergent wetlands within the Hollenbeak Field would not preclude livestock grazing, but would limit the amount of grazing by 52 %, as indicated in **Table II-2**. Depending on spring precipitation, irrigation water may be applied in late May and June, and livestock grazing will be permitted between irrigation watering as long as consistent field inspection is performed to ensure that the timothy grass matures. Livestock grazing ahead of the mid-September flooding for waterfowl habitat and forage will also be permitted as long as the timothy grass is allowed to seed. A similar grazing management approach will be applied to Ash Field Pond, which is expected to see a 52 % reduction in the amount of grazing. To counteract this potential decrease in productivity, fencing will be constructed at Ash Field Pond to make part of the field available to livestock. This would allow managers to analyze the potential compatibility impacts between managed livestock use and its direct and indirect effects on waterfowl habitat. As a result, agricultural uses will co-exist with the newly designed waterfowl habitat and therefore, a less-than-significant impact is expected.

The development of reverse cycle wetlands at locations shown in **Figure 1-6** would include measures to allow the continuation of existing grazing activities, as described in the MSMP. Fencing will be assembled to control direct access by livestock; however, depending on the amount of annual precipitation, limited grazing may be permitted. The loss of forage production by development of reverse cycle wetlands, referred to as Pond A in Field S-2, Pond B in Field S-1/S-2, and the Rat Farm Pond, would be balanced by increases in other portions of the S fields and N fields. Therefore, a less-than-significant impact is expected.

Wetland management objectives outlined in the MSMP will require supplemental water for the late summer and early fall flooding of approximately 875 acres of designated wetland habitat, and for spring irrigation of these areas. The required supplemental water will be obtained from several sources including, (1) 300 af of water that can be drawn from Big Lake or Tule River. (2) irrigation well capable of producing about 2,000 gpm installed in Field E6, and (3) additional piping installed to deliver water to nearby fields. Additionally, up to five cfs of water may be taken from Lee Drain (if available) for fall flood-up of wetland areas between September 15 and November 15 and excess irrigation water from a neighboring hay field will be used, if available, for wildlife reverse-cycle brood habitat in two ponds at the southern end of the McArthur Swamp. Other water can also be obtained from the previously mentioned livestock watering well adjacent to McArthur Road. A by-product of the new water delivery system would come in the form of increased forage production, which could be used for grazing within the limitations established for the various fields. Therefore, the water management practices that would affect the availability of water for irrigation would be considered less-than-significant.

Continued improvements to the McArthur Swamp Levee are considered essential to sustain existing agricultural uses. The initial improvement of the 5.8-mile McArthur Swamp levee will ensure continued use of portions of the property for grazing and improvement to wildlife habitat. Without implementation of the proposed improvements and subsequent maintenance, the levee will eventually fail, and land presently used for grazing will become flooded. Thus, the McArthur Swamp levee improvements will have a positive impact on agricultural uses currently occurring at McArthur Swamp.

As discussed in the MSMP, interactions between waterfowl and livestock grazing will be continually monitored by the TRT and the full-time McArthur Swamp Resource Manager (Resource Manager). As explained in the **Chapter 1.0, Project Description**, the TRT would provide the technical advice and direction for the management of McArthur Swamp. Regularly scheduled meetings with the TRT, RMA, CWA, and CWF (as holder of conservation easement) are intended to continuously update the MSMP and adjust the grazing and monitoring programs to insure the success of the wildlife programs. The Resource Manager will be hired by the RMA and will be responsible for implementing the elements of the MSMP and modifying on-the-ground activities based on TRT recommendations approved by the Board of Directors of the RMA.

Overall, because grazing will be managed more carefully by the employment of a full-time Resource Manager, grazing activities would occur more efficiently and in a manner that will improve and expand existing waterfowl habitat. Following the implementation of all waterfowl habitat improvements, increased water distribution for waterfowl, and additional fencing, McArthur Swamp will continue to provide near or slightly more than its current level of forage productivity (+1 %). In addition, the property will remain subject to the Conservation Easement, which binds all successive owners to preserving agricultural conditions on the property in accordance with the MSMP. For these previously discussed reasons, the transfer of the McArthur Swamp from PG&E to CWA, and subsequently to the

RMA would not involve changes to the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural uses. As a result, a less-than-significant impact is expected.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

- b) None of the parcels located at Burney Falls, Bowman Ditch, and Ahjumawi Property contain pre-existing Williamson Act Contracts (Wayne Stephens Shasta County Assessor's Office, 2001). All of these properties are currently under DPR's jurisdiction and therefore, the existing County Zoning designations are inapplicable. However, with the transfer of the Bowman Ditch and Ahjumawi Property from DPR to PG&E and subsequently to CWA, these two areas will then fall under the jurisdiction of Shasta County. Only one parcel, located along the Bowman Ditch, is zoned EA, while the others contain a "U" zoning designation. As discussed in the **Chapter 1.0, Project Description**, PG&E would donate these parcels to the CWA for conservation purposes, which would subsequently use them for open space purposes. These proposed uses would be consistent with the EA District, which requires the preservation of lands with agricultural value. These uses would also be consistent with the "U" District, which is to be applied as a holding district until a precise principal zone district has been adopted for the property. Therefore, no impact is expected.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

- b) None of the parcels located at McArthur Swamp and the Glenburn Dredge Site contain pre-existing Williamson Act Contracts (Wayne Stephens Shasta County Assessor's Office, 2001). The assessor parcels that currently make up the McArthur Swamp all contain the EA or U zoning designation. Under the baseline condition, all of these parcels are currently used for grazing livestock during some portion of the year. The proposed land transfer would not include uses that would deviate from this current system of land use, except for creating additional open space habitat for migratory bird species. Therefore, uses proposed under the Conservation Easement and MSMP would be consistent with existing zoning designations and would not conflict with an existing Williamson Act Contract. As a result, no impact will result from the transfer.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

- c) There are no other potential project changes which will result in the conversion of farmland to a non-agricultural use. All impacts related to the conversion of farmland are described under checklist item (a.)

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

- c) There are no other potential project changes which will result in the conversion of farmland to a non-agricultural use. All impacts related to the conversion of farmland are described under checklist item (a.)

REFERENCES

- RMA. 2000. Resource Management Association, McArthur Swamp Management Plan.
- DPR, 1997. State Department of Parks and Recreation, McArthur-Burney Falls Memorial Park General Plan, June 1997.
- Pacific Gas and Electric, 2000. Proponents Environmental Assessment for McArthur-Burney Falls Memorial State Park and McArthur Swamp (Application Numbers 00-05-030 and 00-05-029).
- Shasta County, 1996. Shasta County General Plan. Resource Element, Agriculture.
- Shasta County, 1999. Shasta County Zoning Code (As amended through July 23, 1999) Chapters 17.04 and 17.06.
- California Land Conservation Act 1965, Section 51200. Williamson Contract.
- Shasta County Assessors Office. Personal communication with Wayne Stephens, February 2001.

Issues (and Supporting Information Sources):

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

SETTING

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently to affect air quality.

The project area includes the Burney Falls, Bowman Ditch, and Ahjumawi property, and the McArthur Swamp and Glenburn Dredge Site located in Shasta County at the extreme northern end of the Sacramento Valley Air Basin (Sacramento Valley). Sacramento Valley includes Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties, the western portion of Placer County, and the eastern portion of Solano County. The Sacramento Valley Air Basin has been divided into two planning areas, the Northern Sacramento Planning Area and the Broader Sacramento Planning Area. The northern area covers seven counties including Shasta County.

The Klamath and Coastal Mountains flank Shasta County to the northwest, and the Cascade Mountains to the northeast and east. The topography of the area, coupled with the relatively calm winds and fairly stable atmospheric conditions create a high potential for significant air pollution in the area. Generally, the County experiences moderate to very poor capability to disperse pollutants, particularly in combination with persistent regional subsidence inversions (i.e.,

warmer air overlying cooler air), leading to conditions under which pollutant concentrations can accumulate.

Shasta County is currently designated attainment or unclassified for all national ambient air quality standards. The northern area of Sacramento Valley including Shasta County, called the Northern Sacramento Planning Area, is classified as a moderate non-attainment area for state ozone and PM-10 standards (California Air Resources Board, 2000). The Shasta County area is attainment or unclassified with respect to other state standards. The Shasta County Air Quality Attainment Plan, last updated in 1998, is the adopted ozone plan for the County. The plan contains control programs for stationary sources and transportation-related sources. Shasta County has also adopted an Air Quality element as part of its General Plan. The element contains a number of objectives and policies related to preservation and improvement of air quality. The element also describes a strategy to evaluate air quality impacts of projects and suggests a uniform method for applying mitigation measures in addressing the impacts.

The Shasta County Air Pollution Control District (SCAPCD) is the agency primarily responsible for implementing and enforcing air quality regulations in Shasta County. SCAPCD is also responsible for preparing air quality plans (or portions thereof) for its jurisdiction. SCAPCD regulates air quality through its permit authority over most types of stationary emissions sources and through its planning and review activities. The district exercises permit authority through its *Rules and Regulations*. There would be no emissions sources associated with the project that would be subject to the permitting requirements of the air district. Self-propelled construction equipment used in land grading, paving, leveling, digging or other similar operations are exempt from permit requirements of the APCD. However, certain rules apply to all projects, such as Rule 3.16 on fugitive, indirect or non-traditional sources, and Rule 3.15, which imposes restrictions on use of cutback and emulsified paving materials.

AIR QUALITY IMPACT DISCUSSION

- a) As described earlier, the project is situated in an area for which air quality attainment plans for ozone have been developed that show how the area will achieve the state ozone standard. The ozone plan relies on both local air district stationary source control programs and statewide mobile source control programs. The plan also relies on assumptions regarding growth of population and employment in the area, but, since the project does not represent a land use development proposal nor would the project be growth-inducing, the project would not conflict with the plan's assumptions regarding population and employment.

The project involves the market appraisal, transfer and donation of certain lands to DPR and CWA. Proposed project activities also include the implementation of the MSMP and reopening of the Glenburn Dredge site car-top boat launch. Activities subsequent to transfer of lands would mainly be actions to improve, protect and create wildlife habitat, stabilize levees and improve vegetation and grazing management. These actions would be implemented over a period of five years following the land transfers. If and when these

activities are implemented, some physical disturbance of the area resulting from minor construction activities (e.g. levee stabilization and wetland creation) will occur. Construction activities would result in emissions from the use of mobile construction equipment and from generation of automobile trips to transport construction materials and workers. This would generate emissions of ozone precursors and carbon monoxide. However, the emissions standards established for construction equipment and on-road motor vehicles under statewide mobile source control programs are enforced on vehicle and engine manufacturers, rather than on the end-users of the equipment or vehicles. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan.

- b) The project would be located in a region that experiences occasional exceedances of the state ozone and PM-10 standards. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of reactive organic gases (ROG) and nitrogen oxides (NO_x) under the influence of wind and sunlight. PM-10 is both a regional and local air pollutant since some sources, such as motor vehicle exhaust, are more regional in nature while others, such as construction activities, have a more local effect.

Actions subsequent to the transfer of lands would involve excavation and grading activities, which would cause minimal emissions of NO_x, ROG, CO and PM-10 from construction equipment. Construction activities would temporarily affect pollutant concentrations in the project area primarily due to fugitive dust sources generated from earthmoving activities and vehicle travel over unpaved surfaces or paved surfaces heavily laden with earthen materials (e.g., from soil inadvertently spilled onto the traveled way). Fugitive dust emissions from construction activity will vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. Soils within the McArthur Swamp tend to have a high silt content and are more inherently prone to generating large quantities of dust. In the absence of mitigation measures, there may be circumstances when project construction activities would result in significant quantities of dust, and as a result, local visibility and PM-10 concentrations could be adversely affected on a temporary and intermittent basis during the construction period.

To reduce this potentially significant effect to a less-than-significant level, the receiving parties (CWA and RMA) would adopt and implement Standard Mitigation Measures (SMMs), as a condition of approval of the grading permit, required by the SCAPCD. Implementation of these mitigation measures would reduce the chance that air quality standards would be violated in the vicinity of the project area or that visibility would be significantly affected during the construction period. This would also provide the basis for the project's compliance with SCAPCD Rule 3.16.

Therefore, with implementation of the required mitigation measures as described below, the project would not result in a significant effect on local pollutant concentrations.

Impact III.1: Emissions from construction-related activities would cause a temporary increase in local particulate matter concentrations.

Mitigation Measure III.1: During construction the following measures shall be implemented to control fugitive dust and particulate emissions in compliance with SCAPCD SMMs. The SMMs shall be included as conditions of approval to the grading permit issued by the Shasta County Environmental Health Department and, as appropriate shall appear on the final construction plans submitted for the permit's approval. A copy of the grading permit shall be submitted to the CPUC's Mitigation Monitor prior to the commencement of ground disturbing activities.

- **All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air quality standard. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.**
- **All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.**
- **All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.**
- **All land clearing, grading, earth moving, or excavation activities on the project site shall be suspended when winds are expected to exceed 20 miles per hour.**
- **All inactive portions of the development site shall be seeded and watered until a suitable grass cover is established.**
- **The contractor shall be responsible for applying non-toxic stabilizers (according to manufacturers specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours), in accordance with the Shasta County Grading Ordinance.**
- **All trucks hauling dirt, sand, soil or other loose material shall be covered or shall maintain at least two feet of freeboard in accordance with the requirements of CVC Section 23114. This provision is enforced by local law enforcement agencies.**
- **All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.**
- **During initial grading, earth moving, or site preparation, the project shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the project site from the adjacent paved road(s).**

- **Paved streets adjacent to the development site shall be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site.**
- **After construction, the transfer recipient shall re-establish ground cover on the construction site through seeding and watering in accordance with Shasta County Grading Ordinance.**

Significance After Mitigation: Less than significant.

- c) The project would be located within a multi-county area that is designated “non-attainment” for state ozone and PM-10 standards. The project would result in emissions of ozone precursors (ROG and NO_x) and PM-10 [and its precursors (i.e., ROG, NO_x, and sulfur oxides)] during the temporary construction phase which would be mitigated through the adoption of the standard mitigation measures required by the air district. The project would not generate emissions over the long-term during its operational phase. Therefore, over the long-term, the project would not result in cumulatively considerable net increases of non-attainment pollutants, or their precursors. And during the short-term, the net increase in non-attainment pollutants associated with construction would be reduced to a less-than-significant (and less than cumulatively considerable) level through implementation of standard mitigation measures required by the air district.
- d) There are no sensitive receptors in the immediate vicinity of the project area that would be affected by project emissions. The City of Burney is located approximately 20 miles southwest of the McArthur-Burney Falls Memorial State Park. The town of McArthur is located 6.5 miles immediately southwest of the Ahjumawi Lava Beds State Park and McArthur Swamp. Due to the distance separating the sensitive receptors from the project area where temporary emissions would occur, and due to the fact that transfer recipient would adopt the required SMMs to mitigate construction impacts, the potential for exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Over the long-term, there would be no emission sources associated with the project. Therefore, over the long-term, the project would not result in exposure of sensitive receptors to substantial pollutant concentrations.
- e) The project would not include the types of emissions sources or activities that are normally associated with odor impacts.

REFERENCES

Shasta County Planning Division. 2000. Shasta County General Plan, Section 6.5: Air Quality.

Shasta County Air Quality Management District. 2001. Rules and Regulations.

Shasta County Air Quality Management District. 1998. Air Quality Attainment Plan.

California Air Resources Board. 2000. 2000 State and National Area Designation Maps of California.

Michael Kusson, 2001. Shasta County Air Quality Management District. Verbal Correspondence: May 2001.

Issues (and Supporting Information Sources):

IV. BIOLOGICAL RESOURCES -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands 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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SETTING

MCARTHUR-BURNEY FALLS MEMORIAL STATE PARK, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The McArthur-Burney Falls Memorial State Park is located on the shore of Lake Britton, the storage reservoir of a PG&E Hydropower (Pit 3) Powerhouse. This 15,137-acre park, established in 1926, includes a 128-unit campground, a day use area and store near the falls on Burney Creek, a tributary to Lake Britton.

The Burney Falls PG&E Property, proposed for transfer for inclusion in the park, is approximately 182 acres and extends about two miles from east to west along the south shore of Lake Britton and up to about one-quarter mile south from the shoreline. The Park and State Highway 89 at the easterly extension bound the Property on the south. This shoreline Property is

used primarily for water based recreation, and includes a parking area, floating boat docks, camping areas, and a small beach.

Natural habitat in the area includes mostly steep slopes with fairly dense stands of old growth mixed conifers, and annual and perennial grasses on the more level grounds, especially along the shores of Lake Britton. Most of the 182-acre Property is developed for recreation and offers little natural wildlife habitat. Surrounding land and waters, however, offer considerable natural biological resources.

Six occupied bald eagle nests are located along the shores of Lake Britton – one is within the Burney Falls Property. This resident eagle population has been studied and monitored since 1983. Numerous reports and publications have resulted from these studies (citations are available in the PG&E PEA: 4-28-29). Other special status birds, including spotted owl, osprey, and great blue heron, are known to nest and forage in the area.

Lake Britton, a 1,264-acre hydropower storage reservoir in the Pit River drainage, provides habitat for a mixture of introduced and native fish species. PG&E (PEA, 2000) notes twelve native fish species as present in Lake Britton. Of these, four are considered of special status: bigeye marbled sculpin, rough sculpin, pit roach, and hardhead (PG&E, PEA 2000); of these, the first three are endemic only to the Middle Pit Drainage. Native steelhead and Chinook salmon once were found in the Pit drainage, but have been largely extirpated from the area by downstream impoundments (e.g., Shasta Lake). Game fishes in Lake Britton are mostly introduced species and include rainbow and brown trout, largemouth and smallmouth bass, and channel catfish. The fantail crayfish is native to these waters, but it is suspected that the signal crayfish has displaced them. Shasta crayfish, a state and federal endangered species, is documented from multiple locations upstream of Lake Britton (see setting for McArthur Swamp land transfer below for more on Shasta crayfish).

Bowman Ditch and the Ahjumawi Property are within Ahjumawi State Park, except at the southern end of Bowman Ditch, where it abuts private property as it drains into the Little Tule River. Bowman Ditch is a four-acre strip of land containing a “ditch,” which was constructed sometime in the early 1940s to collect and transfer water from several streams in the area into the Tule River. The purpose of Bowman Ditch is to enhance water flow for downstream hydropower production.

Ahjumawi State Park is on the north shores of Big Lake, Tule, and Little Tule rivers. Ahjumawi State Park, established in the 1970s, is approximately 5,890 acres of rugged volcanic lava flows, grasslands, and open water areas. The Park is managed for a primitive recreational experience; vehicle travel, hunting, and livestock grazing are prohibited within Ahjumawi State Park.

Levees were constructed along the Tule River to enhance water flow and reduce flooding in Ahjumawi State Park. Similar levees are on the other side of the Tule River to protect other PG&E lands that are part of the land transfer Project (i.e., McArthur Swamp, as described below). A levee break in 1997 flooded much of the Ahjumawi Park, including portions of the 544 acres

proposed for transfer as part of the land transfer Project. The levees are not currently being repaired or maintained because of the presence of Shasta crayfish, and the resulting flooding has provided an opportunity to return of the property to its natural, wetland habitat condition.

The lands and waters of Bowman Ditch and the Ahjumawi Property provide natural habitat for a variety of aquatic, wetland, and upland species. Uplands are predominantly annual grasslands, which provide habitat for a variety of small mammals such as voles, mice, rats, and rabbits. These animals provide valuable prey for an abundance of raptors found in the area. Bald eagle, osprey, prairie falcon, red-tailed hawk, and rough-legged hawks are known to forage in the area.

The waters of the Tule River and Bowman Ditch provide habitat for several fish and aquatic invertebrates of special importance. Special status aquatic species found in waters adjacent to the Properties include three fishes, two mollusks, and one crustacean. Particular interest in the crustacean -- the Shasta crayfish, which is listed as an endangered species with both sand federal fish and wildlife agencies -- has created controversy over levee repairs in the vicinity including those protecting the Ahjumawi Property (See Shasta crayfish discussion below from McArthur Swamp discussion).

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

The McArthur Swamp Property is a 7,400-acre parcel of land and water in mountainous northern California lying across the Tule River from the Ahjumawi Property described above. Like much of the Ahjumawi Property, the site was originally a large wet meadow-fringed marsh -- fed by a network of springs that form the headwaters of the Fall River, a tributary to the Pit River, which is a major tributary to Lake Shasta. These original wetlands were diked from water flow and became grasslands.

Currently, the McArthur Swamp Property consists of the following habitats: about 6,000 acres of terrestrial habitat consisting primarily of grasslands and wet meadow (protected from seasonal and permanent inundation by the levee) and about 1,400 acres of open water, including primarily Big Lake, Tule River, and some canals. Grasslands are maintained through managed grazing on most of the property. A portion of the area -- about 670 acres -- is part of the FERC license lands and is not grazed. This area, known as WHIP (Wildlife Habitat Improvement Project) is not grazed and has developed into a wet meadow habitat.

The McArthur Swamp Property provides a mix of relatively undisturbed aquatic, wetland, and upland grassland habitat for a variety plants and animals. Waterfowl are particularly abundant in this area due to the availability of wide, sluggish waters with high productivity adjacent to open meadow and grassland habitat.

An abandoned muskrat farm that once existed on the McArthur Swamp property has enabled establishment of a feral muskrat population at the site. This population apparently found suitable habitat in the network of dikes and waterways that interconnect uplands and aquatic resources of

the area. Though considered a nuisance species, state law prohibits trapping and removal of this population from the area.

Birds use the area extensively for both year-round and seasonal habitat. The aquatic resources, including lakes, rivers, and canals found throughout the area, provide an extensive network of waterfowl habitat. The site is renowned as a migratory and foraging site for at least 20 waterfowl species. These waters and abundant riparian habitat also provide valuable foraging for bald eagle and osprey, which feed primarily on fish and other aquatic fauna.

Managed with a patchwork of fences, the approximately 6,000 acres of grasslands are grazed with cattle on a rotation system designed to maintain grassland characteristics favorable to wildlife of the area, with special interest in waterfowl nesting and rearing habitat enhancement. The MSMP states that this effort has not been entirely successful due to limited water availability. These grazed grasslands provide foraging opportunities for a number of raptor species including prairie falcon, golden eagle, red-tailed hawk, rough-legged hawk, northern harrier, ferruginous hawk, and Swainson's hawk. These grassland raptors forage primarily on small mammals, although other small terrestrial prey such as reptiles may be taken; prairie falcons also capture smaller birds in flight over open areas.

ESA staff observations of the McArthur Swamp Project site in January 2001, indicated an uncommon abundance of raptors on the project lands. Rough-legged hawks seemed particularly plentiful. Other raptors observed in lesser numbers included red-tailed hawk, prairie falcon, harrier, and bald eagle. From these observations, it was apparent that the grasslands at the McArthur Swamp property is a well-used winter raptor foraging area, and that the project may provide particularly good habitat for rough-legged hawks. The importance of the area for other raptors at other times of year is not known, but PG&E (PEA, 2000) states that 19 species of raptors are known to use the site.

The sluggish, spring-fed lakes and rivers of this low-lying area support productive aquatic fauna represented by both native and introduced species as identified in the PG&E Environmental Assessment, Tables 4.7-2 and 4.7-4. The Fall River population of rainbow trout is renown for large specimens and attracts fisher persons from other areas. Other native fishes found in the waters adjacent to the McArthur Swamp area include three species of sculpin (Cottidae), Pit-Klamath brook lamprey, Sacramento sucker, and several native minnows (Cyprinidae). The area waters also contain numerous introduced species that have affected the aquatic ecology of the area, including contributing to declines of some native species. Non-native fishes in the area include smallmouth and largemouth bass, brown trout, carp, mosquitofish, catfishes, bluegill and crappie.

Many of the fish and other aquatic organisms found in the area are endemic, rare, and/or special interest. Special status aquatic species include three fishes, two mollusks, and one crustacean, the Shasta crayfish as noted in PG&E Environmental Assessment, Table 4.7-4. Considerable attention to the Shasta crayfish has been associated with the PG&E Pit River hydro project.

A “Recovery Plan for the Shasta Crayfish,” prepared by the USFWS, gives details of the species’ ecology, and historical and current status (USFWS, 1998a). The USFWS is currently preparing a Biological Opinion for the FERC license, which includes an amendment that will allow the McArthur Swamp land transfer. There is reportedly a close association of this species’ decline to levee construction and maintenance, as well as other water development and activities in the area (USFWS, 1998a). USFWS is concerned that the land transfer and potential subsequent actions might affect Shasta crayfish, and has not endorsed the PG&E MSMP and proposed land transfer. Because of potential effects to, and regulatory concern for, Shasta crayfish in relation to the proposed McArthur land transfer, the following discussion provides more information of Shasta crayfish in relation to McArthur Swamp and associate levees and proposed ownership transfer.

Shasta Crayfish

The Shasta crayfish historically occurred only in the waters of the Fall River and Pit River drainages. They evolved as a distinct species specializing in inhabiting the cool, spring-fed waters percolating from the lava substrate that predominate in many areas of the watersheds where they are found. They are generally found only where there is lava substrate and year-round cool spring-fed waters; these factors limit their distribution to several distinct, and geographically separated, sub-populations, even within their overall historical range.

Shasta crayfish are now limited to even smaller, and more geographically separated, sub-populations. Habitat loss and interactions with the signal crayfish (Light et al. 1995) have displaced several historical populations. Many historical activities associated with levee maintenance and water use in the area are reported to have contributed to the endangered status of this crayfish. Other factors reported as contributing to the species’ decline include competition and predation by introduced species (most notably, the signal crayfish), habitat losses from work in the river, water flow alterations, and population fragmentation from construction of several dams within their historical range (USFWS, 1998a). The continued invasion of signal crayfish is likely the greatest continuing threat to the Shasta crayfish.

Some of these sub-populations are currently in greater risk of extirpation than others. A major factor is the status of signal crayfish invasion. One of the sub-populations is located in the vicinity of McArthur Swamp. This sub-population is cited as the “Upper Tule River Population” in the Recovery Plan (USFWS, 1998a). Shasta crayfish from this population are found in small groups along the McArthur Swamp levee, as well as across the river adjacent to Horr Pond and in Big Lake. Big Lake, which is bordered on the south by the McArthur Swamp levee, contains one of the few areas with Shasta crayfish where signal crayfish have not yet been found. Protection of this sub-population from signal crayfish invasion would be valuable, if not necessary, for continued existence of Shasta crayfish.

The current Clean Water Act, Section 404 permit that specifies conditions for maintenance of the McArthur Swamp Levees includes a Biological Opinion from the USFWS on potential effects of levee maintenance on the Shasta Crayfish (COE, 1998). This Biological Opinion concluded that levee maintenance would not jeopardize the existence of the Shasta crayfish if various mitigation

measures, as defined within the permit conditions, are incorporated into the maintenance activities.

The USFWS is currently preparing a Biological Opinion for the Federal Energy Regulatory Commission (FERC) relicensing of PG&E hydropower facilities in the area. The FERC relicensing addresses numerous issues related to continued operation of the Pit hydropower units, including downstream flows and habitat enhancement that potentially affect Shasta crayfish. This FERC relicensing, as proposed, would include implementation of the McArthur Swamp, and other, land transfer projects. There are, however, no activities other than levee maintenance and improvement that would be associated with the MSMP and thus with the land transfer aspect of the FERC license, that would potentially affect Shasta crayfish. The USFWS Biological Opinion for Shasta crayfish regarding the FERC relicensing is not expected to identify any new information or requirements regarding levee maintenance and repair that has not already been given in the Biological Opinion for the COE Clean Water Act permit discussed above (personal communication, Gary Taylor USFWS, personal communication, 2001).

REGULATORY SETTING

State and federal laws and regulations related to biological resources for the above-described land transfer properties include the following:

- The *Federal Endangered Species Act (ESA)* protects plant or animal species designated by the USFWS or National Marine Fisheries Service (NMFS) as either endangered, threatened, or of special concern. The current list of designated species protected by the ESA includes several species found in the area as noted above. Proponents of projects that may affect listed species are required to consult with the appropriate agency regarding potential adverse impacts and mitigation development. A Biological Opinion, in accordance with ESA Section 7, was prepared by USFWS for potential adverse impacts to the federally endangered Shasta crayfish; this was required through a Clean Water Act permit required by the Corps of Engineers (see Clean Water Act below) for levee maintenance adjacent to the McArthur Swamp and Ahjumawi Properties.
- The *Federal Power Act*, administered by FERC, required licensing of hydropower facilities; the licensing process requires associated compliance with a variety of federal laws including various other environmental laws and regulations noted below, including the Fish and Wildlife Coordination Act, which allows federal and state natural resource agencies to participate in the licensing process. Much of the lands addressed in this land transfer Project are included in FERC licenses for PG&E projects in the area. Transfer of the FERC-administered properties from PG&E to CWA, as proposed in the McArthur Swamp land transfer, would require FERC approval and amendments to the existing license conditions. The FERC relicensing process is currently awaiting completion of a Biological Opinion by USFWS on the effects of the proposed FERC relicensing on the Shasta crayfish.
- The *California Endangered Species Act (CESA)* protects plant or animal species designated by the Fish and Game Commission as endangered, threatened, or of special concern. The current list of designated species protected by CESA includes several species found in the area as noted above. Proponents of projects that may affect listed species are required to consult with the CDFG regarding potential adverse impacts and mitigation development. Many of the species found in and around the Project Lands are covered by CESA as noted above.

- The *California Native Plant Protection Act* directs the CDFG to preserve, protect, and enhance endangered plants in the state. CDFG designates native plants as endangered or rare, and requires permits for collecting, transporting, or selling such plants. This law parallels CESA protection for endangered and threatened plant protection, and adds protection for plants that are also “rare.”
- The *Clean Water Act, Section 404, (CWA)* is administered by the USACOE and is intended primarily to protect water quality and water resources. Regulations developed pursuant to this act provide extensive protection to wetlands for both hydrologic and ecological functions. Maintenance of the levees along the Properties noted above requires USACOE permits through this regulation. The current COE permit for levee maintenance was issued in 1998. This permit includes measures to mitigate potential effects of levee maintenance on the federally endangered Shasta crayfish.
- The *Migratory Bird Treaty Act* regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 CFR 10.13. This Act applies to birds that migrate through more than one country and is enforced by the USFWS. The Act was amended in 1972 to specify protection for migratory birds of prey (raptors). Most of the raptors and waterfowl found at the project site would be protected by this Act. Rough-legged hawks, for example, nest in the Arctic, and migrate across Canada into winter foraging areas in the United States.

BIOLOGICAL RESOURCES IMPACTS DISCUSSION

MCARTHUR-BURNEY FALLS MEMORIAL STATE PARK, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The land transfer at McArthur-Burney Falls Memorial State Park does not include any actions that would affect Biological Resources. Transfer of the property would not change the existing land use or habitat related to fish and fauna found at or adjacent to the property.

The land transfer associated with Bowman Ditch would affect biological resources. The transfer would result in termination of the ditch maintenance. This would allow succession along the ditch to eventually establish greater wetland vegetation along the ditch border. This would not result in any significant impacts. There are no known special status species inhabiting the ditch that would be displaced by this transition. The area affected is very small – probably less than an acre of habitat would be altered.

The land transfer associated with the Ahjumawi Property does not include any actions that would change existing conditions or affect Biological Resources. Transfer of the property would not change the existing land use or habitat related to fish and fauna found on or adjacent to the property. The Transfer prevents the repair of existing failed levee system resulting in the habitat. The Property also includes grassland habitat on lands above the line of inundation. The lands and waters of the Ahjumawi Property provide natural habitat for a variety of aquatic, wetland, and upland species. Uplands are predominantly annual grasslands, which provide habitat for a variety of small mammals such as voles, mice, rats, and rabbits. These animals provide valuable prey for an abundance of raptors found in the area.

The current Ahjumawi Property is isolated from human use and not grazed. The un-grazed nature of this property allows grass height that probably does not provide valuable raptor forage for

grassland species common on the McArthur Property, although some raptor species such as the northern harrier are adapted for foraging in tall grasses and probably use this area. The harrier can also forage effectively in the existing wetland meadow habitat. The wetland habitat also provides more productive habitat for several birds, including many waterfowl that are found in the area. Continuing the policy of not repairing levees is expected to benefit aquatic species including the Shasta crayfish.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

Over the five year period following the transfer of McArthur Swamp to CWA, the MSMP calls for CWA, and its successors, to take specified actions to stabilize levees, improve wildlife habitat, and improve grazing and vegetation management. Actions specified in the MSMP that might affect Biological Resources include the following:

Improvement of McArthur Swamp Levee

Approximately 4.8 of 5.8 miles of levees along the south shore of Big Lake and the south and east banks of the Tule River will be improved from the landside of the levees to assist an effective long-term levee maintenance program. The levee and road will be widened and strengthened to reduce the risk of muskrats' burrows undermining the levee and causing a breach.

Development of Fresh Emergent Wetlands

The MSMP calls for development of over 700 acres of fresh emergent wetlands, primarily in two places, Hollenbeak Field and Ash Field Pond. Approximately 670 acres of this work would occur in Hollenbeak Field WHIP lands which are currently un-grazed and have developed into a wet meadow habitat. This area is primarily vegetated by bulrush. The 30-acre portion of Ash Field Pond is currently grazed grasslands. Development and management as wetlands will involve re-contouring some of the land, adding water control structures, and adding fences to prevent authorized grazing from interfering with propagation of waterfowl or the production of waterfowl forage plants.

Development of Reverse Cycle Wetlands

CWA will construct two ponds in fenced areas. Each pond would be approximately 10 acres in size, with additional acreage set aside for brood habitat. Fencing will be used to limit livestock access to the area of the ponds. The MSMP also calls for habitat preservation and enhancement in an area surrounding an existing pond referred to as the "Rat Farm Pond." Improvement of this area will be achieved through fencing, vegetation management, and limiting grazing.

Development of Nesting Habitat

Development of nesting habitat will occur primarily on two areas, totaling about 254 acres, of McArthur Swamp. Fencing and reduction or elimination of grazing will be used to protect and foster nesting habitat.

POTENTIAL EFFECTS FROM THESE ACTIONS

Maintenance and Improvement of McArthur Swamp Levee

Levee maintenance activities would be required to prevent flooding on the McArthur Swamp grasslands. Maintenance and improvement of McArthur Swamp Levee could create temporary impacts on aquatic and terrestrial organisms located immediately adjacent to the levees. Levee repair and maintenance can affect aquatic species through water quality degradation, from the release of organic and other suspended solids into the water column, and from substrate smothering or disturbance, which can displace suitable habitat or directly harm individual specimens. Bottom dwelling, sessile or slow moving organisms, such as mussels, clams, and crayfish are particularly susceptible to these impacts. Levee maintenance has historically included dredging for levee materials. This activity could substantially adversely affect special status aquatic organisms and their habitat in the vicinity of the McArthur Swamp property, including the endangered Shasta crayfish.

A 1988 Corps of Engineers permit, authorizing placement of fill material in the Tule River for levee maintenance and repair includes a variety of special conditions which include conformance with a USFWS Biological Opinion on levee maintenance for the Corps permit (COE, 1998). The Biological Opinion concluded that levee maintenance, with conditions, is not likely to jeopardize the continued existence of the Shasta crayfish. This conclusion includes several terms and conditions to minimize and avoid effects to Shasta crayfish (USFWS, 1998b). These conditions include the following:

- elimination of further dredging near existing Shasta crayfish populations;
- use preferred Shasta crayfish substrate (i.e., lava cobble) for in-water levee fill materials;
- use of an approved biologist to assist and monitor levee repairs to minimize disturbances to Shasta crayfish; and
- planting of native riparian vegetation on the levees.

These conditions are required by the Corps permit. The MSMP, as proposed, would include conformance with the Corps permit for required levee maintenance conducted following a land transfer. These conditions would mitigate potential negative effects of levee maintenance on the Shasta crayfish as follows:

- Dredging for levee repair materials are actions, which would likely affect water quality and cause habitat degradation, prohibited near existing Shasta crayfish populations. This prohibition should avoid water quality impairment and habitat degradation that would likely adversely affect Shasta crayfish populations or their habitat.
- Materials placed in the water for levee repair or improvement would be less favorable for Shasta crayfish habitat (i.e., lava cobble), avoiding the creation of substrate habitat unsuitable

to Shasta crayfish than imported materials, and thus minimize continued degradation of Shasta crayfish habitat near their existing populations.

- Any in-water work would be monitored and follow the guidance of an approved biologist. This measure would minimize the potential for activities to harm individual Shasta crayfish that might be located within an impact zone.
- Native vegetation would be planted on the levees. This measure would stabilize levee soils and reduce erosion and subsequent water quality and habitat effects that might adversely affect Shasta crayfish or their habitat.

Water Delivery and Management

The installation of irrigation water well and delivery lines, construction of water diversions, and control structures will create short-term, ground-disturbance impacts to any species inhabiting the areas directly disturbed. The affected areas are not large, and long-term habitat modification would not be substantial. Construction activities would be of short-term and should not substantially affect any nearby wildlife populations.

Create Wetlands to Enhance Waterfowl Production and Development of Waterfowl Nesting Habitat

The contouring, fencing, grazing management plan, and water management outlined in the MSMP designed to improve waterfowl reproduction will alter terrestrial habitats present in these areas. Three aspects of the waterfowl habitat enhancement would result in direct displacement of habitat or organisms. 1) Construction of two ten-acre ponds for waterfowl use would displace terrestrial organisms currently occupying these areas. 2) Creating short-grass to provide ideal goose grazing habitat may change the species composition of terrestrial organisms currently occupying those areas. 3) Creation of approximately 700 acres of seasonally flooded wetlands and other fringe wetland habitat along the levees and adjacent to the two ponds noted above would alter availability of those areas to species currently occupying those areas.

None of the direct habitat effects noted above, although almost certain to occur, are substantial. Small mammals potentially affected would include voles, shrews, mice, rats, and rabbits. Although alterations in habitat and species structure may occur from these actions, none of the known species or other potential inhabitants of the affected areas are likely of special status.

The following potential effects to Biological Resources are those that occur not from direct displacement, but from potential offsite effects on species resulting from habitat alterations:

Water Quality Effects

Increased waterfowl productivity in the areas that are currently grasslands will increase the potential for water quality degradation from accumulations of waterfowl feces. The area is already a very productive waterfowl area. The waters of the area are spring-fed. Rivers are sluggish, with little seasonal runoff scouring, and many ponds and lakes occur in the watershed.

The upland grasslands where waterfowl habitat is proposed may not have adequate flushing hydrology. Water quality degradation often occurs in areas with poor flushing ability and abundant waterfowl.

The MSMP does not specify measures to avoid poor water quality developing in areas of intense waterfowl production. It is possible that the two ponds to be created for waterfowl on the Property from groundwater sources would not receive adequate natural flushing to prevent a long-term accumulation of fecal material that eventually causes water quality problems either directly at the pond site, or following a runoff event that deposits contaminated water or substrate into other areas.

Although there is potential for a water quality effect, it is not likely that the effect would be substantial. Although the nearby waters have several sensitive and special status species potentially affected by water quality degradation, it is unlikely that the accumulation would be sufficient to cause offsite effects from a runoff event. There may be a very localized accumulation of poor water quality in the seasonal wetlands and ponds, but it is unlikely that there are any special status species in those areas directly affected by that result (see direct effects above). Potential water quality degradation and subsequent affects on biological resources would not be substantial.

Species Population/Habitat Changes

Most of the organisms directly affected from habitat alterations noted above are small mammals that feed either on grassland seeds and herbs, or invertebrates that live in the soil, grasses, and wet meadow areas. These organisms would be directly displaced by wetland and pond creation. In turn, these small mammals are common prey for a variety of species found in the area, including an abundance of raptors such as red-tailed hawk, prairie falcon, and rough-legged hawk. Losses of the small mammal populations in the affected areas could indirectly affect other wildlife, such as raptors, that currently prey on those species.

About 30 acres of existing grazed grassland will be converted to un-grazed emergent wetlands or wet meadow habitats. This may reduce abundance of small mammals that find habitat in those areas, while enhancing the area for waterfowl production. This reduction in prey accessibility may adversely affect raptor population foraging success in minor portions of the McArthur Swamp property. Conversion of the 670-acre Hollenbeak Field, which is currently a wet meadow, into a managed seasonal emergent wetland would increase this area's value to waterfowl and have little effect on raptors species since the area is currently a dense stand of bulrush which is poor raptor foraging habitat.

GLENBURN DREDGE SITE TRANSFER

CWA will take ownership of Glenburn Dredge site subject to conditions stated in the MSMP, which in part requires CWA to re-establish public access to the Fall River at the Glenburn Dredge Site. Re-establishment of access would include repair of the car-top boat launch, weeding at the parking area and placement of a portable toilet and trash container.

Transfer of this property and dredge has no potential for environmental impact because the land transaction is administrative in nature and the mooring for the dredge will remain in place. The dredge would not change in location or status (i.e., inactive). The proposed actions to improve public access have the potential to temporarily disturb aquatic and terrestrial resources present at the site. Activities such as weed removal at the car-top boat launch, general weed removal in the parking area, and the replacement of a portable toilet and trash may affect organisms that reside in the affected areas. However, impacts should be minimal since the site was used by the public until recently and has been used as a permanent berthing point for the dredge since 1963. Improved public access may increase angling opportunities in the immediate vicinity. It is expected that the number of anglers at the site will return to levels present prior to the closure of access in 1996.

None of the effects noted above would have significant effects on biological resources. The minor changes in vegetation at the boat launch site would not affect any special status species, and those effects would not cause substantial losses of any vegetation or wildlife values.

CHECKLIST IMPACT CONCLUSIONS

- a) The land transfer Project would not have a substantial adverse effect, through habitat modification, on species identified as a candidate, sensitive, or special status, in local or regional plans, policies, or regulations and laws administered by the CDFG or USFWS. Actions associated with the MSMP for the McArthur land transfer will alter existing habitat within the McArthur Swamp uplands. Alterations in existing habitat have been designed to benefit primarily waterfowl that are found in the area and include primarily actions to diversify wetland habitat within the approximately 6,000 acres of grassland and wet meadow habitat. These alterations would not substantially alter habitat for species of concern found in the area; therefore, the effect is a **less than significant impact**.
- b) Levee repair and maintenance activities associated with the McArthur land transfer Project could have short-term aquatic disturbance and the potential for long-term habitat alterations that might adversely affect riparian habitat and other sensitive natural community values identified by the USFWS. Several aquatic and riparian species in the area, including the Shasta crayfish which is identified by the USFWS as an endangered species (USFWS, 1998), would be susceptible to adverse effects from levee maintenance that affects water quality or aquatic substrate quality. The Corps of Engineers permit for levee work, however, requires measures delineated by the USFWS to minimize and avoid impacts to Shasta crayfish from levee repair and maintenance activities. **With these measures, potential impacts to Shasta crayfish would be less than significant.**
- c) The Land Transfer Project would have a less than significant effect on federally protected wetlands through direct removal and filling activities associated with levee maintenance and repair. Levee repair and maintenance activities associated with the McArthur Land Transfer Project would remove and fill some riparian areas associated with the current levee configuration. Substantial attention, however, has been devoted to development of

procedures to minimize such activities where they might cause adverse effects. Proposed levee protection measures, for example, with imported rock materials, would only be done on the inside levee embankment – the River side will be left in its existing vegetated conditions to avoid impacts to aquatic organisms. The main reason for this attention is the presence of, among other special status aquatic species, the Shasta crayfish. **Potential effects on wetlands would be less than significant.**

- d) The Land Transfer Project would have **no impact** on movement of native resident and migratory species or the use of native wildlife nursery sites. Although the Project area provides substantial habitat for migratory waterfowl and raptors, there are no aspects associated with the land transfers, including various actions associated with the McArthur Swamp MSMP, that would affect species' migrations or movements to and from, or within, the Project site.
- e) The Land Transfer Project **would not conflict** with any local policies or ordinances protecting biological resources. There are no known local ordinances or policies protecting biological resources.
- f) The Land Transfer Project **would not conflict** with the provisions of any Habitat Conservation plans.

REFERENCES

COE, 1998. Department of the Army Permit, number 199799298, Dated April 9, 1998.

Gary Taylor, 2001. Personal communication in meeting at USFWS office on June 8, 2001. Gary Taylor is the designated USFWS staff assigned to produce the Biological Opinion for Shasta Crayfish re FERC relicensing of PG&E Pit hydropower facilities.

Light, T., D.C. Erman, C. Myrick, and J. Clarke. 1995. Decline of the Shasta crayfish (*Pacifastacus fortis*) of northeastern California. *Conserv. Biol.* 9:1567-1577.

USFWS, 1998a. Recovery Plan for the Shasta crayfish (*Pacifastacus fortis*). Published by Region 1, USFWS, Portland Oregon. 153 pp.

USFWS, 1998b. Formal Endangered Species Consultation on the Long-Term Tule River Levee Maintenance Plan, Shasta County, CA. Dated February 3, 1998. To: U.S. Army Engineer District, Sacramento, Regulatory Branch.

Issues (and Supporting Information Sources)

V. CULTURAL RESOURCES -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SETTING

This section characterizes the archaeological, ethnographic, and historical setting for the proposed transfer properties, along with the regulatory framework applicable to cultural resources for the properties involved in the proposed land transfers for Burney Falls, Ahjumawi Lava Beds State Park, and McArthur Swamp. Previous archaeological surveys and recorded sites within the transfer properties are discussed. The section concludes with a discussion of the potential impacts to cultural resources that could occur as a result of project-related actions and suggested mitigation measures to alleviate such impacts.

ETHNOGRAPHIC AND ARCHAEOLOGICAL BACKGROUND

All of the parcels involved in the proposed land transfers lie within the ethnographic territory of the Ahjumawi, who are more commonly referred to as the Pit River Indians. Several references discuss the culture and lifeways of these people (Dixon 1908, Kniffen 1928, Kroeber 1925, Merriam 1926, and Olmsted and Stewart 1978), and the following is summarized from these sources and from recent archaeological reports. Achumawi translates to "river (literally "it flows") people." The Achumawi occupied lands extending from Mount Shasta on the northwest to Lassen Peak on the southwest and from Goose Lake on the northeast to Eagle Lake on the southeast.

There are nine Achumawi tribelets, each of which occupied a portion of the Pit River and its tributaries, as well as lands extending some distance away from the river. The nine tribelets functioned as self-governing units, but were closely related through intermarriage. They shared a common language from the Palaihnihan branch of the Hokan family of languages, and although there were some dialectal differences, they were not different enough to prohibit communication. The proposed land transfers for this project includes lands in the traditional territory of three of these tribelets: Ahjumawi, Ilmawi, and Itsatawi.

Villages were centered around concentrations of food resources, such as fish streams and swamps. Structures used for habitation consisted of semi-subterranean winter structures with sloping bark roofs, and summer huts of brush or tule-mat. The winter village communities also contained a larger semi-subterranean structure used for gatherings.

The natural environment was rich with food resources, including fish, waterfowl, game, root crops, acorns, and other plants. Acorn processing was a staple of the indigenous subsistence patterns, and this resource was abundant along the Pit River. Streams, lakes, meadows, and swamps were especially important to the Achumawi because they provided such a large proportion of their food and shelter. Prior to the construction of powerhouses on the Pit River, salmon and other anadromous fish traveled up the Pit River and its tributaries. In Achumawi territory, there were about fifty miles of salmon streams and 150 miles of streams from which bass, catfish, lamprey, pike, suckers, trout, and a number of species of minnows were taken. Crawfish and mussels were also eaten. Vegetal foods were an important part of the diet, and a wide variety of roots, seeds, berries, nuts, and herbs were gathered in season. Hunting appears to have been secondary to fishing and gathering, but numerous species were taken.

Archaeological investigations in the project vicinity have provided a chronology for the occupation by prehistoric people in the area. One of the earliest archaeological investigations in the project vicinity was conducted by Baumhoff and Olmsted (1963) at the Lorenzen site in Little Hot Springs Valley, Modoc County; and more recent work has been conducted by Manuel (1983), by Kelly et al. (1987), and by Hull et al. (1999). The project areas appear to have first been inhabited by ancestors of the Pit River Tribe approximately 5,000 years ago, and there has been almost continuous occupation since that time. This chronology has been divided into seven phases, with the most recent being the historic phase (A.D. 1730-1850) which ended with Euroamerican contact. Between 3000 B.C. and 1350 B.C., the region appears to have been used intermittently, with hunting as the main subsistence activity; and hunting continued to be the major subsistence focus between 1350 B.C. and A.D. 750. The Elko projectile point is the most common type noted in the archaeological record during this period; and obsidian sourcing studies document obsidian from nine major sources within a 50-mile radius of Lake Britton. These sites around the lake continue to yield valuable data on prehistoric economies and subsistence patterns along the Pit River.

A change in the subsistence base and technology appears to have occurred around A.D. 750 when the focus changed to riverine resources. Rosegate and Gunther style projectile points represent the period between A.D. 750 and A.D. 1450. Between A.D. 1450 and A.D. 1830, the population appears to have stabilized with subsistence still riverine-based; and Gunther and Desert Side-notched projectile point styles then dominate the cultural assemblages.

HISTORICAL BACKGROUND

The first Euroamericans in the project area came in 1832-33 with a Hudson's Bay Company expedition led by John Work. The local natives shot and killed many of Work's horses; and, thus, the Pit River peoples gained a reputation for being aggressive (Kelly et al. 1987).

Permanent settlement by Euroamericans began in the area some 20 years later; and through the 1860s, confrontation was common among the Pit River bands and Euroamericans, as the local natives resisted Euroamerican settlement of the area. This violence exploded in 1856 with the destruction of the small settlement and ferry at Lockhart Ferry, near the present town of Fall River Mills, east of Burney Valley. A retaliation effort in 1857 resulted in the killing of many Achumawi (Neasham 1957); and in 1859, a similar conflict took place between Euroamericans and the Atsugewi at Hat Creek Station (Garth 1978). Following the incident at Lockhart Ferry, George Crook, at the command of the U.S. 4th Infantry, Company D, built a fort in 1857 near Fall River Mills to establish a military presence in the area. Fort Crook was occupied until 1869 and played a major role in attracting new settlement to the region (Neasham 1957). A wagon road was built from Fort Crook to Redding (now submerged under Lake Britton); and communities developed in the area.

Glenburn is reportedly the first town in Fall River Valley. Originally called Burgettville, it was established in the 1860s by William Burgett, who, upon learning that it was illegal to sell liquor within a mile of a military post, paced off a distance of approximately two miles from Fort Crook and built his store and blacksmith shop (Smith 1991).

By the 1860s and 1870s, substantial Euroamerican settlement had occurred, and the violence between the groups had diminished, partly because indigenous populations had perished or had been moved to a reservation. Foreign-born disease was responsible, in part, for the devastation of local Native American populations; and in 1859, the State of California had moved the remaining Native Americans in the area to the Round Valley Reservation in Mendocino County. Later, however, the Achumawi and Atsugewi began leaving the reservation to return to their homeland (Garth 1978).

Burney Falls

Burney, Burney Valley, and Burney Falls were named after Samuel Burney who died at the hands of local Indians in 1858. In 1877, the Ray family moved into the woodlands near Burney Falls. The family developed this land near the falls, and they farmed and grazed cattle. A water-powered sawmill, an irrigation ditch, and numerous outbuildings were constructed. In 1906, Issac Ray left the area, selling his 160-acre farm, which included the Falls, to Judge J. W. Logan of San Francisco, a land speculator.

In the second decade of the twentieth century, hydroelectric power became an economic factor along the Pit River. Above the mouth of Fall River, the Pit River was a minor stream with little force; but below that point, with the added volume of Hat Creek, the Pit River became a major watercourse as it flowed toward its confluence with the Sacramento River. Mt. Shasta Water and Power Company and Pacific Gas & Electric Company (PG&E) began to buy property along the Pit River to create lake storage behind proposed power-generating dams. In the Fall River Valley, PG&E acquired water rights from the McArthur brothers and other valley ranchers. Reacting before the fact, Frank McArthur, a rancher from Likely Valley in Modoc County, convinced his brother Scott, a Fall River rancher, to buy the Logan property that contained the

Falls, because the McArthurs feared that PG&E planned to dam and divert Burney Creek above the Falls. Scott purchased the 160 acres around the Falls and transferred it to Frank and Ethel McArthur. The McArthurs then gifted the property to the State of California for one dollar in May 1920. In 1922, the State of California transferred the property to the Division of Forestry to manage; and in 1925, under pressure from the McArthur family, the Division of Forestry assigned a custodian to manage the property as a public facility and gave it a name, McArthur Memorial Park.

Meanwhile, PG&E was building the dam below the confluence of Burney Creek and the Pit River that would create Lake Britton. The company declared a piece of property surplus just to the north of the original park, and this additional 160 acres was gift-deeded to the Division of Forestry, making McArthur Memorial Park a 320-acre park. The park then went to the State Park System shortly after its creation in 1926 (Department of Parks and Recreation 1997).

McArthur Swamp

The McArthur Swamp exemplifies mid-nineteenth and early twentieth century Euroamerican settlement patterns in the region. In 1860, settlers purchased nearby lands from the state of California and performed the first reclamation in the area by blasting out a section of rock to drain Big Lake. Much of the lake was drained, but the swamp area remained, and thousands of acres of tules flourished. This did not stop the ranchers, however, from leasing land in the swamp to graze cattle (Callison 1968). During years of heavy precipitation the swamp extended to near the present fairgrounds in McArthur.

John McArthur purchased land holdings in and around the swamp in 1868, and the family planned the town of McArthur where it presently stands. They also began constructing a drainage canal to divert drainage water into the Pit River; and as part of the same project, water diverted from the Tule River was conveyed to the town of McArthur to irrigate the McArthur family's fields (Callison 1968).

In 1903, construction also began on 12 miles of levees around Big Lake, the Tule River, and the Little Tule River to protect the swamp from persistent flooding. Wagons hauled sediment to the required sites, and steam-powered dredges trawled out the river to form levees. Most of the original levee system was constructed using a steam-powered dredge. Over a period of 10 years, levees ten feet high and several drainage laterals were built; and the original dredge was used until 1914. Upon completion, however, the peat in the swamp soils was not as rich as hoped, and the area was left fallow (Callison 1968).

In 1922, PG&E opened the Pit 1 Powerhouse to generate power using the Fall River, but the project was initially hampered by the large amount of water being diverted by the McArthurs. PG&E then bought the land from the McArthurs in 1924. During that same time, PG&E built a muskrat farm in the swamp leased land to Jerry Masek. Masek built the original Big Lake Access building and a fence around the area for raising muskrats.

In 1963, PG&E contracted for the construction of a dredge with a 97-foot boom, using a 1.5 cubic yard side-draft clamshell bucket powered by a diesel engine. This dredge, named “Frances,” is still intact and docked near the Glenburn Dredge site.

The levees evident on former PG&E property at Ahjumawi State Park are a result of early levee construction to control the water flowing from Big Lake. Bowman Ditch is also a man-made feature dating to the late 1930s or early 40s which was formed to direct water from several upland springs into the Little Tule River.

PALEONTOLOGICAL RESOURCES

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant as well if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. Even an area designated as having a low potential may yield significant fossils. Currently, no maps illustrating the potential for encountering significant paleontological resources is available for the transfer properties.

Paleontological information was obtained from available geologic maps, a review of previous environmental studies, and examination of records at California State University, Chico. Other resources considered in the determination of paleontologic potential are regional geologic reports, and site-specific field surveys. Geologic maps (available through the United States Geological Survey or California Division of Mines and Geology) show the surface expression of geologic formations along with other geologic features such as faults, folds, and landslides.

Geologic formations in which fossils are found range in thickness from a few feet to hundreds of thousands of feet. Even though a geologic formation may be known to contain fossils, the fossils are not usually distributed uniformly. If the fossils were part of a bay environment, for example, a scattered layer of shells may be preserved over large areas. If, on the other hand, a whale died in this bay, fossilized whalebones might only be found in one small area of less than a few hundred square feet. In addition, fossil-bearing formations are frequently discontinuous. Although sedimentary formations are initially deposited one atop the other, much like a layer cake, over time the layers are squeezed, tilted, folded, cut by faults and vertically and horizontally displaced, so that today, any one rock unit does not usually extend in a simple horizontal layer. In addition, because paleontological resources usually are deeply buried, their presence in an area is difficult to predict from surface inventories and existing geological maps. Even in cases where a fossil-bearing formation is found in a surface outcrop, the fossil-bearing unit may occur at the surface for only a short distance and from this evidence its depth or lateral extent would be difficult to predict. The following types of paleontological resources are known to exist in California:

1. True Fossils: Lithified or replaced remains of plants and animals preserved in a rock matrix (e.g., microfossils, shells, animal bones and skeletons, and whole tree trunks);

2. Trace Fossils: Molds, casts, tracks, trails and burrow impressions made in soft clays and muds which subsequently were turned to stone, preserving the images of past life (e.g., shells, footprints, leaf prints, and worm tubes);
3. Breas: Seeps of natural petroleum that trapped extinct animals and preserved and fossilized their remains

The project area is within a region of California that contains large formations of sedimentary and igneous rock, which are highly conducive to the formation of true fossils and trace fossils. The Burney Falls transfer property is located in a formation that contains large quantities of diatomite, especially along the shoreline. Diatomite is the fossilized remains of ancient fresh water plant and animals. The McArthur Swamp, Ahjumawi Property, and Bowman Ditch are located in areas that have historically been inundated, and therefore, are less favorable for the preservation of true and trace fossils. However, extreme eastern and southern sections of the McArthur Swamp land base are mapped as containing volcanic and and/or diatomite rocks, and therefore, have a higher probability of containing potential paleontological resources.

ARCHAEOLOGICAL SURVEYS AND RECORDED SITES

For information on previously identified sites or other historic properties located within or adjacent to the study areas, records searches were conducted at the Northeast Center of the California Historical Resources Information System at California State University, Chico (NE/CHRIS). The review of archaeological records conducted at NE/CHRIS involved a review of maps and records for archaeological surveys and sites in this portion of Shasta County and also included a review of the following documents: NRHP - Listed Properties and Determined Eligible Properties (1988, Computer Listings 1966 through 7/00 by National Park Service), the California Register of Historical Resources (2000), the California Inventory of Historic Resources (1976), California Points of Historical Interest (1992), California Historical Landmarks (1996), and the NE/CHRIS Historic Property Data File for Shasta County.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls

An archaeological survey was conducted on these lands in 1984 for PG&E (Peak & Associates 1984). Six archaeological sites were recorded as a result of this survey: CA-SHA-383/H, -418, -1401, -1403-H, -1439, and -1745. Four are prehistoric sites including a cupule boulder, two lithic scatters, and a large site with lithics, bedrock mortars, milling tools, and rock cairn burials; one is an historic site documenting the Burney Falls cemetery, and one is a multi-component site that contains lithics, cans, and glass. Also, site recording and NRHP evaluation of Camp Britton was conducted (Maniery et al. 2000) and the camp was determined potentially eligible for inclusion on the National Register of Historic Places (NRHP). Additionally, the transfer property is located within the Lake Britton Archeological District, which is listed on the NRHP.

Bowman Ditch

Records indicate that the Bowman Ditch has not been previously surveyed for cultural resources. This ditch was reportedly constructed sometime in the early 1940s and, therefore, could potentially be documented as an historic site and evaluated for its potential eligibility to the NRHP.

Ahjumawi Property

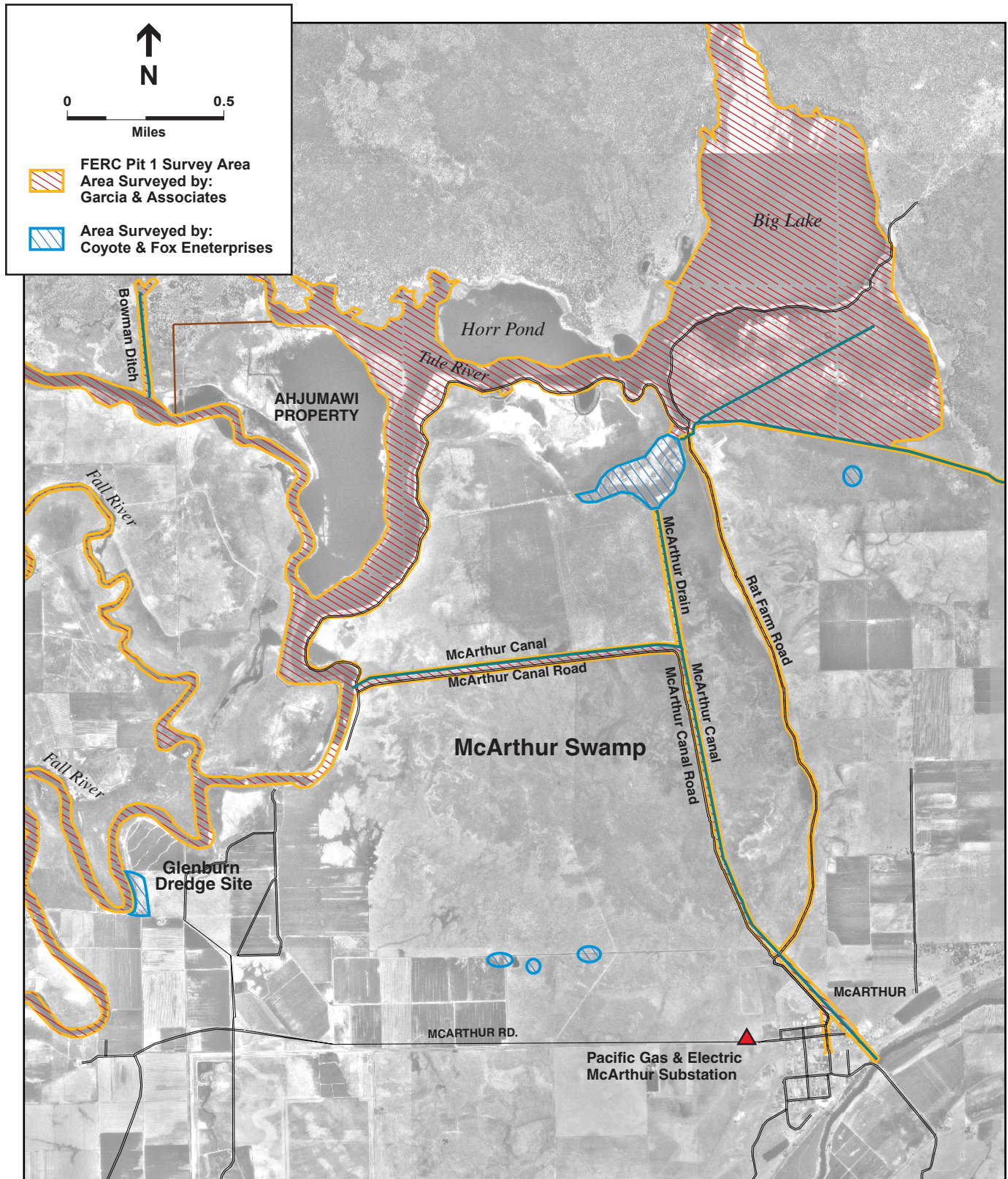
Records indicate that the project area has not been previously surveyed for cultural resources with the exception of the entire shoreline within the parcel along Little Tule River, Ja She Creek, and Tule River (Hart 2000). No sites have been previously recorded within this parcel proposed for transfer, but 32 sites have been recorded within a ½-mile radius of the northern portion of the property. These consist of four historic sites, 22 prehistoric sites, and six sites with both an historic and a prehistoric component. Three of the prehistoric sites are immediately adjacent to the project parcel. This area is considered highly sensitive for cultural resources, and the Pit River Tribe has reported sites in the area. With the recent breach in the Ahjumawi Levee, however, all but the northern portion of the property is inundated on a year round basis and as a result, site surveys would be unfeasible.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE***McArthur Swamp***

Garcia & Associates conducted an archaeological survey in 2000 for PG&E's FERC relicensing project (Hart 2000). Surveyed lands include Hollenbeak Field (approximately 670 acres), the McArthur Swamp access roads, canals, levees (approximately 14 linear miles), and the shorelines of Big Lake, the Tule River, the Little Tule River, and the Fall River to within a mile of the Pit 1 Intake. Hart (2000) noted that in Hollenbeak Field, thick tules and grasses minimized ground visibility, but the archaeological sensitivity of this area was considered very low for occupation sites because during prehistoric times and prior to the 1860s, this area was completely inundated. Ground visibility along the edges of roads, ditches, and levees was good, allowing for an adequate survey; and the shoreline reconnaissance, conducted by boat, was targeted to identify locations where current levee damage and cultural resources coincided.

Five archaeological sites were recorded as a result of the Garcia & Associates survey, all of which are located along the access road from McArthur to the Rat Farm: CA-SHA-112/H, -591, -593, -3096, and -3097. These include the historic Rat Farm, three prehistoric lithic scatter sites (one of which also has groundstone artifacts), and a multi-component site with both prehistoric and historic material.

As part of the proposed project, additional archaeological surveys were conducted in the McArthur Swamp by Coyote & Fox Enterprises, Redding (Vaughan, 2000). This survey focused on the proposed areas of disturbance indicated in the project proposal which had not been previously surveyed or were not inundated: the proposed well site, the Rat Farm Pond, and the two areas designated for constructed wetlands (see **Figure V-1**). A pedestrian survey was



SOURCE: PG&E and Environmental Science Associates, 2001.

PG&E Divestiture / 200496 ■

Figure V-1
Areas Surveyed for Cultural Resources

conducted at each location with systematic transects at approximately 15-meter intervals, and approximately five acres were surveyed at each location. No cultural resources were noted.

As indicated above, a large portion of McArthur Swamp area has not been surveyed, but archaeological sensitivity for prehistoric occupation sites is considered low along the northern and central portions of the property, since these areas were mainly inundated up until the twentieth century. The Pit River Tribe, however, has expressed concern relative to cultural issues in the area and there are also known historic resources, these being sites CA-SHA-112/H, -591, -593, -3096, and -3097. Additionally, there are known historic resources, these being the historic reclamation features of ditches, canals, and levees.

Glenburn Dredge Site this area will be impacted by the proposed project because public access is to be reintroduced to Fall River through this area from McArthur Road. The shoreline of this area was surveyed during the boat survey by Garcia & Associates, and no cultural resources were noted at that time (Hart 2000). Coyote & Fox Enterprises (Vaughan 2001) recently surveyed the 200 x 1000-foot inland portion of the property. One prehistoric site was recorded as a result of this survey, a midden site with lithics and shell. This site, quite likely, has a subsurface deposit, and subsurface testing will be necessary to make this determination. Until such time as a determination can be made of the potential eligibility for inclusion on the NRHP for this prehistoric site, it must be considered potentially eligible and protected from public access.

REGULATORY SETTING

FEDERAL REGULATORY OVERSIGHT

Federal regulations and policies pertain to those actions that involve federal funding, federal licensing, or federal permitting. Examples may include federal grants or licensing (FERC and ICC) and federal permits associated with vegetation and wetlands (U.S. Army Corps of Engineers [Corps] Section 404 permits). Section 106 of the National Historic Preservation Act and its amendments effective June 1999, requires that all federal agencies review and evaluate how their actions or undertakings may affect historic properties. Review under Section 106 is designed to ensure that historic properties are considered throughout the various stages of federal project planning and execution. Under Section 106, historic properties are those prehistoric and historic resources that are listed or have been determined eligible for listing on the National Register of Historic Places (NRHP). The review process is administered by the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO). Recent changes to the Section 106 process have somewhat increased the role and authority of the SHPO and reduced the role of the Advisory Council.

Because the project involves certain birds under federal jurisdiction and an Army Corps of Engineers permit for wetland creation may be required in the future, the Section 106 process has been carried out for this project. Activities pursuant to the Section 106 process include cultural resource surveys for affected properties, the assessment of these sites, consultation with affected

groups, and provision of mitigation measures for foreseeable adverse affects (Implementing Regulations: 36 CFR. 800).

Programmatic Agreement Regarding Pacific Gas and Electric Company's Pit 1 Hydroelectric Project (Project No. 2687-014-California)

As part of the FERC relicensing of the Pit 1 Hydroelectric Project, PG&E entered into a Programmatic Agreement (PA) with FERC, the California State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation. The PA applies to lands managed by PG&E that lie within the FERC Pit 1 Hydroelectric Project boundary, as shown in **Figure 1-4**. SHPO and PG&E signed the PA in July 2000. At that time, the Pit River Tribe had not signed the PA, however, had been involved with the reviews of the PA, and as a concurring party, they are not obliged to sign.

Included in the PA as a stipulation of FERC relicensing and approval is the requirement that PG&E (applicant) receive FERC's approval of a Final Cultural Resource Management Plan (CRMP) specifying how properties included on or eligible for the inclusion on the NRHP will be managed in the Pit 1 Project's area of potential effect, as defined in 36 C.F.R Section 800.16. The CRMP specifies several tasks as part of its implementation. These tasks include the identification of historic resources within the Pit 1 boundary or areas outside of the boundary that could potentially be affected by the project's operation, protection of historic resources, mitigation of unavoidable adverse effects on historic resources, treatment of human remains, discovery of previously unidentified resources, public interpretation of historic and/or archeological values, coordination with SHPO and the Pit River Tribe during the implementation of the CRMP, and the development of a Traditional Cultural Properties treatment plan.

As part of the proposed land transfers, certain lands currently within the Pit 1 Project boundary, including the Bowman Ditch, Hollenbeck Field, other portions of the Ahjumawi Property, and the McArthur Swamp, would be removed from the boundary, and would no longer be subject to the existing CRMP.

STATE REGULATORY OVERSIGHT

Under Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines, historical and cultural resources are those resources that (1) meet the eligibility criteria of the California Register of Historical Resources (CRHP), (2) are contained in local lists of historical resources, or (3) are deemed to be significant by the lead agency, in this case the California Public Utilities Commission (CPUC). Historical resources can include, but are not limited to, archaeological sites from both prehistoric and historic times, historical places, important or exemplary buildings, or engineered structures and modified landscapes.

With the CPUC as the lead agency, California policies and regulations are the primary source of regulations and guidelines for the project. California criminal law prohibits any person (other than the owner) from willfully injuring, disfiguring, defacing, or destroying any object or thing of

archeological or historical interest or value (Cal. Penal Code § 622.5). California law makes it a crime to willfully disturb or disinter human remains without legal authority to do so (Cal. Health & Safety Code §§ 7050.5(a) and 7052 *et seq.*). If human remains are discovered outside of a dedicated cemetery site, CEQA identifies specific steps that must be taken with respect to the remains before the activity leading to the discovery may continue (Cal. Health & Safety Code § 7000 *et seq.*). If the remains are determined by the county coroner to be those of a Native American, the California Native American Heritage Commission (CNAHC) is responsible for identifying the most likely descendent of the deceased and assisting the descendent and the landowner in reaching agreement on how the remains should be handled (Cal. Health & Safety Code § 7050.5(c), Cal. Pub. Res. Code §§ 5097.98(a), 5097.94.).

California Department of Parks and Recreation. For lands to be transferred into the McArthur-Burney Falls Memorial State Park, the Park General Plan (1997) specifically identifies a set of directives for the treatment of archeological and historic resources.

1. Treatment of Archeological Sites:

Directive: Where the preservation and avoidance of sites are wholly impractical, archeological methods will be used to preserve information that can contribute meaningfully to the understanding of prehistory. PG&E's archeological research designs for Lake Britton will be used to perform all necessary studies in the park. If any sites on PG&E lands cannot be preserved or avoided in the future, a PG&E archeologist will be consulted prior to the implementation of the studies.

2. Involvement of Local Native American People:

Directive: The department will consult with local Native American people, who are knowledgeable about these heritage values, on plans to construct or remove ground-based facilities. Native Americans will be invited to participate as monitors during major projects near sensitive areas. Such projects include, but are not limited to, removal of paved parking near the falls and construction of a new entrance road.

3. Indian Cemetery:

Directive: A management plan for SHA-1414 is recommended to protect and preserve this site of transcendent importance to the local Native American community. Such a plan could provide a syllabus for training staff, a format for documenting observations, and an outline of possible responses to vandalism and trespassing. Consultations with Native American representatives would be invaluable to the creation and application of this management plan.

4. Civilian Conservation Corps Structures:

Directive: The historical resources of the Civilian Conservation Corps will be protected and preserved for the future as a visible portion of the history of the state park. Adaptive

use of these structures is allowed. A department cultural staff member on a case-by-case basis will review removal of any items, due to deteriorating conditions or conditions of public safety.

The Ahjumawi Lava Beds State Park is currently not covered by an existing Park General Plan. Rather, Division 5 of the Public Resources Code, Parks and Monuments governs uses within the park. More specifically, Chapter 1, Article 2 and Chapter 1.1.5, Articles 3 through 7 of the Public Resources Code pertain to cultural resources and their continued preservation.

State Historical Building Code

In California, the State Historical Building Code (SHBC) provides some degree of flexibility to owners of historic structures towards meeting building code requirements. The SHBC standards and regulations are performance-oriented rather than prescriptive, unlike most housing codes, which are more prescriptive. Jurisdictions must use the SHBC when dealing with qualified historical buildings, structures, sites, or resources in permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related reconstruction, change of use, or continued use of a historic property. Historical buildings located inside the transfer properties, include the Camp Britton structure at McArthur-Burney Falls State Park and Rat Farm structure at McArthur Swamp. The State Historical Building Safety Board has adopted the following definition for a qualified historical house or resource:

A qualified historical building or structure is any structure, collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state, or Federal governmental jurisdiction. This should include designated structures declared eligible or listed on official national, state, or local historic registers or official inventories such as the NRHP, State Historic Landmarks, State Points of Historical Interest, and officially adopted city or county registers or inventories of historical or architecturally significant sites, places, or landmarks.

Under the provisions of the SHBC, new construction or modifications to a historic building must conform to prevailing codes, although the elements of the existing structure are given the flexibility of reasonable and sensitive alternatives. The alternative building standards and regulations encompassed by the SHBC are intended to facilitate the renovation in a manner that assists in the preservation of original or restored architectural elements and features, encourages energy conservation, provides a cost-effective approach to preservation, and ensures the safety of occupants.

COUNTY REGULATORY OVERSIGHT

The Shasta County General Plan (1993) provides policies and procedures to mitigate impacts to prehistoric and historic cultural resources through its Heritage Resources Element, which is authorized by Section 65303 of the Government Code. The Heritage Resources Element states as its objective the protection of significant prehistoric and historical cultural resources. Policy No. HER(a) states that:

Development projects in areas of known heritage value shall be designated to minimize degradation of these resources. Where conflicts are unavoidable, mitigation measures, which reduce such impacts, shall be implemented. Possible mitigation measures may include clustering, buffer or nondisturbance zones, and building siting requirements (Shasta County Department of Resource Management 1998).

COORDINATION AND PUBLIC PARTICIPATION

Native American consultation for this project is ongoing. A letter was sent to the California Native American Heritage Commission (CNAHC) requesting a search of its Sacred Lands files and contact letters have been sent to the Native American groups and individuals recommended by CNAHC to be contacted for this project. Two meetings have been held at the Pit River Tribal Office in Burney between members of the CPUC project environmental team and members of the Pit River Tribe, one on February 7, 2001, and one on April 3, 2001.

The Pit River Tribe provided a letter to the CPUC regarding comments on the April 3, 2001 meeting for McArthur Swamp. Comments received by the tribe centered around the lack of coordination and involvement by PG&E with the tribe as exhibited in the MSMP, the status and transfer of tribal allotment lands, and opposition to the transfer of State Park lands in Ahjumawi State Park to private ownership. The Tribe's concerns have been considered throughout this analysis and addressed in the mitigation measures presented in the impact discussion below (Pit River Tribe, 2001).

Protocols for Native American consultation and involvement will comply with the standard procedures requested by the CNAHC and with the recommendations discussed at the February 4, 2000, meeting of CNAHC i.e., continuous consultation with the affected groups and true consideration of Native American concerns regarding prehistoric sites and resources. Members of the Pit River Tribe may serve as consultants and will be a part of the monitoring team in those areas containing resources that are important to the Tribe.

CULTURAL RESOURCE IMPACT DISCUSSION

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls

- a-d) The transfer property within McArthur-Burney Falls State Park contains four archaeological sites, one historic site (Burney Falls cemetery), and one multi-component site. Additionally, the park is within the Lake Britton Archeological District, which is listed on the NRHP. As discussed in the Project Description, no change in the management or public use of PG&E's lands within the State Park portion of the transfer is proposed. Additionally, no ground disturbing activities are proposed as part of the transfer within or near a previously recorded site. After the proposed transfer, the known archaeological and historical sites will be protected under the guidance of the

existing McArthur-Burney Falls Memorial State Park General Plan and the regulations contained in Division 5 of the Public Resources Code. As a result, no change in the significance of a historical and/or archeological resource, destruction of a paleontological resource, or disruption of human remains is expected to occur as a result of the proposed project.

Bowman Ditch

The Bowman Ditch represents a historic landscape feature, constructed in the 1940s. Due to its age and historic use, this feature could potentially be documented as a historic resource and evaluated for its potential eligibility to the CRHP / NRHP. As part of the proposed project, the Bowman Ditch will be transferred to the DPR and be managed under the guidance of State Park regulations. Division 5, Chapter 1, Article 2 and Chapter 1.1.5, Articles 3 through 7 of the Public Resources Code set forth guidelines and practices for the management and continued preservation of cultural resources within State Park boundaries. Consequently, the transfer of fee title over the property to DPR would not result in a change of the significance of a historical, archeological, or paleontological resource, or result in the disturbance of any human remains.

Ahjumawi Property

No historical or archaeological sites have been previously recorded within this transfer property, however, 32 sites have been recorded within a ½-mile radius of the northern portion of the property. These consist of four historic sites, 22 prehistoric sites, and six sites with both an historic and a prehistoric component. Three of the prehistoric sites are immediately adjacent to the project parcel. With the substantial number of sites within close-proximity to the property, it is reasonable to assume that there could be undiscovered sites residing within the boundary of the property. This property is currently under the DPR's jurisdiction and all uses are subject to guidelines and policies contained within Division 5, Chapter 1, Article 2 and Chapter 1.1.5, Articles 3 through 7 of the Public Resources Code regarding the identification and protection cultural resources.

As a result of the transfer of fee title to PG&E and subsequently to CWA, the property would no longer be under DPR's jurisdiction or subject to regulations contained in Division 5 of the Public Resources Code. However, as mentioned in the Project Description of this document, there are no ground disturbing actions presently proposed for this property as a result of the land transfer, and the land would be protected under the proposed Conservation Easement and MSMP. Furthermore, the majority of the property is currently in a flooded state due to the failure of the Ahjumawi levy, and access to the area is limited. If, however, ground-disturbing activities are proposed in the future, guidelines contained within the proposed Conservation Easement and MSMP would require that an archaeological survey be conducted in consultation with the Ahjumawi Band of the Pit River Tribe to assess and mitigate any potential impacts to cultural resources. Therefore the transfer of fee title for this property would not result in a change of the significance of a

historical, archeological, or paleontological resource, or result in the disturbance of any human remains and is not considered to be a significant impact.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

McArthur Swamp

- a-d) Five recorded archaeological sites reside within the boundary of the McArthur Swamp property and include the historic Rat Farm, three prehistoric lithic scatter sites (one of which also has groundstone artifacts), and a multi-component site with both prehistoric and historic material (Hart 2000). Additional cultural resource surveys were conducted as part of this environmental review for known areas of sensitivity where ground disturbing activities are proposed for habitat creation and restoration under the MSMP (see Figure V-1). As previously indicated, a large portion of McArthur Swamp area has not been surveyed, but archaeological sensitivity for prehistoric occupation sites is considered low along the northern and central portions of the property, since these areas were mainly inundated up until the twentieth century. Areas to the south, above the historic high water mark, however, are considered culturally sensitive.

Additionally, the levees, ditches, and canals within the McArthur Swamp potentially represent unrecorded historic resources. Due to their age and chronology of development (1860s to 1920s), it is likely that these features may be considered potentially eligible to the CRHP / NRHP as an historic landscape district. Any modification to the existing levees, ditches, and channels could alter the historical significance of these features, however, it is not anticipated that any of the proposed disturbance associated with the MSMP would result in a substantial adverse change in the significance of any historic resource as identified in Section 15064.5 of CEQA.

Currently, there are no known historic and/or archeological resources, as defined by Section 21084.1 of the CEQA Guidelines, located within areas expected to experience ground disturbing activities pursuant to the MSMP, including the Hollenbeck Field, Rat Farm Pond, Water Well, and the S2 and S1 reverse cycle wetland ponds. There is, however, the potential for such resources to be encountered during excavation activities in areas that are currently heavily vegetated. The greatest potential impact to archaeological and paleontological resources would occur as a result of construction-related activities from the implementation of habitat improvements associated with the MSMP. Excavation into an undiscovered resource could destroy portions of the site, disturb its integrity and context, unearth human remains, or impair the scientific value of the resource. This represents a **potentially significant** impact.

Impact V.1: Construction and/or excavation activities associated with the implementation of habitat improvements identified in the MSMP could encounter previously unidentified historic, archaeological, or paleontological resources. Excavation into an undiscovered resource could destroy portions of the site, disturb

its integrity and context, unearth human remains, or impair the scientific value of the resource.

Mitigation Measure V.1a: Prior to the transfer of title of the McArthur Swamp, the applicant shall include specific language in the proposed Conservation Easement and MSMP requiring CWA to appoint a Professional Archaeologist (who is a member of the Registry of Professional Archaeologists), or Archaeologists, at least 15 days prior to the start of project-related vegetation clearance ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or natural areas resulting from habitat improvements pursuant to the MSMP. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. As shall be specified in this new language, CWA shall provide the CPUC with the name(s) and statement of qualifications of its designated Professional Archaeologist (s) who will be responsible for implementation of all project-related cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the Archaeologist(s) meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register (United States Department of the Interior 1997).

At least 10 days prior to the start of any project-related activity defined above, CWA shall confirm in writing to the CPUC Mitigation Monitor that the approved designated Professional Archaeologist will be available at the start of project activities and is prepared to implement the protocol specified in the MSMP.

At least 10 days prior to the replacement of a designated Professional Archaeologist, CWA shall obtain the CPUC approval of the proposed replacement Professional Archaeologist.

Mitigation Measure V.1b: Prior to the transfer of title of the McArthur Swamp and Glenburn Dredge Site, the applicant shall amend the proposed Conservation Easement and MSMP to include specific language requiring that prior to the commencement of construction and/or ground disturbing activities, the designated Professional Archaeologist shall provide all construction personnel with environmental training in a manner that will inform them of the possibility of encountering cultural or historical resources. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. All construction personnel will be trained in the identification of archaeological resources (which could include flaked stone, projectile points, mortars, pestles, soil containing shell and bone, or human burials), historic resources (which could include stone features, such as adobe foundations or walls, structures and remains with square nails, and refuse deposits), human remains, and paleontological resources (which could include true and/or trace fossils). In addition, the construction personnel would be trained on the appropriate protocol to follow if any resources are found, as discussed in Mitigation Measures V.1c, V.1d, and V.1e.

Mitigation Measure V.1c: Prior to the transfer of title of the McArthur Swamp, the applicant shall amend the proposed Conservation Easement and MSMP to include specific language requiring that in the event that previously unidentified historic, archaeological, and/or paleontological resources are encountered during habitat improvement activities, the construction crew will halt work within a 100-foot radius of the find and not collect or disturb the materials until the Professional Archaeologist has evaluated the location and determined an appropriate mode of action. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. The Professional Archaeologist retained by CWA shall evaluate such resources for California Register of Historical Resources eligibility ensuring that the evaluations are supervised by individuals meeting the Secretary of the Interior's proposed Historic Preservation Qualification Standards (United States Department of the Interior 1997) for each particular resource type. An evaluation form shall be submitted to the CPUC, CWF, and the California Historical Resources Information Center. If the Professional Archaeologist determines that the resources are eligible for the California Register of Historical Resources, the Professional Archaeologist shall determine the appropriate action to be taken with preference given to preserving the resources in situ. If it is infeasible to be consistent with the objectives of the MSMP to leave the resources in place, the Professional Archaeologist shall conduct data recovery, if determined necessary to mitigate any significant project-related effects. If cultural resources are encountered during construction, Construction may resume once the Professional Archaeologist has determined (and implemented, if appropriate) an appropriate mode of action and has given the authorization to proceed.

Upon approval of this plan by the CPUC Mitigation Monitor, mitigation measures will be implemented prior to any project-related activities within 100 feet of the resource's boundary.

Mitigation Measure V.1d: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to include language requiring CWA to notify a qualified paleontologist of unanticipated paleontological discoveries, made by either the Professional Archaeologist or construction personnel responding to their environmental training classes, and document the discovery as needed. In the event of an unanticipated discovery of true or trace fossil remains during construction, excavations within a 100-foot radius of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils shall be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

Mitigation Measure V.1e: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA's contractors to immediately stop all work in the event human remains are found during the MSMP's activities within a

100-foot radius of the find. Following any such discovery, the Professional Archaeologist shall be notified immediately and will, in turn, immediately notify the Shasta County coroner, in compliance with Section 7050.5 of the California Health and Safety Code.

If the human remains are determined to be Native American in origin, the Shasta County coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of the find. The most likely descendent shall be given an opportunity to make recommendations to the CWA and its contractors for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Where conditions A, B, and/or C under Section 15064.5 (e) (2) occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

Mitigation Measure V.1f: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA to provide the opportunity for a Native American monitor, if interested, to be present on-site during project-related vegetation clearance, ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or the movement or parking of heavy equipment or other vehicles onto or over the project surface, within 500 feet of the boundary of known prehistoric resources and within 500 feet of the locations of modern and historic streams.

The Native American monitor shall be a member of the Ahjumawi Tribe and will serve in addition to the Professional Archaeologist. Monitoring by the cultural group representative is required within 500 feet of such sites. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.

Significance After Mitigation: Less than significant.

Glenburn Dredge Site

- a-d) As part of the cultural resource survey performed for this environmental assessment, a prehistoric site was recorded within this parcel, however its eligibility for inclusion on the NRHP is unknown at this time and the additional testing and excavation required to make this determination is unwarranted at this time, since no change to this area is anticipated with the project. Until such time as a determination can be made of the potential eligibility for inclusion on the NRHP for this prehistoric site or consider it a historical resource under CEQA, it must be considered potentially eligible and protected from further impact.

As part of FERC's recommendation as part of the Pit 1 Hydroelectric Project relicensing, a portion of the Glenburn Dredge Site has been proposed to be reopened for public access to

the Fall River, with the installation of limited recreational facilities. This action has also been proposed as part of this project if the title transfer for the Glenburn site is approved. Therefore, the reopening of the public access is considered to be a reasonably foreseeable outcome of the proposed land transfer and has been considered in this document.

The reintroduction of public access to the site could potentially result in disturbance and a potential change in the significance of the newly discovered archaeological site and other potentially undiscovered resources on-site. Such an action could also expose the newly discovered site to potential vandalism and/or deterioration. This is considered a **potentially significant** impact.

Impact V.2: The reintroduction of public access to the Glenburn Dredge Site could result in a change in the significance of the newly discovered archaeological site and other potentially undiscovered resources on-site.

Mitigation Measure V.2: Prior to the transfer of title, the Conservation Easement shall be amended to include the portion of the Glenburn Dredge Site property that is bounded by the fence required by this mitigation measure and the Fall River. The Conservation Easement shall include language requiring that the new owner establish permanent protection of sensitive resources. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. The new conservation easement shall restrict any uses of this area of the site, except for the sole purpose of preserving the integrity of the sensitive resource. In addition, the Conservation Easement and MSMP shall be amended to include a requirement to reconfigure the existing fence layout at Glenburn to restrict access on and around sensitive resources. The Conservation Easement and MSMP, as amended, shall provide that a four strand barbed-wire fence effective to serve as a barrier to human and livestock access and shall be constructed at a location 100 feet from the boundary of the sensitive site or along the property line where it is closer than 100 feet from the boundary of the sensitive site (but not along the river). Construction of the fence shall comply with the protocols specified in Mitigation Measures V.1a-V.1f. The Conservation Easement and MSMP shall further be amended to provide for regular inspection and maintenance of the fence to ensure that it continues to be a barrier to access.

Significance After Mitigation: Less than significant.

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Issues (and Supporting Information Sources):

VI. GEOLOGY AND SOILS -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

SETTING

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The Fall River Valley and McArthur-Burney Fall Memorial State Park are located at the southern end of the Cascade Range within the Modoc Plateau Geomorphic province. This area lies along the northwestern-most flank of the Sierra Nevada Geomorphic Province. The Modoc Plateau is characterized as a transitional region between the Basin and Range Geomorphic Province to the east and the Cascade Range Geomorphic province to the west and north. According to available geologic maps from the California Division of Mines and Geology (CDMG), the Modoc Plateau is underlain by Tertiary sediments and recent volcanic rocks that have been block-faulted into north trending ranges, which have resulted in large open valleys. The plateau's block faulting is believed to be related to Basin and Range faulting in a terrain immersed by volcanic rocks (CDMG, 1966). The plateau is capped with scattered small, young cinder cones and basalt flows. Typical rock formations in the area include volcanic breccia, mud and ash flows, lava flows, lacustrine (lake) deposits, and cinder cone pyroclastic rocks.

Burney Falls

The western portions of Burney Falls are underlain by Pliocene nonmarine sedimentary rock, comprised chiefly of diatomite, which was deposited in a lacustrine setting. The eastern portion of the property is underlain by Plio-Pleistocene olivine basalt flows such as those exposed by the falls on Burney Creek (CDMG, 1994).

Several Quaternary and Holocene faults are located within a 60-mile radius of the site. Five Holocene Faults including the McArthur, Mayfield, Pittville, Hat Creek, and Rocky Ledge faults are all located within 20 miles of the property. The Rocky Ledge fault trends northwesterly about three miles to the south of the transfer property (CDMG, 1994). With the close-proximity of numerous faults, these sites within the Park could potentially be subjected to ground motion from displacement along any of these local and regional faults. Additionally, the Burney Falls area could be affected by regional volcanic events originating within the Mt. Shasta, Lassen Peak, or Medicine Lake volcanic centers, all of which have experienced activity within the last 500 years (CDMG, 1994).

The transfer property within the State Park is located on two constituent soil types. These include the Britton Silt Loam, 30 to 50 percent slopes and Burney-Arkright Complex, two to nine percent slopes mapping units. Britton Silt Loams, 30 to 50 percent slopes soils are characterized as being relatively shallow (10 to 20 inches), and well drained with moderately slow permeability. These soils have formed in dissected lacustrine terraces from alluvium derived from diatomite lacustrine deposits (NRCS, 2000). They have a moderate to high hazard of erosion by water and a low to moderate erosion hazard from wind in exposed, bare areas (refer to **Table VI-1**). These soils are classified as having a moderate shrink-swell potential ¹ and are classified as having a Capability Class rating of IV, due to the high hazard of erosion and they are not considered Prime Farmland.

Soils comprising the Burney-Arkright Complex, two to nine percent slopes mapping unit, occupy smaller areas in the eastern portion of the transfer property and are underlain by basaltic lava flows. These soils are relatively deep (40 to 60 inches), well drained gravelly loams with moderately slow permeability. This mapping unit is typically found at the base of toe slopes where alluvium from basalt has been deposited. The soil lacks a substantial proportion of clay and therefore, has a low shrink-swell potential (refer to **Table VI-1**). Water erosion hazard for bare soil is low to moderate, while the wind erosion hazard is low (refer to **Table VI-1**). These soils have a Capability Class rating of III to IV, due to erosion hazards and are not considered to be Prime Farmland (NRCS, 2000).

¹ "Shrink-swell" is the cyclical expansion and contraction that occurs in fine-grained clay sediments from wetting and drying. Structures located on soils with this characteristic may be damaged over a long period of time, usually as the result of inadequate foundation engineering.

**TABLE VI-1
SOIL MAP UNIT DESCRIPTIONS**

Map Symbol	Soil Name	Depth of Profile, to Bedrock	Shrink-Swell Potential	Erosion Susceptibly¹	Seasonal High Water Table (feet)	Land Capability Classification² Irrigated/Non-irrigated	Wind Erodability Group³
Burney Falls							
116	Britton Silt Loam, 30 to 50 percent slopes	10 – 20 inches	Moderate	Moderate to high	> 6.0	VIe / --	2
122	Burney-Arkright Complex 0 to 9 percent slopes	20 – 60 inches	Low	Moderate	> 6.0	IVe / --	7
Bowman Ditch							
275	Pastolla Muck, drained, 0 to 2 percent slopes	> 60 inches	Moderate	Moderate to high	0.5 – 1.5	IVw / IVw	2
Ahjumawi Property							
274	Pastolla muck, 0 to 1 percent slopes	> 60 inches	Moderate	Moderate to high	0 – 1.0 appearant	IVw / IVw	2
McArthur Swamp Property							
274	Pastolla muck, 0 to 1 percent slopes	> 60 inches	Moderate	Moderate to high	0 – 1.0 appearant	IVw / IVw	2
275	Pastolla Muck, drained, 0 to 2 percent slopes	> 60 inches	moderate	Moderate to high	0.5 – 1.5	IVw / IVw	2
184	Henhill Silt Loam, partially drained, 0 to 2 percent slopes	> 60 inches	low to moderate	Low to moderate	1.5 – 5.0	IIIw / IIw	6
229	Lava Flows-Gassaway Complex, 2 to 15 percent slopes	0 – 14 inches	low	Low	> 6.0	Lava Flows VIII Gassaway VIIs	Gassaway 6
328	Whipp-Cupvar Complex, 0 to 2 percent slopes	> 60 inches	moderate to high	High	0 – 2.0 (perched)	IVw / IVw	Whipp – 4 Cupvar - 7
329	Whipp-Cupvar Complex, slightly saline, 0 to 2 percent slopes	> 60 inches	moderate to high	High	0 – 2.0 (perched)	IVw / IVw	Whipp – 4 Cupvar - 7
138	Cupvar Silty Clay, 0 to 2 percent slopes	> 60 inches	high	Moderate to high	0.5 – 1.0 (perched)	IVw / IVw	7

**TABLE VI-1
SOIL MAP UNIT DESCRIPTIONS**

Map Symbol	Soil Name	Depth of Profile, to Bedrock	Shrink-Swell Potential	Erosion Susceptibly ¹	Seasonal High Water Table (feet)	Land Capability Classification ² Irrigated/Non-irrigated	Wind Erodability Group ³
160	Dugan-Graven Complex, Flooded, 0 to 5 percent slopes	> 60 inches	low to high	High	0.5 – 3.5 (perched)	Dugen IVe Graven IIIe	6
159	Dugan-Graven Complex, 0 to 5 percent slopes	> 60 inches	low to high	High	0.5 – 4.0 (perched)	Dugen IVe Graven IIIe	6
282	Pittville Sandy Loam, 0 to 5 percent slopes	> 60 inches	low to moderate	high	> 6.0	IIc / IIc	3
Glenburn Dredge Site							
279	Pit Silty Clay, Drained, 0 to 2 percent slopes	> 60 inches	high	high	5.0 – 6.0	IVw / IVw	7

SOURCE: Natural Resource Conservation Service, 2000. Intermountain Soil Survey for California, Table 5. Engineering Properties & Table J. Chemical and Physical Properties.

- 1 Erosion Susceptibility - Erosion hazard, or the susceptibility of soil to erosion, is the potential inherent in the soil itself to erode if the forces that cause erosion are applied to an area that is not adequately protected. The erosion hazard ratings given in this table indicate the possibility of future accelerated erosion by water and refer to sheet and rill erosion only. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter (up to 4 percent) and on soil structure and permeability. Values of K range from 0.02 to 0.64. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.
- 2 Land Capability Classification - Capability grouping depicts, in general, the suitability of soils most kinds of field crops. The groups are made according to the limitations of the soils when used for field crops. The capability system is grouped according to three levels including, capability class, subclass, and unit. Capability Classes are designated by the Roman Numerals and are designed to indicate a progressively greater limitation and/or narrower practical use according to a corresponding increase from I to VIII. Capability Subclasses are designated by the small letter and give an indication of the main limitation associated with the soil type (i.e. e – erosion, w – wetness, s – shallow, c - climate). Capability units are soil groups within subclasses and suggest the chief kind of limitation. Generally Capability class 3 or less are considered Prime Farmland according to the California Department of Conservation. Further literature is presented with regards to the system of classification in the NRCS National Soil Survey Handbook.
- 3 Wind Erodability Group – Wind erodibility groups are made up of soils that have similar properties affecting their resistance to soil blowing in cultivated areas. The groups indicate the susceptibility to soil blowing. The soils assigned to group 1 are the most susceptible to soil blowing, and those assigned to group 8 are the least susceptible.

Bowman Ditch

The Bowman Ditch and adjacent area are underlain by Quaternary lacustrine deposits composed of alluvial sediments derived from volcanic materials, water-lain ash deposits, and local diatomaceous detritus (CDMG, 1968). As with the State Park, several Quaternary and Holocene faults are located within a 60-mile radius of the drainage way. Holocene faults such as the, McArthur, Mayfield, Pittville, Hat Creek, and Rocky Ledge faults are located within a 20-mile radius of the site. The McArthur fault is mapped as trending in a northwesterly direction about three miles northeast of the site between Big Lake and Horr Pond (CDMG, 1994). This property could potentially be subjected to ground motion from displacement along any of these local and regional faults. In addition, the Bowman Ditch and surrounding area are located within an area that could be affected by regional volcanic events originating within the Mt. Shasta, Lassen Peak, or Medicine Lake volcanic centers, all of which have experienced activity within the last 500 years (CDMG, 1994).

The Bowman Ditch is located on soils mapped as the Pastolla Muck, drained, zero to two percent slopes. These soils are very deep (greater than 60 inches), very poorly drained, and mucky with slow permeability. The exception to this is where the natural drainage regime is altered, as is the case for areas immediately adjacent to the channeled ditch. The ditch was originally channeled out to increase flows to the Tule River for the Pit River Hydroelectric Project. These soils developed in basins from stratified alluvium of ash and lacustrine deposits. They have a low hazard of erosion by water and a moderate erosion hazard from wind in exposed, bare areas. The soils are moderately to strongly alkaline and have a very high shrink-swell potential (refer to **Table VI-1**). They have a Capability Class rating of IV and are not considered to be Prime Farmland (NRCS, 2000).

Ahjumawi Property

The Ahjumawi Property is located immediately adjacent to the southeast of the Bowman Ditch and therefore the subsurface is comprised of similar alluvial sediments and water-lain ash deposits. As with the Bowman Ditch, the Ahjumawi Property is located in a seismically active region with numerous, previously referenced faults and volcanoes situated in the immediate vicinity.

Soils located on the Ahjumawi Property consist of the Pastolla muck, 0 to 1 percent slopes, which are similar to those located along the Bowman Ditch, except that it is not artificially drained (NRCS, 2000). This area is currently inundated due to the lack of maintenance of the levee along the southern boundary of the property. Consequently, these soils will continue to remain submerged on an annual basis.

McArthur Swamp and Glenburn Dredge Site

The McArthur Swamp and the Glenburn Dredge Site are located within the same regional geographical area and geomorphic province as the McArthur-Burney Falls Memorial Park. These two locations are located approximately 30 miles east of the Park and less than a mile south of the Bowman Ditch and Ahjumawi Property.

McArthur Swamp

The majority of the PG&E property is underlain by Quaternary Lake deposits comprising alluvial sediments derived from volcanic lands and water-lain ash deposits. Areas along the northeastern shores of Big Lake are mapped as Recent Modoc basalt flows (CDMG, 1968). As discussed under the Bowman Ditch subheading, numerous faults are located in the immediate vicinity of the McArthur Swamp. These mapped faults include the McArthur, Mayfield, Pittville, Hat Creek, and Rocky Ledge faults; whereby the McArthur fault trends northwesterly through the site between Big Lake and Horr Pond (CDMG, 1994). Since the active McArthur fault traverses the site, any displacement along this segment of the fault could result in potential fault rupture at the surface. In addition, the McArthur Swamp area could be affected by regional volcanic events originating within the Mt. Shasta, Lassen Peak, or Medicine Lake volcanic centers, all of which have had activity within the last 500 years (CDMD, 1994).

According to the Soil Survey for the Intermountain Area of California, ten soil mapping units have been delineated within the vicinity of the McArthur Swamp Property (see **Table VI-1**). The actual distribution of these ten mapping units is complex, and therefore, will be described by bisecting the site into two northern quadrants and a southern half. Some soils are found in each property while others are more or less restricted to one portion of the property.

The Pastolla Muck, drained, 0 to 2 percent slopes and Pastolla muck, 0 to 1 percent slopes occupy a large portion of the area of the northern quadrants along the Tule River. These soils also occupy smaller areas along Fall River in the southern half of the property. These soils are very similar to those discussed for the Bowman Ditch and Ahjumawi Property. The only significant difference is attributed to the continued maintenance of the McArthur Levee, which has kept these soils drained and suitable for grazing.

Areas in the central portion of the northern half of the property contain the Henhill Silt Loam, partially drained, 0 to 2 percent slopes mapping unit. These soils contain a very deep profile and are somewhat poorly drained with moderately slow permeability. They are derived from lake sediments and alluvium, which formed from extrusive igneous rocks. Henhill Silt Loams are classified as neutral to slightly alkaline and have moderate shrink-swell potential. The water erosion hazard on these soils is low, while the wind erosion hazard is moderate, due to the high percentage of silt (refer to **Table VI-1**). They have a Capability Class rating of II and are classified as Prime Farmland when properly drained and irrigated (NRCS, 2000).

The Lava Flows-Gassaway Complex, 2 to 15 percent slopes map unit is found along the northeastern shoreline of Big Lake at the northeastern edge of the site. Gassaway soils occur approximately 30 percent of the complex and have formed from eolian deposits in pockets of the broken Lava Flow lands. They are shallow, well drained cobbly loams of moderate permeability and are neutral to mildly acidic. They have a low shrink-swell potential, low to moderate water erosion hazard, and a low wind erosion hazard in bare areas (see **Table VI-1**). Gassaway soils have a Capability Class rating of VIII and are not considered Prime Farmland. Recent lava flows comprise approximately 60 percent of this complex and are characterized by sharp, jagged, broken blocks piled in tumbled heaps and have many crevices, sinkholes, and collapsed lava

tubes. Most areas are vegetated by such plants as western juniper, ponderosa pine, antelope bitterbrush, manzanita, and Modoc cypress. However some areas are virtually devoid of vegetation, due to deficient nutrient supplies (NRCS, 2000).

The southern portion of the McArthur Swamp property is comprised of numerous soil mapping units, which include the Cupvar, Whipp, Pittville, Dugan, and Graven soil series. The Whipp-Cupvar Complex, 0 to 2 percent slope soils occupy the central, northern portion of the southern half of the site. Whipp soils account for approximately 60 percent of these map units, while Cupvar soils account for approximately 25 percent. These soils formed in basins of mixed alluvium and are moderately deep, poorly drained soils with slow permeability and a high shrink-swell potential (see **Table VI-1**). They have a low erosion hazard from water when bare and a moderate hazard from wind erosion. The soils are moderately to strongly alkaline. The soils have a Capability Class rating of IV and are not considered Prime Farmland. They are associated with the Whipp-Cupvar Complex, slightly saline, 0 to 2 percent slopes mapping unit which occupies a flanking position to the south. Except for being more saline, these latter soils have very similar characteristics as shown in **Table VI-1** (NRCS, 2000).

Soils of the Cupvar Silty Clay, 0 to 2 percent slopes mapping unit are located in the central portion of the southern half of the site. These soils are also basin soils and formed from alluvium derived from extrusive igneous rock. These soils are moderately deep, moderately well drained and have slow permeability. They have a high shrink-swell potential and have a low water erosion hazard and low wind erosion hazard when bare (see **Table VI-1**). The soils are not considered Prime Farmland and have a Capability Class rating of IV (NRCS, 2000).

Three remaining mapping units are located in a band along the southern portion of the property and include the Dugan-Graven Complex, Flooded, 0 to 5 percent slopes, Dugan-Graven Complex, 0 to 5 percent slopes, and the Pittville Sandy Loam, 0 to 5 percent slopes occupy this area. Dugan and Graven soils are comprised of soils formed on mounds and stream terraces from alluvium of extrusive igneous rocks. They are shallow, moderately well drained soils with slow permeability and have a high shrink-swell potential (see **Table VI-1**). They have a low hazard from water and wind erosion when exposed. These soils have a Capability Class rating of III to IV and are considered Prime Farmland when irrigated (NRCS, 2000).

Soils of the Pittville Sandy Loam, 0 to 5 percent slopes mapping unit occur at the southern fringe of the site. These soils formed on stream terraces from alluvium derived from extrusive igneous rocks. The soils are very deep, well drained soils with moderately slow permeability and have a moderate shrink-swell potential (see **Table VI-1**). They have a moderate hazard for water and wind erosion when bare. They have a Capability Class rating of II and are considered Prime Farmland when irrigated (NRCS, 2000).

Glenburn Dredge Site

Soils at the property have been mapped as the Pit Silty Clay, Drained, 0 to 2 percent slopes mapping unit. These soils formed in basins from fine-textured alluvium from extrusive and basic igneous rock. They are very deep, poorly drained soils with slow permeability and a high

shrink-swell potential (see **Table VI-1**). Their hazard for water and wind erosion is none to low when bare. They have a Capability Class rating of IV and are considered Prime Farmland if drained and irrigated (NRCS, 2000).

REGULATORY SETTING

STATE REGULATORY OVERSIGHT

Alquist-Priolo Geologic Hazards Zone Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces.² Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (Hart, 1997). Surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Zone.

As indicated by Special Publication 42, Fault-Rupture Zones in California, each of the transfer properties are located in areas with delineated fault-rupture zones. The Burney Falls properties are located to the northwest of the Rocky Ledge Fault-Rupture Zone. The McArthur Swamp, Bowman Ditch, and the Ahjumawi Property are located within or adjacent to the McArthur Fault-Rupture Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong groundshaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the project design. As discussed in Section 1.0, Project Description, no development is proposed that would eventually be utilized for human occupancy. Therefore, the Shasta County Building division would not be required to issue a development permit.

County Regulatory Oversight

The Shasta County General Plan contains a Public Safety Element as required by Section 65302(g) of the California Government Code, which requires that General Plans include an

² A "structure for human occupancy" is defined by the Alquist-Priolo Act as any structure used or intended for supporting or sheltering any use or occupancy that has an occupancy rate of more than 2,000 person-hours per year.

element containing identification and appraisal of seismic and geologic hazards. Seismic hazards addressed by this element include surface faulting, ground shaking, and ground failure. Non-seismic hazards addressed in the document include volcanoes, erosion, and expansive soils. The Shasta County General Plan provides the following policies for properties outside of the FERC's jurisdiction as they relate to seismic and geologic hazards:

Policy SG-c - Shasta County shall coordinate with state and federal agencies monitoring volcanic activity and shall periodically review and update the Shasta County Emergency Plan with respect to volcanic hazards.

Policy SG-d - Shasta County shall develop and maintain standards for erosion and sediment control plans for development. Special attention shall be provided to erosion prone hillside areas, including extremely erodible soils types such as those evolved from decomposed granite.

Policy SG-e - When soil tests reveal the presence of expansive soils, engineering design measures designed to eliminate or mitigate their impacts shall be employed.

Policy SG-f - Shasta County shall pursue preparation of development standards based on topography and soil erosion potential in revising its land capability standards pursuant to Policy CO-h.

Policy SG-g - Shasta County should comply with the requirements of the Seismic Hazards Mapping Act, when the Seismic Hazards Maps for the County are completed and made available by the State Geologist. The Maps will include liquefaction hazard zones and earthquake-induced landslide hazard zones.

GEOLOGY AND SOILS IMPACT DISCUSSION

- a) Each of the proposed transfer properties are located within a seismically active region and could experience significant groundshaking and/or earthquake induced landslides resulting from displacement along one of the following Holocene Faults including the, McArthur, Mayfield, Pittville, Hat Creek, and Rocky Ledge faults. Additionally, each of the properties lie within or adjacent to an Alquist-Priolo Fault-Rupture Study Zone. Furthermore, each of the properties would be subject to regional volcanic events originating from the previously discussed volcanoes.

As indicated in the Project Description, no substantial construction or physical modifications to structures located at the McArthur-Burney Falls Memorial State Park, Bowman Ditch, and Ahjumawi property are proposed in connection with the transfer of ownership. Following the exchange, Burney Falls and Bowman Ditch will be protected from major construction and other soil disturbing activities by the legal restrictions applicable to State parklands. Further, DPR is bound by its General Plan with respect to Burney Falls and must conduct a CEQA review for any activities which deviate from the

approved plan. Ground disturbing activities are prohibited on the Ahjumawi Property by the deed restrictions contained within the Conservation Easement, which will coincide with the property. Therefore, the transfer would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death. This is considered a less-than-significant impact.

Activities planned for the McArthur Swamp after the ownership transfer would not differ substantially from historic activities undertaken in the area since site reclamation earlier in the century. These activities include periodic maintenance of levees and roadways, recreational use, and grazing. Should one of the local faults in the area experience displacement, the McArthur Swamp could potentially experience levee failures from ground lurching and/or lateral spreading. Additionally, the banks of the levees could experience localized landslides and slumps. Furthermore, the McArthur Fault bisects the property and is designated as an Alquist-Priolo Fault-Rupture Study Zone. However, each of the proposed uses would not expose people or new structures to potential substantial adverse effects, including the risk of loss, injury, or death. Therefore, a less-than-significant impact is expected.

- b) The proposed project involves no earthwork at the Burney Falls, Bowman Ditch, and Ahjumawi Properties. Therefore, aside from naturally occurring erosional processes, no impact is anticipated.

On the McArthur Swamp property, grading activities involved with the construction and development of wetland habitat at the Hollenbeak and Ash fields would have the potential to cause accelerated erosion, unless proper erosion control measures are implemented. Levee improvements and associated road maintenance necessary for delivery of imported fill would also cause temporary disturbances to the topsoil surfaces. These disturbances could cause increased dust generation, siltation caused by placement of large aggregate on the waterside of levees, local soil compaction caused by equipment loads, and exposure of mineral soil surfaces to erosion. Adherence to appropriate engineering, design, and construction practices, such as dust control, seasonal considerations, and rapid revegetation, would minimize impacts involving these improvements at the McArthur Swamp property, resulting in a less than significant impact.

Statutes such as Section 404 of the Clean Water Act and other federal and state regulations require an erosion and sedimentation control plan prior to major construction. As indicated by PG&E in their PEA, wetland construction work will be completed under a USACOE Nationwide No. 27 Permit, which requires agreement with the USFWS and a water certification or waiver. Additionally, the recontouring of the Hollenbeck field and excavation of three ponds in the S-field would be considered a major construction / excavation activity and would disturb over 10,000 square feet of surface area. As a result, the applicant will be required to obtain a grading permit from the Shasta County Environmental Health Department consistent with the Shasta County Grading Ordinance. Adherence to standard grading practices as required by the grading permit would ensure

that the impacts from erosion would be less-than-significant. The County Environmental Health Department would act as the monitoring body to ensure compliance with the permit.

- c) As described under item (a), while various areas of the project site do consist of unstable soils, there are no facilities proposed as part of the project which have the potential to be impacted by these soils, therefore this is a less than significant impact.
- d) As indicated in **Table VI-1**, each of the transfer properties would contain, to some degree, expansive soils, as defined in Table 18-1-B of the Uniform Building Code. However, as indicated in the Project Description, the land transfers would not involve the construction of any inhabitable structures. Therefore, the proposed land transfers would not create a substantial risk to life or property. As a result, less-than-significant impact is expected.
- e) There are no septic tanks or wastewater disposal systems proposed as part of this project, therefore this item is not applicable.

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Issues (and Supporting Information Sources):

VII. HAZARDS AND HAZARDOUS MATERIALS --

Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

SETTING

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. Numerous materials used in business, commerce, manufacturing, and households are considered hazardous because of their chemical and physical properties. The California Code of Regulations (CCR) defines a hazardous material as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored,

transported or disposed of, or otherwise managed (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).

Hazardous wastes are defined in a similar manner. Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3). Toxicity, ignitability, corrosivity, and reactivity are defined in the CCR, Title 22, Sections 66261.20-66261.24.

To assess the potential for the presence of existing hazardous waste or materials on any of the subject transfer properties, two Phase I Environmental Site Assessments were conducted in the past. A Phase I Environmental Site Assessment was completed for the McArthur Swamp property by IT Corporation in December 1999 and a similar assessment was completed for the Pit 3 project area by Camp Dresser & McKee in October 1997. The objective of the Phase I Environmental Site Assessment was to provide information in order to assess whether there has been or may have been a release of hazardous material, or whether a naturally occurring hazardous material is present, based on reasonably available information about the property and surrounding area. Copies of the Phase I reports are referenced herein, and are available for review at the CPUC offices. The results of the Phase I Site Assessments are described below.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The 1997 Phase I Environmental Site Assessment prepared for the Pit 3 area included a portion of the FERC Project 233 license boundary from the Pit 3 powerhouse to Lake Britton (October 1997). That Site Assessment was conducted in accordance with ASTM Standard E1527, and included a site visit, interviews with people associated with the site, a review of historical records, and a search of available governmental agency databases. The assessment conducted for this area identified 13 hazardous environmental conditions however, those conditions were identified for the powerhouse, switchyard, penstocks, tunnel, dam, and powerhouse support facilities, and not for the portion of the Pit 3 area which is associated with the proposed transfer. The only potential hazardous issue was identified for Camp Britton, which was constructed during an era when asbestos was a common building material, therefore any future demolition of these structures (none proposed as part of project) would be subject to the conditions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), California Occupational Safety and Health Administration (Cal/OSHA), and the Shasta County Air Pollution Control District (SCAPCD). NESHAP are rules promulgated by U.S. EPA under the Clean Air Act (40 C.F.R. Section 61.140, et. seq.), and Cal/OSHA and the Contractors State License Board require using a licensed asbestos removal contractor who knows the legal requirements and has the trained staff and equipment to do the job properly for all asbestos removal as a part of renovation, remodel, repair or demolition.

Phase I Environmental Site Assessments were not conducted for Bowman Ditch and Ahjumawi properties. These two properties are undeveloped with accessibility extremely limited and a portion of the Ahjumawi property is flooded. These lands are accessed infrequently, contain few

public recreation sites, contain few or no structures, and are not used as storage sites for hazardous materials. Therefore, the existence of hazardous conditions and the exposure to hazardous materials is very unlikely (PG&E, 2000).

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

As mentioned above, a Phase I Environmental Site Assessment was prepared in 1999 for the McArthur Swamp Property in accordance with ASTM Standard E1527. It included a site visit, an automobile and helicopter tour of the site and surrounding properties, interviews with people associated with the site, a review of historical records and aerial photographs, and a search of available governmental agency databases. The Phase I concluded that no hazardous environmental conditions in connection with McArthur Swamp, including the Glenburn Dredge site, were present.

As part of this subsequent CPUC analysis, current and updated database searches were conducted, and a summary of the databases searched and a list of the databases accessed by VISTA Information Solutions can be found in the administrative record for this project. A limited site reconnaissance was also performed by ESA personnel on January 23 and 24, 2001 for areas of the land transfer properties that were easily accessible by vehicle and on foot. The VISTA reports indicated that the McArthur Swamp and Glenburn Dredge Site transfer properties were not listed on any of the federal, state, regional or local agency databases searched. The limited site reconnaissance did not reveal any hazardous materials storage, generation or use, or any evidence of underground storage tanks or hazardous materials releases on the portions of the land transfer properties that were accessed. Due to inaccessibility on foot to the area where the dredge "Frances" was moored (not directly adjacent to the dredge site parcel), the dredge and immediately surrounding area was not observed at the time of the site reconnaissance.

REGULATORY SETTING

Hazardous materials are subject to numerous laws and regulations at all level of government. A summary of the most pertinent regulations and their administering agencies is provided below.

Federal

Federal regulatory agencies include the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Nuclear Regulatory Commission (NRC), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following represent federal laws and guidelines governing hazardous substances:

- Federal Water Pollution Control Act
- Clean Air Act
- Occupational Safety and Health Act

- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response Compensation and Liability Act
- Guidelines for Carcinogens and Biohazards
- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

At the federal level, the principal agency regulating the generation, transport and disposal of hazardous substances is the EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The EPA regulates hazardous substance sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations (CFR).

State

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) of the State of California establish rules governing the use of hazardous substances. The State Water Resources Control Board (SWRCB) has primary responsibility to protect water quality and supply.

The Cal/EPA was created in 1991 to better coordinate state environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. Cal/EPA unifies the state's environmental authority under a single accountable, Cabinet-level agency. The Secretary for Environmental Protection oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board, Department of Toxic Substances Control, and Office of Environmental Health Hazard Assessment.

Applicable State laws include the following:

- Porter Cologne Water Quality Act
- Public Safety/Fire Regulations/Building Codes
- Hazardous Substance Control Law
- Hazardous Substances Information and Training Act
- Hazardous Substances Release Response Plans and Inventory Act

- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act

Local

The Unified Hazardous Waste and Hazardous Management Regulatory Program (SB 1082, 1993) is a state and local effort to consolidate, coordinate, and make consistent existing programs regulating hazardous waste and hazardous materials management. Cal/EPA adopted implementing regulations for the Unified Program (CCR, Title 27, Division 1, Subdivision 4, Chapter 1) in January 1996. The Unified Program is implemented at the local level by Certified Unified Program Agencies (CUPAs).

The Shasta County Department of Resource Management, Environmental Health Division (SCEHD) is the CUPA for cities and unincorporated areas within Shasta County. SCEHD regulates the use, storage and disposal of hazardous materials by issuing permits, inspecting facilities, and investigating complaints. The SCEHD issues permits for installation and removal of underground storage tanks. The SCEHD inspects businesses for compliance with the Hazardous Waste Control Act. Hazardous waste is subject to storage time limits, disposal requirements, and labeling requirements on containers. The SCEHD also requires that businesses that handle hazardous materials and hazardous wastes submit a Hazardous Materials Business Plan. The Plan includes an inventory of hazardous materials and hazardous wastes, as well as an emergency response to incidents involving those hazardous materials and wastes.

Under a contract with the State Water Resources Control Board, the SCEHD conducts the Local Oversight Program to oversee the abatement and cleanup of releases of hazardous substances from underground storage tanks in Shasta County that do not involve chemical releases to water. The California Regional Water Quality Control Board (RWQCB) is the lead agency for chemical releases to water throughout the County.

HAZARDS AND HAZARDOUS MATERIALS IMPACT DISCUSSION

- a) The proposed land transfer project does not have the potential to result in the creation of a significant hazard to the public or the environment through the use, transport, or disposal of hazardous materials. The use of herbicides and pesticides as a hazardous material was considered as part of this analysis. First, no information has been provided that suggests pesticides or herbicides are being used at Burney Falls, Bowman Ditch or Ahjumawi and none are proposed for use as part of this project, therefore the potential impact is determined to be less than significant. Second, regarding McArthur Swamp and Glenburn Dredge site, no significant storage or use of herbicides or pesticides is proposed as part of the project, therefore a less than significant impact is expected. In addition, the proposed Grazing Lease Agreement does not allow the RMA to apply pesticides, insecticides, fungicides, herbicides, or other chemical treatments at the Ahjumawi transfer property that

will have a residual effect beyond the term of the lease, except with the prior written consent of CWA.

Finally, although the Shasta County Department of Agriculture has a noxious weed abatement program and this program may effect portions of the transfer properties, state law requires that any chemical materials applied must be state approved for the designated purpose and applied by a person licensed to handle the materials. The management of any noxious weeds through the County abatement program will be consistent with the California Food and Agriculture Code and local Agriculture Commissioner policies. Therefore, no significant adverse impact to the environment is expected to occur from any current or planned application of herbicides.

- b) Although the use of earthmoving equipment associated with the McArthur Swamp habitat enhancement activities will temporarily expose environmentally sensitive areas to hydraulic oil and fuel and a potential risk of upset exists, standard construction and spill prevention safety techniques will result in a less-than-significant impact.

Two other potential issues related to risk of upset were raised in the PEA (PG&E, 2000) regarding Camp Britton. The first was the storage of fossil fuels at the camp, and the second was the possible use of building materials containing asbestos in the construction of the structures located at Camp Britton. According to PG&E, the only fossil fuel storage at Camp Britton is an above-ground propane tank. There are no known underground fuel tanks, and only small quantities (five gallons or less) of gasoline occasionally stored for lawnmowers or other small gasoline powered equipment used to maintain the grounds (PG&E 2001). Any risk of upset presented by existing fuel storage is minimal and an existing condition.

Regarding the potential presence of asbestos, this analysis finds the following conclusion. If demolition of structures at Camp Britton is proposed in the future, asbestos testing and abatement would be completed pursuant to federal, state and local requirements. Since no demolition is proposed as part of the project, this is a less-than-significant impact.

Finally, the dredge “Frances” has been located at the Glenburn Dredge site and surrounding waterways that was used for many years by PG&E to maintain levees at or near McArthur Swamp. The dredge is to be donated by PG&E to CWA in the land transfer agreement for potential levee maintenance use in the future and because it is impractical to move the dredge due to its size. The Phase I Environmental Site Assessment for McArthur Swamp property did not identify any hazardous environmental conditions in connection with McArthur Swamp, including the Glenburn Dredge site (December 1999).

- c) There are no schools located within one-quarter mile of the land transfer properties; therefore, there is no potential for exposure of hazardous materials to schools.

- d) As a part of the past Phase I Environmental Site Assessments for the land transfer properties, a governmental agency database search was performed, which included the CORTESE database. In addition, updated record searches were conducted as part of this analysis for both transfer properties. The database searches conducted for Burney Falls, Bowman Ditch and Ahjumawi transfer properties, as well as the McArthur Swamp and Glenburn Dredge Site indicated that those transfer properties were not listed on any of the federal, state, regional or local agency databases searched, including the CORTESE database.
- e, f) A private airport is located approximately five miles from the McArthur-Burney Falls Memorial State Park, Bowman Ditch, and Ahjumawi Property. The Fall River Mills Airport is located approximately four miles from the McArthur Swamp and Glenburn Dredge properties (CalTrans 1998). Since there are no airports located within two miles of the land transfer properties, no safety hazards or potential impacts relative to airports exist.
- g) There is currently no storage or use of hazardous materials in quantities on any of the transfer properties that would require submission of a hazardous materials business plan to the Shasta County Environmental Health Division, which would include a site specific emergency response plan. In the absence of a site-specific plan, the California Office of Emergency Services (OES) coordinates overall state agency response to major disasters in support of local government. OES maintains the State Emergency Plan, which outlines the organizational structure for state management of the response to natural and manmade disasters. In addition, Shasta County has an Emergency Plan that includes regulations regarding the transport and disposal of hazardous materials and hazardous wastes. Shasta County coordinates with federal and state agencies to review and update their Emergency Plan. The project itself has no potential to interfere with adopted emergency response or evacuation plans, resulting in no impact.
- h) Due to the remote and mainly undeveloped nature of the McArthur Swamp, Glenburn Dredge, Burney Falls, Bowman Ditch, and Ahjumawi land transfer properties, the potential for wildland fires exists; however, no major urbanized areas and few intermixed residences are located directly adjacent to the properties. Therefore, the potential for a significant impact related to wildland fires is low. Should a fire occur, the combined resources of the U.S. Forest Service, California Department of Forestry, Shasta County Volunteer Fire Department, and Burney Fire Protection District would provide a response. For the above stated reasons, the potential impact is considered less than significant.

REFERENCES

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Issues (and Supporting Information Sources):

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
i) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

SETTING

While the subject lands are situated in three distinct areas, the project areas lie in the Pit River drainage area. The Fall River, the main tributary to the Pit River, lies within the project area, and originates from numerous large springs and spring fed tributaries. Ahjumawi Lava Beds State Park drains to spring-fed Horr Pond and Big Lake, the headwaters of the Tule River. McArthur Swamp drains through a series of channels and canals to the Pit River south of the site. At the

western boundary of McArthur Swamp, the Little Tule River joins the Tule River and flows into the Fall River. At Fall River Mills, due south of McArthur Swamp, the Fall River flows into the Pit River.

PG&E has pre-1914 entitlements on the Fall River at Fall River Mills and at Pit 3 Dam (Lake Britton). Additional water rights were appropriated after 1914 for portions of the Pit River Project. The water rights associated with McArthur Swamp are primarily for stock watering.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls is situated near the mouth of Burney Creek on Lake Britton, which lies within the Pit River Drainage basin. Pit 3 Dam creates Lake Britton, which functions as the forebay for PG&E's Pit River 3 Powerhouse. Burney Creek originates near the Thousand Lakes Wilderness, about 25 miles south of Lake Britton. During summer low flow periods, portions of Burney Creek between the town of Burney and Burney Falls are comprised solely of subsurface flows. From just above Burney Falls to Lake Britton, significant groundwater accretions comprise most of Burney Creek's flow.

The authorized land uses that have a potential to impact water resources within the Pit River drainage include recreation, livestock grazing and watering, agriculture, and septic systems.

PG&E holds all the water rights associated with Bowman Ditch, and its uses of the property do not include any generating facilities or other activities that result in significant uses of water. Recreation activities associated with the adjoining Ahjumawi State Park are the only authorized land uses that have the potential to impact water resources in Bowman Ditch.

Ahjumawi is largely undeveloped, with the exception of over four miles of deteriorated levees along the Tule and Little Tule Rivers. Repair and maintenance of the levees has historically been accomplished with materials dredged from the bottom of the adjacent rivers. Over the past few years, levee leaks due to muskrat activity, erosion caused by wave action, and the absence of routine dredging to protect the Shasta crayfish have resulted in the flooding of Ahjumawi.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

Research shows that PG&E acquired the site in 1917 as part of its development of the hydroelectric resources of the Pit River. PG&E originally acquired the property from the McArthur family to obtain the land-associated water rights for its projects. A system of levees was subsequently constructed along the Tule River, Horr Pond, and Big Lake. The remainder of the site was drained and protected by levees, and leased to local livestock owners for grazing land. The site remains otherwise undeveloped. The springs on the site flow from fall through the spring until groundwater pumping brings down the water table.

Approximately 5.8 miles of levees along Big Lake and the Tule River protect the McArthur Swamp. Historically, PG&E to prevent inundation of its property, State of California property,

and other private properties adjacent to the levees have maintained the Tule River Levee System, including the 5.8-mile section called the McArthur Swamp levee in the MSMP. McArthur Swamp is drained by several canals, which are used for livestock watering. These canals include the McArthur Canal, the McArthur Drain, The Lee Drain, and the Central Drain.

There are two wells in the vicinity of the site. A state water supply well located along the southern boundary of McArthur Road serves 1,600 people through 460 connections. There is a public water supply well located southeast of the site in the Town of McArthur, which services less than 101 residents at McArthur Mobile Home Park. Additionally, there are two abandoned artesian wells on Rat Farm Road.

Over the 5-year period following the transfer of McArthur Swamp to CWA, the MSMP (described in Section 1.0 Project Description) calls for CWA and the RMA, to take specified actions to improve wildlife habitat, stabilize levees, protect and create habitat for the Shasta crayfish, and some of these actions have the potential to affect hydrologic resources.

REGULATORY SETTING

The federal Clean Water Act provides for restoration and maintenance of water quality, including pollutant discharges and prevention of discharge of pollutants in toxic amounts. Section 401 of the Clean Water Act requires an applicant for a federal license or permit for any activity that may result in a discharge into navigable waters to obtain a certification from the state that discharges will comply with state and federal limitations, or obtain a waiver of certification from the state.

The groundwater basin in the project area is subject to the jurisdiction of Shasta County. A valid permit to drill a well is required in Shasta County. Permits are obtained from the Environmental Health Division, within the Department of Resource Management. Section 13750.5 of the California Water Code requires that any person digging, boring, drilling, deepening, or destroying a water well, cathodic protection well, or monitoring well possess a C-57 Water Well Contractors License. A well permit must clearly identify the drilling contractor and C-57 contractor's license number.

Shasta County's Division of Environmental Health, within the Department of Resource Management, is charged with the responsibility of enforcement of pertinent California health laws, rules, regulations, and Shasta County ordinances.

HYDROLOGY AND WATER IMPACT DISCUSSION

- a) The proposed improvement of McArthur Swamp Levee, development of fresh emergent wetlands, and development of reverse cycle wetlands will require considerable earth movement. The proposed project is not expected to contribute pollutants to surface waters over the long term. However, in the near-term, construction activities related to the project (i.e., excavation, soil stockpiling, and grading) will be required and will take place adjacent

to the Tule River. These activities can expose soil and contribute to accelerated soil erosion by wind and water. Short-term construction-related erosion is probable on the project site during construction and could constitute the primary source of water pollutants. Secondary sources could include the incidental release from construction equipment of petroleum-based substances such as gasoline, engine oil, and hydraulic fluid. Soil erosion can cause various environmental impacts, which could directly affect the water quality of the Tule River and adjacent water.

In conformance with requirements of the Clean Water Act administered by the USEPA, a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared by CWA, in conformance with the California NPDES General Permit for Storm Water Discharges. The SWPPP shall focus on operations associated with construction activity. The SWPPP shall contain specific actions for construction, storage, stabilization, monitoring, and reporting activities at the project site. Proposed levee protection measures will be performed from the landside of the levee to minimize siltation and erosion impacts to the waters on the opposite side of the levee.

The SWPPP shall include best management practices (BMPs) necessary to control pollutant sources associated with the handling and storage of construction materials and equipment; site grading activities; and post-construction runoff. These BMP elements include hazardous materials storage, storage of construction equipment, containment of leaking construction equipment, spill prevention and control practices, and site worker training. Project related activities could result in temporary increases in sediment in Tule River and therefore, will be conducted in accordance with BMPs designed to minimize sedimentation.

Operating the proposed project in accordance with the SWPPP and its associated BMPs will minimize or eliminate construction-related pollutants from entering Tule River during the levee improvements and wetlands construction activities. In the long term, the project will have beneficial impact by stabilizing the levees. The above measures shall be incorporated into the project to control, reduce and eliminate pollutant sources, the potential for the project activities to violate water quality standards or waste discharge requirements is considered a less than significant impact.

As part of the proposed project, the Dutra dredge “Frances” is to be donated by PG&E to CWA in the land transfer agreement for potential emergency levee maintenance in the future. It has been on site and used for many years by PG&E. IT Corporation identified no recognized environmental conditions for the transfer property during the Phase I Environmental Assessment prepared in 1999. The land transfer itself is not expected to violate any water quality standards or waste discharge requirements.

- b) The groundwater body, rivers, springs and lakes are hydraulically interrelated. The Fall River Valley Groundwater Basin is one of two significant groundwater basins in Shasta

County. Although the firm, or reliable, water yield from this basin is unknown, the storage capacity for the 120-square-mile Fall River Valley Basin is estimated to contain approximately one million acre-feet of storage. Primary uses of groundwater in the area include municipal and agricultural uses. The Fall River Community Services District owns and operates a municipal and domestic water system in the communities of Fall River Mills and McArthur. The proposed transfer agreement includes installation of an irrigation well capable of producing 2,000 GPM in Field E6, and additional piping will be installed to deliver water to nearby fields. The water will be used to supply a part of 300 ac-ft of supplemental water per year to achieve wetland management objectives outlined in the MSMP. This groundwater extraction will reduce the amount of water available to the system by the amount that is lost to evapo-transpiration on the wetlands. However, because of the minimal draft on the available groundwater resource by municipal and agricultural uses in the Fall River Valley, this reduction is not expected to impact existing land uses or planned uses. A well drilling permit is required in Shasta County and a subsequent drilling report, including the water well log of boring materials, shall be forwarded to the California Department of Water Resources in accordance with California Water Code Section 13700.

- c) Earthwork associated with constructing water management berms and brood ponds, grading fields, ditch maintenance, and road improvements have the potential to alter the existing drainage pattern of the site in a manner that would result in siltation and erosion. The PEA states that these activities shall be conducted under dry conditions using standard excavation equipment. When water is first applied to the disturbed areas, either by precipitation or irrigation, increases in turbidity and total suspended solids may result. The impact will correspond with other agricultural practices being conducted on fallow land within the Fall River Valley and will, therefore, be insignificant. Any construction impacts are expected to be confined to fields themselves, as the water being applied will be used for irrigation and wildlife habitat in those fields and not immediately discharged, allowing for percolation and settling of any suspended material. PG&E has indicated that the wetland construction work will be completed under a USACOE Nationwide No. 27 Permit, which requires agreement with the USFWS and a water certification or waiver.

According to the Shasta County Grading Ordinance, a grading permit is required for activities involving movement of earth materials in excess of 250 cubic yards or that disturbs 10,000 square feet or more of surface area. In addition, for earth moving activities taking place between October 15 and May 1, a wet weather plan must be prepared by an erosion control specialist. The Shasta County Environmental Health Department conducts a grading permit inspection and is responsible for ensuring compliance on the ground. The project shall obtain a Grading Permit from Shasta County and follow ordinance requirements to control and minimize erosion and sedimentation during earth movement activities.

- d) CWA will accept transfer of McArthur Swamp subject to a conservation easement and the MSMP. The Conservation Easement obligates CWA and its successors to preserve the existing beneficial uses of McArthur Swamp, and to use the property in a way that fosters

local community cohesiveness, economic viability, and ecological stability. In particular, the Conservation Easement binds CWA, and all successor owners, to (1) forever preserve the existing scenic, agricultural, and open space condition of the properties; (2) preserve cultural sites existing at McArthur Swamp; (3) maintain existing wildlife benefits; and (4) continue wetland habitat enhancement, property, management, and the protection of the properties in accordance with the MSMP. Although there will be some earth moving to construct water management berms, brood ponds, etc., the project does not include any features that would increase impervious area on the project property and therefore would not substantially alter the existing drainage pattern of the site in a manner that would increase flooding. Implementation of the proposed project will have a less than significant impact on the rate or amount of surface runoff leaving the project site.

- e) The drainage system on the site is comprised of a network of canals and drains. The system is also used to provide water for livestock. Impacts from minor construction, such as road repairs, installing a well and related conduit, constructing ponds, and adding fencing may disturb soil temporarily. Permits from local and federal agencies will govern these activities. The minor changes to the improvements will not significantly change the existing uses of the land, and therefore, the quantity of storm water runoff is not expected to increase beyond current conditions. Also, as described in more detail under item (a), short-term construction-related erosion could constitute the primary source of water pollutants. However, the proposed project is not expected to contribute pollutants to surface waters over the long term.
- f, g) Portions of the project lands lie within the 100-year flood hazard area. However, no housing or other structures are proposed as part of this project therefore no impact is anticipated.
- h) The portion of Ahjumawi Lava Springs State Park located between the Tule River and the Little Tule River was protected by a levee. However the levee failed in recent years, resulting in flooding of this portion of the park. It is not feasible to make repairs to the levee due to the presence of state and federally listed endangered species, the Shasta Crayfish. Following the transfer of property, the levees will be allowed to deteriorate. The State of California will release all claims against PG&E arising out of the failure of the State Park Levee. This release is necessary to implement the “no maintenance” alternative recommended by the Shasta Crayfish Monitoring and Management Plan, part of the MSMP. Levee improvement work at McArthur Swamp is currently ongoing pursuant to a recommendation made in FERC’s Final Environmental Assessment of PG&E’s Pit 1 relicensing application. Because this project is limited to the transfer of land, including a Conservation Easement and other terms designed to maintain existing land uses and enhance habitats, the exposure of people and/or structures to significant risk or loss due to flooding as a result of the land transfer is less than significant.

- i) The geographic location and topography of the site, remote from major water bodies and essentially level, render the potential for impacts from seiche, tsunami, or mudflow no impact.

REFERENCES

IT Corporation, Phase I Environmental Assessment Report, Pacific Gas and Electric Site, McArthur Swamp Property, McArthur, CA. December 17, 1999.

Camp, Dresser, and McKee, Phase I Environmental Assessment Report, Pacific Gas and Electric Site, Pit 3 Hydroelectric Generating Facility, Shasta County, CA. October, 1997.

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Shasta County, 1996. Shasta County General Plan.

A.00-05-029. Proponent's Environmental Assessment. Application No. 00-05-029.

A.00-05-030. Proponent's Environmental Assessment. Application No. 00-05-030.

Issues (and Supporting Information Sources):

IX. LAND USE AND PLANNING -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

SETTING

The Shasta County General Plan and Zoning Ordinance guides land use and development on project lands located outside of FERC's jurisdiction. Any areas removed from the FERC project boundary will technically revert to Shasta County's, except lands transferred to the state DPR including the Burney Falls and Bowman Ditch lands. The Shasta County General Plan notes that the historic pattern of land use and the existing organization of its communities will largely determine the future pattern of land use development in Shasta County.

Land uses in the vicinity of the land transfer properties include open space, recreation, grazing, agriculture, timber, and residential and commercial development. Public lands in the area are managed by the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), California State Lands Commission, California Department of Parks and Recreation (DPR), and the Bureau of Indian Affairs Office of American Indian Trust.

The Shasta County General Plan designates the transfer lands as follows:

Public Lands and Open Space

This designation provides for the protection of open space areas that generally do not have the resource values of agricultural or timberlands.

Full Time Agricultural Cropland

This designation provides for the protection of lands with soil characteristics, adequate size, and that can normally be irrigated for full time agricultural uses.

Timber

This designation provides for the protection of timberlands for timber management.

Zoning designations for the project lands include:

Limited Agriculture District (Five acre lot minimum)

This zoning provides for the preservation of agricultural lands at a size capable of supporting part-time agricultural operations.

Exclusive Agricultural District

This zoning provides for the preservation of lands with agricultural value that, has the combination of size and quality. The preservation of these lands is sometimes done in conjunction with other lands, to make their use for agriculture economically feasible, and within which agricultural preserves may be created for the purpose of utilizing provisions of the law relating to agricultural preserves.

Restrictive Flood District

This zoning is intended to be combined with any principal district to minimize or avoid hazards to life and property from flooding in the areas of special flood hazard established by the Federal Emergency Management Agency, pursuant to the Flood Disaster Protection Act of 1973, and in other areas of significant flood hazard.

Building Site District

This zoning is intended to be combined with any principal district to modify the minimum lot area standard otherwise applicable in the principal district.

Unclassified District

This zoning is intended to be applied as a holding district until a precise principal zone district has been adopted for the property. All new uses in this district shall be consistent with all applicable policies of the General Plan.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Existing Shasta County land use designations and zoning for the Burney Falls land transfer property are presented in **Table IX-1**.

The Burney Falls transfer property is irregular in shape and contains a total of about 182 acres. The site extends about two miles from east to west along the south shore of Lake Britton and up to about one-quarter mile south from the shoreline. The McArthur-Burney Falls Memorial State Park and State Highway 89 at the easterly extension bound the property on the south. Burney Falls is currently used for recreation. The property can readily be described as four separate areas, distinguished by differing physical characteristics and by differing uses. Each is described below:

**TABLE IX-1
MCARTHUR-BURNEY FALLS TRANSFER PROPERTY
ASSESSORS PARCEL NUMBERS AND EXISTING LAND USE
DESIGNATIONS/ZONING**

Assessor's Parcel Number	Shasta County G. P. Designation*	Shasta County Zoning*
023-080-004	PL (Public Lands)	A-1/BA5 (Limited Agriculture/Building Site, 5 acre minimum lot area)
023-080-007	T (Timber)	U (Unclassified)
023-060-022	T (Timber)	U/F2 (Unclassified/Restrictive Flood District)

* The McArthur-Burney Falls Memorial State Park General Plan (1997) designation (Open Space/Day Use) supersedes the County General Plan designation and zoning.

SOURCES: Shasta County General Plan, 1998
Shasta County Planning Department, 2001

- 1) Burney Falls includes 49 acres area east of Burney Creek and extending north to include a broad peninsula, now used by the McArthur-Burney Falls Memorial State Park as a boat launching ramp and day use picnic area. Vegetation on this portion of the property is similar to that at the westerly end, but the conifer forest is slightly more open with a brush understory. Most of the area is fairly steep, but the peninsula is only slightly sloping to nearly level in a fairly large area. Access to this portion of the property is by way of a paved road that extends north from the McArthur-Burney Falls Memorial State Park campground a distance of about 1.5 miles.
- 2) The portion of the property lying west of Burney Creek contains about 22 acres and includes mostly steep slopes along the lakeshore and a more level bench along the lake on the west side of the Burney Creek arm of the lake. This bench area is the site of Camp Britton. Vegetation on the slopes includes fairly dense stands of old growth mixed conifers up to about 30 inches or larger in diameter. The bench area where the improvements are located is more open, with annual and perennial grasses dominating the vegetative cover. Camp Britton is currently licensed by PG&E to Pacific Service Employees Association (PSEA), and has an eight-room, hotel style building, caretaker's cabin, garage, shed, storage building, groundwater well, and dock. The residential building is constructed of wood walls with a shingle and sheet metal roof around a wood frame and is elevated off the ground by wood posts bolted to small concrete blocks. All other buildings are constructed of wood walls on concrete foundations with wood or shingle roofs. A groundwater pump house, located approximately 1,000 feet away from the camp, provides Camp Britton with potable water. The main building has about 6,048 square feet on the ground floor and 1,008 square feet on the second floor. The structure is divided into a total of eight separate units. These improvements are subject to the PSEA license agreement through 2005.
- 3) The Cemetery Cove area of the Burney Falls property, also accessed through the McArthur-Burney Falls Memorial State Park, is named for a pioneer cemetery located there.

This portion of the property contains about 34 acres, and the topography is more moderately sloping than the areas previously described.

- 4) The easterly end of the property, bounded to the south by State Highway 89, includes a narrow projection along the lakeshore connecting to the Cemetery Cove area. This portion of the property is approximately 78 acres and has generally steep slopes with less dense conifer growth, but a heavier understory of brush. Access is directly off State Highway 89.

Existing Shasta County land use designations and zoning for the Bowman Ditch land transfer property are presented in **Table IX-2**.

TABLE IX-2
BOWMAN DITCH TRANSFER PROPERTY
ASSESSORS PARCEL NUMBERS AND EXISTING LAND USE
DESIGNATIONS/ZONING

Assessor's Parcel Number	Shasta County G. P. Designation*	Shasta County Zoning*
016-320-013	A-C (Full time Agricultural Cropland)	EA/F2 (Exclusive Agricultural/Restrictive Flood District)
016-250-021	PL (Public Lands)	U (Unclassified)

* Bowman Ditch will be subsumed into the Ahjumawi State Park when transferred and would be classified as "state park" and land use would be restricted by California Public Resources Code Section 5019.53.

SOURCE: Shasta County General Plan, 1998
Shasta County Planning Department, 2001

The four-acre Bowman Ditch property, located near Eastman Lake and adjacent to the Little Tule River, was developed in the early 1940s to channel water flowing from various springs to the Little Tule River for hydroelectric power production. It remains functional and is currently inundated with water. Adjacent lands are unimproved grass and wetlands. A few farm buildings are visible near the upper end of Bowman Ditch, but these improvements are not located on the Bowman Ditch transfer property. Access to the property is by boat from the Little Tule River.

Existing Shasta County land use designations and zoning for the Ahjumawi land transfer property is presented in **Table IX-3**.

Ahjumawi is irregular in shape and contains a total of 544 acres. The Tule River bounds that property on the east and the Little Tule River on the west. The topography is nearly level to gently sloping at an elevation of about 3,300 feet. The property was protected from flooding by the State Park Levee, which followed the edge of both rivers a distance of about four miles around the boundary of the property. Because the levee failed in several locations in the early 1990s, the property is mostly inundated with water to a depth of several feet, and having had time to revert to natural conditions, would probably be classified as "wetlands".

**TABLE IX-3
AHJUMAWI TRANSFER PROPERTY
ASSESSORS PARCEL NUMBERS AND EXISTING LAND USE
DESIGNATIONS/ZONING**

Assessor's Parcel Number	Shasta County G. P. Designation*	Shasta County Zoning*
016-320-011	PL (Public Lands)	U (Unclassified)
016-320-028	PL (Public Lands)	U/F2 (Unclassified/Restrictive Flood District)
016-410-001	PL (Public Lands)	U/F2 (Unclassified/Restrictive Flood District)

* Ahjumawi is a part of the Ahjumawi State Park, which is classified as "state park" and land use would be restricted by California Public Resources Code Section 5019.53.

SOURCE: Shasta County General Plan, 1998
Shasta County Planning Department, 2001

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

Existing Shasta County land use designations and zoning for the McArthur Swamp and Glenburn Dredge land transfer properties are presented in **Table IX-4**.

**TABLE IX-4
MCARTHUR SWAMP AND GLENBURN DREDGE TRANSFER PROPERTIES
ASSESSORS PARCEL NUMBERS,
AND EXISTING LAND USE DESIGNATIONS/ZONING**

Assessor's Parcel Number	Shasta County G. P. Designation	Shasta County Zoning
016-320-011	PL (Public Lands)	U (Unclassified)
016-320-028	PL (Public Lands)	U/F2 (Unclassified/Restrictive Flood District)
016-410-001	PL (Public Lands)	U/F2 (Unclassified/Restrictive Flood District)
016-250-024	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-320-012	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-320-013	A-C (Full time Agricultural Cropland)	EA/F2 (Exclusive Agricultural/Restrictive Flood District)
016-320-026	A-C (Full time Agricultural Cropland)	EA/F2 (Exclusive Agricultural/Restrictive Flood District)
016-390-005	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-390-008	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-390-010	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-390-011	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)

016-410-002	A-C/PL (Full time Agricultural Cropland/Public Lands)	U/F2 (Unclassified/Restrictive Flood District)
016-410-004	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-410-005	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-410-006	A-C/PL (Full time Agricultural Cropland/Public Lands)	U/F2 (Unclassified/Restrictive Flood District)
016-410-007	A-C (Full time Agricultural Cropland)	U/F2 (Unclassified/Restrictive Flood District)
016-410-008	A-C (Full time Agricultural Cropland)	U (Unclassified)
016-420-001	A-C/NO (Full time Agricultural Cropland/Open Space)	U/F2 (Unclassified/Restrictive Flood District)
016-520-046	NO (Open Space)	U/F2 (Unclassified/Restrictive Flood District)
018-010-001	A-C (Full time Agricultural Cropland)	U (Unclassified)
018-010-002	A-C (Full time Agricultural Cropland)	U (Unclassified)
018-010-003	A-C (Full time Agricultural Cropland)	EA (Exclusive Agricultural)
018-010-006	A-C (Full time Agricultural Cropland)	U (Unclassified)
018-010-008	A-C (Full time Agricultural Cropland)	U (Unclassified)
018-010-009	A-C (Full time Agricultural Cropland)	EA (Exclusive Agricultural)
023-540-034	A-C (Full time Agricultural Cropland)	EA/F2 (Exclusive Agricultural/Restrictive Flood District)
023-540-028	A-C (Full time Agricultural Cropland)	EA/F2 (Exclusive Agricultural/Restrictive Flood District)

SOURCE: Shasta County General Plan, 1998
Shasta County Planning Department, 2001

McArthur Swamp is 7,400 acres in size and includes significant reclaimed wetlands drained by canals and is protected by levees where the property meets Big Lake and the Tule River. These levees have historically been maintained and repaired either by dredging or importing fill material. The McArthur Canal extends from the Tule River between the confluence with the Little Tule River and Fall River, easterly and then southerly, exiting the property near the town of McArthur near the southeast corner of the property. The Lee Drain and the Central Drain enter the property along the east line and flows westerly, connecting with the McArthur Drain near the Rat Farm area.

Primary land uses on McArthur Swamp include livestock grazing, public recreation, and wildlife habitat management. While most of the property is devoted to livestock forage production, the Hollenbeak field and the Ash field are managed for wildlife habitat and public recreation facilities

are provided at the Big Lake Access. The facilities include a car top boat launch, an adjacent parking area, and a toilet building. Big Lake Access serves as the primary access to the Ahjumawi State Park as well as boating access to Big Lake and Tule River. Other recreation activities occurring on McArthur Swamp include fishing, hunting, hiking, and wildlife viewing. The areas to the east and west of Big Lake Access are prime habitat for migrating waterfowl and other wildlife species. According to PG&E and its Application Number 00-05-029, these land uses have been managed concurrently for the past fifteen years without conflict (wildlife management compliments recreation and grazing is managed to protect wildlife habitat and recreation opportunities).

Livestock grazing is visibly the most dominant land use at McArthur Swamp. Over time, fencing, water, and field management plans have been developed to manage livestock through pastures to increase the productivity of McArthur Swamp. Generally, livestock are returned to McArthur Swamp in mid-April on the fields designated as S1 through S5 as well as E1. As fields dry following the spring rains, livestock are gradually rotated into fields N1 through N4 and E2 and E3. During the summer and late summer periods, the livestock are moved into fields A1, A2 (Ash Field) and HB1 and HB2 (Hollenbeak). The locations of the fields are shown in **Figure 1-6**.

Each field is fenced and most have stock water tanks to provide water for the livestock, however many of the lowland areas in the Ash Field and Hollenbeak fields retain water through the summer and the livestock are generally not restricted from these areas. Roads and levees are fenced to prevent damage by the livestock. The livestock are removed no later than mid-November of each year.

The Dutra dredge "Frances" is normally berthed along side of the 5.5 acre Glenburn Dredge Site however the dredge is occasionally moved up and down stream as needed for minor levy repair work. Until recently, the California Wildlife Conservation Board (CWCB) in cooperation with PG&E and an adjacent landowner managed public access to the Fall River. A ten-car parking lot, car-top boat launch area, toilet and trash facilities were provided. The boat launch was an unimproved ramp that was simply a gradual access to the Fall River. There is no concrete or gravel ramp that would allow a vehicle to back to the water's edge. In 1996, public access to the boat launch site and parking area was terminated and the recreation site has not been maintained since that time. It is currently overgrown with weeds and grass, and the portable toilet and trash containers have been removed. The boat launching site is also overgrown with tules. A locked gate at the entrance prevents public vehicle access.

LAND USE AND PLANNING IMPACTS DISCUSSION

BURNEY FALLS, BOWMAN DITCH, AHJUMAWI PROPERTY, MCARTHUR SWAMP, AND GLENBURN DREDGE SITE

- a) The land transfer properties are located near, but not within, established communities, such as McArthur, Burney, and Fall River Mills. Therefore, the land transfers will not divide an established community or create an impact.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls

- b) DPR proposes to operate Burney Falls consistent with the McArthur-Burney Falls Memorial State Park General Plan and the restrictions of the Pit 3, 4 and 5 Project License (FERC No. 233). Any changes that may occur at Burney Falls will occur regardless of whether the proposed transfer is approved; DPR does not need to obtain the fee interest to carry out its General Plan. In addition, more than one-half of Burney Falls will remain subject to the FERC license regardless of whether or not DPR possesses the fee interest in Burney Falls. The project would not result in any conflicts with adopted land use plans, therefore there is no potential impact.

Bowman Ditch

- b) When Bowman Ditch is transferred to DPR, it will become a part of the Ahjumawi State Park. Since a state park General Plan has not been prepared for Ahjumawi, land uses on the property are restricted by California Public Resources Code Section 5019.53, which restricts improvements to the purpose of making areas available for public enjoyment and education while preserving the natural, scenic, cultural and ecological values of state park lands. The Exchange Agreement does give DPR the right to "fill or otherwise alter Bowman Ditch as may be necessary to restore wetlands, [as long as DPR does not] divert water from its eventual flow into the Little Tule River." The land transfer will not result in a conflict with any applicable land use plan, policy or regulation of a jurisdictional agency, therefore no impact is expected.

Ahjumawi Property

- b) Under the proposed transfer agreement, the CWA will become the ultimate owner of the Ahjumawi property. Since no General Plan has been prepared for the park, land uses on the property would be restricted by California Public Resources Code Section 5019.53, which restricts improvements to the purpose of making areas available for public enjoyment and education while preserving the natural, scenic, cultural and ecological values of state park lands. Ahjumawi will also become subject to the Conservation Easement and the MSMP, which will further serve to preserve the land in its natural state. Therefore no significant adverse affect to land use is expected to occur as result of the property transfers.

McArthur Swamp and Glenburn Dredge Site

- b) The Shasta County General Plan provides overall land use policy guidance to McArthur Swamp and the Glenburn Dredge Site. In addition, a portion of McArthur Swamp is within FERC project boundaries for the Pit 1 Project (FERC No. 2687). FERC generally requires the consent and support of state and federal agencies interested in protecting the environment and preserving recreational uses for any activities occurring on these lands.

Shasta County General Plan designations and zoning provide for the protection of open space areas and lands with agricultural value.

McArthur Swamp has historically been used for livestock grazing, recreation and wildlife habitat. The Conservation Easement and MSMP are intended to ensure that these pre-existing uses cannot be expanded in a manner that would create incompatibility between these uses. There are no incompatibilities or significant environmental impacts caused by the proposed changes to pre-existing land uses. Proposed changes proposed under the Conservation Easement and MSMP are geared toward the development and protection of nesting habitats, reverse cycle and fresh emergent wetlands, and other natural conditions, which could be viewed as beneficial to the environment.

The Glenburn Dredge Site will be transferred to CWA subject to conditions of the MSMP and the Transfer Agreement. The change in ownership will reopen the Glenburn Dredge Site to the public. However, it is not expected that the types of use or the intensity of the activities conducted on the lands will change substantially as a result of the land transfer. The conservation easement and MSMP will act as the equivalent of an area plan, providing defined land use planning guidance specific to the subject parcels. Because of the structured nature of the transfer and subsequent land management activities, the land transfers will not conflict with any land use plan, policy or regulation of the agencies with jurisdiction over the lands.

Burney Falls, Bowman Ditch, Ahjumawi Property, McArthur Swamp and Glenburn Dredge Site

- c) No natural communities conservation plans currently exist for northern California. There are no habitat conservation plans for the McArthur-Burney Falls Memorial State Park, the Ahjumawi Lava Springs State Park, or plans in Shasta County that would be applicable to any of the proposed transfer properties (Campbell, 2001). Therefore, the project does not have the potential to conflict with any plans, resulting in a finding of no impact.

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State of California, Resources Agency, Department of Parks and Recreation Commission. McArthur-Burney Falls Memorial State Park General Plan. June 1997.

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

SETTING

This section characterizes the mineral resource setting and regulatory framework applicable to mineral resources for properties involved with the proposed Burney Falls, Ahjumawi Lava Beds State Park, and McArthur Swamp Land Transfers. This section also assesses potentially foreseeable impacts to mineral resources as a result of the property transfers.

THE MINERAL LAND CLASSIFICATION STUDY (MLCS)

The Mineral Land Classification Study (MLCS) identifies the location of the significant mineral resource areas in Shasta County. The study is based on the present locations of the existing commercial mining operations and the adjacent similar geologic formations. The study also compiled existing geologic information into a new geologic map of the County. The study was limited to the five industrial minerals are presently extracted commercially in Shasta County (MLCS, 1997). Because of geologic diversity of Shasta County, especially the complexity of the metallic minerals area of the Klamath Mountains, and the large number of minerals that have been historically extracted, it was beyond the resources of the Division of Mines and Geology to include in the MLCS the metallic minerals or other minerals that are not presently being commercially extracted.

It is the legislative intent of the MLCS that it be used to develop mineral resource conservation policies for the County. The primary land use policy document is the General Plan. It is important to understand that even with the information in the Mineral Land Classification study it is still not possible to comprehensively identify and protect all potential commercially viable mineral resources in Shasta County. Therefore, the policies of the General Plan must be flexible and allow for new areas to be designated as more information becomes available as mining companies continue to explore and develop the mineral resources (Shasta County, 1996).

REGULATORY SETTING

STATE REGULATORY OVERSIGHT

The primary state law concerning conservation and development of mineral resources is the California Surface Mining and Reclamation Act (SMARA) of 1975, as amended. SMARA is found in the California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, et. seq. SMARA was enacted in 1975 to limit new development in areas with significant mineral deposits. SMARA calls for the state geologist to classify the lands within California based on mineral resource availability. In addition, the California Health and Safety Code requires the covering, filling, or fencing of abandoned shafts, pits and excavations (Cal. Health & Safety Code §§ 24400-03.). Mining may also be regulated by local government, which has the authority to prohibit mining pursuant to its general plan and local zoning laws.

The Division of Oil and Gas in the Department of Conservation (Cal. Pub regulates oil operations in California. Res. Code § 3000 *et seq*).

COUNTY REGULATORY OVERSIGHT

GENERAL PLAN POLICIES

The following mineral resource policy pertains to mineral resource extraction on agriculturally designated lands:

POLICY MR-M

Mining may be permitted in areas of agricultural soils, provided that a plan is submitted by a qualified professional including data and analysis to show that the soil shall be replaced in such a way as to maintain the same or better agricultural qualities and class as existed prior to mining disturbance. Mining in A-cg designated areas is subject to policy AG-g (Shasta County, 1996).

SHASTA COUNTY ZONING

The principle zoning designation, for preserve valuable mineral resource in Shasta County, is the Mineral Resource District (MR). As discussed in the previous land use section, none of the properties involved with the land transfer are designated under the MR General Plan designation or MR zoning district.

The purpose of the MR district is to protect long-term mining operations (i.e. mines with 30 years or more of expected operation). This district is consistent with the MR General Plan designation. This district may also be applied to other areas where there are mineral deposits that can be mined commercially, provided there are no conflicts with other General Plan policies (Shasta County, 1996).

MINERAL RESOURCES IMPACT DISCUSSION

- a) As determined in Section IX, Land Use, the State Geologist as MRZ-2 currently classifies none of the transfer properties. Therefore, there would be no impact related to this state classification
- b) The proposed land transfer does not involve the extraction of any mineral resources. Further, the project would not effect any significant locally important mineral resources delineated by the Shasta County General Plan. As a result, no impact is expected.

REFERENCES

CDMG, 1974. Mines and Mineral Resources, Shasta County, California. County Report 6. California Division of Mines and Geology.

California Surface Mining and Reclamation Act (SMARA), 1975. California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, et. seq.

California Health & Safety Code §§ 24400-03.

Cal. Pub. Res. Code § 3000 *et seq.* California Public Resources Code § 3000 *et seq.*

Shasta County, 1996. Shasta County General Plan, Resource Element, Mineral Resources

MLCS, 1997. Mineral Land Classification of Alluvial Sand and Gravel, Crushed Stone, Volcanic Cinders, Limestone, and Diatomite Within Shasta County, California. By D. Dupras, DMG OFR-97-03.

Issues (and Supporting Information Sources)

XI. NOISE -- Would the project result in:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SETTING

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound. Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include intensity, frequency, and time pattern of the noise; the amount of background noise present prior to the intruding noise; and the nature of work or human activity that is exposed to the noise. The adverse effects of noise include interference with concentration, communication, and sleep. At the highest levels, noise can induce hearing damage.

Environmental noise is usually measured in A-weighted decibels (dBA).¹ Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include maximum noise level (L_{max}), the energy-equivalent

¹ A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels.

noise level (L_{eq}), and the day-night average noise level (DNL).² The noise level experienced at a receptor depends on the distance between the source and the receptor, presence or absence of noise barriers and other shielding features, and the amount of noise attenuation (lessening) provided by the intervening terrain.

Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of ambient noise. Industrial and commercial equipment and operations also contribute to the ambient noise environment in their vicinities. Burney Falls, Bowman Ditch, the Ahjumawi Property, and the McArthur Swamp and Glenburn Dredge Site are mainly undeveloped lands located in unincorporated Shasta County with existing land uses being mainly for conservation and recreational purposes.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The ambient noise environment in Burney Falls is mainly influenced by traffic on Highway 89. Noise from natural streams, traffic on minor access roads and recreational users is minimal. Noise generated at Bowman Ditch is primarily attributable to water flowing in natural streams, the man made canals and boat traffic on the Tule and the Little Tule rivers. The Ahjumawi property is a natural wilderness area with camping sites. Ambient noise at this property is mainly influenced by activities at the camping sites and watercrafts.

The only sensitive noise receptors at Burney Falls are visitors using the park and Camp Britton for recreation, and possible resident rangers at the McArthur Burney Falls Memorial State Park. Bowman Ditch and Ahjumawi are located in remote areas where sensitive noise receptors would include infrequent and seasonal recreational users.

MCARTHUR SWAMP PROPERTY

Noise generated at the McArthur Swamp is primarily attributable to water flowing in natural streams and man-made canals, limited and seasonal vehicle traffic and recreation use including hunting, and occasional PG&E activities associated with the maintenance of its transmission and distribution equipment. McArthur Swamp is located in a remote area where there are no sensitive noise receptors.

Sources of noise at the Glenburn Dredge Site are similar to those mentioned above for the McArthur Swamp, but also include occasional noise from the dredge. The Glenburn Dredge Site is rurally located and when the dredge is moved from its mooring location, it can be heard by a small number of local residents and recreational users. Once moved to a dredging location, noise

² The maximum noise level (L_{max}) refers to the highest instantaneous noise level observed in a given period. L_{eq} , the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period. DNL, the day-night average noise level, is a weighted 24-hour noise level. With the DNL descriptor, average noise levels (in terms of L_{eq}) between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10 dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise. All L_{max} , L_{eq} and DNL values reported herein reflect A-weighted decibels unless stated otherwise.

from its operation would be heard by any receptors located along the route of travel and at the particular dredging location. Due to the remote and rural nature of McArthur Swamp and Glenburn Dredge Site, there are few permanent noise receptors in the vicinity of the area. Temporary sensitive receptors include recreation users.

REGULATORY SETTING

As a general matter, federal and state agencies regulate mobile noise sources, and local agencies regulate stationary noise sources and activities. Federal and state agencies regulate noise from mobile sources by establishing and enforcing noise standards on vehicle manufacturers. Local agencies regulate noise through three principal means: enforcement of local noise ordinances; implementation of noise-related policies contained in the local general plan, such as noise land use compatibility guidelines; and enforcement of noise-related conditions on permit approvals.

The Noise Element of the Shasta County General Plan has established performance standards for new projects including non-transportation noise sources as well as transportation-related noise sources. Transportation noise sources include traffic on public roadways, railroad line operations and aircraft operations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, loading docks, etc. The Noise Element prohibits new development where the hourly Leq level as measured immediately within the property line, due to non-transportation noise sources will exceed 55 dB during the daytime hours of 7 a.m. to 10 p.m. and 50 dB during nighttime hours of 10 p.m. to 7 a.m. For transportation noise sources, the maximum allowable exposure as specified by the Noise Element of the General Plan is shown in **Table X1-1**. Shasta County does not have a noise ordinance but regulates construction hours through conditions of approval for local permits.

NOISE IMPACT DISCUSSION

- a) The project involves the market appraisal, transfer of ownership of a portion of the PG&E owned lands to the California Department of Parks and Recreation (DPR) and the California Waterfowl Association (CWA) in northeastern Shasta County. No changes in land use that would result in significant changes of noise levels would occur as a result of the transfer of ownership. It is anticipated that the new owners will continue to engage in maintenance activities that may lead to short term or intermittent noise related to traffic on roads accessing the project sites. Modifications made to the sites may result in incidental increases in recreational uses at the project sites. However no significant changes in traffic levels are expected to occur as a result of the ownership transfer.

Activities subsequent to transfer of lands would mainly be actions to improve, protect and create wildlife habitat, stabilize levees and improve vegetation and grazing management. These would be implemented over a period of five years following the land transfers. Many of these activities would most likely involve some sort of physical disturbance of the area and minimal construction activities (e.g. stabilizing levees). Use of heavy machinery like

excavators, pavers, rollers and trucks could lead to a temporary increase in ambient noise levels in the surrounding area over the construction period. However, construction would be

TABLE XI-1
MAXIMUM ALLOWABLE NOISE EXPOSURE FROM TRANSPORTATION NOISE SOURCES

Land use	Ldn/CNEL at outdoor activity area or property line of receiving land use, dB	Interior Spaces	
		Ldn/CNEL, dB	Worst case hourly Leq, dB
Residential	60	45	---
Transient Lodging	60	45	---
Hospitals, Nursing Homes	60	45	---
Theatres, Auditoriums, Music Halls	---	---	35
Churches, Meeting Halls	60	---	40
Office Buildings	---	---	45
Schools, Libraries, Museums	---	---	45
Playgrounds, Neighborhood parks	70	---	---

SOURCE: Environmental Science Associates, 2001.

temporary and would take place during daylight hours in accordance with any requirements specified in the Noise Element of the Shasta County General Plan.

Due to the absence of permanent noise-sensitive receptors in the immediate project vicinity and due to the temporary nature of the construction noise, these subsequent activities would not expose persons to or generate noise levels in excess of standards established in local General Plan. Therefore, the project would have no significant short-term impacts on the ambient noise levels of the environment. As the project would introduce no new permanent noise sources, there would be no long-term project impacts on the ambient noise levels of the surrounding area.

- b) As discussed above, actions subsequent to the land transfers could involve some level of construction activities, during which operation of heavy equipment could generate a minimal amount of localized ground borne vibration and ground borne noise. As there are no residences or other sensitive uses in the immediate vicinity of the project site where the ground borne vibration or noise would be perceptible and due to the temporary nature of the

construction activities, this would be considered a less than significant impact. There would be no long-term impacts as the project would not introduce any new noise sources or significantly increase noise levels of existing sources.

- c) As described under questions (a.) and (b.) above, the project would not introduce any new permanent sources of noise at the site. Therefore, the project would have no long-term impact on the ambient noise levels in the project vicinity above levels existing without the project.
- d) In the years following the land transfers, the new owners of this land would take specific actions to create, improve and maintain wildlife habitat, improve grazing and vegetation management, and stabilize levees. These planned activities would involve a minimal amount of construction during which period there could be an increase in temporary and intermittent noise increases due to construction activities. The effect of this noise would depend upon how much noise the equipment generated, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those sensitive uses. Given compliance with local standards related to allowable construction hours, absence of noise sensitive receptors in the immediate vicinity of the project area, and the temporary nature of the construction activities, the temporary increase in noise due to project construction would not be significant.
- e) The project site does not fall within the jurisdiction of an airport land use plan. Although the Sky Ranch airstrip is located just outside of the two mile radius in a direction from the project site. The project does not involve the development of a noise-sensitive land use, and thus, would not expose people to excessive aircraft noise.
- f) The Sky Ranch Airport is located about two miles south of the project site however, the project does not involve the development of a noise-sensitive land use, and thus, would not expose people to excessive aircraft noise.

REFERENCES

Shasta County Planning Division. 2000. Shasta County General Plan, Section 5.5: Noise.

Issues (and Supporting Information Sources):

<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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XII. POPULATION AND HOUSING -- Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |
| c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

SETTING

Since 1920, when the population was estimated at 13,361, the population of Shasta County has steadily increased and is now estimated at approximately 167,000 (Department of Finance, 2001). Between 1990 and 2000, the population increased by an estimated 14 percent. By 2010, the population is forecast to reach 212,947 or 28 percent over levels in 2000. By 2020, the population could reach an estimated 240,975, an increase of another 13 percent.

Population density in 2000 is estimated at approximately 44 persons per square mile, or 0.07 persons per acre. By 2020, the population density could reach 64 persons per square mile or approximately 0.10 persons per acre.

Over 95 percent of the land in Shasta County is located in unincorporated areas. In 1990, an estimated 72,275 persons or 49 percent of the population lived in unincorporated Shasta County. An estimated 51 percent of the population lived in the two incorporated cities of Redding and Anderson. In 2000, an estimated 69,200 persons or 41 percent of the population lived in unincorporated Shasta County. An estimated 59 percent of the population lives in the three incorporated cities of Redding, Anderson and Shasta Lake. Redding, Anderson and Shasta Lake are all located in the southwestern portion of the county, along Interstate 5 (I-5).

The proposed project site is located near the communities of Burney Falls, McArthur and Fall River Mills in northeastern Shasta County. McArthur is approximately 10 miles south of the Shasta County-Siskiyou County border, while Fall River Mills is about 15 miles south and Burney Falls is 20 miles south. All three communities are south of the Ahjumawi Lava Springs State Park. The population of McArthur is estimated at 400, and the population of Fall River Mills is estimated at 900. The population of Burney Falls is estimated at 3,000 persons and is the largest community in northeastern Shasta County. (The three communities are connected by U.S.299.)

In 1990, Shasta County provided an estimated 60,500 housing units, 93 percent of which were occupied. Approximately 65 percent of the housing stock consisted of single-family homes, and another 18 percent consisted of mobile homes. An estimated 54 percent of the housing stock was located in the cities of Anderson and Redding. Shasta County now has an estimated 71,874 dwelling units, 93 percent of which are occupied. Approximately 67 percent of the housing stock consists of single family homes and 17 percent consists of mobile homes.

Neither the McArthur, Glenburn Dredge, Burney Falls site nor the Bowman Ditch site are occupied, either by employees and/or by others. The proposed project would therefore not result in displacement of persons.

POPULATION AND HOUSING IMPACT DISCUSSIONS

- a) The McArthur Swamp site would continue existing grazing, habitat improvement, and recreational uses, restricted by the proposed Conservation Easement and the McArthur Swamp Management Plan that would limit the use of the McArthur site to scenic, agricultural and open space uses. The Burney Falls site would continue existing recreational uses and would be incorporated into existing state parklands. As part of California's state park system, development would be restricted to recreational facilities appropriate to the site. In general, the communities near the project site are sparsely populated. Due to the limitations of the conservation easement and existing land use plans, and the fact that the project will not provide additional infrastructure or roads, it is not anticipated to induce population growth in any way.
- b) Neither the McArthur or Glenburn Dredge sites are occupied by residential structures, although there is an existing seasonal group dwelling at Camp Britton. Development on and of the sites would be constrained by the Conservation Easement, the McArthur Swamp Management Plan and the California Department of Parks and Recreation. The McArthur Swamp site is further constrained by difficult accessibility. The proposed project would therefore not result in displacement of housing.
- c) See XII.b., above. The project sites are not occupied by any permanent residential structures, and therefore no persons would be displaced by the proposed project.

REFERENCES

California State Department of Finance, California Population Projections with Age, Sex and Race/Ethnic Detail: July 1, 1990-2040 in 10-Year Increments, <http://>

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U.S. Department of Commerce, U.S. Census Bureau, 1990 Census Lookup, <http://venus.census.gov/cdrom/lookup>, accessed March 22, 2001.

Shasta County, Shasta County General Plan, http://www.co.shasta.ca.us/Departments/Resourcemgmt/drm/general_plan.htm, accessed March 22, 2001.

Issues (and Supporting Information Sources):

<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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XIII. PUBLIC SERVICES --

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

1. Fire protection	☐	☐	☐	☒
2. Police protection	☐	☐	☒	☐
3. Schools	☐	☐	☐	☒
4. Parks	☐	☐	☐	☒
5. Other public facilities	☐	☐	☐	☒

SETTING

FIRE PROTECTION

Fire protection services at the project site and in the project site vicinity are provided by a variety of agencies that include:

- California Department of Forestry, 37966 Highway 299E, Burney;
- Shasta County Volunteer Fire Department, Station 13, Soldier Mountain Volunteer Fire Company, Burney;
- U.S. Forest Service, Modoc National Forest, Alturas; and
- Burney Fire Protection District.

All agencies provide mutual aid and several of the agencies are interlinked organizationally. Staff is increased during the fire season.

LAW ENFORCEMENT

The Shasta County Sheriff's Department provides police protection services to the nearby McArthur, Fall River Mills and Burney Falls communities. The Burney Enforcement Division is located at 20509 Shasta Street, Burney. Services include patrol, investigations, animal control, abandoned vehicles, property and evidence control, crime prevention, a variety of permits, Community Oriented Policing, a Reserve Deputy program and a Citizen Volunteer Patrol.

The California Highway Patrol (CHP) patrols California's state highways in the vicinity of the project site. The CHP has an outpost office in Burney Falls, staffed by seven officers.

California State Park Rangers patrol the 6,000- acre Ahjumawi Lava Springs State Park. Four rangers are on duty for the summer months and three for the rest of the year, from 8:00 a.m. to midnight. Two rangers live on the park grounds.

EDUCATIONAL INSTITUTIONS

Shasta County encompasses 26 school districts which includes, 22 elementary school districts, two high school districts and two unified school districts, and serves an estimated 29,820 students in kindergarten through the 12th grades. Shasta County's 86 public schools include 47 elementary schools, eight middle schools, nine high schools, seven continuation schools, three alternatives schools, two special education schools, eight community day schools, and 1 juvenile court school. Over the next 10 years, the number of school-age children in public schools will decrease, beginning in the 2002-2003 school year. By the 2009-2010 school year, the number of students in Shasta County's public schools will decline to 27,280 students.

Students residing in the McArthur and Fall River Mills communities attend schools in the Fall River Joint Unified School District. The District's schools and approximate student enrollments are listed below.

**TABLE XIII-1
FALL RIVER JOINT UNIFIED SCHOOL DISTRICT ENROLLMENT**

School	Address	1998-1999 Enrollment
East Burney Elementary School	37403 Toronto Street Burney, CA	455
Fall River Elementary School	24977 Curve Street Fall River Mills, CA	350
Burney Junior-Senior High School	37571 Mountain View Road Burney, CA	400
Fall River Junior and Senior High School	44215 Walnut Street McArthur, CA	340
Mountain View High School	20375 Tamarack Street Burney, CA	50
Soldier Mountain Continuation High School	44144 "A" Street McArthur, CA	15
Mt. Burney Special Education Center	37579 Mountain View Road Burney, CA	11
Total		1,621¹

SOURCE: ¹ Also includes students from Pittville, Glenburn and other small nearby communities.

PARKS AND RECREATION

Northeastern Shasta County encompasses or is near several large state and national parks. In addition, public agencies also own land in the area that is used for recreational purposes. Rivers and lakes are abundant, and located throughout northeastern Shasta County. Parks and recreational areas near the project sites include:

**TABLE XIII-2
PARKS & RECREATIONAL SITES NEAR PROJECT**

Park	Approximate Location	Size	Facilities/Sights
Ahjumawi Lava Springs State Park	Near McArthur, CA	6,000 acres	Boating (accessible only by boat); hiking; lava flows
McArthur Burney Falls Memorial State Park	Eleven miles north of Burney	910 acres	Fishing, hiking, wildlife viewing, boating, campsites, Native American history; waterfalls; Cascade Mountains
Shasta-Trinity National Forest	20 miles north of Redding	[1,400 miles of trails]	Shasta Lake; camping; hiking; fishing; boating; historic sites; hunting; swimming
Modoc National Forest	Approximately 40 miles northeast of McArthur, on State 299	1,979,400 acres	Lava Beds National Monuments; Pit River; Medicine Lake; hiking; lakes; streams; wetlands; fishing; camping; biking
Lassen National Forest	Approximately five miles south of Fall River Mills	1,200,000 acres	Castle Crags Wilderness; Mt. Shasta Wilderness; Mt. Shasta; hot springs; lava flows; glaciers; waterfalls; historic buildings; hiking; biking; skiing
Ash Creek Wildlife Area	Approximately 25 to 30 miles northeast of McArthur, at Bieber, CA	14,000 acres	Wildlife viewing; hiking
Thousand Lakes Wilderness	Approximately 15 miles south of Burney	16,335 acres	Crater Peak; fishing; hiking; Eiler Lake; boating; camping

PUBLIC SERVICES IMPACT DISCUSSIONS

- a-1) The proposed project would result in a gain in public and non-profit holdings in park and agricultural lands (see discussion for *Parks*, below). However this gain represents a small percentage of public lands in the vicinity. This area is served by several existing fire protection agencies that are supported by interlinking mutual aid agreements from federal, state and local fire protection agencies. The proposed project encompasses existing lands already served by these agencies. The proposed project would therefore not result in a need for new or expanded governmental facilities that could have a substantially adverse impact on the environment.
- a-2) The proposed project could result in a minimal need for additional police protection services. However, a portion of the land is only accessible by boat. Another portion will be restored as a wetland. In addition, these lands are already largely open to the public. Several police protection agencies are located in the vicinity of the proposed land swaps, including park rangers that live on

the Ahjumawi Lava Springs State Park. While there is some potential that some small incremental increase in law enforcement staff persons may be required to monitor the newly divested lands, the project would not, in the foreseeable future, require the construction of a new or expanded governmental facility that could have a substantially adverse impact on the environment.

- a-3) The proposed project would result in incremental increases to existing parklands in a rural area of Shasta County with very low density. The proposed project would therefore not, by itself, result in additional students in the vicinity, either by attracting new persons to the area or by causing the deterioration of existing school facilities. The project would therefore not result in a need to construct new public schools, or expand existing public schools.
- a-4) The proposed project would result in a transfer of lands to the California State Department of Parks and Recreation (DPR). The 182-acre Burney Falls transfer would be managed as part of the McArthur-Burney Falls Memorial State Park, and recreational use of the lands would be permitted, as is currently permitted by the Pacific Gas and Electric Company (PG&E). The 4-acre Bowman Ditch transfer will be managed as part of the Ahjumawi State Park. In exchange for the two exchanges, DPR would transfer a 544-acre portion of Ahjumawi State Park to PG&E, resulting in a net loss of 540 acres of the existing 6,000-acre park, and reducing park acreage by approximately 9 percent. PG&E would then donate the 544-acre property to CWA. In addition, PG&E proposes to transfer the 7,400-acre McArthur Swamp property and the 5.5-acre Glenburn Dredge site to the California Waterfowl Association (CWA).

As a result of the transfers, PG&E will reduce its ownership of agricultural and recreational lands, although, for the foreseeable future, public and private usage of the divested lands will remain the same.

Park lands in the area total over 4 million acres. The lands PG&E will hold represent 0.01 percent of park lands in the vicinity. This loss of parkland would not require the construction of any additional governmental park facility or the expansion of any governmental park facility that could result in a substantially adverse impact on the environment.

REFERENCES

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- California State Highway Patrol, <http://www.chp.ca.gov/html/offices.html>, accessed March 22, 2001.
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Issues (and Supporting Information Sources):

XIV. RECREATION --

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

SETTING

McArthur Swamp, Glenburn Dredge, Burney Falls, Bowman Ditch, and Ahjumawi are located within the Fall River Valley in northeastern California. There are many opportunities to engage in recreational activities on state and federal lands in this relatively lightly populated region of California. Mount Shasta, Lake Shasta, Whiskeytown Reservoir, and the Lassen Volcanic National Park are premier recreation areas within the region. The lands and waters of Lassen and Shasta-Trinity National Forests also provide many public recreation opportunities within the region. Within Fall River Valley, the Fall River, Ahjumawi State Park, and McArthur Swamp are the primary recreation areas. Fall River Lake Pit 1 Project Forebay is also a popular recreation area for the local residents of eastern Shasta County. PG&E's nearby Pit River and Hat Creek hydroelectric project developments provide water and land based recreation opportunities as well.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

The McArthur-Burney Falls Memorial State Park is located on the shore of Lake Britton, the forbay for Pit 3 Powerhouse. This park, established in 1926, receives nearly 200,000 visitors each year from Redding, the San Francisco Bay Area, and Southern California. Recreation facilities included within the McArthur-Burney Falls Memorial State Park boundary include a 128-unit campground, a day use area and store near the Falls on Burney Creek and hiking trails, including a portion of the Pacific Crest Trail. The McArthur-Burney Falls Memorial State Park is the most intensively developed and used recreation area on Lake Britton.

Lake Britton is a natural facility available for camping, picnicking, water skiing, personal watercraft use, and fishing. The portion of Lake Britton west of the State Highway 89 bridge is the activity hub, and is the location of the lake's primary recreation facilities. Here, McArthur-Burney Falls Memorial State Park and PG&E's Northshore Campground provide public camping and day use areas. PG&E also provides additional day use facilities at the Pines Picnic Area and boat launching at the Jamo Point Boat Launch. The Pacific Service Employees Association (PSEA), a private organization, holds a license agreement with PG&E for recreational use of Camp Britton, which provides overnight lodge and shoreline access at Burney

Cove. Burney Falls also contains portions of McArthur-Burney Falls Memorial State Park's Burney Creek, Rim, PSEA, and Pioneer trails.

Bowman Ditch

Bowman Ditch is almost entirely surrounded by Ahjumawi State Park, except at its southern end where it abuts private property and drains into the Little Tule River. Public access to Bowman Ditch is possible by boat up to a point where the ditch drains into the Little Tule River. All of Bowman Ditch is located within the FERC boundary of the Pit 1 project. There are no public roads leading to, nor formal recreation facilities provided at Bowman Ditch and little, if any, recreational uses are available. Recreational use would likely be hiking and/or nature observation by visitors from adjacent Ahjumawi State Park.

Ahjumawi

Ahjumawi is located within Ahjumawi State Park on the north shores of Big Lake, Tule, and Little Tule rivers. Ahjumawi State Park, established in the 1970s, is approximately 5,890 acres of rugged volcanic lava flows, grasslands, and open water areas. The Ahjumawi State Park is managed for a primitive recreational experience and provides three environmental camp areas, each containing three primitive campsites and three nearby pit toilets. Primary activities include hiking, scenic and wildlife viewing, camping, fishing, canoeing, and kayaking. Water is available from many nearby springs but must be purified before drinking. Travel within Ahjumawi State Park is by foot, or by boat on the Horr Pond portion. Vehicle travel and hunting are prohibited within Ahjumawi State Park.

The levees at the Ahjumawi State Park are within the Pit 1 Project boundary. A levee break in 1997 flooded the majority of the property. The levees are not currently being maintained because of the presence of Shasta crayfish, and the resulting flooding has allowed the return of the property to its natural, wetland habitat condition. This wetland habitat is accessible by foot from the upland portion of Ahjumawi State Park or by canoeing or kayaking through breaks in levees into the wetland.

Access to Ahjumawi State Park is available by boat from the Big Lake Access area at McArthur Swamp. This facility provides an area to launch car-top boats and small trailered boats, a 22-vehicle gravel parking area, a double-vault sanitary facility, an Ahjumawi State Park informational sign, and a three-mile, gravel access road leading from the town of McArthur. As conditions require, PG&E grades the access road several times each year and provides a four-wheel drive advisory sign, cattle guards, and directional signs along State Highway 299.

McArthur Swamp and Glenburn Dredge Site

McArthur Swamp is 7,400 acres and provides opportunities to fish, boat, hunt waterfowl, and view wildlife and the surrounding natural beauty. Waterfowl hunting and wildlife and scenic viewing occur on the land, lake, and river areas of the property primarily during the fall-winter season. Fishing primarily occurs from boats on the property's open water areas, but some

shoreline fishing occurs from the McArthur Swamp Levee, especially near the Big Lake Access area.

The portions of McArthur Swamp located in the Pit 1 Project boundary include Big Lake, Tule River, and the Little Tule River to just downstream of Bowman Ditch. The entire Glenburn Dredge site is located within the Pit 1 Project boundary. Other features within the FERC project boundary are the McArthur Canal and Drain, the Rat Farm Road, the Big Lake Access area, and the area known as Hollenbeak Swamp or the Wildlife Habitat Improvement Project.

Pursuant to a FERC License condition, PG&E provided public car-top boat access to Fall River at the Glenburn Dredge Site until 1996. This public access relied on permission from an adjacent landowner to cross private property from McArthur Road to reach the Glenburn Dredge Site. The public access site was leased by the CDFG from PG&E. This site included a car-top boat launch, an informational sign, a gravel parking area for 10 vehicles, a portable toilet, and trash containers. When this access was closed in 1996, most of these facilities were removed. The informational sign and remnants of the parking area and access road remain.

REGULATORY SETTING

The Shasta County General Plan and Zoning Ordinance guide recreational development and use of unincorporated lands outside of the FERC's jurisdiction. Recreation development and use of lands within the FERC boundary is regulated by FERC and not by the State or Shasta County. The State of California, Department of Boating and Waterways and Shasta County may regulate boating on project waters when consistent with FERC requirements. The CDFG also establishes fishing and hunting regulations applicable to the properties. After the property Shasta County and CDFG will regulate transfers, recreation on subject parcels.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls

The Bald Eagle Management Plan (BEMP), the McArthur-Burney Falls Memorial State Park General Plan and the Pit 3, 4 and 5 Project License conditions (for those portions that are within the FERC boundary) govern management of the recreation use and development within Burney Falls. The FERC boundary generally extends 200 feet inland from Lake Britton's shoreline, but also extends further inland to include all of the McArthur-Burney Falls Memorial State Park's Lake Day Use Area and the land licensed to PSEA.

The BEMP was developed cooperatively by the CDFG, USFWS, the U. S. Forest Service, Bureau of Land Management, and PG&E to protect bald eagle habitat at Lake Britton and in the Pit River drainage. Since the BEMP's development in 1986, PG&E has been managing recreation use at its Lake Britton public recreation facilities in compliance with the BEMP's recommendations. In addition, the DPR's McArthur-Burney Falls Memorial State Park General Plan contains a resource element directive that recommends DPR adhere to guidelines and recommendations in

the BEMP until the document is no longer necessary as declared by CDFG, or has been superseded by updated guidelines. Dispersed camping is prohibited on PG&E lands around Lake Britton to protect bald eagles and cultural resources. The DPR policy also prohibits dispersed camping within boundaries of the McArthur-Burney Falls Memorial State Park.

Conditions of the FERC license that guide recreation use and development of the portion of Burney Falls within the FERC project boundary are contained in the Pit 3, 4 and 5 Projects recreation plan. The recreation plan consists of PG&E's recommendations in the project's original and revised recreation plans, recreation supplements, and the FERC's written orders approving or revising these recommendations. A revised FERC recreation plan was approved in 1987. In commenting on the revised recreation plan, USFWS and CDFG indicated that providing additional recreational facilities beyond what was proposed in the revised recreation plan would be inconsistent with the BEMP. In addition, the Forest Service recommended that Camp Britton be converted to public use. FERC's February 28, 1992 Order approved the proposals in the 1987 recreation plan. In response to the Forest Service comment, FERC indicated that the conversion of Camp Britton would not significantly increase the amount of facilities available to the general public, but that Camp Britton should remain in the project boundary so that conversion to public use can be re-evaluated as conditions of the Pit 3, 4 and 5 Project change.

Bowman Ditch

State and Shasta County boating regulations govern boating on the water surfaces of Bowman Ditch. Bowman Ditch has very limited access and is not particularly distinguishable from the adjacent Ahjumawi State Park lands. Visitors to Ahjumawi State Park are most likely unaware that Bowman Ditch is owned by PG&E, but it is reasonable to assume that the environmental setting and attraction of the park may include Bowman Ditch. Limited access and rough terrain serve to check the number of formal and informal recreational opportunities at Bowman Ditch and Ahjumawi State Park.

PG&E has agreed to allow DPR to change the character of Bowman Ditch from a man-made feature to a more natural wetland consistent with the adjacent lands. However, the water currently flowing in Bowman Ditch must continue to flow into the Little Tule River if and when the character of Bowman Ditch is changed. DPR has no specific plans to restore wetlands in the Bowman Ditch area at this time.

Ahjumawi

Ahjumawi is managed according to DPR's state wide general recreation policies. Boating on the water surfaces of Ahjumawi is governed by State and Shasta County boating regulations. The levees at the Ahjumawi State Park are within the Pit 1 Project boundary and are subject to the conditions of the Pit 1 Project FERC License. Except for the Ahjumawi State Park informational sign, all other improvements are a condition of the Pit 1 Project License.

Currently, DPR has not developed a General Plan for the Ahjumawi State Park. However, certain rules have been developed for the State Park. PG&E will transfer Ahjumawi to CWA subject to

the above deed restrictions, as well as a Conservation Easement. This Conservation Easement binds CWA and all successor owners of Ahjumawi to preserve existing scenic, agricultural and open space conditions of the property, preserve existing cultural sites, maintain existing wildlife benefits, and continue wetland habitat enhancement. PG&E and its successors are prohibited from conducting the following activities on, or with respect to, the subject property being conveyed: 1) hunting, 2) grazing, 3) subdivision, 4) commercialization, 5) construction, reconstruction or placement of any new roads, structures or other improvements, 6) dumping of refuse, toxic materials or hazardous wastes, 7) ground disturbing activity (including the maintenance of levees), and 8) mining including the exploration or extraction of minerals.

McArthur Swamp and Glenburn Dredge Site

Portions of McArthur Swamp and all of the Glenburn Dredge Site are included in the Pit 1 Project Licensed by the FERC and subject to its regulations. As required by FERC, PG&E upgrades Rat Farm Road several times each year, provides a four-wheel drive advisory sign, installs cattle guards, and posts directional signs along State Highway 299.

CWA will accept McArthur Swamp subject to restrictions on use, as described in the Conservation Easement and the MSMP. The Conservation Easement binds all successor owners to forever preserve: the existing scenic, agricultural, and open space condition of the property; the existing cultural sites; public access to McArthur Swamp for hunting, fishing and other recreational activities; existing wildlife benefits; and wetland habitat enhancement. The Conservation Easement also preserves public access to Ahjumawi State Park. It is expected that implementation of the wetland habitat improvement projects in the MSMP will increase and benefit the wildlife viewing and waterfowl hunting opportunities at McArthur Swamp above what would occur if McArthur Swamp remained in the Pit 1 Project, since the MSMP proposes to improve many acres of wetland outside of the Pit 1 Project FERC boundary as well.

RECREATION IMPACT DISCUSSION

Burney Falls, Ahjumawi, and Bowman Ditch

- a) Numerous recreational opportunities (primarily dispersed) currently exist within the land transfer properties and surrounding areas. For Burney Falls, change in fee title of the land from PG&E to DPR is not expected to result in any tangible change, since the subject area is currently managed by DPR with additional guidance and restrictions by FERC and the recommendations of the BEMP. Improvements to the Park under the existing General Plan will occur regardless of fee ownership, and are not anticipated to effect subject properties. These actions were the subject of a previous CEQA compliance review.

The Park's General Plan as a potential long-range acquisition goal identifies Camp Britton. However, the existing buildings are not of statewide historic significance, may be substandard, would be expensive and difficult to maintain, and do not meet Americans with Disabilities Act requirements. Any destruction of or significant modification to Camp Britton would require a modification of the General Plan and an accompanying CEQA review. DPR

has no specific plans for Camp Britton at this time and is bound by the existing PSEA license for Camp Britton until 2005. CEQA review of any potential actions at Camp Britton would be speculative at this time and should, therefore, be performed if and when DPR proposes to modify its General Plan.

Transfer of the Ahjumawi and Bowman Ditch property to PG&E and subsequently CWA is expected to effect park user-ship to a very limited degree, since there is little or no activity within this area currently. The transfer will not cause additional recreational development to occur because the transfer deed from the State of California contains specific reservations which prevent PG&E or its successors from conducting significant activity on the property, including hunting, grazing, subdivision, commercialization, construction, reconstruction or placement of any new roads, structures or other improvements, dumping of refuse, toxic materials or hazardous wastes, ground disturbing activities (including maintenance of levees), and mining. The transfer of Ahjumawi will also be subject to a Conservation Easement, which binds CWA and all successor owners of Ahjumawi to preserve existing scenic, agricultural and open space conditions of the property, preserve existing cultural sites, maintain existing wildlife benefits, and continue wetland habitat enhancement.

Most of Ahjumawi is currently under water and will remain flooded following the transfer to PG&E and subsequently to the CWA. Over time, the levees will likely further deteriorate. This change in the property may result in improved wildlife viewing and boating opportunities and possibly result in increased recreational use of the property. However, any potential increased use would likely be modest considering the existing low use levels and remoteness of the property from large population centers. In addition, these changes would occur even if the property remained under DPR's management. No significant adverse impacts to recreational resources are expected to result from the transfer of Ahjumawi.

McArthur Swamp and Glenburn Dredge Site

- a) For McArthur Swamp, some minor increase in usage may occur over the long-term with project related improvements. Pursuant to the MSMP, waterfowl habitat will be created which could lead to additional wildlife viewing and hunting opportunities. Additionally, the Glenburn Dredge Site car top boat launch will be reopened, potentially increasing boating and fishing. None of these actions, however, are expected to result in a significant or detrimental increase in usage of existing recreational facilities, which would result in any substantial physical deterioration or environmental impacts.

Proposed project activities which have the potential to affect recreational facilities include the reopening of the Glenburn Dredge site boat launch, change in fee title to a portion of Burney Falls and Ahjumawi, and waterfowl habitat improvements in McArthur Swamp. No new recreational facilities requiring substantial construction are proposed and fee title changes are not anticipated to affect ongoing management, therefore no adverse physical effects on the environment are expected to occur.

McArthur Swamp and Glenburn Dredge Site

- b) CWA will receive McArthur Swamp subject to restrictions on use, as described in the Conservation Easement and the MSMP. The Conservation Easement binds all successor owners to forever preserve the existing scenic, agricultural, and open space condition of the property, public access to McArthur Swamp for hunting, fishing and other recreational activities, existing wildlife benefits, and wetland habitat enhancement. The MSMP proposes to improve many acres of wetland outside of the Pit 1 Project FERC boundary. Therefore, implementation of the wetland habitat improvement projects of the MSMP will increase and benefit the wildlife viewing and waterfowl hunting opportunities at McArthur Swamp above what would occur if McArthur Swamp remained in the Pit 1 Project. This increase in recreation use at McArthur Swamp is not expected to have a significant adverse impact on Big Lake Access recreational facilities, Rat Farm Road, the wetland areas within McArthur Swamp, or on Ahjumawi State Park recreational facilities and resources, or the environment.

CWA will take ownership of Glenburn Dredge Site subject to conditions stated in the MSMP, which in part requires CWA to re-establish public access to the Fall River at the Glenburn Dredge Site. Re-establishment activities on the property include repair of the car-top boat launch, weeding at the parking area and placement of a portable toilet and trash containers. If the Glenburn Dredge Site property remained within the Pit 1 Project boundary, similar repairs would be required by FERC. Thus, the property transfer is not expected to have a significant adverse impact on existing recreational resources or the environment.

REFERENCES

- Pacific Gas and Electric, 2000a. Proponents Environmental Assessments for McArthur-Burney Falls Memorial State Park and McArthur Swamp (Application Numbers 00-05-030 and 00-05-029).
- State of California, Resources Agency, Department of Parks and Recreation Commission. McArthur-Burney Falls Memorial State Park General Plan. June 1997.

Issues (and Supporting Information Sources):

XV. TRANSPORTATION / TRAFFIC -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☒
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

SETTING

REGIONAL TRANSPORTATION SYSTEM

Shasta County is situated at the northern end of the Sacramento Valley, 234 miles north of San Francisco. Access to the area is relatively good and is provided by State Route (SR) 299, which extends from Interstate 5 at Redding through the Fall River Valley and on to the community of Alturas in Modoc County. SR 89 bisects the area from northwest to southeast, extending from Mount Shasta at Interstate 5 to Highway 395 in Nevada south of Lake Tahoe. There is an airport at Fall River Mills that includes a 3,600-foot paved runway with lights, tie-downs, hangars, storage, fuel, car rental, and charter services available.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Burney Falls is located north of the town of Burney, and about a one-hour drive east of Redding. SR 89 and 299 provide the main access to the area. The property and lands adjacent to it at Lake Britton are accessible by secondary roads from SR 89 and trails from McArthur-Burney Falls Memorial State Park. SR 89 and 299 and some secondary roads are currently used for the

transport of commercial products (including forest products); there are currently no significant problems with maintenance or excessive traffic.

Bowman Ditch and Ahjumawi are located north and slightly west of the town of McArthur, about a one and one-half hour drive east from Redding on SR 299. Big Lake Access, the closest point of access for a vehicle, is reached by turning north onto Main Street from SR 299 in the town of McArthur, driving alongside the fairgrounds for 0.7 mile to the fork in the road, and turning right on Rat Farm Road. Both properties are accessible by boat from Big Lake and the Tule and Little Tule Rivers.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

The McArthur Swamp is located north and slightly west of the town of McArthur. SR 299, McArthur's paved Main Street, and the unpaved, privately owned Rat Farm Road provide the primary access to this property. Drainage canals inhibit interior access to some extent, as bridges are required for either livestock or vehicle passage over these canals. Pacific Gas and Electric Company has improved the existing road on top of the McArthur Levee. The improved road is primarily for levee maintenance purposes and the road is gated to restrict public access to the levee. Following the transfer, CWA will complete the levee road system; however, public access will remain limited.

The Glenburn Dredge Site is located west of McArthur, with access provided by SR 299 and McArthur Road. In places where there are recreation uses, seasonal variations in traffic occur.

TRAFFIC VOLUMES

Existing daily traffic volumes on roadways in the project vicinity are presented in **Table XV-1**, below.

REGULATORY SETTING

Each county and city government is required to adopt a comprehensive, long-term general plan for the physical development of the city or county. The General Plan must contain a circulation element designating the general location and extent of existing and proposed major thoroughfares, transportation routes and terminals, which are to be coordinated with the land use element of the plan.¹

In some cases, PG&E's use of roads on third-party property is subject to road maintenance agreements. Further, in certain circumstances, landowners and persons who have possession and

¹ Cal. Gov't. Code §§ 65300, 65302(b).

control over real property owe duties of care as to conditions on the land to persons who come onto the land.²

**TABLE XV-1
EXISTING DAILY TRAFFIC VOLUMES ON ROADWAYS IN PROJECT VICINITY**

Roadway	Location	Daily Traffic Volume ^a
State Route 299	south of State Route 89	4,350
	north of State Route 89	3,200
	south of Fall River Mill	3,400
	north of Fall River Mill	4,450
State Route 89	south of State Route 299	1,750
	north of State Route 299	2,000
	north of Lake Britton Road	1,450
	north of McArthur Road	1,650
McArthur Road	west of SR 299	850

^a From 1999 *Traffic Volumes on California State Highways*, 2000; and Shasta County Public Works Department *Christian*, 69 Cal. App. 2d 108 (1968) (holding that a non-owner who has possession of and control over the property owes the same duty of care as an owner).

TRAFFIC AND TRANSPORTATION IMPACT DISCUSSION

- a, b) The proposed land transfer of portions of land within Burney Falls by PG&E in exchange for Bowman Ditch and portions of land within Ahjumawi Lava Springs State Park owned by DPR would not be expected to generate an increase in traffic on the transportation network. An expansion of land uses within these properties is not reasonably foreseeable, and therefore no significant change in traffic would occur over existing conditions.

The proposed land transfer of portions of land within McArthur Swamp property by PG&E to CWA would also not be expected to result in any significant long-term increases in traffic. However, implementation of the McArthur Swamp Management Plan could result in temporary increases in construction traffic. Specifically, the proposed McArthur Swamp Levee improvements, and wetland and nesting habitat creation could result in short-term increases in construction traffic primarily related to earthwork movement. However, the majority of construction activities would be internal to the site, and therefore would not be expected to result in significant increases in off-site traffic.

² See, e.g., *Lipson v. Superior Court*, 31 Cal. App. 3d 362 (1982) (holding that as a general rule every person is liable for injuries to others by the failure to use ordinary care in the skill or management of his property); *Rowland v.*

As a result, the project would have no significant effect on roadway capacity or level of service standards, including those roadways and highways designated as part of the congestion management network.

- c) The project would not involve any components that would have an effect on air traffic patterns.
- d) There are no apparent elements of the project that would increase hazards due to any new design features.
- e) The project would not result in a change in operations of, or substantially change existing emergency access to, the sites.
- f) Implementation of the MSMP could result in temporary increases in construction workers on the site and a need for construction parking. Given the size of the project site and level of construction proposed, any temporary demand would be easily accommodated on-site. Since the project would not generate a substantial increase in long-term traffic at the project site, the project would not result in any significant long-term increases in parking demand. As a result, the project would not have any significant effect on parking capacity.
- g) The project would not have any components that would conflict with adopted policies, plans or programs supporting alternative transportation.

REFERENCES

Caltrans, *1999 Traffic Volumes on California State Highways*, 2000.

Shasta County Public Works Department, 24-hour daily counts.

Issues (and Supporting Information Sources):

XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

SETTING

The applications that are the subject of this Initial Study involve the transfer of properties between several organizations, including PG&E, the California Department of Parks and Recreation, the California Wetlands Foundation, and the California Waterfowl Association. No new structures would be constructed as the result of the project, though a small cartop boat launch facility will be reopened, and the McArthur Swamp area would be subject to an adaptive management program that would improve waterfowl habitat and return the properties to a more natural state. Therefore, the project would not have any effect on the local drinking water, wastewater or landfill facilities or resources.

BURNEY FALLS, BOWMAN DITCH, AND AHJUMAWI PROPERTY

Other than the recreational lodge accommodations at Camp Britton, there are no structures or paved areas located on the properties subject to this application. Therefore, the properties create

no demand for provision of drinking water, or disposal of wastewater or solid waste. The transfer of these properties likely would not result in any change to the demand for these utilities and services. Therefore, the project is not likely to create significant impacts to Utilities and Service Systems.

MCARTHUR SWAMP AND GLENBURN DREDGE SITE

No structures or paved areas are located on the properties subject to this application. Therefore, the properties create no demand for provision of drinking water, or disposal of wastewater or solid waste. While the reopening of a car-top boat launch area is proposed for the Glenburn Dredge Site, only minimal services would be provided. The transfer of these properties likely would not result in any change to the demand for these utilities and services. Therefore, the project is not likely to create significant impacts to Utilities and Service Systems.

UTILITIES AND SERVICE IMPACT DISCUSSION

- a) Because the project would have no effect on the generation of wastewater, it would not create new demand that would exceed wastewater treatment requirements of the Regional Water Quality Control Board.
- b) The reopening of the Glenburn Dredge car-top boat launch area is proposed as part of this project, however only minimal facilities will be provided and no new water or wastewater facilities will be required. Additionally, CWA will install an irrigation well capable of providing approximately 2,000 gpm in the area south of the Lee Drain and east of the McArthur Canal, due to local ground water conditions. The water pumped from it will be used for the specific purpose of maintaining permanent wetland habitats on the property. The RMA will also provide up to five cubic feet per second (cfs) of water from the Lee Drain from September 15 through November 15 for wetland management and flooding during the migration season. CWA will install water diversions and control structures in the McArthur and Central Drains to effectively divert water for wetland management. Delivery lines will be constructed from the irrigation well to wetland areas. This groundwater extraction will reduce the amount of water available to the system by the amount that is lost to evapo-transpiration on the wetlands. However, because of the minimal draft on the available groundwater resource by municipal and agricultural uses in the Fall River Valley, this reduction is not expected to impact existing or planned uses. The Fall River Community Services District owns and operates a municipal and domestic water system in the communities of Fall River Mills and McArthur however, none of the proposed actions are expected to impact the district or result in significant environmental effects.
- c) Although implementation of the adaptive management plan for the McArthur Swamp area has the potential to alter existing drainage patterns with the goal of improved waterfowl

habitat, the project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities with the potential for significant environmental impacts.

- d) Implementation of the MSMP will involve the transfer of an existing 300 ac-ft water right held by PG&E to CWA for the sole purpose of creating wetlands. Additionally, a new 2,000 gpm well will be installed for a similar purpose however, as described in item (b) above, it is not expected to have any effect on local water supplies, entitlements and resources, nor would it create a demand for new or expanded entitlements.
- e) A wastewater treatment provider does not currently serve the project areas, and no new wastewater treatment facilities would be needed as a result of the project.
- f) The project is not likely to create any new demand for landfill capacity, and therefore would not require services by a landfill provider.
- g) Similarly, because no landfill services would be needed as a result of the project, it would comply with federal, state, and local statutes and regulations related to solid waste.

REFERENCES

ESA site visit, January 2001.

Issues (and Supporting Information Sources):

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporation</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒
d) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☒

MANDATORY FINDINGS OF SIGNIFICANCE DISCUSSION

The proposed project involves two applications submitted by PG&E to market value, transfer and donate a portion of its land assets in the Burney Falls and McArthur Swamp areas of Shasta County. Portions of these areas are contained within the Pit 1, 3, 4 and 5 hydroelectric projects. PG&E propose to transfer these lands to the California Department of Parks and Recreation (DPR), and the California Waterfowl Association (CWA). The transaction includes a Conservation Easement and adaptive management plan (MSMP) and other terms designed to maintain existing land uses, enhance and create additional waterfowl habitat, and preserve cultural and historical resources.

- a) As discussed in the Air Quality, Biological Resources, and Cultural sections, the proposed project has the potential to result in several potentially significant impacts related primarily to land disturbing activities proposed in the MSMP which have some potential to degrade the quality of the environment. Mitigation measures contained in each of the subject resource area descriptions are considered adequate to reduce these individual impacts to a less than significant level.

As described in the Biological Resources Section, the project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife

population to drop below self-sustaining levels, nor does it restrict the range of a rare or endangered plant or animal community, or reduce the range of a rare or endangered plant or animal. The Shasta Crayfish is currently a state and federally listed endangered species whose habitat is located in the project area. The US Fish and Wildlife Service is currently preparing a Biological Opinion as part of the ongoing FERC relicensing process for the Pit River I Project. This opinion includes the evaluation of the withdrawal of certain land areas from the Pit River Hydroelectric Project boundaries. Once completed, this Biological Opinion will provide information from which to determine the extent of this impact from the relicensing process. Careful consideration of the potential for this project to impact the Shasta Crayfish was conducted as part of the analysis contained in this document, and it was determined that a significant impact resulting from the actions proposed by this project would not occur.

The Cultural Resources Section concluded that the project does have some potential to eliminate important examples of the major periods of California history or prehistory; but the mitigation measures imposed in the section would reduce the potential to a less than significant level. As a part of the Conservation Easement, CWA would agree to the terms contained within the deed requiring the protection and future preservation of any known cultural or historical sites that exist or may be found in the future. Additionally, CWA has agreed that, prior to the commencement of any activity on the property which may materially disturb the ground at McArthur Swamp (*e.g.*, development of ground water, grading, construction, excavations), a site survey shall be conducted to determine if any cultural materials or sites exist in the area of the proposed activity. As result, no impact to cultural resources is anticipated.

- b) None of the activities proposed as part of the project have the potential to result in impacts, which are considered to be individually limited but cumulatively significant. While there are ground disturbing activities proposed as part of the adaptive management plan which would result in temporary air emissions which may be cumulatively significant, mitigation measures described in the Air Quality Section of this document are considered adequate to reduce this impact to a less than significant level. Additionally, the proposed projects potential to result in a cumulative impact to the endangered Shasta Crayfish was carefully considered in the Biological Resources section. The analysis in this section concluded that the proposed project or any of the subsequent activities under the adaptive management plant would not result in a cumulatively considerable impact to this species. Finally, related to cultural resources, the proposed project involves the reopening of the Glenburn Dredge Site river access pursuant to a FERC recommendation on the Pit 1 relicensing. The Pit Rive Tribe has provided comments on this project expressing concern for the sensitive nature of the area surrounding the Glenburn Dredge Site. While the reopening of this public access site may re-introduce additional recreational visitors, it is highly speculative to assume that this action would directly result in a cumulatively considerable impact to undiscovered cultural resources in the area.
- c) With the mitigation measures imposed in this document, the proposed land transfer and subsequent activities as part of the MSMP would not have environmental effects that could

cause adverse effects on human beings, either directly or indirectly. Ultimately, the proposed project will enhance and create additional habitat for migrating waterfowl and will be managed under the terms of an adaptive management plan.

- d) The proposed project has no potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. On the contrary, the project will actually enhance and contribute to long-term environmental goals with some short-term environmental impacts which, with the mitigation imposed in this document, will be reduced to a less than significant level. The proposed donation of fee title for both the Burney Falls and McArthur Swamp transfers is intended to place these land areas into the jurisdiction or management of the most appropriate parties. The MSMP has been developed with the goal of long-term environmental benefit and will be implemented and adjusted to achieve this goal over the long-term. Over the 5-year period following the transfer of McArthur Swamp to CWA, the MSMP calls for CWA, and its successors, to take specified actions to improve wildlife habitat, stabilize levees, protect and create habitat for the Shasta crayfish, and improve grazing and vegetation management.

CHAPTER 3.0

DETERMINATION

SECTION 3.0

DETERMINATION: (TO BE COMPLETED BY LEAD AGENCY)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

For

CHAPTER 4.0

LIST OF PREPARERS AND CONSULTATION

SECTION 4.0

REPORT PREPARERS; PUBLIC AGENCY OUTREACH MEETINGS; AND ORGANIZATIONS AND PERSONS CONSULTED

4.1 REPORT AUTHORS

4.1.1 LEAD AGENCY

California Public Utilities Commission

Billie C. Blanchard, Environmental Project Manager

4.1.2 CONSULTANTS

Environmental Science Associates

Dail B. Miller - Program Director

Tim Morgan - Program Manager

John E. Forsythe, AICP – Project Manager

Clint T. Meyer – Geology / Soils, Minerals, Agriculture, Cultural Resources

Crystal Stech – Hazardous Materials, Recreation

Phillip W. Reiger, Ph.D. – Biological Resources

Matthew Trask – Aesthetics

Judith Garland – Hydrology and Water Quality

Jyothi Iyer – Air Quality and Noise

Deborah Kirtman – Population, Housing, Utilities and Public Services

Iolandè Argênt– Word Processing

Gus JaFolla, Marilyn Cloud – Administrative and Report Production

Dan Williams – Graphics

Coyote and Fox Enterprises – Cultural and Historic Resources

Trudy Vaughan, Principal

Cassidy, Shimko & Dawson - Legal Review

Anna Shimko, Esq., Partner

Public Affairs Management – Public and Agency Outreach

Charles Gardiner – Principal

Deborah Fleischer – Associate

Alvin L. Franks – Geology and Hazardous Materials

Alvin L. Franks, Ph.D.

4.2 PUBLIC AGENCY OUTREACH MEETINGS AND CONSULTATION

The CPUC conducted two meetings and one field visit to provide government agencies and tribal entities opportunities to discuss the proposed land transfer project and identify significant environmental issues that should be considered in the preparation of the Initial Study. Each meeting is listed below.

AGENCY MEETINGS

February 7th and April 3rd , 2001
Pit River Indian Tribe
Burney, California

June 8th , 2001
US Fish and Wildlife Service
Sacramento, California

ORGANIZATIONS AND PERSONS CONSULTED

The following agency representatives and individuals were consulted regarding the proposed land transfer project:

Contact:

Jim Holman
 Forrest Sullivan
 Michael Gross, Area Superintendent
 Dave Nelson, former director
 Steve Turek
 Jim Canaday
 Gary Taylor (Sacramento Field Office)
 Russ Mull, Director
 James Cook, Assistant Director
 Glenn Hawes
 Michael Henry, Portland Regional Office
 Jim Guldaman
 Dave Patterson
 Bill Quinn, Vice President, Northern California Region
 Graig McArthur
 George McArthur
 Crag McArthur
 Larry Forero
 Angel Winn
 Curtis Knight
 Jim Guldaman

Agency

Pacific Gas & Electric Company

 California Department of Fish and Game

 California Department of Fish and Game
 California State Water Quality Control Board
 U.S. Fish and Wildlife Service
 Shasta County Planning

 Shasta County Supervisor
 Federal Energy Regulatory Commission
 Fall River Community Services District
 California Waterfowl Association

 McArthur Swamp Resource Management Association
 Fall River Big Valley Cattlemen's Association
 University of California Cooperative Extension
 Pit River Tribe
 California Trout Association
 Fall River Community Services District

APPENDIX A

TRANSFER AND MAINTENANCE AGREEMENT

Available upon request.

APPENDIX B

CONSERVATION EASEMENT

Available upon request.

APPENDIX C

MCARTHUR SWAMP MANAGEMENT PLAN

Available upon request.

APPENDIX D

MITIGATION MONITORING AND REPORTING PROGRAM

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



MITIGATION MONITORING AND REPORTING PROGRAM

PACIFIC GAS AND ELECTRIC COMPANY'S APPLICATION FOR TRANSFER AND DONATION OF CERTAIN LANDS IN SHASTA COUNTY (APPLICATION NO.S 00-05-029 AND 00-05-030)

INTRODUCTION

This document describes the mitigation monitoring program for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Pacific Gas and Electric (PG&E) applications concerning the Shasta County Land Transfers.

California Public Utilities Commission (CPUC)

The Public Utilities Code confers authority upon the CPUC to regulate the terms of service and safety, practices and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported. Section 21081.6 of the Public Resources Code requires a public agency to adopt a reporting and monitoring program when it approves a Mitigated Negative Declaration.

The purpose of a reporting and monitoring program is to ensure that measures adopted to mitigate or avoid significant environmental impacts are implemented. The CPUC views the reporting and monitoring program as a working guide to facilitate not only the implementation of mitigation measures by the project proponents, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

Project Background

The Proposed Project consists of two separate but related land transfer actions. In May of 2000, Pacific Gas and Electric (PG&E) applied to the California Public Utilities Commission (CPUC) for approval to market value and exchange specific lands for equivalently valued lands owned by California Department of Parks and Recreation (DPR) (Application No. 00-05-030). The

application also addressed PG&E's proposal to subsequently transfer the land received from DPR to the California Waterfowl Association (CWA), which is a non-profit entity. Lands proposed by PG&E for transfer to DPR are commonly known as "Burney Falls" and "Bowman Ditch." Lands received by PG&E from DPR (subsequently transferred to CWA), are commonly referred to as the "Ahjumawi Property."

The second land transfer under evaluation, as part of this environmental documentation, is a proposal to market value and donate certain properties to CWA (Application No. 00-05-029). These land properties consist of areas in Shasta County commonly referred to as the MacArthur Swamp, the Glenburn Dredge Site, and a dredge used to maintain certain levees associated with those properties. The transaction includes a Conservation Easement and other terms designed to maintain existing land uses, enhance certain habitat types, and preserve cultural and historical resources.

In accordance with the California Environmental Quality Act (CEQA), the CPUC prepared an Expanded Initial Study to evaluate the potential environmental impacts related to PG&E's divestiture application. In completing the initial study process, the CPUC determined that the actions taken as a result of approving PG&E's divestiture application would have potentially significant impacts in the areas of:

- Air Quality
- Cultural Resources

In limited instances where the environment could potentially be significantly affected by divestiture, appropriate mitigation measures were recommended for adoption. Over the five year period following the transfer of McArthur Swamp to CWA, The McArthur Swamp Management Plan (MSMP) calls for CWA, and its successors, to take specified actions to improve wildlife habitat, stabilize levees, protect and create habitat for the Shasta crayfish, and improve grazing and vegetation management.

The mitigation measures identified in these areas also have been incorporated into the Mitigation Monitoring and Reporting Program.

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor this project to ensure that the adopted mitigation measures are implemented effectively. The CPUC will be responsible for ensuring full compliance with the provisions of this monitoring program and has primary responsibility for implementation of the monitoring program. The purpose of this monitoring program is to document that the mitigation measures adopted by the CPUC are effectively implemented.

The CPUC has the authority to halt any activity associated with the divestiture of PG&E's Shasta County Properties if the activity is determined to be a deviation from the approved project or adopted mitigation measures. For details, refer to the Mitigation Monitoring and Reporting Program discussed below.

Mitigation Monitoring and Reporting Program

The table attached to this program presents a compilation of the Mitigation Measures in the Mitigated Negative Declaration. The purpose of the table is to provide a single comprehensive list of mitigation measures, effectiveness criteria, and timing.

Dispute Resolution Process

The Mitigation Monitoring and Reporting Program is expected to reduce or eliminate many potential disputes. However, in the event that a dispute occurs, the following procedure will be observed:

Step 1: Disputes and complaints (including those of the public) shall be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.

Step 2: Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address the deviation from the proposed project or adopted Mitigation Monitoring and Reporting Program.

Step 3: If a dispute or complaint regarding the implementation or evaluation of the Mitigation Monitoring and Reporting Program or the Mitigation Measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice shall be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his decision, and serve it on the filer and the other participants.

Parties may also seek review by the CPUC through existing procedures specified in the CPUC's Rules of Practice and Procedure, although a good faith effort should first be made to use the foregoing procedure.

Mitigation Monitoring Table

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
AIR QUALITY				
III.1: The project may result in an air quality standard violation or contribute to an existing or projected air quality violation.	III.1: The receiving parties (CWA and RMA) would adopt and implement Standard Mitigation Measures (SMMs), as a condition of approval of the grading permit, required by the Shasta County Air Pollution Control District (SCAPCD). The SMMs shall be included as conditions of approval to the grading permit issued by the Shasta County Environmental Health Department and, as appropriate shall appear on the final construction plans submitted for the permit's approval. With the implementation of the required mitigation measures as described below, the project would not result in a significant effect on the local pollutant concentrations: • All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day. • All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions. • All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads. • All land clearing, grading, earth moving or excavation activities on the project site shall be suspended when winds are expected to exceed 20 miles per hour. • All inactive portions of the development site shall be seeded and watered until a suitable grass cover is established. • The contractor shall be responsible for applying non-toxic stabilizers (according to manufacturers specifications) to all inactive	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) of a commitment to adhere to the terms of the grading permit for five years, and shall give notice of such commitment to the air quality regulations to the SCAPCD.	Documentation of delivery to the CPUC of a commitment to participate in the existing SCAPD SMMs for five years, and notice of such participation to the Shasta County Environmental Health Department.	Prior to approval of the final construction plans submitted for the permit's approval.

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
	construction areas (previously graded areas which remain inactive for 96 hours), in accordance with the Shasta County Grading Ordinance. • All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of CVC Section 23114. This provision is enforced by local law enforcement agencies. • All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance. • During initial grading, earth moving, or site preparation, the project shall be required to construct a paved (or dust palliative treated apron, at least 100 feet in length, onto the project site from the adjacent paved road(s). • Paved streets adjacent to the development site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site. • After construction, the transfer recipient shall re-establish ground cover on the construction site through seeding and watering in accordance with Shasta County Grading Ordinance.			

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
CULTURAL RESOURCES				
<i>McArthur Swamp</i> V-1: Construction and/or excavation activities associated with the implementation of habitat improvements identified in the MSMP could encounter previously unidentified historic, archaeological, or paleontological resources. Excavation into an undiscovered resource could destroy portions of the site, disturb its integrity and context, unearth human remains, or impair the scientific value of the resource. * Refer to McArthur Swamp Impact Discussion in the Expanded Initial Study for complete impact discussion.	V.1a: Prior to the transfer of title of the McArthur Swamp, the applicant shall include specific language in the proposed Conservation Easement and MSMP requiring CWA to appoint a Professional Archaeologist (who is a member of the Registry of Professional Archaeologists), or Archaeologists, at least 15 days prior to the start of the project related vegetation clearance ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion controls measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or natural areas resulting from habitat improvements pursuant to the MSMP. As shall be specific in this new language, CWA shall provide the CPUC with the name(s) and statement of qualifications of its designated Professional Archaeologist(s) who will be responsible for implementation of all project-related cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the Archaeologist(s) meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register (United States Department of the Interior 1997). - At least 10 days prior to the start of any project-related activity defined above, CWA shall confirm in writing who is reasonable for enforcing the cultural-related terms contained in the MSMP, that the approved designated Professional Archaeologist will be available at the start of the project activities and is prepared to implement the protocol specified in the MSMP. - At least 10 days prior to the replacement of a designated Professional Archaeologist, CWA shall obtain the CPUC approval of the proposed replacement Professional Archaeologist.	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological mitigation program.	Verification that new language has been added to the proposed Conservation Easement and MSMP requiring CWA to appoint a Professional Archaeologist (who is a member of the Registry of Professional Archaeologists), or Archaeologists, at least 15 days prior to the start of the project related activities.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. At least 10 days prior to the start of any project-related activity defined above, CWA shall confirm in writing who is reasonable for enforcing the cultural-related terms contained in the MSMP, that the approved designated Professional Archaeologist will be available at the start of the project activities and is prepared to implement the protocol specified in the MSMP. At least 10 days prior to the replacement of a designated Professional Archaeologist, CWA shall obtain the CPUC approval of the proposed replacement Professional Archaeologist.

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
<i>McArthur Swamp</i> V-1: Refer to Impact V-1 of the MMRP for complete impact discussion.	V.1b: Prior to transfer of title of the McArthur Swamp and Glenburn Dredge Site, the receiving parties shall ensure that prior to the commencement of construction and/or ground disturbing activities, the designated Professional Archaeologist shall provide all construction personnel with environmental training in a manner that will inform them of the possibility of encountering cultural or historical resources. All construction personnel will be trained in the identification of archaeological resources (which could include flaked stone, projectile points, mortars, pestles, soil containing shell and bone, or human burials), historic resources (which could include stone features, such as adobe foundations or walls, structures and remains with square nails, and refuse deposits), human remains, and paleontological resources (which could include true and/or trace fossils). In addition, the construction personnel would be trained on the appropriate protocol to follow if any resources are found, as discussed in Mitigation Measure V.3, V.4, and V.5.	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed construction personal training program.	Documentation submitted by the receiving parties contractor specifying the date and type of environmental training received by construction personal. Concurrence by the designated Professional Archaeologist.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Prior to the commencement of any construction and/or ground disturbing activities. If new contractor is hired and different construction personal are brought on-site to perform project-related construction or excavation activities, all new personal will be trained accordingly.

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
<i>McArthur Swamp</i> V-1: Refer to Impact V-1 of the MMRP for complete impact discussion.	V.1c: Prior to the transfer of title of the McArthur Swamp, the applicant shall amend the proposed Conservation Easement and MSMP to include specific language requiring that in the event that previously unidentified historic, archaeological, and/or paleontological resources are encountered during habitat improvement activities, the construction crew will halt work within a 100-foot radius of the find and not collect or disturb the materials until the Professional Archaeologist has evaluated the location and determined an appropriate mode of action. The Professional Archaeologist retained by CWA shall evaluate such resources for California Register Historical Resources eligibility ensuring that the evaluations are supervised by individuals meeting the Secretary of the Interior's proposed Historic Preservation Qualification Standards for each particular resource type. An evaluation form shall be submitted to the CPUC, CWF, and the California Historical Resources Information Center. If the Professional Archaeologist determines that the resources are eligible for the California Register of Historical Resources, the Professional Archaeologist shall determine the appropriate action to be taken with preference given to preserving the resources in place, the Professional Archaeologist shall conduct data recovery, if determined necessary. If cultural resources are encountered during construction, construction may resume once the PA has determined an appropriate mode of action. ▪ Upon approval of this plan by the CPUC Mitigation Monitor, mitigation measures will be implemented prior to any project-related activities within 100 feet of the resource's boundary.	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.	Verification of the newly amended language in the Proposed Conservation Easement and MSMP by the CPUC's Mitigation Monitor.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Upon approval of this plan by the CPUC Mitigation Monitor, mitigation measures will be implemented prior to any project-related activities within 100 feet of a newly discovered resource's boundary.

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
<i>McArthur Swamp</i> V-1: Refer to Impact V-1 of the MMRP for complete impact discussion.	V.1d: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to include language requiring CWA to notify a qualified paleontologist of unanticipated paleontological discoveries, made by either the Professional Archaeologist or construction personnel responding to their environmental training classes, and document the discovery as needed. In the event of an unanticipated discovery of vertebrate fossil remains during construction, excavations within a 100-foot radius of the find shall be temporarily halted or diverted until the discovery is examined by a qualified vertebrate paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials.	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.	Verification of the newly amended language in the Proposed Conservation Easement and MSMP by the CPUC's Mitigation Monitor.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Upon the discovery of a potential paleontological resource, a qualified vertebrate paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find.
<i>McArthur Swamp</i> V-1: Refer to Impact V-1 of the MMRP for complete impact discussion.	V.1e: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA's contractors to immediately stop all work in the event that human remains are found during the MSMP's activities within 100-foot radius of the find. Following any such discovery, the Professional Archaeologist shall be notified immediately and will, in turn, immediately notify the Shasta County coroner, in compliance with Section 7050.5 of the California Health and Safety Code. If the human remains are determined to Native American in origin, the Shasta County coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of the find. The most likely descendent shall be given an opportunity to make recommendations to the CWA and its contractors for means of treating or disposing of, with appropriate dignity, the human remains and	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.	Verification of the newly amended Conservation Easement and MSMP requiring CWA's contractors to immediately stop all work in the event that human remains are found during the MSMP's activities within 100-foot radius of the find.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Should human remains be found during project-related activities, the Professional Archaeologist shall immediately notify the Shasta County coroner. If the human remains are determined to Native American in origin, the Shasta

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
	any associated grave goods as provided in Public Resources Code Section 5097.98. Where conditions A, B, and/or C under Section 15064.5 (e) (2) occur, the land owner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.			County coroner will notify the Native American Heritage Commission (NAHC) within 24 hours of the find.
McArthur Swamp V-1: Refer to Impact V-1 of the MMRP for complete impact discussion.	V.1f: Prior to the transfer of title, the Conservation Easement and MSMP shall be amended to require CWA to provide the opportunity for a Native American monitor, if interested, to be present on-site during project-related vegetation clearance, ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or the movement or parking of heavy equipment or other vehicles onto or over the project surface, within 500 feet of the boundary of known prehistoric resources and within 500 feet of the locations of modern and historic streams. The Native American monitor shall be a member of the Ahjumawi Tribe and will serve in addition to the Professional Archaeologist. Monitoring by the cultural group representative is required within 500 feet of such sites. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title.	The receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.	Verification of the newly amended Conservation Easement and MSMP requiring CWA to provide the opportunity for a Native American monitor, if interested, to be present on-site during project-related activities.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. A Native American monitor shall be notified 10 days prior to any project-related activities within 500 feet of the boundary of known prehistoric resources and within 500 feet of the locations of modern and historic streams.

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Timing
<i>Glenburn Dredge Site</i> V.2: The reintroduction of public access to the Glenburn Dredge Site could result in a change in the significance of the newly discovered archaeological site and other potentially undiscovered resources on-site.	V.2: Prior to the transfer of title, the Conservation Easement shall be amended to include the portion of the Glenburn Dredge Site property that is bounded by the fence required by this mitigation measure and the Fall River. The Conservation Easement shall include language requiring that the new owner establish permanent protection of sensitive resources. The amended Conservation Easement and MSMP shall be submitted to the CPUC for review and approval prior to the transfer of title. The new conservation easement shall restrict any uses of this area of the site, except for the sole purpose of preserving the integrity of the sensitive resource. In addition, the Conservation Easement and MSMP shall be amended to include a requirement to reconfigure the existing fence layout at Glenburn to restrict access on and around sensitive resources. The Conservation Easement and MSMP, as amended, shall provide that a four strand barbed-wire fence effective to serve as a barrier to human and livestock access and shall be constructed at a location 100 feet from the boundary of the sensitive site or along the property line where it is closer than 100 feet from the boundary of the sensitive site (but not along the river). Construction of the fence shall comply with the protocols specified in Mitigation Measures V.1a-V.1f. The Conservation Easement and MSMP shall further be amended to provide for regular inspection and maintenance of the fence to ensure that it continues to be a barrier to access.	The donating and receiving parties shall submit documentation to the California Public Utilities Commission (CPUC) Mitigation Monitor of a commitment to participate in the CPUC proposed archaeological monitoring program.	Verification that the Conservation Easement has been amended to include the portion of the Glenburn Dredge Site property that contains the newly discovered resource. Establishment of the reconfigured fencing layout to restrict access on and around the sensitive resource.	Amended language shall be inserted into the Conservation Easement and MSMP prior to the transfer of title. Establishment of the reconfigured fencing layout prior to reintroducing public access to the Fall River at the Glenburn site.