

RECLAMATION

Managing Water in the West

FINDING OF NO NEW SIGNIFICANT IMPACTS

AMENDMENT No. 8 (8th & 9th YEAR RENEWAL) FOR AGREEMENT FOR THE REIMBURSEMENT OF DEEP WELL PUMPING COSTS ON THE GRAY LODGE WILDLIFE AREA BETWEEN BUREAU OF RECLAMATION AND THE STATE OF CALIFORNIA (2012-2014)

FONNSI NO. 12-16-MP

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U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region

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BACKGROUND

The Bureau of Reclamation (Reclamation) proposes to extend the performance period an additional 24 months (until February 28, 2014) for the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California, No. 05-WC-20-2903, DFG No. R042001* executed on December 20, 2004 (2004 Reimbursement Agreement). The 2004 Reimbursement Agreement was subsequently amended in 2005, 2006, 2007, 2009, 2010 and 2011.

An Environmental Assessment/Finding of No Significant Impact (EA/FONSI) was prepared in May 2003 for the original agreement and covered the period from May 12, 2003, through February 29, 2008. A Supplemental EA/FONSI was prepared for the period from March 1, 2008, through February 28, 2009 and a Final EA/FONSI was prepared for the period from March 1, 2009 through February 28, 2012.

ALTERNATIVES INCLUDING PROPOSED ACTION

No Action Alternative

The No Action Alternative would consist of Reclamation not amending the 2004 Reimbursement Agreement with the State of California for reimbursement of groundwater pumping costs at Gray Lodge Wildlife Area (WA) to supplement reduced Project Level 2 surface water supplies. The California Department of Fish and Game (DFG) would likely not have the budget to cover these pumping costs, and would significantly reduce the amount of groundwater pumped. Under this alternative, Reclamation would not meet its obligations under CVPIA Section 3406(d)(1). DFG would receive less than full Level 2 water supplies at the WA, with Level 2 supplies reduced up to approximately 6,000 acre feet (AF) annually in Water Years 2012 and 2013, and potentially reduced up to approximately 13,000 AF annually if either of these water years is a critical dry year.

Proposed Action Alternative

Under the Proposed Action, Reclamation would amend the 2004 Reimbursement Agreement to allow for a 24-month extension period, thereby changing the term date through February 28, 2014. This extension would allow Reclamation to meet its obligations under Section 3406(d)(1) of the CVPIA by providing up to approximately 6,000 AF of groundwater supplies to the WA annually. The groundwater would supplement reduced Project Level 2 surface water deliveries and DFG would be reimbursed for pumping costs. These costs include, but are not limited to:

- Well rehabilitation and upgrade costs;
- Well pump repair costs;
- Well levels monitoring costs;
- Power costs; and
- Indirect costs.

According to the 2004 Reimbursement Agreement and the environmental documentation supporting the original agreement and subsequent amendments, Reclamation and DFG agreed to immediately terminate the Agreement should significant environmental effects or detrimental impacts to nearby property interests occur. Since the Agreement has been in place, no such effects or impacts have been identified.

FINDINGS

Reclamation reviewed the 2003 EA, 2008 Supplemental EA and 2009 EA and finds those analyses fully considered the range of effects that could result from renewing the reimbursement agreement with DFG. Rather than reiterate those analyses in a new EA, it is incorporated by reference in its entirety (see attached). The EAs and Supplement EA were provided for public review in 2003, 2008 and 2009, and no agency or public comment was received. The action was also reviewed for impacts to threatened and endangered species, and none were found. Additionally, the action had no potential to affect historic properties pursuant to 36 CFR Part 800.3(a)(1), and no additional consideration under Section 106 of the National Historic Preservation Act was required. Therefore, Reclamation determined that the proposed reimbursement of pumping costs would not result in any new significant impacts and is not a major federal action that would significantly affect the quality of the human environment requiring preparation of an Environmental Impact Statement.

**ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT**

**AGREEMENT FOR THE REIMBURSEMENT OF
DEEP WELL PUMPING COSTS
ON THE GRAY LODGE WILDLIFE AREA
BETWEEN
THE UNITED STATES AND THE STATE OF CALIFORNIA**

Prepared by

U.S. Department of the Interior

**Bureau of Reclamation
Mid-Pacific Region
Northern California Area Office**

Redding, California

May 2003

United States Department of the Interior
FINDING OF NO SIGNIFICANT IMPACT
AGREEMENT FOR THE REIMBURSEMENT OF
DEEP WELL PUMPING COSTS
ON THE GRAY LODGE WILDLIFE AREA
BETWEEN
THE UNITED STATES AND THE STATE OF CALIFORNIA

Background

Section 3406(d)(1) of the Central Valley Project Improvement Act (CVPIA), Title XXXIV, Public Law 102-575, directs the Secretary of the Department of Interior to provide water supplies to the Gray Lodge Wildlife Area (WA) in accordance with Level 2 of the "Dependable Water Supply Needs" table for those habitat areas set forth in the 1989 Refuge Water Supply Report.

Beginning in 1994, Reclamation undertook negotiations with the Biggs-West Gridley Water District (District), of which the WA is a landholder, for the long-term conveyance of water to the WA to comply with the CVPIA. On March 26, 2002, negotiations with the District for conveyance of this surface water supply were terminated.

Historically, the WA has relied on surface water deliveries from the District, and Reclamation Districts 833 and 2054 to provide 60 percent of needed water supplies and obtained the remaining 40 percent of the total average water supply by pumping groundwater on the WA. However, since Reclamation and the District terminated negotiations for conveyance of a surface water supply to meet the CVPIA mandate, groundwater is the only available option for an immediate supply. The WA intends to pump groundwater to provide sufficient supplies to manage their wetlands.

Proposed Action

Reclamation and the California Department of Fish and Game have reached agreement on the terms and conditions for Reclamation to reimburse the Department for costs associated with pumping Level 2 groundwater supplies. Thus Reclamation's proposed action is to reimburse the Department for such costs. The amount to be funded will be up to \$470,000, during the period May 12, 2003 through February 29, 2004. Funding for subsequent years will depend upon availability funds in Reclamation's budget. Up to five years of funding is anticipated as an interim measure pending the development and implementation of a long term solution for delivery of water.

Gray Lodge Agreement for Reimbursement of Pumping Costs
Finding of No Significant Impact
(Continued)

Findings

In accordance with the National Environmental Policy Act of 1969, as amended, Reclamation has determined that an Environmental Impact Statement is not required for the proposed action.

As determined in the attached EA, Reclamation did not identify any significant impacts which will result from the proposed action because the proposed action will merely enable the Department to maintain current conditions. Therefore there will be no affect on listed species, cultural resources, Indian Trust Assets, Environmental Justice, or other issues of concern. There will be no land use changes or other effects beyond the incremental increases in groundwater pumping from existing wells; and those incremental increases are expected to be within the levels that can be withdrawn without harm to either the groundwater resources or third parties.

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FONSI No. _____

ENVIRONMENTAL ASSESSMENT
AGREEMENT FOR THE REIMBURSEMENT OF
DEEP WELL PUMPING COSTS
ON THE GRAY LODGE WILDLIFE AREA
BETWEEN
THE UNITED STATES AND THE STATE OF CALIFORNIA

INTRODUCTION

Section 3406(d)(1) of the Central Valley Project Improvement Act (CVPIA), Title XXXIV, Public Law 102-575 directs the Secretary to provide, either directly or through contractual agreements with other appropriate parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on the Gray Lodge Wildlife Area (WA). The quantity and delivery schedules of water measured at the boundaries of each wetland habitat area "shall" be in accordance with Level 2 of the "Dependable Water Supply Needs" table for those habitat areas set forth in the 1989 Refuge Water Supply Report.

Beginning in 1994, Reclamation undertook negotiations with the Biggs-West Gridley Water District (District), of which the WA is a landholder, for the long-term conveyance of water to the WA to comply with the CVPIA. A two year agreement was signed September 27, 1996. Five amendatory agreements were subsequently entered into in order to continue water service to the WA while a long term conveyance agreement was being negotiated. On March 26, 2002, the negotiating teams for Reclamation and the District agreed they were unable to agree on the issues of the conveyance rate and water quality, and negotiations were terminated.

Historically, the WA, which is managed by the California Department of Fish and Game (Department), has relied on surface water deliveries from the District, and Reclamation Districts 833 and 2054 to provide 60 percent of needed water supplies and obtained the remaining 40 percent of the total average water supply by pumping groundwater on the WA. However, since Reclamation and the District terminated negotiations for a surface water supply, groundwater is the only available option for an immediate supply of water to provide Level 2 supplies. The California Department of Fish and Game therefore plans to pump the additional water, and Reclamation and the California Department of Fish and Game have agreed on the terms and conditions for Reclamation to reimburse the Department for doing so.

This Environmental Assessment (EA) addresses the environmental implications of this cost reimbursement agreement for additional groundwater pumping should a decision be made to implement it. This EA is based upon, and includes by reference, the January 2001 EA for "Refuge Water Supply: Long-Term Water Supply Agreements" which examined the potential impacts of a firm water supply and various options for delivery of surface water. That 2001 EA assumed continuation of the historic levels of groundwater pumping, but did not examine the additional pumping which would result under the proposed action.

PURPOSE AND NEED FOR ACTION

Section 3406(d)(1) of the CVPIA requires Reclamation to supply water needed for operation of the WA. Lacking a means to physically supply the water itself, Reclamation will reimburse the Department for costs acquiring the water from groundwater. The purpose of this action is to ensure the WA can continue to obtain required Level 2 supplies needed for wetland management.

PROPOSED ACTION AND ALTERNATIVES

Proposed Action

The proposed action is for the Bureau of Reclamation (Reclamation) to reimburse the Department up \$470,000 during the period May 12, 2003 through February 29, 2004, for the costs associated with pumping up to 13,000 acre feet of Level 2 groundwater supplies. These costs include, but are not limited to, rehabilitation and upgrade costs, pump repair costs, operation and maintenance costs, well monitoring costs, power costs, and indirect costs.

Subject to availability of funds, and the final negotiated term of the agreement, this action may be extended for up to four more years to provide water while a long term solution for delivery of water is developed and implemented.

No Action Alternative

The no-action alternative consists of not reimbursing the Department for the costs associated with pumping Level 2 groundwater supplies during the period May 12, 2003 through February 29, 2004, and, potentially, subsequent years. This alternative, however, would not meet the requirements of Section 3406(d)(1) of the CVPIA.

Alternatives Considered But Not Analyzed Further In This EA

Wheeling water through the facilities of adjacent water districts has been diligently pursued for eight years without agreement on a long term arrangement. Given this history of diligent-effort and the failure of negotiations in 2003 with the only existing entity capable of wheeling water this year, this alternative has not been pursued further in this EA.

AFFECTED ENVIRONMENT

The WA is located west of Gridley, California in the heart of the Butte Sink in Butte and Sutter counties. It consists of 8,400 acres of seasonally flooded wetlands and upland/grassland area just east of the extensive private wetlands of the Butte Sink, which are managed for waterfowl. The WA is likewise noted for its waterfowl production but is also operated and maintained by the Department for the protection and enhancement of habitat for threatened and endangered species,

and upland game species. Adjacent lands, other than the managed wetlands of the gun clubs in the Butte Sink, are in agriculture, particularly rice.

Water is used at the WA to maintain ponds and seasonal marshes, and to irrigate millet for waterfowl food. The amount used, however, varies annually with the availability of water.

About 2,600 of the WA's 8,400 acres are located within the District and receive water from the District. Other lands receive water from appropriative rights to water from the Reclamation District 833 and 2054 drains and groundwater wells, which typically supply about 26,500 acre feet per year. Depths to groundwater range from 20 to 140 feet and average about 100 at the WA. The Department believes these wells can provide a safe yield of 12,000 acre feet per year, a figure which prior investigators believe to be conservative (Mark Oliver, CH2M Hill, personal communication).

Water supplies for surrounding lands are derived from diversions from the Feather River, Butte Creek, and groundwater supplies, with the mix of sources varying with the land owner.

ENVIRONMENTAL CONSEQUENCES

Proposed Action

The operations that would be supported by the proposed reimbursement would involve no changes in land use. Therefore, apart from any groundwater related effects, the proposed action would merely maintain current conditions and not adversely affect any biological, cultural, or social resources.

Adverse impacts are not expected from the increased groundwater withdrawals. The amount that would be withdrawn under the terms of the agreement would be within the amount that experience indicates could be safely withdrawn even under conservative management practices. Moreover, experience in Butte County during the severe droughts of the past thirty years has shown that the groundwater aquifer recharges quickly following periods of wide-spread heavy use, so the proposed, localized increases should have no lasting effects even if draw downs exceed expectations. Moreover, The Department has agreed to monitor groundwater levels during the proposed operations, and those observations can be used to guide corrective measures should they be warranted.

Data from the monitoring will be considered in the evaluation of concepts for long term supplies and their potential impacts.

No Action Alternative

The No Action Alternative would fail to comply with the mandates of the CVPIA and would leave the WA with inadequate water supplies, with associated losses of wildlife. The shortfalls

would probably be particularly large in the near term given the budgetary problems now facing the State of California, and consequently the Department.

CONSULTATION AND COORDINATION

Personnel at the WA and Mr. Ed Craddock, Director of the Butte County Department of Water and Resource Conservation were contacted informally concerning the planned operations and their implications for groundwater supplies locally.

Final Supplemental Environmental Assessment and FONSI

RECLAMATION

Managing Water in the West

Final Supplemental Environmental Assessment and Finding of No Significant Impact for the

Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area between the United States and the State of California



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Regional Office
Sacramento, CA

January 2008

FINDING OF NO SIGNIFICANT IMPACT

Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area between the United States and the State of California

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Sacramento, California

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FONSI No. 08-1-MP



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
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January 2008

The proposed action by the United States Bureau of Reclamation (Reclamation) is to extend the performance period for the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California* No. 05-WC-20-2903, DFG No. R042001, executed on December 20, 2004 (Reimbursement Agreement 2004), for an additional and final twelve months beginning March 1, 2008 through February 28, 2009 .

In accordance with the National Environmental Policy Act of 1969, as amended, and the Council on Environmental Quality's Regulations for Implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), Reclamation's Mid-Pacific Regional Office has found that the proposed action would not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required.

FINDINGS

Reclamation has prepared a supplemental environmental assessment (SEA)(see attached) which analyzes the impacts of the proposed action. Based on the analysis in the SEA, Reclamation has found that extending the performance period for Reimbursement Agreement 2004 for an additional and final twelve months would not result in significant impacts to the environment.

This Finding of No Significant Impact is based upon the following:

1. Surface water use would not change as a result of the proposed action. There would not be increases or decreases in delivery of surface water to the Gray Lodge Wildlife Area (Refuge). Surface water resources would not be overburdened as a result of the proposed action.
2. Groundwater water use would remain the same as the past four years. There would not be an increase in the amount of groundwater pumping on the Refuge. Pumping groundwater would not overburden the resource or other water users.
3. The proposed action would have no effect on any federally listed threatened or endangered species or their critical habitat. Using groundwater on the Refuge augments management of habitat and food for migrating waterfowl and other species.
4. This action has no potential to affect historic properties [36 CFR Part 800.3 (a)1)]. Construction is not proposed and new lands would not receive the water. Therefore, the proposed action would not affect cultural resources.
5. The proposed action would not affect any Indian Trust Assets (ITA). The proposed action would not result in any ground breaking activities affecting any Indian reservations, rancherias or other legal interests held in trust by the United States for the benefit of Indian Tribes or individual Indians.
6. The proposed action would not disproportionately affect minorities or low-income populations and communities because there would be no change in land management. There would not be significant adverse impacts to human health or environmental effects associated with a reimbursement agreement for Refuge groundwater supply.

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List of Acronyms, Abbreviations, and Definition of Terms

EA	Environmental Assessment
DFG	California Department of Fish and Game
FWCA	Fish and Wildlife Coordination Act
Refuge	Gray Lodge Wildlife Area
ITA	Indian Trust Assets
NRHP	National Register of Historic Places
Reclamation	Bureau of Reclamation
SEA	Supplemental Environmental Assessment

Section 1 Purpose and Need for Action

1.1 Introduction

Reclamation proposes to extend the performance period for the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*, No. 05-WC-20-2903, DFG No. R0420012, executed on December 20, 2004 (Reimbursement Agreement 2004) for an additional twelve months beginning March 1, 2008 through February 28, 2009. Article 1(b) of the Reimbursement Agreement 2004 provides the option to extend the performance period by formal amendment for a maximum of four consecutive 12-month periods. The State of California Department of Fish and Game (DFG) has requested to exercise the fourth and final 12-month extension option.

This document serves to supplement the Environmental Assessment and Finding of No Significant Impact of May 2003 (2003 EA) for the Reimbursement Agreement 2004, and to examine the effects of the twelve month extension beginning March 1, 2008 through February 28, 2009. A reimbursement agreement has been successfully implemented between the parties since 2003. Under this extension, the Bureau of Reclamation (Reclamation) would continue to reimburse DFG for those approved costs associated with deep well pumping to provide groundwater supplies to Gray Lodge Wildlife Area (Refuge) for the purpose of supplementing Central Valley Project (Project) Level 2 surface water deliveries to the boundary of the Refuge, thereby meeting the full Level 2 allocation. This twelve-month extension is necessary for Reclamation to continue meeting its obligation of supplying full Level 2 water to the Refuge through February 28, 2009, at which time a new reimbursement agreement is expected to be in place.

1.2 Background

The Secretary of the Interior through the Bureau of Reclamation is mandated under the Central Valley Project Improvement Act (CVPIA), Title XXXIV, Public Law 102-575, Section 3406(d)(1)(2) and (5) to provide water supplies to certain refuges within the Central Valley, including Gray Lodge Wildlife Area. Reclamation entered into a long-term conveyance and facilities construction cooperative agreement with Biggs-West Gridley Water District (District), No. 03-FC-20-2049 (Cooperative Agreement) in September 2003 for the purpose of conveying surface water supplies to the Refuge boundary. The Cooperative Agreement also provides for District facilities improvements and construction to increase its capacity, due to current limited capacity which does not allow for conveyance of full Project Level 2 surface water supplies to the Refuge boundary.

In September 2003, Reclamation and DFG signed the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*, No. 03-WC-20-2601, (Reimbursement Agreement 2003) establishing the terms and conditions for Reclamation to reimburse DFG for costs associated with pumping groundwater

supplies on the Refuge for the purpose of supplementing reduced Project Level 2 surface water deliveries to the Refuge boundary. The Reimbursement Agreement 2003 performance period was retroactive to May 2003 continuing through February 29, 2004, and included the option for the performance period to be extended a maximum of four successive twelve month periods, through formal amendment. However, the Reimbursement Agreement 2003 terminated prior to Reclamation initiating the process for the first twelve month renewal amendment. Thus, it became necessary to execute the new Reimbursement Agreement 2004.

Reimbursement Agreement 2004 was retroactive to the beginning of contract Water Year 2004 (WY04), from March 1, 2004, continuing through February 28, 2005, carrying forth the same basic terms of the Reimbursement Agreement 2003, and allowed for the performance period to be extended a maximum of four successive twelve month periods. The renewals of the Reimbursement Agreement 2004 were duly exercised in 2005, 2006, and 2007, with the final twelve month extension period option remaining. DFG has requested to exercise the fourth and final 12-month extension option. However, the 2003 EA prepared for the initial term of Reimbursement Agreement 2003 covers four twelve month extensions concluding in April 2008.

Therefore, the federal action of extending the existing agreement for WY08 (March 1, 2008, through February 28, 2009) was not analyzed in the 2003 EA. The 2003 EA will be supplemented to include the additional year extension (covering 2008-2009) as set forth in the Reimbursement Agreement 2004.

1.3 Purpose and Need

Under the proposed twelve month extension, Reclamation would continue to reimburse DFG for those approved costs associated with deep well pumping to provide groundwater supplies to the Refuge supplementing Project Level 2 surface water deliveries to the boundary of the Refuge up to the full Level 2 allocation as mandated under CVPIA. This extension is necessary to continue providing full Level 2 water supplies to the Refuge until a new reimbursement agreement is executed.

1.4 Potential Resource Issues

- Surface Water Resources
- Groundwater Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Socioeconomic Resources
- Environmental Justice

Section 2 Alternatives Including Proposed Action

2.1 Alternative A – No Action

Reclamation would not extend the Reimbursement Agreement 2004 between Reclamation and DFG for reimbursement of costs associated with groundwater pumping to supplement reduced Project Level 2 surface water supplies during the period of March 1, 2008 through February 28, 2009. Under this alternative, Reclamation would not meet its obligations under CVPIA Section 3406(d)(1). DFG would potentially have to reduce Level 2 water use at the Refuge up to 13,000 acre feet in WY08.

2.2 Alternative B - Proposed Action

Reclamation would renew the Reimbursement Agreement 2004 for a final twelve month period extending the term date through February 28, 2009. This extension would allow Reclamation to meet its obligations under Section 3406(d)(1) of the CVPIA by providing groundwater supplies at the Refuge in an amount up to 13,000 acre-feet. The groundwater would supplement reduced Project Level 2 surface water deliveries. DFG would be reimbursed for their pumping costs. These costs include, but are not limited to:

- Well rehabilitation and upgrade costs;
- Well pump repair costs;
- Well levels monitoring costs;
- Power costs;
- Indirect costs.

Section 3 Affected Environment & Environmental Consequences

The affected environment for the No Action and Proposed Action alternatives is the same as identified in the May 2003 EA and is hereby incorporated by reference.

3.1 Environmental Consequences

3.1.1 Surface Water Resources

No Action

Under the No Action alternative, Reclamation would not extend the Reimbursement Agreement 2004, which would cover reimbursement of costs associated with pumping groundwater supplies to supplement reduced Project Level 2 surface water deliveries to the Refuge boundary during the period of March 1, 2008 through February 28, 2009. Surface water resources would be utilized in the same manner as existing conditions, being the delivery of surface water supplies from the District. The surface water is used to maintain ponds and seasonal marshes, and to irrigate seasonal wetlands and uplands to provide cover, nesting and foraging for both resident and migratory wildlife.

Proposed Action

Under the Proposed Action, Reclamation would extend Reimbursement Agreement 2004 for a final twelve month period beginning March 1, 2008, and terminating February 28, 2009. This extension would not change the use of surface water on the Refuge, and would maintain consistency in the amount of CVPIA Level 2 water that is delivered to the Refuge.

Cumulative Effects

Extension of the Reimbursement Agreement 2004 has no cumulative impacts to surface water resources. Surface water usage would not increase or decrease, nor would it be utilized differently than current management practices.

3.1.2 Groundwater Resources

No Action

Under the No Action alternative, Reclamation would not extend the Reimbursement Agreement 2004 which would cover reimbursement of costs associated with pumping groundwater supplies to supplement reduced Project Level 2 surface water deliveries to the Refuge boundary during the period of March 1, 2008, through February 28, 2009. Groundwater resources which are reimbursed by Reclamation would not be utilized to fulfill CVPIA Level 2 water supply deliveries to the Refuge.

Proposed Action

The extension of Reimbursement Agreement 2004 would allow the Refuge to continue to receive groundwater supplies supplementing reduced Project Level 2 surface deliveries up to full CVPIA

Level 2 amounts for an additional year, beginning March 1, 2008 and terminating February 28, 2009. Groundwater resources would be utilized in the same manner as described in the 2003 EA. See *Table 1* below. DFG would continue groundwater pumping at relatively the same levels as that of the last several years and would not exceed 13,000 acre feet, during this final extension period, and therefore, this action would have no adverse impact to groundwater resources.

Cumulative Effects

The extension of the Reimbursement Agreement 2004 would contribute minimally to cumulative impacts to groundwater resources. The only change to the project as described in the 2003 EA is a twelve month extension period, and therefore, additional impacts to groundwater resources would be an additional year of pumping groundwater at an amount of up to 13,000 acre feet. Groundwater pumping at the Refuge under Reimbursement Agreement 2003 and Reimbursement Agreement 2004 has occurred since 2003. The following table summarizes acre feet of groundwater pumped per year from WY2003 through WY2006. Annual groundwater pumped at the Refuge during WY2003 through WY2006 has been less than 13,000 acre feet each year.

Groundwater Pumping at Gray Lodge Wildlife Area

Month	WY2003	WY2004	WY2005	WY2006	Total
March	68	38	48	0	154
April	578	4	817	72	1,471
May	860	124	160	606	1,750
June	1258	545	991	510	3,304
July	1452	353	859	863	3,527
August	1234	463	811	1153	3,661
September	1329	977	2351	1555	6,212
October	4255	1962	2374	930	9,521
November	235	623	538	201	1,597
December	41	147	227	115	530
January	24	163	101	15	303
February	223	0	341	0	564
TOTAL	11,557	5,399	**9,618	6,020	32,594

Table 1. Gray Lodge WA Groundwater Pumping

** While 6,487 acre feet of ground water was scheduled for WY2005, more water was needed to meet the climatic conditions to maintain adequate habitat for wildlife; this additional water (both surface deliveries and pumped) resulted in 5,276 acre feet over the CVPIA Level 2 allocation. This exceedance of Project Level 2 was considered to be pumped groundwater [9,618(total pumped) - 4,342(groundwater to supplement to full Project Level 2 amount) = 5,276(Incremental Level 4)] and was attributed to CVPIA Incremental Level 4 water supplies. DFG assumed the pumping costs for the 5,276 acre feet for Incremental Level 4.

3.1.3 Land use

No Action

Under the No Action alternative, the Reimbursement Agreement 2004 would not be extended for a final twelve month period. Land use could potentially change since the No Action Alternative would result in Reclamation failing to meet its obligation of providing full Level 2 water

supplies under CVPIA, thus leaving the Refuge with inadequate water supplies and potential loss of wildlife habitat.

Proposed Action

The Proposed Action would not change land use conditions from existing conditions. A twelve month extension to the Reimbursement Agreement 2004 would merely maintain current conditions and those described in the 2003 EA.

Cumulative Effects

As land use conditions would not change from existing conditions, there are no cumulative effects. An extension of the Reimbursement Agreement 2004 would ensure reliable full CVPIA Level 2 water supplies to the Refuge for another twelve months (March 2008-February 2009).

3.1.4 Biological Resources

No Action

Under the No Action alternative, the Reimbursement Agreement 2004 would not be extended past February 29, 2008. Biological resources could potentially be affected since the No Action Alternative would result in Reclamation failing to meet its obligation of providing full Level 2 water supplies under CVPIA, thus leaving the Refuge with inadequate water supplies and potential loss of wildlife habitat. This would result in smaller quantities and quality of food, water and cover for both migratory and resident wildlife species, which may negatively impact both state and federally listed species.

Proposed Action

The proposed action of extending the Reimbursement Agreement 2004 would allow for reimbursement of continued pumping of groundwater to supplement reduced Project Level 2 surface water deliveries to the Refuge, providing water for proper management of the various habitats (permanent/seasonal wetlands and uplands) to meet/ provide for food, water and cover for both migratory and resident wildlife species while meeting Reclamation's obligations under CVPIA. The proposed action would not alter any current management strategies. Therefore, the proposed action would have no adverse impacts on special-status plants, fish or wildlife resources. There would be no effect to federally listed species as a result of this action.

Cumulative Effects

There would not be changes affecting use of water within the Refuge boundaries, therefore, the extension of the Reimbursement Agreement 2004 would not contribute to cumulative impacts on biological resources.

3.1.5 Cultural Resources

No Action

Under the No Action Alternative, there would be no impacts to cultural resources as modifications to existing facilities and new facilities are not proposed and would not be constructed under the Reimbursement Agreement 2004. There would be no potential to affect historic properties.

Proposed Action

Extension of the Reimbursement Agreement 2004 is not the type of activity with the potential to impact cultural resources eligible to the National Register of Historic Places (NRHP).

Cumulative Effects

As the Proposed Action does not have the potential to impact cultural resources eligible to the NRHP, amendment for a twelve month extension would not contribute to cumulative effects.

3.1.6 Indian Trust Assets

No Action

Conditions would remain the same as existing conditions under the No Action Alternative; therefore, there would be no impacts to Indian Trust Assets (ITAs).

Proposed Action

There are no Indian Trust Assets affected by this action. This action would have no adverse impacts on Indian trust assets.

Cumulative Effects

The Proposed Action when added with other past, present and future actions would not contribute to cumulative effects to ITAs.

3.2 Socioeconomic Resources

3.2.1 Socioeconomic Resources

No Action

Socioeconomic conditions under this alternative would not change. No additional impacts are associated with this alternative.

Proposed Action

Approval of the extension of the Reimbursement Agreement 2004 for an additional twelve months would not induce population growth, nor would seasonal labor requirements change. No adverse impacts to public health and safety would occur.

Cumulative Effects

As the Proposed Action does not have the potential to impact socioeconomic resources, approval of the extension of the Reimbursement Agreement 2004 for an additional twelve months would not contribute to cumulative effects.

3.2.2 Environmental Justice

No Action

The No Action Alternative would have no impact on environmental justice.

Proposed Action

The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. No impacts relevant to Environmental Justice are anticipated because the proposed action does not include any construction or development, or any change in operations that would affect the general public.

Cumulative Effects

The Proposed Action would not have cumulative effects on minority or disadvantaged populations in conjunction with other activities.

Section 4 Consultation and Coordination

While no impacts to endangered species or to historic/cultural resources have been indicated by the Proposed Action, consultation and coordination was conducted with the agencies and mandates considered below.

4.1 Fish and Wildlife Coordination Act (16 USC . 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action does not involve construction or new diversions of water. No consultation is required.

4.2 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the U.S. Fish and Wildlife Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species.

Reclamation determined that the Proposed Action would have no effect on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

4.3 National Historic Preservation Act (15 USC 470 et seq.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological and cultural resources. Due to the nature of the Proposed Action, there would be no impacts to any historical, archaeological or cultural resources, and no further compliance actions are required.

Section 5 List of Preparers and Reviewers

Tamara LaFramboise, Natural Resource Specialist, Mid-Pacific Region

Patrick Welch, Archaeologist, Mid-Pacific Region

Patricia Rivera, Indian Trust Representative, Mid-Pacific Region

Sonya Nechanicky, Refuge Water Conveyance Program Manager, Mid-Pacific Region

Section 6 References

Reclamation 2003. *Environmental Assessment for Agreement of the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*. May 2003.

Reclamation 2001. Final NEPA Environmental Assessment and CEQA Initial Study Refuge Water Supply Long-Term Water Supply Agreements, Sacramento River Basin. January 2001.

Section 7 Appendix A

Tamara LAFRAMBOISE - Re: Gray lodge Supplemental EA

From: Patricia Rivera
To: LAFRAMBOISE, Tamara
Date: 11/28/2007 9:28:51 AM
Subject: Re: Gray lodge Supplemental EA

Tammy,

I have reviewed the proposed action to extend the 2004 Agreement (No. 05-WC-20-2903) to reimburse California Department of Fish and Game (DFG) for groundwater pumping to include Water Year 2008. This document serves to supplement the 2003 EA and to examine the effects of the twelve month extension beginning March 1, 2008 through February 28, 2009. A reimbursement agreement has been successfully implemented between the parties since 2003. Under the extension, Reclamation would be able to reimburse the DFG for deep well pumping costs used to provide water as mandated by the Central Valley Project Improvement Act (CVPIA), Title XXXIV, Public Law 102-575. This twelve-month extension is necessary to continue supplying water to Gray Lodge Wildlife Area (GWA) until new water supply agreements are executed. I concur the proposed action does not affect Indian Trust Assets. The nearest ITA to the proposed site is approximately 8 miles WSW Colusa Rancheria.

Patricia

>>> Tamara LAFRAMBOISE 11/27/2007 11:11 AM >>>
Patricia,
The information you requested.
Tammy

Tammy LaFramboise
Natural Resource Specialist
Bureau of Reclamation
Mid-Pacific Region-410
916-978-5269
tlaframboise@mp.usbr.gov

>>> Patricia Rivera 11/27 10:57 AM >>>
Tammy,

Please resend your request and attach the form I am affixing to this message. Also, ensure that the form is sent with your original request to me and to Diane Williams.

Thanks

>>> Tamara LAFRAMBOISE 11/27/2007 10:40:34 AM >>>
Patricia and Pat:

I am requesting your review of the ITA and cultural resource sections of this **supplemental EA**. The action is merely a years extension to the existing agreement between Reclamation and DFG.

Tamara LAFRAMBOISE - Re: Gray lodge Supplemental EA

From: Patrick Welch
To: Tamara LAFRAMBOISE
Date: 11/27/2007 1:17:05 PM
Subject: Re: Gray lodge Supplemental EA
CC: MP153

Tammy:

I have reviewed the succinct section on cultural resources. I agree with the language, that there is no potential to affect historic properties. I have, however, changed some of the verbiage in section 4.3.

See attached version,
Patrick

>>> Tamara LAFRAMBOISE 11/27/2007 10:40 AM >>>
Patricia and Pat:

I am requesting your review of the ITA and cultural resource sections of this **supplemental EA**. The action is merely a years extension to the existing agreement between Reclamation and DFG.

If you could review and provide any comments by COB Friday, November 30, 2007.

This is a preliminary draft and I don't anticipate much more information to be added.

Let me know if you need any more information.



Thanks
Tammy

Final Environmental Assessment and FONSI

RECLAMATION

Managing Water in the West

**Final Environmental Assessment and
Finding of No Significant Impact for the
Agreement for the Reimbursement
of Deep Well Pumping Costs on
the Gray Lodge Wildlife Area
between the United States and the
State of California**



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Regional Office
Sacramento, CA

May 2009

FINDING OF NO SIGNIFICANT IMPACT

Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area between the United States and the State of California

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Sacramento, California

Recommended: *Jeremy R. [Signature]* Date: *5/19/09*
Natural Resource Specialist

Recommended: *Sonya [Signature]* Date: *5/19/2009*
Refuge Water Conveyance Program Manager

Recommended: *[Signature]* Date: *5/20/09*
Branch Chief

Approved: *[Signature]* Date: *5/20/09*
DEPUTY Regional Resources Manager

FONSI No. 09-06-MP



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Regional Office
Sacramento, CA

The proposed action by the United States Bureau of Reclamation (Reclamation) is to amend Article 1(b) of the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California* No. 05-WC-20-2903, DFG No. R042001, executed on December 20, 2004 (Reimbursement Agreement 2004). This amendment would allow for three additional twelve month term extensions for a maximum period beginning March 1, 2009 through February 28, 2012.

In accordance with the National Environmental Policy Act of 1969, as amended, and the Council on Environmental Quality's Regulations for Implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508): Reclamation's Mid-Pacific Regional Office has found that the proposed action would not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required.

FINDINGS

Reclamation has prepared an environmental assessment (EA) (see attached) which analyzes the impacts of the proposed action. Based on the analysis in the EA, Reclamation has found that extending the performance period for Reimbursement Agreement 2004 for thirty-six months would not result in significant impacts to the environment.

This Finding of No Significant Impact is based upon the following:

1. Surface water use would not change as a result of the proposed action. Surface water deliveries to the Gray Lodge Wildlife Area (Refuge) would remain consistent with the last five years. Surface water resources would not be overburdened as a result of the proposed action.
2. Groundwater use would remain within safe yield, generally within the average over the past five years. Pumping groundwater would not overburden the resource or other water users. In the short term, the amount of groundwater pumped may increase due to climatic conditions and surface water shortages, however, the increase would be temporary and would remain within safe yield.
3. The proposed action would have no effect on any federally listed threatened or endangered species or their critical habitat. Using groundwater on the Refuge augments management of habitat and food for migrating waterfowl and other species. Pumping of groundwater for refuge water supply is consistent with current management strategies at the Refuge.
4. The proposed action has no potential to affect historic properties [36 CFR Part 800.3 (a)1)]. Construction is not proposed. New lands would not receive the water. Therefore, the proposed action would not affect cultural resources.
5. The proposed action would not affect any Indian Trust Assets (ITA). The proposed action would not result in any ground breaking activities affecting any Indian reservations, rancherias or other legal interests held in trust by the United States for the benefit of Indian Tribes or individual Indians.

6. The proposed action would not disproportionately affect minorities or low-income populations and communities because there would be no change in land management. There would not be significant adverse impacts to human health or environmental effects associated with a reimbursement agreement for Refuge groundwater supply.

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List of Acronyms, Abbreviations, and Definition of Terms

EA	Environmental Assessment
DFG	California Department of Fish and Game
District	Biggs-West Gridley Water District
FWCA	Fish and Wildlife Coordination Act
Refuge	Gray Lodge Wildlife Area
ITA	Indian Trust Assets
NRHP	National Register of Historic Places
Reclamation	Bureau of Reclamation

Section 1 Purpose and Need for Action

1.1 Introduction

Reclamation proposes to amend Article 1(b) of the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*, No. 05-WC-20-2903, DFG No. R0420012, executed on December 20, 2004 (Reimbursement Agreement 2004) to allow for three additional consecutive twelve month term extensions beginning March 1, 2009 and terminating February 28, 2012. Article 1(b) provides the option to extend the performance period by formal amendment process through notification and request by the State of California Department of Fish and Game (DFG). Through the process of negotiating this amendment, DFG has requested to exercise the first twelve month extension option for the period of March 1, 2009, through February 28, 2010.

This Environmental Assessment (EA) and Finding of No Significant Impact examine the environmental effects of the proposed thirty-six month extension period covering March 1, 2009 through February 28, 2012. A reimbursement agreement has been successfully implemented between the parties since 2003. Under this action, the Bureau of Reclamation (Reclamation) would continue to reimburse DFG for those approved costs associated with deep well pumping to provide groundwater supplies to Gray Lodge Wildlife Area (Refuge) for the purpose of supplementing Central Valley Project (Project) Level 2 surface water deliveries to the boundary of the Refuge, thereby meeting the full Level 2 allocation. This thirty-six month extension is necessary for Reclamation to continue meeting its obligation of supplying full Level 2 water to the Refuge through February 28, 2012. Reclamation expects to negotiate a renewed long-term reimbursement agreement with DFG to be effective by March 1, 2012, or earlier.

1.2 Background

The Secretary of the Interior through the Bureau of Reclamation is mandated under the Central Valley Project Improvement Act (CVPIA), Title XXXIV, Public Law 102-575, Section 3406(d)(1)(2) and (5) to provide water supplies to certain refuges within the Central Valley, including Gray Lodge Wildlife Area. Reclamation entered into a long-term conveyance and facilities construction cooperative agreement with Biggs-West Gridley Water District (District), No. 03-FC-20-2049 (Cooperative Agreement) in September 2003 for the purpose of conveying surface water supplies to the Refuge boundary. The Cooperative Agreement also provides for District facilities improvements and construction to increase its capacity, due to current limited capacity which does not allow for conveyance of full Project Level 2 surface water supplies to the Refuge boundary.

In September 2003, Reclamation and DFG signed the *Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*, No. 03-WC-20-2601, (Reimbursement Agreement 2003) establishing the terms and conditions for Reclamation to reimburse DFG for costs associated with pumping groundwater

supplies on the Refuge. Pumping groundwater is necessary to supplement reduced Project Level 2 surface water deliveries and bring Refuge water supplies to the full CVPIA Level 2 allocation. The Reimbursement Agreement 2003 performance period was retroactive to May 2003 continuing through February 29, 2004, and included the option for the performance period to be extended a maximum of four successive twelve month periods, through formal amendment. However, the Reimbursement Agreement 2003 terminated prior to Reclamation initiating the process for the first twelve month renewal amendment. Thus, it became necessary to execute the new Reimbursement Agreement 2004.

Reimbursement Agreement 2004 was retroactive to the beginning of contract Water Year 2004 (WY04), from March 1, 2004, continuing through February 28, 2005. Reimbursement Agreement 2004 carried forth the same basic terms of the Reimbursement Agreement 2003, and allowed for the performance period to be extended a maximum of four successive twelve month periods. These twelve month extensions under the Reimbursement Agreement 2004 were duly exercised in 2005, 2006, 2007, and 2008. The proposed amendment to Article 1(b) in Reimbursement Agreement 2004, would allow DFG three additional successive twelve month extension periods.

With the firm water supply guaranteed by the CVPIA and the temporal increases in available water since implementation of the CVPIA, the Refuge has been able to make significant improvements in habitat and species management. Habitat improvements have consisted of increases in the amount of irrigated pasture, cereal grains, seasonal wetlands, and the amount of semi-permanent wetlands. The irrigated pastures, cereal grains, and seasonal wetlands provide food and cover for wintering migratory waterfowl. The semi-permanent wetlands and adjacent uplands provide habitat for resident and migratory mammals, reptiles, and avian species during the spring breeding season and summer.

1.3 Purpose and Need

Under the proposed amendment to Article 1(b), Reclamation would continue to reimburse DFG for those approved costs associated with deep well pumping to provide groundwater supplies to the Refuge for an additional thirty-six month period. This amendment to Article 1(b) in Reimbursement Agreement 2004 is necessary to continue providing full Level 2 water supplies to the Refuge.

1.4 Potential Resource Issues

- Surface Water Resources
- Groundwater Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Environmental Justice

Section 2 Alternatives Including Proposed Action

2.1 Alternative A – No Action

Reclamation would not amend the Reimbursement Agreement 2004 between Reclamation and DFG for reimbursement of costs associated with groundwater pumping to supplement reduced Project Level 2 surface water supplies allowing a thirty-six month extension period from March 1, 2009 through February 28, 2012. Under this alternative, Reclamation would not meet its obligations under CVPIA Section 3406(d)(1). DFG would potentially have to reduce Level 2 water use at the Refuge up to 16,000 acre feet annually in Water Years 2009, 2010, and 2011.

2.2 Alternative B - Proposed Action

Reclamation would amend Article 1(b) in Reimbursement Agreement 2004 to allow for a thirty-six month extension period, thereby changing the term date through February 28, 2012. This extension would allow Reclamation to meet its obligations under Section 3406(d)(1) of the CVPIA by providing up to 16,000 acre-feet of groundwater supplies to the Refuge annually. The groundwater would supplement reduced Project Level 2 surface water deliveries and DFG would be reimbursed for pumping costs. These costs include, but are not limited to:

- Well rehabilitation and upgrade costs:
- Well pump repair costs:
- Well levels monitoring costs:
- Power costs:
- Indirect costs.

Section 3 Affected Environment & Environmental Consequences

The Refuge was established in 1931 and encompasses 9,200 acres in Sutter and Butte counties near the City of Gridley, California. It is located in the Butte Sink Sub-inventory Unit (SIU) which is bordered by the Biggs/West Gridley SIU to the north and east, Sutter County to the south, and Colusa County to the west. Of the 9,200 acres, 219 acres are permanent wetlands, 5,810 acres are seasonal wetlands and 3,160 acres are uplands. The Refuge is just east of the extensive private wetlands of the Butte Sink, which are managed for waterfowl and directly in line with the Pacific flyway. The Refuge is likewise noted for its waterfowl production but is also operated and maintained by the DFG for the protection and enhancement of habitat for threatened and endangered species, and upland game species. Adjacent lands, other than the managed wetlands of the gun clubs in the Butte sink, are in agriculture, particularly rice.

3.1 Surface Water Resources

Affected Environment

The hydrology surrounding the Refuge is influenced by the Sutter Buttes and flows from Northeast to Southwest. The three different watersheds that influence the Refuge are the Feather River, Butte Creek and the Sacramento River.

Approximately 2,628 acres of the Refuge are within the District service area. The Refuge currently receives water from a combination of surface water and groundwater sources. As a member of the District, the Refuge has both primary and secondary surface water rights which are supplied from the Thermalito Afterbay. Surface water is conveyed through A-Joint Canal and the District's Belding Canal to three delivery points at the Refuge boundary via the Traynor, Schwind, and Cassidy laterals. Additional water purchased through the State Water Project (SWP) by DFG is also conveyed from the Thermalito Afterbay through these same facilities. Based on Water Years 1992-2008, the District has allocated an average of 24,205 acre-feet of water per year to the refuge, however only an average of 15,705 acre-feet are available during the irrigation season from the District.

Outside of the primary and secondary surface water rights water and water purchased by DFG from the SWP, additional surface water supplies are made available to the Refuge by the California Department of Water Resources (DWR) from Feather River water supplies to the extent of the District's ability to convey these additional supplies through the limited capacity of their facilities. This water is provided by the SWP through an exchange for Project water between the DWR and Reclamation. This exchange is covered under the *Agreement Between the United States of America and the State of California for Coordinated Operation of the Central Valley Project and the State Water Project* (1986)(COA).

Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not amend the Reimbursement Agreement 2004, which would allow Reclamation to cover reimbursement of costs associated with pumping groundwater supplies to supplement reduced Project Level 2 surface water deliveries to the Refuge boundary during the period of March 1, 2009 through February 28, 2012. Surface water resources would be utilized in the same manner as existing conditions, being the delivery of surface water supplies from the District. The surface water is used to maintain ponds and seasonal marshes, and to irrigate seasonal wetlands and uplands to provide cover, nesting and foraging for both resident and migratory wildlife.

Proposed Action

Under the Proposed Action, Reclamation would amend Reimbursement Agreement 2004 to allow a term extension for a thirty-six month period beginning March 1, 2009, and terminating February 28, 2012. This amendment would not change the use of surface water on the Refuge, and would maintain consistency in the amount of CVPIA Level 2 water that is delivered to the Refuge. In addition, surface water would not be utilized in a manner that differs from current management practices.

Cumulative Effects

The proposed action would not have cumulative impacts to surface water resources. Surface water deliveries would remain consistent with previous years and would not be utilized differently than current management practices.

3.2 Groundwater Resources

Affected Environment

The Refuge is located in the Butte Sink SIU which is the lowest point in elevation in all of Butte County. Depth to groundwater averages between 6 to 150 feet at the Refuge, depending on hydrology and time of year. Most of the groundwater pumping occurring within the Butte Sink SIU is in the Refuge which has been used to supply a portion of the annual demand on the Refuge. There are 21 deep groundwater wells used onsite, as necessary, to supplement surface-water deliveries and to supply water to portions of the Refuge that cannot be reached by gravity flow from surface supplies. Historical Refuge groundwater pumping data demonstrates that these wells can provide a safe yield of up to 16,160 acre feet per year.

Water is used to maintain ponds and seasonal marshes and to irrigate moist soil units, crops, and pasture for waterfowl food, cover, and nesting. Before passage of the CVPIA, habitat management on the Refuge was affected by unreliable water supplies. Both timing and quantity delivered were variable. As a result, the types and amount of wetlands area varied annually with the availability of water.

Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not amend the Reimbursement Agreement 2004 which would allow Reclamation to reimburse the DFG for costs associated with pumping groundwater supplies to supplement reduced Project Level 2 surface water deliveries to the Refuge between March 1, 2009, through February 28, 2012. Groundwater resources which are reimbursed by Reclamation would not be utilized to fulfill CVPIA Level 2 water supply deliveries to the Refuge.

Proposed Action

The proposed amendment to Reimbursement Agreement 2004 would allow the Reclamation to continue reimburse the DFG for costs incurred by pumping groundwater. In addition, the Refuge would continue pumping groundwater to supplement reduced Project Level 2 surface deliveries. The groundwater would be used to meet the full CVPIA Level 2 allocation for the period beginning March 1, 2009 and terminating February 28, 2012.

Adverse impacts are not expected from the groundwater withdrawals. The amount that would be withdrawn under the terms of the agreement would remain within the amount that experience indicates could be safely withdrawn even under conservative management practices and used in a reasonable and beneficial way. Moreover, experience in Butte County during the severe droughts of the past thirty years has shown that the groundwater aquifer recharges quickly following periods of wide-spread heavy use, so continued groundwater pumping at historical levels would have no lasting effects even if draw downs exceed expectations. DFG would continue groundwater pumping at relatively the same levels since CVPIA was enacted and would not exceed 16,000 acre feet during this extension period, and therefore, this action would have no adverse impact to groundwater resources. (See *Table 1* below for data on groundwater pumping under Reimbursement Agreement 2003 and Reimbursement Agreement 2004.)

Cumulative Effects

Other past, present and reasonably foreseeable future actions occurring concurrently with the proposed action would include the Stony Creek Fan Aquifer Performance Testing Plan, local groundwater pumping for agricultural purposes, local groundwater pumping for municipal use. Stony Creek Fan is a new project which would commence either this irrigation season (2009) or next irrigation season (2010). Groundwater pumping for agriculture and municipalities has occurred in conjunction with Refuge groundwater pumping in the past. When the proposed action is added to the other actions, a minimal increase in groundwater pumping would occur, thereby contributing minimally to any cumulative impacts to groundwater resources. The change to groundwater resources would be an additional three years of pumping groundwater at an amount of up to 16,000 acre feet annually. Groundwater pumping at the Refuge under Reimbursement Agreement 2003 and Reimbursement Agreement 2004 has occurred since 2003. The following table summarizes acre feet of groundwater pumped per year from WY2003 through WY2008 under these agreements. Annual groundwater pumped at the Refuge during WY2003 through WY2007 has been less than 16,000 acre feet each year.

Groundwater Pumping at Gray Lodge Wildlife Area

Month	WY2003	WY2004	WY2005	WY2006	WY2007	WY2008	Total
March	68	38	48	0	22	79	255
April	578	4	817	72	432	127	2030
May	860	124	160	606	273	253	2276
June	1258	545	991	510	272	804	4380
July	1452	353	859	863	79	676	4282
August	1234	463	811	1153	360	226	4247
September	1329	977	2351	1555	1033	1089	8334
October	4255	1962	2374	930	1312	3139	13972
November	235	623	538	201	219	271	2087
December	41	147	227	115	44	0	574
January	24	163	101	15	56	0	359
February	223	0	341	0	139	20	723
TOTAL	11,557	5,399	**9,618	6,020	4,241	6,479	43,314

Table 1. Gray Lodge WA Groundwater Pumping

* While 6,487 acre feet of ground water was scheduled for WY2005, more water was needed to meet the climatic conditions to maintain adequate habitat for wildlife; this additional water (both surface deliveries and pumped) resulted in 5,276 acre feet over the CVPIA Level 2 allocation. This exceedance of Project Level 2 was considered to be pumped groundwater [9,618(total pumped) - 4,342(groundwater to supplement to full Project Level 2 amount) = 5,276(Incremental Level 4)] and was attributed to CVPIA Incremental Level 4 water supplies. DFG assumed the pumping costs for the 5,276 acre feet for Incremental Level 4.

3.3 Land use

Affected Environment

The Refuge consists of 219 acres of permanent wetlands, 5,810 acres of seasonal wetlands and 3,160 acres of uplands. The Refuge is just east of the extensive private wetlands of the Butte Sink, which are managed for waterfowl and directly in line with the Pacific flyway. The Refuge is likewise noted for its waterfowl production but is also operated and maintained by the DFG for the protection and enhancement of habitat for threatened and endangered species, and upland game species. The Refuge is managed in accordance with the following objectives:

- Provide optimal habitat for wintering waterfowl species
- Provide relief from depredation by waterfowl of agricultural crops
- Provide recreational opportunity

Environmental Consequences

No Action

Under the No Action alternative, the Reimbursement Agreement 2004 would not be amended to allow a thirty-six month term extension period. Land use could potentially change since the No Action Alternative would result in Reclamation failing to meet its obligation of providing full Level 2 water supplies under CVPIA, thus leaving the Refuge with inadequate water supplies and potential loss of wildlife habitat.

Proposed Action

Under the Proposed Action, the Refuge would maintain current conditions, resulting in a continued benefit to land use. No adverse impacts would result from the Proposed Action. With the firm water supply guaranteed by the CVPIA and the temporal increases in available water since implementation of the CVPIA, the Refuge has been able to implement significant improvements in habitat and species management. Habitat improvements have consisted of increases in the amount of irrigated pasture, cereal grains, seasonal wetlands and the amount of semi-permanent wetlands. The irrigated pastures, cereal grains, and seasonal wetlands provide food and cover for resident and migratory species with an emphasis on meeting the energetic and habitat needs for wintering migratory waterfowl. The semi-permanent wetlands and adjacent uplands provide habitat for resident and migratory mammals, reptiles, and avian species during the spring breeding season and summer.

Cumulative Effects

As land use conditions would not change from existing conditions under the proposed action, there would be no cumulative effects. There are no other past, present, or future foreseeable federal or non-federal actions proposed in the area that would affect land use on the Refuge.

3.4 Biological Resources

Affected Environment

The Refuge consists of 219 acres of permanent wetlands, 5,810 acres of seasonal wetlands and 3,160 acres of uplands. The Refuge provides habitat for a number of state-listed and federally listed species. It is DFG's goal to preserve existing populations of all threatened and endangered species, and to improve the overall conditions and status of those species, where possible.

Potentially Affected Listed and Proposed Species for Gray Lodge Wildlife Area

The following federally listed, proposed and candidate species potentially occurring in the Refuge was obtained on March 5, 2009 by accessing the U.S. Fish and Wildlife Service (FWS) Database:

http://www.fws.gov/sacramento/es/spp_list.htm (document number 090305054833). The database was last updated by FWS on January 29, 2009. The list is for the Pennington 7 ½ minute U.S. Geological Survey quadrangle.

Invertebrates

- Branchinecta lynchi* – vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus* – valley elderberry longhorn beetle (T)
- Lepidurus packardi* – vernal pool tadpole shrimp (E)

Fish

- Hypomesus transpacificus* – delta smelt (T)
- Oncorhynchus mykiss* – Central Valley steelhead (T) (NMFS)
- Oncorhynchus tshawytscha* – Central Valley spring-run Chinook salmon (T) (NMFS)
- Oncorhynchus tshawytscha* – winter-run Chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense – California tiger salamander, central population (T)

Rana aurora draytonii – California red-legged frog (T)

Reptiles

Thamnophis gigas – giant garter snake (T)

Birds

Coccyzus americanus occidentalis – Western yellow-billed cuckoo (C)

Key:

(E) Endangered – Listed as being in danger of extinction

(T) *Threatened* – Listed as likely to become endangered within the foreseeable future

(P) *Proposed* – Officially proposed in the Federal Register for listing as endangered or threatened

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat – Area essential to the conservation of a species

(PX) *Proposed Critical Habitat* – The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* – Candidate to become a proposed species

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service

(X) *Critical Habitat* designated for this species

Environmental Consequences

No Action

Under the No Action alternative, Reimbursement Agreement 2004 would not be amended and would not allow for the term extension past February 29, 2009. Biological resources could potentially be affected since the No Action Alternative would result in Reclamation failing to meet its obligation of providing full Level 2 water supplies under CVPIA, thus leaving the Refuge with inadequate water supplies and potential loss of wildlife habitat. This would result in smaller quantities and quality of food, water and cover for both migratory and resident wildlife species, which may negatively impact both state and federally listed species.

Proposed Action

The proposed action would allow Reclamation to reimburse DFG for the continued pumping of groundwater thereby supplementing reduced Project Level 2 surface water deliveries to the Refuge. The groundwater would be used for proper management of the various habitats (permanent/seasonal wetlands and uplands) to meet/ provide for food, water and cover for both migratory and resident wildlife species while meeting Reclamation's obligations under CVPIA. The proposed action would not alter any current management strategies. In fact, using groundwater on the Refuge augments management of habitat and food for migrating waterfowl and other species. Therefore, the proposed action would have no adverse impacts on special-status plants, fish or wildlife resources. There would be no effect to federally listed species as a result of this action.

Cumulative Effects

The Proposed Action would not impact biological resources; therefore, the Proposed Action would not contribute to cumulative impacts on biological resources.

3.5 Cultural Resources

Affected Environment

Cultural resources is a term used to describe both 'archaeological sites' depicting evidence of past human use of the landscape and the 'built environment' which is represented in structures such as dams, roadways, and buildings. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking listed on cultural resources on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 CFR Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not amend the Reimbursement Agreement 2004 and Reclamation would not continue reimbursement of costs associated with pumping groundwater supplies.

Proposed Action

This Proposed Action does not include any modifications to existing facilities or construction of any new facilities and thus would not have any effects to historic properties. An amendment to the Reimbursement Agreement 2004 is not the type of activity with the potential to impact cultural resources eligible to the National Register of Historic Places (NRHP).

Cumulative Effects

As the Proposed Action does not have the potential to impact cultural resources eligible to the NRHP, therefore, it would not contribute to cumulative effects.

Section 4 Other Considerations

4.1 Indian Trust Assets

Affected Environment

Indian Trust Assets (ITA) are legal interests in property or rights held in trust by the United States for Indian Tribes or individuals. Trust status originates from rights imparted by treaties, statutes, or executive orders. These rights are reserved for or granted to tribes. A defining characteristic of an ITA is that such assets cannot be sold, leased, or otherwise alienated without Federal approval.

Indian reservations, rancherias, and allotments are common ITA. Allotments can occur both within and outside of reservation boundaries and are parcels of land where title is held in trust for specific individuals. Additionally, ITA include the right to access certain traditional use areas and perform certain traditional activities.

It is Reclamation policy to protect ITA from adverse impacts of its programs and activities whenever possible. Types of actions that could affect ITA include an interference with the exercise of a reserved water right, degradation of water quality where there is a water right, or noise near a land asset where it adversely affects uses of the reserved land. No ITA occur within the District or the Refuge, and there would be no alterations of existing water rights.

Environmental Consequences

No Action

No ITA which occur within the District or the Refuge, therefore, there would be no impacts to ITA.

Proposed Action

There are no ITA affected by this action, as they do not occur within the District or Refuge. This action would have no adverse impacts on ITA.

Cumulative Effects

The Proposed Action when added with other past, present and future actions would not contribute to cumulative effects to ITA.

4.2 Environmental Justice

Affected Environment

Executive Order 12898 requires each Federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high adverse human health or environmental effects, including social and economic effects, of its programs and activities on minority populations and low-income populations of the United States.

Environmental Consequences

No Action

The No Action Alternative would have no impact on environmental justice.

Proposed Action

The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. No impacts relevant to Environmental Justice are anticipated because the proposed action does not include any construction or development, or any change in operations that would affect the general public.

Cumulative Effects

The Proposed Action would not have cumulative effects on minority or disadvantaged populations in conjunction with other activities.

Section 5 Consultation and Coordination

While no impacts to endangered species or to historic/cultural resources have been indicated by the Proposed Action, consultation and coordination was conducted with the agencies and mandates considered below.

5.1 Fish and Wildlife Coordination Act (16 USC , 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The Proposed Action does not involve construction or new diversions of water. No consultation is required.

5.2 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the U.S. Fish and Wildlife Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species.

Reclamation determined that the Proposed Action would have no effect on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

5.3 National Historic Preservation Act (15 USC 470 et seq.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological and cultural resources. Due to the nature of the Proposed Action, there would be no impacts to any historical, archaeological or cultural resources, and no further compliance actions are required.

5.4 Public Review

The Draft EA and Draft FONSI were released for a 15 day public comment period beginning May 3, 2009 and ending May 18, 2009. The documents were posted on Reclamation's website. A press release was issued on May 1, 2009 by the Bureau of Reclamation's Mid-Pacific Regional Public Affairs Office. No comments were received on the Draft EA and Draft FONSI.

Section 6 List of Preparers and Reviewers

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Carolyn Bragg, Natural Resource Specialist, Mid-Pacific Region

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Section 7 References

DFG. 1989. *Gray Lodge Wildlife Area Management Plan*.

Reclamation 1989. *Report on Refuge Water Supply Investigations: Central Valley Hydrologic Basin, California*. Sacramento, California.

Reclamation 2003. *Environmental Assessment for Agreement of the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California*.

Reclamation 2001. *Final NEPA Environmental Assessment and CEQA Initial Study Refuge Water Supply Long-Term Water Supply Agreements, Sacramento River Basin*