

RECLAMATION

Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT (FONSI-18-33-MP)

Extended Agreement for the Acquisition of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2018-2019)

Mid-Pacific Regional Office, Sacramento, CA

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Background

In January 2018, the Bureau of Reclamation (Reclamation) signed a Finding of No Significant Impact (FONSI) for the Department of the Interior Refuge Water Supply Program's (RWSP) amendment to an existing contract with Merced Irrigation District (MID) to acquire up to 8,863 acre-feet (AF) of water for the East Bear Creek Unit of the San Luis National Wildlife Refuge Complex (Refuge) through August 25, 2018, including that some of the water provided would be from storage and/or water made available as a result of MID's reoperation of Lake Yosemite during flood control periods to create a more advantageous flow rate for the Refuge. Reclamation is extending the date of the Agreement through July 15, 2019 for the same amount and sources of water for the Refuge, which is the subject of this FONSI.

The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Section 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes.

Prior to the current update, Reclamation signed a FONSI in 2012 for the acquisition of up to 7,363 AF of water from MID to the Refuge, some of which was made available from Lake Yosemite (FONSI 12-21-MP). The current FONSI is supported by Reclamation's FONSI 18-04-MP, EA/FONSI 17-32-MP and FONSI 12-21-MP, all of which are hereby attached and incorporated by reference.

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not continue to purchase water from MID through July 15, 2019 for delivery to the Refuge and requirements under CVPIA may not be met. Absent this extension, water available for acquisition from MID in 2018 and 2019 would be held in storage in Lake McClure and the reoperation of Lake Yosemite to provide water to East Bear Refuge would not occur.

Proposed Action Alternative

Consistent with applicable State water rights, Federal law, and subject to the terms and conditions of its water rights, licenses and contracts, MID will make available for Reclamation to acquire and pay for up to a total of 8,863 AF of storage water or water made available as a result of MID's reoperation of Lake Yosemite during flood control periods to create a more advantageous flow rate for the Refuge through July 15, 2019.

The Proposed Action is for Reclamation to enter into an amended agreement with MID for a temporary water acquisition of up to 8,863 AF to help meet water supply needs for the Refuge through July 15, 2019 (Third Amendment to Agreement No. 17-WC-20-5097). The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek. Deliveries to the Refuge will cross the Eastside Canal which is owned and operated by the Stevinson Water District (SWD), therefore the supply of water between September 2018 and July 2019 is dependent on an agreement between the MID and SWD.

The exact amount of water to be acquired each month will vary based upon the actual water needs of the East Bear Creek Unit as determined by the Refuge Representative and the actual amount of water made available to Reclamation by MID, as determined by MID.

The Proposed Action remains unchanged other than extending the amended contract (17-WC-20-5097) through July 15, 2019.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that approval of the Proposed Action is not a major federal action that will significantly affect the quality of the human environment. Consequently, an environmental impact statement is not required.

The following are the reasons why the impacts from the Proposed Action are not significant:

1. The Proposed Action will not significantly affect public health or safety (40 CFR 1508.27(b)(2)).
2. The Proposed Action will not significantly affect natural resources and unique geographical characteristics such as proximity to historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)).
3. There is no potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).

4. The Proposed Action will not have possible effects on the human environment that are highly uncertain or involve unique or unknown risks (40 CFR 1508.27(b)(5)).
5. The Proposed Action will neither establish a precedent for future actions with significant effects nor represent a decision in principle about a future consideration (40 CFR 1508.27(b)(6)).
6. The Proposed Action will not have cumulatively significant impacts (40 CFR 1508.27(b)(7)).
7. The Proposed Action will not significantly affect historic properties (40 CFR 1508.27(b)(8)).
8. The Proposed Action will not significantly affect listed or proposed threatened or endangered species, or its habitat that has been determined to be critical under the Endangered Species Act of 1973 (40 CFR 1508.27(b)(9)).
9. The Proposed Action will not threaten a violation of Federal, state, tribal or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).
10. The Proposed Action will not affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).
11. Implementing the Proposed Action will not disproportionately affect minorities or low-income populations and communities (EO 12898).
12. The Proposed Action will not limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 13007 and 512 DM 3).

RECLAMATION

Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT (FONSI-18-04-MP)

Updated Amendment to the Agreement for the Acquisition of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2017-2018)

Mid-Pacific Regional Office, Sacramento, CA

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Mission Statements

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The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Background

In November 2017, the Bureau of Reclamation (Reclamation) signed a Finding of No Significant Impact (FONSI) for the Department of the Interior Refuge Water Supply Program's (RWSP) amendment to an existing contract with Merced Irrigation District (MID) to acquire up to 8,863 acre-feet (AF) of water for the East Bear Creek Unit of the San Luis National Wildlife Refuge Complex (Refuge) through August 25, 2018. The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Section 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes.

In early 2018 the contract (Agreement No. 17-WC-20-5097) will be updated to include that the 8,863AF of water acquired for the Refuge through August 25, 2018 and that some of the water provided will be from storage and/or *water made available as a result of MID's reoperation of Lake Yosemite during flood control periods to create a more advantageous flow rate for the Refuge*. Lake Yosemite is a man-made reservoir owned and operated by MID and supplied primarily by the Merced River through the Main Canal and storm runoff through nearby creeks. The lake's water is distributed to local growers to support the region's agriculture industry. Water would be delivered to the Refuge from Lake Yosemite via the Tower Lateral outflow which travels downstream from Fahrens Creek to Black Rascal Creek to Bear Creek where it would be diverted by existing pumps to the Refuge.

Prior to the current update, Reclamation signed a FONSI in 2012 for the acquisition of up to 7,363 AF of water from MID to the Refuge, some of which was made available from Lake Yosemite (FONSI 12-21-MP). The current FONSI is supported by Reclamation's EA/FONSI Number 17-32-MP and FONSI 12-21-MP, both of which are hereby attached and incorporated by reference.

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not purchase water from MID for delivery to the Refuge and requirements under CVPIA may not be met. Absent this amendment, water available for acquisition from MID in 2017 and 2018 would be held in storage in Lake McClure and the reoperation of Lake Yosemite to provide water to East Bear Refuge would not occur.

Proposed Action Alternative

Consistent with applicable State water rights, Federal law, and subject to the terms and conditions of its water rights, licenses and contracts, MID will make available for Reclamation to acquire and pay for up to a total of 8,863 AF of storage water *or water made available as a result of MID's reoperation of Lake Yosemite during flood control periods to create a more advantageous flow rate for the Refuge* through August 25, 2018.

The Proposed Action is for Reclamation to enter into an amended agreement with MID for a temporary water acquisition of up to 8,863 AF to help meet water supply needs for the Refuge through August 25, 2018 (Amendment to Agreement No. 17-WC-20-5097). The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek. Deliveries to the Refuge will cross the Eastside Canal which is owned and operated by the Stevinson Water District (SWD), therefore the supply of water between November 2017 and August 2018 is dependent on an agreement between the MID and SWD. The exact amount of water to be acquired each month will vary based upon the actual water needs of the East Bear Creek Unit as determined by the Refuge Representative and the actual amount of water made available to Reclamation by MID, as determined by MID.

The Proposed Action remains unchanged other than updating the amended contract (17-WC-20-5097) to include Lake Yosemite as a source of water that could be acquired from MID.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that approval of the Proposed Action is not a major federal action that will significantly affect the quality of the human environment. Consequently, an environmental impact statement is not required.

The following are the reasons why the impacts from the Proposed Action are not significant:

1. The Proposed Action will not significantly affect public health or safety (40 CFR 1508.27(b)(2)).
2. The Proposed Action will not significantly affect natural resources and unique geographical characteristics such as proximity to historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)).
3. There is no potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).

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10. The Proposed Action will not affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).
11. Implementing the Proposed Action will not disproportionately affect minorities or low-income populations and communities (EO 12898).
12. The Proposed Action will not limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 13007 and 512 DM 3).

RECLAMATION

Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT (FONSI-17-32-MP)

Amendment to the Agreement for the Acquisition of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2017-2018)

Mid-Pacific Regional Office, Sacramento, CA

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Mission Statements

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The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Background

This Environmental Assessment (EA) examines the environmental effects of the Department of the Interior Refuge Water Supply Program's (RWSP) amendment to an existing contract with Merced Irrigation District (MID) to acquire up to 8,863 acre-feet (AF) of water for the East Bear Creek Unit of the San Luis National Wildlife Refuge Complex (Refuge) through August 25, 2018. The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Section 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes. The proposed acquisition would provide water to the Refuge through August 25, 2018.

This Finding of No Significant Impact (FONSI) is supported by Reclamation's EA Number 17-32-MP, and is hereby attached and incorporated by reference.

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not purchase water from MID for delivery to the Refuge and requirements under CVPIA may not be met. Absent this amendment, water available for acquisition from MID in 2017 and 2018 would be held in storage in Lake McClure.

Proposed Action Alternative

The Proposed Action is for Reclamation to enter into an amended agreement with MID for a temporary water acquisition of up to 8,863 AF to help meet water supply needs for the Refuge through August 25, 2018 (Amendment to Agreement No. 17-WC-20-5097). The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek. Deliveries to the Refuge will cross the Eastside Canal which is owned and operated by the Stevinson Water District (SWD), therefore the supply of water between November 2017 and August 2018 is dependent on an agreement between the MID and SWD. The exact amount of water to be acquired each month will vary based upon the actual water needs of the East Bear Creek Unit as determined by the Refuge Representative and the actual amount of water made available to Reclamation by MID, as determined by MID.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that approval of the Proposed Action is not a major federal action that will significantly affect the quality of the human environment. Consequently, an environmental impact statement is not required.

The following are the reasons why the impacts from the Proposed Action are not significant:

- 1. The Proposed Action will not significantly affect public health or safety (40 CFR 1508.27(b)(2)).**
- 2. The Proposed Action will not significantly affect natural resources and unique geographical characteristics such as proximity to historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)).**
- 3. There is no potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).**
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- 9. The Proposed Action will not threaten a violation of Federal, state, tribal or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).**
- 10. The Proposed Action will not affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).**
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- 12. The Proposed Action will not limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 13007 and 512 DM 3).**

RECLAMATION

Managing Water in the West

Environmental Assessment

Amendment to the Agreement for the Acquisition of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2017- 2018)

EA-17-32-MP



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

November 2017

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List of Acronyms and Abbreviations

AF	Acre-feet
Agreement	Agreement No. 17-WC-20-5097
CFR	Code of Federal Regulations
CVPIA	Central Valley Project Improvement Act
EA	Environmental Assessment
IL4	Incremental Level 4
ITA	Indian Trust Assets
L2	Level 2
L4	Level 4
MID	Merced Irrigation District
NEPA	National Environmental Policy Act
Reclamation	Bureau of Reclamation
Refuge	East Bear Creek Unit of the San Luis National Wildlife Refuge Complex
RWSP	Department of the Interior Refuge Water Supply Program
Service	U.S. Fish and Wildlife Service

Section 1.0 Introduction

1.1 Background

This Environmental Assessment (EA) examines the environmental effects of the Department of the Interior Refuge Water Supply Program's (RWSP) amendment to an existing contract with Merced Irrigation District (MID) to acquire up to 8,863 acre-feet (AF) of water for the East Bear Creek Unit of the San Luis National Wildlife Refuge Complex (Refuge) through August 25, 2018. The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Section 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes. The proposed acquisition would provide water to the Refuge through August 25, 2018.

In August 2017, the Bureau of Reclamation (Reclamation) prepared an Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for the acquisition of up to 3,331 AF of water from MID for the Refuge under Agreement No. 17-WC-20-5097 (Agreement). That Agreement, which expired on October 31, 2017, is being amended to increase the amount of acquired water for the Refuge (up to 8,863 AF) and extend the term of the contract (through August 25, 2018) and is the subject of this document. A total of 1,488 AF of water was delivered to the Refuge under that Agreement between September 20 and October 31, 2017.

Section 3406(d)(1) of the CVPIA requires the Secretary of the Interior to provide firm delivery of Level 2 and Level 4 water supplies to the various wetland habitat areas identified in Reclamation's *Report on Refuge Water Supply Investigations* (Reclamation, 1989) and the *San Joaquin Basin Action Plan/Kesterson Mitigation Plan* (Interior, 1989). These reports describe water needs and delivery requirements for each wetland habitat area to accomplish the stated refuge management objectives. In the Reclamation report (1989), the average annual historical supplies were termed "Level 2" (L2), and the supplies needed for optimum habitat management were termed "Level 4" (L4). L2 water is derived primarily from the Central Valley Project's annual yield and equals approximately 422,000 acre-feet (AF). L4 water is equal to approximately 555,000 AF with the incremental difference of 133,000 AF between the two supplies being called "Incremental Level 4" (IL4) water. The RWSP acquires IL4 water supplies from willing sellers. The overall general impacts of implementing the CVPIA, including providing L4 water supplies is addressed in a Final Programmatic Environmental Impact Statement (Interior, 1999).

1.2 Need for the Proposal

The purpose of the water acquisition is to enhance and maintain wetland habitats for the benefit of migratory waterfowl and wetland-dependent wildlife in the San Joaquin Valley. The notable difference between obtaining water supplies for optimum management (L4) and average annual deliveries (L2) is that L4 water supplies allow for the management of habitat diversity. Habitat management includes timing and duration of fall and late winter flooding, summer water for food production, and permanent wetland habitat maintenance (Reclamation, 2000).

Under Section 3406(d)(1) of the CVPIA, the Secretary of the Interior is authorized and directed to acquire and provide sufficient water supplies necessary to meet L2 and L4 refuge water needs as identified in the *San Joaquin Basin Action Plan/Kesterson Mitigation Plan* (Interior, 1989). Reclamation has determined that this acquisition of water from MID would allow Reclamation to increase the supply of water available to meet the needs of the Refuge.

The need for the amendment remains unchanged from the August 2017 EA/FONSI.

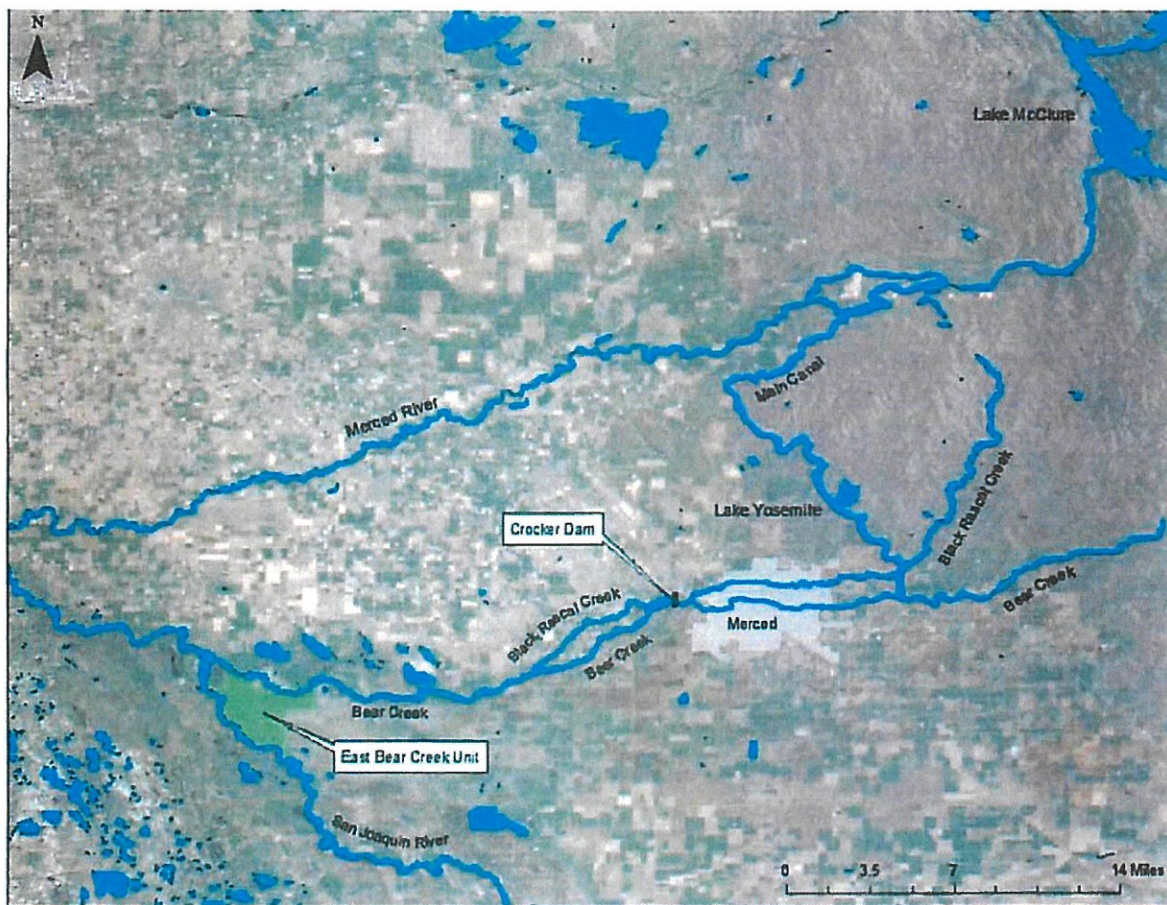


Figure 1 Project Location

1.3 Potential Resource Issues

This EA analyzes the affected environment of the Proposed Action and No Action alternatives in order to determine the potential impacts and cumulative effects to the following environmental resources:

- Water Resources
- Biological Resources

1.4 Resources Not Analyzed in Detail

Department of the Interior Regulations, Executive Orders, and Reclamation guidelines require a discussion of the following resource areas when preparing environmental documentation.

Cultural Resources

No significant impacts to historic properties would result from the Proposed Action. This is the type of undertaking that does not have the potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1). There would be no new construction or ground-disturbing activities and no changes in land use as a result of this action. In such cases Reclamation has no further obligations pursuant to Section 106 of the National Historic Preservation Act of 1966 and consultation with the California State Historic Preservation Officer is not required.

Indian Sacred Sites

Sacred sites are defined in Executive Order 13007 (May 24, 1996) as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site." The Proposed Action would not be located on or impact any Federal lands and therefore would not affect any Indian sacred sites.

Indian Trust Assets

The Proposed Action does not have a potential to affect Indian Trust Assets. There will be no construction or ground-disturbing activities and no changes in land use as a result of this action. The nearest ITA is a Public Domain Allotment approximately 29 miles northeast of the project location.

Environmental Justice

The Proposed Action would result in no significant changes in agricultural communities or practices and is therefore not likely to affect agricultural employment, which employs a higher proportion of low-income and minority workers than are employed in the general workforce. Accordingly, the Proposed Action would not have any significant or disproportionately negative impact on low-income or minority individuals within the project area.

Section 2.0 Alternatives

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not purchase water from MID for delivery to the Refuge and requirements under CVPIA may not be met. Absent this amendment, water available for acquisition from MID in 2017 and 2018 would be held in storage in Lake McClure.

2.2 Proposed Action Alternative

The Proposed Action is for Reclamation to enter into an amended agreement with MID for a temporary water acquisition of up to 8,863 AF to help meet water supply needs for the Refuge through August 25, 2018 (Amendment to Agreement No. 17-WC-20-5097).

The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek. Deliveries to the Refuge will cross the Eastside Canal which is owned and operated by the Stevinson Water District (SWD), therefore the supply of water between November 2017 and August 2018 is dependent on an agreement between the MID and SWD.

The exact amount of water to be acquired each month will vary based upon the actual water needs of the East Bear Creek Unit as determined by the Refuge Representative and the actual amount of water made available to Reclamation by MID, as determined by MID.

Section 3.0 Affected Environment & Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action as compared to the No Action Alternative. If Reclamation did not purchase up to 8,863AF of stored water from MID, there would be no change in management, and the Service would continue to manage the refuge without enhancing conditions for wildlife as required in CVPIA. There will be no further discussion of effects from the no action alternative as conditions would remain unchanged from current conditions.

3.1 Water Resources

Affected Environment

The Merced River flows westerly from Yosemite National Park to the San Joaquin River. MID has a variety of Merced River water rights including pre-1914 water rights. MID's principal storage is Lake McClure, located on the Merced River, along with Lake McSwain, a regulating reservoir downstream of Lake McClure. Surface water is delivered to MID customers via a system of 790 miles of canals, laterals, and pipelines (City of Merced 2001). Lake McClure filled to capacity in 2017, and was storing 656,341 AF on November 12, 2017 (<http://www.mercedid.com/index.cfm/water/water-watch/> accessed November 15, 2017).

The Refuge is located east of the San Joaquin River, in Merced County. The Refuge includes Bear Creek and contains natural grasslands, vernal pools, riparian floodplain habitat, irrigated pasture and small-grain production lands. The Refuge is managed primarily for migratory waterfowl, shorebirds, marsh and water birds and their associated habitat types, as well as for listed species.

The Merced River flows into the San Joaquin River. Diversions of water at New Melones Reservoir, Millerton Lake, New Don Pedro Reservoir, and Lake McClure have significantly reduced the flows in the San Joaquin River (SWRCB, 2000). Reduced flows, combined with surface and subsurface saline discharge have caused salinity issues in the southern Delta.

Environmental Consequences

The 8,863 AF of water purchased from MID represents less than one percent of total storage from November 12, 2017. Removing this amount of water from storage in 2017 would have no effect on how MID operates its reservoirs, and MID would continue to operate as defined in its current water rights and licenses.

The Proposed Action would result in beneficial effects on Bear Creek flows when water is sent downstream to the Refuge from Lake McClure. Due to the short-term period of this acquisition and the amount of water proposed for acquisition, little to no indirect or direct surface water or groundwater effects would occur. Additionally, water delivered to the Refuge wetland areas on a schedule that meets Refuge water needs would allow the Service to enhance management of the Refuge, resulting in beneficial effect to wetland habitat areas.

Reclamation must provide sufficient fresh water to meet the SWRCB Vernalis flow and salinity objectives (SWRCB 2000). To avoid impacting Reclamation's Stanislaus River operations, releases from storage by MID would be required to be coordinated with Reclamation so that the replenishment of stored water in Lake McClure does not impact the releases of New Melones Reservoir or Reclamation's ability to meet these objectives. This requirement will be enforced through a refill agreement between Reclamation and MID.

3.2 Biological Resources

Affected Environment

The habitats present at the Refuge are natural valley grasslands and developed marsh. The Refuge is managed primarily for migratory waterfowl, shorebirds, marsh and water birds, and their associated habitat types as well as for listed species.

The Refuge, as part of the San Luis National Wildlife Refuge, provides wetland habitat as a major wintering ground and migratory stopover point for large concentrations of waterfowl, shorebirds and other waterbirds (USFWS 2012a). A rich botanical community of native bunchgrasses, native and exotic annual grasses, forbs, native shrubs, trees, and a variety of animal species are found within these areas.

Environmental Consequences

The acquisition of water supplies under the Proposed Action would result in the Refuge temporarily receiving more water than the average amount of water utilized from intermittent Bear Creek flows under existing conditions. The additional water supplies are expected to be delivered November 2017 through August 25, 2018, per the Amended Agreement. The water would allow for improved management of the wetland habitat areas to benefit migratory and breeding waterfowl and other water birds within the Refuge per refuge management plans. There would be no change in facilities or operational conditions at the refuge, and no construction would be needed to facilitate use of this water.

The Proposed Action would result in short-term benefits to vegetation and wildlife resources at the Refuge, and there would be no effects to wildlife, including federally listed species.

3.3 Cumulative Impacts

According to the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA, a cumulative impact is defined as *the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions*. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. Because there would be no negative effects from implementing the Proposed Action, there would be no cumulative effects to consider.

Section 4.0 Consultation

Agencies and persons consulted during preparation of this document.

- U.S. Fish and Wildlife Service
- Merced Irrigation District

Section 5.0 References

- California Environmental Protection Agency, State Water Resources Control Board. 2000. *Revised Water Right Decision 1641*.
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RECLAMATION

Managing Water in the West

Finding of No Significant Impact

Acquisition of Up to 7,363 Acre-Feet of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2012)

FONSI 12-21-MP

Recommended by:



Ben Nelson
Natural Resource Specialist
Mid-Pacific Regional Office

Date: 10/26/2012

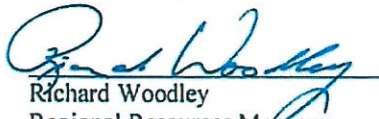
Concurred by:



Lee Mao
Chief, Program Management Branch
Mid-Pacific Regional Office

Date: Oct. 29, 2012

Approved by:



Richard Woodley
Regional Resources Manager
Mid-Pacific Regional Office

Date: Oct. 29, 2012



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

October 2012

Background

In accordance with Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA), as amended, the Bureau of Reclamation has prepared an Environmental Assessment (EA) for the Acquisition of Up to 7,363 Acre-Feet of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2012), dated October 23, 2012 and is attached and incorporated by reference.

Under the Proposed Action, Reclamation would enter into a temporary water service contract with the Merced Irrigation District (MID) to provide up to a maximum of 7,363 acre-feet (AF) of water from November 2012 through September 2013, to the East Bear Creek Unit of the San Luis National Wildlife Refuge (Refuge). The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Sections 3406(b)(3) and 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes. The Proposed Action does not involve any construction activities.

Alternatives Including Proposed Action

No Action Alternative

Under the No Action Alternative, Reclamation would not deliver water purchased from MID to the Refuge, requirements under CVPIA would not be met, and, the refuge would not be able to manage for wildlife habitat. Absent this water purchase, water available for acquisition from MID in 2012 and 2013 would be held in storage in Lake Yosemite, Lake McClure or behind Crocker Dam, and put to other uses by MID.

Proposed Action

The Proposed Action is for Reclamation to enter into an agreement with MID for a temporary water acquisition of up to 7,363 AF to help meet water supply needs for the Refuge through September 30, 2013. This water would be made available according to the following components:

- a) *Pre-1914 water rights*, up to 5,863AF from either Lake Yosemite, Bear Creek (at Crocker Dam), or directly diverted from the Merced River; and
- b) *Post-1914 water rights*, up to 1,500 AF from Lake McClure. MID would petition the State Water Resources Control Board (SWRCB) for its approval of this water for transfer under the Proposed Action, upon execution of the Agreement.

The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek.

Consistent with applicable State water rights, federal law, and subject to the terms and conditions of its water rights, licenses and contracts, Reclamation would acquire up to 7,363 AF of water for the period starting with the execution of Agreement No. 12 WC 20 4319 and ending September 30, 2013. The exact amount of water to be acquired each month will vary based upon the actual water needs of the Refuge as determined by the Refuge Manager and the actual amount of water available as determined by MID.

Findings

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that the proposed temporary acquisition of water is not a major federal action that would significantly affect the quality of the human environment. Consequently, an Environmental Impact Statement is not required. This determination is supported by the following factors:

1. **Water Resources:** The Proposed Action would result in beneficial effects to wetland habitat areas located within the refuge by providing a water supply that meets their needs. Due to the short-term period of this acquisition and the amount of water proposed for acquisition, little to no indirect or direct surface water or groundwater effects would occur.
2. **Biological Resources:** The Proposed Action would allow for improved management of the wetland habitat areas to benefit migratory and breeding waterfowl and other water birds within the Refuge. Water acquired under the Proposed Action is considered temporary, and benefits to vegetation and wildlife resources would be short-term. Reclamation has determined that there would be no effect on biological resources from the Proposed Action, including special status species or migratory bird species, with the potential to occur in the project area. Therefore, no further consultation is required under Section 7 of the Endangered Species Act.
3. **Cultural Resources:** The Proposed Action would acquire water for Refuge wetland area needs through existing facilities. No new construction, ground disturbing activities, or changes in land use would occur. Since the Proposed Action has no potential to affect historic properties, no cultural resources would be impacted as a result of the Proposed Action.
4. **Indian Trust Assets:** The Proposed Action does not have a potential to affect Indian Trust Assets (ITA). The nearest ITA is a Public Domain Allotment approximately 29 miles northeast of the project location.
5. **Environmental Justice:** The Proposed Action would not result in changes to agricultural communities or practices and therefore would not have any significant or disproportionately adverse effects to minority or disadvantaged populations.
6. **Cumulative Impacts:** The Proposed Action would not adversely affect Refuge operations and therefore would not contribute to any long-term effects on environmental resources. The Proposed Action would not result in cumulative impacts to any of the resources described above.

RECLAMATION

Managing Water in the West

Environmental Assessment

Acquisition of Up to 7,363 Acre-Feet of Water from Merced Irrigation District for the East Bear Creek Unit of the San Luis National Wildlife Refuge (2012)

EA-12-21-MP



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

October 2012

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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List of Acronyms and Abbreviations

AF	Acre-feet
Agreement	Agreement No. 12-WC-20-4319
CFR	Code of Federal Regulations
CVPIA	Central Valley Project Improvement Act
EA	Environmental Assessment
IL4	Incremental Level 4
ITA	Indian Trust Assets
L2	Level 2
L4	Level 4
MBTA	Migratory Bird Treaty Act
MID	Merced Irrigation District
NEPA	National Environmental Policy Act
Reclamation	Bureau of Reclamation
Refuge	East Bear Creek Unit of the San Luis National Wildlife Refuge Complex
RWSP	Department of the Interior Refuge Water Supply Program
Service	U.S. Fish and Wildlife Service
USGS	United States Geological Survey

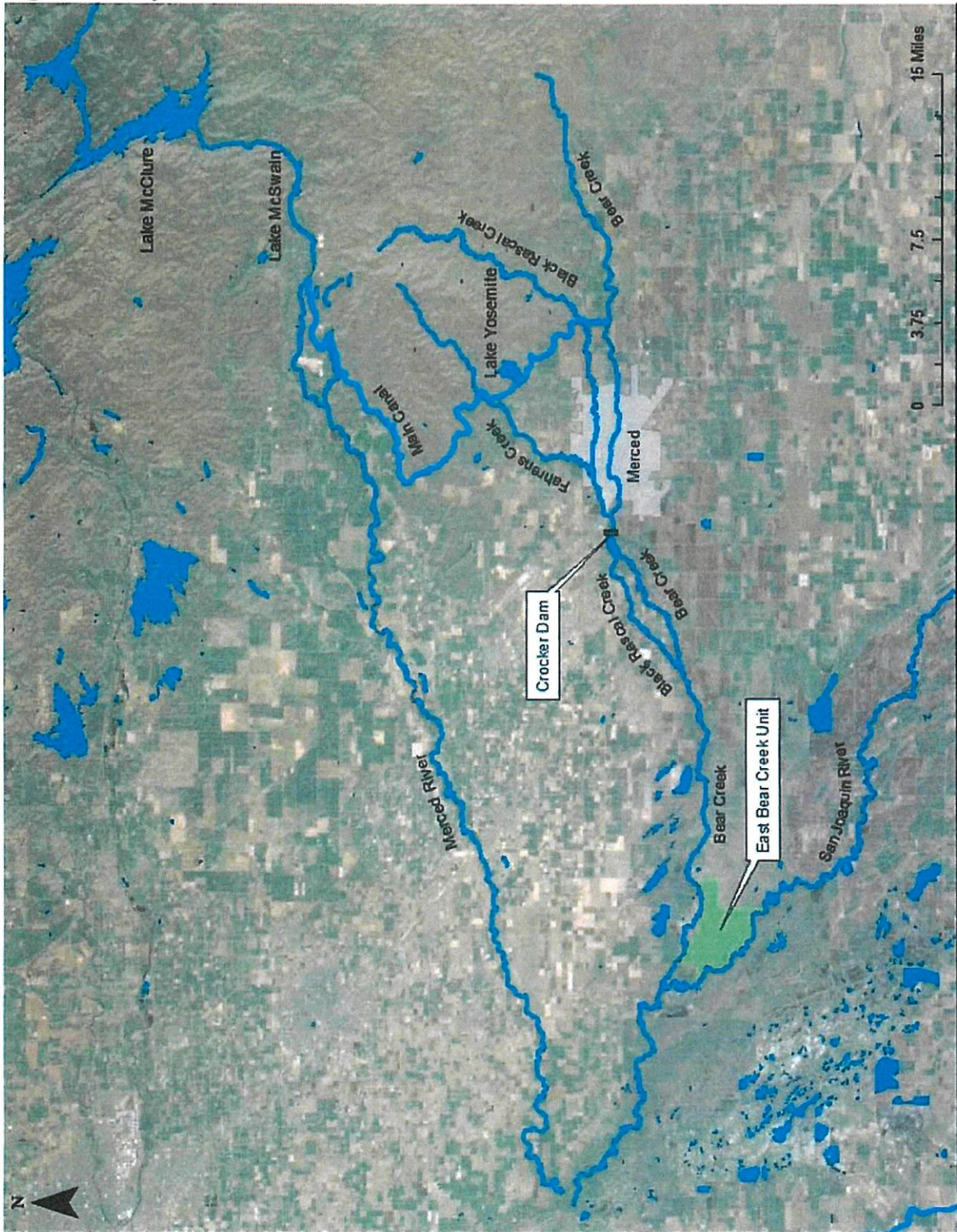
Section 1.0 Introduction

1.1 Background

This Environmental Assessment (EA) examines the environmental effects of the Department of the Interior Refuge Water Supply Program's (RWSP) acquisition of up to 7,363 acre-feet (AF) of water from the Merced Irrigation District (MID) for the East Bear Creek Unit of the San Luis National Wildlife Refuge Complex (Refuge). The proposed acquisition is being undertaken pursuant to, and would be in full compliance with, Sections 3406(b)(3) and 3406(d)(2) of Title XXXIV of the Act of October 1992 (106 Stat. 4706) Central Valley Project Improvement Act (CVPIA), which authorizes new water supply contracts for fish and wildlife purposes. The proposed acquisition would be for one year, ending on September 30, 2013.

Section 3406(d)(1) of the CVPIA requires the Secretary of the Interior to provide firm delivery of Level 2 and Level 4 water supplies to the various wetland habitat areas identified in the Bureau of Reclamation's (Reclamation) *Report on Refuge Water Supply Investigations* (Reclamation, 1989) and the *San Joaquin Basin Action Plan/Kesterson Mitigation Plan* (Interior, 1989). These reports describe water needs and delivery requirements for each wetland habitat area to accomplish the stated refuge management objectives. In the Reclamation report (1989), the average annual historical supplies were termed "Level 2" (L2), and the supplies needed for optimum habitat management were termed "Level 4" (L4). L2 water is derived primarily from the Central Valley Project's annual yield and equals approximately 422,000 acre-feet (AF). L4 water is equal to approximately 555,000 AF with the incremental difference of 133,000 AF between the two supplies being called "Incremental Level 4" (IL4) water. The RWSP acquires IL4 water supplies from willing sellers. The overall general impacts of implementing the CVPIA, including providing L4 water supplies is addressed in a Final Programmatic Environmental Impact Statement (Interior, 1999).

Figure 1 – Project Location



1.2 Need for the Proposal

The purpose of the Proposed Action is for Reclamation to provide up to 7,363 AF of water from MID to help meet the Refuge's water needs through September 30, 2013. The water would be acquired by Reclamation for the Refuge consistent with CVPIA water quantities for wildlife habitat development. The exact amount of water to be acquired will vary based upon the actual water needs of the Refuge as determined by the Refuge Manager and the actual amount of water available as determined by MID.

The purpose of the water acquisition is to enhance and maintain wetland habitats for the benefit of migratory waterfowl and wetland-dependent wildlife in the San Joaquin Valley. The notable difference between obtaining water supplies for optimum management (L4) and average annual deliveries (L2) is that L4 water supplies allow for the management of habitat diversity. Habitat management includes timing and duration of fall and late winter flooding, summer water for food production, and permanent wetland habitat maintenance (Reclamation, 2000).

Under the Section 3406(d)(1) of the CVPIA, the Secretary of the Interior is authorized and directed to acquire and provide sufficient water supplies necessary to meet L2 and IL4 refuge water needs as identified in the *San Joaquin Basin Action Plan/Kesterson Mitigation Plan* (Interior, 1989). Reclamation has determined that this acquisition of water from MID would allow Reclamation to increase the supply of water available to meet the needs of the Refuge.

1.3 Potential Resource Issues

This EA will analyze the affected environment of the Proposed Action and No Action alternatives in order to determine the potential impacts and cumulative effects to the following environmental resources:

- Water Resources
- Biological Resources

1.4 Resources Not Analyzed in Detail

Effects on several environmental resources were examined and found to be minor. Because of this, the following resources were eliminated from further discussion from this EA: Air Quality; Aesthetic Resources; Geology, Soils, Seismicity, and Minerals; Global Climate Change; Hazards and Hazardous Materials; Land Use and Agriculture; Noise; Socioeconomics, Population, and Housing; Recreation; Transportation and Circulation; and Utilities, Public Services, and Service Systems.

1.4.1 Cultural Resources/Indian Sacred Sites

No significant impacts to historic properties would result from the Proposed Action. This is the type of undertaking that does not have the potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1). There would be no new construction or ground-disturbing activities and no changes in land use as a result of this administrative action. In such cases

Reclamation has no further obligations pursuant to Section 106 of the National Historic Preservation Act of 1966 and consultation with the California State Historic Preservation Officer is not required.

Executive Order 13007 applies to sacred sites on Federal lands, identified by federally-recognized Indian tribes. There are no identified Indian Sacred Sites within the action area of the Proposed Action and therefore, this project would not inhibit use or access to Indian Sacred Sites.

1.4.2 Indian Trust Assets

The Proposed Action does not have a potential to affect Indian Trust Assets. There will be no new construction or ground-disturbing activities and no changes in land use as a result of this administrative action. The nearest ITA is a Public Domain Allotment approximately 29 miles northeast of the project location.

1.4.3 Environmental Justice

The Proposed Action would result in no significant changes in agricultural communities or practices and is therefore not likely to affect agricultural employment, which employs a higher proportion of low-income and minority workers than are employed in the general workforce. Accordingly, the Proposed Action would not have any significant or disproportionately negative impact on low-income or minority individuals within the project area.

Section 2.0 Alternatives

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not purchase water from MID for delivery to the Refuge, requirements under CVPLA would not be met, and, the refuge would not be able to manage for wildlife habitat. Absent this water purchase, water available for acquisition from MID in 2012 and 2013 would be held in storage in Lake Yosemite, Lake McClure or behind Crocker Dam, and put to other uses by MID.

2.2 Proposed Action Alternative

The Proposed Action is for Reclamation to enter into an agreement with MID for a temporary water acquisition of up to 7,363 AF to help meet water supply needs for the Refuge through September 30, 2013. This water would be made available according to the following components:

- a) *Pre-1914 water rights*, up to 5,863AF from either Lake Yosemite, Bear Creek (at Crocker Dam), or directly diverted from the Merced River; and
- b) *Post-1914 water rights*, up to 1,500 AF from Lake McClure. MID would petition the State Water Resources Control Board (SWRCB) for its approval of this water for transfer under the Proposed Action, upon execution of the Agreement.

The acquired water would be delivered to the Refuge via Bear Creek and diverted by the Refuge's existing pumping plant on Bear Creek.

Consistent with applicable State water rights, federal law, and subject to the terms and conditions of its water rights, licenses and contracts, MID will make available to RWSP, and pursuant to Article 3 of the Agreement No. 12-WC-20-4319 (Agreement), Reclamation shall acquire and pay for up to 7,363 AF of water for the period starting with the execution of the Agreement and ending September 30, 2013. The exact amount of water to be acquired each month will vary based upon the actual water needs of the Refuge as determined by the Refuge Manager and the actual amount of water available as determined by MID.

Section 3.0 Affected Environment & Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the Proposed Action and the No Action Alternative.

3.1 Water Resources

3.1.1 Affected Environment

The Merced River flows westerly from Yosemite National Park to the San Joaquin River. MID has a variety of Merced River water rights including pre-1914 water rights. MID's principal storage is Lake McClure, located on the Merced River, along with Lake McSwain, a regulating reservoir downstream of Lake McClure. Surface water is delivered to MID customers via a system of 790 miles of canals, laterals, and pipelines (City of Merced 2001).

Lake Yosemite is a man-made reservoir owned and operated by MID and supplied primarily by the Merced River through the Main Canal and storm runoff through nearby creeks. The lake's water is distributed to local growers to support the region's agriculture industry. Water would be delivered to the Refuge from Lake Yosemite via the Tower Lateral outflow which travels downstream from Fahrens Creek to Black Rascal Creek to Bear Creek where it would be diverted by existing pumps to the Refuge (Figure 1).

The Refuge is located east of the San Joaquin River, in Merced County. The Refuge includes Bear Creek and contains natural grasslands, vernal pools, riparian floodplain habitat, irrigated pasture and small-grain production lands. The Refuge is managed primarily for migratory waterfowl, shorebirds, marsh and water birds and their associated habitat types, as well as for listed species.

The Merced River flows into the San Joaquin River. Diversions of water at New Melones Reservoir, Millerton Lake, New Don Pedro Reservoir, and Lake McClure have significantly reduced the flows in the San Joaquin River (SWRCB, 2000). Reduced flows, combined with surface and subsurface saline discharge have caused salinity issues in the southern Delta.

3.1.2 Environmental Consequences

No Action Alternative

The 7,363 AF of water remaining in storage or released for other uses under the No Action Alternative would be considered minimal, representing less than one percent of MID's total surface water storage available. MID would continue to operate as defined in its current water rights and licenses.

Under the No Action, the Refuge would be reliant upon existing Bear Creek flows. The Refuge utilizes an average of 1,775 AF per year from intermittent Bear Creek flows.

Proposed Action Alternative

The Proposed Action would deliver water purchased from MID to Refuge wetland areas, optimally on a schedule that meets Refuge water needs. Therefore, the Proposed Action provides a beneficial effect to wetland habitat areas located within the Refuge by providing a water supply that meets their needs.

The Proposed Action would result in beneficial effects on Bear Creek flows when water is sent downstream to the Refuge from Lake Yosemite or Lake McClure. Due to the short-term period of this acquisition and the amount of water proposed for acquisition, little to no indirect or direct surface water or groundwater effects would occur.

Reclamation must provide sufficient fresh water to meet the SWRCB Vernalis flow and salinity objectives (SWRCB 2000). Under the Proposed Action per the Reservoir Release and Refill Criteria Exhibits 1 and 2 of the Agreement, releases from storage by MID would be required to be coordinated with Reclamation so that the replenishment of stored water in Lake McClure does not impact the releases of New Melones Reservoir or Reclamation's ability to meet these objectives.

3.2 Biological Resources

3.2.1 Affected Environment

The habitats present at the Refuge are natural valley grasslands and developed marsh. The Refuge is managed primarily for migratory waterfowl, shorebirds, marsh and water birds, and their associated habitat types as well as for listed species. A special-status species list was generated from the Service Sacramento Field Office's website on September 7, 2012 (USFWS 2012b). The following Table 1 includes those federally listed species with recorded occurrences within the surrounding United States Geological Survey (USGS) 7.5-minute Quadrangles based on the California Natural Diversity Database (CNDDDB).

Table 1: Species Identified as Potentially Occurring in the Yosemite Lake, Merced, Atwater, Arena, Stevinson, Turner Ranch, and San Luis Ranch USGS 7.5-minute Quadrangles

<u>Common Name</u>	<u>Scientific Name</u>	<u>Federal Status¹</u>	<u>Effect²</u>
Amphibians			
California tiger salamander	<i>Ambystoma californiense</i>	T, X	NE
California red-legged frog	<i>Rana draytonii</i>	T	NE
Invertebrates			
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	NE
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T, X	NE
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E, X	NE
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	E, X	NE
Conservancy fairy shrimp	<i>Branchinecta conservation</i>	E, X	NE

Fish			
Delta smelt	<i>Hypomesus transpacificus</i>	T	NE
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	T, X (NMFS)	NE
Central Valley spring-run Chinook salmon	<i>Oncorhynchus tshawytscha</i>	T (NMFS)	NE
Mammals			
Fresno kangaroo rat	<i>Dipodomys nitratoides exilis</i>	E	NE
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	E	NE
Plants			
Succulent owl's clover	<i>Castilleja campestris succulent</i>	T, X	NE
Hoover's spurge	<i>Chamaesyce hooveri</i>	T, X	NE
Colusa grass	<i>Neostapfia colusana</i>	T, X	NE
San Joaquin Valley Orcutt grass	<i>Orcuttia inaequalis</i>	T, X	NE
Hairy Orcutt grass	<i>Orcuttia pilosa</i>	E	NE
Keck's checker-mallow	<i>Sidalcea keckii</i>	E	NE
Greene's tuctoria	<i>Tuctoria greenei</i>	E, X	NE
Reptiles			
Giant garter snake	<i>Thamnophis gigas</i>	FT, ST	NE
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	FE	NE

¹ E=Endangered, T=Threatened

NMFS=Listed under the jurisdiction of National Oceanic and Atmospheric Administration, Fisheries

X=Critical Habitat designated for this species

² NE=No effect under the Proposed Action

The Refuge, as part of the San Luis National Wildlife Refuge, provides wetland habitat as a major wintering ground and migratory stopover point for large concentrations of waterfowl, shorebirds and other waterbirds (USFWS 2012a). A rich botanical community of native bunchgrasses, native and exotic annual grasses, forbs, native shrubs, trees, and a variety of animal species are found within these areas.

Managed heavily for migratory waterfowl and their associated habitat types, the Refuge has additional implications with the Migratory Bird Treaty Act (MBTA). Many species of birds protected under the MBTA occur within the Proposed Action project area.

On September 7, 2012 a list of bird species with recorded occurrences within the surrounding USGS 7.5-minute Quadrangles was obtained from the CNDDB (2012). The list was compared to the Service's list of protected species under the MBTA (2012c). The following is a list of protected bird species with recorded occurrences in the Proposed Action project area: tricolored blackbird, great egret, great blue heron, western burrowing owl, ferruginous hawk, Swainson's hawk, mountain plover, northern harrier, merlin, and bald eagle.

3.2.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, the Refuge would be dependent on intermittent flows existing in Bear Creek. In the average year, the Refuge utilizes about 1,775 AF from flows from the creek. Absent this water purchase, wetland acreage in the Refuge in an average year would be at 20% of the full supply. Bear Creek provides an unreliable source of water, with times of the year when the creek can be completely dry and other times when the creek is overrun in a flood event, under neither of which the Refuge actively receives water. Foraging conditions and breeding habitat for waterfowl and other water birds rely on dependable water deliveries throughout the year which under the No Action would not be provided.

Proposed Action Alternative

The acquisition of water supplies under the Proposed Action would result in the Refuge temporarily receiving more water than the average 1,775 AF utilized from intermittent Bear Creek flows they would likely receive under the No Action Alternative. The additional water supplies would be delivered November, 2012 through September 2013, per the Agreement. The water would allow for improved management of the wetland habitat areas to benefit migratory and breeding waterfowl and other water birds within the Refuge. The water would be used for:

- Fall flooding of seasonal marshes to allow for increased wildlife use
- Maintenance of additional acreage of late summer water and maintenance of permanent ponds for breeding wildlife
- Increase in the amount and quality of watergrass, an important waterfowl food item
- Increase in the “flow through” of water levels to decrease the potential for disease outbreaks
- Maintenance of water depths to provide optimal foraging conditions for water birds
- Control of undesirable vegetation

These management changes would improve habitat value for migrating water birds, which could also improve diversity. Until long-term water supplies become available and are acquired by Reclamation, this water is considered temporary. Therefore, the Proposed Action would result in short-term benefits to vegetation and wildlife resources.

3.3 Cumulative Impacts

According to the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA, a cumulative impact is defined as *the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions*. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Hydrological conditions and other factors have and are likely to continue to result in fluctuating water supplies, driving requests for water service actions. Water districts aim to provide water to their customers based on available water supplies and timing. Each water service transaction involving Reclamation undergoes environmental review prior to approval. Existing or foreseeable projects, in addition to the proposed transfer from MID, which could affect or could be affected by the Proposed Action or No Action alternative, include the following:

Warren Act Contract for MID transfer to Westlands Water District (2012)

Reclamation released for public review the Environmental Assessment and Finding of No Significant Impact for a Warren Act contract for transfer of up to 10,000 acre-feet of water from Merced Irrigation District to Westlands Water District. Releases of stored water by MID from Lake McClure and the subsequent replenishment of stored water in Lake McClure could impact the releases of New Melones Reservoir.

Vernalis Flow and Salinity Objectives of SWRCB Decision 1641 (2000)

Diversions of water at New Melones Reservoir, Millerton Lake, New Don Pedro Reservoir, and Lake McClure have significantly reduced the flows in the San Joaquin River, contributing to high salt loads (SWRCB, 2000). SWRCB Decision 1641 requires Reclamation to meet Vernalis flow and salinity objectives using any measures available, including water from other parties. Downstream legal users of water may be harmed by refill operations resulting from water provided under the Proposed Action.

San Joaquin River Flow Modification Project (2012)

Reclamation signed a Finding of No Significant Impact for the San Joaquin River Flow Modification Project Environmental Assessment/Initial Study, entering into an agreement with MID to help provide spring pulse flows from Lake McClure to the Merced River. Reclamation shall pay MID for up to 25,000 AF of Supplemental Water to meet the SWRCB Decision 1641 requirements. If additional water is needed, Reclamation may request to purchase an additional 25,000 AF.

MID shall compensate for downstream refill impacts in accordance with Exhibits 1 and 2 of the Agreement, by releasing water from Lake McClure at times when releases from New Melones Reservoir are being made to meet the SWRCB Vernalis flow and salinity objectives. Releases shall be coordinated with Reclamation.

The above existing and future agreements and regulations could cumulatively affect or be affected by the Proposed Action. Reclamation currently has agreements with MID that could cumulatively affect up to 60,000 AF. Under the Proposed Action, the delivery of an additional 7,363 AF of water would have the potential to cumulatively impact instream flows, MID contractors, and releases from New Melones Reservoir in order to meet Vernalis flow requirements. To address these potential cumulative impacts, the above agreements also contain reservoir refill criteria to ensure the MID deliveries do not impact MID or Reclamation's ability to meet instream flow requirements. Therefore, the Proposed Action would not result in cumulative impacts to any of the resources described within this EA.

Section 4.0 References

- California Environmental Protection Agency, State Water Resources Control Board. 2000. *Revised Water Right Decision 1641*.
- City of Merced. 2001. *Merced Water Supply Plan Update, Final Status Report*. Prepared by CH2M Hill for City of Merced, Merced Irrigation District and UC California Merced.
- CNDDDB (California Natural Diversity Database). 2012. California Department of Fish and Game's Natural Diversity Database, RareFind Version 4. September 7, 2012.
- U.S. Department of the Interior, Bureau of Reclamation. 1989. *Report on Refuge Water Supply Investigations*.
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- U.S. Fish and Wildlife Service. 2012b. Sacramento Fish and Wildlife Office. Endangered Species List. <http://www.fws.gov/sacramento/>. Accessed: September 7, 2012.
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Preliminary - Informational Use
Draft

For Croffsets Technical Group
WAPA is providing this information to BOR based on their request.

Composite Rate Calculation - Using Base Resource Revenue Requirement **with NO Croffset credit for FY 2019** and Restoration Fund Power Obligation (True-up)

Very Rough Est

Calculated Base Resource Power Rate		Includes Croffset Credit No Croffsets credit	
Fiscal Year		? 2019-2018 (Est)	2019 (Est)
BR Revenue Requirement (FY 2019 is a preliminary estimate)		\$56,432,000	\$76,775,530
BR Energy (MWh) - Estimated		3,000,000	3,342,000
Calculated Yearly Rate (\$/MWh)		\$22.14	\$22.97
Calculated Restoration Fund Rate - Reclamation's True Up			
Fiscal Year		? 2018 (Est)	2019 (Est)
Restoration Fund /1 (FY 2019 is an estimate)		\$10,053,731	\$39,000,000
BR Energy (MWh) - Estimated		3,000,000	3,342,000
Calculated Yearly Rate (\$/MWh)		\$3.35	\$11.67

Calculated Total Rate: Base Resource and Restoration Fund			
Fiscal Year		? 2019-2018 (Est)	2019 (Est)
Total Cost: BR + RF		\$76,485,731	\$115,775,530
BR Energy (MWh) - Estimated		3,000,000	3,342,000
Calculated Yearly Rate (\$/MWh)		\$25.50	\$34.64
Average Monthly Market Price			
		? 2019-2018 (Est)	2019 (Est)
Average Monthly NP-15 Market Price /2		\$33.92	\$33.52

Notes:

1/ The Restoration Fund obligation is based on actual amount paid by power given all known collection by Reclamation.

2/ Based on average LMP NP-15 Day-Ahead hourly prices Prior to FY 2011, the ICE index was used to develop the average market price. The switch from ICE to LMP was due to lack of transactions on ICE.

July 6, 2018