



January 16, 2019

VIA HAND DELIVERY

Erik Ekdahl, Deputy Director
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

RE: Petition for Temporary Changes under Permit 10478 (Application 13156)

Dear Mr. Ekdahl:

Please find enclosed a petition for temporary change from the East Bay Municipal Utility District (EBMUD). This temporary change petition seeks the State Water Resources Control Board's (State Water Board) approval under Water Code 1725 to temporarily transfer up to 896 acre-feet (AF) of water under EBMUD's Permit 10478 (Application 13156) to North San Joaquin Water Conservation District (NSJWCD) for the Demonstration Recharge Extraction and Aquifer Management (DREAM) Project.

The DREAM project is a short-term pilot conjunctive use/groundwater banking project of limited scale involving up to 1,000 AF of water. The purpose of the pilot project is to provide surface water for irrigation use in lieu of groundwater pumping, which is the predominant irrigation source in the project area. EBMUD will provide the surface water from its Permit 10478 water right. Farmers in NSJWCD's service area will use Permit 10478 surface water for irrigation in lieu of pumping ground water.

Operation of the DREAM Project began in 2018 under the Petition for Temporary Change approved by the State Water Board on March 23, 2018. Under that approval, EBMUD released 104 AF for instream flow benefits, for fish and wildlife enhancement, and for NSJWCD's re-diversion for a short period in July 2018. NSJWCD then suspended its re-diversions due to maintenance and operational issues at its South Pump Station. Due to those unanticipated issues, this petition is to continue the DREAM Project in the 2019 irrigation season so that the remaining amount (896 AF) can be released and re-diverted. The transfer is scheduled to commence in 2019 during the irrigation season upon the approval by the State Water Board.

January 16, 2019

Erik Ekdahl

Petition for Temporary Changes under Permit 10478 (Application 13156)

Page 2

The petition will add the NSJWCD existing South Pump Station as an additional point of re-diversion, add irrigation as an additional purpose of use, and add the project boundary located within NSJWCD's service area as an additional place of use to Permit 10478, all on a temporary basis, to provide water for the DREAM Project. EBMUD also proposes to include the reach of the Mokelumne River between Camanche Dam and the NSJWCD South Pump Station as a proposed place of use to temporarily dedicate flows pursuant to Water Code Section 1707, and to add fish and wildlife enhancement as an additional purpose of use in this reach of the Mokelumne River.

Enclosed please find the Petition together with (a) the Attachment; (b) a map; (c) the State Water Board's Environmental Information form; (d) a check for the State Water Board's filing fee in the amount of \$2,265.80; and (e) a check in the amount of \$850 payable to the California Department of Fish and Wildlife.

Please let me know if you have any questions about this transmittal or would like additional information. I can be reached at 510-287-1240 and at [lena.tam@ebmud.com](mailto:lana.tam@ebmud.com).

Sincerely,



Lena Tam

Manager of Water Resources Planning

LLT:ARU:sjc

Enclosures

cc: Joe Valente, North San Joaquin Water Conservation District (via email)
Jennifer Spaletta, North San Joaquin Water Conservation District (via email)
Kris Balaji, San Joaquin County Public Works (via email)
Anders Christensen, Woodbridge Irrigation District (via email)
Scott McFarland, State Water Board (via email)
Kate Gaffney, State Water Board (via email)
Mary Lisa Cornell, California Department of Fish and Wildlife (via certified mail)
Lauren Mulloy, California Department of Fish and Wildlife (via certified mail)
Amador County Supervisors (via certified mail)
Calaveras County Supervisors (via certified mail)
San Joaquin County Supervisors (via certified mail)
Alameda County Supervisors (via certified mail)
Contra Costa County Supervisors (via certified mail)

Please indicate County where your project is located here:

San Joaquin

MAIL FORM AND ATTACHMENTS TO:
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
http://www.waterboards.ca.gov/waterrights

PETITION FOR CHANGE INVOLVING WATER TRANSFERS

Separate petitions are required for each water right. Mark all areas that apply to your proposed change(s). Incomplete forms may not be accepted. Location and area information must be provided on maps in accordance with established requirements. (Cal. Code Regs., tit. 23, § 715 et seq.) Provide attachments if necessary.

- Point of Diversion, Point of Rediversion, Place of Use, Purpose of Use, Temporary Urgency, Temporary Change, Long-term Transfer, Instream Flow Dedication

Application 13156 Permit 10478 License Statement

I (we) hereby petition for change(s) noted above and described as follows:

Point of Diversion or Rediversion - Provide source name and identify points using both Public Land Survey System descriptions to 1/4-1/4 level and California Coordinate System (NAD 83).

Present: See Permit 10478 - no change to existing points of diversion or rediversion.
Proposed: See Attachment (Proposed Additional Points of Rediversion)

Place of Use - Identify area using Public Land Survey System descriptions to 1/4-1/4 level; for irrigation, list number of acres irrigated.

Present: See Permit 10478 - no change to existing place of use.
Proposed: See attachment (Proposed Additional Place of Use)

Purpose of Use

Present: See Permit 10478 - no change to existing purpose of use.
Proposed: See attachment (Proposed Additional Use for Irrigation within NSJWCD's Service Area and Fish and Wildlife Enhancement)

Instream Flow Dedication - Provide source name and identify points using both Public Land Survey System descriptions to 1/4-1/4 level and California Coordinate System (NAD 83).

Upstream Location: Camanche Reservoir: North 2,268,941 feet and East 6,411,485 feet, being within SE1/4 of SE1/4, Projected Section 6, T4N, R9E, MDB&M
Downstream Location: NSJWCD South Pump Station: North 2,243,275 feet and East 6,364,793 feet, being within NW1/4 of SW1/4, Section 35, T4N, R7E, MDB&M

List the quantities dedicated to instream flow in either: cubic feet per second or gallons per day:
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
See attachment

Will the dedicated flow be diverted for consumptive use at a downstream location? Yes No
If yes, provide the source name, location coordinates, and the quantities of flow that will be diverted from the stream.

Proposed New User(s)

Provide the names, addresses, and phone numbers for all proposed new user(s) of the water right.

North San Joaquin Water Conservation District
498 East Kettleman Lane, Lodi CA 95240
(209) 368-2101

Amount of Water to be Transferred

acre-feet will be transferred. If the basis of right is direct diversion, the average rate of diversion for the maximum 30-day period of use is cubic feet per second or million gallons per day.

General Information – Provide the following information, if applicable to your proposed change(s).

Have you attached an analysis which documents that the amount of water to be transferred or exchanged would have been consumptively used or stored in the absence of the proposed temporary change or long-term transfer? Yes No

Have you attached an analysis of any changes to streamflow, water quality, timing of diversion or use, return flows, or effects on legal users from the proposed temporary change or long-term transfer? Yes No

Have you attached an analysis that shows the proposed temporary change or long-term transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses? Yes No

I (we) have access to the proposed point of diversion or control the proposed place of use by virtue of:
 ownership lease verbal agreement written agreement

If by lease or agreement, state name and address of person(s) from whom access has been obtained.

North San Joaquin Water Conservation District
498 East Kettleman Lane, Lodi CA 95240
(209)368-2101

Give name and address of any person(s) taking water from the stream between the present point of diversion or rediversion and the proposed point of diversion or rediversion, as well as any other person(s) known to you who may be affected by the proposed change.

See attachment.

All Right Holders Must Sign Below: I (we) declare under penalty of perjury that this involves only the amount of water which would have been consumptively used or stored in the absence of the proposed temporary change, and that the above is true and correct to the best of my (our) knowledge and belief.

Dated at

Right Holder or Authorized Agent Signature

Right Holder or Authorized Agent Signature

NOTE: All petitions must be accompanied by:
(1) the form Environmental Information for Petitions, available at:
http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/pet_info.pdf
(2) Division of Water Rights fee, per the Water Rights Fee Schedule, available at:
http://www.waterboards.ca.gov/waterrights/water_issues/programs/fees/
(3) Department of Fish and Wildlife fee of \$850 (Pub. Resources Code, § 10005)

Attachment

Temporary Change Petition to Permit 10478 for the Demonstration Recharge Extraction and Aquifer Management (DREAM) Project

PROJECT BACKGROUND

This temporary change petition seeks the State Water Resources Control Board's (State Water Board) approval under Water Code 1725 to temporarily transfer up to 896 acre-feet (AF) of water under East Bay Municipal Utility District's (EBMUD) Permit 10478 (Application 13156) to North San Joaquin Water Conservation District (NSJWCD) for the Demonstration Recharge Extraction and Aquifer Management (DREAM) Project. The petition will add the NSJWCD existing South Pump Station as an additional point of re-diversion, add irrigation as an additional purpose of use, and add the project boundary located within NSJWCD's service area as an additional place of use to Permit 10478, all on a temporary basis, to provide water for the DREAM Project. The proposed transfer will only occur when EBMUD has surplus water available under Permit 10478, which typically occurs in normal and above-normal runoff conditions and in some below normal runoff years. When EBMUD determines whether surplus stored water is available, it factors in required JSA releases that are protective of fishery flows, releases for senior water rights, and water supply needs in its service area. Thus, releases of surplus water for the DREAM Project will be in addition to all other required releases and commitments. If runoff conditions are dry, no water will be transferred. Hydrologic water year type is determined in accordance with Permit 10478 Term 17, which is consistent with the State Water Board Decision 1641 and the Joint Settlement Agreement (JSA). EBMUD also proposes to include the reach of the Mokelumne River between Camanche Dam and the NSJWCD South Pump Station as a proposed place of use to temporarily dedicate flows pursuant to Water Code Section 1707, and to add fish and wildlife enhancement as an additional purpose of use in this reach of the Mokelumne River. See attached Map. Upon approval of this petition by the State Water Board, the releases by EBMUD for the proposed water transfer would occur during a period of up to one year following the commencement of this transfer.

As background, the proposed temporary water transfer is a component of the DREAM Project. Additional information regarding the DREAM Project is provided below. The DREAM project is a short-term pilot conjunctive use/groundwater banking project of limited scale involving up to 1,000 AF of water. The purpose of the pilot project is to provide surface water for irrigation use in lieu of groundwater pumping, which is the predominant irrigation source in the project area. EBMUD will provide the surface water from its Permit 10478 water right. Farmers in NSJWCD will use Permit 10478 surface water for irrigation in lieu of pumping. Pursuant to an agreement between EBMUD, NSJWCD and San Joaquin County, EBMUD will receive a banked groundwater "credit" for half of the delivered surface water (up to 500 AF credit). EBMUD may then extract the groundwater credits in the next five years by pumping groundwater from the

same project area for delivery into EBMUD's Mokelumne Aqueduct. The extraction will occur pursuant to the terms of a San Joaquin County groundwater export permit.

Operation of the DREAM Project began in 2018 under the Petition for Temporary Change approved by the State Water Board on March 23, 2018. Under that approval, EBMUD released 104 AF for instream flow benefits, for fish and wildlife enhancement, and for NSJWCD's rediversion for a short period in July 2018. NSJWCD then suspended its rediversions due to maintenance and operational issues at its South Pump Station. Due to those unanticipated issues, this petition is to continue the DREAM Project in the 2019 irrigation season so that the remaining amount (896 AF) can be released and rediverted. Based on discussions with State Water Board staff, this Petition is filed for the purpose of releasing and rediverting this remaining quantity, consistent with the environmental document prepared for the DREAM Project. EBMUD and NSJWCD expect that these rediversions will be completed during the 2019 irrigation season, absent any additional unforeseen issues for rediversion of water released pursuant to this proposed water transfer.

The proposed water transfer for irrigation involves releases from EBMUD's Camanche Dam at a rate of up to approximately 4 cfs into the Mokelumne River in addition to all other required releases. Approximately 10 miles downstream of Camanche Dam, the releases minus channel losses of approximately 10%, would be rediverted through the existing fish screen at the NSJWCD South Pump Station for conveyance through the west branch of NSJWCD's existing distribution system. Flow measurements taken at Camanche Dam and at the South Pump Station will track the rate released from Camanche Dam and the amount of water that has been rediverted for project purposes. The transfer water to be rediverted by NSJWCD is in addition to diversions made by the NSJWCD under Permit 10477. EBMUD will implement a reservoir refill agreement for this project with the Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Reclamation) to ensure that EBMUD's refill of the stored water released for the transfer occurs in a manner which will not adversely affect the water rights or operations of DWR's State Water Project (SWP) and Reclamation's Central Valley Project (CVP), specifically when the SWP and/or CVP is being operated to meet water quality objectives in the Sacramento-San Joaquin Bay-Delta.

Once the water is in NSJWCD's distribution system, it will travel through several miles of pipeline, which empties into Pixley Slough. The water will flow in Pixley Slough for about one mile to an existing diversion dam where the water will be pumped from Pixley Slough (at a location known as the "Field 13 Diversion") for irrigation supply to approximately 350 adjacent acres of developed vineyard and orchard that would have been irrigated with groundwater in the absence of the transfer. The portion of Pixley Slough used for conveyance as part of NSJWCD's distribution system is not fed from a natural watercourse and is dry during the irrigation season, absent the addition of water from irrigation activities. The water diverted from Pixley Slough at the Field 13 Diversion will also be measured.

The proposed additional place of use for irrigation is located within San Joaquin County and within the existing place of use of NSJWCD's Permit 10477. Releases of water for the proposed

transfer will be from previously stored surface water from Camanche Reservoir. Absent the proposed temporary transfer, EBMUD would retain the entire quantity proposed for transfer in storage pursuant to its water right.

The following is additional background relative to the DREAM Project. Although this additional information is not necessary for consideration by the State Water Board relative to approval of this petition, it is included to identify the key components of the DREAM Project. The DREAM Project is a collaboration of the County, the NSJWCD, and EBMUD, each of which has substantial water resource interests in the county and the project area. The County has responsibility for planning and engineering of the DREAM Project; NSJWCD and EBMUD share in coordinating the physical and operational aspects of the project. In exchange for providing up to 1,000 AF of surface water to the DREAM Project pursuant to this petition, EBMUD in return would receive up to 500 AF (half of the amount delivered for irrigation) of groundwater from an existing well for export to EBMUD customers. The groundwater well is located near the proposed additional place of use for irrigation identified in this petition. NSJWCD will perform DREAM Project groundwater extractions consistent with the Groundwater Monitoring Plan and the terms of the Groundwater Export Permit issued by San Joaquin County (County). A new 2.8-mile pipeline would be constructed from the extraction well on the south to EBMUD's existing Mokelumne Aqueducts, where the water will be pressurized and injected into the aqueduct system (the pipeline may be buried, or partially temporary pipe above ground). The DREAM Project would document the feasibility of in-lieu recharge and partial groundwater extraction for consideration of similar activities in the future. The County approved and adopted an Initial Study/Mitigated Negative Declaration on the DREAM Project as the California Environmental Quality Act (CEQA) documentation for the Project on August 23, 2016.

In September of 2014, Governor Edmund G. Brown, Jr. signed the Sustainable Groundwater Management Act (SGMA), which:

- Establishes a definition of “sustainable groundwater management”
- Requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California
- Establishes a timetable for adoption of Groundwater Sustainability Plans
- Empowers local agencies to manage basins sustainably
- Establishes basic requirements for Groundwater Sustainability Plans
- Provides for a limited state role

SGMA directs the Department of Water Resources (DWR) to identify groundwater basins and subbasins in conditions of critical overdraft. The DREAM Project boundary is within the East San Joaquin Ground Water Basin which has been identified by DWR in Bulletin 118 as a critically over-drafted basin. The DREAM Project is a pilot project that is intended to assist in groundwater replenishment and alleviate the over-drafted groundwater basin by using the transferred surface water for irrigation in lieu of groundwater pumping. The approval of this

petition is therefore consistent with SGMA, and is a project supported by most local agencies interested in managing the basin in a sustainable manner.

PROPOSED TEMPORARY CHANGES TO PERMIT 10478

1. Point of Diversion or Point of Rediversion

No change in EBMUD's present points of diversion or point of rediversion is proposed. EBMUD's existing authorized points of diversion and rediversion under Permit 10478 are listed below:

Existing Points of Diversion

- (1) Pardee Reservoir: North 2,280,400 feet and East 6,461,020 feet, being within NW $\frac{1}{4}$ of SW $\frac{1}{4}$, Projected Section 26, T5N, R10E, MDB&M
- (2) Camanche Reservoir: North 2,268,941 feet and East 6,411,485 feet, being within SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Projected Section 6, T4N, R9E, MDB&M

Existing Point of Rediversion

- (1) Camanche Reservoir: North 2,268,941 feet and East 6,411,485 feet, being within SE $\frac{1}{4}$ of SE $\frac{1}{4}$, Projected Section 6, T4N, R9E, MDB&M

Proposed Addition of Point of Rediversion to the Existing Points of Rediversion

The following locations are proposed additional points of rediversion under EBMUD's Permit 10478 for the purpose of the temporary water transfer. These proposed additional points of rediversion are shown on the attached map titled "Map to Accompany Permit 10478 (Application 13156) Petition for Temporary Transfer and Proposed Addition to: Points of Rediversion, Purpose of Use, and Place of Use".

- NSJWCD South Pump Station: North 2,243,275 feet and East 6,364,793 feet, being within NW $\frac{1}{4}$ of SW $\frac{1}{4}$, Section 35, T4N, R7E, MDB&M

2. Place of Use:

Existing Place of Use

No change in EBMUD's present, existing place of use is proposed. EBMUD's authorized place of use under Permit 10478 is listed below:

i) For Municipal and Industrial Use:

Within the East Bay Municipal Utility District's service area comprising the cities of Alameda, Albany, Berkeley, El Cerrito, Emeryville, Hercules, Oakland, Piedmont, Pinole, Richmond, San Leandro, San Pablo, Walnut Creek, and the City of Brentwood and unincorporated areas in Alameda and Contra Costa Counties; adjacent incorporated and unincorporated areas located outside the District's boundaries but within EBMUD's probable ultimate service boundary; and military installations of the United States, adjacent to the District or to its facilities, where service is required for national security; and generally located within T1, 2, 3S and T1 and 2N, R1, 2, 3, 4, and 5W and R1, 2, and 3E, MDB&M, as shown on EBMUD's Map 1932-R dated December 6, 2010, filed with the State Water Board.

ii) For Fish & Wildlife Preservation and Enhancement:

- Pardee Reservoir: Located generally within Township 4N-5N, Range 10E, MDB&M
- Camanche Reservoir: Located generally within Township 4N-5N, Range 9E-10E, MDB&M
- Mokelumne River Fish Hatchery: Within the S½ of Section 6, T4N, R9E, MDB&M

iii) For Recreation:

- Pardee Reservoir: Located generally within Township 4N-5N, Range 10E, MDB&M
- Camanche Reservoir: Located generally within Township 4N-5N, Range 9E-10E, MDB&M

Proposed Addition to the Existing Place of Use

No change to the present, existing place of use is proposed. The following areas are proposed to be temporarily added to the existing place of use:

- Fish and wildlife preservation and enhancement within the reach of Mokelumne River between EBMUD's existing point of diversion at Camanche Dam and the proposed additional point of redirection for NSJWCD's South Pump Station identified above.
- Irrigation within 350 acres of established irrigated crop land within the proposed place of use boundary of about 2,183 acres located generally within Sections, 20, 21,

22, 27, 28, 29, 32, and 33, within T3N, R7E, MDB&M. The proposed place of use boundary summarized in 40-acre subdivision in the following table.

USE IS WITHIN (40-acre subdivision)		SECTION	TOWNSHIP	RANGE	Acres
E 1/2	SE 1/4	20	3N	7E	80
NW 1/4	SE 1/4	20	3N	7E	10
SW 1/4	SE 1/4	20	3N	7E	10
	S 1/2	21	3N	7E	320
	SW 1/4	22	3N	7E	160
W 1/2	SE 1/4	22	3N	7E	80
W 1/2	NW 1/4	27	3N	7E	80
NE 1/4	NW 1/4	27	3N	7E	40
SE 1/4	NW 1/4	27	3N	7E	20
NW 1/4	NE 1/4	27	3N	7E	21
	N 1/2	28	3N	7E	320
W 1/2	SW 1/4	28	3N	7E	80
NE 1/4	SW 1/4	28	3N	7E	40
SE 1/4	SW 1/4	28	3N	7E	39
NW 1/4	SE 1/4	28	3N	7E	12
SW 1/4	SE 1/4	28	3N	7E	15
	All	29	3N	7E	640
N 1/2	NW 1/4	32	3N	7E	80
SW 1/4	NW 1/4	32	3N	7E	14
SE 1/4	NW 1/4	32	3N	7E	14
NW 1/4	NE 1/4	32	3N	7E	40
NE 1/4	NE 1/4	32	3N	7E	29
SW 1/4	NE 1/4	32	3N	7E	6
NW 1/4	NW 1/4	33	3N	7E	26
NE 1/4	NW 1/4	33	3N	7E	7
Total Acres:					2,183

The proposed additional place of use boundary is shown on the attached map titled “Map to Accompany Permit 10478 (Application 13156) Petition for Temporary Transfer and Proposed Addition to: Point of Rediversion, Purpose of Use, and Place of Use”.

3. Purpose of Use

Existing Purposes of Use

No change in EBMUD’s present, existing purposes of use is proposed. EBMUD’s authorized purposes of use under Permit 10478 are listed below:

- Fish & Wildlife Preservation and Enhancement at Pardee Reservoir, Camanche Reservoir, and Mokelumne River Fish Hatchery
- Recreation at Pardee Reservoir and Camanche Reservoir
- Municipal and Industrial within EBMUD service area

Proposed Addition to the Existing Purposes of Use

No change to the present, existing purposes of use is proposed. The following purpose of use is proposed to be temporarily added to the existing purposes of use:

- Irrigation
- Fish and Wildlife Preservation and Enhancement in Mokelumne River between Camanche Dam and proposed point of rediversion.

4. Water to be Transferred Is Water that Would Have Been Stored in the Absence of the Transfer and Will Not Cause Injury

Releases of water by EBMUD will increase the streamflow between Camanche Dam and NSJWCD's South Pump Station by up to 896 AF during the period of releases in order to convey surface water for rediversion at a rate of up to approximately 4 cfs less losses. These releases are proposed to occur during a period of up to one year following commencement of this transfer, primarily during the irrigation season of approximately March through October. In the absence of these additional releases and rediversions, the same quantity of surface water would have been stored in Camanche Reservoir. EBMUD would not transfer water such that it would adversely impact the availability of water to users within EBMUD's service area, and EBMUD will continue the same surface water deliveries to its existing customers with or without the proposed temporary water transfer; therefore, there will be no change in the return flow pattern from water users within EBMUD. In addition, EBMUD is required to release water to meet: 1) fishery flow requirements as set forth in the State Water Board Decision 1641 and the Joint Settlement Agreement (JSA), and Permit 10478, and 2) senior water rights. Releases for the proposed temporary water transfer will be in addition to those existing downstream requirements. At the proposed additional place of use, the surface water provided pursuant to the proposed water transfer would offset groundwater pumping for use upon that land, with no change to the return flows from the proposed place of use. Therefore, there will be no downstream change of the water quality, timing of diversion, return flows, effects on legal users of water, or unreasonable effects to fish, wildlife, or other instream beneficial uses during the period of the proposed temporary transfer. Absent the proposed temporary transfer, EBMUD would retain the entire quantity proposed for transfer in storage pursuant to its water right, and the water demands within the proposed place of use would be met by pumping groundwater.

See files of the State Water Board for more information regarding other legal water users. The Department of Fish and Wildlife (DFW) and the Central Valley Regional Water Quality Control Board (CVRWQCB) were contacted. Consultation with James Marshall and Kari Holmes, Regional Water Rights Coordinator, and DFW was made by telephone during the development phase in December 2018 and during the petition process in order to discuss the proposed temporary water transfer. Copies of this petition have been provided by emails to Colin Purdy and Lauren Mulloy (916-358-2943) of DFW and James Marshall and Kari Holmes (916-464-4848) of the CVRWQCB.

In addition to the above, the proposed temporary water transfer is also made possible as a result of EBMUD's extensive water conservation and water recycling efforts. Although the proposed water transfer involves releases of water that would have otherwise been held in storage, EBMUD's substantial conservation and reuse efforts have significantly reduced EBMUD's demands and diversions of surface water. Additional information regarding these efforts is provided below for reference according to the relevant Water Code sections under which those efforts apply:

(1) WC Section 1010(b)

EBMUD has built infrastructure with the capability to provide over 9 million gallons a day of recycled water. EBMUD's long-term plan sets a goal of increasing recycled water use to 20 million gallons a day by 2040. EBMUD provides recycled water to numerous sites for municipal, commercial and industrial uses. The table below lists the water recycling projects currently in operation. In 2017, EBMUD reported a reduction of water due to water recycling in the amount of 11,744 AF. EBMUD expects to continue using recycled water to reduce its use of surface water during the period of operation of the DREAM Project. Table 1 summarizes EBMUD's current Water Recycling Projects in operation and the savings from these projects as of calendar year 2017.

Table 1. EBMUD Existing Water Recycling Projects

Water Recycling Projects in Operation:			
Project and Location	Type	CY17 Savings (MGD)	Began Recycled Water Use
EBMUD Wastewater Treatment Plant	Industrial/Irrigation	2.5	1971
Chevron Refinery/Richmond	Industrial/Boiler Makeup Water (RARE)	3.4	2010
San Ramon Valley/ Phase 1	Irrigation	0.66	2006
East Bayshore RWP/ Phase 1A	Irrigation, industrial, office building toilet flushing, possible wetlands restoration	0.14	2008
Recycled Water Truck Program	Dust Control/ Construction/ Irrigation/ Cleaning	0.01	2008

(2) WC Section 1011(b)

For decades, water conservation has been a major component of EBMUD’s water supply portfolio designed to increase water supply reliability. EBMUD’s long-standing water conservation program continually makes an aggressive push to educate EBMUD’s customers on water-efficiency and to increase their conservation efforts. EBMUD monitors water demand, new technology, and changes in consumer preferences, and works closely with other local, regional, state and national entities to enhance its water conservation services.

EBMUD’s water conservation program addresses both supply-side (water supplier) and demand-side (customer) measures. Demand-side water conservation measures improve customer water use efficiency and include incentives for residential and non-residential customers, education and outreach activities, market support activities and regulatory programs. Supply-side water conservation measures, which improve water use efficiency before and after use by the customer,

include distribution system leak detection and repair programs and water recycling programs. Notably, EBMUD is undertaking a major capital project to reduce leakage and improve system reliability through a planned pipeline replacement program, prioritizing the most vulnerable pipes in its 4,200 mile pipe distribution system. Highlights of EBMUD's water conservation efforts and actions are chronicled in the attached table.

Since EBMUD completed its first Water Conservation Master Plan (WCMP) in 1994, the document has served an important role in guiding and tracking the development of EBMUD's conservation program. The WCMP was most recently updated in 2011 to include existing and planned efforts to support meeting long-term water conservation planning goals to the year 2040. It details water conservation programs, methodologies, and goals that are established in water supply planning and mandated by community-wide regulation or statute and presents a phased implementation of conservation measures based on threshold water production and customer demand levels.

The 2011 WCMP defines the implementation strategies, objectives, and tactics required to achieve long-term water conservation savings, presenting a ten-year implementation schedule for water conservation programs required to help meet the need for water through the year 2020. This planning horizon allows EBMUD to emphasize emerging water-efficient technology and recent and anticipated regulatory and legislative code changes. The WCMP includes per capita demand reduction targets, adopted by EBMUD, as required under SBx7-7 legislation (2009) and under the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) for Statewide Urban Water Conservation in the year 2020 and beyond.

For more information on detailed conservation programs and implementation strategies, please refer to the Water Conservation Master Plan (2011) and Urban Water Management Plan (2015) at EBMUD's website.

<http://www.ebmud.com/water-and-drought/conservation-and-rebates/water-conservation-publications/water-conservation-master-plan/>

<http://www.ebmud.com/water-and-drought/about-your-water/water-supply/urban-water-management-plan/>

In 2017, EBMUD achieved significant water conservation savings even after drought water use restrictions were rescinded in April 2017 by Governor Brown. EBMUD continues to implement water conservation measures as outlined in EBMUD's 2015 Urban Water Management Plan to promote reasonable and efficient use of water supplies in the service area. As requested by the SWRCB, EBMUD continues to report monthly water use and in 2017, EBMUD achieved a water use reduction of 14% compared to 2013 water usage, based on the SWRCB's methodology.

In accordance with Water Code Section 1011, the total amount of water conserved system-wide by EBMUD in 2017 in lieu of appropriated water was approximately 116,648 acre feet. This savings was determined based on the difference in 1976 and 2017 unit water consumption rates and the current total number of accounts; 1976 was the year EBMUD and its customers initiated significant water conservation efforts (beginning with the 1976-77 drought).

ENVIRONMENTAL DOCUMENTATION

As identified in this petition, the proposed temporary transfer does not involve any construction or physical changes to EBMUD's or NSJWCD's facilities. Petitions for temporary transfer of water pursuant to Water Code Section 1725 are exempt from the California Environmental Quality Act. Nevertheless, the County approved and adopted an Initial Study/Mitigated Negative Declaration on the DREAM Project as the California Environmental Quality Act (CEQA) documentation for the Project on August 23, 2016. Copies of the IS/MND are available at the San Joaquin County Public Works Department. Electronic copies of the IS/MND may be viewed at the Department of Public Works' website: www.sjgov.org/pubworks/

PHOTOGRAPHS

The present points of diversion include existing facilities that are well known and documented with the State Water Board. In addition, the present place of use is also well known and documented with the State Water Board. Therefore, for these reasons, photographs of these points of diversion and place of use are not included. Attached are photographs identifying typical lands within the proposed additional place of use that would be irrigated with surface water pursuant to this petition.

MAPS

The present points of diversion, points of rediversion, and places of use are shown on maps filed with the State Water Board for Permit 10478. The proposed additional point of rediversion, place of use, and reach of instream flow dedication are shown on the attached map titled "Map to Accompany Permit 10478 (Application 13156) Petition for Temporary Transfer and Proposed Addition of Points of Rediversion, Purpose of Use, and Place of Use".

DREAM Project Proposed Additional Place of Use
Established Irrigated Crop Land



DREAM Project Proposed Additional Place of Use
Established Irrigated Crop Land



ENVIRONMENTAL INFORMATION FOR PETITIONS

This form is required for all petitions.

Before the State Water Resources Control Board (State Water Board) can approve a petition, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared, a determination must be made of who is responsible for its preparation. As the petitioner, you are responsible for all costs associated with the environmental evaluation and preparation of the required CEQA documents. Please answer the following questions to the best of your ability and submit any studies that have been conducted regarding the environmental evaluation of your project. If you need more space to completely answer the questions, please number and attach additional sheets.

DESCRIPTION OF PROPOSED CHANGES OR WORK REMAINING TO BE COMPLETED

For a petition for change, provide a description of the proposed changes to your project including, but not limited to, type of construction activity, structures existing or to be built, area to be graded or excavated, increase in water diversion and use (up to the amount authorized by the permit), changes in land use, and project operational changes, including changes in how the water will be used. For a petition for extension of time, provide a description of what work has been completed and what remains to be done. Include in your description any of the above elements that will occur during the requested extension period.

This temporary change petition seeks the State Water Resources Control Board's (State Water Board) approval under Water Code 1725 to temporarily transfer up to 896 acre-feet (AF) of water under East Bay Municipal Utility District's (EBMUD) Permit 10478 (Application 13156) to North San Joaquin Water Conservation District (NSJWCD) for the Demonstration Recharge Extraction and Aquifer Management (DREAM) Project. The petition will add the NSJWCD existing South Pump Station as an additional point of re-diversion, add irrigation as an additional purpose of use, and add the project boundary located within NSJWCD's service area as an additional place of use to Permit 10478, all on a temporary basis, to provide water for the DREAM Project. The proposed transfer will only occur when EBMUD has surplus water available under Permit 10478, which typically occurs in normal and above-normal runoff conditions and in some below normal runoff years. When EBMUD determines whether surplus stored water is available, it factors in required JSA releases that are protective of fishery flows, releases for senior water rights, and water supply needs in its service area. Thus, releases of surplus water for the DREAM Project will be in addition to all other required releases and commitments. If runoff conditions are dry, no water will be transferred. Hydrologic water year type is determined in accordance with Permit 10478 Term 17, which is consistent with the State Water Board Decision 1641 and the Joint Settlement Agreement (JSA). EBMUD also proposes to include the reach of the Mokelumne River between Camanche Dam and the NSJWCD South Pump Station as a proposed place of use to temporarily dedicate flows pursuant to Water Code Section 1707, and to add fish and wildlife enhancement as an additional purpose of use in this reach of the Mokelumne River. See attached Map. Upon approval of this petition by the State Water Board, the releases by EBMUD for the proposed water transfer would occur during a period of up to one year following the commencement of this transfer.

The DREAM project is a short-term pilot conjunctive use/groundwater banking project of limited scale involving up to 1,000 AF of water. The purpose of the pilot project is to provide surface water for irrigation use in lieu of groundwater pumping, which is the predominant irrigation source in the project area. Pursuant to an agreement between EBMUD, NSJWCD and San Joaquin County, EBMUD will receive a banked groundwater "credit" for half of the delivered surface water (up to 500 AF credit). EBMUD may then extract the groundwater credits in the next five years by pumping groundwater from the same project area for delivery into EBMUD's Mokelumne Aqueduct. The extraction will occur pursuant to the terms of a San Joaquin County groundwater export permit.

Operation of the DREAM Project began in 2018 under the Petition for Temporary Change approved by the State Water Board on March 23, 2018. Under that approval, EBMUD released 104 AF for instream flow benefits, for fish and wildlife enhancement, and for NSJWCD's rediversion for a short period in July 2018. This petition is to continue the DREAM Project in the 2019 irrigation season.

The proposed temporary transfer does not involve any new construction or physical changes to EBMUD's facilities.

Please see Petition attachment for additional information.

Insert the attachment number here, if applicable:

Coordination with Regional Water Quality Control Board

For change petitions only, you must request consultation with the Regional Water Quality Control Board regarding the potential effects of your proposed change on water quality and other instream beneficial uses. (Cal. Code Regs., tit. 23, § 794.) In order to determine the appropriate office for consultation, see: http://www.waterboards.ca.gov/waterboards_map.shtml. Provide the date you submitted your request for consultation here, then provide the following information.

Date of Request

December 19, 2018

Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation?

Yes No

Will a waste discharge permit be required for the project?

Yes No

If necessary, provide additional information below:

Insert the attachment number here, if applicable:

Local Permits

For temporary transfers only, you must contact the board of supervisors for the county(ies) both for where you currently store or use water and where you propose to transfer the water. (Wat. Code § 1726.) Provide the date you submitted your request for consultation here.

Date of Contact

January 16, 2019

For change petitions only, you should contact your local planning or public works department and provide the information below.

Person Contacted:

Date of Contact:

Department:

Phone Number:

County Zoning Designation:

Are any county permits required for your project? If yes, indicate type below.

Yes No

Grading Permit

Use Permit

Watercourse

Obstruction Permit

Change of Zoning

General Plan Change

Other (explain below)

If applicable, have you obtained any of the permits listed above? If yes, provide copies.

Yes No

If necessary, provide additional information below:

Groundwater Export Permit, approved on April 11, 2017 by the Boards of Supervisors, San Joaquin County.

Insert the attachment number here, if applicable:

Federal and State Permits

Check any additional agencies that may require permits or other approvals for your project:

- Regional Water Quality Control Board Department of Fish and Game
- Dept of Water Resources, Division of Safety of Dams California Coastal Commission
- State Reclamation Board U.S. Army Corps of Engineers U.S. Forest Service
- Bureau of Land Management Federal Energy Regulatory Commission
- Natural Resources Conservation Service

Have you obtained any of the permits listed above? If yes, provide copies. Yes No

For each agency from which a permit is required, provide the following information:

Agency	Permit Type	Person(s) Contacted	Contact Date	Phone Number

If necessary, provide additional information below:

Insert the attachment number here, if applicable:

Construction or Grading Activity

Does the project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank or riparian habitat of any stream or lake? Yes No

If necessary, provide additional information below:

Insert the attachment number here, if applicable:

Archeology

Has an archeological report been prepared for this project? If yes, provide a copy. Yes No

Will another public agency be preparing an archeological report? Yes No

Do you know of any archeological or historic sites in the area? If yes, explain below. Yes No

If necessary, provide additional information below:

N/A - No new construction

Insert the attachment number here, if applicable:

Photographs

For all petitions other than time extensions, attach complete sets of color photographs, clearly dated and labeled, showing the vegetation that exists at the following three locations:

- Along the stream channel immediately downstream from each point of diversion
- Along the stream channel immediately upstream from each point of diversion
- At the place where water subject to this water right will be used

Maps

For all petitions other than time extensions, attach maps labeled in accordance with the regulations showing all applicable features, both present and proposed, including but not limited to: point of diversion, point of rediversion, distribution of storage reservoirs, point of discharge of treated wastewater, place of use, and location of instream flow dedication reach. (Cal. Code Regs., tit. 23, §§ 715 et seq., 794.)

Pursuant to California Code of Regulations, title 23, section 794, petitions for change submitted without maps may not be accepted.

All Water Right Holders Must Sign This Form:

I (we) hereby certify that the statements I (we) have furnished above and in the attachments are complete to the best of my (our) ability and that the facts, statements, and information presented are true and correct to the best of my (our) knowledge. Dated 01/15/2019 at Oakland, CA.

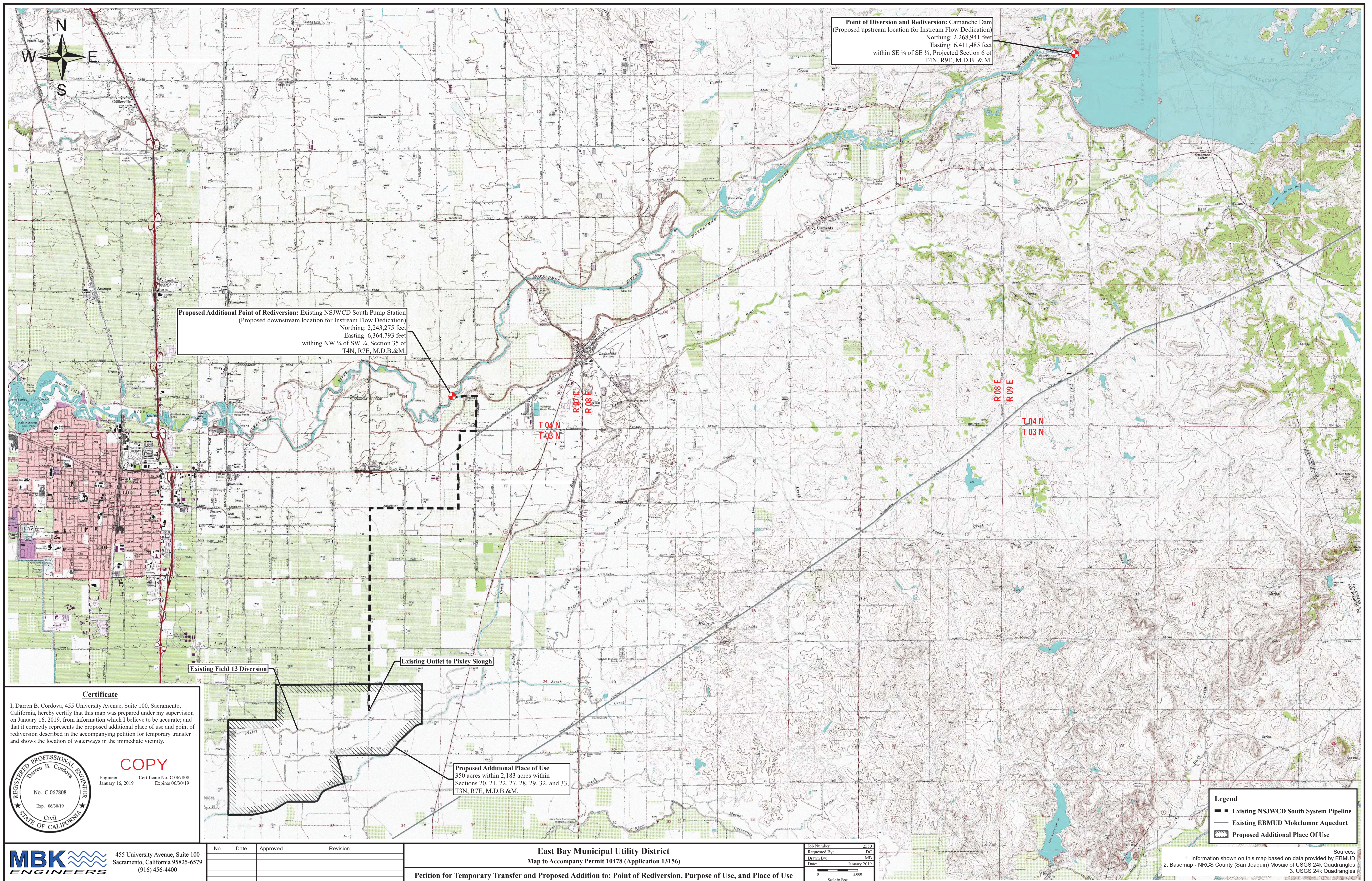
Lena L. Tam

Water Right Holder or Authorized Agent Signature

Water Right Holder or Authorized Agent Signature

NOTE:

- Petitions for Change may not be accepted unless you include proof that a copy of the petition was served on the Department of Fish and Game. (Cal. Code Regs., tit. 23, § 794.)
- Petitions for Temporary Transfer may not be accepted unless you include proof that a copy of the petition was served on the Department of Fish and Game and the board of supervisors for the county(ies) where you currently store or use water and the county(ies) where you propose to transfer the water. (Wat. Code § 1726.)



Point of Diversion and Rediversion: Camanche Dam
 (Proposed upstream location for Instream Flow Dedication)
 Northing: 2,268,941 feet
 Easting: 6,411,485 feet
 within SE ¼ of SE ¼, Projected Section 6 of
 T4N, R9E, M.D.B. & M.

Proposed Additional Point of Rediversion: Existing NSJWCD South Pump Station
 (Proposed downstream location for Instream Flow Dedication)
 Northing: 2,243,275 feet
 Easting: 6,364,793 feet
 within NW ¼ of SW ¼, Section 35 of
 T4N, R7E, M.D.B. & M.

Existing Field 13 Diversion

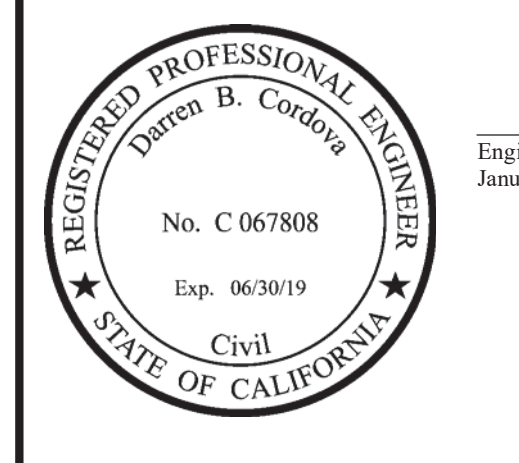
Existing Outlet to Pixley Slough

Proposed Additional Place of Use
 350 acres within 2,183 acres within
 Sections 20, 21, 22, 27, 28, 29, 32, and 33,
 T3N, R7E, M.D.B. & M.

Legend
 ■ Existing NSJWCD South System Pipeline
 — Existing EBMUD Mokelumne Aqueduct
 ▨ Proposed Additional Place of Use

Certificate

I, Darren B. Cordova, 455 University Avenue, Suite 100, Sacramento, California, hereby certify that this map was prepared under my supervision on January 16, 2019, from information which I believe to be accurate; and that it correctly represents the proposed additional place of use and point of rediversion described in the accompanying petition for temporary transfer and shows the location of waterways in the immediate vicinity.



COPY
 Engineer Certificate No. C 067808
 January 16, 2019 Expires 06/30/19

MBK ENGINEERS
 455 University Avenue, Suite 100
 Sacramento, California 95825-6579
 (916) 456-4400

No.	Date	Approved	Revision

East Bay Municipal Utility District
 Map to Accompany Permit 10478 (Application 13156)
Petition for Temporary Transfer and Proposed Addition to: Point of Rediversion, Purpose of Use, and Place of Use

Job Number: 13550
 Requested By: DC
 Drawn By: MB
 Date: January 2019
 Scale in Feet: 3,000

Sources:
 1. Information shown on this map based on data provided by EBMUD
 2. Basemap - NRCS County (San Joaquin) Mosaic of USGS 24K Quadrangles
 3. USGS 24K Quadrangles