

Central Valley Regional Water Quality Control Board

2 May 2012

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NOTICE OF APPLICABILITY; GENERAL WASTE DISCHARGE REQUIREMENTS FOR COLD WATER CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY DISCHARGES TO SURFACE WATERS, ORDER R5-2010-0018 (CAAP GENERAL ORDER); STATE OF CALIFORNIA DEPARTMENT OF FISH AND GAME AND EAST BAY MUNICIPAL UTILITY DISTRICT, MOKELUMNE RIVER FISH HATCHERY, SAN JOAQUIN COUNTY

Our office received a Report of Waste Discharge dated 12 April 2012 from State of California Department of Fish and Game for the Mokelumne River Fish Hatchery (Facility). California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) staff has determined that the Facility meets the required conditions for approval under the CAAP General Order. The Mokelumne River Fish Hatchery has been assigned CAAP General Order R5-2010-0018-017 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG135001. Administrative information for the Facility is provided in Enclosure A, a location map is provided in Enclosure B, and a flow schematic is provided in Enclosure C, which are included as part of this Notice of Applicability (NOA). Please reference your CAAP General Order **R5-2010-0018-017**, in all your correspondence and submitted documents.

The CAAP General Order is enclosed and may also be viewed at the following web address:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2010-0018-01.pdf

You are urged to familiarize yourself with the contents of the entire CAAP General Order. The CAAP facility operations and discharge shall be managed in accordance with the requirements contained in the CAAP General Order, this NOA, and with the information submitted by the Discharger. Attachment C of the General Order prescribes mandatory monitoring and reporting requirements.

CAAP General Order R5-2010-0018-017 shall become effective when the existing individual NPDES permit for the Facility, Order R5-2004-0122 (NPDES No. CA0004791), is rescinded by a separate action of the Central Valley Water Board, which is scheduled for **7/8 June 2012**.

FACILITY INFORMATION/DISCHARGE DESCRIPTION

The State of California Department of Fish and Game operates the Facility. The Facility and property are owned by the East Bay Municipal Utility District. The California Department of Fish and Game and East Bay Municipal Utility District (EBMUD) are hereafter designated as the Discharger.

The Facility is located on the south bank of the Mokelumne River immediately downstream from Camanche Dam, in Section 6, T4N, R6E, MDB&M at approximately Latitude 38°13'29"N and Longitude 121°01'29"W as shown in Enclosure B, a part of this NOA. The Facility includes two fish ladders, a gathering tank and four holding ponds, 20 raceways, 48 fiberglass troughs, a hatchery spawning and incubation building, two stand alone fish tanks, and an office/shop/freezer building. Based on information in the Report of Waste Discharge, the Facility has an annual average fish production of 110,000 pounds (lbs) of Chinook salmon and 65,000 lbs of steelhead trout, and an annual feed of 105,000 lbs of fish pellets.

The Facility receives its source water from the Camanche Reservoir by gravity. The source water is piped directly to packed column aerators at the head of each raceway and holding ponds, and/or directly to sand filters upstream of the hatchery building and incubators. The Facility has a design maximum flow rate of 46 million gallons per day (mgd) of flow-through water. There are two drain systems for each raceway series, one draining through the gathering tank and fish ladders, and one allowing wastewater to be diverted to settling ponds. All water is used on a flow-through basis, and the process wastewater is discharged to the Mokelumne River through three outfalls (001, 002, and 003) as shown in Enclosure C, a part of this NOA, and as described below:

Outfall 001 – The settling pond overflow is discharged to the Mokelumne River through this outfall. Raceway cleaning wastewater is diverted into a separate drain system, gravity fed to the raceway pump station and pumped to an earthen settling pond. Wastewater from the hatchery building and storm water runoff is also discharged from this outfall. The estimated flow from this outfall ranges between 50,000 gallons/day to 25.6 mgd.

Outfall 002 – Wastewater discharges from raceways and holding ponds. The estimated flow from this outfall is 29 mgd.

Outfall 003 – Wastewater discharges from sand filter backwash and two stand alone fish tanks. Excess flow from the raceways and holding ponds discharging to the Outfall 002 is also routed occasionally to this outfall. The estimated flow from this outfall ranges between 2 mgd to 22 mgd.

The Discharger also indicated in the Report of Waste Discharge the use of the following drugs and chemicals at the Facility to treat fish for parasites, fungi, and bacteria, as well as to clean rearing raceways in order to reduce the spread of disease among the confined fish population: sodium chloride (salt), hydrogen peroxide, potassium permanganate, oxytetracycline as a feed additive, vibrio vaccine, iodine, tricaine methanesulfonate (MS-222), florfenicol, amoxicillin, sodium bicarbonate, erythromycin, acetic acid, carbon dioxide, chloramine T, and SLICE (emamectin benzoate).

All domestic wastewater is discharged to one of four on-site septic systems serving the Facility, one for a permanent residential trailer, two serving two residential houses, and one for the hatchery buildings. The hatchery septic system has an underground pump station vault located on the hatchery grounds that pumps domestic wastewater from the facility restrooms to a leachfield above the residences. The residences are located one quarter mile off hatchery grounds. The septic system is regulated by the County of San Joaquin.

INTAKE WATER CREDITS

The maximum effluent concentrations for copper and zinc exceed the screening levels specified in Table H-1 of the CAAP General Order. The Discharger, however, has demonstrated that the discharge from the Facility meets the conditions for granting intake water credits for copper and zinc. The source of the pollutants is the intake from the receiving water, which is the same water body that the Facility discharges. Based on the Discharger's priority pollutant sampling data collected on 8 February 2007 and 9 October 2008, the screening levels for copper and zinc were exceeded in the intake water. However, the effluent concentrations did not exceed the intake concentrations and the Discharger does not add copper or zinc in the process. Therefore, the water quality-based effluent limitations for copper and zinc have been established considering intake water credits.

EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS of the CAAP General Order. **Effective 7 June 2012**, the following effluent limitations are applicable to this discharge as found in Section V. A and B of the CAAP General Order:

1. **Total Suspended Solids, Settleable Solids, Formaldehyde, and Chlorine** – The Discharger shall comply with the effluent limitations required in Section V.A.1 (Table 1) for total suspended solids, settleable solids, formaldehyde, and chlorine.
2. **Total Recoverable Zinc** – An intake water credit has been granted for zinc. In accordance with Section V.A.2, the monthly average total recoverable zinc concentration and mass in the effluent shall not exceed the corresponding monthly average concentration and mass as measured in the influent.
3. **pH** – The Discharger shall comply with the effluent limitations required in Section V.B.1.a for pH.
4. **Total Recoverable Copper** – The Discharger shall comply with the effluent limitations required in Section V.B.3.c for total recoverable copper. An intake water credit has been granted for copper; therefore, compliance with this limitation is in accordance with the application of intake water credits in Section V.B.3.d.

MONITORING REQUIREMENTS

The CAAP General Order requires that the Discharger complies with the Monitoring and Reporting Program that is incorporated as Attachment C to the CAAP General Order. Influent, effluent, and receiving water monitoring requirements are based on the pounds of aquatic animals produced. This Facility is in the category of production of more than 100,000 pounds of fish produced per year.

Site-specific monitoring locations for influent, effluent and receiving water monitoring are shown in Enclosure C to this NOA (Flow Schematic), and as described in the following table:

Monitoring Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Mokelumne River Intake. Location where influent sample can be collected prior to entering the Mokelumne River Fish Hatchery.
Outfall 001	EFF-001 ¹	Effluent wastewater flow from the Settling Ponds and Hatchery Building/Spawning Operation prior to discharge to the Mokelumne River.
Outfall 002	EFF-002	Effluent wastewater flow from the Raceways and Holding Ponds prior to discharge to the Mokelumne River
Outfall 003	EFF-003	Effluent wastewater flow Sand Filter Backwash and Stand Alone Fish Tanks prior to discharge to the Mokelumne River
--	EFF-004 ²	Effluent wastewater flow from the Settling Ponds prior to mixing with storm water run-off and wastewater from hatchery building/spawning operation.
--	EFF-005 ²	Effluent wastewater flow from the Hatchery Building/Spawning Operations prior to mixing with storm water run-off and baked-up receiving water..
--	RSW-001	100 feet downstream of Outfall 001 discharge to the Mokelumne River.

¹ Sampling required when receiving water elevations do not cause backup in Outfall 001

² Sampling required when receiving water elevations cause backup in Outfall 001. Self monitoring report must indicate that receiving water elevations caused backup in Outfall 001.

Effective 7 June 2012, the Discharger is required to comply with all the Monitoring and Reporting Requirements contained in Attachment C to the CAAP General Order for facilities with production greater than 100,000 pounds of fish per year. A summary of the monitoring requirements is provided below:

1. **Influent Monitoring** – The Discharger shall monitor the influent in accordance with Table C-2 of the CAAP General Order for total suspended solids, settleable solids, pH, electrical conductivity @25°C, copper (total recoverable), and hardness.

The Discharger has been granted intake water credits for copper (total recoverable) and zinc (total recoverable). Therefore, in accordance with Section III.C (Influent Monitoring for Facilities with Intake Water Credits), influent monitoring is required for flow, copper (total recoverable), and zinc (total recoverable). Influent copper (total recoverable) shall be monitored as required in Table C-2, and quarterly influent grab samples shall be collected for zinc (total recoverable). Samples for copper (total recoverable) and zinc (total recoverable) must be taken simultaneously from the influent and effluent or phased to account for the time that it takes water to travel from the water intake to the discharge point. For every influent sample taken an effluent sample must be taken. In addition, influent flow shall be monitored continuously.

2. **Effluent Monitoring** – The Discharger shall monitor the effluent in accordance with Section IV.A, B, and Table C-4 (Effluent Monitoring Requirements) of the CAAP General Order for flow, total suspended solids, net total suspended solids, settleable solids, net settleable solids, turbidity, pH, electrical conductivity @25°C, copper (total recoverable), hardness, formaldehyde, and chlorine.

The Discharger has been granted intake water credits for copper (total recoverable) and zinc (total recoverable). Therefore, in accordance with Section IV.3 (Effluent Monitoring for Facilities with Intake Water Credits), effluent monitoring is required for flow, copper (total recoverable), and zinc (total recoverable). Effluent copper (total recoverable) shall be

monitored as required in Table C-4, and quarterly effluent grab samples shall be collected for zinc (total recoverable). Samples for copper (total recoverable) and zinc (total recoverable) must be taken simultaneously from the influent and effluent or phased to account for the time that it takes water to travel from the water intake to the discharge point. For every effluent sample taken an influent sample must be taken. In addition, effluent flow shall be monitored continuously.

3. **Receiving Water Monitoring** – The Discharger shall monitor the receiving water in accordance with Section VIII. B (receiving water observations) and Table C-6 of the CAAP General Order for dissolved oxygen, temperature, turbidity, pH, electrical conductivity @25°C, and hardness. The Facility discharges treated effluent at the base of Camanche Dam, therefore no representative upstream sampling is feasible. Upstream receiving water monitoring is not required in this NOA.
4. **Land Discharge Monitoring Requirements** – The Discharger shall conduct septic tanks and leachfields inspections annually with annual reports submitted in accordance with Section VI.A.
5. **Other Monitoring Requirements** – The Discharger shall submit a Monthly Drug and Chemical Use Report (Section IX.A) and conduct Priority Pollutant Metals Monitoring (Section IX.B) in accordance with the CAAP General Order.

The first self-monitoring report (SMR) required under the CAAP General Order is the June 2012 SMR, which shall be submitted by 1 August 2012. Monitoring reports shall continue to be submitted electronically. Until then, the Discharger shall continue submitting SMRs required by Order R5-2004-0122.

SATISFACTION OF ANTI-BACKSLIDING REQUIREMENTS

The effluent limitations in the CAAP General Order are as least as stringent as the effluent limitations in the previous individual NPDES permit, Order R5-2004-0122, and are consistent with state and federal antibacksliding requirements.

NOTICE OF APPLICABILITY REQUIREMENTS

As of 7 June 2012, the Discharger is authorized to discharge to the Mokelumne River under the terms and conditions of the CAAP General Order. In addition to the requirements contained in the CAAP General Order, the following shall also apply:

1. The discharge from the Facility shall not exceed a daily average flow of 46 mgd during the effective period of the CAAP General Order.
2. The Discharger shall continue to electronically submit Self-Monitoring Reports (SMRs) using the State Water Resources Control Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS website will provide directions for SMR submittal in the event there will be service interruption for electronic submittal.
3. The State Water Resources Control Board (State Water Board) has determined that individual or general permits for aquaculture activities defined in 40 CFR 122.25(b) will be subject to the same annual fee, which currently is \$1,000 (State Water Board Resolution 2002-0150), but may be subject to change.

4. The CAAP General Order expires on **1 January 2015**, and enrollees will continue to be authorized to discharge until coverage becomes effective under a reissued Order or until Central Valley Water Board staff formally terminates your coverage. Only those CAAP facilities authorized to discharge and who submit a Notice of Intent at least **180** days prior to the expiration date of Order R5-2010-0018-01 will remain authorized to discharge under administratively continued permit conditions.

ENFORCEMENT

Failure to comply with the CAAP General Order and/or this NOA may result in enforcement actions, which could include administrative civil liability. Effluent limitation violations and some late reporting violations are subject to Mandatory Minimum Penalties (MMPs) of \$3,000 per violation [California Water Code Sections 13385(h) and (i)]. If you have no discharge during a monitoring period, you must submit a monthly self-monitoring report indicating that no discharge occurred. You must notify the Central Valley Water Board staff within 24 hours of noncompliance or anticipated noncompliance.

COMMUNICATION

All monitoring reports submittals, notification of non-compliance, and questions regarding compliance and enforcement shall be directed to Mohammad Farhad of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Mr. Farhad can be reached at (916)-464-1181, or mfarhad@waterboards.ca.gov.

Questions regarding the permitting aspects of your CAAP General Order, and written notification for termination of coverage under the Order, shall be directed to Anand Mamidi at (916) 464-4853 or at amamidi@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet or will be provided upon request. The Internet address is:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality.

Original Signed by Ken Landau for

Pamela C. Creedon
Executive Officer

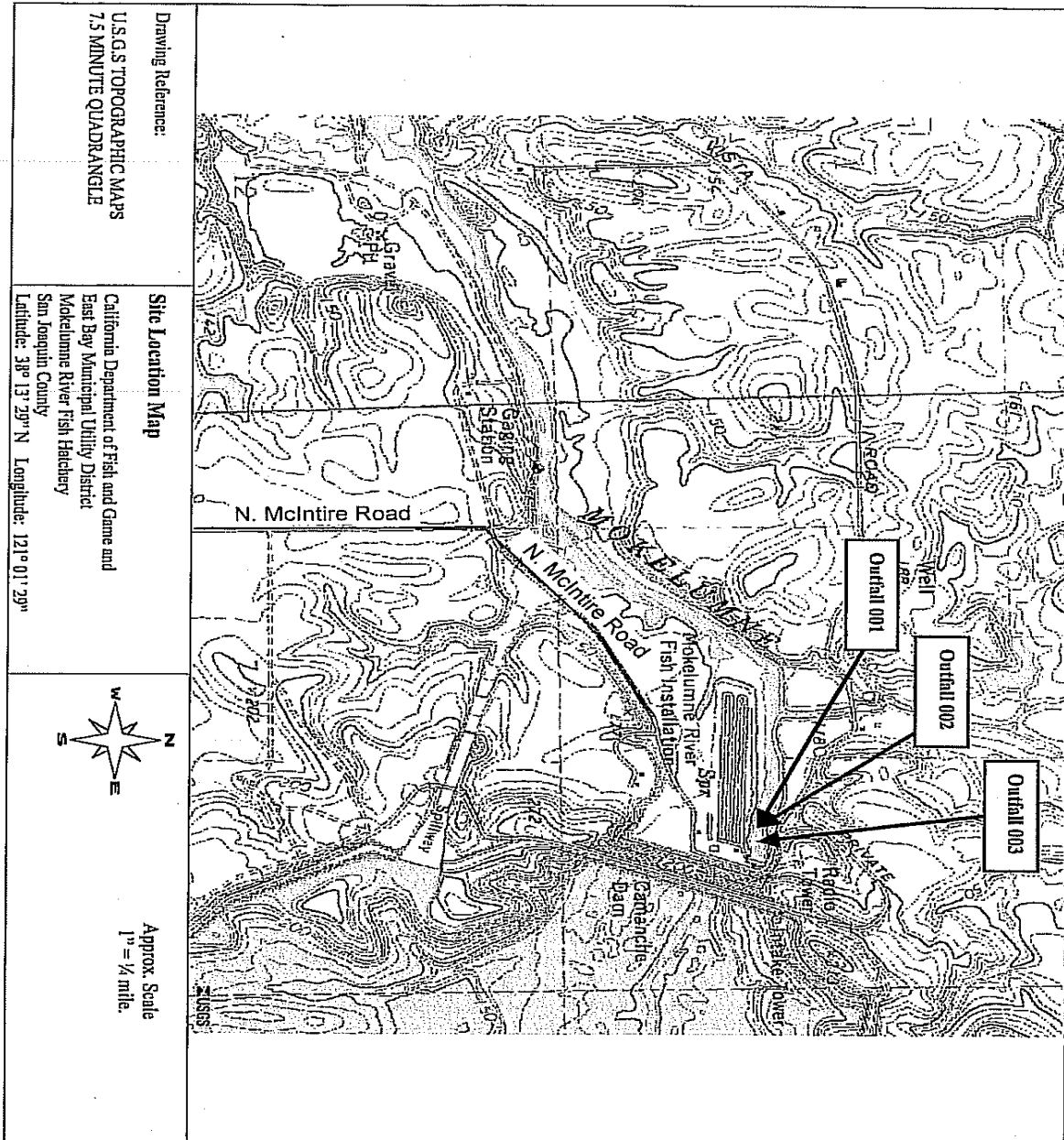
- Enclosures (4):
- 1) Enclosure A – Administrative Information
 - 2) Enclosure B – Location Map
 - 3) Enclosure C – Flow Schematic
 - 4) CAAP General Order R5-2010-0018-01 (Discharger only)

cc: David Smith, U.S. EPA, Region IX, San Francisco
Phil Isorena, State Water Resources Control Board, Sacramento

ENCLOSURE A – ADMINISTRATIVE INFORMATION

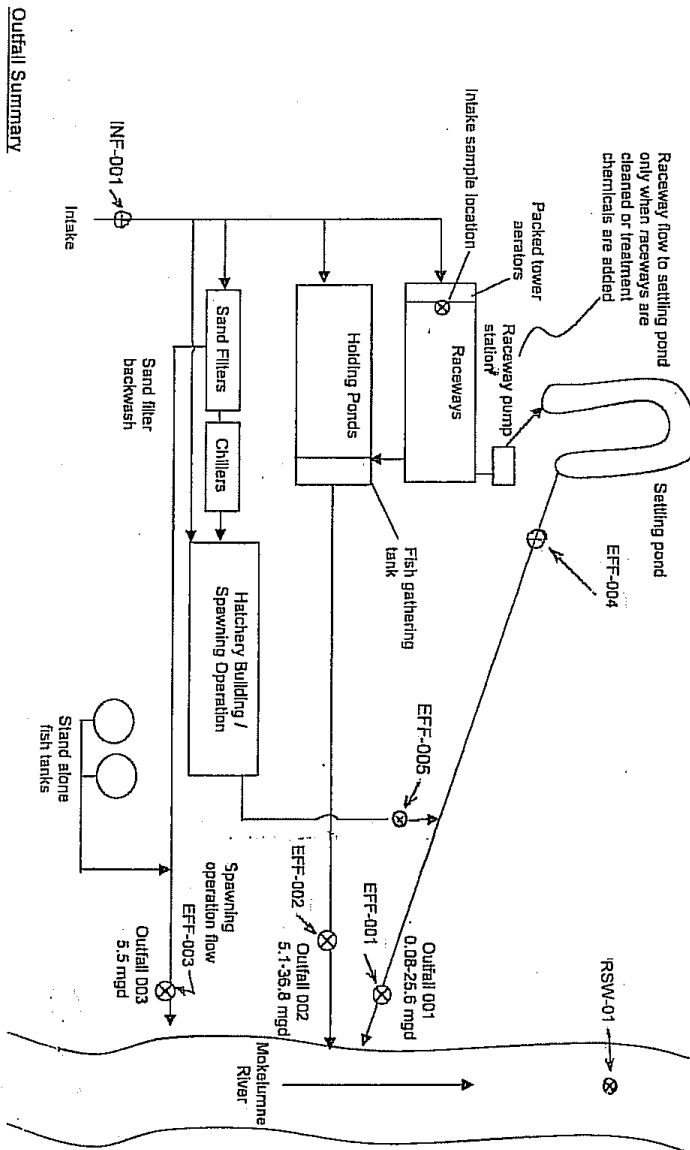
Name of Facility	Mokelumne River Fish Hatchery
Type of Facility	Cold Water Concentrated Aquatic Animal Production Facility, SIC Code 0921
WDID	5B390800001
General Order NOA Enrollee Number	R5-2010-0018-017
Discharger	California Department of Fish and Game and East Bay Municipal Utility District
Facility Address	25800 N. McIntire Road Clements, CA 95227
Land Owner (Address)	East Bay Municipal Utility District 375 Eleventh St. Oakland, CA 94607 (Contact Person: Jose Setka) (209-365-1467)
Facility Contact, Title and Phone	William Smith (Fish Hatchery Manager II) 209-759-3383
Authorized Person to Sign and Submit Reports	Laird Marshall Jr., American River Fish Manager II, Acting Senior Hatchery Supervisor
Mailing Address	P.O. Box 158 Clements, CA 95227
Billing Address	1 Winemaster Way, Suite 'K'. Lodi, CA 95240
Total Weight Produced (Annual)	175,000 lbs (chinook salmon and steelhead trout)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Facility Permitted Flow	46 million gallons per day (mgd)
Watershed	San Joaquin River Basin
Receiving Water	Mokelumne River
Receiving Water Type	Inland surface water

ENCLOSURE B – LOCATION MAP



ENCLOSURE C – FLOW SCHEMATIC

FACILITY FLOW DIAGRAM
 California Department of Fish and Game and East Bay Municipal Utilities District
 Mokelumne River Fish Hatchery
 San Joaquin County, California



- Outfall Summary**
- 001 - Water used for egg hatching, incubation, fish troughs and the spawning operation (hatchery building wastewaters); settling pond overflow.
 - 002 - Raceway and holding pond/gathering tank flow.
 - 003 - Sand filter back wash and separate fish tank discharge
 - ⊗ - required monitoring location
- Note:** Effluent flows are estimated, as reported on DMRS