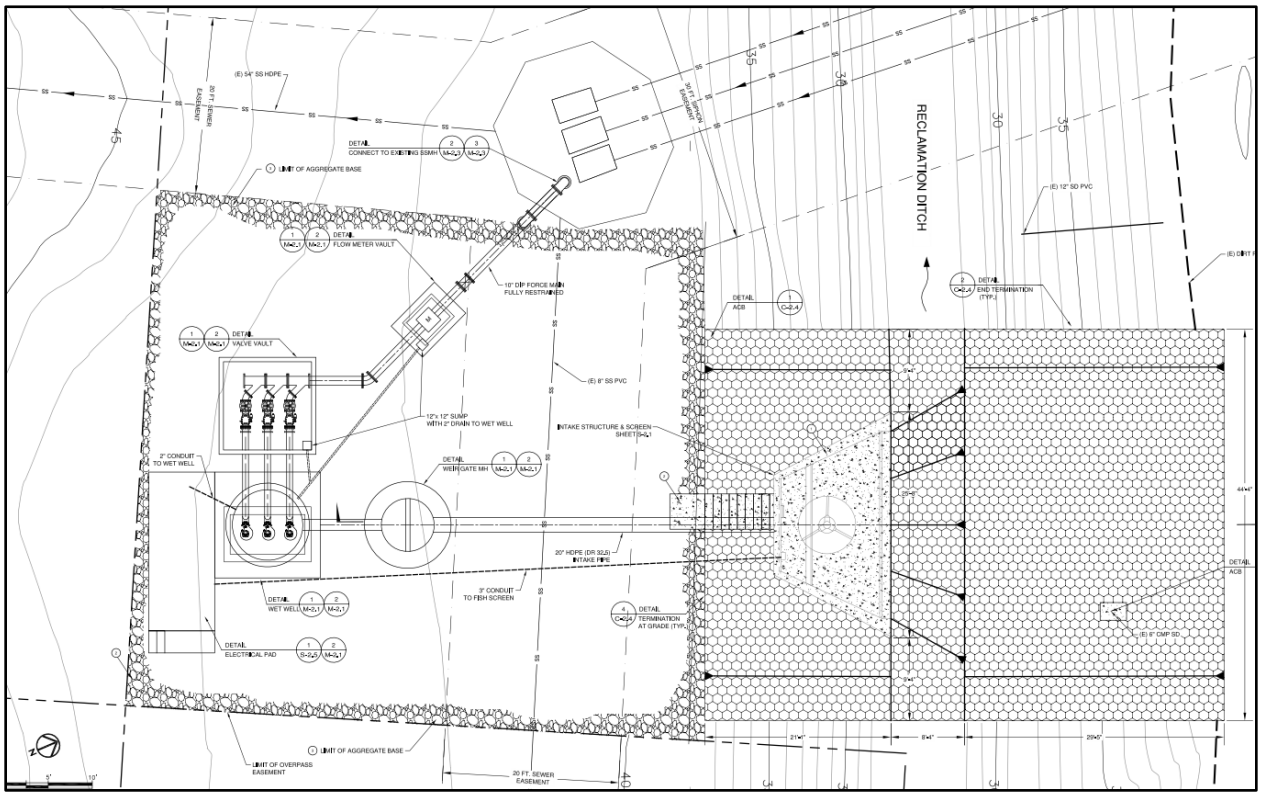
Compliance Plan
for the
Reclamation Ditch Diversion Water Right Permit 21377
of the Monterey County Water Resources Agency

January 13, 2017

A COLLABORATE EFFORT OF:
Monterey County Water Resources Agency
Monterey Regional Water Pollution Control Agency
Monterey Peninsula Water Management District

WITH ASSISTANCE BY:
Schaaf & Wheeler Consulting Engineers, E2 Consulting Engineers, and Denise Duffy & Associates, Inc.



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1.0 INTRODUCTION

This Compliance Plan (Plan) describes the diversion system, monitoring and maintenance actions and reporting necessary to comply with the terms and conditions applicable to the operation of the Reclamation Ditch Diversion as set forth in Application #32263B, Permit #21377, issued by the State Water Board.[1] The Plan has been prepared for diversion of surface flow from the Reclamation Ditch, located in Monterey County. The Water Rights are held by Monterey County Water Resources Agency (MCWRA). The Monterey Regional Water Pollution Control Agency (MRWPCA) will be the owner and operator of the diversion facility. Physical facilities proposed and permit requirements requiring detailed explanations of the means and methods of complying are included in Sections 2 and 3, respectively. The remaining permit terms requiring only acknowledgement or a brief description of compliance are addressed in **Appendix A**.

2.0 OVERVIEW OF DIVERSION SYSTEM

The Reclamation Ditch Diversion is part of the proposed Pure Water Monterey Groundwater Replenishment Project (Project), a water supply project that will serve northern Monterey County. The proposed project is jointly sponsored by the Monterey Peninsula Water Management District (MPWMD) and the Monterey Regional Water Pollution Control Agency (MRWPCA). The project will provide purified recycled water for recharge of the Seaside Groundwater Basin that serves as municipal water supply, and recycled water to augment the existing Castroville Seawater Intrusion Project agricultural irrigation supply. The water right holder will be the MCWRA, but the diversion pump station will be constructed and operated by the MRWPCA.

The proposed diversion system consists of a gravity intake structure constructed in the southern (left) bank of the Reclamation Ditch channel with a mechanically-cleaned fish screen, an off-channel weir gate and an off-channel pump station (see Figure 1 in **Appendix B**, and detailed plans in **Appendix C**). Water will flow through a course trash rack, then through the fish screen into a pipe to a weir-gate structure, over the weir and then through a second pipe into the pump wet well. The intake structure is depressed 12-inches below the channel invert. The minimum height of the weir will be equal to the channel invert elevation, so there will always be at least 12-inches of water at the screen. Water will be pumped from the wet well to the City of Salinas sanitary sewer system for conveyance to the MRWPCA's regional treatment plant to create recycled and advanced treated water. A flow meter will be installed on the pipeline between the pump station and the sanitary sewer.

The pump station will operate as a traditional sewer lift station, with three pumps in lead-lag-last rotation. Each pump is nominally sized for 2 cfs, with the combined flow of all three pumps the maximum allowable rate of 6 cfs. During periods of low flow, a single pump will cycle on and off as the wet well fills with water.

[1] A separate Compliance Plan has been prepared by MCWRA and MRWPCA for Water Right Permit 21376, Blanco Drain Diversion.

3.0 PERMIT COMPLIANCE ELEMENTS

Permit requirements requiring detailed explanations of the means and methods of complying are addressed below. The remaining permit terms are addressed in **Appendix A**.

Permit terms 1 to 4 state the source of the water right (Reclamation Ditch), the diversion location, the place of storage, the purpose of use and place of use.

3.1 Diversion season, rate and annual amount. (Permit terms 5 and 6)

As discussed in Section 2, above, the diversion pump station has a maximum capacity of 6 cfs with all three pumps running, which is the maximum rate is allowed under the permit. The station is expected to operate with only a single pump the majority of the time, with an average diversion rate of less than 2 cfs. If a year occurs where suitable flows are consistently available for diversion and there is a beneficial use for the diversion, the system operator will monitor the cumulative annual diversion daily and cease the diversion if 2,000 acre-feet of water has been diverted in a calendar year.

3.2 Diversion and Bypass Flow metering (Permit terms 11, 12, and 18)

The diversion is greater than 1,000 acre-feet per year, so it must be metered, using a device that has 10% accuracy or better, monitored no less frequently than hourly[2]. The proposed diversion system will include a magnetic flow meter on the pipeline connecting the pump station to the gravity sewer. This type of meter is recommended because it has no parts inside the pipe which might be damaged by sediments in the water, and is accurate to plus or minus 0.5% (see **Appendix C** for the information sheet for a typical ultrasonic meter). The meter will be capable of outputting the instantaneous flow rate, and totalizing the cumulative flow. The meter register will show the cumulative flow in cubic feet. The flow rate and cumulative flow will be transmitted via the Supervisory Control and Data Acquisition (SCADA) system to the system operator at the MRWPCA Regional Treatment Plant for real-time monitoring. Reporting of metered flows is addressed in Section 4.

To perform periodic verification of the meter accuracy, there are two methods available to the MRWPCA. The meter will be calibrated before installation, and field calibrated not less than once every five years.

- Method 1 is to install a calibrated clamp-on ultrasonic flow meter on the exposed portion of the pump station discharge pipeline. Depending on the instrument used, there may be room in the meter vault to install a device adjacent to the fixed meter. There is also an exposed segment of the pipeline where it joins the City of Salinas sanitary sewer system. The flow readings between the installed meter and the test meter can be compared to see if the installed meter still meets the accuracy requirement.
- Method 2 is to conduct a pump-down test in the wet well. To do this, the pumps must be turned off so that the wet well fills to a measured level. The weir gate must then be raised above the level of flow in the Reclamation Ditch to prevent additional flow from entering the wet well. The volume of water in the wet wells is estimated as the volume of the wet well plus the volume of

[2] Per 23CCR933

the feeder pipe plus the available volume in the weir manhole (equation below). One pump can then be run, and the volume pumped from the well calculated and compared to the meter reading.

$V = \pi(D_W^2/4)H + \pi(d^2/4)L + ½\ \pi(D_M^2/4)h$

Where:

V = Volume pumped
D_W = diameter of the wet well (nominally 8-ft)
H = depth of water in wet well
d = pipe diameter (nominally 15-in)
L = pipe length
D_M = diameter of the weir manhole (nominally 6-ft)
h = depth of water in the weir manhole

The meter vault as well as all access hatches will be locked. Regulatory agency staff wishing to inspect the equipment will need to coordinate access through the MRWPCA operations staff.

3.3 By-pass flows (Permit terms 10 and 12)

Water entering the pump station overflows the adjustable weir gate. To ensure minimum by-pass flows are maintained, the weir gate height will be raised or lowered, depending upon the season. The estimated weir height elevations are tabulated below based on the existing channel dimensions and the existing channel invert elevation of 26.8 feet[3] (see Figure 2, **Appendix B**). Channel slope was obtained from the latest FEMA Flood Insurance Study. The weir gate operating stem will extend to within 12-inches of the lid, so that the system operator can adjust the height without entering the weir manhole. Three weir level adjustments will be made each year, as indicated below.

By-pass target	Weir crest elevation	Setting effective date
1.0 cfs	26.97 ft	June 1
0.7 cfs	26.94 ft	July 1
2.0 cfs	27.06 ft	December 1 or when flow exceeds 30 cfs, whichever is later

By-pass flows are measured downstream at USGS stream gage number 11152650, Reclamation Ditch near Salinas, CA, located at San Jon Road. Real-time data for that station is available on-line at http://waterdata.usgs.gov/nwis/uv?site_no=11152650. Stream velocities at the target bypass rates range from 1.3 ft/s to 2 ft/s, so it will take 2 to 3 hours to see the results at the gage, which is 2.65 miles (14,000 feet) downstream. The initial calibration of by-pass weir height settings may take several days to complete, but once established, will only require periodic spot checking. At least once a week, the system operator will review the on-line data for the USGS gage. If minimum by-pass flows are not being achieved while the pump station is diverting, the weir height will be adjusted as needed. Operational decisions will be based on provisional mean daily and real-time USGS stream flow data. Such provisional

[3] All elevations use the North American Vertical Datum of 1988 (NAVD88).

USGS data used to make flow-related diversion decisions may not always coincide with final published USGS data. Therefore, MRWPCA will download the real-time provisional data at times of operational decisions and submit those upon request.

To protect passage opportunities for migratory fish, the pump station will shut off when flows in the Reclamation Ditch reach 30 cfs, and the station will not restart until the flows decline to 20 cfs. A level sensor (transducer) will be installed in the weir manhole on the channel side of the gate, where the water level is approximately equal to that in the channel. The control PLC will be programmed to shut off the pumps when the water level corresponds to a flow of 30 cfs in the channel (initially estimated to be at elevation 28.1 feet), and to allow them to restart when the water level corresponds to a flow of 20 cfs (estimated to be at elevation 27.85 feet). The system will operate similar to a well pump control switch with upper and lower tank elevation limits. Just as with the weir gate settings, the estimated elevations are based on the existing channel dimensions and invert (see Figure 3, **Appendix B**), and will require field calibration to match actual conditions. The initial calibration of the set points may be an iterative process, but once completed, the level settings should not require future adjustment.

If at some future date the USGS discontinues the maintenance and reporting of gaging station 11152650, the MCWRA and MRWPCA shall consult with the SWRCB, NMFS and CDFW to determine how to comply with the bypass metering requirement. MCWRA may be able to assume operation of the existing station, or a new metering station may be required at a different location.

The Agency will prepare graphs comparing the daily mean of water diverted at the point of diversion compared to the daily mean flow recorded at the USGS San Jon Gage, and submit them quarterly to the California Department of Fish and Wildlife and the National Marine Fisheries Service. See section 4.0, Reporting.

3.4 Fish screen (Permit term 17)

Fish screen criteria (listed below) were taken from the NMFS Publications: Fish Screening Criteria for Anadromous Salmonids and Juvenile Fish Screen Criteria for Pump Intakes.

Parameter	Fry Criteria (under 2.36")	Fingerling Criteria (2.36" or longer)
Mechanical Screen Approach velocity (max)	0.33 ft/s	0.8 ft/s
Passive Screen approach velocity (max)	0.2 ft/s	0.2 ft/s
Profile bar screen opening (maximum)	0.0689 in (1.75 mm)	0.25 in (6.35 mm)
Percent open area (minimum)	27%	40%

The fish screen was sized to meet the more stringent Fry criteria, although the proposed diversion location is within a migratory corridor and not a spawning and rearing habitat. Using the maximum diversion rate of 6 cfs, the required effective screen area is calculated as:

$$A = Q/(V) = 6 \text{ cfs} / (0.33 \text{ ft/s})$$

The proposed screen is Intake Screen Inc (ISI) model 78-21-35, a self-cleaning screen with a wedge wire mesh. It has a 50% open area (0.069 inch profile bars with 0.069 inch spaces), so the required surface

area is 18.2 sq-ft. The screen has a total area of 38.4 sq-ft when fully submerged, and 22.3- sq-ft at the minimum depth of 9-inches (the screen will have a 3-inch standoff from the deck). The Intake meets the effective screen area criteria across the full operating range.

In front of the self-cleaning screen is a coarse trash rack, with 3/8" bars at 3-inch spacing (openings of 2.625", or 87.5% open area). The spacing is intended to capture floating debris such as bottles and cups. The intake station frontage is 21-ft, so the maximum approach velocity at the trash rack at 1-ft of submergence is 0.29 ft/s, and the slot velocity is 0.33 ft/s. Small fish will be able to pass through the trash rack, and larger fish will be able to pass by without risking impingement. System operators will inspect the screen no less frequently than weekly, and remove any accumulated trash by hand or by raking.

Because the intake structure is set below the existing channel invert, sedimentation will occur over time, requiring occasional removal by mechanical means. This will typically occur during the winter months, because summer flows are too slow to carry suspended sediments. The system operators may use one of two methods for sediment removal. Both would occur during the spring or summer during low-water conditions.

- Option 1 is to bring in a sewer vacuum cleaning truck (like a huge shop vac on wheels) and suction out the accumulated sediments from the bottom of the intake structure. Depending upon the type of truck used, they may be able to route the suction hose through the hatch in the trash rack, or they may need to remove one of the top panels. The screen will be set 3" above the invert, so this should only be needed once or twice a year. The truck will discharge at the wastewater treatment plant.
- Option 2 is to manually shovel out the accumulated sediment by sending an operator down the ladder with a square-nose shovel and a bucket. The sediment removed this way could be spread behind the top of bank to dry out, in a location where it will no wash back into the channel. The front edge of the intake (in front of the trash rack) should be cleaned at the time the station sediments are removed. Pressure washing or jetting out the sediment will not be allowed.

If the sediments are removed from the intake structure (concrete deck) on a regular schedule, the sediment accumulation in the main channel should not reach the point where it requires cleaning. However, there is the potential for sediments in the channel to build up and block portions of the trash rack, resulting in local velocities that exceed the screen criteria. The flow of water from the channel through the trash rack will be evaluated during weekly inspections, and sediments will be removed from the vicinity of the fish screen as often as is needed to prevent it from becoming a significant fish passage issue. NMFS has approved the above-described design and operation and maintenance of the intake structure and fish screening (Memorandum SUBJECT: NMFS' Environmental Services Branch Acceptance of and Comments on Monterey Regional Water Pollution Control Agency's Final Design Plans for the Pure Water Monterey Reclamation Ditch Diversion Facility, from David White to Bill Stevens and Joel Casagrande, dated November 3, 2016).

3.5 Groundwater Injection and Recovery Metering. (Permit term 14)

Injection of advanced-treated water into the Seaside Groundwater Basin will be metered at the wellhead. The meter may be ultrasonic, magnetic or turbine type, with an accuracy of plus or minus 2% or better. The deep injection wells will be periodically back-flushed to maintain injection capacity. Water pumped from the wells during the backflush cycle will be metered, and this water will be percolated into the vadose zone of the Seaside Groundwater Basin. Water placed into storage will be reported as described in Section 4. Water is also injected into the Seaside Groundwater Basin through the existing aquifer storage and recovery project (ASR), which is also metered at the wellheads.

California American Water Company is currently required to meter all extraction of water from the Seaside Groundwater Basin. Annual extraction reports are submitted to the Seaside Water Master and the Monterey Peninsula Water Management District. To comply with this permit condition, Monterey Peninsula Water Management District, Cal-Am and the Seaside Water Master will produce a quarterly report of the amount of water taken from storage on a monthly basis (i.e., extracted from the Seaside Groundwater Basin), and estimating the portion of which is considered to be native groundwater, ASR, or Pure Water Monterey Project.

3.6 Mitigation Monitoring and Reporting Plan (Permit term 19)

The MRWPCA adopted an MMRP for the Pure Water Monterey Project on October 8, 2015, and the SWRCB adopted an MMRP specifically for the water right diversions (Table 1 of Permit 21377). The MMRPs for the project require:

- Construction to occur during the low-flow season of June through November, which will be placed in the construction contract documents as a restriction (MM-01 of Table 1, BF-1a of MRWPCA's MMRP)
- Pre-construction biological surveys and periodic biological monitoring during and after construction, which will be performed by the project biologist prior to construction mobilization (see MM-02 through MM-08 of Table 1 and BF-1b, BF-1c, BT-1a, BT-1b, BT-1p, BT-1q, BT-2c of MRWPCA's MMRP)
- Design of dewatering and bypass pumping systems to prevent the intake of animals (5 mm mesh screens on all pumps and suction lines), which will be placed in the construction contract documents as a requirement (MM-09 of Table 1, BF-1 of MRWPCA's MMRP)
- Turbidity monitoring of bypassed flows, which will be placed in the construction contract documents as a requirement (see BF-1c of MRWPCA's MMRP)[4]
- Avoidance of rapid imposed water level fluctuations in the channel. The diversion is designed with a gravity inflow from the channel over a weir, so the effects of the pumps starting and stopping will not typically affect the water level in the channel, only within the wet well. The one instance where drawdown may be induced is restarting the pump station after a rain event, when the in-stream flow rose above 30 cfs and then declined to 20 cfs. Diverting at 6 cfs will

[4] This requirement will also be imposed upon the Reclamation Ditch diversion construction project within the Clean Water Act Section 401 Water Quality Certification (Jeff Wetzel, personal communication, January 10, 2016).

reduce the in-stream flow to 14 cfs, and will lower the water surface by approximately 2.5 inches. This change will occur over several minutes. (MM-11 of Table 1, HS-4 of MRWPCA's MMRP)

- Minimize disturbance to Prime Farmland and Farmland of Statewide Importance. The diversion pump station and construction area are within the existing MCWRA-owned right-of-way for the Reclamation Ditch and the adjacent railroad right-of-way. The only activity affecting the adjacent farmland is the use of the existing unpaved access road. (see LU-1 of MRWPCA's MMRP)

3.7 Sewer System Shut-off (City of Salinas Requirement)

The maximum diversion rate of 6 cfs is based upon available conveyance capacity in the City of Salinas sanitary sewer system under peak dry weather flow conditions[5]. The station will include a float switch in the receiving manhole which will shut off the diversion pumping if the sanitary sewer manhole starts to surcharge. The switch will be set at 54-inches above the manhole invert, which is the crown of the gravity sewer pipe.

The receiving sewer is the Davis Road Trunk Sewer, which flows by gravity past the project site and terminates at the MRWPCA Salinas Pump Station, which then pumps the flow to the Regional Treatment Plant. The Salinas Pump Station is monitored and controlled by the MRWPCA through their SCADA system. If the operational staff needs to reduce inflows to the Salinas Pump Station for maintenance or to address peak wet weather flows, they can turn off the Reclamation Ditch diversion remotely through the SCADA system.

3.8 Water Quality Monitoring

Long-term water quality monitoring is not included as a specific permit term, but source water monitoring will be required for other permits and monitoring of the Reclamation Ditch is conducted as a condition of the City of Salinas Municipal NPDES permit. The diversion structure includes fixed stairs to the inlet headwall for the purpose of cleaning the intake screen and removing trash from the bar rack. These stairs may also be used by City Staff to collect grab samples of water from the channel.

The MRWPCA will install an automated water sampler at the diversion pump station, which will collect water from the pump wet well. Water samples will be tested as source water for other permits. The constituents to be included in the monitoring program will be identified during the detailed design and permitting of that facility.

4.0 REPORTING

The MRWPCA/MCWRA will submit annual diversion reports to the State Water Resources Control Board (SWRCB) documenting the monthly volumes of water diverted from the Reclamation Ditch, using the appropriate forms or the eWRIMS reporting system. The standard reporting form uses monthly totals. A supplemental report form with daily data will be attached electronically to the report (see **Appendix D**). If required, hourly pumping data can be captured from the SCADA system and submitted as well.

[5] Reclamation Ditch Yield Study, page 9

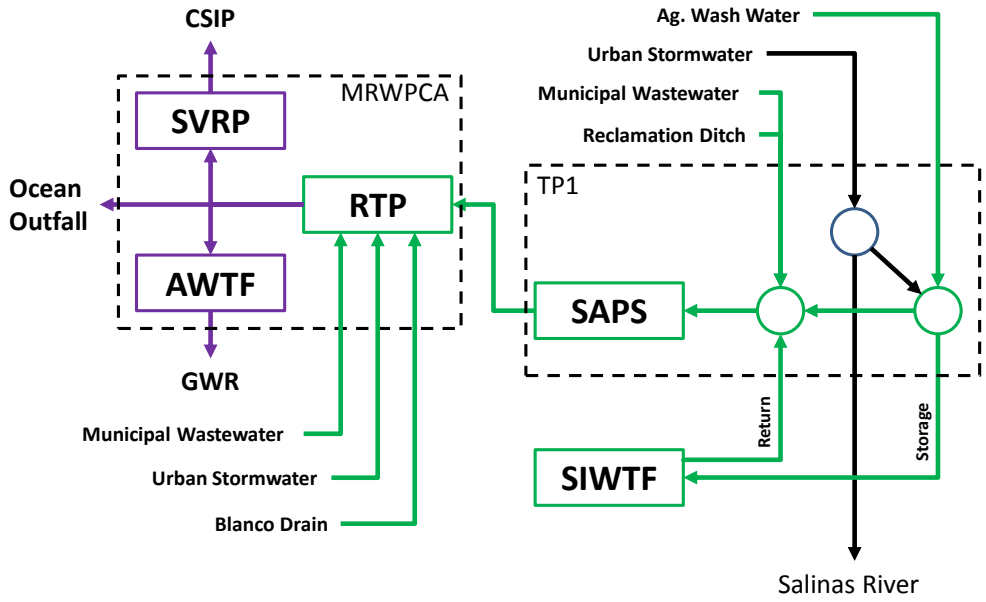
By-passed flows will be verified using the provisional USGS stream gage records for Station 11152650. The mean daily flow at that station and the required by-pass flow target will be included in the supplemental report. On days when the gaged flow is below the minimum by-pass flow (0.7, 1.0 or 2.0 cfs) or above the fish passage condition flow (30 cfs), the pump station should not operate. The annual report will address any variances, including days where the station operated for only a portion of the day in response to rising or declining flows. The report will also verify that the station did not restart after a fish passage event until the in-stream flow declined to 20 cfs (by providing extracts of the hourly SCADA log of pump operation, level sensor readings and an extract from the available USGS gage data).

The supplemental report will include an estimation of how the water diverted from the Reclamation Ditch was put to beneficial use. Water diverted from the Reclamation Ditch will blend with other source waters and undergo primary and secondary wastewater treatment at the MRWPCA regional treatment plant (see **Figure 4**). The secondary-treated water is then directed to one of three possible locations: the Salinas Valley Reclamation Plant (SVRP), where it undergoes tertiary treatment and disinfection for agricultural use in the Castroville Seawater Intrusion project (CSIP); the Advanced Water Treatment (or Purification) Facility, where it undergoes advanced treatment for indirect potable reuse through groundwater replenishment; or to the Ocean Outfall for disposal under the system NPDES permit. Water will not be diverted from the Reclamation Ditch on days when there is little or no irrigation demand and secondary treated wastewater is being discharged through the ocean outfall. In the supplemental report, the monthly diversion volume will be prorated among the end uses.

The agency will also prepare graphs comparing the daily mean of water diverted at the point of diversion compared to the daily mean flow recorded at the USGS San Jon Gage, and submit them quarterly to the California Department of Fish and Wildlife and the National Marine Fisheries Service. An example is provided in **Appendix D**.

As discussed in section 3.5, groundwater usage reports will be prepared and submitted as a supplement to the annual eWRIMS reporting. The report will include total groundwater pumped by California American Water Company from the Adjudicated Seaside Groundwater Basin, and an estimation of the portion of that supply originating as native groundwater, Pure Water Monterey (indirect potable reuse), and aquifer storage and recovery of Carmel River water. Reporting will be on a quarterly basis and will include daily volumes pumped by CalAm from the Seaside Groundwater Basin. Additional data resolution can be provided, if necessary (i.e., total pumping by well). Sample report formats that include frequency of data collection and reporting are provided in **Appendix D**.

Figure 4: Pure Water Monterey Schematic (partial)[6]



The following reports are envisioned to be required for compliance with the terms of this water right permit:

Report Name (data reported)	Data collection interval	Data reporting interval	Term #s	Report frequency; agency to submit
Diversion and Bypass Activity Report	SCADA collection of hourly data	Mean daily flows and monthly totals	10, 12, 18	Annual to SWRCB
Diverted and Bypass Flows Graph	SCADA collection of hourly diversion data. Monthly download of USGS stream gage data.	Mean daily flows diverted and bypassed	11	Quarterly to NMFS and CDFW
Seaside Groundwater Basin Underground Storage Report	SCADA collection of daily data by well	Monthly volumes into and out of basin by source / water right	14	Quarterly to SWRCB

[6] RTP is the Regional Treatment Plant; SAPS is the Salinas Pump Station; SIWTF is the Salinas Industrial Wastewater Treatment Facility; TP1 is Treatment Plant 1 (former City of Salinas municipal wastewater treatment plant); AWTF is Advanced Water Treatment/Purification Facility; GWR is groundwater replenishment for indirect potable reuse by California American Water Company customers (i.e., from the Pure Water Monterey Project).

References:

Federal Emergency Management Agency, Flood Insurance Study Number 06053CV001A, Monterey County, CA, and Incorporated Areas, effective April 2, 2009

Hagar Environmental Services, Pure Water Monterey Groundwater Replenishment Project – Reclamation Ditch and Tembladero Slough Source Water Diversion Fisheries Effects Analysis, February 2015

Monterey County Water Resources Agency, Water Right Application A32263B

National Marine Fisheries Service, Southwest Region

Fish Screening Criteria for Anadromous Salmonids, January 1997

Juvenile Fish Screen Criteria for Pump Intakes, May 1996

Schaaf & Wheeler, Consulting Civil Engineers, Reclamation Ditch Yield Study, March 2015

U.S. Geologic Survey, Stream Gage Station Records, Station 11152650 RECLAMATION DITCH NR SALINAS CA

Appendix A

Compliance Overview of Terms from Water Right Permit 21377

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Table 1: Permit Term Compliance – Reclamation Ditch Diversion Water Right Permit 21377

<table>
<tr><th>No.</th><th>Provision ID</th><th>Provision</th><th>Compliance Method</th></tr>
<tr><td>1</td><td>--</td><td>Source of Water: (1) Reclamation Ditch tributary to: Tembladero Slough thence Old Salinas River thence the Pacific Ocean within the County of Monterey.</td><td>MCWRA acknowledges this provision.</td></tr>
<tr><td>2</td><td>--</td><td>Location of point of diversion
<table>
<tr><td>By California Coordinate System of 1983 in Zone 4</td><td>40-acre subdivision of public land survey or projection thereof</td><td>Section (Projected)*</td><td>Township</td><td>Range</td><td>Base and Meridian</td></tr>
<tr><td><u>Reclamation Ditch</u>
(1) North 2,143,788 feet and East 5,777,677 feet</td><td>SE ¼ of NW ¼</td><td>30</td><td>14S</td><td>3E</td><td>MD</td></tr>
</table>
Location of place of storage
<table>
<tr><td>By California Coordinate System of 1983 in Zone 4</td><td>40-acre subdivision of public land survey or projection thereof</td><td>Section (Projected)*</td><td>Township</td><td>Range</td><td>Base and Meridian</td></tr>
<tr><td>Adjudicated Seaside Groundwater Basin</td><td colspan="5">Within the Adjudicated Seaside Groundwater Basin boundary being within Townships 15S and 16S; Ranges 1E and 2E; all within MDB&M as shown on map.</td></tr>
</table></td><td>MCWRA acknowledges this provision</td></tr>
<tr><td>3/4</td><td>--</td><td>
<table>
<tr><td rowspan="2">3. Purpose of use</td><td colspan="6">4. Place of use</td></tr>
<tr><td>40-acre subdivision of public land survey or projection thereof</td><td>Section (Projected)*</td><td>Township</td><td>Range</td><td>Base and Meridian</td><td>Acres</td></tr>
<tr><td>Irrigation</td><td colspan="6">Within the Castroville Seawater Intrusion Project, a gross 12,043 acres of Zone 2B (Salinas Valley) of the Monterey County Water Resources Agency service area boundary within Townships 14S and 13S; Ranges 1E, 2E, and 3E; all within MDB&M as shown on map.</td></tr>
<tr><td>Municipal</td><td colspan="6">Within a gross 33,703 acres of the California-American Water Company, Monterey Division service area boundary being within Townships 15S, 16S, and 17S; Ranges 1E, 2E, and 1W; all within MDB&M as shown on map.</td></tr>
</table></td><td>MCWRA acknowledges this provision and the project is designed to achieve the purposes and places of use.</td></tr>
<tr><td>5</td><td>0000005E</td><td>The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 6 cubic feet per second by direct diversion to be diverted and 3,000 acre-feet per year by storage to be collected from January 1 to December 31 of each year. The total amount of water to be taken from the source (direct diversion plus collection to storage) for all uses shall not exceed 3,000 acre-feet per year.</td><td>MCWRA acknowledges this provision and has designed the pump station to be operated such that its capacity is limited to the maximum diversion rate.</td></tr>
<tr><td>6</td><td>0000005J</td><td>The maximum rate of diversion from Blanco Drain shall not exceed 6 cubic feet per second.</td><td>MCWRA acknowledges this provision</td></tr>
<tr><td>7</td><td>0000009</td><td>Construction work and complete application of the water to the authorized use shall be prosecuted with reasonable diligence and completed by December 31, 2048.</td><td>MRWPCA intends to construct the diversion in 2018, and begin diverting not later than 2019. Full use of authorized diversion will be dependent upon available flows and need for the water.</td></tr>
</table>

No.	Provision ID	Provision	Compliance Method
8	0000021C	Based on the information in the Division's files, water has not been used under a claimed existing right on the place of use. If right holder exercises a claimed existing right on the place of use authorized by this right without prior approval from the State Water Board, right holder shall forfeit this water right.	MCWRA acknowledges this provision.
9	0000030	If the as-built conditions of the project are not correctly represented by the map(s) prepared to accompany the application, right holder shall, at their own expense, have the subject map(s) updated or replaced with equivalent as-built map(s). Said revision(s) or new map(s) shall be prepared by a civil engineer or land surveyor registered or licensed in the State of California and shall meet the requirements prescribed in California Code of Regulations, title 23, sections 715 and 717 et seq. Said revision(s) or map(s) shall be submitted for approval by the Deputy Director for Water Rights.	MCWRA will submit corrected maps if needed.
10	0140060	No water shall be diverted under this right unless the flow in Reclamation Ditch at the Point of Compliance located at USGS San Jon Gage (Gage Number 11152650) meets the following conditions: a. If at any point during the year the flow is at or above an instantaneous rate of 30 cubic feet per second, no water shall be diverted until the flow subsides below an instantaneous rate of 20 cubic feet per second. b. From December 1 of each year to February 28 of the succeeding year: 1) If an instantaneous rate of 30 cubic feet per second has occurred since July 1, no water shall be diverted except flows above 2 cubic feet per second. 2) If an instantaneous flow rate of 30 cubic feet per second has not occurred since July 1, no water shall be diverted except flows above 0.7 cubic foot per second. c. From March 1 to May 31 of each year, no water shall be diverted unless the flow is above 2 cubic feet per second. d. From June 1 to June 30 of each year, no water shall be diverted unless the flow is above 1 cubic foot per second. e. From July 1 to November 30 of each year, no water shall be diverted unless the flow is above 0.7 cubic foot per second. The instantaneous flow rate shall be based on provisional mean daily and real-time USGS stream flow data. Such provisional USGS data used to make flow-related diversion decisions may not always coincide with final published USGS data. In the event that the USGS San Jon Gage (Gage Number 11152650) is no longer available for streamflow measurements, right holder shall within 15 days submit a plan, satisfactory to the Deputy Director for Water Rights, to install an equivalent monitoring device as near as practicable to the location of the current monitoring device.	Diversions will comply with this provision as detailed previously in this compliance plan.
11	0270300	Right holder shall submit a graph to the California Department of Fish and Wildlife and the National Marine Fisheries Service comparing the daily mean of water diverted at the point of diversion compared to the daily mean flow recorded at the USGS San Jon Gage (Gage No. 11152650) every three months by the 15th day of the following calendar month after each three-month period.	Reports will be prepared and submitted as discussed earlier in this compliance plan.

No.	Provision ID	Provision	Compliance Method
12	0060062D	No water shall be diverted under this right unless right holder is recording the bypass flow required by this right. This recording shall be conducted using devices, satisfactory to the Deputy Director for Water Rights. The devices shall be capable of recording the rate of water bypassed on an hourly basis and shall be properly maintained. Right holder shall provide the Division of Water Rights with evidence that the devices have been installed with the first annual report submitted after device installation. Right holder shall provide the Division of Water Rights with evidence that substantiates that the devices are functioning properly every five years after device installation as an enclosure to the current annual report or whenever requested by the Division of Water Rights. Evidence required by this condition shall include current photographs of the system in place and a statement, signed by the right holder, certifying that the system is still operating as designed. Right holder shall maintain a record of all bypassed flow under this right that includes the date, time, and the rate of bypassed flow. The records shall be submitted with the annual report or whenever requested by the Division of Water Rights.	Bypassed flows will be measured, as discussed earlier in this compliance plan.
13	0290101	No water shall be used under this permit until permittee has filed a report of waste discharge with the California Regional Water Quality Control Board, Central Coast Region, pursuant to Water Code Section 13260, and the Regional Board or State Water Resources Control Board has prescribed waste discharge requirements or has indicated that waste discharge requirements are not required. Thereafter, water may be diverted only during such times as all requirements prescribed by the Regional Board or State Board are being met.	MRWPCA has applied for a permit to operate a new Advanced Water Treatment (Purification) Facility, conveyance system, and injection wells to replenish groundwater with recycled water. This Waste Discharge Requirements (WDR) and Water Recycling Requirements (WRR) permit is scheduled to be considered by the Regional Board at their March 2017 meeting. In addition, MRWPCA maintains an NPDES / WDR permit for the regional treatment plant to permit effluent discharge through their ocean outfall. This permit will be updated when the final design for the Advanced Water Treatment Facility is complete and prior to commencing operation of the AWTF. Other WDRs that may be required include General WDRs for construction activities (low threat discharges, such as for trench dewatering, and stormwater). The RWQCB has indicated that no other WDRs would be necessary (Packard, Harvey, personal communication, December 27, 2016).

Table 1: Permit Term Compliance – Reclamation Ditch Diversion Water Right 21377 (cont.)

No.	Provision ID	Provision	Compliance Method
14	0080117	No water shall be diverted to underground storage under this right unless right holder is monitoring and reporting said diversion of water and monitoring and reporting the quantity and locations of water placed into and withdrawn from underground storage and the locations of water placed to beneficial use. This monitoring shall be conducted using measurement devices or methods satisfactory to the Deputy Director for Water Rights and that meets the requirements of chapter 2.8 of division 3 of title 23 of the California Code of Regulations. The devices shall be capable of hourly monitoring of the rate and quantity of water diverted and capable of daily monitoring of the rate and quantity of water placed into storage and withdrawn from storage. All devices shall be properly maintained.	Water placed into and water recovered from underground storage will comply with this provision as detailed previously in this compliance plan
15	0000207	An erosion control/revegetation plan and implementation schedule, prepared by a licensed civil engineer, shall be submitted to and approved by the Deputy Director for Water Rights, prior to the construction of the point of diversion and associated infrastructure. Right holder shall furnish evidence which substantiates that the erosion control/revegetation plan has been implemented prior to diversion of water. Evidence includes photographs showing the project area slopes, vegetation and other erosion control measures in place.	The diversion design plans have been submitted to SWRCB – Division of Water Rights and include erosion control measures. Record drawings and photographs will be submitted once the construction is complete.
16	0000208	No debris, soil, silt, cement that has not set, oil, or other such foreign substance will be allowed to enter into or be placed where it may be washed by rainfall runoff into the waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.	Erosion and sediment controls are included in the diversion design plans. Mitigation and condition compliance will be field-verified.
17	0000213	No water shall be diverted under this right unless right holder is operating the water diversion facility with a fish screen satisfactory to the Deputy Director for Water Rights. The fish screen shall be designed and maintained in accordance with the screening criteria of the National Marine Fisheries Service and California Department of Fish and Wildlife. Right holder shall provide evidence that demonstrates that the fish screen is in good condition with the annual report and whenever requested by the Division of Water Rights.	A NMFS-approved fish screen is included in the diversion design as detailed previously in this compliance plan.
18	000000R	No water shall be directly diverted under this right unless right holder is measuring and reporting said diversion of water. Measurement shall be completed using devices and methods satisfactory to the Deputy Director for Water Rights. The devices shall be capable of measurement of the rate of direct diversion and quantity of water directly diverted at time intervals of one hour or less and shall be properly maintained. In addition to the requirements of this term, right holder shall also comply with the requirements of data recording as prescribed in Section 933, chapter 2.8 of division 3 of title 23 of the California Code of Regulations.	MRWPCA shall install meters at each diversion to measure the amount of water diverted. Meter readings shall be recorded electronically using the Supervisory Control and Data Acquisition (SCADA) system. Initial meter installation and calibration data will be submitted with the record (as-built) drawings to the Division of Water Rights. Meters will be inspected and calibrated no less than every five years. Diversion records will be submitted electronically, in a format to be determined by the Division of Water Rights. The records to be submitted are provided in this Compliance Plan.

Table 1: Permit Term Compliance – Reclamation Ditch Diversion Water Right 21377 (cont.)

No.	Provision ID	Provision	Compliance Method
19	0400500	Right holder shall comply with the mitigation measures set forth in the Mitigation Monitoring and Reporting Plan (see Table 1) adopted by the State Water Board.	The mitigation and monitoring plan requirements have been included in the contract documents for the diversion structures, or the contract documents will be amended to include the provisions.
20	0300054	Any recycled water produced by the advanced treatment facility from this right and subsequently injected into the Adjudicated Seaside Groundwater Basin for extraction by the California-American Water Company to service existing uses within the California-American Water Company service area may only be extracted to offset the unlawful diversions of the California-American Water Company from the Carmel River, until such time as consent is given from the State Water Board's Executive Director to apply the water to new service connections or to increased use at existing service addresses resulting from a change in zoning or use.	The project was analyzed as an off-set of existing use in the Environmental Impact Report. Compliance with this term is addressed through monitoring and reporting requirements addressed earlier in this compliance plan.
21	0400600	The State Water Board reserves jurisdiction to modify the terms and conditions of this right, including rate of diversion limitations and minimum flow requirements, or related criteria for the protection of fish and wildlife should unforeseen adverse impacts occur to fish or wildlife, water quality, or other instream beneficial uses. Such action will be taken only after notice to right holder and interested parties for the opportunity for hearing.	MCWRA acknowledges this provision.
A	0000016	Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)	MCWRA acknowledges this provision.
B	0000017	Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.)	MCWRA acknowledges this provision.
C	0000018	Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.	MCWRA acknowledges this provision.
D	0000019	Once the time to develop beneficial use of water ends under this permit, right holder is not authorized to increase diversions beyond the maximum annual amount diverted or used during the authorized development schedule prior to submitting a time extension petition and obtaining approval of the State Water Board.	MCWRA acknowledges this provision.
E	0000006	The amount of water for consideration when issuing a license shall be limited to only the amount of water diverted and applied to beneficial use in compliance with the terms and conditions of this right, as determined by the State Water Board. (Wat. Code, § 1610.)	MCWRA acknowledges this provision.
F	0000015	Right holder shall maintain records of the amount of water diverted and used under this right to enable the State Water Board to determine the amount of water that has been applied to beneficial use.	MCWRA shall report the diverted volume of water and used as required in the previous terms.

No.	Provision ID	Provision	Compliance Method
G	0000010	Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and use under this right and documentation of compliance with the terms and conditions of this right.	MCWRA shall submit reports and data on the schedule established by the SWRCB. The primary means of submission shall be through the Electronic Water Rights Information System (eWRIMS).
H	0000070	No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.	MCWRA shall submit a compliance plan for approval prior to commencing diversion under this water right. The compliance plan to which this table is attached, as amended prior to approval by the SWRCB, will be used during operations to meet the requirements of this provision.
I	0000011	Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following: 1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right; 2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board; 3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and, 4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.	MRWPCA is obtaining easements for facilities and access from property owners and shall not begin construction until these easement agreements are complete. SWRCB personnel may use these access easements for inspection as needed.
J	0000022	This right shall not be construed as conferring right of access to any lands or facilities not owned by right holder.	MCWRA acknowledges this provision.
K	0000025	All rights are issued subject to available flows. Inasmuch as the source contains treated wastewater, imported water from another stream system, or return flow from other projects, there is no guarantee that such supply will continue.	MCWRA acknowledges this provision.
L	0000212	This right does not authorize diversion of water dedicated by other right holders under a senior right for purposes of preserving or enhancing wetlands, habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code, § 1707.) The Division of Water Rights maintains information about these dedications. It is right holders' responsibility to be aware of any dedications that may preclude diversion under this right.	MCWRA acknowledges this provision.

No.	Provision ID	Provision	Compliance Method
M	0000203	No water shall be diverted or used under this right, and no construction related to such diversion shall commence, unless right holder has obtained and is in compliance with all necessary permits or other approvals required by other agencies. If an amended right is issued, no new facilities shall be utilized, nor shall the amount of water diverted or used increase beyond the maximum amount diverted or used during the previously authorized development schedule, unless right holder has obtained and is in compliance with all necessary requirements, including but not limited to the permits and approvals listed in this term. Right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344); and (5) local grading permits. Right holder shall, within 30 days of issuance of any permits, approvals or waivers, transmit copies to the Division of Water Rights.	MRWPCA has submitted the following permit applications or has received the relevant permit: • USACE Clean Water Act (CWA) Section 404 permit • SWRCB CWA Section 401 permit • CDFW Streambed Alteration permit under Fish and Game Code Section1602 • RWQCB CWA Section 402 and CA Water Code permits [1] • National Historic Preservation Act Section 106 certification (complete) • Right-of-entry and facility easements The existing Regional Water Quality Control Board Waste Discharge Requirements for the MRWPCA treatment facilities will be updated following the final design of the Advanced Water Purification Facility. This water right does not include an impoundment requiring permitting by the Division of Safety of Dams. MRWPCA acknowledges the requirements to submit the issued permits or waivers to the Division of Water Rights.
N	0000029D	Urban water suppliers must comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.). An “urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. Agricultural water users and suppliers must comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.). Agricultural water users applying for a permit from the State Water Board are required to develop and implement water conservation plans in accordance with the Act. An “agricultural water supplier” means a supplier, either publicly or privately owned, supplying more than 50,000 acre-feet of water annually for agricultural purposes. An agricultural water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.	California American Water Company – Monterey Division prepares an Urban Water Management Plan every five years, as required by DWR. The most recent plan was submitted in 2016 (http://www.amwater.com/files/2015%20UWMP_Monterey%20District_Final.pdf). The Salinas Valley Reclamation Project and the Castroville Seawater Intrusion Project (joint projects of the MRWPCA and MCWRA) supply water for agricultural irrigation, but the total supplies is less than 50,000 acre-feet per year.

[1] See article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260) and section 402 of the CWA and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). MRWPCA and MCWRA currently possess permits in compliance with these requirements for their existing treatment and distribution facilities. MRWPCA’s WDR/WRR permit for groundwater replenishment with recycled water is being recommended by the staff for approval at the March 2017 RWQCB hearing.

No.	Provision ID	Provision	Compliance Method
O	0000012	Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this right, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water. The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this right with a view to eliminating waste of water and to meeting the reasonable water requirements of right holder without unreasonable draft on the source. Right holder may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this right and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation. The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by right holder in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution, article X, section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.	MCWRA acknowledges this provision. A public trust resource analysis has been prepared.
P	0000013	The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.	MCWRA acknowledges this provision.

No.	Provision ID	Provision	Compliance Method
Q	0000014	This right does not authorize any act which results in the taking of a candidate, threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) or the federal Endangered Species Act (16 U.S.C. § 1531 et seq.). If a "take" will result from any act authorized under this right, right holder shall obtain any required authorization for an incidental take prior to construction or operation of the project. Right holder shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this right.	A biological survey of the diversion site did not identify any candidate, threatened or endangered species and none are anticipated to be present during the construction period. An additional survey will be performed before construction begins. The Reclamation Ditch is designated critical habitat (migration corridor) for South-Central California Coast (S-CCC) steelhead. The diversion intake will be equipped with a fish screen meeting the requirements of the National Marine Fisheries Service. Construction will be limited to non-migratory periods when S-CCC steelhead are not present.

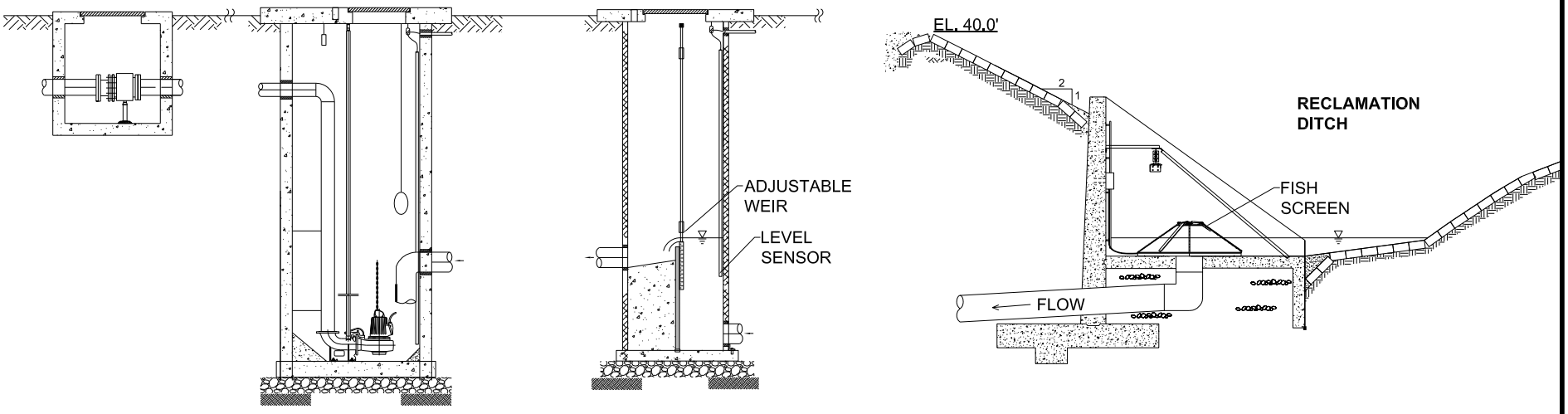
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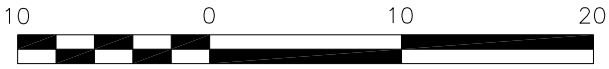
Appendix B

Figures

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Figure 1 - Reclamation Ditch Diversion Intake Profile





SCALE: 1 INCH = 10 FEET

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Figure 2: Reclamation Ditch at Davis Road
Estimated Depth vs Flow

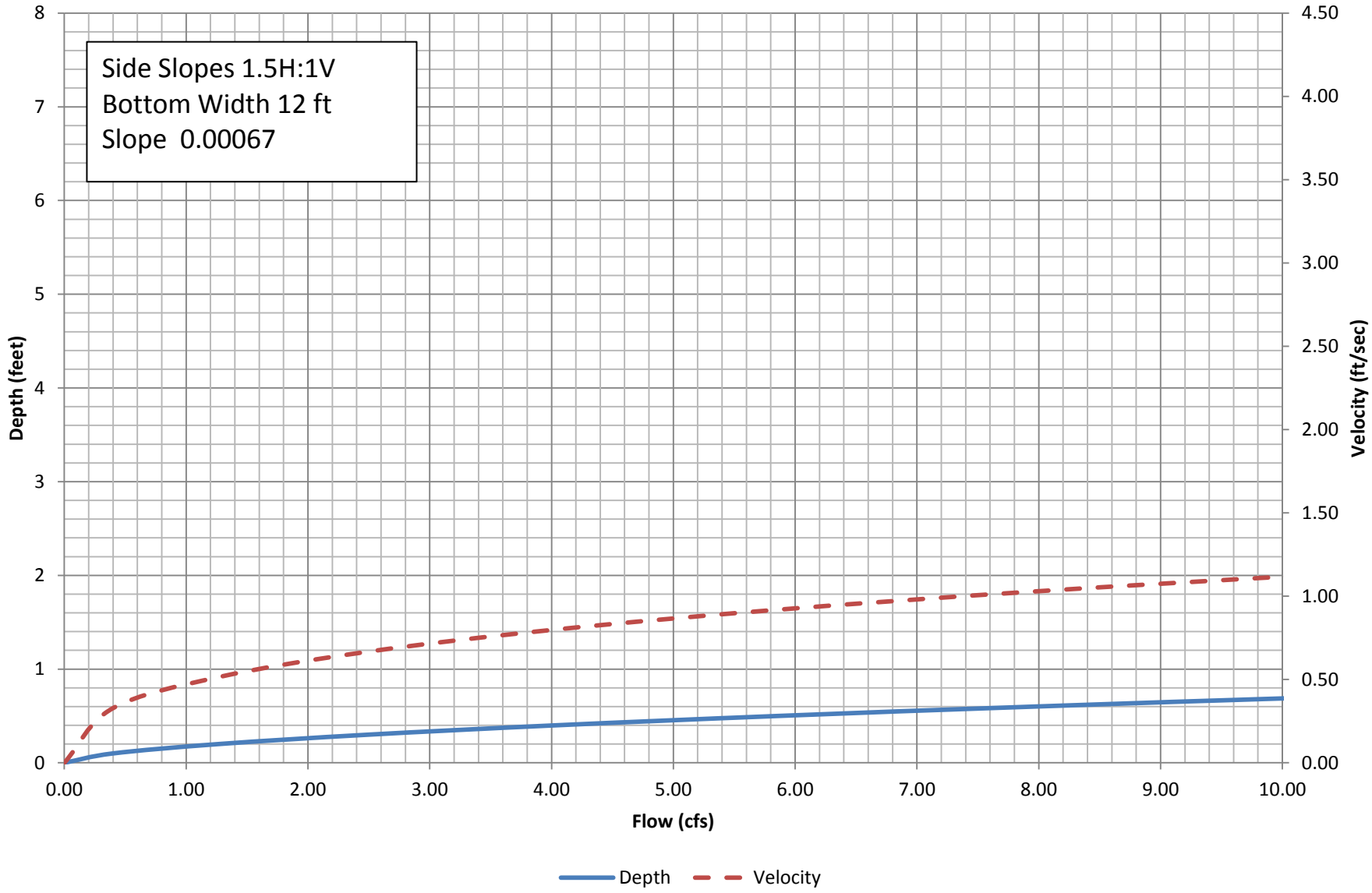
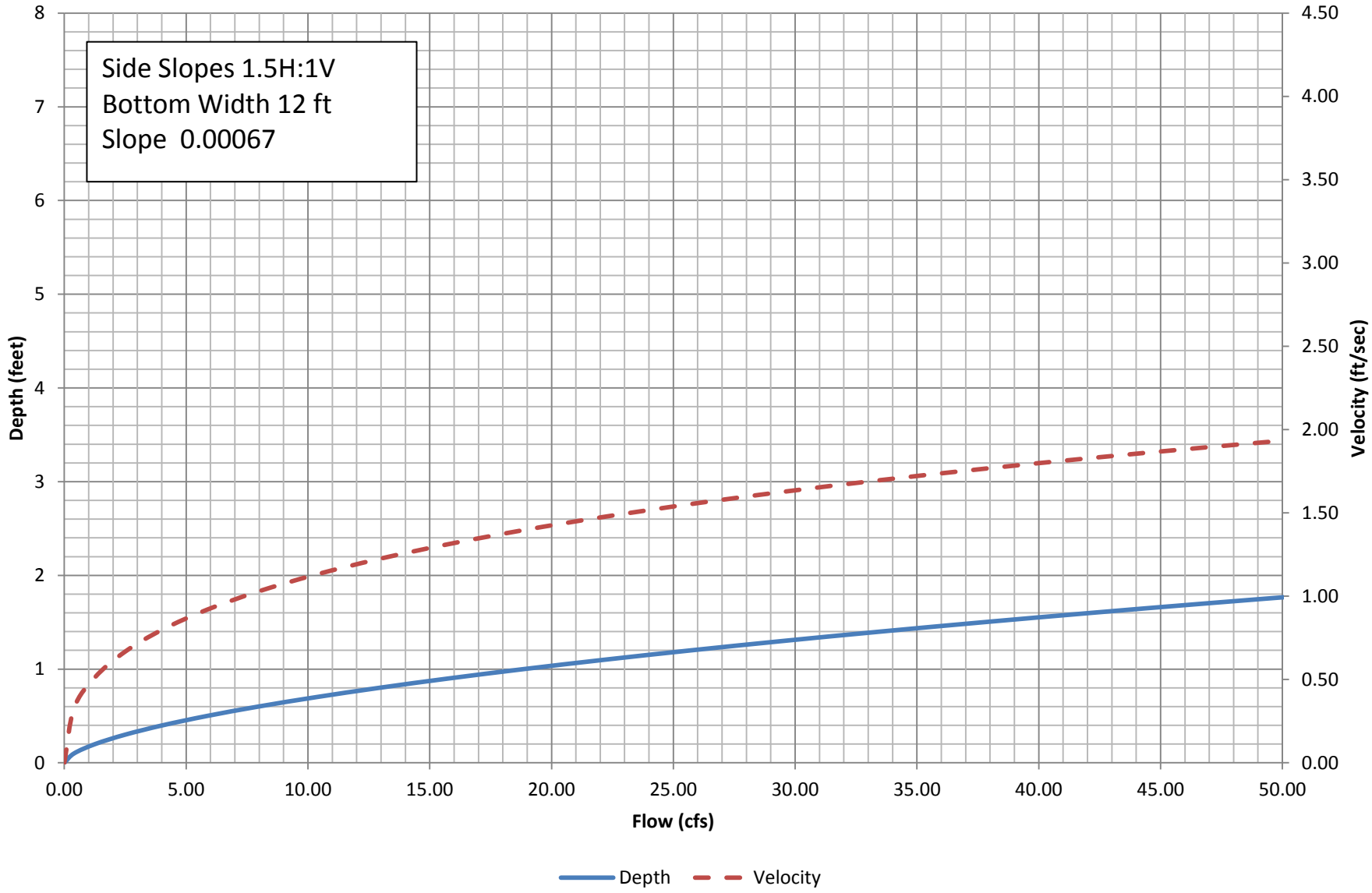


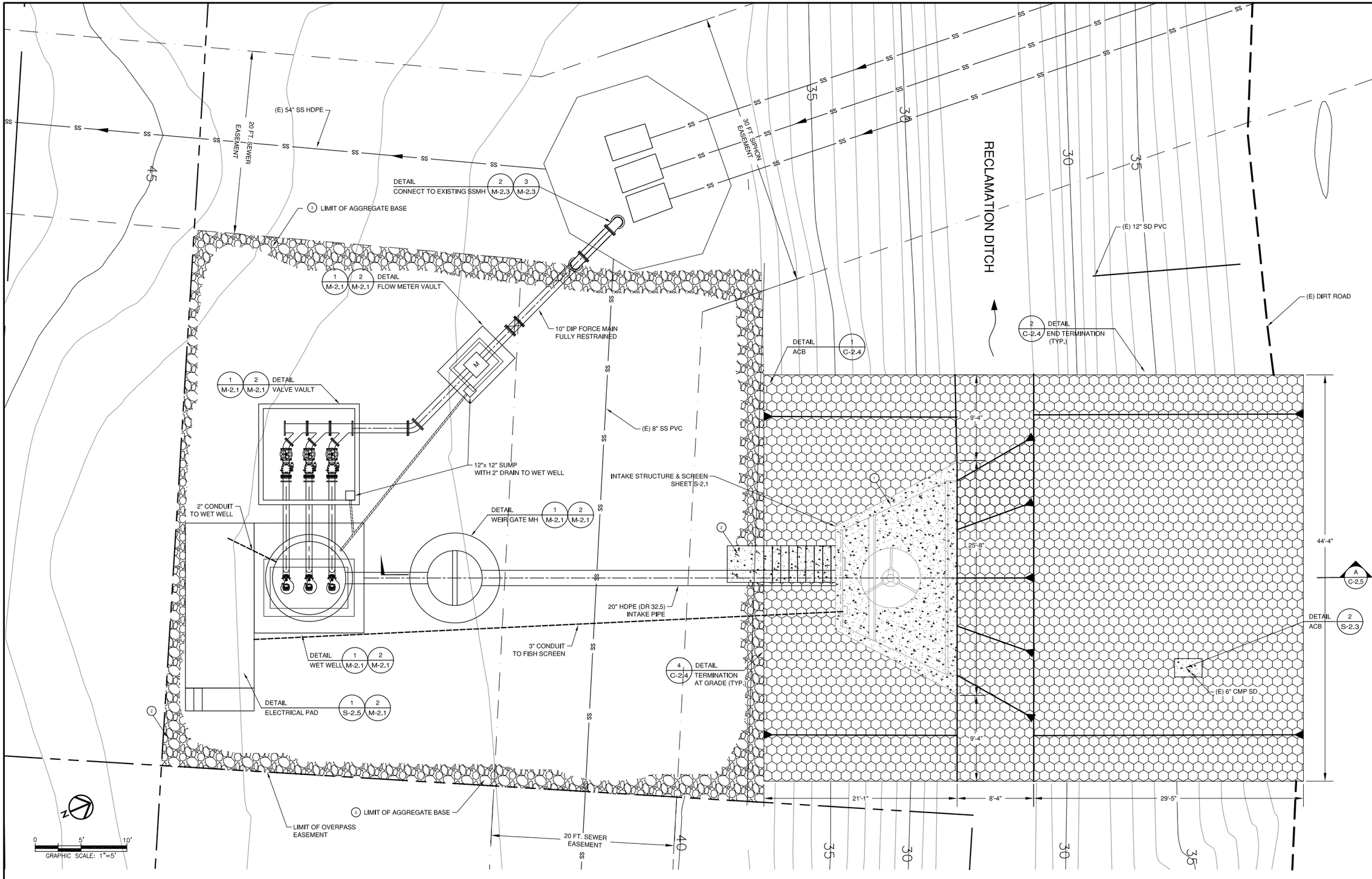
Figure 3: Reclamation Ditch at Davis Road
Estimated Depth vs Flow



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Appendix C.
Reclamation Ditch Construction Plans

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KEY NOTES

1. TRASH RACK NOT SOWN FOR CLARITY
2. STAIRS: 4-FT. WIDE: 11-IN RUN, 7.5" RISE. SEE DETAIL 7, S-0.3. TOP STEP DIMENSION (L: 4-FT W: 4-FT)
3. 8-INCHES CLASS 2 AGGREGATE BASE WITHIN LIMITS SHOWN

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0	10/24/16	Issued for Bidding	VMB

Job No. WW-MRW-2806
Designed by JCT
Drawn by JCT
Checked by AAS
Approved AAS

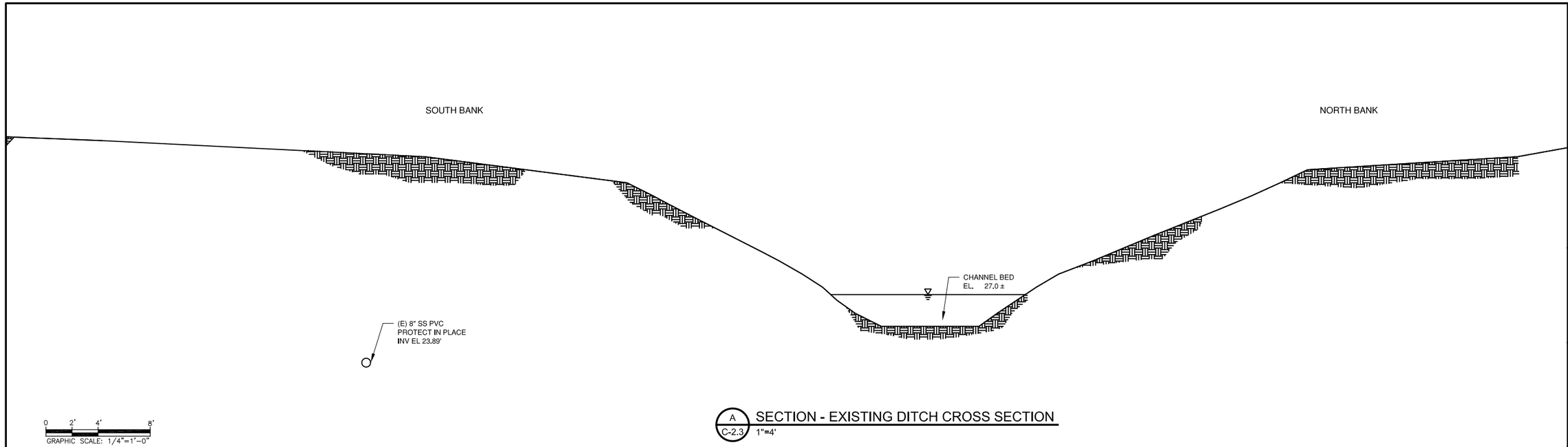
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(510) 652-1164 (831) 728-3232

MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

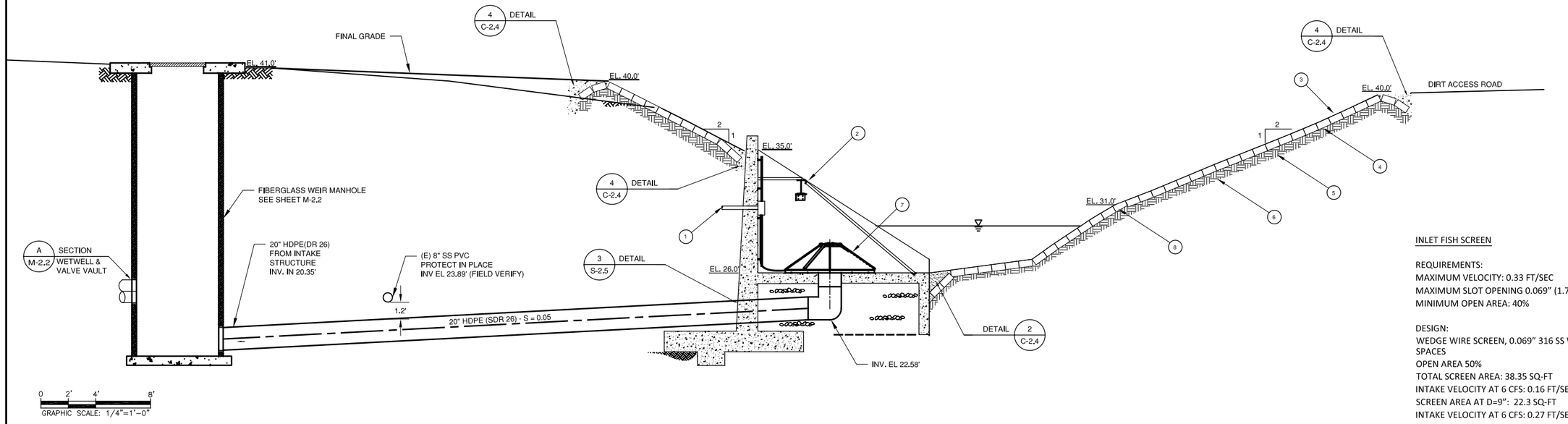
RECLAMATION DITCH PUMP STATION SITE PLAN

DRAWING NO.
C-2.3

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A / C-2.3 SECTION - EXISTING DITCH CROSS SECTION
1"=4'



B / C-2.3 SECTION - PROPOSED DITCH CROSS SECTION
1"=4'

NOTES

1. 3-IN CONDUIT CONTINUES TO SCREEN PANEL (NOT SHOWN), MIN 3-FT COVER
2. INTAKE STRUCTURE. SEE SHEET S-2.1
3. ARMORFLEX 30S BLOCK MAT, 34#/BLOCK, 11.6" X 13" X 4.75". SEE SHEET C-2.4
4. GEOTEXTILE LAYER, MIRAFI 600X FILTER FABRIC OR EQUAL
5. NATIVE SOIL SUBGRADE, MIN 90% COMPACTION PER ASTM D698
6. PLACE EXCESS SPOILS ON NORTH BANK TO REFILL EROSION CUTS PRIOR TO PLACING ACB MAT
7. STAINLESS STEEL FISH SCREEN, ISI MODEL C78-21-35 OR EQUAL. SET 3-IN ABOVE SLAB
8. FILL ACB VOIDS WITH CLASS 2 AB (¾" MAX.) BELOW ELEVATION 31.0 FEET

INLET FISH SCREEN

REQUIREMENTS:
MAXIMUM VELOCITY: 0.33 FT/SEC
MAXIMUM SLOT OPENING 0.069" (1.75 MM)
MINIMUM OPEN AREA: 40%

DESIGN:
WEDGE WIRE SCREEN, 0.069" 316 SS WIRES, 0.069" SPACES
OPEN AREA 50%
TOTAL SCREEN AREA: 38.35 SQ-FT
INTAKE VELOCITY AT 6 CFS: 0.16 FT/SEC
SCREEN AREA AT D=9": 22.3 SQ-FT
INTAKE VELOCITY AT 6 CFS: 0.27 FT/SEC

TRASH RACK

⅜" BARS AT 3-INCH ON CENTER
2.625-INCH SPACES
SLOT VELOCITY AT D = 12-INCHES: 0.33 FPS

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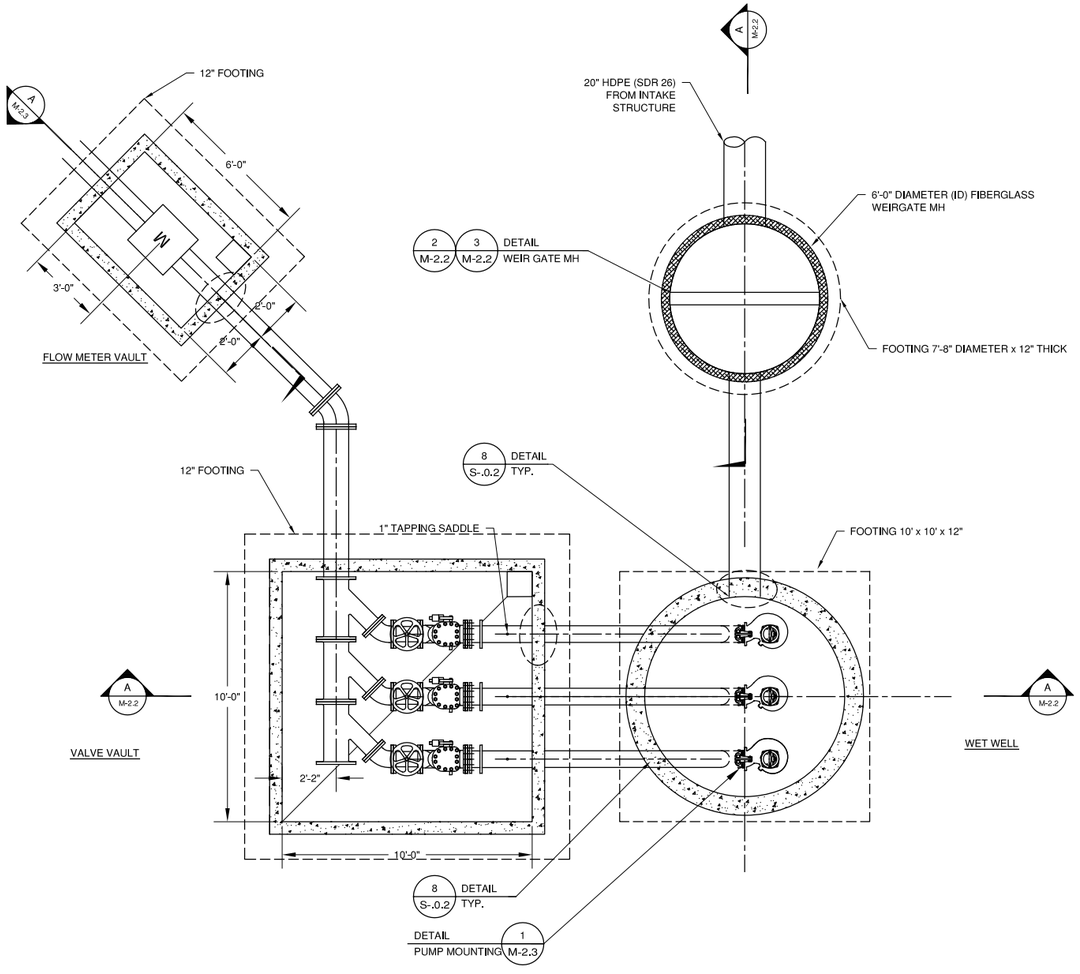
MRWPCA

MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

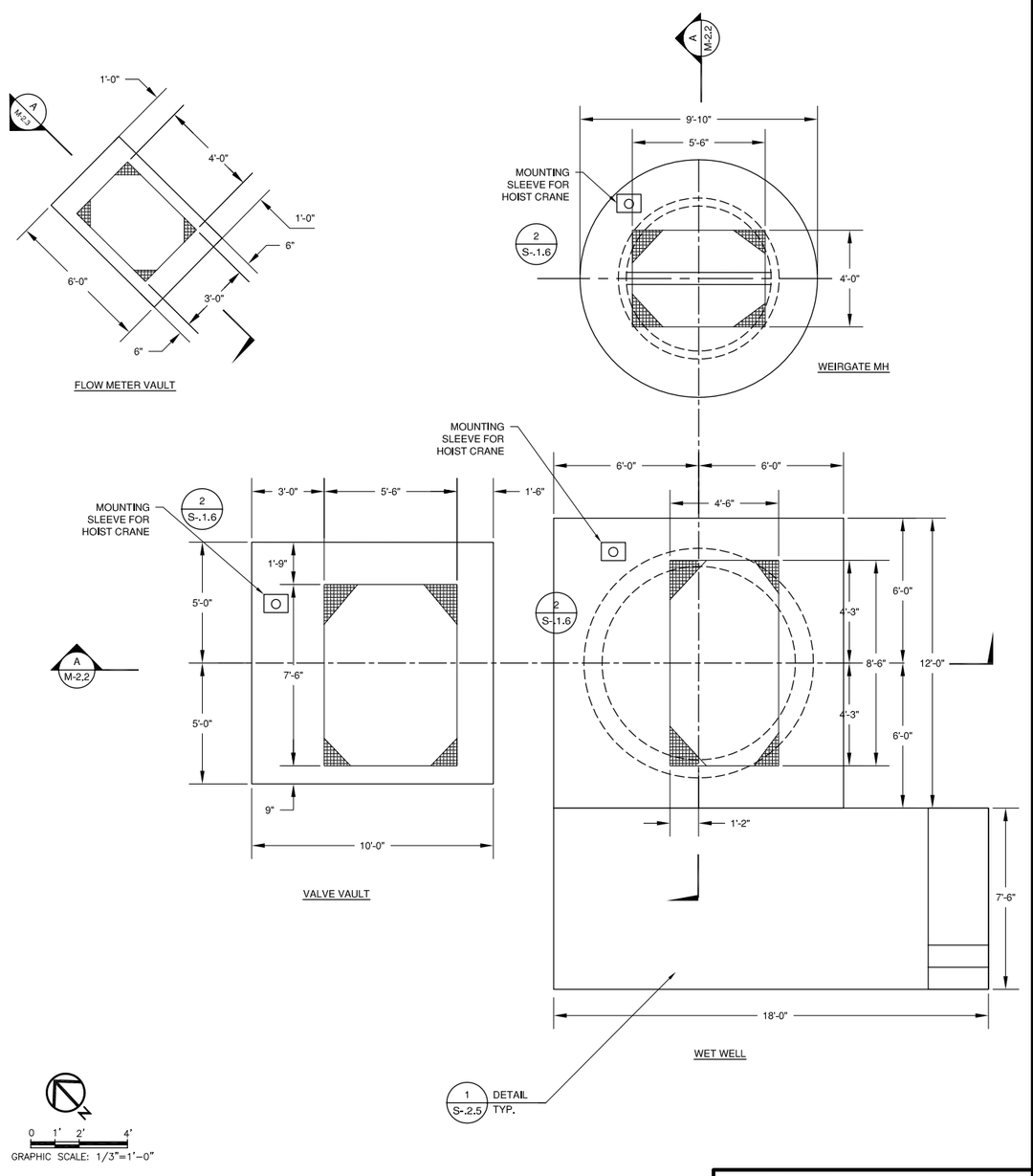
RECLAMATION DITCH PUMP STATION
CHANNEL CROSS SECTION

DRAWING NO.
C-2.5

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1 C-2.2 PUMP STATION MECHANICAL PLAN
1" = 3'



2 C-2.2 PUMP STATION MECHANICAL TOP PLAN EL.= +/- 41.0'
1" = 3'

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REGISTERED PROFESSIONAL ENGINEER ANDREW A. SNOWDEN No. 69703 CIVIL STATE OF CALIFORNIA

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(510) 652-1164

444 Airport Blvd., Suite 201
Watsonville, CA 95076
(831) 728-3232

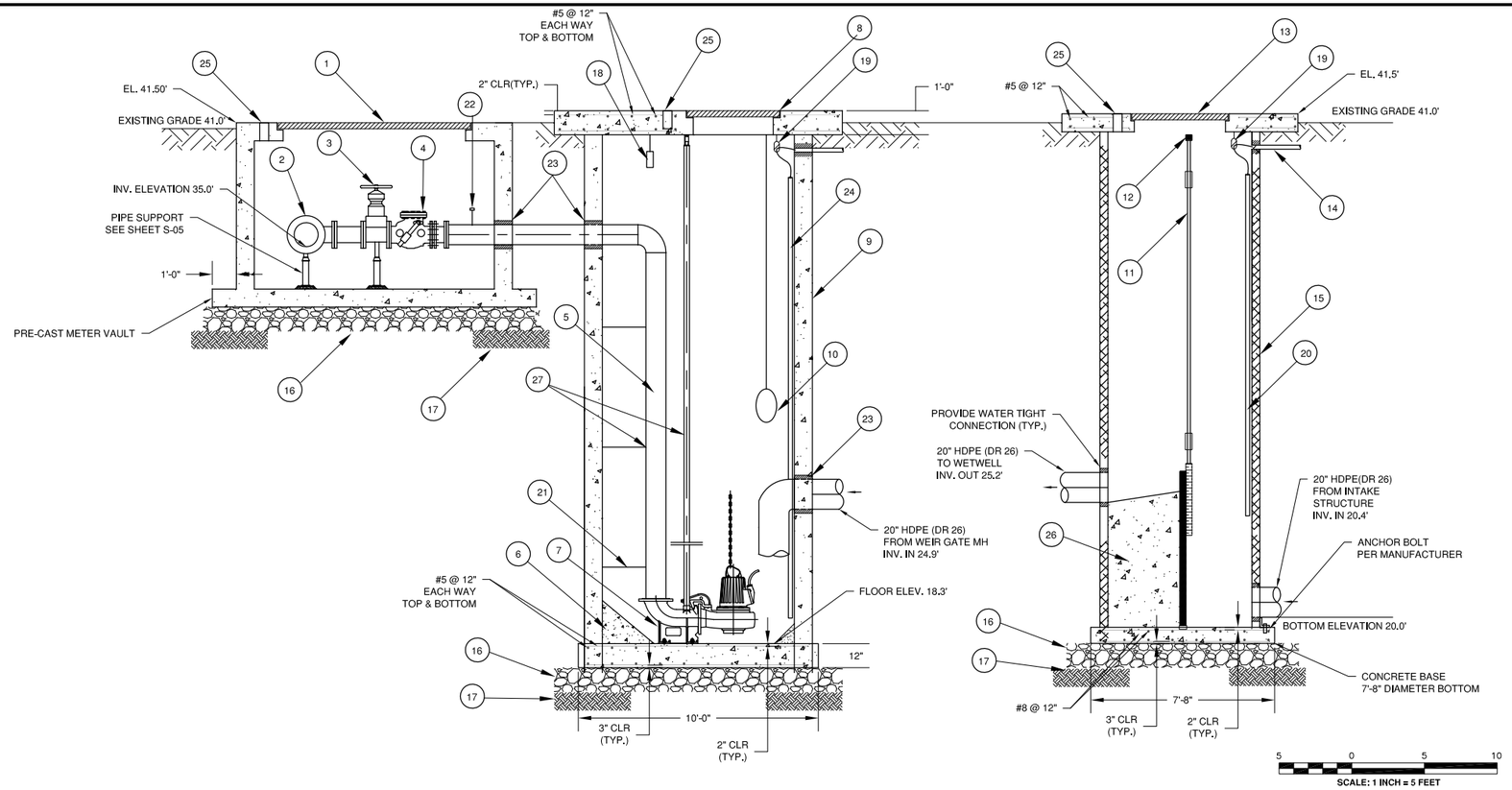
MRWPCA

MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

RECLAMATION DITCH PUMP STATION
MECHANICAL PLAN

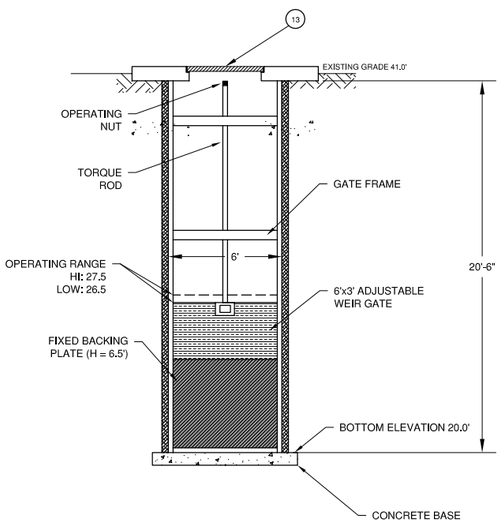
DRAWING NO.
M-2.1

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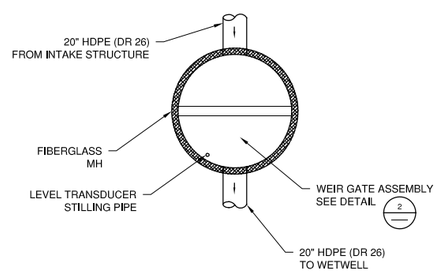
A M-2.1 SECTION - WETWELL AND VALVE VAULT
1" = 5'

LIFT STATION COMPONENTS		
DESCRIPTION	SIZE	QUANTITY
WETWELL	8-FEET DIAMETER(ID)	1
FLYGT PUMP NP3127	10HP, 3-PH, 400V	3
SWING CHECK VALVE	8-INCH	3
GATE VALVE	8-INCH	3
WYE FITTING	10-INCH RUN X 8-INCH	3
MAGNETIC FLOW METER	10-INCH	1
DIP FORCE MAIN, FULLY RESTRAINED	10-INCH	± 50 LF
HDPE PIPE, DR 26	20-INCH	± 40 LF
VALVE VAULT	10FT X 10FT X 6FT WITH 1FT BASE EXTENSION	1
METER VALVE VAULT	6FT X 4FT X 6FT	1



2 M-2.1 DETAIL - WEIR GATE MANHOLE ELEVATION
1/4" = 1'-0"

0 2' 4' 8'
GRAPHIC SCALE: 1/4"=1'-0"



3 M-2.1 DETAIL - WEIR GATE MANHOLE PLAN VIEW
1/4" = 1'-0"

KEY NOTES

1. 90"x66" ALUMINUM ACCESS HATCH W/ FALL PROTECTION AND SAFETY CHAIN. H20 LOAD RATING PER ASTM C478
2. 10" DIP FM
3. 8" GATE VALVE
4. 8" SWING CHECK VALVE
5. 8" DIP
6. GROUT CHAMFER PER PUMP MANUFACTURER RECOMMENDATION
7. PUMP MOUNTING BRACKET. SEE DETAIL 1 ON DRAWING M-2.3
8. 102"x54" ALUMINUM ACCESS HATCH W/ FALL PROTECTION AND SAFETY CHAIN, H20 LOAD RATING PER ASTM C478
9. LIFT STATION WETWELL
10. LOW LEVEL FLOAT SWITCH. LOW LEVEL ALARM/SHUT OFF AT EL. 19.3'
11. WEIR GATE TORQUE ROD (FRAME NOT SHOWN)
12. WEIR GATE OPERATING NUT
13. 48"x66" ALUMINUM ACCESS HATCH W/ FALL PROTECTION AND SAFETY CHAIN.H20 LOAD RATING PER ASTM C478
14. 2" CONDUIT FOR LEVEL TRANSDUCER. TRANSDUCER SETTINGS: PUMPS OFF AT WATER LEVEL 28.10', PUMPS ON AT WATER LEVEL EL. 27.85'. CALIBRATE IN FIELD
15. 6' DIAMETER FIBERGLASS MH WITH INTEGRATED WEIR GATE AND MOUNTING HARDWARE
16. PROVIDE 12" THICK ¾" DRAIN ROCK BACKFILL. EXTEND A MIN. 12" BEYOND FACE OF FOUNDATION
17. OVEREXCAVATE 2-FEET AND RE-COMPACT SUBGRADE TO MIN. 90% COMPACTION PER ASTM D1557
18. ULTRASONIC LEVEL SENSOR. MOUNT PER MANUFACTURER SPECIFICATION
19. CABLE GRIP FOR FOR LEVEL TRANSDUCER
20. 2" PVC STILLING TUBE FOR LEVEL TRANSDUCER
21. PIPE SUPPORTS @ 5'-0" C/C MAX. SEE DETAIL 5 ON DRAWING S-0.5
22. PROVIDE 1" TAPPING SADDLE WITH 1" BRONZE VALVE AND 1" ARV (TYP. OF 3)
23. WALL PENETRATION SEE DETAL 8 ON DRAWING S-0.2
24. 2" CONDUIT FOR WATER SAMPLING HOSE
25. MOUNT SLEEVE FOR HOIST CRANE. SEE DETAIL 2, SHEET S-1.6
26. GROUT SPACE BELOW OUTLET PIPE
27. WRAP DIP AND GUIDE RAIL WITH TRENTON #2 WAX TAPE OR EQUAL AT AREA OF CONTACT WITH SUPPORT BRACKETS TO ISOLATE DIFFERENT METALS

PUMP SETTINGS
24.4' PUMP 3 ON
23.9' PUMP 2 ON
23.4' PUMP 1 ON
20.8' PUMP 3 OFF
20.3' PUMP 2 OFF
19.8' PUMP 1 OFF
19.3' LOW WATER ALARM/SHUTOFF

Schaaf & Wheeler
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By	Description	Date	Rev
VMB	Issued for Bidding	10/24/16	0

Job No. WW-MRW-2805
Designed by JCT
Drawn by JCT
Checked by AAS
Approved AAS

REGISTERED PROFESSIONAL ENGINEER NOAH A. STOBERZ No. 69703 CIVIL STATE OF CALIFORNIA

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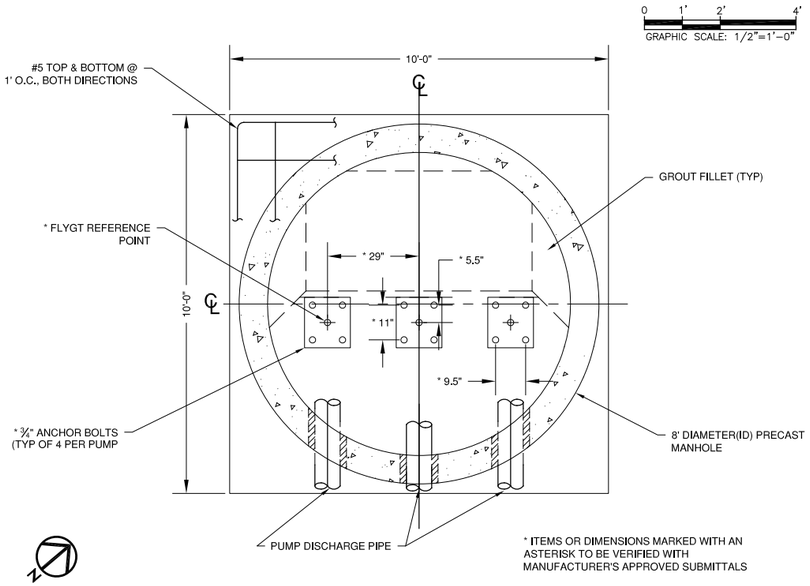
MRWPCA

MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

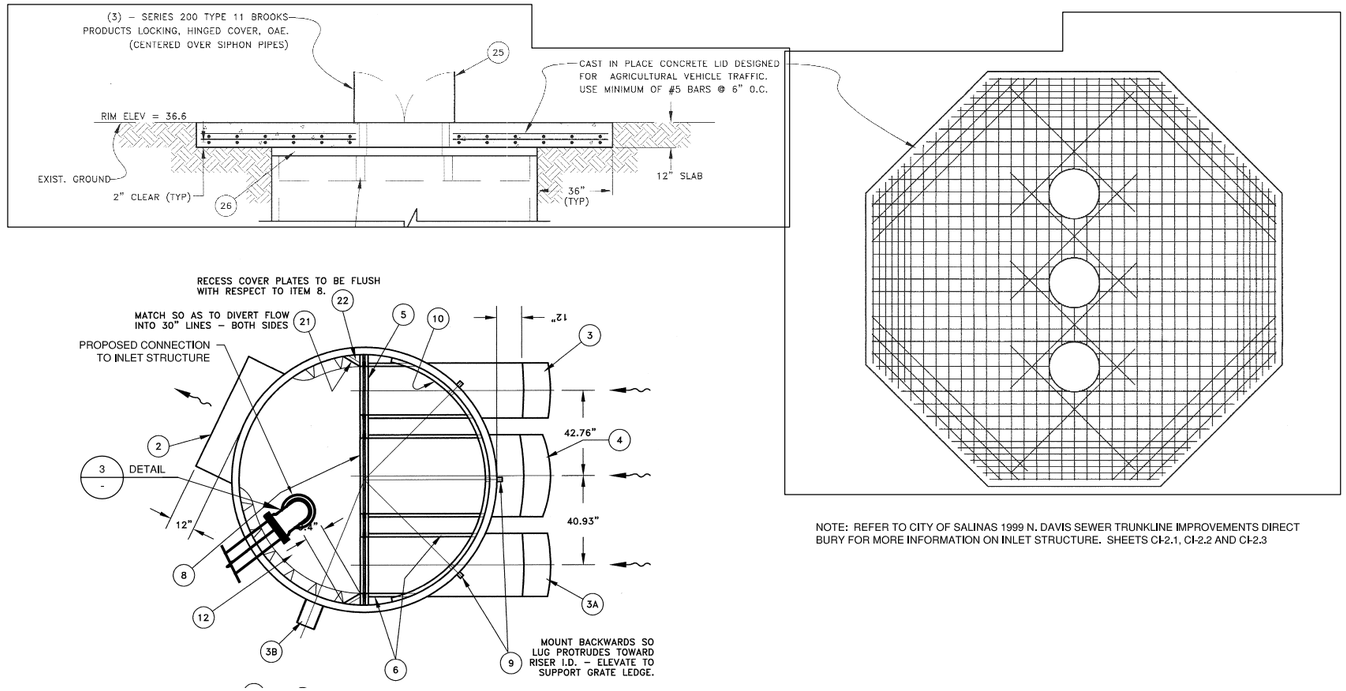
RECLAMATION DITCH PUMP STATION
MECHANICAL SECTIONS & DETAILS

DRAWING NO.
M-2.2

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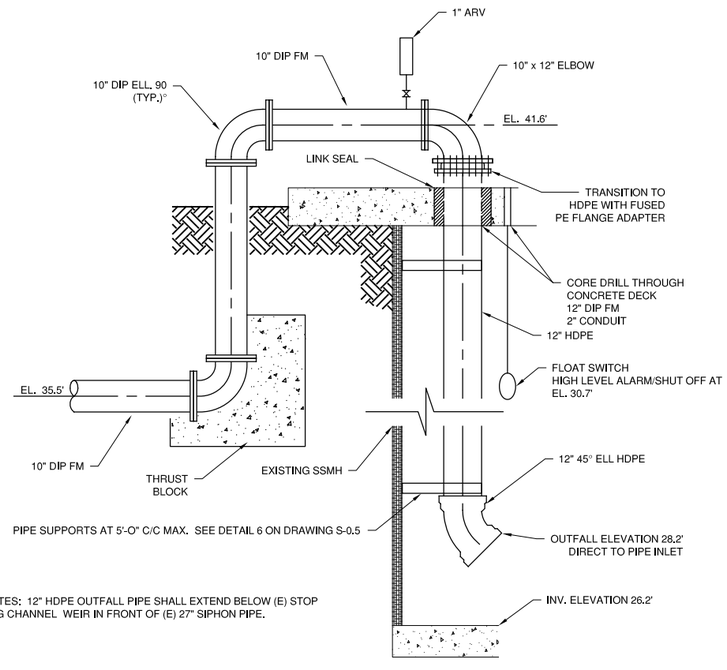


1 / M-2.2 DETAIL - PUMP MOUNTING
1/2" = 1'-0"

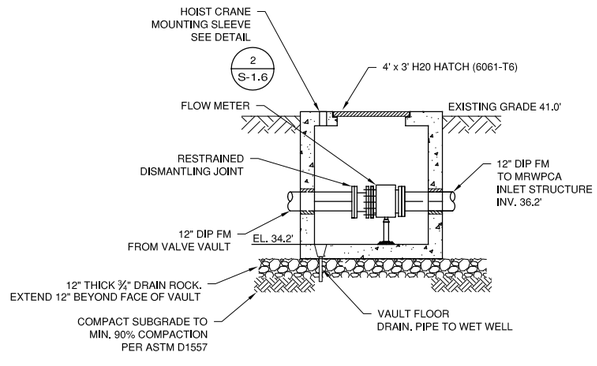


NOTE: REFER TO CITY OF SALINAS 1999 N. DAVIS SEWER TRUNKLINE IMPROVEMENTS DIRECT BURY FOR MORE INFORMATION ON INLET STRUCTURE. SHEETS CI-2.1, CI-2.2 AND CI-2.3

2 / C-2.2 DETAIL - CONNECTION TO EXISTING SSMH - PLAN VIEW
NTS



3 / - DETAIL - FORCE MAIN OUTLET TO SIPHON INLET MH
1/2" = 1'-0"



A / M-2.1 SECTION - FLOW METER VAULT
1/4" = 1'-0"

Rev	Date	Description	By
0	10/24/16	Issued for Bidding	VMB

Job No. WW-MRW-2806
Designed by JCT
Drawn by JCT
Checked by AAS
Approved AAS

REGISTERED PROFESSIONAL ENGINEER VINCENT M. BOEHLKE No. 69703 CIVIL STATE OF CALIFORNIA

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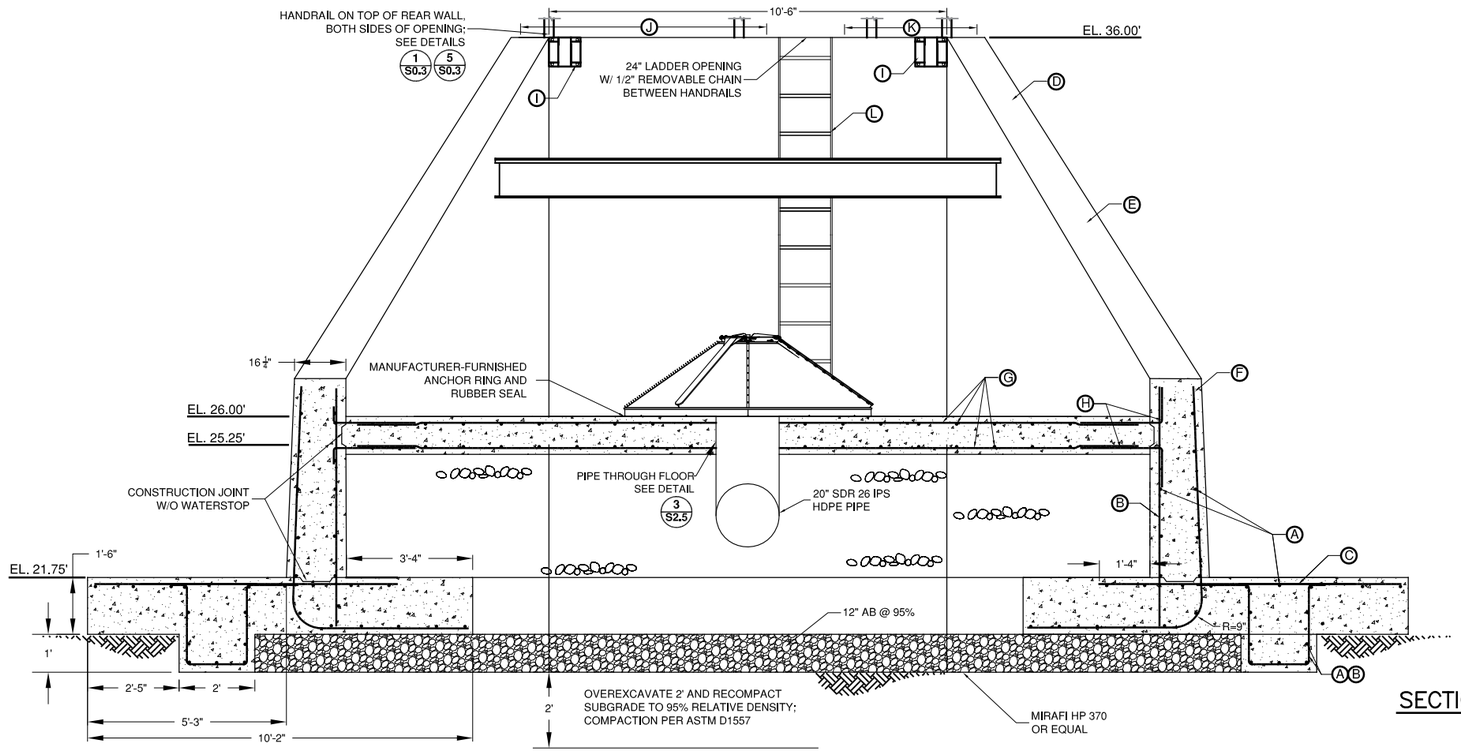
MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

RECLAMATION DITCH PUMP STATION
MECHANICAL SECTIONS & DETAILS

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DRAWING NO.
M-2.3

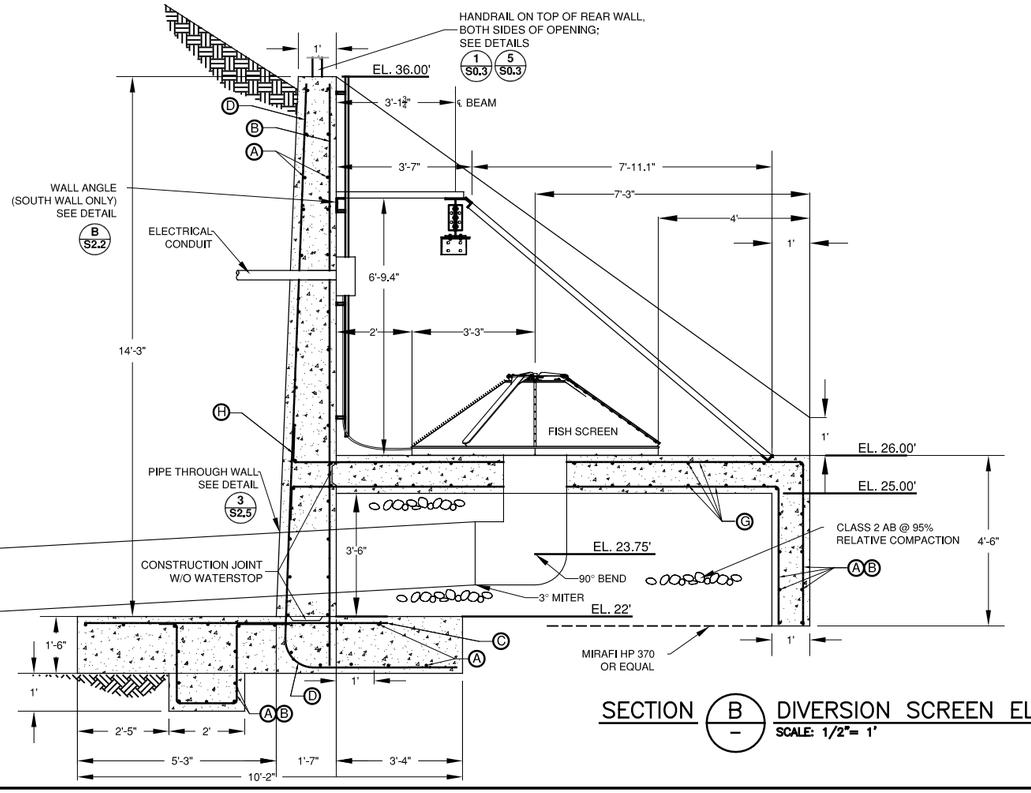
S:\E2CE\01-RecDitch_Pump_Station\Drawings\100%\SHEET M2.3 MECH NOTES & DETAILS.dwg, 10/24/2016 10:12:00 AM



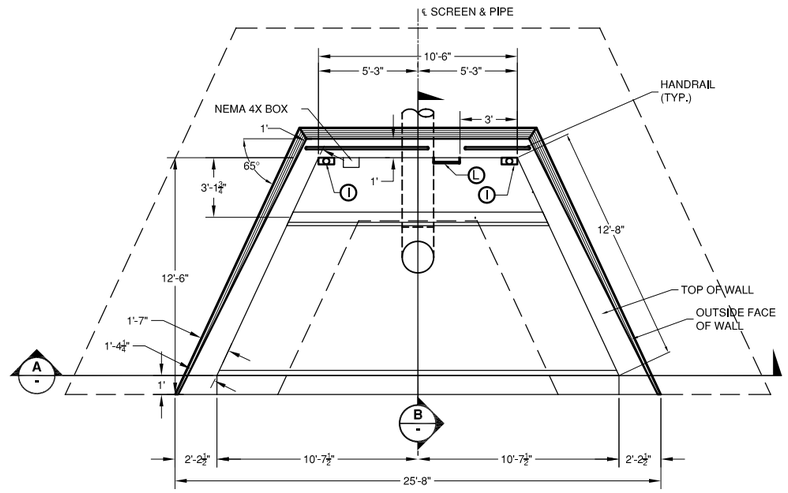
SECTION (A/–) DIVERSION SCREEN ELEVATION
SCALE: 1/2"= 1'

KEY NOTES:

- (A) #4 @ 12", 2" CLR (HORIZONTAL)
- (B) #4 @12", 2" CLR (VERTICAL)
- (C) #8 @ 12", 96" LONG, 2" CLR (HORIZONTAL)
- (D) #9 @ 12", 2" CLR, "L" SHAPE WITH 55" LEG, USE FOR WALL HEIGHT > 10 FEET
- (E) #7 @ 8", 2" CLR, "L" SHAPE WITH 55" LEG, USE FOR WALL HEIGHT 7 TO 10 FEET
- (F) #5 @ 9", 2" CLR, "L" SHAPE WITH 55" LEG, USE FOR WALL HEIGHT < 7 FEET
- (G) #5 @ 12" EA WAY, 2" CLR (TOP), 3" CLR (BOTTOM)
- (H) MINIMUM 24-INCH LAP AT SPLICES AND CONSTRUCTION JOINTS
- (I) WALL MOUNT SLEEVE FOR SAFETY HOIST, 3M MODEL #8518348 (TYP OF 2)
- (J) 6'-6" SAFETY RAILING (NOT SHOWN)
- (K) 3'-6" SAFETY RAILING (NOT SHOWN)
- (L) PREFABRICATED ALUMINUM LADDER (WALL MOUNTED), 10' LENGTH, 18" WIDE, MAX 12" RUNG SPACING



SECTION (B/–) DIVERSION SCREEN ELEVATION
SCALE: 1/2"= 1'



PLAN
1/4"=1'

NOTES:

1. TRASH RACK GRATES AND FISH SCREEN OMITTED FOR CLARITY (SEE SHEET S2.2 THROUGH S2.4)

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Rev	Date	Description	By
0	10/24/16	Issued for Bidding	VMB

Job No. WW-MRW-2806
Designed by AJR
Drawn by AJR
Checked by AAS
Approved AAS

REGISTERED PROFESSIONAL ENGINEER ANDREW A. STUBENZ No. 69703 CIVIL STATE OF CALIFORNIA

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MRWPCA

MRWPCA PURE WATER MONTEREY - GWR PROJECT
BLANCO DRAIN & RECLAMATION DITCH DIVERSION FACILITIES

RECLAMATION DITCH PUMP STATION
INTAKE STRUCTURE - 1 OF 4

DRAWING NO.
S-2.1

MODEL UM06 AND UM08

ULTRA MAG® ELECTROMAGNETIC FLOW METER

150 PSI FLANGED TUBE METER, SIZES 2" thru 48"
300 PSI FLANGED TUBE METER, SIZES 2" thru 48"



M-SERIES SIGNAL CONVERTER

UltraLiner™ TECHNOLOGY



DESCRIPTION

MODELS UM06 AND UM08 FLANGED TUBE ULTRA MAG® meters are manufactured to the highest standard available for magmeters. They incorporate microprocessor technology to offer very low flows and broad rangeability. The flanged end tube design permits use in a wide range of applications with up to 300 PSI working pressure. Flanged ends are Class "D" flat face flanges (150 PSI) or Class "F" raised face flanges (300 PSI). The fabricated tube is stainless steel with steel or stainless steel flanges and is lined with UltraLiner™, an NSF approved, fusion bonded epoxy material.

INSTALLATION is made similar to placing a short length of flanged end pipe in the line. The meter can be installed vertically, horizontally, or inclined on suction or discharge lines. The meter must have a full pipe of liquid for proper operation. Fluid must be grounded to the downstream flange of the sensor either via internal grounding electrodes (4 - 12") or using McCrometer 316 SS Grounding Rings. Any 90 or 45 degree elbows, valves, partially opened valves, etc. should not be placed closer than five pipe diameters upstream and two pipe diameters downstream. All blending and chemical injection should be done early enough so the flow media is thoroughly mixed prior to entering the measurement area.

SIGNAL CONVERTER: The M-Series signal converter is the reporting, input and output control device for the sensor. The converter allows the measurements, functional programming, control of the sensor and data recording to be communicated through the display and inputs/outputs. The M-Series microprocessor-based signal converter has a curve-fitting algorithm to improve accuracy, dual 4-20mA analog outputs, a RS485 communication port, an 8 line graphical backlit LCD display with 3-key touch programming, and a rugged enclosure that meets IP67. In addition to a menu-driven self-diagnostic test mode, the converter continually monitors the microprocessor's functionality. The converter will output rate of flow and total volume. The converter also comes standard with password protection and many more features.

OPTIONAL:

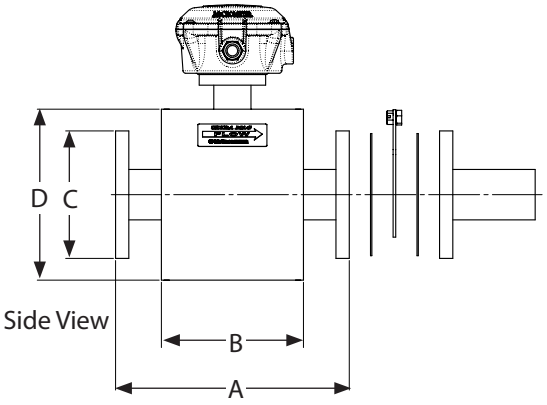
DC powered converter (10-35 VDC, 21 W)
Meter mounted converter
Extended warranty
Hastelloy® electrodes
ANSI or DIN flanges
Special lay lengths, including ISO standard lay lengths
Converter sun shield
Modbus Protocol RS485

SPECIFICATIONS

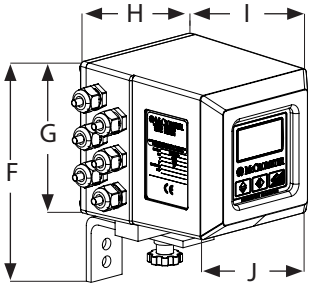
WARRANTY	2 Years
ACCURACY TESTS	3-point wet flow calibration of every complete flow tube with its signal converter. If desired, the tests can be witnessed by the customer. The McCrometer test facilities are traceable to the National Institute of Standards & Technology. Uncertainty relative to flow is ±0.15%
ACCURACY	Plus or minus 0.5% of actual flow
REPEATABILITY	±0.05% or ±.0008ft/s (±0.25mm/s), whichever is greater
HEAD LOSS	None. No obstruction in line and no moving parts
PRESSURE RANGE	150 PSI maximum working pressure (UM06) 300 PSI maximum working pressure (UM08)
TEMPERATURE RANGE	Operating: -10 to 77°C (14 to 170°F) Storage: -15 to 77°C (5 to 170° F)
VELOCITY RANGE	.2 to 32 FPS
BI-DIRECTIONAL FLOW	Forward and reverse flow indication and forward, reverse, net totalization are standard with all meters
CONDUCTIVITY	5 µs/cm
LINER	UltraLiner NSF approved, fusion bonded epoxy
ELECTRODES	Type 316 stainless steel, others optional
POWER SUPPLY	AC: 90-265VAC/45-66 Hz (20W/25VA) or DC: 10-35VDC (21W). AC or DC must be specified at time of ordering.
OUTPUTS	Dual 4-20mA Outputs: Galvanically isolated and fully programmable for zero and full scale (0-21mA) Four separate digital programmable outputs: open collector transistor usable for pulse, frequency, or alarm settings. • Volumetric Pulse • Hardware Alarm • Flow Rate (Frequency) • Empty Pipe • Directional Indication • Range Indication • High/Low Flow Alarms
EMPTY PIPE SENSING	Zero return when electrodes are uncovered
ALARMS	Programmable alarm outputs
DIGITAL TOTALIZER	M-Series restrictive based on pipe size. Cubic Meter, Cubic Centimeter, Mililiter, Liter, Cubic Ddecimeter, Decaliter, Hecaliter, Cubic Inches, American Gallons, Imperial Gallons, Cubic Feet, Standard Barrel, Oil Barrel, Cubic Yard, American Kilogallon, Imperial Kilogallon, Acre Feet, Megagallon, Imperial Megagallon
RATINGS	• Metering Tube: NEMA 6P/IP68 with remote converter (six foot depth continuous submersion) • Electronics enclosure: IP67
CERTIFICATIONS	• Listed by CSA to 61010-1: Certified by CSA to UL 61010-1 and CSA C22.2 No.61010-1-04 • CE Certified (Converter only)

MODEL UM06 AND UM08

ELECTROMAGNETIC FLOW METER



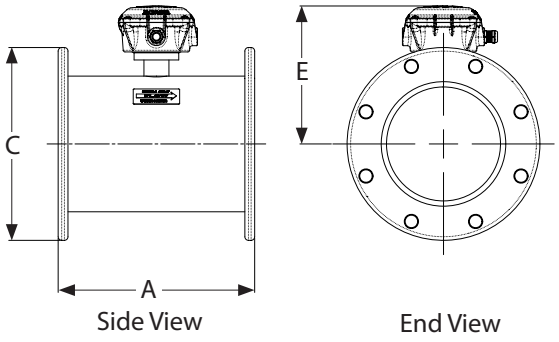
2" and 3" Models Body Style



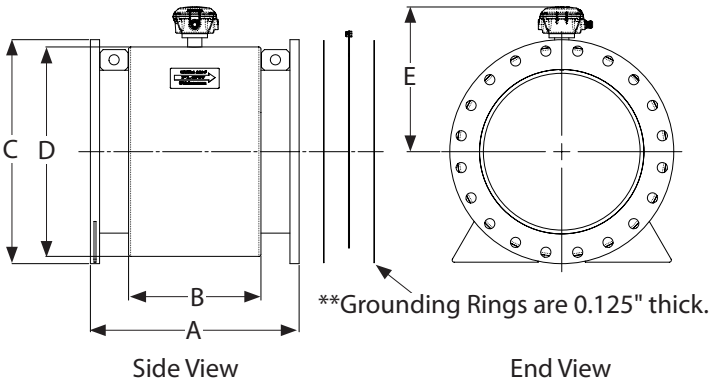
Bracket mounting holes are 0.27"

F	9.06"
G	5.75"
H	5.75"
I	6.69"
J	5.44"

Converter Dimensions



4" to 12" Models Body Style



14+" Models Body Style

Pipe Size (Nominal)	Meter Pipe ID	Flow Ranges GPM Standard .2 to 32 FPS Min - Max	DIMENSIONS (Lay Lengths)							Estimated Shipping Weight (lbs.)	
			A*		B	C		D	E	UM06	UM08
			UM06	UM08		UM06	UM08				
2"	2.156	2 - 340	11.00	11.00	6.70	6.00	6.50	7.90	9.26	93	107
3"	3.250	5 - 730	13.40	13.40	6.70	7.50	8.25	9.40	10.01	97	111
4"	3.750	8 - 1,140	13.40	13.40	n/a	9.00	10.00	n/a	8.06	78	108
6"	5.750	19 - 2,660	14.60	14.60	n/a	11.00	12.50	n/a	9.06	82	138
8"	7.375	33 - 4,870	16.10	17.25	n/a	13.50	15.00	n/a	10.06	115	195
10"	9.750	52 - 7,670	18.50	18.50	n/a	16.00	17.50	n/a	10.46	144	247
12"	11.750	74 - 11,180	19.70	19.70	n/a	19.00	20.50	n/a	12.31	193	342
14"	13.625	90 - 16,070	21.70	22.75	12.00	21.00	23.00	20.30	15..46	321	476
16"	15.625	118 - 20,900	23.60	25.25	14.20	23.50	25.50	21.10	16.21	390	645
18"	17.625	150 - 26,480	23.60	25.25	14.20	25.00	28.00	21.10	17.21	446	750
20"	19.563	185 - 32,720	25.60	28.25	16.20	27.50	30.50	24.80	18.26	588	874
24"	23.500	270 - 47,180	30.70	35.75	21.70	32.00	36.00	29.60	20.11	769	1,568
30"	29.250	420 - 73,620	35.80	41.75	26.50	38.75	43.00	35.90	23.26	1,261	2,317
36"	35.250	610 - 105,930	46.10	46.10	28.20	46.00	50.00	42.70	26.66	1,696	2,915
42"	41.250	830 - 144,370	48.05	**	32.10	52.75	**	48.35	29.99	**	**
48"	47.250	1,080 - 188,430	50.00	**	36.00	59.50	**	54.00	33.31	**	**

* Laying lengths for meters with ANSI Class 150 Flanges are equal to UM08 laying lengths

** Consult factory

Appendix D.
Sample Report Formats

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Monterey Regional Water Pollution Control Agency

SUBJECT: Permit A032263B (Conditions 11, 12 and 15), Report on Reclamation Ditch Diversion Activity and Associated Instream Flow Requirements, as part of the Pure Water Monterey Groundwater Replenishment Project

YEAR: CY 2017

Data as of:

	Daily Diversion Water Right A32263B				**Bypass Flow Monitoring** USGS Sta 11152650, Rec Ditch at San Jon Rd			
			Average	Max Daily	Daily Mean	Req'd	Met	
Date	cf	Acre-Feet	CFS	CFS	CFS	CFS	Y/N	Notes
Data Source:	a	b	c	d	e	f	g	
1/1/2017								
1/2/2017	350000	8.0	4.1	4.3	3.0	2.0	Y	1
1/3/2017								
1/4/2017								
1/5/2017								
1/6/2017								
1/7/2017								
1/8/2017								
1/9/2017								
1/10/2017								
1/11/2017								
1/12/2017								
Totals:	350,000	8.0		4.3				

Notes: 1. This is an example row to define the formulas.

Data Sources:

a. Diversion meter data, output from SCADA system
b. Convert CF to AF (43,560 CF/AF)
c. Calculate average rate = CF/24 hrs/60min/60sec
d. Maximum daily diversion rate, output from SCADA
e. USGS gage 11152650, daily data from website http://waterdata.usgs.gov/nwis/uv?si
f. Seasonal bypass requirement, from permit
g. If gage flow is >= target, Yes. If not, address with comment
May require showing hourly gage data if diversion stopped or started.

Monterey Regional Water Pollution Control Agency

SUBJECT: Summary of Reclamation Ditch Inflows and Outflows to the Regional Treatment Plant, Salinas Valley Reclamation Plant and Pure Water Advanced Water Purification Facility

YEAR: CY 2018

Data as of:

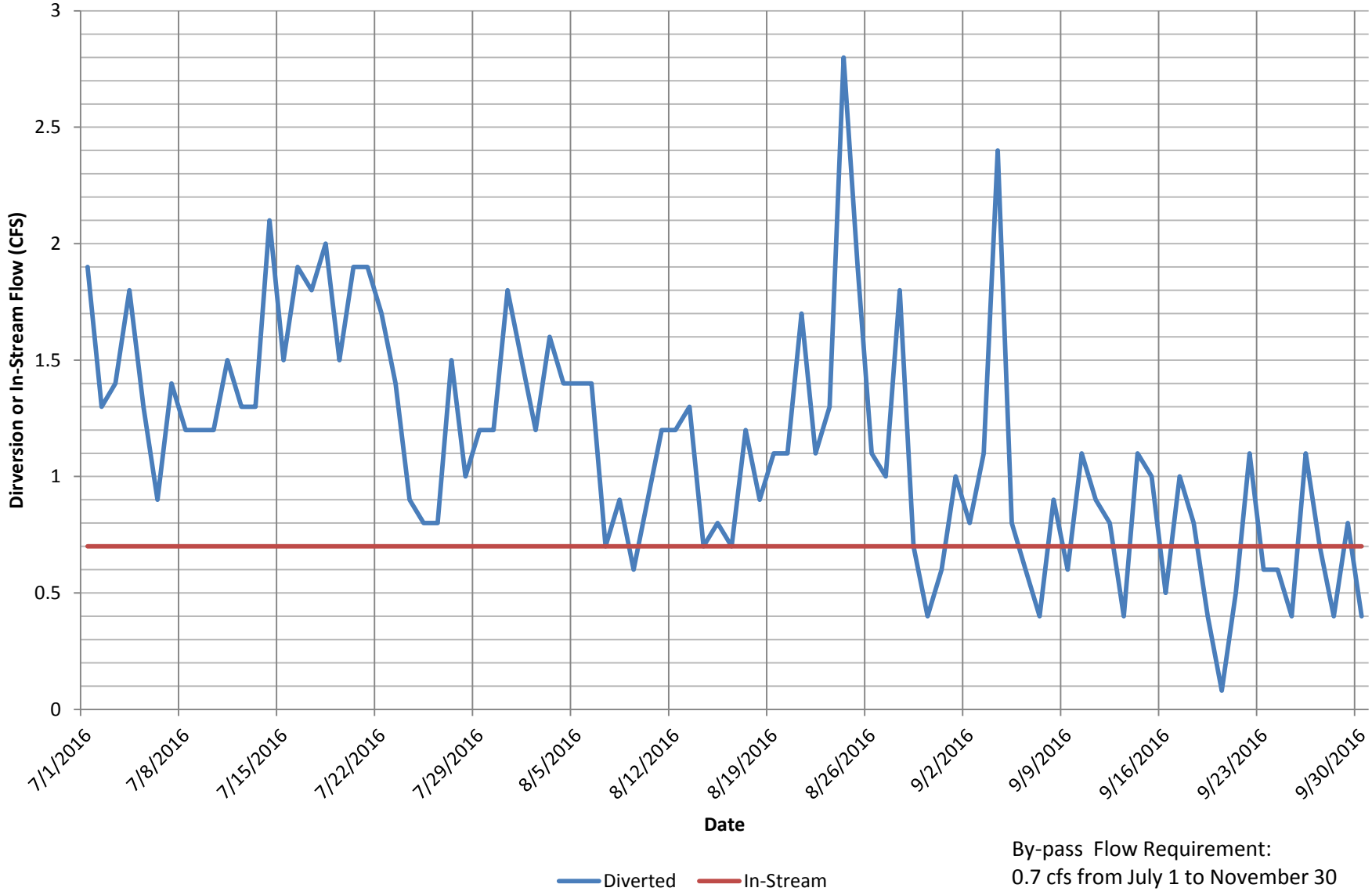
			Use of Reclamation Ditch	
	Diversions (RTP Inflow) from Reclamation Ditch (metered at POD)		Rec Ditch Amount to Underground Storage in SGB (calculated)	Rec Ditch Amount to SVRP/CSIP (calculated)
Date	cu-ft	AF	AF	AF
JAN				
FEB				
MAR				
APR				
MAY				
JUN				
JUL				
AUG				
SEP				
OCT				
NOV				
DEC				
Totals:	0	0	0	0

SGB = Seaside Groundwater Basin

Example Table
California American Water Company Production Distributed by Associated Water Rights
Water Year:

	Carmel River Water Diverted by Cal-Am for Customer Service under 95-10 Rights	Seaside Groundwater Diverted by Cal-Am from Coastal Subareas for Customer service under Adjudicated rights	Seaside Groundwater Diverted by Cal-Am from Laguna Seca Subarea for Customer Service under Adjudicated rights	Total Seaside Basin Adjudicated Diversion for Customer Service	Total Production Under 95-10 Rights and Seaside Basin Adjudicated Rights	Carmel River Water Diverted by Cal-Am for ASR Injection under 20808A and C Rights	Carmel River Water Diverted by Cal Am under Table 13 Rights	Seaside Groundwater Recovered by Cal-Am for Customer Service Under ASR Rights	Pure Water Monterey Indirected Potable Reuse recovered by Cal-Am for Customer Service	Desalinated Water from Sand City Plant
	Limit:	Limit:	Limit:	Limit:	Limit:	Limit:	Limit:	Target	Limit:	Target
	9,692	2,251	48	2,299	11,991	5,326			3,500	300
	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
Oct-17										
Nov-17										
Dec-17										
Jan-18										
Feb-18										
Mar-18										
Apr-18										
May-18										
Jun-18										
Jul-18										
Aug-18										
Sep-18										
Total:	0	0	0	0	0	0	0	0	0	0

Reclamation Ditch Diversion and By-Pass
By-Pass Measured at USGS Gage 11152650, San Jon Rd



By-pass Flow Requirement:
0.7 cfs from July 1 to November 30