

**NON-STORM WATER INFORMATION PACKAGE**

**CONTRACT NO. 04-235634**

**04-SM/SCL-110-PM 0.9/3.6**  
**Auxiliary Lanes**

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**CONTRACT NO. 04-235634**

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### **1. Project Description**

The project proposes to add auxiliary lanes in both directions of US 101, from the University Ave Interchange (PM 0.9) in the City of Palo Alto in Santa Clara County to the Marsh Road interchange (PM 3.6) in the City of Menlo Park in San Mateo County.

### **2. Construction Activities requiring Dewatering**

Ground water will be encountered in the structure excavations while installing the drainage system no. 7 and no. 8 around the pump house. The trench excavation is approximately 4 ft wide and 5 to 14 ft deep. The water table in the project area is estimated about 2 ft below the ground surface. The dewatering locations are depicted on the Dewatering Location Plan in Attachment B.

### **3. BMP for Groundwater Treatment**

The treatment system must be capable of removing sediment and turbidity-producing suspended solids. Primary and secondary treatment may be required, or the design of the treatment system may require combined use of the various treatment components in series to achieve effective treatment. Treatment system must have components to remove sediment and turbidity-producing suspended solids such as:

1. Desilting basins
2. Settling tanks
3. Sediment traps
4. Gravity bag filters
5. Sand media filters
6. Pressurized bag filters
7. Cartridge filters
8. Chemical coagulants including in-line flocculants
9. Temporary holding tanks
10. Any combination of these systems to provide primary and secondary treatment

### **4. Monitoring, Disposal, and Reuse of Treated Groundwater**

Use a flow meter to measure all discharges from dewatering operations.

Provide a method for discharging treated water and include a discharge location. Do not discharge treated water in a way that impacts natural bedding or aquatic life.

Comply with the manufacturer's instructions for all calibrations of the flow meter. Perform calibrations in the presence of the Engineer.

While the active treatment system is operated, perform:

1. Flow rate monitoring to:
  - 1.1. Record daily discharge volumes
  - 1.2. Compute average daily volumes

2. Receiving water limitations monitoring. In the receiving storm water drainage system, the discharge must not cause:
  - 2.1. Downstream turbidity to increase to more than 50 Nephelometric Turbidity Units (NTU) if the natural background turbidity is less than 50 NTU
  - 2.2. Downstream turbidity to increase more than 10 percent above the natural background turbidity if the natural background turbidity is 50 NTU or greater
  - 2.3. Normal ambient temperature to be altered more than 5 degrees F
  - 2.4. Normal ambient pH to fall below 6.5, exceed 8.5, or change more than 0.5 units
  - 2.5. Dissolved oxygen concentration to fall below 5.0 mg/L
  
3. Discharge effluent limitations monitoring. The water to be discharged (effluent) must comply with the following:
  - 3.1. Discharged water turbidity must not be greater than 50 Nephelometric Turbidity Units (NTU)
  - 3.2. pH of the discharged water must be from 6.5 to 8.5
  - 3.3. Discharged water must not contain chlorine in excess of 0.02 mg/L (instantaneous maximum)

Inspect temporary active treatment system:

1. Daily if dewatering work occurs daily
2. Weekly if dewatering work does not occur daily

If observations and measurements confirm the water quality limits are exceeded:

1. Submit a Notice of Discharge Report as shown in the Preparation Manual within 3 business days of exceeding the limits
2. Document the reasons and corrective work performed to prevent a reoccurrence in the Notice of Discharge

Maintain the various components to prevent leaks and provide proper function. If a component of the dewatering equipment is not functioning properly, discontinue the dewatering operation and repair or replace the component.

Sediments removed from uncontaminated areas during maintenance of the treatment system must be dried, distributed uniformly, and stabilized at a location within the project limits approved by the Engineer.

Backfill and repair ground disturbance, including holes and depressions, caused by the installation and removal of the temporary active treatment system. Comply with Section 15-1.02, "Preservation of Property," of the Standard Specifications.

**ATTACHMENT A**

**ESTIMATED GROUNDWATER SEEPAGE RATES  
IN THE PROJECT AREA**

# Memorandum

*Flex your power!  
Be energy efficient!*

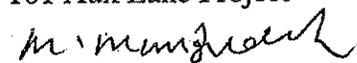
To: MR. KAMRAN NAKHJIRI  
District Branch Chief  
Office of Water Quality Program

Date: September 22, 2010

Attention: J. Chen

File: 04-SM-101 PM 0.9/3.6  
04 - 235631  
101 Aux Lane Project

From: DAVID NESBITT   
Transportation Engineer  
Office of Geotechnical Design - West  
Geotechnical Services  
Division of Engineering Services

  
MAHMOOD MOMENZADEH  
Chief, Branch C  
Office of Geotechnical Design - West  
Geotechnical Services  
Division of Engineering Services

Subject: Seepage Rate for Pump Station Trench

This memo is in regards to your request of estimating the groundwater flow rate and permeability at the above referenced project area. It is our understanding that this information will be used in estimating dewatering quantities.

Based on the soil borings near the proposed trench, the soils that can be encountered in the project area can be summarized in descending order as follows:

- Lean Clay with Sand (CL).
- Well graded Sand with Gravel (SW).

Unified Soil Classification	Coefficient of Permeability K (ft./day)
Well graded Sand (SW)	.14 to 137
Clay (CL)	$2.7 \times 10^{-5}$ to $2.7 \times 10^{-3}$

Our estimate of the seepage rate (flow rate) for the project area varies from 0.5 gallon/day/ft<sup>2</sup> (in areas with Lean Clay (CL)) to 3.0 gallon/day/ft<sup>2</sup> (in areas with Well graded Sand (SW)) of cross-sectional area of excavation below the groundwater table. These seepage rate (flow rate) estimates are provided for cost estimating purposes only. The Contractor can use the coefficients of permeability provided in conjunction with the boring logs to compute his own flow rates.

MR. KARMAN NAKHJIRI

Attn: J. Chen

September 22, 2010

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If you have any questions or need additional information, please call me at (510) 622-0104.

c: TPokrywka, MMomenzadeh, Daily File, Route File

DNesbitt/mm

**ATTACHMENT B**  
**DEWATERING LOCATION PLAN**





STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		FUNCTIONAL SUPERVISOR	CALCULATED, DESIGNED BY	REVISED BY
<b>Ed. Caltrans</b> HYDRAULICS			CHECKED BY	DATE REVISED



*De watering location*

**ATTACHMENT C**

**LIST OF PUBLICLY OWNED TREATMENT  
WORK (POTW) FACILITY**

City Discharger	Treatment Plant Name	WDR Discharger Name	Discharger Contact Name	Contact Phone No.	Contact Email	Mail Address	Ct Contact for Groundwater & Discharge	Service Area of the POTW
San Francisco International Airport WQCP	San Francisco International Airport WQCP	San Francisco International Airport WQCP	Sam Melin	(650) 821-7841	sam.melin@sfgo.com	San Francisco, CA 94103	They would not allow, except if the Reg. Board insisted. Would have to be checked for TPH - contact Stormwater "Juni" / Utilities head Mark Castanza @ 650-821-7800	Just the S.F. Airport - they said no parts of Hwy's 101 or 380 enter their system
San Mateo Wastewater Treatment Plant (formerly San Mateo WQCP)	San Mateo Wastewater Treatment Plant (formerly San Mateo WQCP)	San Mateo WQCP	Kacey Kamrady	(650) 522-7388	kamrady@cityofsanmateo.com	Dave Castagna, City of South San Francisco, 195 Bellair Road, South San Francisco, CA 94080; Terry White, Deputy Director, Maintenance Service, City of South San Francisco, 550 North Canal St., South San Francisco, CA 94080	Per "Best Contact" Norm Bessy @ 650-522-7242 new org. name is SMMWTP and serves Cities of San Mateo and Foster City. They deal with clean groundwater and SW if it just has sediment, prefers Baker tanks and discharge to storm drain. Will accept if contaminated - permit and testing needed, including "die history"	They cover "San Mateo, half of Hillsborough, Foster City, unincorporated S.M. County, and a very small part of Belmont." Contact Olie Chan 650-522-7305 for GIS information.
South S.F. WQCP	South S.F. San Bruno WQCP	City of South San Francisco	Dave Castagna; Terry White	(650) 429-3844; (650) 877-4851	dcastagna@cityofsf.ca.us; terry.white@cityofsf.ca.us	Scott Muma, Director, Public Works, City of San Bruno, 567 El Camino Real, San Bruno, CA 94066	Contact : Kevin Matfield for permit information at 650-429-3841. Permit can be expedited, if WQ profile is needed, one-time permit fee of \$ 80.00, then \$1.83 per 100 CU ft.	They cover "South San Francisco, San Bruno, Colma, and a very small part of Daly City." No GIS available. Plant phone # 650-877-4855.
San Bruno WQCP	City of San Bruno	City of San Bruno	Scott Muma	(650) 616-7066	smuma@cityofsanbruno.com	Richard Mao, City Engineer, Town of Colma, 1188 El Camino Real, Colma, CA 94014	Same as South S.F. / San Bruno WQCP - see line # 28	Part of South S.F. / San Bruno WQCP - see line # 28
Colma WQCP	Colma City	Colma City	Eileen Blinworth	(650) 757-4888	eblinworth@colma.ca.gov	Thomas Colletti, City of Millbrae, 621 Magdalena Ave., Millbrae, CA 94030	Same as South S.F. / San Bruno WQCP - see line # 28	Part of South S.F. / San Bruno WQCP - see line # 28
Millbrae WQCP	Millbrae WQCP	Millbrae WQCP	Thomas Colletti	(650) 259-2381	thcolletti@cityofmillbrae.ca.us	Paul Scott, Public Work Superintendent, 501 Primrose, Burlingame, CA 94010	Handles the City of Pacific. Best contact is Brian Martinez @ 650-738-4669. Per Dave Grimm: "new plant has lots of capacity" will accept discharge after permit, testing, etc.	Just the City of Millbrae. Plant phone # is 650-259-2388
Pacific WQCP	Clara Creek Water Recycling Plant	Clara Creek Water Recycling Plant	Dave Grimm	(650) 738-4663	dgrimm@cityofpacific.ca.us	Kevin O'Connell, Public Work Director, Town of Hillsborough, 1600 Filshie Ave., Hillsborough, CA 94010	Contact Doug Bell @ 558-7245 or dbell@burlingame.org: "not straightforward" he would need to "run it by 3-4 people" - it could be "handed in different ways" - would probably have to check out the ways this was handled the previous times...etc	The city of Pacific and a small part of Daly City
Burlingame WQCP	Volia Water (formerly Burlingame WQCP)	Burlingame WQCP	Phil Scott	(650) 538-7673; (650) 538-7679	pescott@burlingame.com; phil.scott@burlingame.com	Kenia O'Connell, Public Work Director, Town of Hillsborough, 1600 Filshie Ave., Hillsborough, CA 94010	Hillsborough sends their WW to Burlingame and SMMWTP plants for treatment - see Lines # A-27 and 33.	Hillsborough sends their WW to Burlingame and SMMWTP plants for treatment - see Lines # A-27 and 33.
Hillsborough WQCP	Town of Hillsborough	Town of Hillsborough	David Bishop	(650) 375-7411	dbishop@hillsborough.ca.us	Ed Marlowe - Interim Assistant City Manager, Department of Public Works, 501 Main Street, City of Half Moon Bay, CA 94019	Contact: Brenda Donald 650-726-0124/4105 - she will mail packet of info \$50 fee, 10 cents per Gall. Brenda@sanmcleanwater.org	Hillsborough sends their WW to Burlingame and SMMWTP plants for treatment - see Lines # A-27 and 33.
Maj-San WQCP	Maj-San WQCP	Sewer Authority Midd. Coastside	Tony Pullin	(650) 726-124	tonyp@sanmidsan.com	Granada Sanitary District, 455 Avenida P.O. Box 335, El Granada, CA 94018	Same as Maj-San - see Line #55	Same as Maj-San - see Line #55
Maj-San WQCP	City of Half Moon Bay	City of Half Moon Bay	Ed Marlowe	(650) 726-8330	emarlo@cityofhmb.com	Granada Sanitary District, 455 Avenida P.O. Box 335, El Granada, CA 94018	Same as Maj-San - see Line #55	Same as Maj-San - see Line #55
Maj-San WQCP	Granada Sanitary District	Granada Sanitary District	Gina Johns	(650) 726-7093	gjohns@granada.net	Granada Sanitary District, 455 Avenida P.O. Box 335, El Granada, CA 94018	Same as Maj-San - see Line #55	Same as Maj-San - see Line #55
Maj-San WQCP	Granada Assoc (consortium)	Granada Assoc (consortium)	Chuck Duffly	(760) 942-5147	cduffly@cdiff.com	George Irving, District Manager, Mountain Sanitary District, 8888 Cabrillo Highway, PO Box, Menlo Park, CA 94027	Same as Maj-San - see Line #55	Same as Maj-San - see Line #55
Maj-San WQCP	Montara Sanitary District	Montara Sanitary District	George Irving	(650) 726-3545	gird@montara.com	Michael Cahn, SPPCC, Planning Bureau Manager, 1141 Marka St., Suite 401, San Francisco, CA 94103, 415-934-5787	Best contact is Vae Vitan @ 415-274-0318 at the "very smart" plant on T1. Would want Chloride levels checked - and other sampling, and permit required.	Yerba Buena Island and Treasure Island
Treasure Island WQCP	Treasure Island WQCP	SFP PUC	Nathan Bertram	(415) 242-2256; (415) 378-3138	nbertram@sfpuc.org	Robert Donalson, South Bayshore System Authority, 1400 Redwood Road, Redwood City, CA 94065	Contact Ken Kaufman @ 650-594-4411 x 128 or kkaufman@sbsa.org "Individual Evaluators" No website. Need permit and water analysis "usually" to 3 day turn-around for Permit	SBSA takes WW from Belmont, San Carlos, all of Redwood City, and Redwood Shores. Has joint operating agreement with "Westbay" and also treats waste from Woodside, Atherton, Florida Valley, and Menlo Park. Good Contacts: Bob Donaldson @ 650-591-7121
South Bayshore System Authority WQTP	South Bayshore System Authority WQTP	South Bayshore System Authority	Bob Donaldson	(650) 594-4411 x 127	rdonaldson@sbsa.com			

60		City of Redmont	Kathleen E. Phelan 650-595-7469 kphelan@ci.redmont.ca.us	Kathleen E. Phelan, Associate Civil Engineer, City of Redmont, 1070 Sixth Ave. Suite 306, Redmont, CA 94002	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
61		City of Redwood City	Peter Ingram: 650-780-7466 pbingram@redwoodcity.gov	Peter Ingram, Director, Public Works Services, City of Redwood City, 1400 Broadway, Redwood City, CA 94063-2505	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
62		City of San Carlos	Parviz Moshkari 650-802-4302 parviz.moshkari@ci.san-carlos.ca.us	Parviz Moshkari, Director of Public Works, City of San Carlos, 600 Elm St., San Carlos, CA 94070	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
63		Town of Woodside	Karl Devell 650-851-6790	Karl Devell, Town Engineer, Town of Woodside, P.O. Box 94062, Woodside, CA 94062	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
64		West Bay SD	Tim Clayton 650-321-0384 tclayton@westbay.ca.us	Tim Clayton, District Manager, West Bay Sanitary District, 500 Laurel St., Menlo Park, CA 94025	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
65	For collection system in unimproved areas	San Mateo County	Brian Lee 650-599-1497 blee@sanmateo.ca.us	Brian Lee, Department of Public Works, 555 County Center, 5th Floor, Redwood City, CA 94063	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
66	North San Mateo WWTP	North San Mateo County	Patrick Sweedland 650-591-8201 psweedland@nscd.net	Patrick Sweedland, Director of Water and Wastewater Resources, North San Mateo Sanitary District, 151 Lake Merced Bv., Daly City, CA 94015	Same as SBSA Authority WWTP - see line 59	Same as SBSA - see Line # A-59
106	Satellite system of City and County of SF treatment plant	City of Brisbane	Matthew Fabry 415-508-2134 mfabry@ci.brisbane.ca.us	Matthew Fabry, City of Brisbane, Public Works Department, 50 Park Place, Brisbane, CA 94005-1310	Per Matt Fabry @ 415-508-2134 They would accept in accordance with the regulations of the permit for SLMCO. They would accept some non - Storm Water discharge" - he would like to hear more specifics before assuming acceptance.	Services Brisbane and the Quadelupe Canal area. They send their WW to the SF Combined System. [Only CI ROW is US 101] They have their service electronically - call Matt Lee at 415-508-2132

**ATTACHMENT D**

**SAN MATEO COUNTY-POTW SERVICE AREA**

# San Mateo County - POTW Service Areas

