

DEC 06 2017



# SEASIDE COUNTY SANITATION DISTRICT

440 HARCOURT AVENUE \* SEASIDE, CALIFORNIA 93955

Telephone (831) 899-6825 Fax (831) 899-6211

## BOARD MEMBERS

December 1, 2017

**Ralph Rubio**  
Chair

City of Seaside  
440 Harcourt Ave  
Seaside, CA 93955  
(831) 899-6825

Honorable Howard Gustafson  
President

Marina Coast Water District  
11 Reservation Road  
Marina, CA 93933

**Jerry Blackwelder**  
First Vice Chair

City of Sand City  
1 Sylvan Park  
Sand City, CA 93955  
(831) 394-3054

**Subject: Response to Comments Provided by MCWD in a letter dated January 23, 2015 title "Sewer Service to the Ord Community" and a Memorandum dated September 15, 2015 titled "Evaluation of SCSD Proposed Annexation"**

**Pat Lintell**  
Second Vice Chair

City of Del Rey Oaks  
650 Canyon Del Rey  
Del Rey Oaks, CA 93940  
(831) 394-8511

Dear President Gustafson,

On January 30, 2015 and April 20, 2016, Seaside County Sewer District (SCSD) staff received the subject letter and memorandum, respectively, from Marina Coast Water District (MCWD). The subject letter and memorandum, attached, are evaluations of the draft Engineering Study prepared by Wallace Group for the SCSD in support of a potential application to the Local Agency Formation Commission of Monterey County (LAFCO). The following responses *in italicized text* are replies to comments in said letter from MCWD.

## DISTRICT STAFF

**Craig Malin**

District Manager  
440 Harcourt Avenue  
Seaside, CA 93955  
(831)899-6203

1. (Items 2 and 3, 1<sup>st</sup> and 4<sup>th</sup> sentences) The analysis ... assumed that all required capital improvements for the system have been completed. ...These costs should be considered in your analysis.

*The analysis does not assume that the capital improvements are complete and considers these costs as future liabilities.*

**Rick Riedl**

District Engineer  
440 Harcourt Avenue  
Seaside, CA 93955  
(831) 899-6825

The following responses *in italicized text* are replies to comments in said memo from MCWD.

**Jesse Avila**

Legal Counsel  
Office of the County Counsel  
168 West Alisal Street  
Third Floor  
Salinas, CA 93901  
(831) 755-5313

2. (Page 1, paragraph 1, 3<sup>rd</sup> sentence) MCWD also has Franchise Agreements with the Cities of Marina and Seaside for the provision of services outside the District boundaries.

**Lesley Milton-Rerig**

District Clerk  
440 Harcourt Avenue  
Seaside, CA 93955  
(831) 899-6707

*MCWD provides services in the former Fort Ord pursuant to the Water/Wastewater Facilities Agreement (the Facilities Agreement) dated March 13, 1998 between MCWD and the Fort Ord Reuse Authority (FORA). SCSD is unaware of a franchise agreement between the City of Seaside and MCWD.*

3. (Page 2, paragraph 4, 3<sup>rd</sup> sentence) The Ord Community Wastewater System Master Plan assumed that MCWD would serve all of the development parcels in the Ord Community.

*It is unclear, but the Ord Community Wastewater System Master Plan referred to above may be a document prepared by a consultant for MCWD. However, the Fort Ord Base Reuse Plan adopted by FORA on June 13, 1997 addresses the proposed sewer collection services within the former Fort Ord. The Public Facilities Implementation Plan within the Fort Ord Base Reuse Plan anticipated that the southern portion of Fort Ord would eventually be annexed to SCSD respecting city boundaries and existing sewer service agencies.*

4. (Page 4, paragraph 3, 6<sup>th</sup> sentence) It would be reasonable for the [MCWD] to be compensated for the current value of the [sewer] system if SCSD were to annex it.

*It would not be reasonable to compensate MCWD for the correct value of the system. The memorandum notes the value of the collection system assets that would be transferred to SCSD and suggests that SCSD should compensate MCWD for the transfer. No basis is offered for this suggestion, and there is no basis in the law that would require compensation. Those facilities were conveyed to MCWD for the purposes of providing services to the area served by the facilities, which is how SCSD would use the facilities if they were transferred. It would be inequitable to require SCSD's ratepayers to compensate MCWD's ratepayers for assets that MCWD received for free.*

5. (Page 4, paragraph 4, 2<sup>nd</sup> sentence) Revenue from these accounts pays for a portion of the District operating budget, and was used to secure loans (capital improvement financing bonds).

*The SCSD acknowledges the need to allocate existing debt that was used to construct capital improvements related to the wastewater collection system in the Ord Community and the City of Seaside city limits. The District is interested in working with the MCWD to evaluate the potential liability for assuming that portion of the expenses accrued to rate payers for all bonds currently held by the MCWD.*

6. (Page 4, paragraph 5, 1<sup>st</sup> sentence) MCWD has added staff and equipment to facilitate the management, operation and maintenance of the Ord Community water and sewer systems. ... Removing a portion of the existing service area may trigger a reevaluation of staffing levels.

*The staffing levels would likely decrease for MCWD, and would likely increase in approximately equal numbers for SCSD. An employee transfer agreement is proposed for affected MCWD employees. The proposed Fort Ord amendment area represents a smaller proportion of the MCWD system than of the SCSD system. The relative sizes of the three service areas affected are summarized in the following table.*

<i>Parameter</i>	<i>MCWD Central Marina CSUMB and North Ord</i>	<i>SCSD Fort Ord SOI Amendment Area</i>	<i>SCSD</i>
<i>Miles of Sewer Main</i>	<i>81.5</i>	<i>22.0</i>	<i>73.2</i>
<i>Man Holes</i>	<i>1,770</i>	<i>633</i>	<i>1,035</i>

Lift Stations	18	3	4
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7. (Page 4, paragraph 6, 2<sup>nd</sup> sentence) The proposed annexation by SCSD [of Area 1 (i.e. Regions 'E' and 'F' in the SCSD Study)] would potentially change the governance model, but would not make any physical system changes for the benefit of the current or future customers. ... There is no operational or engineering reason why this area should be managed by a different district than the existing wastewater collection system in Marina, so we therefore recommend that Area 1 [Regions 'E' and 'F' in the SCSD Study] be annexed into MCWD, along with the rest of the Ord Community currently receiving water and sewer service.

*While there may be no engineering reasons that support the annexation proposal, SCSD believes that annexation would improve the governance structure and operations within Regions 'E' and 'F.' Annexation by the SCSD would result in a governance that is similar to the governance structure in the rest of Seaside. The proposed annexation would be more cost effective for the rate payers without any decrease in level of service. Therefore, the transfer of this area to the SCSD would be a benefit to the rate payers.*

8. (Page 5, paragraph 2, 2<sup>nd</sup> sentence) There is no operational or engineering reason why [Area 3 (i.e. an area adjacent to Region 'F')] should be managed by a different district than Area 1, so we therefore recommend that Area 3 be annexed into MCWD when development occurs.

*The SCSD concurs that Area 3 (i.e. an area adjacent to Region 'F') should be managed by the same district that manages Regions 'E' and 'F.' Since it would be most beneficial to the sewer rate payers for the SCSD to annex Regions 'E' and 'F,' the SCSD should, therefore, also annex Area 3.*

Both the Marina Coast Water District (MCWD) and the Seaside County Sanitation District (SCSD) desire to provide sanitary sewer collection service to portions of the cities of Del Rey Oaks and Seaside that are within the former Fort Ord area. The former Fort Ord area is administered by the Fort Ord Reuse Authority (FORA). Under an agreement with FORA, the MCWD is currently obligated to provide water and sanitary sewer service in the former Fort Ord area. The agreement does not provide MCWD the right to service areas outside of their current sphere of influence after the possible dissolution of FORA in 2020. Therefore, it is imperative to establish which utility districts would provide sewer service to those areas within the former Fort Ord outside of the service boundaries currently recognized by the Local Agency Formation Commission of Monterey County (LAFCO).

The SCSD has been working with the MCWD to resolve the issues of sewer collection services within the Ord Community. On May 14, 2014, the SCSD submitted to MCWD a draft engineering study in support of an application by SCSD to LAFCO for sewer collection service area annexation (the draft Engineering Study). On January 23, 2015, the MCWD submitted review comments on the draft Engineering Study. On March 25, 2015, staff from both agencies met to discuss MCWD's review comments on the draft Engineering Study. In June 2015, MCWD submitted additional information requested for inclusion by MCWD in the draft Engineering Study. On September 8, 2015 and December 8, 2015, SCSD submitted

letters stating our understanding of the agreed approach to proceeding with the proposed applications to LAFCO. To wit:

1. Both agencies would work together prior to submitting an application to the Local Agency Formation Commission of Monterey County (LAFCO).
2. Both agencies would prepare engineering studies to support their potential applications to LAFCO and share this information with the other agency prior to submitting an application.

The SCSD has postponed finalizing the draft Engineering Study pending receipt of MCWD's engineering study. However, the MCWD has not provided an engineering study as promised. It is understood that staff from both agencies have been working independently on defining scopes for their proposed LAFCO applications. However, the SCSD is requesting clarification on how the MCWD is proposing to proceed. Does the MCWD want to work with the SCSD to negotiate on an acceptable sewer service area boundary between our agencies?

Please feel free to contact Rick Riedl, District Engineer at (831) 899-6825 to discuss any questions or comments.

Sincerely,



Ralph Rubio  
District Chair  
Seaside County Sanitation District

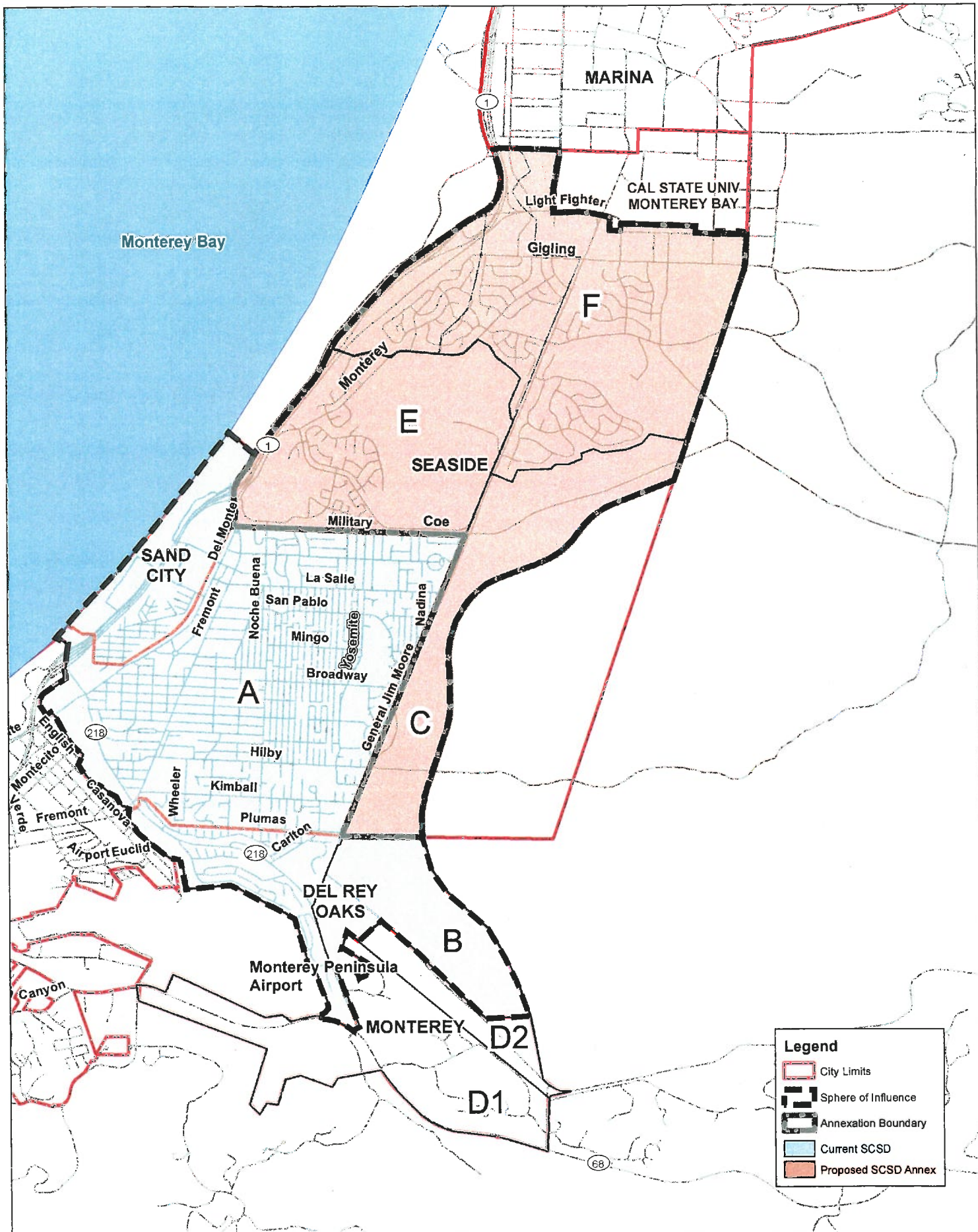
#### Attachments

Figure 1; Proposed Annexation Boundary by SCSD

Letter from MCWD to SCSD dated January 23, 2015

Memo from Schaaf & Wheeler to MCWD dated September 15, 2015

Copy Kate McKenna, Executive Director, LAFCO  
Keith van der Maaten, District Manager, MCWD  
SCSD Board Members  
Craig Malin, District Manager  
Rick Riedl, District Engineer  
John Bakker, Special Legal Counsel  
Jesse Avila, District Legal Counsel  
Lesley Milton-Rerig, District Clerk



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 SAN LUIS OBISPO, CA 95061  
 T 805.544.4611 F 805.544.4294  
 www.wallacegroup.us



**SEASIDE COUNTY SANITATION DISTRICT  
 LAFCO APPLICATION**

**FIGURE 1: PROPOSED ANNEXATION BOUNDARY**

NOTES:  
 BASEMAP PROVIDED BY SCSD.  
 WALLACE GROUP DID NOT  
 PERFORM BOUNDARY SURVEY  
 SERVICES FOR THIS MAP. NOT  
 A LEGAL DOCUMENT. MAP  
 PRODUCED FEBRUARY 2014.





cc Diana, Tim, Rick R, JD



# MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099

Home Page: [www.mcwd.org](http://www.mcwd.org)

TEL: (831) 384-6131 FAX: (831) 883-5995

## DIRECTORS

HOWARD GUSTAFSON  
*President*

PETER LE  
*Vice President*

THOMAS P. MOORE  
WILLIAM Y. LEE  
JAN SHRINER

RECEIVED

JAN 30 2015

CITY MANAGER'S OFFICE

January 23, 2015

Mr. Ralph Rubio, Chair  
Seaside County Sanitation District  
440 Harcourt Avenue  
Seaside, CA 93955

Re: Sewer Service to the Ord Community

Dear Chairman Rubio:

This is in response to your letter of May 14, 2014 concerning Sewer Service to the Ord Community. Your letter included an engineer's report which found that it would be feasible for Seaside County Sanitation District (SCSD) to serve a large portion of the Ord Community, including portions within the Cities of Monterey, Del Rey Oaks and Seaside.

Staff has reviewed the Engineers Report and offers the following comments:

1. Staff concurs that the undeveloped areas east of the current SCSD service area may be served by gravity connections to the existing SCSD collection system. This would be preferable to using sewer pump stations to move the wastewater north into the existing Ord Community collection system.
2. The analysis for Area E in the report, which is tributary to the Ord Village Lift Station, assumed that all required capital improvements for the system have been completed. This assumption is incorrect. There are remaining capital projects to be performed for this lift station, when infill development triggers the need for larger gravity mains. These costs should be considered in your analysis.
3. The analysis for Area F in the report, which included the rest of the City of Seaside portion of the Ord Community, assumed that all required capital improvements for the Gigling Lift Station have been completed. This assumption is incorrect. The Gigling Lift Station is in need of one pump and a new force main to maintain the current service, and will need larger pumps in the future if full build-out under the Base Reuse Plan occurs. These costs should be considered in your analysis.

Mr. Ralph Rubio  
January 23, 2015  
Page 2

4. The analysis assumed that wastewater flows would generally follow the existing pipeline routes to the Ord Community connection point to the MRWPCA Interceptor System. This would require flow metering at the proposed jurisdictional boundary (near 1<sup>st</sup> Avenue and 1<sup>st</sup> Street) and a wheeling agreement between MCWD and SCSD for conveyance of flows. The report does not address the value of the existing system, or what benefit the existing wastewater customers would see if the system changed ownership.

We would like to discuss this with you and your staff. Please contact our Interim General Manager, Bill Kocher, at 831.883.5938, or at [bkocher@mcwd.org](mailto:bkocher@mcwd.org) to set up a meeting.

Very truly yours,



Howard Gustafson  
Board President

Copy to:

Kate McKenna, Executive Officer, LAFCO of Monterey County  
Peter Le, MCWD Board  
Bill Lee, MCWD Board  
Thomas Moore, MCWD Board  
Jan Shriner, MCWD Board



**Schaaf & Wheeler**  
**CONSULTING CIVIL ENGINEERS**

James R. Schaaf, Ph. D, PE  
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M. Eliza McNulty, PE  
Benjamin L. Shick, PE  
Leif M. Coponen, PE  
Principal Emeritus  
David A. Foote, PE

March 17, 2016

Mr. Keith Van Der Maaten, PE  
General Manager  
Marina Coast Water District  
11 Reservation Road  
Marina, CA 93933

**Subject: Evaluation of Proposed Annexation by Seaside County Sanitation District**

Dear Keith:

Enclosed please find our technical evaluation of the proposed annexation of the City of Seaside portion of the Ord Community by Seaside County Sanitation District. This assessment looked at the required changes to the existing wastewater infrastructure and the existing capital improvements program. As you are aware, a significant portion of the Seaside-Ord Community is developed and currently served by existing infrastructure. The planned capital improvements address infill development and future development of current open-space areas.

This evaluation does not include a cost analysis of the current vs. proposed capital improvements list, nor does it assess the financial impact of transferring existing customer accounts to SCSD. We understand that a portion of the customer rates for this area are committed to paying down bonded debt, and therefore that cost commitment should be identified and discussed during inter-agency negotiations.

Please contact me with any questions at (831) 883-4848, or [asterbenz@swwsv.com](mailto:asterbenz@swwsv.com).

Sincerely,  
Schaaf & Wheeler



Andrew A. Sterbenz, PE  
Project Engineer



MRWPCA and connected to the interceptor system at two locations: (1) to the Fort Ord Interceptor at the Main Garrison wastewater treatment plant, and (2) to the Salinas Interceptor at Fritzsche Army Airfield. Provisions were made for a future connection to the Seaside Interceptor at Ord Village, which currently connects to the Main Garrison system via a lift station and force main. The East Garrison wastewater treatment plant continued to operate until the base closed in 1995, and has since been replaced with a pump station and force main connecting East Garrison with the Main Garrison portion of the Ord Community.

Figure 4 of the 2005 Ord Community Wastewater System Master Plan (attached) identifies the sewer drainage basins. Within the City of Seaside, wastewater is conveyed north to the Main Garrison connection to the Fort Ord interceptor. The southwest portion of the existing system flows to the Ord Village Lift Station. This area includes existing customers along Coe Avenue, including Bayonet/Blackhorse Golf Course, Sun Bay Apartments, Bay View Mobile Home Park, Seaside Highlands and Hayes Park. The Ord Village Lift Station moves flows to the Gigling Lift Station, which also collects gravity flows from a portion of Stilwell Park. The Gigling Lift Station moves flows north across Light Fighter Drive. The majority of the remaining portion of the City below Light Fighter Drive flows northwest by gravity, into a trunk sewer located in 1<sup>st</sup> Avenue. The sewers in 6<sup>th</sup> and 7<sup>th</sup> Avenues (within Seaside) flow north (downhill) and then west through existing sewer pipelines in CSUMB. The CSUMB campus straddles the boundary between Marina and Seaside. The campus sewer collection system crosses the city boundary at multiple points, so the SCSB has proposed leaving this portion of the City as part of MCWD's system.

There are no current capacity issues within the City of Seaside portion of the wastewater collection system. The Hatten Lift Station at the southwest corner of Fitch Park is scheduled for a life-cycle replacement in FY 15/16. The Gigling Force Main has similarly reached the end of its service life and is scheduled for replacement in FY 15/16. Several gravity mains and the Ord Village and Gigling Lift Stations are scheduled for capacity upgrades when planned infill development occurs within Seaside Resort (B/B Golf Course).

## **Topic 2, Capital Improvements**

Under the Fort Ord Base Reuse Plan, undeveloped portions of Marina, Seaside, Del Rey Oaks, the City of Monterey and unincorporated Monterey County will be developed for residential, visitor serving and other purposes (see attached Figure 3.3-1 from the BRP). Additional infill and replacement development was also anticipated. The Ord Community Wastewater System Master Plan assumed that MCWD would serve all of the development parcels in the Ord Community, and that all new sewer flows would be conveyed to the MRWPCA Fort Ord Interceptor at the former Main Garrison WWTP. A schedule of 31 Capital Improvement Projects was developed to address existing deficiencies and future capacity limitations (Table 1, attached). Of these, 14 projects are located within the City of Seaside.

If the new wastewater flows from areas south of Eucalyptus Road (from Seaside, Monterey and Del Rey Oaks) are added to the existing collection system as studied in the Ord Community Wastewater Master Plan, one or more lift stations along General Jim Moore Blvd south of Eucalyptus Road would be required, with approximately 12,600 LF of associated gravity and force main piping. In addition, 5,300 LF of existing gravity sewers in General Jim Moore Blvd, and 2,160 LF of existing gravity sewers in 1<sup>st</sup> Avenue would require replacement with larger pipes to accommodate the additional flow. Wastewater flow from these areas was projected to be 1.03 mgd ADWF.

In the 2011 SCSD Sewer Master Plan and Rate Study, it was assumed that wastewater from these areas would flow into the existing SCSD collection system, rather than pumping to the north. When General Jim Moore Blvd was widened, gravity sewers crossing east-to-west were included at the major intersections. The projected flow from these areas was 0.76 mgd ADWF (the 2011 study used 65 gallons/person/day for residential flows, while the 2005 study used 90 gallons/person/day). To accommodate these flows (and flows from other in-fill development), thirteen projects within the existing Seaside collection system totaling 35,000 LF of new or replacement sewer mains, plus two lift station upgrades, would be required. Although the SCSD Master Plan requires significantly more pipeline construction, it avoids the need to pump wastewater from 160-ft of elevation (Gen. Jim Moore Blvd at South Boundary Road) to 380-ft (Gen. Jim Moore Blvd north of Eucalyptus Road), which is a significant energy savings.

Neither master plan analyzed the proposed Monterey Downs development, which would be located east of Marshall Park, roughly between Gigling Road and Eucalyptus Road. The Draft Specific Plan for the development identifies two points of connection to the existing wastewater collection system, at Gigling Road at 7<sup>th</sup> Avenue, and at Normandy Road at Parker Flats Cut-Off. Schaaf & Wheeler updated the 2005 master plan model to evaluate the Monterey Downs flows, and found that wastewater CIPs No. 28, 1<sup>st</sup> Avenue Pipeline Replacements, and No. 30, Gen. Jim Moore Blvd Pipeline Replacement III, would still be required, as well as a new 10 inch gravity sewer in Gigling Road from 7<sup>th</sup> Avenue to Gen. Jim Moore Blvd.

The Wallace Group prepared an Engineering Analysis in support of the SCSD LAFCO Application (May 2014). That report recommended that CSUMB be served by MCWD, and that SCSD service reach to the CSUMB southern boundary. To address existing wastewater pipelines in 6<sup>th</sup> and 7<sup>th</sup> Avenues running north into CSUMB, they proposed installing a new gravity sewer running west in Col. Durham Road, intercepting these existing pipelines. To connect to the MRWPCA Ord Interceptor, they considered constructing a new gravity sewer on the west side of State Highway 1, or continuing shared use of the existing gravity main in 1<sup>st</sup> Avenue. Shared use of the existing pipeline was the recommended alternative.

The redevelopment areas between State Highway 1 and 2<sup>nd</sup> Avenue along the Marina-Seaside City Boundary are covered by two approved specific plans: the City of Marina University Villages Specific Plan (now called the Dunes on Monterey Bay), and the City of Seaside Projects at Main Gate Specific Plan. The trunk sewer system in this area consists of two parallel gravity mains flowing north, one serving the areas west of Gen. Jim Moore Blvd, and the other serving the areas to the east. One pipeline is approximately 3-ft shallower than the other. The Dunes project proposes replacing the two parallel sanitary sewers in 1<sup>st</sup> Avenue with a single, larger gravity pipeline. The timing of this improvement is unknown, since it is within the final phase of the development. The Projects at Main Gate proposes to reroute a portion of the two existing gravity pipelines. The timing of this development is also unknown. Close coordination during the final design and installation of these pipelines will be important for preventing spills and service interruptions. If this becomes a service boundary between MCWD and SCSD, a formal Capital Improvement Project to replace the trunk sewer should be considered.

### **Topic 3, Wastewater Capacity Allocation**

When Fort Ord annexed into the MRWPCA service area, the U.S. Army purchased 3.3 mgd (average dry weather flow) of wastewater treatment capacity rights in the Regional Treatment Plant. When the base closed, the U.S. Army retained 1.08 mgd of prepaid wastewater treatment capacity for the Presidio Annex (Ord Military Community), which includes military housing areas, the PX complex and various offices.

The remaining 2.22 mgd of capacity was assigned to FORA, but FORA has not formally sub-allocated wastewater capacity among the jurisdictions.

Wastewater flows from the Ord Community are currently less than 1 mgd. Approximately 30% of the current water use is in the Presidio Annex, but that demand is not projected to significantly increase, as opposed to the remainder of the Ord Community. Within the next twenty years, the 2.22 mgd of prepaid capacity assigned to FORA is projected to be used, and later developments will need to purchase additional capacity in the Regional Treatment Plant. The capacity has been informally allocated to redevelopment as it occurs. If the land use jurisdictions wish to formally allocate wastewater plant capacity, that action should occur before FORA sunsets in 2020.

#### **Topic 4, Existing System Value/Investment**

The replacement cost of the Ord Community sewer system was estimated in 2013 as a supporting study for the Rate Study. The estimated replacement cost was \$62 million for the 17 lift stations and approximately 77 miles of pipes. Assuming 40% of that total is located within Seaside, the replacement value would be \$25M. MCWD received ownership of the system in a public benefit conveyance from the United States through FORA, but still incurred certain costs during the application process leading up to the conveyance. New water and wastewater pipelines were installed within the Seaside Highlands Development and conveyed in fee to MCWD. It would be reasonable for the District to be compensated for the current value of the system if SCSD were to annex it. We have not attempted to estimate what level of depreciation would be appropriate for this.

The greater value to MCWD is the current and future customer base within the Ord Community. There are over 1,400 customer accounts within the Seaside portion of the Ord Community. Revenue from these accounts (and from the rest of the Ord Community) pays for a portion of the District operating budget, and was used to secure loans (capital improvement financing bonds). If SCSD were to take these existing customers from MCWD, then MCWD would need to receive monetary compensation for the portion of the existing capital debt which was secured by this customer base.

MCWD has added staff and equipment to facilitate the management, operation and maintenance of the Ord Community water and sewer systems. Most notably they have purchased a new sewer cleaning (Vactor) truck and sewer camera van within the last eight years. Removing a portion of the existing service area may trigger a reevaluation of staffing levels.

#### **Recommendations**

The existing Ord Community wastewater collection system (Area 1) has been operated by MCWD since 1998, and owned by MCWD since 2001. The proposed annexation by SCSD would potentially change the governance model, but would not make any physical system changes for the benefit of the current or future customers. Adding a second sanitary sewer district up-stream of the planned redevelopment with the City of Marina (Dunes on Monterey Bay between 1<sup>st</sup> and 2<sup>nd</sup> Avenues) adds another agency which must be coordinated with for future in-tract improvements. There is no operational or engineering reason why this area should be managed by a different district than the existing wastewater collection system in Marina, so we therefore recommend that Area 1 be annexed into MCWD, along with the rest of the Ord Community currently receiving water and sewer service.

The undeveloped Area 2, immediately east of and adjacent to the SCSD Service Area, has no existing wastewater infrastructure, and in previous studies it was shown that connecting this area to the existing

SCSD wastewater collection system would require less energy (fewer pump stations) than connecting to the existing MCWD collection system. We recommend that Area 2 be annexed into SCSD.

The undeveloped Area 3, immediately east of and adjacent to the existing Ord Community wastewater collection system, has no existing wastewater infrastructure, but it is planned to connect into Area 1 at two locations. There is no operational or engineering reason why this area should be managed by a different district than Area 1, so we therefore recommend that Area 3 be annexed into MCWD when development occurs.

**Attachments:**

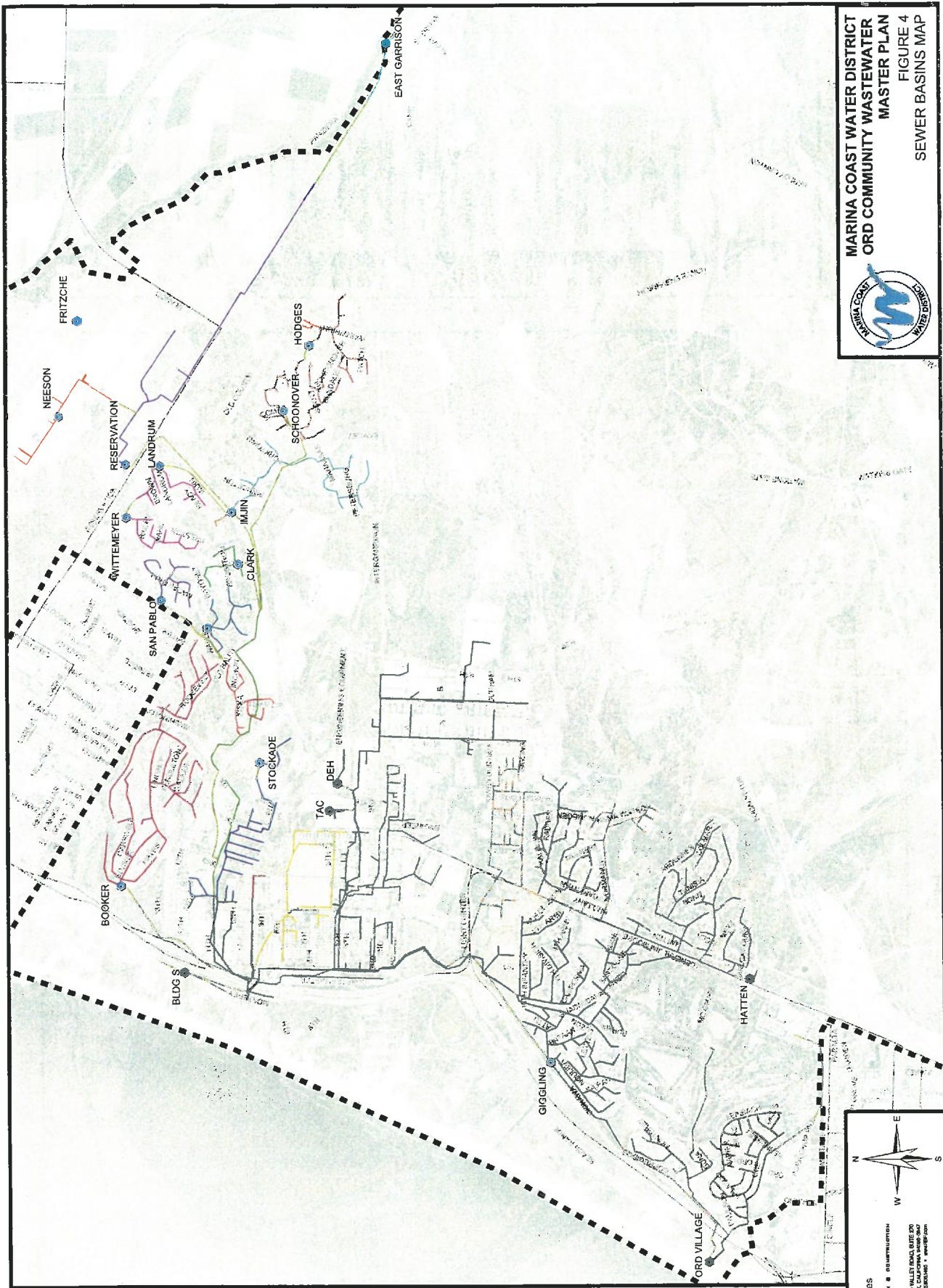
Figure 4, Sewer Basins Map, from the 2005 Ord Community Wastewater System Master Plan

Figure 3.3-1, Land Use Concept, Ultimate Development, from the Fort Ord Base Reuse Plan, 1997

Table 1, Ord Community Wastewater System Capital Improvement Projects

Memorandum: MCWD Sewer Model Update Scenarios, June 22, 2015, Schaaf & Wheeler

Memorandum: MCWD Sewer Model Update Results, August 6, 2015, Schaaf & Wheeler



**Legend**

- Lift Stations
- Ord Boundary
- Roads

**DRAINAGE BASINS**

- AA
- B
- C
- D
- E
- F
- G
- H
- J
- J.800
- K
- KZ
- L
- L#C
- L#J
- L#P
- L#X
- LA# TO L#J
- LS
- M
- N
- O
- P
- R
- S
- V
- W
- X
- Z



0 0.5 1 2 Miles

**RBF**  
 CONSULTING

PLANNING & DESIGN & CONSTRUCTION  
 300 TONCO VALLEY ROAD, SUITE 200  
 SAN FRANCISCO, CALIFORNIA 94134  
 (415) 774-1100

## FORT ORD REUSE PLAN

Fort Ord Reuse Authority (FORA)

**Land Planning**  
EDAW, Inc.

**Market Analysis**  
EMC Planning Group, Inc.

**Transportation Engineering**  
Sweeney Kuhn Mobility Group

**CEI Engineering**  
JKK and Associates

**Fiscal Analysis**  
Palmer Associates

**Health Planning**  
Argus McMichael Associates

**Public Communications**  
Zander Associates

**Community Development**  
The Ugreen Group  
Resource Corps International

**LEGEND:**

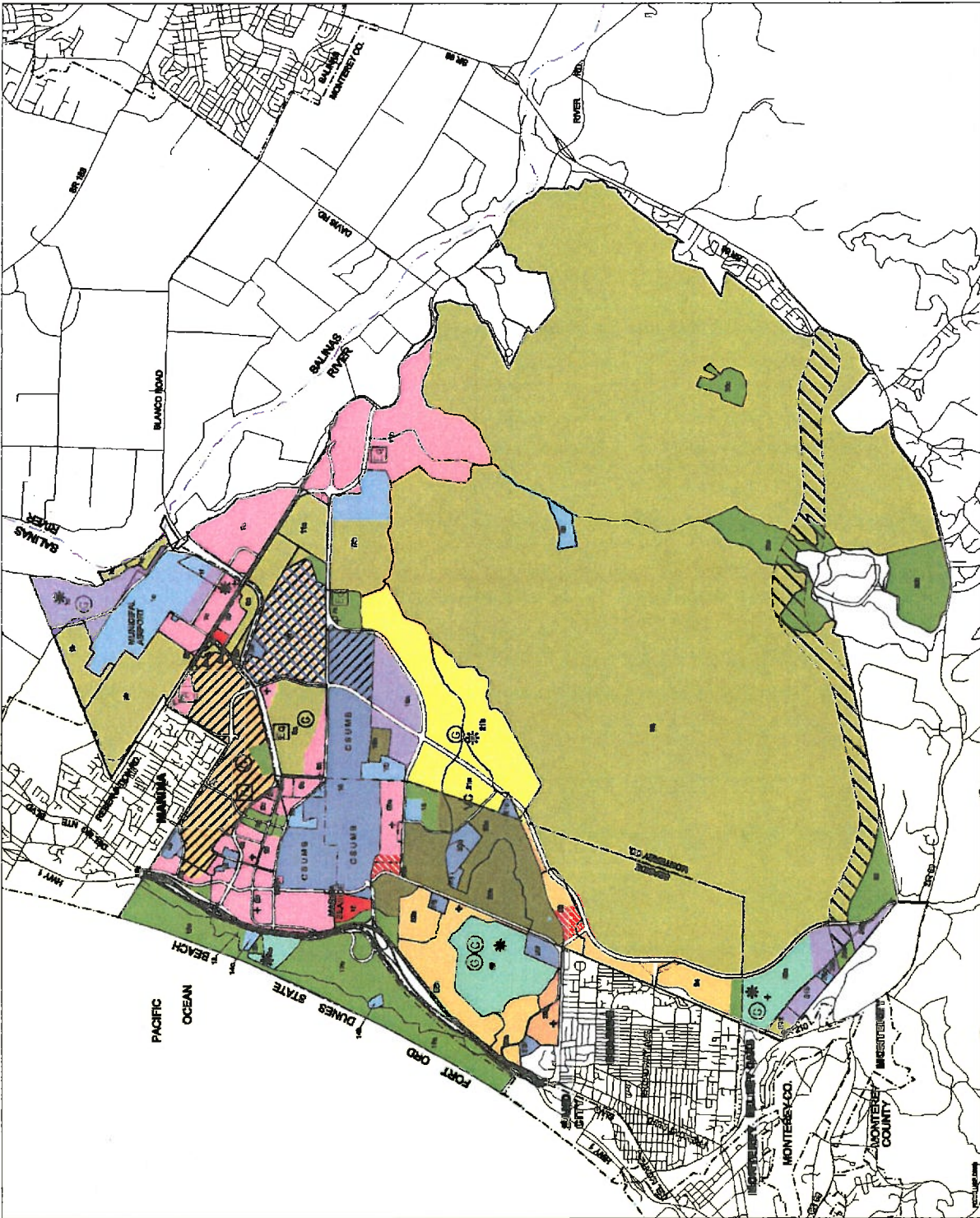
- RFD Low Density Residential
- RFD Medium Density Residential
- RFD High Density Residential
- Residential Infill Opportunity
- Very Old Bypass ROW, Development with Restrictions
- Planned Development Mixed Use District
- Business Park/Light Industrial Office/R&D
- + Commercial Retail
- Neighborhood Retail
- Regional Retail
- Visitor Servicing
- Golf Course Opportunity Site
- Hotel Opportunity Site
- Equestrian Center Opportunity Site
- Open Space/Recreation
- Habitat Management
- School/University
- University Medium Density Residential
- Alternative High School Sites
- Public Facility/Institutional
- Military Enclave
- VC Veterans Cemetery

**SHEET TITLE:**  
**LAND USE CONCEPT**  
**ULTIMATE DEVELOPMENT**

Scale: 1" = 1000'  
North Arrow

FORA  
EDAW, Inc. 2008

Page No. **3.3-1**





**Table 1, Ord Community Wastewater System Capital Improvement Projects**

<b>CIP</b>	<b>Name</b>	<b>Jurisdiction</b>	<b>Status</b>
1	Aleutian and Monterey Road Pipeline Replacement Project	Seaside	Not started
2	Okinawa Road Pipeline Replacement Project	Seaside	Not started
3	California Street Pipeline Replacement Project	Seaside	Complete
4	4th St and 2nd Ave Pipeline Replacement Project	Marina	Not started
5	Imjin Pkwy Pipeline Replacement Project I	Marina	Complete
6	Imjin Pkwy Pipeline Replacement Project II	Marina	Complete
7	11th Street Pipeline Replacement Project	Marina	Complete
8	Hayes Circle Pipeline Replacement Project	Marina	Not Started
9	3rd St Pipeline Replacement Project	Marina	Not started
10	Ord Village Pipeline Replacement Project	Seaside	Not started
11	Imjin Pkwy Pipeline Replacement Project III	Marina	Complete
12	4th Avenue Pipeline Replacement Project	Marina	Dev. in-tract
13	Mulheim Road Pipeline Replacement Project	Seaside	Reevaluate need
14	4th St Pipeline Replacement Project I	Marina	Complete
15	4th St Pipeline Replacement Project II	Marina	Not started
16	Ardennes Circle Pipeline Replacement Project	Seaside	Not started (verify)
17	Metz Road Pipeline Replacement Project	Seaside	Not started (verify)
18	Trenton Road Pipeline Replacement Project	County	Reevaluate need
19	Reservation Road Pipeline Replacement Project	Marina	Not started
20	Imjin Lift Station and Force Main Improvements	Marina	In Progress
21	Jefferson Lift Station Improvement	Marina	Complete
22	Neeson Lift Station Improvements	Marina	Reevaluate need
23	Giggling Lift Station and Force Main Improvements	Seaside	FY 15-16, 16-17
24	East Garrison Lift Station and Force Main Improvements	County	Complete
25	Schoonover Lift Station and Force Main Improvements	CSUMB	Complete
26	Miscellaneous Lift Station Improvements Booker Clark DEH East Garrison Gigling Hatten Hodges Jefferson Neeson Reservation Rd TAC Wittmeyer	Multiple Marina Marina Marina County Seaside Seaside CSUMB Marina Marina Marina CSUMB Marina	Not started FY 14-15 Not started Complete FY 16-17 FY 15-16 Complete Complete Reevaluate need Not started Not started Complete
27	General Jim Moore Pipeline Replacement Project I	Seaside	Reevaluate need
28	1st Avenue Pipeline Replacement Project	Marina/Seaside	Not started
29	General Jim Moore Pipeline Replacement Project II	Seaside	Reevaluate need
30	General Jim Moore Pipeline Replacement Project III	Seaside	Reevaluate need
31	Seaside East Lift Station and Force Main Project	Seaside	Not started



basis of flow rates used. Pipe was added along Gigling Rd. between POC #1 the existing sewer at GJMB. The model was run to analyze the impact of the additional flow on the system and determine the size of the new sewer pipe in Gigling Rd. The d/D results indicate that a 10-inch diameter pipe is sufficient to carry flow from POC #1 to GJMB. No upsizing of pipe is required immediately downstream of POC #2. The additional flow did trigger the need for CIP 28 – 1<sup>st</sup> Ave. gravity sewer, Light Fighter Dr. to 4<sup>th</sup> St.; and CIP 29 – GJMB gravity sewer, Phase 2, segment behind Post Exchange.

### **Conclusion**

The proposed SCSD annexation eliminates the need for CIPs located downstream of the Seaside East Lift Station discharge point which includes CIP 27, 28, 29, and 30. Adding the flow that will be generated by implementation of the Monterey Downs specific plan triggers the need for CIP 28 – 1<sup>st</sup> Ave. gravity sewer, Light Fighter Dr. to 4<sup>th</sup> St.; CIP 29 – GJMB gravity sewer, Phase 2, segment behind Post Exchange; and also requires the addition of approximately 5,000 LF of new 10-inch diameter pipe in Gigling Rd. between 7<sup>th</sup> Ave. and GJMB.

### **Attachments:**

Figure 11, System Deficiencies, from the Ord Community Wastewater System Master Plan, RBF, 2005

CIP 28 and CIP 29 figures and explanations from the Ord Community Wastewater System Master Plan, RBF, 2005

Memorandum: MCWD Sewer Model Update Scenarios, Schaaf & Wheeler, 2015

# ORD COMMUNITY WASTEWATER MASTER PLAN SYSTEM DEFICIENCIES

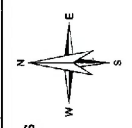


ROADS  
MANHOLES

PIPES  
 2000 CIP  
 2010 CIP  
 2015 CIP  
 2020 CIP  
 ALL OTHER PIPES

LIFT STATIONS  
 2000 CIP  
 2010 CIP  
 2015 CIP  
 2020 CIP

## Legend



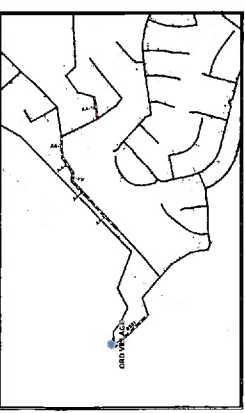
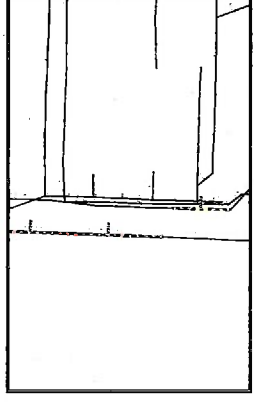
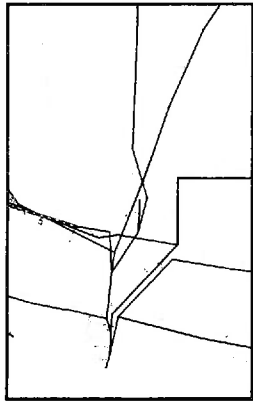
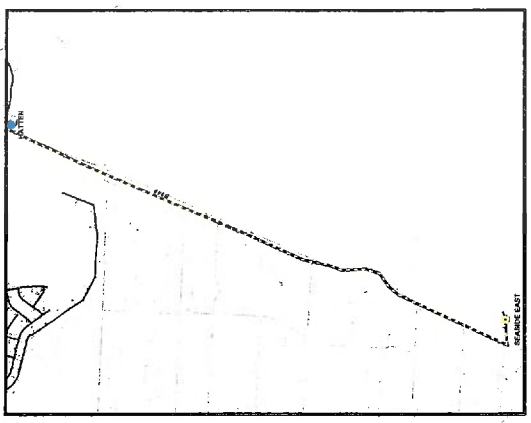
0 0.25 0.5 1 1.5 Miles

Seaside East  
- See Detail 5

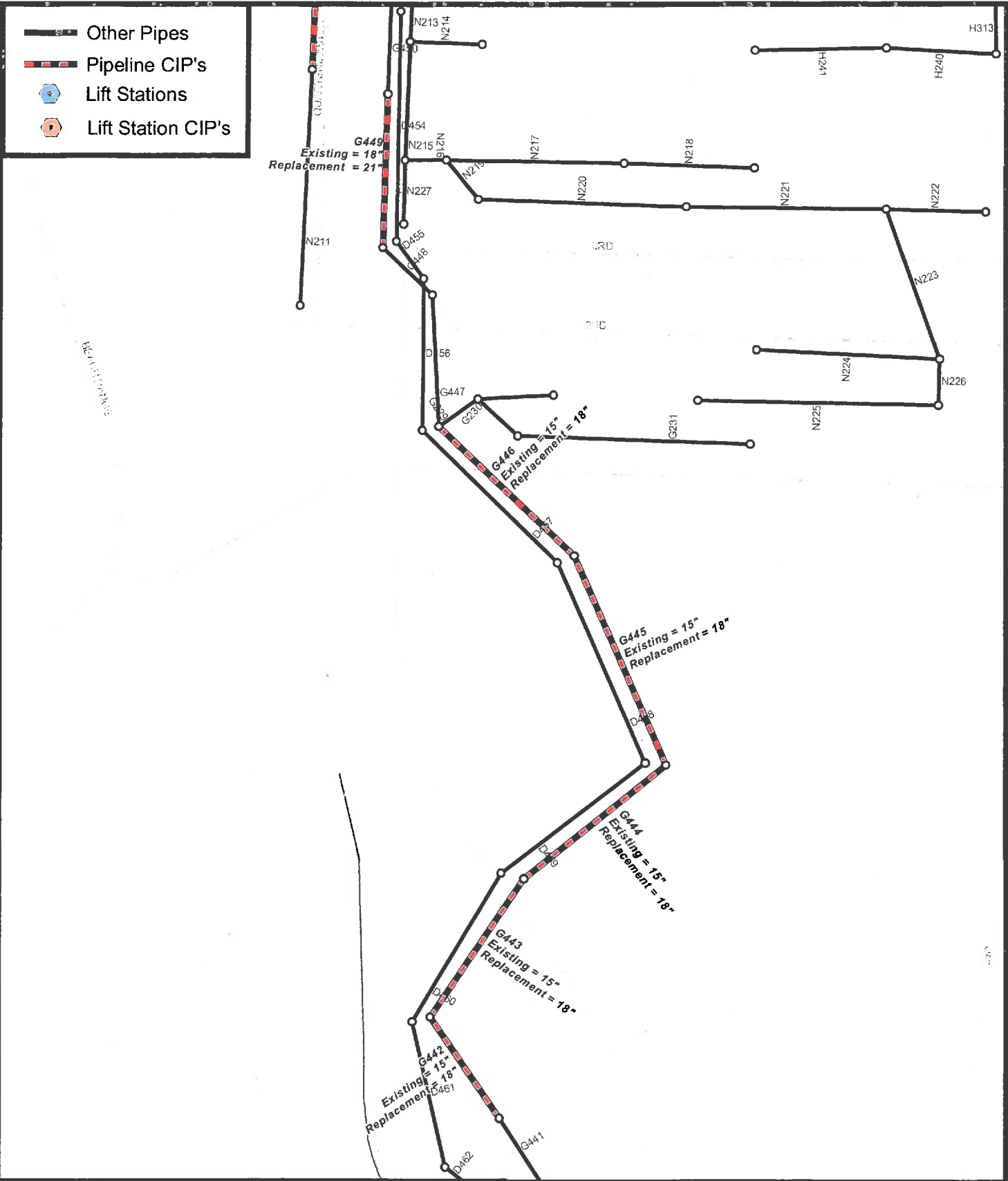
Prepared By: B. Hill  
 Reviewed By: R. Thomas  
 Date: 04/20/05

PLANNING & DESIGN & ENGINEERING  
 400 TOWNSEND VALLEY PARK BLVD. 2ND  
 FLOOR SUITE 200  
 WASHINGTON, PA 15388-1001

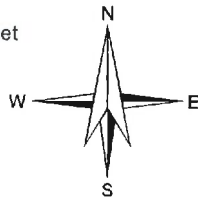
**RBF**  
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**MARINA COAST WATER DISTRICT  
 ORD COMMUNITY  
 WASTEWATER MASTER PLAN**

**CIP 28: 1st Ave. Pipeline  
 Replacement Project**

**CIP # 29 – General Jim Moore Pipeline Replacement Project II**

Year Planned for Construction: 2020  
Capacity Scenario: 2020 PWWF

**Reason for Project:** Existing gravity sewer pipelines have insufficient capacity to accommodate new wastewater flows from Navy Housing, Surplus Area II, Southside of Lightfighter, Monterey College of Law, Marshall Park, Fitch Park, Marshall Elementary School, First Tee, Seaside East, Chartwell School developments. Wastewater flow from those developments require the gravity sewer pipelines to flow at 53-69% of full capacity, beyond the allowable flow capacities outlined for this Master Plan.

**Project Type:** Pipeline Replacement Project

**Engineering Opinion of Probable Cost:**

Pipe ID	Location	Upstream Manhole	Downstream Manhole	Length (feet)	d/D	Pipeline Diameter		Unit Cost (\$/LF)	Facility Cost (\$)
						Existing (in)	Replacement (in)		
G437	General Jim Moore Blvd	G437	G437A	148	0.53	12	15	\$ 62	\$ 15,000
G437A	General Jim Moore Blvd	G437A	G438	242	0.69	12	15	\$ 62	\$ 9,200
TOTAL LENGTH									
						CONSTRUCTION COST		\$	24,000
						20% CONTINGENCY		\$	4,800
						25% MCWD Soft Costs <sup>[1]</sup>		\$	6,000
						TOTAL PROJECT		\$	34,800

[1] Soft Costs = 10% of construction cost for Engineering Design, 10% of construction cost for construction management and inspection, 5% of construction cost for legal and administrative fees.

**Project Description:**

Replace existing 12 -inch diameter gravity sewer pipeline with appropriate 15-inch diameter gravity sewer pipeline to provide required capacities for wastewater flow and to conform to District requirements for minimum slope. Pipeline segments are continuous pipeline segments that should be constructed as one project.

**Upstream Flow Sources at Build-out:** Navy Housing, Surplus Area II, Southside of Lightfighter, Monterey College of Law, Marshall Park, Fitch Park, Marshall Elementary School, First Tee, Seaside East, Chartwell School





**Upstream Lift Stations:** Hatten

**CIP # 29 – General Jim Moore Pipeline Replacement Project II**

Year Planned for Construction: 2020  
Capacity Scenario: 2020 PWWF

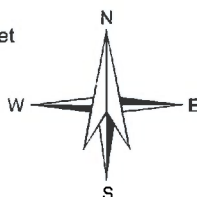
**Project Location Map:** Attached on next page. Proposed CIP facilities are colored in red.



-  Other Pipes
-  Pipeline CIP's
-  Lift Stations
-  Lift Station CIP's



0 70 140 280 420 Feet



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**MARINA COAST WATER DISTRICT  
 ORD COMMUNITY  
 WASTEWATER MASTER PLAN**

**CIP 29: Gen. Jim Moore Pipeline  
 Replacement Project II**

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**CIP # 30 – General Jim Moore Pipeline Replacement Project III**

Year Planned for Construction: 2020  
Capacity Scenario: 2020 PWWF

**Reason for Project:** Existing gravity sewer pipelines have insufficient capacity to accommodate new wastewater flows from Marshall Park, Fitch Park, Marshall Elementary School, First Tee, Seaside East, Chartwell School developments. Wastewater flow from those developments require the gravity sewer pipelines to flow at 79-100% of full capacity, beyond the allowable flow capacities outlined for this Master Plan.

**Project Type:** Pipeline Replacement Project

**Engineering Opinion of Probable Cost:**

Pipe ID	Location	Upstream Manhole	Downstream Manhole	Length (feet)	d/D	Pipeline Diameter		Unit Cost (\$/LF)	Facility Cost (\$)
						Existing (in)	Replacement (in)		
G501	General Jim Moore Blvd	G501	G500	84	0.61	15	18	\$ 74	\$ 6,200
G561	General Jim Moore Blvd	G561	G560	417	0.62	15	18	\$ 74	\$ 30,800
G560	General Jim Moore Blvd	G560	G559	370	0.60	15	18	\$ 74	\$ 27,400
G559	General Jim Moore Blvd	G559	G501	91	0.66	15	18	\$ 74	\$ 6,700
G565	General Jim Moore Blvd	G565	G562	309	0.47	12	15	\$ 62	\$ 19,200
TOTAL LENGTH				1271					
				CONSTRUCTION COST				\$	90,300
				20% CONTINGENCY				\$	18,100
				25% MCWD Soft Costs [1]				\$	22,600
				TOTAL PROJECT				\$	131,000

[1] Soft Costs = 10% of construction cost for Engineering Design, 10% of construction cost for construction management and inspection, 5% of construction cost for legal and administrative fees.

**Project Description:**

Replace existing 12 and 15-inch diameter gravity sewer pipeline with appropriate 15 and 18-inch diameter gravity sewer pipeline to provide required capacities for wastewater flow and to conform to District requirements for minimum slope. Pipeline segments are connecting pipeline segments that should be constructed as one project or are within the geographic vicinity.

**CIP # 30 – General Jim Moore Pipeline Replacement Project III**

Year Planned for Construction: 2020  
Capacity Scenario: 2020 PWWF

**Upstream Flow Sources at Build-out:** Marshall Park, Fitch Park, Marshall Elementary School, First Tee, Seaside East, Chartwell School

**Upstream Lift Stations:** Hatten

**Project Location Map:** Attached on next page. Proposed CIP facilities are colored in red.

## MEMORANDUM

TO: File DATE: June 22, 2015  
FROM: Andy Sterbenz JOB #: MCWD.43.12.001  
SUBJECT: MCWD Sewer Model Update Scenarios

Seaside County Sanitation District (SCSD) has proposed annexing the portion of the Ord Community within the City of Seaside, including the portions currently served by MCWD. The proposed means of service would be to direct flows from Seaside East, Del Rey Oaks and Monterey west across General Jim Moore Blvd into the existing SCSD collection system. Flows from the existing system and new developments north of Coe/Eucalyptus Avenue would continue to flow through the existing system into Marina, with a potential metering flume installed at the southern end of 1<sup>st</sup> Avenue. The District has requested an engineering evaluation of the SCSD proposal.

The Ord Community Sewer System was modeled in 2005 by RBF, as part of the Sewer System Master Plan. The model at that time assumed that all flows from the southern portion of the Ord Community would be pumped north in General Jim Moore Blvd to the existing collection system. The model did not include the proposed Monterey Downs development and California Central Coast Veterans Cemetery, located east of the Fitch Park Housing Area. The rest of the master plan build-out flows appear to be correct.

Two modeling scenarios will be run to account for the changes proposed by SCSD.

**Scenario 1:** Remove flows from areas south of Eucalyptus Avenue. The 2005 model included the following average dry weather flows (ADWF) from proposed developments:

<u>Area</u>	<u>ADWF (gpd)</u>
Seaside east of Gen. Jim Moore Blvd	713,000
Del Rey Oaks	285,000
City of Monterey	33,000
Total	1,031,000

The addition of these flows contributed to the need for these Pipeline CIPs:  
CIP 27: Gen. Jim Moore Blvd gravity sewer, Phase 1, McClure Way to Normandy Rd  
CIP 28: 1<sup>st</sup> Ave gravity sewer, Light Fighter Drive to 4<sup>th</sup> Street  
CIP 29: Gen. Jim Moore Blvd gravity sewer, Phase 2, segment behind Post Exchange  
CIP 30: Gen. Jim Moore Blvd gravity sewer, Phase 3, chapel to Gigling Rd.

We will remove these inflows from the buildout (2020) model scenario and evaluate the effects on the listed CIPs. Turning off the proposed Seaside East Lift Station should be all that is required.

**Scenario 2:** Add flows from the Monterey Downs specific plan area. The Monterey Downs specific plan area is east of Parker Flats Cut-Off/Parker Flats Road and south of Gigling Road. Two sewer points of connection are proposed, one at the corner of Gigling Rd and 7<sup>th</sup> Ave (POC #1), and the other at the corner of Normandy Road and Parker Flats Cut-Off (POC #2). Based upon the 2012 Water Supply Assessment prepared for the project, wastewater flows are estimated as:

Area	ADWF (gpd)	PWWF (gpd)
POC #1	327,000	928,600
POC #2	168,800	479,300

Peak wet weather flow (PWWF) assumes a peaking factor of 2.4 (population of 2500 persons in each area) and an infiltration and inflow factor of 0.44, per the MCWD PGDR, Section 500. Projected indoor water demands are lower than the 90 gallons/person/day planning factor in the PGDR, so instead, this assumes 100% of indoor water use returns as wastewater.

The addition of these flows may contribute to the need for these Pipeline CIPs:

CIP 28: 1<sup>st</sup> Ave gravity sewer, Light Fighter Drive to 4<sup>th</sup> Street

CIP 29: Gen. Jim Moore Blvd gravity sewer, Phase 2, segment behind Post Exchange

CIP 30: Gen. Jim Moore Blvd gravity sewer, Phase 3, chapel to Gigling Rd.

New CIP: Normandy Road gravity sewer, Parker Flats Cut-Off to Gen. Jim Moore Blvd

New CIP: Gigling Road gravity sewer, 7<sup>th</sup> Ave to Gen. Jim Moore Blvd

We will add these inflows to the Scenario 1 (2020) model and evaluate the effects on the listed CIPs.