APPENDIX E. PUBLIC COMMENT ANALYSIS

The Public Comment Analysis appendix of the EA presents responses to comment letters that were received during public circulation of the Draft EA for the Cal Am Slant Test Well Project. These comment letters were received from multiple entities including local agencies and the general public.

The comment letters are provided in chronological order below with individual responses following each letter. Comment letters are reproduced in total, and numerical annotation has been added, as appropriate, to delineate and reference the responses to those comments. Related revisions to the Draft EA are referenced in individual responses, as appropriate.

E.1 Agency Comment Letters and Responses

The following agencies have submitted comments on the Draft EA.

Respondent	Code	Contact Information	Page
Monterey Peninsula Regional Water Authority Letter dated: July 25, 2014	MPRWA	580 Pacific Street Monterey, CA 93940 *Contact: James M. Cullem, P.E., Executive Director*	E-2
Monterey Regional Water Pollution Control Agency Letter dated: July 25, 2014	MRWPCA	5 Harris Court, Building D Monterey, CA 93940 *Contact: Keith Israel, General Manager*	E-5

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Comment from James Cullem, MPRWA

This is a Comment on the **National Oceanic and Atmospheric Administration** (NOAA) Other: Cal Am Slant Test Well - EA_6-25-14

For related information, Open Docket Folder

Comment Period Closed
Jul 25 2014, at 11:59 PM ET

ID: NOAA-NOS-2014-0078-0002
Tracking Number: 1jy-8df8-iqfk

Comment

MPRWA-1

On behalf of the Monterey Peninsula Regional Water Authority (MPRWA), I want to express our support for approval of the Environmental Assessment (EA) for the California American Water (Cal Am) Slant Test Well Project.

The Monterey Peninsula has struggled for over 30 years to find a new supply of water to protect against periodic droughts as well as to comply with CDO 2009-0060. At long last, the community has come together in support of Cal Am's Monterey Peninsula Water Supply Project (MPWSP).

This project has been intensely scrutinized by a wide variety of stakeholders who participated as interveners in the CPUC's process for evaluating Cal Am's project application 12-04-019. Those stakeholders included representatives of environmental groups as well as agricultural interests.

On July 31, 2013, a significant majority (16) of interveners adopted a settlement agreement in which it was agreed that a "Technical Group" would be formed to prepare a Hydrogeologic Study to identify what, if any, impact the intake slant wells would have on the Salinas Valley groundwater. As noted in the EA, the Technical Group developed the North Marina Ground Water Model which will be further refined by data collected from the test slant well.

The EA also observes that the test slant well has become a critical component of the CEQA and EA process for the larger MPWSP. Although the MPRWA supports a complete and comprehensive environmental process for the test well project, it should be recognized that the purpose of the MPWSP is to eliminate the current serious detrimental environmental impacts to the Carmel River.

Finally, it cannot be overstated that the community is facing a very serious deadline with CDO 2009-0060, and its implementation would have grave economic and social

nt Information

Date Posted:
Jul 25, 2014

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Submitter Information

Submitter Name:
James Cullem

City:
Monterey

Country:
United States

State or Province:
CA

Organization Name:
Monterey Peninsula Regional Water Authority

consequences in our region. We do not have alternatives to the timely completion of the MPWSP, and the test slant well, requested by environmental interests in the first place, is critical to evaluating the project and moving forward.

Sincerely,

James M. Cullem, P.E.
Executive Director
MPRWA
831-241-8503

MPRWA-1

E.1.1 Response to Letter from Monterey Peninsula Regional Water Authority

Comment No.	Response
MPRWA-1	The comment expresses the Monterey Peninsula Regional Water Authority's support for Cal Am's proposed project. The comment summarizes the history of and need for Cal Am's project, its information gathering purpose as developed by the Technical Group that was culminated through a multi-agency/organization agreement, and the critical timeline for completion of the project. The comment expressed support for approval of the EA and the proposed project. No changes to the EA or further responses are necessary.

Monterey Regional Water Pollution Control Agency

"Dedicated to meeting the wastewater and reclamation needs of our member agencies, while protecting the environment."

Administration Office:
5 Harris Court, Bldg. D, Monterey, CA 93940-5756
(831) 372-3367 or 422-1001, FAX: (831) 372-6178
Website: www.mrwpca.org

July 25, 2014

Monterey Bay National Marine Sanctuary
Attn: Ms. Bridget Hoover, Water Quality Protection Program Director
99 Pacific Street, Bldg. 455A
Monterey, California 93940

RE: Environmental Assessment for the California American Water Slant Test Well Project

Dear Bridget,

The Environmental Assessment document was released for public comment in June 2014. The review period ends today, and the MRWPCA would like to provide comments on the document.

Page 17 Figure 2: Revise figure to show actual location of the slant test well and of the land outfall (shown on several of the other figures). We understand that the well has been moved inland and northward so that it now crosses under MRWPCA's outfall (do not know if that is the Land or Ocean outfall or how deep these crossings are). The actual location and details of the crossing are needed before any review can be made. Once the proposed design and location are finalized, MRWPCA would like to have time to comment on the proposed design and location of the crossings. **MPRWA-1**

Page 21 (Section 2.2.1, Slant Test Well): "Temporary" sedimentation tanks may need to be permanent (for duration of operation) if sand remains in test water after well development. Wellhead vault equipment should also include shut off valve, pressure sensor, and connection with SCADA. **MPRWA-2**

Table 1: Include all NPDES constituents before MRWPCA can allow connection. **MPRWA-3**

Figure 3a: Extreme care and USA North 811 alert needed for work around our land and ocean outfall pipe. **MPRWA-4**

Figure 3e: It would be good to include land outfall location to show how it is outside the impact area. **MPRWA-5**

Joint Powers Authority Member Entities:
Boronda County Sanitation District, Castroville Community Services District, County of Monterey, Del Rey Oaks, Fort Ord, Marina Coast Water District, Monterey, Moss Landing County Sanitation District, Pacific Grove, Salinas, Sand City, and Seaside.

Page 21 (Section 2.2.3 Phase 1 – Project Construction): Exposure of the entire 42-inch by 84-inch cover (required in order to order a replacement for after decommissioning) probably will require more than a 30-foot diameter excavation due to need for at least a 3 to 1 slope with the fine sand. Cutting and welding work to connect to the cover will probably need to be performed at night when the structure is not pressurized. The disturbed area junction box area will need to have a protective barrier surrounding the area in order to avoid any accidental vehicle or pedestrian traffic in or on or around the discharge/outfall connection point. **MPRWA-6**

Page 35 (Section 2.2.4 Phase 2 – Project Operation): Better to change "existing outfall pipe" to "MRWPCA ocean outfall pipe". We do not know what sampling requirements will be needed for the test water so not sure if weekly water sampling is adequate (we think it will be). The Regional Board may require a flow based composite sampler rather than a sampling tap. First sentence, last paragraph: change "would" to "may" according to what we have been told. **MPRWA-7**

Page 36 (Section 2.2.5 Phase 3 – Project Decommissioning): Last sentence, first paragraph. We understand a deeper section of slant well casing would be removed. This should be clarified. **MPRWA-8**

Page 36 (Table 2): Discharge Permit (Regional Board) may be NPDES modification or Waste Discharge Permit, or other for allowing discharge through MRWPCA outfall. **MPRWA-9**

Page 79 (Water Quality). Second paragraph: Table 1 does not include all Ocean Plan constituents—the table needs to be updated. The second paragraph mentions regular sampling and monitoring throughout the project operation. This needs to be more defined. MRWPCA also suggests that Ocean Plan constituents be monitored twice a year. **MPRWA-10**

Page 84 (Hazardous Materials) Second Paragraph: The mixing, use, transport of any hazardous substances during installation, operation and decommissioning of the slant well should be performed a safe distance away from the discharge/outfall connection point. This would minimize the potential for any foreign substance being sent out to the outfall. **MPRWA-11**

Page 95 (COP/NPDES constituents) Second Paragraph: Not all of the Ocean Plan/NPDES were sampled or listed in Table 1 of this document. **MPRWA-12**

Page 119 (Appendix A No. 28): MRWPCA would like to reiterate that if the temporary well does not become permanent, that it would be abandoned in place. Removal of the temporary well could adversely affect the Land and Ocean Outfalls more than construction. **MPRWA-13**

Sincerely,

Keith Israel
General Manager

E.1.2 Response to Letter from Monterey Regional Water Pollution Control Agency

Comment No.	Response
MRWPCA-1	The comment references Figure 2, the Project Location Map – Terrestrial Area, and requests revisions to show the mitigated slant test well insertion point and outfall location. The EA analyzed Cal Am's proposed project as reflected in the Request for Authorization and Project Description submitted to MBNMS on June 25, 2013. However, mitigation was identified that would require the slant test well to be moved inland to avoid the placement of structures within the coastal erosion hazard zone to the extent possible. Cal Am has confirmed that this project change would be feasible and has identified a preliminary location approximately 240 feet inland, still within the CEMEX access road, to construct the well considering the mitigation requirement. MBNMS's authorization of the proposed drilling into the submerged lands and discharge of water into the MBNMS will be conditioned on implementation of this mitigation requirement. However, neither this mitigation measure, nor any others included in Appendix A, has been incorporated into a revised project description; the EA has only analyzed the potential environmental effects of the project as proposed by Cal Am. It is noted that MRWPCA will require revised graphics that reflect the new well location and its proximity to the MRWPCA outfall prior to its authorization for use of the outfall. The EA identifies and describes MRWPCA's ownership of the outfall and recognizes that Cal Am would be required to resolve design and engineering concerns of MRWPCA through a negotiated agreement or memorandum of understanding prior to project development. MBNMS will inform Cal Am that MRWPCA requests final design plans and details of any outfall crossings prior to project approval.
MRWPCA-2	This comment states that Cal Am's proposed use of temporary sedimentation tanks during initial testing of the slant test well may need to be permanent to ensure no sand enters the outfall during the pump testing phase. The EA recognizes MRWPCA's concerns related to sand entering the outfall and the need for coordination with MRWPCA and engineering design techniques to ensure no sand enters the outfall.
MRWPCA-3	Table 1 reflects the proposed water quality analytical suite that has been developed by the HWG and proposed for Cal Am's slant test well project. This comment indicates that Table 1 does not include all NPDES constituents. The EA recognizes that Cal Am's proposed discharge would be subject to the requirements of a NPDES or other discharge permit from CCRWQCB and in coordination with MRWPCA. Mitigation measure 17 requires the project applicant to provide MBNMS with a valid NPDES permit or other evidence of CCRWQCB approval for the proposed slant test well discharge, which approval shall incorporate all relevant standards of the California Ocean Plan, consistent with MRWPCA's comment.

Comment No.	Response
MRWPCA-4	This comment states that extreme care and USA North 811 alert are needed for work around the MRWPCA land and ocean outfall pipes. MBNMS is receptive to MRWPCA's concerns regarding its outfall facilities. The EA requires proof of a negotiated agreement or other memorandum of understanding between Cal Am and MRWPCA prior to project construction that includes engineering design review by MRWPCA and USA North 811 positive location of the outfall and other related infrastructure.
MRWPCA-5	This comment states that it would be helpful to include the land outfall location in Figure 3e to show it is outside of the impact area. Figures 3 through 3d reflect the location of the outfall easement through the CEMEX parcel. Because no portion of the outfall easement lies within the CEMEX parcel at the detailed Figure 3e location, it is not shown in Figure 3e. Figure 3 makes clear that no portion of the outfall is located in that area.
MRWPCA-6	The comment addresses details of Cal Am's proposed connection to the MRWPCA junction structure. Cal Am proposes to use temporary shoring, as necessary, to manage the fine sands at the project site and stay within the identified construction footprint. The EA recognizes the need for potential nighttime construction activities and coordination with and approval by MRWPCA for outfall connection. MRWPCA's comments have been provided to Cal Am so the applicant is aware of the potential need to connect to the junction structure at nighttime when the structure is not pressurized. Measure 30 identified in Appendix A has also been amended to reflect the need for a protective barrier surrounding the excavated areas to avoid any accidental vehicle or pedestrian traffic in those areas.
MRWPCA-7	The reference to the "existing outfall pipe" in Section 2.2.4 has been changed to "MRWPCA ocean outfall pipe" consistent with this comment.
MRWPCA-8	Similar to the response to MRWPCA-1, above, this comment references a mitigation requirement included in Appendix A that would require removal of well casing to a greater depth than was proposed by Cal Am in its June 25, 2013 Request for Authorization and Project Description. This requirement is discussed in Section 6.1.3 of the EA in relation to potential hydrology related project impacts, and the requirement for removal to a greater depth is stated in Measure 28 of Appendix A.
MRWPCA-9	This comment states that the CCRWQCB permit authorizing Cal Am's proposed discharge may be a Waste Discharge Permit, or modification of MRWPCA's existing NPDES permit, or other CCRWQCB approval to allow Cal Am's proposed discharge through the outfall. Relevant sections of the EA have been revised to clarify the potential state actions that may be utilized to permit the discharge.

Comment No.	Response
MRWPCA-10	This comment states that Table 1 does not include all Ocean Plan constituents. Refer to Response to MRWPCA-3, above. Table 1 reflects the proposed water quality analytical suite that has been developed by Cal Am for the slant test well project. Mitigation measure 17 requires the project applicant to provide MBNMS with a valid NPDES permit or other evidence of CCRWQCB approval for the proposed slant test well discharge, which approval shall incorporate all relevant standards of the California Ocean Plan, consistent with MRWPCA's comment. Requirements for operational monitoring and sampling are described in Measure 29 of Appendix A, which requires preparation of a monitoring plan subject to MBNMS review and approval. Measure 29 has been modified to ensure Ocean Plan constituent are monitored no less than twice a year, consistent with this comment. The Hydrogeologic Investigation Work Plan prepared for Cal Am by Geoscience (December 18, 2013) anticipates monitoring wells equipped with water level transducers and conductivity transmitters that will continually log information.
MRWPCA-11	This comment states that any mixing, use, or transport of hazardous substances during development and operation of the slant test well should be performed a safe distance away from the outfall connection point to minimize the potential for any foreign substance entering the outfall. Measure 18 requires all maintenance, cleaning, and refueling of equipment to occur at the eastern end of the project area, away from sensitive Primary and Secondary Habitat areas. Measure 24 has been revised to further specify siting requirements for any hazardous materials away from the junction structure and outfall connection.
MRWPCA-12	This comment states that Table 1 does not include all Ocean Plan / NPDES constituents. Refer to Response to MRWPCA-10, above. Measures in the EA require discharge pursuant to an NPDES or other CCRWQCB permit that incorporates all standards of the Ocean Plan. Measure 29 has been modified to clarify the requirement that slant test well monitoring and water quality sampling include all NPDES and Ocean Plan constituents.

Comment No.	Response
MRWPCA-13	This comment reiterates MRWPCA's preference that if the well is not converted to a permanent well for use in the permanent MPWSP, that it be abandoned in place. The EA recognizes this request in Section 6.4.3 of the EA related to proposed impacts on MRWPCA infrastructures and utilities. As currently proposed, in the event the slant test well is not converted into a permanent well, it would be decommissioned pursuant to the requirements of California Well Standards Bulletin 74-81 and 74-90, which require removal to a depth of 5 feet below ground surface. The EA identified the potential for future re-surfacing of well casing as a result of coastal shoreline erosion, and therefore, recommended removal of the well casing to a depth of 40 feet below ground surface to eliminate the possibility for future exposure. MBNMS and Cal Am are receptive to MRWPCA's concerns that removal of the well could adversely affect the outfall. If removal of the well to the total depth of 40 feet below ground surface upon project completion proves to be infeasible and Cal Am and MRWPCA cannot agree on a feasible and safe method of removing the well to the required depth at the time of project decommissioning, then removal of the well casing to an ultimate depth of 40 feet below ground surface could be achieved through mutually agreed upon measures, including for example, removal to a safe depth at the time of decommissioning (no less than 5 feet as required by Bulletin 74-81 and 74-90) and future removal to the total depth of 40 feet at a later date. Because the MRWPCA outfall sits at a higher elevation than the slant test well would, it would be subject to exposure as a result of coastal erosion before the slant test well. Removal of the well could be timed to take place as necessary to protect MRWPCA facilities and eliminate the potential for surfacing of the well components. Measure 28 was revised to clarify the timing of well casing removal in accordance with MRWPCA requirements for the protection of its outfall.

E.2 General Public Comment Letters and Responses

The following members of the general public have submitted comments on the Draft EA.

Respondent	Code	Contact Information	Page
William Bourcier, Ph.D. Letter dated: July 28, 2014	WB	wbourcier@gmail.com bourcier1@llnl.gov	E-12

regulations.gov
Your Voice in Federal Decision-Making

Comment from William Bourcier

This is a Comment on the **National Oceanic and Atmospheric Administration** (NOAA) Other: Cal Am Slant Test Well - EA_6-25-14

For related information, Open Docket Folder

Comment Period Closed
Jul 25 2014, at 11:59 PM ET

ID: NOAA-NOS-2014-0078-0003
Tracking Number: 1jy-8dfb-kt1j

Comment

Dear Sir,

I have attached a comment below on the DWR ocean plan having to do with the Cal Am Slant Test Well and specifically the emission of greenhouse gases from desalination feed sourced in the subsurface. I have worked in the area of carbon management for several years and this aspect of coastal desalination to my knowledge has never been addressed in the permitting of desalination plants. I hope it has some value for your analysis.

Regards,
William Bourcier, Ph.D.
Livermore, CA
wbourcier@gmail.com
bourcier1@llnl.gov

Document Information

Date Posted:
Jul 28, 2014

Show More Details

Submitter Information

Submitter Name:
William Bourcier

City:
Livermore

Country:
United States

One aspect of placing seawater intakes in the subsurface which is not addressed in the EA is that of the potential for carbon dioxide and methane release from pumped waters from the Dune Sand Aquifer. Subsurface fluids generally have elevated carbon dioxide contents due to microbial activity. The carbon dioxide contents are much higher than atmospheric so that upon discharge at the surface the fluids will release CO2 to the atmosphere. This is true in general for all pumped subsurface waters. Macpherson (Chemical Geology (2009) 264:328-336) estimates that globally this CO2 flux is about equal to the sum of all volcanic CO2 release. Macpherson did not consider release from desalination plants in his assessment.

WB-1

WB-2

My suggestion is that MBNMS permission should be conditioned on accurate measuring of GHG emitted from this test well so that the GHG emission from the project slant wells can be accurately projected.

WB-3

One can estimate the flux of carbon dioxide into the atmosphere

WB-4

from desalination of sea water obtained from the subsurface. If we assume a typical carbon dioxide partial pressure of 0.1 bars (typical of CO2 pressures measured in soils), we can calculate that upon equilibration of the fluid with the atmosphere one liter of fluid will release about 34 mmoles of CO2. For a 50 MGD sea water desalination plant this corresponds to about 0.2 million tonnes per year of released CO2 – CO2 that is basically pumped from the subsurface into the atmosphere as a result of the desalination plant. In addition, subsurface fluids often contain significant methane concentrations which would also be released into the atmosphere.

WB-4

I suggest expanding either the discussion on page 83 of greenhouse gas emissions or section on cumulative impact on page 103 to include this concept. To assess the true magnitude of CO2 release the work scope should include careful assessment in the monitoring of the produced waters to insure that all CO2 present in the subsurface is accounted for in the water analysis, and that the magnitude of CO2 (and methane) degassing be accurately assessed.

WB-5

This project also affords the opportunity to address the larger question of the use of pumped subsurface fluids vs. open ocean intakes as the optimum source of seawater for desalination plants.

WB-6

E.2.1 Response to Letter from William Bourcier, Ph.D.

Comment No.	Response
WB-1	This comment introduces the issue of greenhouse gas emissions that can occur from subsurface desalination water supply sources. Further detailed responses are provided below.
WB-2	The comment states that subsurface pumping conducted, i.e., for seawater intakes, can result in the release of carbon dioxide and methane due to elevated levels in subsurface fluids. Section 6.1.4 of the EA has been modified to reflect this potential.
WB-3	The comment suggests a requirement that accurate measuring of GHG emissions from the slant test well project be required so that the GHG emissions from the full-scale MPWSP can be accurately projected. The EA found the potential for impacts related to GHG emissions as a result of Cal Am's slant test well to be negligible, due to the limited nature and duration of the pumping activities proposed. MBNMS has forwarded Cal Am the comment so they are aware of related concerns associated with the MPWSP.
WB-4	This comment approximately quantifies the amount of carbon dioxide that would be emitted by a 50 MGD desalination plant. Cal Am's proposed slant test well project does not include any permanent subsurface pumping or desalination. GHG emissions as a result of the slant test well would be minimal due to the limited nature and duration of pumping activities. Therefore, no further analysis of this issue is required. However, the comment has been forwarded to Cal Am so it is aware of the potential concern as it relates to the MPWSP.
WB-5	The EA has been modified to identify the potential for GHG emissions as a result of pumping subsurface waters. Impacts related to the proposed slant test well project would be negligible due to the nature and limited duration of pumping activities. No further analysis of this issue is required; however, the comment has been forwarded to Cal Am so it is aware of the potential concern as it relates to the MPWSP.
WB-6	The comment relates to the issue of whether subsurface vs. open ocean intakes is the optimum source of seawater for desalination plants. That questions is outside of the scope of the EA. However, the EA does reference the MPWSP and the Guidelines for Desalination Plants in MBNMS (May 2010), which includes various policies that reflect a preference for subsurface intake systems due to the reduced impacts to the marine environment. No further analysis of this issue is required.