

TO: COMMITTEE MEMBERS
FROM: BRUCE BUEL *BBS*
DATE: FEBRUARY 1, 2008

AGENDA ITEM

2

FEB. 4, 2008

RELATIONSHIP OF CURRENT DISCHARGE & NIPOMO CREEK FLOW (TASK 4)

ITEM

Receive Fugro Presentation re: Relationship of Current Discharge and Nipomo Creek Flows (Task 4) [Forward Recommendation to Board].

BACKGROUND

Attached is a technical memorandum related to Fugro's Phase 2 Hydrogeologic Investigation of the Southland WWTF. The purpose of Task 4 was to investigate the relationship of the WWTF and Nipomo Creek.


As indicated in the technical memorandum, the water quality in Nipomo Creek is being influenced by effluent from the Southland WWTF. The implications of this finding are unknown at this time as this has not been presented to the Central Coast Regional Water Control Board staff and it is likely that some additional investigation will be necessary.

RECOMMENDATION

Staff recommends that the Committee review the attached technical memorandum and forward a recommendation to the Board to accept the technical Memorandum.

ATTACHMENTS

- Fugro Phase II, Task 4 Report

TO: COMMITTEE MEMBERS
FROM: BRUCE BUEL 
DATE: FEBRUARY 1, 2008

AGENDA ITEM

3

FEB. 4, 2008

ASSESSMENT OF EXTRACTION OF DISCHARGE WATER FROM BENEATH SOUTHLAND WWTF (TASK 2)

ITEM

Receive Fugro Presentation re: Assessment of Extraction of Discharge Water from Beneath the Southland WWTF (Task 2) [Forward Recommendation to Board].

BACKGROUND

Attached is a technical memorandum related to Fugro's Phase 2 Hydrogeologic Investigation of the Southland WWTF. The purpose of Task 2 was to investigate the feasibility for pumping discharged effluent from the effluent mound beneath the Southland WWTF for additional percolation and disposal at a yet to be identified new site.


As indicated in the technical memorandum, the testing and modeling work conducted suggest that up to 60% of discharged effluent from the mound beneath the Southland WWTF could be extracted for disposal at another site. Furthermore, such a program would decrease the effluent flow to Nipomo Creek to 5% of total Southland WWTF flow even as the discharged volume increased to 1.13 MGD in 2017.

RECOMMENDATION

Staff recommends that the Committee review the attached technical memorandum and forward a recommendation to the Board to accept the technical memorandum.

ATTACHMENTS

- Fugro Phase II, Task 2 Report

TO: COMMITTEE MEMBERS
FROM: BRUCE BUEL 
DATE: FEBRUARY 1, 2008

AGENDA ITEM
4
FEB. 4, 2008

**FEASIBILITY LEVEL EXPLORATION OF
NEW POTENTIAL DISPOSAL SITES (TASK 1)**

ITEM

Receive Fugro Presentation re: Feasibility Level Exploration of New Potential Disposal Sites (Task 1) [Forward Recommendation to Board].

BACKGROUND

Attached is a technical memorandum related to Fugro's Phase 2 Hydrogeologic Investigation of the Southland WWTF. The purpose of Task 1 was to investigate the technical feasibility of developing new sites for percolation ponds in an area west of the Southland WWTF.

As indicated in the technical memorandum, all of the sites investigated appear viable for the percolation of effluent based on the observed lithology. Property 2, located south of Mesa Road, appears to be the most viable site due to the minimal relief of the site.

RECOMMENDATION

Staff recommends that the Committee review the attached technical memorandum and forward a recommendation to the Board to accept the technical memorandum.

ATTACHMENTS

- Fugro Phase II, Task 1 Report

TO: COMMITTEE MEMBERS
FROM: BRUCE BUEL *BB*
DATE: FEBRUARY 1, 2008

AGENDA ITEM
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FEB. 4, 2008

**REMAINING PHASE 2 RESEARCH
RECOMMEND NEW MONITORING WELL LOCATIONS (TASKS 3)
ASSESS WATER QUALITY OF THE DEEP AQUIFER (TASK 5)**

ITEM

Receive Fugro Presentation re: Remaining Phase 2 Research, Recommend New Monitoring Well Locations (Task 3) and Assess Water Quality of the Deep Aquifer (5) [Forward Recommendations to Board].

BACKGROUND

Attached is a status update related to Fugro's Phase 2 Hydrogeologic Investigation of the Southland WWTF regarding Tasks 3 and 5. The purpose of Task 3 is to assess potential sites for new monitoring wells and the purpose of Task 5 is to assess water quality of the deep aquifer in the vicinity of the Southland WWTF.

As indicated in the update regarding Task 3, further work on this task is being held off until a specific new disposal site has been identified.


As indicated in the update regarding Task 5, Fugro has identified several deep wells in the vicinity of the Southland WWTF that could potentially be sampled to provide data regarding the water quality in the deep aquifer in the immediate vicinity of the Southland WWTF. Staff is working on obtaining permission from the well owners to sample the wells. Sampling of the deep aquifer in the vicinity of a new disposal site is being held off until a specific new disposal site is identified.

RECOMMENDATION

Staff recommends that the Committee review the attached status reports and forward a recommendation to the Board to proceed with the work once a new specific disposal site is identified.

ATTACHMENTS

- Fugro Phase II, Task 3 Status Report
- Fugro Phase II, Task 5 Status Report

TO: COMMITTEE MEMBERS
FROM: BRUCE BUEL 
DATE: FEBRUARY 1, 2008

AGENDA ITEM

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FEB. 4, 2008

CONSIDER PHASE 3 RESEARCH PROGRAM CONCEPTS

ITEM

Consider Phase 3 Research Program Concepts [Forward Recommendations to Board].

BACKGROUND

Based on the groundwater modeling work detailed in Fugro's Phase 2, Task 2 Technical Memorandum, and the impact of the current discharge from the Southland WWTF on Nipomo Creek flows detailed in Fugro's Phase 2, Task 4 Technical Memorandum, it appears that locating additional wastewater disposal ponds adjacent to the existing Southland WWTF may not be feasible as the District is likely to encounter the same types of problems as are currently occurring with the existing disposal ponds. The proximity of Nipomo Creek to the east of the Southland WWTF and the Santa Maria River fault to the west of the existing facility appear to limit the potential for disposing of any additional effluent on property located within these boundaries.

One possible option is to investigate the feasibility of potential disposal sites west of the Santa Maria River Fault, i.e., west of Orchard Road. There is one potential feasible site immediately west of Orchard Road at Southland Street that is currently being dry farmed. However, the site is adjacent to the bluff so in addition to evaluating the percolation characteristics of the site, the District would need to ensure that the stability of the bluff would not be impacted.

Another possible option is to investigate the feasibility of upgrading the treatment process at the Southland WWTF to tertiary level and then utilizing the water for park, golf course and/or agriculture irrigation. This option is more costly than the District's current disposal method and would offer the opportunity to directly offset the use of potable water for irrigation. Attached is a summary table that lists the various types of recycled water based on the level of treatment and the allowable uses for the recycled water.

Fugro is already tasked with investigating the water quality underneath the existing aquitard as part of the Phase 2, Task 5 work that is underway.

RECOMMENDATION

Staff recommends that the Committee discuss the possible options and forward a recommendation to the Board.