

**JOINT MEETING
CITY OF MORRO BAY AND CAYUCOS SANITARY DISTRICT
WASTEWATER TREATMENT PLANT
(UNDER JOINT POWERS AGREEMENT)**

Cayucos Sanitary District Board of Directors:

Robert Enns, President
Dan Chivens, Vice-President
Michael Foster, Director
Shirley Lyon, Director
Dan Lloyd, Director

City of Morro Bay City Council:

Jamie Irons, Mayor
George Leage, Vice-Mayor
Christine Johnson, Councilmember
Nancy Johnson, Councilmember
Noah Smukler, Councilmember

AGENDA

MEETING DATE:

6:00 p.m., Thursday, December 12, 2013

MEETING PLACE:

Cayucos Veterans Hall
10 Cayucos Drive
Cayucos CA 93430

HOSTED BY:

Cayucos Sanitary District

CALL TO ORDER AND ROLL CALL

COUNCIL AND BOARD ANNOUNCEMENTS

PUBLIC COMMENT PERIOD

Members of the audience wishing to address the governing bodies on Morro Bay-Cayucos Wastewater Treatment Plant (WWTP) business matters may do so at this time. By the conditions of the Brown Act, the governing bodies may not discuss issues not on the agenda, but may set items for future agendas. When recognized by the Chair, please come forward to the podium and state your name and address for the record. Comments should be limited to three minutes. All remarks shall be addressed to the governing bodies, as a whole, and not to any individual member thereof. This governing body requests that you refrain from making slanderous, profane, or personal remarks. Please refrain from public displays or outburst such as unsolicited applause, comments, or cheering. Any disruptive activity that substantially interferes with the ability of this governing body to carry out its meeting will not be permitted and offenders will be requested to leave the meeting. Your participation in JPA meetings is welcome and your courtesy will be appreciated.

A. CONSENT CALENDAR

Unless an item is pulled for separate action by the City Council or Cayucos Sanitary District Board, the following items are approved without discussion

A-1 MINUTES OF SEPTEMBER 12, 2013 JPA MEETING

Recommendation: Approve as submitted

A-2 WWTP OPERATIONS REPORT THROUGH OCTOBER, 2013

Recommendation: Receive and file

A-3 STATUS REPORT ON THE NPDES PERMIT RENEWAL PROCESS

Recommendation: Receive and file

B. OLD BUSINESS

B-1 STATUS REPORT OF THE MAJOR REPAIR AND MAINTENANCE PLAN (MMRP) FOR THE WWTP

Recommendation: Receive and file

C. NEW BUSINESS

C-1 VERBAL REPORT AND DISCUSSION BY THE CITY AND DISTRICT ON THE PROGRESS OF THE FUTURE WWTP

C-2 SCHEDULE NEXT JOINT MEETING AND AGENDA ITEMS

ADJOURNMENT - (Next meeting will be hosted by the City of Morro Bay)

Copies of staff reports and other public documentation relating to each item of business for this meeting are available for inspection at Morro Bay City Hall at 595 Harbor Street and the Cayucos Sanitary District at 200 Ash Ave. A copy of this packet is available from the City of Morro Bay for copying at Mills Copy Center and from the Cayucos Sanitary District for a copy and duplication charge. Any person having questions regarding any agenda items may contact Bruce Keogh, Wastewater Division Manager (City of Morro Bay) at 772-6261 or Rick Koon, District Manager (Cayucos Sanitary District) at 995-3290. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Public Services' Administrative Technician at (805) 772-6261, or the Cayucos Sanitary District at (805) 995-3290. Notification 24 hours prior to the meeting will enable the City and District to make reasonable arrangements to ensure accessibility to this meeting.

Materials related to an item on this Agenda submitted to the City of Morro Bay or the Cayucos Sanitary District after distribution of the agenda packet are available for public inspection at the scheduled meeting.

AGENDA ITEM: A-1

DATE: December 12, 2013

ACTION:

**JOINT MEETING
CITY OF MORRO BAY AND CAYUCOS SANITARY DISTRICT
WASTEWATER TREATMENT PLANT
(UNDER JOINT POWERS AGREEMENT)**

MINUTES

**CAYUCOS SANITARY DISTRICT
BOARD OF DIRECTORS:**

Robert Enns, President
Dan Chivens, Vice-President
Michael Foster, Director
Shirley Lyon, Director
Dan Lloyd, Director

**CITY OF MORRO BAY CITY COUNCIL
MEMBERS:**

Jamie Irons, Mayor
George Leage, Vice-Mayor
Christine Johnson, Councilmember
Nancy Johnson, Councilmember
Noah Smukler, Councilmember

MEETING DATE:

6:00 p.m., Thursday, September 12, 2013

HOSTED BY:

City of Morro Bay

MEETING PLACE:

Multi-Purpose Room
Community Center
1001 Kennedy Way
Morro Bay, CA 93442

CALL TO ORDER AND ROLL CALL

Mayor Irons called the meeting to order at 6:01 pm and asked the record to show all Councilmembers were present except for Councilmember Nancy Johnson. All Cayucos Sanitary District Boardmembers were present.

Morro Bay staff members present were Bruce Keogh, Rob Livick, and Katie Mineo.

Cayucos staff members present were District Manager Rick Koon and District Counsel Tim Carmel.

PUBLIC COMMENT PERIOD

Members of the audience wishing to address the governing bodies on Morro Bay-Cayucos Wastewater Treatment Plant (WWTP) business matters may do so at this time. By the conditions of the Brown Act, the governing bodies may not discuss issues not on the agenda, but may set items for future agendas. When recognized by the Chair, please come forward to the podium and state your name and address for the record. Comments should be limited to three minutes.

Mayor Irons opened Public Comment period, and, seeing none, closed Public Comment period.

A. CONSENT CALENDAR

Mayor Irons opened Public Comment period for the Consent Calendar, and seeing none, closed Public Comment period.

Councilmember Smukler asked Keogh to report on the status of the operations of the WWTP. Keogh stated there is nothing new to report for the WWTP operations. He also stated the NPDES renewal packet was submitted to the Regional

Water Quality Control Board on August 22, 2013. The Regional Board now has 30 days to respond to the applicant. Staff will update the Council and Board on this issue as more information becomes available.

A-1 MINUTES OF JUNE 13, 2013 JPA MEETING

Recommendation: Approve as submitted

A-2 WWTP OPERATIONS REPORT THROUGH JULY, 2013

Recommendation: Receive and file

A-3 STATUS REPORT ON THE NPDES PERMIT RENEWAL PROCESS

Recommendation: Receive and file

CAYUCOS MOTION: Director Lyon moved to approve the Consent Calendar. Vice-President Chivens seconded and the motion passed unanimously. (5-0).

MORRO BAY MOTION: Councilmember Smukler moved to approve the Consent Calendar. Councilmember Christine Johnson seconded and the motion passed unanimously. (4-0).

B. OLD BUSINESS

B-1 STATUS REPORT OF THE MAJOR REPAIR AND MAINTENANCE PLAN (MMRP) FOR THE WWTP

Recommendation: Receive and file

Keogh stated President Enns, Councilmember Smukler, and Director Lloyd met with WWTP staff to tour the plant and learn about WWTP processes. After the tour, WWTP staff was asked to create a short informational video to educate the Council, the Board, and the public on the importance of influent screening and of removing certain material from the system before it affects downstream treatment processes.

The first part of the video explained that “rags” are made up of inorganic matter including plastics, needles, and woven materials, and it explained how they cause ongoing issues at the WWTP. The video then illustrated the following WWTP processes and projects:

1. Cleaning the Headworks Channel Grinder
2. Removing Digester Rags in Piping – rags are taken directly to landfill for disposal
3. Rags in Scum Pump – pumps cleaned every seven to ten days to remove inorganic material
4. Corroded Secondary Piping – old piping was replaced with new piping
5. Finished Repair Sleeve
6. WAS Pipe Repairs and Raising out of Floodplain
7. Finished WAS Piping
8. Corroded Waste Gas Burner – corroded piping replaced with new equipment
9. Finished New Burner

The next video will illustrate the cleaning of the digester.

Councilmember Smukler asked staff if the video could be used for public education purposes in order to help prevent rag buildup. Keogh stated that is a possibility. Keogh also stated the City releases newsletters twice yearly that stress the toilet is *not* designed to handle inorganic materials such as paint, plastics, and pesticides.

Director Lloyd asked staff if other cultures are aware of the rag issue and if they handle it differently. In particular, he asked if Eastern Europe utilizes certain technologies to manage the problem. Keogh stated Eastern Europe probably offers more public education and awareness on the issue. Additionally, because many sewer-related products are engineered in Germany, there is much more social awareness about recycling.

Keogh presented the staff report.

Director Lloyd stated the tour of the WWTP was extremely informative and stated he was impressed by the quality of work done at the plant.

Director Foster asked staff if it would be more efficient to remove the rags from the piping twice per week rather than once per week. Keogh stated he and the WWTP have explored this issue and tried to remove the rags more frequently during the week, but determined that it makes the most sense logistically to only remove the rags once per week.

Mayor Irons opened Public Comment period.

Marla Jo Bruton, resident of Morro Bay, asked staff to confirm that Mike Nunley's roles and responsibilities associated with the WWTP project are separate from those associated with the WRF project. Keogh stated that Nunley's contract for the MMRP is with the City *and* the CSD, while the scope of work for the WRF is a City-only contract.

Bruton asked how the rags affect the collections system. Keogh stated the rags can potentially cause blockage in the sewer lines. With the new Sewer System Master Plan that the State has implemented, the City is now more proactive to remove the rags from the system.

Rob Livick, Morro Bay Public Services Director, stated the public should be cautious of what goes into the sewer system and should be aware of whether or not certain items are truly flushable.

Mayor Irons closed Public Comment period.

MORRO BAY MOTION: Councilmember Smukler moved to approve Item B-1.

President Enns confirmed with Council that Item B-1 was only to be received and filed, and did not need a motion. The motion made by Councilmember Smukler was withdrawn.

C. NEW BUSINESS

C-1 VERBAL REPORT BY THE CITY AND DISTRICT ON THE PROGRESS OF THE FUTURE WWTP

Director Llyod presented the report. He stated WSC has completed an analysis for CSD regarding sewer treatment options. The sewer treatment option at CMC appears to be the most economically viable. Going forward, the Board is looking forward to hearing from Morro Bay regarding developing a facility closer to the City, which may be less expensive and more viable. The issue of expanding the sewer treatment plant at the CMC involves some variables that cannot be quantified, such as an easement for transmission, bringing the water back to Morro Bay, and how to handle the salts. He stated regionalization would be beneficial for all parties because it would reduce costs, especially labor costs associated with running one facility rather than multiple facilities.

Mayor Irons stated the City is working through the process as well and it will be helpful to evaluate the different data from both reports. Irons announced a Biosolids workshop will be held on September 16, 2013.

Livick stated the first workshop was very successful, with lots of public participation. There was much interest amongst the community in developing the CMC site. The upcoming workshop will be more technical, where the consultant, Mike Nunley, will educate the public on basics of wastewater treatment. Another community workshop will be held in October to present to the public all of the information collected at that point and to correct course as needed. Following that

workshop, the information will be presented to the Council for their input and recommendations. Livick stated he is looking forward to bringing this process to conclusion by the end of the year.

Director Lyon asked when this information would be presented at a JPA meeting. Livick stated it would come back to JPA after it is presented to Council, which would be sometime in January 2014.

Councilmember Smukler asked staff about the range of information that would be presented at the workshop. Livick confirmed a wide range of information would be presented so that the City can truly evaluate where the benefits lie for the City.

Councilmember Smukler asked staff when the City will start the process of touring potential sites for the new facility. Livick stated the City has contacted the business manager at the CMC and intends to meet with CMC staff soon, after which time, the subcommittee will be given a tour of the facility.

Mayor Irons opened Public Comment period.

Richard Sadowski, resident of Morro Bay, asked if there is another Cayucos report (in addition to the WSC report) that explains that CMC is the preferable site for Cayucos. Sadowski also stated he would like clarification from the Board and Council regarding how the outfall pipes and brine discharge would be managed if the CMC site is selected.

Marla Jo Bruton, resident of Morro Bay, would like clarification regarding the financial responsibilities of each the City of Morro Bay and the Cayucos Sanitary District in the processes. She stated she is concerned about the NPDES permit that the CSD would need to acquire if they decide to separate from Morro Bay. Bruton also stated she is concerned about the possibility of a pipe transmitting brine from the CMC to the ocean outfall. The community does not want waste material brought into the area to be dumped.

Mayor Irons closed Public Comment period.

Director Lloyd responded to Sadowski's comment and explained there was not a second report. When all costs are considered, the numbers show the CMC is the most economically favorable option. Lloyd then addressed the brine discharge issue and stated the CMC plant does require brine discharge, and by adding twice the treatment capacity to the plant, using the existing outfall for brine discharge would be an economically superior and environmentally satisfactory way to deal with brine.

President Enns asked CSD staff to clarify what is currently done with brine at the CMC plant. Koon stated the plant does not currently produce brine. If the CMC site is selected, though, a reverse osmosis system would need to be installed in order to handle the dissolved solids, and brine is a byproduct of the reverse osmosis process.

President Enns stated the WSC report suggested installing a reverse osmosis system which would improve the quality of the discharge that goes directly into the creek.

Director Lloyd stated the City of Morro Bay would benefit from the discharge into the creek because it would help recharge the aquifer.

Councilmember Smukler acknowledged the concern that some people in the community have regarding whether or not the City will continue operations at the current plant and how the WSC report suggests the CSD should move forward.

President Enns stated the CSD is hoping the City will come forward with a project or concept that would be cheaper than staying at the existing plant.

Councilmember Smukler stated the Council and Board should be aware of the potential impacts of the brine discharge to Morro Bay, and stated the impacts be avoided as the project moves forward.

Councilmember Christine Johnson asked staff to clarify whether there is enough study being done to know if there is a certain and direct link from the creek discharge at the CMC and recharging the wells in the Chorro Valley. Livick stated

this is a viable method of water reuse and the City could make beneficial use of this water downstream. It allows for a natural treatment process. The creek will need to be hydrogeologically examined, though, to ensure that discharge locations will benefit downstream well fields. He also stated there will be a brine byproduct if a reverse osmosis process is used for advanced treatment, but the City will assess different options and weigh the costs and environmental benefits of how to best discharge the brine.

Livick announced the following meeting dates:

October 15, 2013 – Community Workshop #2

October 22, 2013 – Presentation of the Options Report to the City Council

Councilmember Christine Johnson asked staff if the City of Morro Bay would work with other municipalities to ensure that the water is Morro Bay's water if it is possible to discharge. Livick stated City would be working with the State Water Resources Control Board, the Department of Water Resources, and the Department of Fish and Game. Livick also stated the water rights issue would need to be discussed in more detail.

Director Lloyd stated any solution brought forward will need to be analyzed thoroughly from an environmental perspective. There will be a rigorous review process.

C-2 SCHEDULE NEXT JOINT MEETING AND AGENDA ITEMS

The next JPA meeting is scheduled for October 10, 2013 and will be hosted by Cayucos.

Councilmember Smukler announced December 12, 2013 will be the next meeting date if the October meeting is canceled.

ADJOURNMENT

Mayor Irons adjourned the meeting at 6:57 pm.

Minutes Recorded by:

Katie Mineo, Morro Bay Public Services Department

STAFF REPORT

**MORRO BAY-CAYUCOS J.P.A.
WASTEWATER TREATMENT PLANT**

to: Honorable Mayor and City Council, City of Morro Bay
Honorable President and Board of Directors, Cayucos Sanitary District

from: Bruce Keogh, Wastewater Division Manager

date: December 4, 2013

subject: WWTP Operations Report through October, 2013

recommendation:

This Department recommends this report be received and filed.

fiscal impact:

None

summary:

Attached, find copies of the Morro Bay-Cayucos Wastewater Treatment Plant monthly reports, for August 2013, September 2013, and October 2013 and the WWTP flow summary, through October 2013. This information updates the item from the September 12, 2013 meeting.

The City of Morro Bay-Cayucos Wastewater Treatment Plant

MONTHLY OPERATIONS SUMMARY AUGUST 2013

Flow for the month of August averaged 0.994 Million Gallons per Day (MGD).

Removal of suspended solids ranged from 93.4 % to 96.9 % for the month, with an average removal of 94.9 % for the month. BOD removal ranged from 80.7 % to 87.0 % for the month, with an average removal of 84.8 % for the month. The rainfall for the month was less than 0.01 inches. For the month of August, the plant was in compliance with the discharge and receiving-water limitations specified in the NPDES discharge permit. Other than normal operations and maintenance, the following items are noteworthy:

On August 26, The City of Morro Bay and the Cayucos Sanitary District submitted the necessary forms for renewal of National Pollution Discharge Elimination System Permit (NPDES) Permit No. CA0047881 to the Regional Water Quality Control Board (RWQCB). The following forms were included in the application packet:

- Application/Report Of Waste Discharge General Information Form For Waste Discharge Requirements Or NPDES Permit.
- Application Form 1- General Information Consolidated Permits Program
- NPDES Form 2A Application Overview.

NPDES Permit No. CA0047881 is due to expire on February 28, 2014. NPDES Permit No. CA0047881 included a modified ocean discharge permit for total suspended solids (TSS) and biochemical oxygen demand (BOD). Per the City and Districts discussion with RWQCB staff, the City and District are applying for a full secondary discharge permit with interim effluent limits.

On August 29, staff installed a new cutter cartridge for the in-line muffin monster located on the digester sludge recirculation piping for Digester #2. The new cutter cartridge replaces an existing unit that was no longer cost effective to repair.

During the month of August staff completed the repairs and rehabilitation project for Waste Activated Sludge Pump #1. Repairs included a new mounting bracket, new valving and piping, and raising the WAS pump motor so it is above the flood elevation. Similar repairs were completed to WAS pump #1 in June.

During the month of August, staff continued operating the well pumps in three of the dewatering wells at the plant. On August 9, staff from Alpha Electric replaced a faulty well pump motor on the well located on the west side of digester #2. The wells will assist staff in lowering the ground water levels around digester #2 in preparation for cleaning the digester. Staff has tentatively scheduled the cleaning operation to begin October 7.

During the month of August, staff from Alpha Electric replaced the motor starters, overloads, contactors, 120 Volt transformer and switches located in the electrical buckets for hot water recirculation pumps for digesters 2 (P8202) and 3 (P8302), and boiler hot water circulation pump P-9222. They also replaced a faulty three way switch for sump pump P2211 located in the lower headworks.

On August 21, plant staff sampled the biosolids in storage at the plant. Staff is awaiting the results of the biosolids analyses at this time. After receipt of the results, staff will make arrangements with a contractor to compost the biosolids.

On August 7, staff from Brenntag installed a new level gauge on the sodium hypochlorite storage tank.

On August 8 and 9, staff from Perrys Motors performed the annual inspection and maintenance of the electric motors at the plant.

On August 22, Mr. Elano Galvez of the California Dept of Health Services (DHS) performed a site visit/inspection of the treatment plant laboratory. The inspection is a component of the plant's laboratory recertification process for the Environmental Laboratory Accreditation Program (ELAP). On September 13, staff received a letter from Mr. Galvez that stated, "At the time of the audit, the laboratory does not have a maximum reading thermometer to check the autoclave operating temperature on a weekly basis (Standard Method 9020B.3.h). Submit proof of purchase of a new maximum reading thermometer and the most recent documentation for autoclave operating check." Staff has purchased and placed into operation a data logger for recording the autoclave operating temperature. Documentation of the proof of purchase and the most recent documentation of the autoclave temperature were emailed to ELAP on September 12 and 13.

The following reports were submitted to the appropriate agencies:

- The Discharge Monitoring Forms (DMR) for July 2013
- The Semiannual DMR Forms for July 1 to December 31, 2013
- The Annual DMR forms for January 1 to December 31, 2013

The following reports were submitted to the CIWQS electronic reporting system:

- The July 2013 Monthly Monitoring Data
- The Semi-Annual Effluent Sampling Chemical and Bioassay Analysis Results July 2013

On August 22, Mr. Les Girvin, Mr. George Helms, Mr. Neza Chavira, and Mr. David Bierman attended a CPR/ First Aid class conducted by Robs CPR and First Aid.

The National Estuary Program Volunteer Monitoring Program continued analysis of bacterial samples collected from throughout the watershed in the laboratory at the plant. The volunteers are using space provided in the lab by plant staff.

The permanent household hazardous waste collection facility (PHHWCF) at the plant continued to be well used by the public. Between twenty and fifty participants are using the facility each Saturday.

Bruce Keogh
Wastewater Division Manager
Lab/C/Bruce/Monthlys/August2013

The City of Morro Bay-Cayucos Wastewater Treatment Plant

MONTHLY OPERATIONS SUMMARY

SEPTEMBER 2013

Flow for the month of September averaged 0.925 Million Gallons per Day (MGD). Removal of suspended solids ranged from 90.5 % to 93.4 % for the month, with an average removal of 92.1 % for the month. BOD removal ranged from 81.6 % to 87.8 % for the month, with an average removal of 85.0 % for the month. The rainfall for the month was less than 0.01 inches. For the month of September, the plant was in compliance with the discharge and receiving-water limitations specified in the NPDES discharge permit. Other than normal operations and maintenance, the following items are noteworthy:

During the month of September, staff continued preparations for cleaning digester #2 beginning October 14. The goal is to slowly reduce the biological activity within the digester, so that it can be safely opened to the atmosphere.

Preparations included:

- Continued operation of the well pumps in three of the dewatering wells at the plant. The wells will lower the ground water levels around digester #2 in preparation for cleaning the digester
- September 2, staff stopped feeding primary sludge to digester #2. The digester continued to be heated and mixed using the sludge recirculation and gas mixing systems.
- September 9, staff shut down the digester gas mixing system. A letter was submitted to staff at APCD informing them of the pending digester cleaning project.
- September 16, staff shut down the hot water recirculation loop to the digester, allowing the digester to cool and further reduce biological activity.
- September 19-21, staff added 3W (process water) to the digester to further cool the digester.
- September 23, staff injected nitrogen gas into the gas space at the top of the digester to minimize the risk for an explosive environment when the digester is opened to the atmosphere.
- September 24, staff continued injecting nitrogen into the gas space within the digester. At 0900 hours the man ways on the top of the digester were opened. At 0915 plant staff began pumping the contents of the digester to the sludge drying beds. At 1315, the pump lost prime when the level of the digester was approximately 2 feet below the grade of the street. There is approximately 15 feet of liquid and solids within the digester that will be pumped out and dewatered by the company contracted to begin cleaning the digester on October 14.
- September 24, the man way on the side of the digester was opened and ventilation was established into the side man way and exiting from the man ways located on top of the digester.
- September 24, APCD was notified that the digester had been opened to the atmosphere and the progress of the digester cleaning project.
- Staff continued with various preparations for electrical power and hydraulic systems for the digester cleaning contractor

On September 21, staff installed new check ball and check ball seat pots on primary sludge pump #2. The new pots replace existing pots that were badly worn and would not allow the pump to operate as designed.

On September 16, staff drained primary clarifier #2 after they discovered serious problems with trying to pump primary sludge out of the clarifier resulting in an excessive sludge level within the clarifier. On September 17 they videoed the primary sludge feed line from the sludge hopper within the primary clarifier to the primary sludge pump. They discovered the line was partly obstructed but not enough to prevent the pumping of primary sludge. They cleaned the line using the trailer mounted jetter and placed the clarifier back on-line. After further investigation they discovered the bad check ball pots on the primary sludge pump. They ordered the necessary replacement parts and they were installed on September 21. The sludge pump is currently operating as designed. Staff will also be replacing the check ball pots on primary sludge pump #1 as they are showing the same extreme wear as the pots on sludge pump #2.

During the month of September staff from Ens Electric replaced the lighting fixtures in the boiler room, the compressor room, the headworks grit chamber gallery, and the lower headworks pump room.

During the month of September, staff from Doug Alred Construction completed repairs to the Chlorine building. Work included replacing badly worn fascia around the building, enclosing of the outside storage area, installation of a roll up door, and painting of exposed wood surfaces. In addition, staff from CenCal roofing completed the reroofing of the chlorine building, and the Secondary Motor Control Center building. The chlorine building will provide valuable storage space and additional work shop area for plant projects.

During the month of September, staff completed the installation of a new blower on the Return Activated Sludge (RAS) system. The new RAS blower (B-6541) was installed on a stand to get it above a flood elevation of thirty inches. The new stand is another component of an on-going project designed to protect critical buildings and equipment in the event of moderate flooding at the plant.

On September 23, staff from Kones Cranes performed the quarterly inspection of the three cranes at the plant. Staff is waiting for the inspection report at this time.

During the month of September, staff from Alpha Electric replaced the motor starters, overloads, contactors, and switches located in the electrical buckets for the bar screen (SCR-2103), the headworks transfer fan (F2302), the lower headworks sump pump #1 (P2211), the lower headworks sump pump #2 (P2212), aeration air blower (B-5111), the grit dewaterer (WHR-2603), and the grit aeration tank blower (B-2511).

On September 24 to 28, 246.8 wet tons (or 192.9 dry metric tons) of biosolids were hauled to McCarthy Farms, Inc., San Joaquin Compost Center in Lost Hills California. The biosolids will be composted and after composting will be used for soil amendment. Plant staff provided a copy of the Residual Biosolids Chemical Analysis conducted in August and Title 22 Certification for Non-hazardous Material prior to hauling. There is no biosolids in storage at the plant.

On September 12, Mr. Jim Maxham working on behalf of the California Joint Powers Insurance Authority conducted a follow up inspection concerning the facilities electrical power distribution system. His visit was to ensure any repairs recommended in his May 1 infrared inspection of the facilities electrical power distribution system had been implemented. Plant staff showed him documentation of the recommended repairs and he provided a letter report on October 1, which states *“I noted all, but one infra red indications were corrected. We appreciate the attention given to the items in our last report.”* The last item will be addressed during the annual inspection of the plants boiler system scheduled in October or November. The initial report was done using an infrared camera, to scan electrical equipment under load in order to locate hot spots caused by equipment defects including but not limited to loose or dirty connections, phase imbalance, defective fuses or faulty circuit breakers.

On September 10, staff from Coastline Equipment made emergency repairs to the hydraulic fittings on the master cylinder unit for the front end loader. They have ordered parts for a permanent repair and will install them when they arrive.

On September 6, staff drained primary clarifier #2 part way to remove a large rag ball from the center column. They also replaced a faulty grease zerker fitting on the clarifier drive unit. The clarifier was back on-line the same day.

On September 12 and 13 staff emailed documentation of the proof of purchase and the most recent documentation of the autoclave temperatures to Mr. Elano Galvez of the California Dept of Health Services (DHS). The documentation was required after a site visit/inspection of the treatment plant laboratory. The inspection is a component of the plant's laboratory recertification process for the Environmental Laboratory Accreditation Program (ELAP). On September 13, staff received a letter from Mr. Galvez that stated, *“At the time of the audit, the laboratory does not have a maximum reading thermometer to check the autoclave operating temperature on a weekly basis (Standard Method 9020B.3.h). Submit proof of purchase of a new maximum reading thermometer and the most recent documentation for autoclave operating check.”*

During the month of September, Mr. Mark Angelo completed updates to the program used to import monitoring data into the CIWQS electronic reporting system. The updates include the addition of calculated data values requested by RWQCB staff such as medians, averages, and percent removals.

The following reports were submitted to the appropriate agencies:

- The Discharge Monitoring Forms (DMR) for August 2013

The following reports were submitted to the CIWQS electronic reporting system:

- The August 2013 Monthly Monitoring Data
- The Third Quarter Receiving – Water Survey July 2013

On September 28, three concerned citizens toured the plant.

The National Estuary Program Volunteer Monitoring Program continued analysis of bacterial samples collected from throughout the watershed in the laboratory at the plant. The volunteers are using space provided in the lab by plant staff.

The permanent household hazardous waste collection facility (PHHWCF) at the plant continued to be well used by the public. Between twenty and fifty participants are using the facility each Saturday.

Bruce Keogh
Wastewater Division Manager
Lab/C/Bruce/Monthlys/September2013

The City of Morro Bay-Cayucos Wastewater Treatment Plant

MONTHLY OPERATIONS SUMMARY

OCTOBER 2013

Flow for the month of October averaged 0.886 Million Gallons per Day (MGD).

Removal of suspended solids ranged from 91.7 % to 94.1 % for the month, with an average removal of 92.7 % for the month. BOD removal ranged from 79.8 % to 86.1 % for the month, with an average removal of 83.1 % for the month. The rainfall for the month was 0.37 inches. For the month of October, the plant was in compliance with the discharge and receiving-water limitations specified in the NPDES discharge permit. Other than normal operations and maintenance, the following items are noteworthy:

During the month of October, staff completed the process for cleaning digester #2. Activities included:

- Continued operation of the well pumps in three of the dewatering wells at the plant. The wells will lower the ground water levels around digester #2 in preparation for cleaning the digester
- On October 2, staff installed the in-line muffin monster on the digester sludge recirculation piping system for digester #3, the digester being used as the primary digester.
- October 1 to 14, Staff completed various preparations for electrical power and hydraulic systems for the digester cleaning contractor
- October 14 to 18, staff from Wastewater Management Solids pumped out the remaining contents of the digester. The material removed from the digester was screened and dewatered. The dewatered solids will be stored in the sludge drying beds for further drying before being hauled to an off-site compost facility.
- On October 22, staff from NV5 (NV5 is a lab specializing in structural testing procedures) performed non-destructive testing of digester #2, digester #1, and the chlorine contact tank. They also took core samples at strategic locations on digester #2 and the chlorine contact tank for further analysis. They also performed tests on various piping components to determine the level of corrosion present.
- On October 24, plant staff verified that the overflow piping for digester #1 is open and not plugged with debris. They also verified the line from the interstage to the digester was flowing freely by testing the line with dye.
- On October 31, staff met with Mr. Mike Nunley to discuss the preliminary testing results and to discuss an implementation schedule for performing the required repairs. There was also discussion about which work tasks would be performed in-house and which would require a contractor to complete. It should be noted that some of the analyses being performed by NV5, the analytical lab, will take between four to six weeks to complete, and the work plan may need to be adjusted depending upon the outcome of the tests.

On October 28, staff from Gleim Crown Pumps removed biofilter recirculation pump

#P4502 for rebuilding. Plant staff set up a by-pass pumping line off the secondary effluent pumps to assist in getting additional flow to biofilter #2, while the pump is off-line. The rebuilt pump is scheduled to be reinstalled on November 6.

On October 30, plant staff installed a new check valve on Waste Activated Sludge (WAS) pump #P6512. The existing valve was badly corroded and replacement parts are no longer available.

During the month of October, plant staff and staff from Alpha Electric investigated issues associated with the time clocks used to control the scum and sludge pumps. For unknown reasons the clocks have been failing. Staff from Alpha Electric is researching the time clocks and the control circuitry for the sludge and scum pumps.

On October 21, a radio was inadvertently dropped in the J box on digester #3 and staff believes it made its way into the underground piping system used to move sludge throughout the plant. Staff believes the radio is in a specific section of piping and should be against a closed valve in that section. In order to retrieve the radio it will require digging up a section of the digester piping, removing a valve and attempting to locate and retrieve the radio. Staff is making preparations for the excavation and retrieval of the radio at this time.

On October 14, plant staff replaced the supply and discharge piping on all three sodium hypochlorite pumps.

On October 4, staff from Alpha Electric replaced the motor starters, overloads, contactors, and switches located in the electrical buckets for the 3W pumps P7601 and P7602.

On October 31, staff completed preparations for replacing the 12" butterfly valve that controls flow from the secondary effluent pumps at the interstage pumping station to the solids contact tank. Replacement of the valve will require that flow be stopped for the project.

On October 28, staff from San Luis Powerhouse performed the quarterly maintenance and inspection on the emergency auxiliary generator. No problems were noted during the inspection.

On October 24, Ms. Dora Drexler of the Air Pollution Control District (APCD) toured the plant as part of the annual APCD permit inspection process. No issues were noted during the inspection.

The following reports were submitted to the appropriate agencies:

- The Discharge Monitoring Forms (DMR) for September 2013

The following reports were submitted to the CIWQS electronic reporting system:

- The September 2013 Monthly Monitoring Data

The National Estuary Program Volunteer Monitoring Program continued analysis of bacterial samples collected from throughout the watershed in the laboratory at the plant. The volunteers are using space provided in the lab by plant staff.

The permanent household hazardous waste collection facility (PHHWCF) at the plant continued to be well used by the public. Between twenty and fifty participants are using the facility each Saturday. During the month of October, PHHWCF staff performed the annual maintenance program on the facility.

Bruce Keogh
Wastewater Division Manager
Lab/C/Bruce/Monthlys/October2013

Total Plant Flow Cayucos Flow Totals Morro Bay Flow Totals

2011	Total Flow	Daily Flow	Total Flow	Daily Flow	%	Total Flow	Daily Flow	%	# of days	Dates
JAN	42.338	1.366	12.089	0.390	28.6%	30.249	0.976	71.4%	31	Jan 1-Jan 31, 2011
FEB	35.600	1.271	9.674	0.346	27.2%	25.926	0.926	72.8%	28	Feb 1-Feb 28, 2011
MAR	47.887	1.545	13.770	0.444	28.8%	34.117	1.101	71.2%	31	March 1 - 31, 2011
APR	38.937	1.298	9.117	0.304	23.4%	29.820	0.994	76.6%	30	April 1 - April 30, 2011
MAY	37.092	1.197	8.704	0.281	23.5%	28.388	0.916	76.5%	31	May 1 - 31, 2011
JUNE	37.769	1.259	9.381	0.313	24.8%	28.388	0.946	75.2%	30	June 1-30, 2011
JULY	43.654	1.408	11.186	0.361	25.6%	32.468	1.047	74.4%	31	July 1-31, 2011
AUG	38.518	1.243	9.080	0.293	23.6%	29.438	0.950	76.4%	31	August 1-31, 2011
SEPT	33.263	1.109	7.526	0.251	22.6%	25.737	0.858	77.4%	30	September 1-30, 2011
OCT	33.454	1.079	7.597	0.245	22.7%	25.857	0.834	77.3%	31	October 1-31, 2011
NOV	33.240	1.108	7.589	0.253	22.8%	25.651	0.855	77.2%	30	November 1-30, 2011
DEC	32.378	1.044	6.982	0.225	21.6%	25.396	0.819	78.4%	31	December 1-31, 2011
ANNUAL AVERAGES	37.844	1.244	9.391	0.309	24.6%	28.453	0.935	75.4%		
2012	Total Flow	Daily Flow	Total Flow	Daily Flow	%	Total Flow	Daily Flow	%	# of days	Dates
JAN	34.443	1.111	7.444	0.240	21.6%	26.999	0.871	78.4%	31	Jan 1-Jan 31, 2012
FEB	30.478	1.051	6.440	0.222	21.1%	24.038	0.829	78.9%	29	Feb 1-Feb 29, 2012
MAR	33.971	1.096	7.711	0.249	22.7%	26.260	0.847	77.3%	31	March 1 - 31, 2012
APR	35.523	1.184	8.573	0.286	24.1%	26.950	0.898	75.9%	30	April 1 - April 30, 2012
MAY	33.393	1.077	7.390	0.238	22.1%	26.003	0.839	77.9%	31	May 1 - 31, 2012
JUNE	40.101	1.337	7.687	0.256	19.2%	32.414	1.080	80.8%	30	June 1-30, 2012
JULY	46.989	1.516	9.832	0.317	20.9%	37.157	1.199	79.1%	31	July 1-31, 2012
AUG	34.343	1.108	8.191	0.264	23.9%	26.152	0.844	76.1%	31	August 1-31, 2012
SEPT	28.167	0.939	6.825	0.228	24.2%	21.342	0.711	75.8%	30	September 1-30, 2012
OCT	27.793	0.897	6.788	0.219	24.4%	21.005	0.678	75.6%	31	October 1-31, 2012
NOV	26.892	0.896	6.295	0.210	23.4%	20.597	0.687	76.6%	30	November 1-30, 2012
DEC	29.608	0.955	8.023	0.259	27.1%	21.585	0.696	72.9%	31	December 1-31, 2012
ANNUAL AVERAGES	33.475	1.097	7.600	0.249	22.9%	25.875	0.848	77.1%		
2013	Total Flow	Daily Flow	Total Flow	Daily Flow	%	Total Flow	Daily Flow	%	# of days	Dates
JAN	31.654	1.021	8.141	0.263	25.7%	23.513	0.758	74.3%	31	Jan 1-Jan 31, 2013
FEB	27.890	0.962	6.431	0.222	23.1%	21.459	0.740	76.9%	29	Feb 1-Feb 29, 2013
MAR	30.827	0.994	7.341	0.237	23.8%	23.486	0.758	76.2%	31	March 1 - 31, 2013
APR	28.201	0.940	7.122	0.237	25.3%	21.079	0.703	74.7%	30	April 1 - April 30, 2013
MAY	28.627	0.923	6.310	0.204	22.0%	22.317	0.720	78.0%	31	May 1 - 31, 2013
JUNE	29.489	0.983	6.493	0.216	22.0%	22.996	0.767	78.0%	30	June 1-30, 2013
JULY	34.606	1.116	10.289	0.332	29.7%	24.317	0.784	70.3%	31	July 1-31, 2013
AUG	30.808	0.994	8.119	0.262	26.4%	22.689	0.732	73.6%	31	August 1-31, 2013
SEPT	27.756	0.925	6.769	0.226	24.4%	20.987	0.700	75.6%	30	September 1-30, 2013
OCT	27.480	0.886	6.529	0.211	23.8%	20.951	0.676	76.2%	31	October 1-31, 2013
NOV		0.000		0.000	#DIV/0!	0.000	0.000	#DIV/0!	30	November 1-30, 2013
DEC		0.000		0.000	#DIV/0!	0.000	0.000	#DIV/0!	31	December 1-31, 2013

STAFF REPORT

**MORRO BAY-CAYUCOS J.P.A.
WASTEWATER TREATMENT PLANT**

To: Honorable Mayor and City Council, City of Morro Bay
Honorable President and Board of Directors, Cayucos Sanitary District

From: Bruce Keogh, Wastewater Division Manager

Date: December 12, 2013

Subject: Status Report on the Permit Renewal Process for the Wastewater Treatment Plant NPDES Permit No. CA0047881

Recommendation:

This Department recommends this report be received and filed.

Fiscal Impact:

To date, the fiscal impact has been \$4,147.25 for consultant support services for the permit renewal effort. The FY 13/14 WWTP budget contains funds for the permit renewal effort.

Summary:

This staff report is intended to provide a status report on the permit renewal process for the Morro Bay/Cayucos Wastewater Treatment Plant. The Morro Bay/Cayucos Wastewater Treatment Plant (plant or WWTP) operates under National Pollution Discharge Elimination System (NPDES) permit No. CA0047881. The NPDES permit expires on March 1, 2014. The existing NPDES permit includes a 301(h) modified discharge permit, which waives full secondary treatment requirements; it is important to note that the 301(h) modified discharge permit applies only to full secondary treatment requirements for suspended solids and Biochemical Oxygen Demand (BOD). The plant operates as a full secondary treatment facility for all other constituents listed in the NPDES permit.

NPDES permits are generally issued for five years. The permit requires that MBCSD submit an application, six-months prior to the expiration of the permit. As the permit became effective March 1, 2009, this would require that a complete permit application be submitted by September 1, 2013 to the appropriate regulatory agencies.

Discussion:

A complete application packet was delivered to Regional Water Quality Control Board (RWQCB) on August 26, 2013. A copy of the entire application packet can be viewed on the City website at www.morro-bay.ca.us/npdes. A copy of the application packet was also forwarded to the Environmental Protection Agency (USEPA). Per the direction of the Council and District Board,

the application packet submitted to the RWCB is for a full secondary permit with interim effluent limits. This application does not include an application for a 301(h) modified discharge permit.

On October 8, I spoke with Ms. Katie DiSimone at the RWQCB about the status of the application packet. She stated that the RWQCB uses an EPA subcontractor to draft NPDES permits and that as of October 8 no subcontractor was under contract to begin the review process. She stated that from the RWQCB standpoint the application is deemed complete but that there maybe additional questions or data requests from the subcontractor once they begin the review process.

On November 12, I received a call from Mr. Dan Connally of PG Environmental, the EPA subcontractor responsible for drafting NPDES permits for the RWQCB. He said he was beginning the review process for the MBCSD application and requested effluent data from March 2009 to May 31, 2010 that was unavailable to him in an electronic format. That data was emailed to him on November 13. At this point in time they are continuing with the data review process.

On November 19, City and District staff met with staff from the RWQCB and the USEPA to provide a status report update on the upgrade project and to discuss the NPDES permit application for the MBCSD WWTP. Discussion included a summary of the draft Options Report and the potential recommended sites. There was some discussion from RWQCB staff as to the feasibility of the power plant site (site E) and there was also discussion of the CMC site. RWQCB staff stated that the CMC site provided a potential opportunity for a regional treatment facility and that both the RWQCB and the State of California support the concept of regional facilities. There was also discussion concerning the concept of transitioning the operations of the water and wastewater facilities at CMC to the County of San Luis Obispo. There was discussion concerning reclamation and the potential market for reclaimed water within the local community and the areas surrounding the City and District. RWQCB staff emphasized their strong support for reclamation by indicating that it made little or no sense to treat to tertiary standards without reclamation. They also support the concept of reaching out to the County to discuss the CMC site as well as doing outreach with Coastal Commission staff for early input on any potential sites.

Mr. Rick Koon provided a brief overview of the Districts Conceptual Wastewater Treatment Alternatives Technical Memorandum prepared by Water Systems Consulting (WSC). He indicated that CSD staff will be taking a staff report to the CSD Board at their Nov 21 board meeting for discussion and consideration of the next steps for the investigation of the CMC site for waste disposal.

There was a discussion concerning the permit application process and the timing for bringing this item to the RWQCB Board for action in 2014. RWQCB staff stated that the EPA subcontractor is currently reviewing the application packet and expects to have a preliminary draft of the permit to RWQCB staff in January 2014. In a follow up email, Ms. DiSimone said that due to the time requirements for public noticing required prior to the public hearing, that the earliest this item would be heard is September 2014 at a local RWQCB hearing at the RWQCB office in San Luis Obispo.

There was also discussion about the type of permit that would be issued and that it would be a full secondary permit with interim effluent limits for total suspended solids and biochemical oxygen demand (BOD). RWQCB staff also raised the question of what interim technical improvements might be necessary to achieve secondary standards at the existing plant.

At the conclusion of the meeting, it was agreed that the City and District would discuss the concept of a regional facility at CMC, that the Options report would be further refined through the public

input process, and that City and District staff would meet again with RWQCB staff in the near future to report back on the progress of siting a new WRF.

City staff is attempting to schedule a meeting with Paavo Ogren, the Public Works Director for San Luis Obispo County, and other SLO County staff members to discuss the concept of a regional facility at CMC. City staff can bring an update from that meeting to the December 12 JPA meeting.

The granting of a full secondary permit with interim effluent limits allows for the MBCSD to be protected from fines for not meeting full secondary effluent limits. The interim effluent limits can only be applied to one five-year permit cycle, meaning that at the end of that permit cycle, the plant would have to meet full secondary treatment requirements or face minimum mandatory penalties of at least \$3,000 per day per constituent that is violated. For example if the permit renewal date was September 2014, then the plant would have to meet full secondary requirements by September 2019 when the permit with the interim effluent limits expires. However, RWQCB staff has indicated that after the first five year permit cycle, they may be able to extend the interim effluent limits another five years to allow MBCSD more time to complete the development of a new Water Reclamation Facility (WRF) and provide protection from potential minimum mandatory penalties. There is a major caveat to receiving some form of extension after the initial five year permit; that significant progress needs to have been made in the siting of the new WRF, if not under construction,

As the permit renewal process progresses, MBCSD will need to have discussions regarding adoption of a new conversion schedule through an enforceable instrument approved by the RWQCB. Similar to the existing Settlement Agreement, a new settlement agreement will likely include a conversion schedule with milestones for completing the planning, design, construction and operation of the new WRF.

Conclusion:

Staff will continue to update the Council and Board on the permit renewal process as information becomes available.

STAFF REPORT

Agenda No. Item B-1

Date: December 12, 2013

MORRO BAY-CAYUCOS J.P.A. WASTEWATER TREATMENT PLANT

To: Honorable Mayor and City Council, City of Morro Bay
Honorable President and Board of Directors, Cayucos Sanitary District

From: Bruce Keogh, Wastewater Division Manager

Date: December 4, 2013

Subject:

Status Report of a Major Maintenance & Repair Plan (MMRP) for the WWTP

Recommendation:

Morro Bay and Cayucos Sanitary District staffs recommend that this report be received and filed.

Fiscal Impact:

No fiscal impact at this time as a result of this report. Fiscal impact is addressed through the budget process.

Discussion:

This staff report is intended to provide an update on the development of the MMRP for the WWTP. At the February 14, JPA meeting the Council and District Board approved of the development of an MMRP and made the following motion:

- Direct staff to prepare a time sensitive and prioritized MMRP for the WWTP with an anticipated rolling 2 year budget;
- That the JPA solicit proposals from a qualified firm, or firms, to provide technical advice and analysis on an as needed basis as determined by Morro Bay's Public Services Director and Cayucos Sanitary District Manager;
- And that the Morro Bay Public Services Director and Cayucos Sanitary District Manager report back to the JPA on a semi-annual basis on the progress and costs associated with the MMRP.

Development of a MMRP will assist the City and District in projecting the budgeting of expenditures required to keep the current plant operating in compliance with regulatory requirements.

Staff's primary focus has continued to be on the next Fiscal Year and the projects contained within the FY 13/14 WWTP budget that was adopted by both the City and District. The adopted budget contains \$1.04M in funding for MMRP projects presented during the budget hearing at the JPA meeting. Staff is currently working on developing and refining an implementation schedule for the projects funded in the FY 13/14 budget. An outline of the desired repair time frames and key project milestones has been identified and the schedule will be finalized after peer review with our technical support team.

Staff's focus for the month of November included continuing to perform and develop a schedule for the repairs and maintenance procedures for digester #2. Staff met with Mike Nunley (MKN) to discuss development of an RFP for the sandblasting and coating of digester #2. In addition they continued to refine work tasks and schedules for completing projects required to bring the digester back on-line. Tasks performed in November included dis-assembly and inspection of the piping for the digester gas mixing system. Plant staff has also ordered parts for the replacement or rebuilding of the numerous critical valves used to mix and transfer sludge within the digester. MKN is still waiting for the results of the structural testing performed by NV5, and upon receipt of those results, will further modify the work plan.

The draft work plan will include repair or replacement of the heat exchanger piping. Staff and MKN are also working to address other mechanical and piping repairs or replacement related to the sludge and gas systems, in addition to crack repair at the chlorine contact tank. WWTP staff is currently scheduling and performing valve repair work which could reduce the level of effort during construction. The plan is to issue a separate bid package for the repair/replacement of piping and the final scope will depend on the availability of WWTP staff to address some repairs themselves. Staff has authorized an additional 30 hours of effort (\$4,500) to prepare the additional bid package/specifications for the heat exchanger, sludge, and gas piping impacts to the budget for this task after an approach is identified. MKN will advise the City on any additional impacts to the budget for this task after an approach is identified.

City and District staff has met with MKN to discuss the various procurement options for the purchase and installation of the influent screens at the headworks and the required equipment for the chlorine contact tank. After discussion of the various options it was decided to have the City and District procure the influent screens and then have a contractor install the equipment. This option provides for a quicker implementation time line, as most screen manufacturers state that it takes approximately 18 to 24 weeks to manufacture and deliver the equipment once a purchase order has been cut. In addition, having the City and District procure the equipment provides the City and District with more control over the type and manufacturer of the screening equipment. This is important for the screening project because there are numerous screens available on the market, but not all screens meet the specific parameters for this particular installation. This process will involve developing and public noticing a RFP for procurement.

During the procurement process for the screens, a second RFP would be developed for hiring a contractor to install the screen units. The RFP for hiring the contractor would also include provisions for the purchase and installation of the required equipment for the chlorine contact tank. This would allow the selected contractor to coordinate the installation of the screens and the chlorine contact tank, and should result in savings to the City and District by reducing mobilization fees, procurement cost and project coordination.

The time schedule for this process is currently being refined, but the goal is to advertise for the purchase of the screens in late December with bid openings in late January. This would allow staff to bring the award for procurement to the February JPA meeting, and giving the successful vendor a notice to proceed on the manufacture of the screens. The RFP for the installation portion of the project would be developed so that the award would be made before the end of the fiscal year. This would allow 90-120 days for completion of construction before October 2014.

On November 12 and 13, an electrical engineer from Black & Veatch (B&V) toured the plant to perform an assessment of the plants electrical system and update the Electrical Facilities Overview from the Facility Master Plan (Appendix H of the Facility Master Plan dated September 2007). This assessment of the electrical system will assist staff with putting together a work plan for any recommended repairs and maintenance procedures for the plant's electrical system and assist staff in budgeting for the MMRP in FY14/15. Staff is currently waiting for a copy of the assessment from B&V.

CONCLUSION

Staff will continue to bring a status report on the development of the MMRP at City Council meetings on a monthly basis.