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**Ocean Outfall Regulatory Review Information**

**McKinleyville Community Services District  
Ocean Outfall Pre-Application Meeting Summary  
October 6, 2010**

Attendees: Lisa Bernard (RWQCB), John Short (RWQCB), Beth Burks (County of Humboldt), Norman Shopay (MCSD), Lisa Stromme (SHN), Helen Edwards (MCSD), Steve Donovan (SHN), Rosalind Litzky (SHN), Greg Orsini (MCSD), Dan Free (NMFS), and Carol Heidsiek (ACOE).

- Vicki Frey (CDFG) was not able to attend the meeting.
- Melissa Kraemer (CCC) was not able to attend the meeting.
- Lisa Stromme noted she has spoken with CCC regarding the project and has been informed the San Francisco Coastal Commission office will be involved in the project.
- The RWQCB offered to host a meeting with the CCC at the RWQCB Santa Rosa office. MCSD indicated the next meeting would be open to all agencies involved, if they would like to attend. RWQCB will invite US EPA to the meeting.
- PowerPoint Presentation from Lisa Stromme discussing the general project elements of an ocean outfall, the facilities plan process currently being undertaken by MCSD, and defined the purpose of meeting as an effort to determine any fatal flaws with permitting an ocean outfall conveying treated effluent.
  - John Short noted the estuary designation may change in the future.
- Steve Donovan answered questions about the Horizontal Direction Drill (HDD) techniques including the size of pipe, the term "closure," site characterization, mixing zone, geotechnical considerations, and hydrostatic pressure.
- Discussion regarding hydrostatic pressure tests and how to determine if a pipeline is leaking, or when secondary containment is required (not typical).
- Dan Free asked about any overlap with the Pacific Gas & Electric Project.
- Based on feedback from agencies during meeting, the following need to be added to the agency list: USFWS, US Coast Guard, US EPA, and SHPO.
  - Question about CSLC jurisdiction. Lisa Stromme stated conversations have been conducted. The CSLC will be contacted regarding the meeting with the CCC.
- John Short stated the project would be subject to the Ocean Plan requirements; the Ocean Plan does not include drinking water standards.
- Discussion regarding the existing ocean outfall in Samoa and potential connection.
  - Review status of existing outfall and transmission line from McKinleyville to Arcata, part of historical regional project.
  - Discuss pipe crossing on the Mad River Foot Bridge, condition unknown and may require repair.
  - Possible difficulty with managing discharges from several users.
  - Condition of existing outfall unknown,

- Discussion regarding using geobags or artificial reef to create closure zone.
  - Dan Free stated no fatal flaws to federally listed biological species as a result of creating an artificial reef; construction may be beneficial for habitat.
- Discussed potential faulting in area.
  - Steve Donovan stated it would be studied during design.
- Questions about equipment staging areas when fusing pipe prior to installation.
  - Dan Free and Carol Heidsiek recommended USFWS should be contacted to discuss the Snowy Plover and federally listed plants in the beach staging areas.
- Beth Burks stated the County would require a Conditional Use Permit and Coastal Development Permit (for areas with County jurisdiction). Zoning issues would not be problematic given the pipe would be below ground.
  - In projects that could be controversial the County is not be willing to consolidate the coastal development permitting.
  - Beth Burks advised that the County planning process is another public review process that could result in changes to the project description. Beth Burks typically submits project information to the Humboldt Bay Keeper to involve them early in the process.
  - Beth Burks does not think any General Plan updates would affect the project because they are addressed in the CEQA Checklist.
  - The County would need CEQA complete prior to processing any applications.
- Carol Heidsiek assumed the ACOE would be the lead federal agency and would conduct the consultation with NMFS and USFWS. She indicated a nationwide permit or individual permit may be issued. As part of any permit, the ACOE would require a RWQCB Water Quality Permit and Coastal Development Permit.
- Discussion regarding temporary impacts to water quality. Steve Donovan advised a small plume of material (bentonite) will be released when the HDD surfaces in the ocean floor. The slurry would likely impact biological activity.
- John Short indicated a baseline environmental study would be needed to address any impacts from the project.
- Dan Free stated it would be formal NMFS consultation for essential fish habitat and informal consultation for federally endangered species.
- Lisa Bernard stated Charles Reed typically writes the RWQCB permits for ocean outfalls. Lisa Bernard stated an antidegradation analysis would need to be conducted. RWQCB is required to prepare findings based on the analysis because the ocean outfall would qualify as a new discharge location.
- The RWQCB reviews and considers changes to the Basin Plan every three years.
- Lisa Bernard is willing to submit a letter that indicates the RWQCB is in support of the project concept.

## Abbreviations

CCC	California Coastal Commission
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CSLC	California State Lands Commission
HDD	Horizontal Directional Drill
MCSD	McKinleyville Community Services District
RWQCB	Regional Water Quality Control Board
SHN	SHN Consulting Engineers & Geologists, Inc.
SHPO	State Historic Preservation Office
USFWS	United States Fish and Wildlife Service
US EPA	United States Environmental Protection Agency

## McKinleyville Community Services District



Pre-Application Meeting  
for the Proposed Ocean Outfall

October 6, 2010

## Presentation Overview

MCSD is initiating the permitting process for construction of an ocean outfall for the MCSD Wastewater Management Facility.

Representatives from the following agencies have been invited to attend this pre-application meeting for the proposed project:

- Regional Water Quality Control Board (RWQCB)
- CA Coastal Commission (CCC)
- CA Department of Fish and Game (DFG)
- National Marine Fisheries Service (NMFS)
- US Army Corps of Engineers (ACOE)
- CA State Lands Commission (CSLC)
- County of Humboldt

## Objectives

MCSD is working on a 20-year facilities plan for the WWMF that addresses long-term sustainable solutions for wastewater treatment, disposal, and reclamation.

One alternative for effluent disposal is a new ocean outfall.

MCSD needs to further define the permitting and environmental analysis needs for this proposed project.

For this effort we need to answer the following questions:

- What are the challenges going to be?
- Will there be obstacles to permitting this project?
- What are the timelines for the project permits?

## Preliminary Summary of Issues

We have developed a preliminary summary of issues that will need to be investigated for the ocean outfall:

- Site characterization
- Construction methods
- Bathymetry
- Subsurface conditions
- Regulatory issues
  - Mixing zone application
  - Required effluent quality

## Site Characterization

The location of the outfall will depend upon many parameters, including:

- Suitability for Horizontal Directional Drilling (HDD),
- Offshore bathymetry, and
- Subsurface conditions near the outfall diffusers.

It is assumed that the outfall will be constructed approximately 2,000 feet or more offshore.

This will put it outside of the zone of "immediate contact," which is defined in the Ocean Plan as the zone bound by the shoreline and a distance of 1,000 feet, or the 30-foot depth contour, whichever is less.

## Navigation Chart for McKinleyville Area



## Proposed Pipeline Locations



## Construction Methods

The outfall will be constructed by HDD. Site-specific investigations to determine suitability will include:

- Preliminary geotechnical investigation
  - Identify soils
  - Determine the influence of soils on drilling
- Access to launch site
- Offshore work platform requirements
- Hydrofracture potential

## Bathymetry

Bathymetric mapping and sub-bottom profiling will need to be completed in the offshore region being considered for the outfall.

Selection of the proposed site will take into consideration the following bathymetric features:

- Water depth exceeding 40 feet
- Areas with low relief rock bottom preferred
- Distance from depths subjected to intense wave energies
- Avoiding marine habitat areas and kelp beds
- Bathymetric features that protect from storm surges
- Depth of sand movement in the literal cell
- Outfall distance from closure

## Subsurface Conditions

Once a site has been selected, the sea floor will need to be monitored for biological life and currents.

Currents are measured using an Acoustic Doppler Current Profiler (ADCP), which autonomously measures subsurface current velocity and direction.

The ADCP data is used to determine the currents that influence mixing at the location of the outfall and wave energy required to be resisted by the outfall structure.

Biological monitoring is performed using visual observation of recordings made by underwater divers.

## Regulatory Issues: Mixing Zone

The EPA defines a mixing zone as an allocated impact zone where water quality standards may be exceeded as long as acutely toxic conditions are prevented and the State's beneficial uses are protected.

Water quality criteria must be met at the edge of the mixing zone. Use of regulatory mixing zones as defined by the EPA is allowed at the discretion of the State.

RWQCB has historically decided whether to allow mixing zones on a case-by-case basis.

## Regulatory Issues: Required Effluent Quality

A new National Pollutant Discharge Elimination System (NPDES) Permit will need to be issued for an ocean outfall.

It is assumed that secondary treatment limits for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) will be similar to those contained in the current NPDES permit for discharge to the Mad River.

Water quality objectives for protection of marine life are defined in Table B of the California Ocean Plan. Permit requirements for effluent quality to meet these standards will depend in part on whether the RWQCB allows a regulatory mixing zone.

## **Alternatives to New Ocean Outfall**

Before proceeding with the detailed investigations necessary for siting of a new ocean outfall, other outfall alternatives for effluent disposal should also be considered.

Alternatives to construction of a new ocean outfall may include, but are not limited to the following:

1. Use of the existing ocean outfall in Samoa
2. Continued use of the existing Mad River discharge

**McKinleyville Community Services District  
Ocean Outfall Pre-Application Meeting Summary  
November 9, 2010**

Location: Coastal Commission Office, Eureka

Attendees: Norman Shopay (MCSD), Lisa Stromme (SHN), Helen Edwards (MCSD), Steve Donovan (SHN), Rosalind Litzky (SHN), Greg Orsini (MCSD), Bob Merrill (CCC), and Melissa Kraemer (CCC).

Attendees by phone: Mary Hays (CLSC), Ninette Lee (CLSC), Cy Oggins (CLSC), Vicki Frey (CDFG), Alison Detner (CCC), Jack Gregg (CCC), Lisa Bernard (RWQCB), John Short (RWQCB), and Dan Free (NMFS).

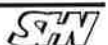
- PowerPoint presentation from Lisa Stromme discussing the previous meeting, general project elements of an ocean outfall, the facilities plan process currently being undertaken by MCSD, and defined the purpose of meeting as an effort to determine any fatal flaws with permitting an ocean outfall conveying treated effluent.
- Questions and answers were conducted during and following the PowerPoint presentation. The results of the agencies comments and concerns are described below.
- CDFG:
  - Sea level rise should be included in decision making.
  - Involved with the PG&E wave energy project (project stopped).
    - Erik Bejorkestep (HSU Marine Laboratory in Trinidad) utilizes Acoustic Doppler Current Profiler. Contact information can be provided.
    - PG&E signed contracts with HSU for studies, but not sure of the status.
    - Provided comments on the Federal Energy Regulatory Commission license application.
    - Sand movement and crab fisherman concerns determined.
    - Army Corps of Engineers may have information in the project area due to locations for dredge spoils.
  - Interested in further analysis for the use of Samoa pulp mill ocean outfall, but concerned about surface trenching through dunes and other sensitive habitat.
- CCC:
  - Only seven allowable uses of fill in the Coastal Zone and currently the project may not qualify.
  - Allowance for maintenance of an existing ocean outfall per the California Coastal Act §30233. Repairs to the Samoa ocean outfall would be permissible.
  - CCC can only approve the alternative that is the least environmentally damaging feasible alternative. An alternative analysis should include the consequences of no action (no project alternative).
    - Staff available to review administrative drafts of an alternative analysis.



- Other ocean outfalls approved if they are industrial coastal dependent. Allison Detner suggested if it is concluded no other alternative is feasible it could be considered industrial coastal dependent. If that is the case coastal development permitting would be conducted by the Ocean Resources and Energy Division in San Francisco.
- Recognizes difficulty with permitting future growth scenarios because the Local Coastal Program bisects the MCSD service area.
- Other issues under the Coastal Act will require review and analysis, such as recreation and public access.
- RWQCB:
  - Prohibition on estuary discharges and future regulations may require abandoning the Mad River discharge.
  - Supportive of alternatives to the Mad River discharge.
- CLSC:
  - CLSC would rely on California Environmental Quality Act document to provide environmental analysis.
  - Subject to approval by Commission.
  - Requires application to respond further.
  - CLSC was the lead agency for the PG&E Wave Energy Project and has the Notice of Preparation and comments posted on their website.

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HSU	Humboldt State University
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- County of Humboldt

## October 6, 2010 Presentation

On October 6, 2010 the first pre-application meeting was held.

Representatives from the following agencies attended:

- Regional Water Quality Control Board (RWQCB)
- National Marine Fisheries Service (NMFS)
- US Army Corps of Engineers (ACOE)
- County of Humboldt

Other agencies to be contacted regarding the project include:

- US Fish and Wildlife Service (USFWS)
- US Coast Guard
- State Historic Preservation Office (SHPO)
- US Environmental Protection Agency (USEPA)

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## Site Characterization

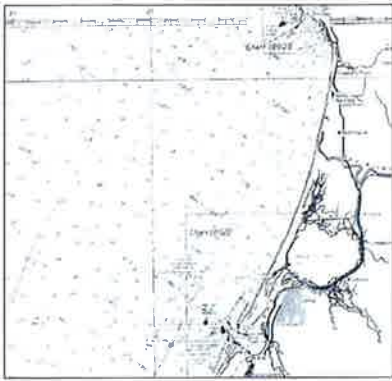
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### Next Steps

MCSD will prepare a summary of the anticipated permitting and environmental analysis needs for the proposed project.

The summary will also address potential challenges and obstacles to permitting the project based on information gathered during the pre-application meetings.

MCSD will provide the summary to involved agencies for review and comment.

**McKinleyville Community Services District  
Ocean Outfall Discussion  
Follow-Up Phone Conference with California Coastal Commission, SF Office  
March 3, 2011**

Location: SHN Office, Eureka

Attendees by phone: Lisa Stromme (SHN), Alison Detner (CCC)

Norman Shopay, MCSD was unable to attend the call.

SHN initiated conference call with CCC SF office to follow up on conclusions from ocean outfall presentations to regulatory agencies in October and November of last year.

SHN and CCC discussed the level of effort needed for further permitting review of the ocean outfall alternative.

The CCC indicated that the permitting of a new ocean outfall would require completion of an alternatives analysis that that looked at other feasible options for disposal that are not coastal dependant.

If the alternative analysis determines that other feasible options do not exist for disposal, then the CCC would consider pursuing permitting of the project.

However if other onshore alternatives are available for disposal, then the District would be directed to pursue other onshore alternatives over construction of a new ocean outfall.

Next steps would involve submitting an alternative analysis for CCC review, with the project application process to follow.

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