



2/15/2013

Rick Koon
General Manager
Cayucus Sanitary District
200 Ash Avenue
Cayucus, CA 93430

SUBJECT: PROPOSAL TO DEVELOP CONCEPTUAL ALTERNATIVES FOR THE TREATMENT AND DISPOSAL OF WASTEWATER COLLECTED BY THE CAYUCUS SANITARY DISTRICT

Dear Rick,

This proposal is to provide professional engineering services to develop preliminary conceptual alternatives for the treatment and disposal of wastewater collected in the Cayucos Sanitary District's (District) collection system. These preliminary conceptual alternatives will be selected to "book end" the range of alternatives available to the District, provide some rough order of magnitude costs, and inform the District's future efforts.

Background

In light of the recent decision by the California Coastal Commission (CCC) denying the Coastal Development Permit to upgrade the level of treatment at the existing Morro Bay- Cayucos Sanitary District Waste Water Treatment Plant (WWTP), the District needs to address potential courses of action for the treatment of its wastewater. The denial by the CCC upends the District and City's settlement agreement with the Regional Water Quality Control Board, places a strain on the working relationship between these two partner agencies, and will have lasting impacts on the treatment of wastewater for the City and District into perpetuity. WSC will help the District to look ahead at the probable ramifications of that decision by developing conceptual alternatives for the various potential wastewater treatment alternatives.

Project Approach

To develop conceptual wastewater treatment and disposal alternatives for the CSD, WSC will perform an initial data review of the applicable studies completed to date or other relevant information. The relevant work completed to date will be reviewed by WSC and useful information will be gleaned for use in preparing preliminary conceptual alternatives. Following the data review, WSC will host a Conceptual Alternatives Development Workshop with CSD staff and/or the District's Executive Committee to develop a list of conceptual alternatives that warrant further consideration. WSC will then investigate the identified preliminary conceptual alternatives and develop descriptions that will include: 1) potential facility locations, 2) collection configurations; 3) level of treatment considerations; 4) O/M and capital cost estimates; 5) disposal options; and 6) key considerations. Following the development of the preliminary conceptual alternatives descriptions, WSC will prepare a technical memorandum that summarizes the project background, describes the identified alternatives, and recommends the next steps to be taken.

Typically, there are a series of work steps taken prior to developing conceptual alternatives that WSC will not be addressing in this work, ie meeting with regulatory agencies to determine the regulatory constraints in which the concepts will be developed. These typical steps can be time consuming to develop but would lead to a superior work product. WSC is focusing this scope of work on development of alternatives to provide the District with some "book end" alternatives and cost information that the District can use to inform its future decision making process. The preliminary conceptual alternatives will be suitable to that end, but could likely have significant flaws that further analysis and evaluation might uncover. The District will need to refine and develop these preliminary conceptual alternatives through future study and effort.

Scope of Work

TASK 1.0 BACKGROUND

1.1 Data Compilation

- Perform preliminary review on the available data. Prepare a data request log and provide it to the District. It is anticipated that the data review will include the following reference documents:
 - (1) City of Morro Bay Wastewater Treatment Plant Study (5/2007)
 - (2) Morro Bay-Cayucos WWTP Facility Master Plan (9/2007)
 - (3) Morro Bay-Cayucos WWTP Facility Master Plan – Amendment 1 (8/2009)
 - (4) Morro Bay- Cayucos WWTP Facility Master Plan – Amendment 2 (7/2010)
 - (5) Morro Bay- Cayucos WWTP Draft Rough and Fine Screening Alternative Sites Evaluation (11/2011)
 - (6) Draft Recycled Water Feasibility Study (4/2012)
 - (7) Current plant flow totals (2010 to present)

- (8) Lift Station #5 pumping records (2010 to present)
- (9) Cayucos Sanitary Sewer System Master Plans and technical studies
- Develop a summary outline of previously completed work related to potential wastewater treatment and disposal alternatives for the District.

TASK 2.0 ALTERNATIVES DEVELOPMENT WORKSHOP

2.1 Workshop Preparation

- Prepare materials necessary to facilitate the Alternatives Development Workshop, including: 1) agenda packets; 2) overview maps; and 3) reference materials.

2.2 Preliminary Conceptual Alternatives Development Workshop

- Facilitate a workshop with District staff and/or the District's Executive Committee to develop a matrix of conceptual alternatives for treatment and disposal of wastewater generated within the District's collection system. The workshop will include the following topics: 1) introductions; 2) project roles, responsibilities and lines of communication; 3) review of available data; 4) project goals and outcomes; 5) key challenges and assumptions; and 6) development of conceptual alternatives.

Deliverable: The WSC Team will prepare a draft agenda packet and distribute it to the District at least one week prior to the Alternatives Development Workshop and will incorporate any District comments into the final agenda packet. Following the workshop, the WSC Team will prepare meeting notes and a detailed list of action items.

TASK 3.0 PRELIMINARY CONCEPTUAL ALTERNATIVES DESCRIPTIONS

3.1 Preliminary Conceptual Alternatives Description

- Develop a description of each of the alternatives developed in the Alternatives Development Workshop. It is anticipated that the description will include the following elements: 1) potential facility locations, 2) collections configurations; 3) level of treatment considerations; 4) O/M and capital cost estimates; 5) disposal options; and 6) key considerations. The development of alternatives descriptions will be limited to five total alternatives.

3.2 Cost Estimates

- Develop planning level O/M and capital cost estimates¹ for each of the identified alternatives using treatment process cost curves. Cost estimates will be updated to reflect current costs using Engineer News-Record construction cost indexes.

¹ Class 4 Conceptual Report Classification of Opinion of Probable Construction Cost as developed by the Association for the Advancement of Cost Engineering (AACE) Cost Estimate Classification System.

TASK 4.0 TECHNICAL MEMORANDUM

4.1 Draft Treatment and Disposal Alternatives Technical Memorandum (TM)

- Develop a treatment and disposal alternatives TM that includes descriptions of each of the identified alternatives. It is anticipated that the TM will include the following sections: 1) background; 2) summary of available data; 3) goals and objectives; 4) alternatives descriptions; and 5) recommended next steps.

4.2 Final Treatment and Disposal Alternatives TM

- Update the draft Treatment and Disposal Alternatives TM based on comments provided by the District.

Deliverable: The WSC Team will prepare a Draft Treatment and Disposal Alternatives TM for review by the District.

Deliverable: Based on comments received from the District, WSC will develop the Final Treatment and Disposal Alternatives TM.

Cost Proposal

Cayucus Sanitary District
 Wastewater Treatment Alternatives Development
 Cost Proposal
 15-Feb-13



Task No.	Task Description	WSC								Total Labor	Expenses	Total Fee
		Principal	Project Manager	Staff Engineer	Clerical/Admin	Total Labor Hours						
	<i>Billing rates, \$/hr</i>	\$235	\$195	\$140	\$80							
1	Background	0	8	0	2	10		1720	\$200	\$1,920		
1.1	Data Compilation		8		2	10		1720	\$200	\$1,920		
2	Workshop	6	8	8	2	24		4250	\$400	\$4,650		
2.1	Workshop Preparation	2	4	4	2	12		1970	\$200	\$2,170		
2.2	Alternatives Development Workshop	4	4	4		12		2280	\$200	\$2,480		
3	Conceptual Alternatives Description	2	10	26	0	38		6060	\$600	\$6,660		
3.1	Alternatives Description	2	8	16		26		4270	\$400	\$4,670		
3.2	Cost Estimates		2	10		12		1790	\$200	\$1,990		
4	Technical Memorandum	4	10	12	0	26		4570	\$400	\$4,970		
4.1	Draft Technical Memorandum	2	8	8		18		3150	\$300	\$3,450		
4.2	Final Technical Memorandum	2	2	4		8		1420	\$100	\$1,520		
	Column Totals	12	36	46	4	98		\$ 16,600	\$1,600	\$18,200		

2/15/2013

If you have any questions or would like to discuss any aspect of this proposal, feel free to contact me at (805) 457-8833 or dwade@wsc-inc.com. Thank you for this opportunity to be of service; I look forward to your response.

Sincerely,

Water Systems Consulting, Inc.

Dylan Wade, P.E.