

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

ADMINISTRATIVE CIVIL LIABILITY
ORDER NO. R3-2007-0076

IN THE MATTER OF:

NATURAL SELECTION FOODS, LLC
SAN BENITO COUNTY

The California Regional Water Quality Control Board, Central Coast Region (hereafter "Central Coast Water Board") finds that:

DISCHARGER

1. Natural Selection Foods, LLC (hereafter "Discharger") owns and operates a vegetable processing facility located at 1721 San Juan Highway in San Juan Bautista, San Benito County (hereafter Facility). The Discharger does business as Earthbound Farm. According to its website (www.ebfarm.com), "Earthbound Farm is the largest grower and shipper of organic produce in North America, offering more than 100 organic salads, fruits, and vegetables. Earthbound Farm produce is available in 74% of all supermarkets and can be found in every major city in the United States."
2. During the time of the following violations, the Discharger was subject to *Waste Discharge Requirements Order No. 99-99 for Natural Selection Foods, Inc., San Benito County* (Order No. 99-99), which was adopted by Central Coast Water Board and became effective on October 22, 1999. On July 6, 2007, Order No. 99-99 was rescinded and replaced by the Discharger's enrollment under the *General Waste Discharge Requirements Order No. R3-2004-0066 for Discharges of Fruit and Vegetable Processing Waste* (General WDRs).
3. The Discharger generates process wastewater by washing farm produce. According to Order No. 99-99, "Process water will be routed through three 1,500 gallon septic style settling tanks for solids removal, followed by a percolation pond and/or used to irrigate Natural Selections' 36 acres of alfalfa. This system is designed to handle 80,000 gpd [gallons per day] of process water, however flows will not exceed 70,000 gpd."
4. A creek commonly called San Juan Creek flows north-northeast along the western boundary of the fields where process wastewater is currently discharged. This is the same creek to which the City of San Bautista is permitted to discharge its treated wastewater. The City of San Juan. Bautista discharge point is approximately 2 miles upstream of the Facility. The San Benito River is approximately 1.5 miles downstream from the Facility. San Benito River then flows for approximately 0.3 mile before reaching the Pajaro River. According to the Water Quality Control Plan, Central Coast Basin (Basin Plan), the beneficial uses of the San Benito and Pajaro Rivers include domestic and municipal supply, agricultural supply, industrial service supply, groundwater recharge, non-contact water recreation, water-contact recreation, wildlife habitat, warm freshwater habitat, fish spawning, freshwater

replenishment, and commercial and sport fishing. The San Benito and Pajaro Rivers support the threatened California red-legged frog and the endangered steelhead trout.

DISCHARGER REQUIREMENTS

5. Order No. 99-99 includes, in part, the following requirements:

"Prohibition No. 3 – Discharge of any wastes from the process waste treatment system including overflow, bypass, and seepage from transport, treatment, or disposal systems to adjacent drainageways or adjacent properties is prohibited.

"Prohibition No. 1 – Discharge to areas other than those designated in Attachment A, is prohibited." [Attachment A specifies that the location of the 36 acre disposal field as on the east side of San Juan Highway.]

"Discharge Specification No. 1 – Daily flow...shall not exceed 70,000 gallons for process and stormwater discharges to the irrigation fields.

"Provision No. 2 – Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated January 1984.

"Provision No. 5 – Pursuant to Title 23, Division 3, Chapter 9, of the California Code of Regulations, the Discharger must submit a written report to the Assistant Executive Officer not later than April 22, 2004, addressing: a) Whether there will be any changes in the continuity, character, location or volume of the discharge; and, 2) Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.

"Standard Provision E.3 – The discharger and any person who violates waste discharge requirements and/or who intentionally or negligently discharges waste or causes or permits waste to be deposited where it is discharged into surface waters of the state may be liable for civil and/or criminal remedies, as appropriate, pursuant to sections 13350, 13385, and 13387 of the California Water Code."

VIOLATIONS

6. Violation No. 1 – The Discharger failed to submit a written report required by Provision No. 5 of Order No. 99-99 by April 22, 2004. The report required the Discharger to address whether there were any changes to its discharge. The Discharger's website indicates that the Discharger produced process wastewater at this time, so there is a discharge associated with this violation. The Discharger thereby violated Provision No. 5 and is liable civilly pursuant to California Water Code Section 13350. The requirement of Provision No. 5 was eventually replaced by the requirement to submit a Notice of Intent by January 31, 2006, which is described under Violation No. 2 below. For the purpose of enumerating penalties, the report required by Provision No. 5 was 649 days late, which is the time period from April 22, 2004, to January 31, 2006.
7. Violation No. 2 – On October 25, 2005, Central Coast Water Board staff sent a letter to the Discharger requiring submittal of a Notice of Intent for enrollment under the General WDRs

by January 31, 2006. The requirement was made pursuant to California Water Code Sections 13260 and 13267. The Discharger submitted its Notice of Intent on July 10, 2006, which is 160 days late. The Discharger is therefore liable civilly pursuant to California Water Code Sections 13261 and 13268.

8. Violation No. 3— The Discharger's Notice of Intent revealed that the Facility discharges an average of 274,000 gpd and a maximum of 582,000 gpd of process wastewater, well in excess of its permitted flow limitation of 70,000 gpd. The Discharger's self-monitoring reports submitted on June 5 and October 2, 2006, further revealed that process wastewater flow exceeds its flow limitation nearly every day of the processing season. Reported process wastewater flows and days of violation are summarized as follows:

Month	Average Flow (gpd)	Maximum Flow (gpd)	Days of Violation (Flow > 70,000 gpd)
April 2005	310,634	498,469	27
May 2005	269,561	466,902	31
June 2005	315,727	520,171	30
July 2005	282,875	582,307	31
August 2005	319,353	467,094	31
September 2005	250,138	448,736	27
October 2005	233,920	376,810	29
November 2005	199,290	431,818	22
The Facility generated no wastewater flow from December 2005 through March 2006 because it was shut down for the off-season.			
April 2006	235,978	442,134	28
May 2006	231,966	419,777	30
June 2006	202,420	425,753	29
July 2006	189,712	464,566	29
August 2006	176,348	334,106	29
September 2006	251,959	459,463	28
Total days of violation:			401

Process wastewater flows prior to April 2005 have not been reported by the Discharger; therefore, Water Board staff can not evaluate potential violations prior to this date. The Discharger thereby violated Discharge Specification No. 1 for a minimum of 401 days and is liable civilly pursuant to California Water Code Section 13350.

9. Violation No. 4 – The Discharger's Notice of Intent, signed July 7, 2006, indicates that the Facility currently discharges process wastewater to 78 acres, well in excess of the 36 acres permitted by Order No. 99-99. The expanded disposal fields include approximately 42 acres on the west side of San Juan Highway, abutting the previously described creek tributary to San Benito River. The Discharger thereby violated Prohibition No. 1 and is liable civilly pursuant to California Water Code Section 13350. Assuming the Discharger has only discharged to these expanded fields since signing the Notice of Intent (this is a conservative assumption because the Discharger has likely discharged to these expanded spray fields for several years), the Discharger has violated Prohibition No. 1 for 118 days (period ending November 1, 2006).

10. Violation No. 5 – Central Coast Water Board staff inspected the Facility on October 4, 2006, and found it discharging several thousand gallons of process wastewater directly to the creek by runoff from the unauthorized disposal fields. In a letter dated October 9, 2006, the Discharger's consultant reported the discharge as two distinct spills of process wastewater to the creek. The Discharger's consultant estimated the first spill as 18,000 gallons and the second spill as 6,000 gallons. The Discharger thereby violated Prohibition No. 3 and discharged waste to waters of the United States in violation of the Clean Water Act, therefore is liable civilly pursuant to California Water Code Sections 13350 and 13385.

MAXIMUM CIVIL LIABILITY

11. California Water Code Section 13261 authorizes the Central Coast Water Board to administratively impose civil liability in an amount not to exceed \$1,000 for each day in which any person fails to furnish a report or pay a fee under California Water Code Section 13260, when so requested by the Central Coast Water Board.

California Water Code Section 13268 authorizes the Central Coast Water Board to administratively impose civil liability in an amount not to exceed \$1,000 for each day in which any person fails to submit technical or monitoring program reports required pursuant to California Water Code Section 13267.

California Water Code Section 13350 authorizes the Central Coast Water Board to administratively impose civil liability in an amount not to exceed \$5,000 for each day in which any person discharges waste in violation of any waste discharge requirement.

California Water Code Section 13385 authorizes the Central Coast Water Board to administratively impose civil liability in an amount not to exceed \$10,000 for each day in which any person violates the Federal Clean Water Act. Where there is a discharge to surface waters, additional civil liability may be imposed in an amount not to exceed \$10 per gallon, for each gallon in excess of 1,000 that is not cleaned up.

The maximum civil liability for the above violations is \$6,240,000. This maximum civil liability is enumerated as follows. Where the violation is ongoing, the number of days of violation is based on the end date of November 1, 2006.

Violation No. (see above)	Water Code Section	Maximum Liability	No. of Days of Violation	Sub-Total
1	13350	\$5,000 per day	649	\$3,245,000
2	13261	\$1,000 per day	160	\$160,000
3	13350	\$5,000 per day	401	\$2,005,000
4	13350	\$5,000 per day	118	\$590,000
5	13385	\$10,000 per day plus \$10 per gallon	1 day and 23,000 gallons	\$240,000
			Total:	\$6,240,000

MINIMUM CIVIL LIABILITY

12. Water Code Section 13385(e) provides that, at a minimum, civil liability shall be assessed at a level that recovers the economic benefit or savings, if any, derived from the acts that constitute Violation No. 5. The Discharger likely realized \$1,000 of economic benefit from Violation No. 5.

FACTORS TO CONSIDER IN ASSESSMENT OF CIVIL LIABILITY

13. Pursuant to California Water Code Section 13327, the Central Coast Water Board considered the following factors in determining the amount of liability for these violations:
- Nature, circumstances, extent, and gravity of the violations,
 - Whether the discharge is susceptible to cleanup or abatement,
 - Degree of toxicity of the discharge,
 - Discharger's ability to pay,
 - Effect on the Discharger's ability to continue in business,
 - Voluntary cleanup efforts undertaken by the Discharger,
 - Discharger's prior history of violations,
 - Discharger's degree of culpability,
 - Economic benefit or savings, if any, resulting from the violation, and
 - Other matters that justice may require.

Detailed discussion of these factors is found in Administrative Civil Liability Complaint No. R3-2007-0015 and the staff report accompanying this Order.

14. On July 18, 2007, the Assistant Executive Officer issued Administrative Civil Liability Complaint No. R3-2007-0076 (Complaint) to the Discharger. The Complaint proposed that the Discharger be assessed civil liability in the amount of \$95,000, and provided that the Discharger may direct a portion of the penalty to a Supplemental Environmental Project (SEP).
15. The Discharger has proposed directing \$50,000 to \$80,000 of the civil liability penalty to the City of San Juan Bautista for its Wastewater Treatment Plant Effluent Reclamation Project, in accordance with the Water Quality Enforcement Policy and Water Code Section 13385(l). The purpose of the SEP is to use recycled water from the city's wastewater treatment facility for irrigation of landscaping in and around the city. The proposed SEP requires upgrading the existing tertiary treatment plant to Title 22 disinfection standards, and installing pumps and piping to deliver the recycled water to use sites. The Discharger's description of the San Juan Bautista Wastewater Treatment Plant Effluent Reclamation Project is included as Exhibit A and is incorporated by this reference. The violations leading to this penalty likely impacted the beneficial uses of San Juan Creek. The SEP has a strong geographic nexus to the violations. It is located within the San Juan Creek watershed. The SEP will improve beneficial uses by decreasing waste loading to the creek. The Discharger represents that no law, permit or enforceable obligation requires it to complete this SEP, other than this Order. The total cost of the SEP is estimated at \$94,005. The Supplemental Environmental Project is not proposed as mitigation of the effects of discharges from the Facility.

16. This enforcement action is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with section 15321, Title 14, California Code of Regulations.
17. Responding to these violations and preparing the Complaint and this administrative civil liability order required approximately 130 hours of Water Board staff time. Estimated staff costs are \$9,750 (130 hours staff time x \$75/hour).

IS HEREBY ORDERED, pursuant to California Water Code Sections 13261, 13350, and 13385, Natural Selection Foods, LLC is hereby assessed civil liability in the amount of ninety-five thousand dollars (\$95,000).

The Discharger shall pay civil liability of \$25,000. The warrant shall be made payable to the State Water Resources Control Board and delivered to *SWRCB Accounting, Attn: Enforcement, P.O. Box 100, Sacramento, CA 95812-0100*, by **September 24, 2007**. A copy of the warrant shall be delivered to *Regional Water Quality Control Board, Attn: Enforcement Unit, Matt Thompson, 895 Aerovista Place, Suite 101, San Luis Obispo, California, 93401*, by **September 24, 2007**.

The Discharger shall also submit written proof of payment of at least \$70,000 to fund the San Juan Bautista Wastewater Treatment Plant Effluent Reclamation Project to the *Regional Water Quality Control Board, Attn: Enforcement Unit, Matt Thompson, 895 Aerovista Place, Suite 101, San Luis Obispo, California, 93401*, by **October 24, 2007**. Written proof shall consist of a written receipt from the City of San Juan Bautista, signed by authorized persons, indicating the payment is to be expended entirely on the SEP.

Within 30 days after completion of the San Juan Bautista Wastewater Treatment Plant Effluent Reclamation Project, the Discharger will submit a project completion report. The project completion report shall include a detailed description of the facilities completed as part of the project, including the improved disinfection system, lineal feet and volumetric capacity of the distribution system, and acreage that will be served with recycled water. The report should include a figure showing the location of the new recycled water facilities and use areas. The report shall include a post-project accounting of expenditures related to the project. If the project is not completed by **October 1, 2008**, a project status report shall be submitted that specifies when the project will be completed. The project shall be completed by no later than **October 1, 2009**.

If the final total cost of the successfully completed SEP is less than \$70,000, the Discharger must remit the difference to the State Water Resources Control Board within 30 days after submitting the post-project accounting.

Whenever the Discharger or its agents or subcontractors, or any fiscal agent holding SEP funds, publicize an element of the SEP, they shall state in a prominent manner that the project is being undertaken as part of an enforcement action against the Discharger.

The Water Board hereby reserves jurisdiction to extend all timelines set forth in this Order. The Water Board or the Executive Officer may extend the deadline if the Water Board or the Executive Officer determines that the delay was beyond the reasonable control of the Discharger or its contractors.

I, Roger W. Briggs, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the Central Coast Regional Water Quality Control Board on August 23, 2007.

Roger W. Briggs, Executive Officer

Date

S:\WDR\WDR Facilities\San Benito Co\Natural Selection Foods\ACL 2007\Proposed Order\Natural Selections ACL Order 2007-0076.doc

Exhibit A
San Juan Bautista Wastewater Treatment Plant Effluent Reclamation Project

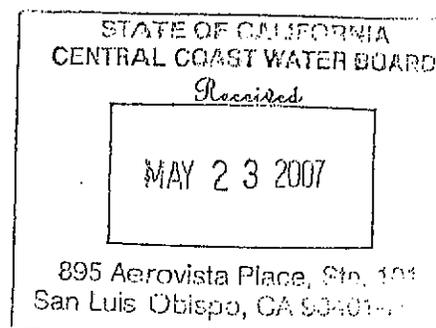


NATURAL
SELECTION
FOODS®

May 21, 2007

Mr. Matt Thompson
Water Resource Control Engineer
California Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Re: Natural Selection Foods



Dear Mr. Thompson:

Enclosed please find our waiver of a Public Hearing. As discussed, Natural Selection Foods values its position in the local community, and we are working hard to protect this trust. Your consideration and efforts in this matter are appreciated.

It is my understanding that you have received both our Notice of Intent (NOI) to enroll under the general discharge requirement with the State Water Resources Control Board (SWRCB), as well as the Form 200, outlining our proposed discharge solution.

This outlines our plan to meet all SWRCB requirements. Copies of this plan have also been submitted to the San Benito County Planning Department, and the San Benito County Water District for review and approval.

It is our intention to focus on monitoring and compliance requirements going forward. We have hired Bracewell Engineering to support us in this effort. Additionally, our company is working with Bracewell to apply systems, and train our operations staff to meet the requirements of the SWRCB.

Natural Selection Foods is committed to building and maintaining an efficient wash water discharge system that meets the needs of the community. We have budgeted more than \$1 million for this project and secured additional land acreage and easements to support these plans for the foreseeable future. It is our intention to have this system complete by August, 2007.

As we discussed, it is our desire to apply penalty dollars to a local environmental project. The City of San Juan Bautista has a reclamation plan that proposes the use of water from the city treatment facility for irrigation of landscaping in and around the city. This plan appears to fit the policy guidelines allowing the use of such penalty funds. I have included a letter from San Juan Bautista City Manager Jan McClintock requesting use of these funds.

During our discussions with the city, it has become clear this project will be a significant asset to the community as a whole for many years into the future. Also

enclosed is a detailed project description and budget that describes the process, benefits, and budget necessary to bring such a reclamation project to this community.

Natural Selection Foods is committed to making a positive difference in our community and doing what's best for the environment. We hope that by working with the SWRCB and the City of San Juan Bautista, we can resolve our water discharge issues in a way that benefits both the community, and the watershed we all share, for many years to come.

Please feel free to contact me with any further questions. We look forward to working together on this project. I can be reached at (831) 623-7880 or by cell phone at (831) 970-3016.

Sincerely,



Joseph Torquato
Senior Facilities Manager

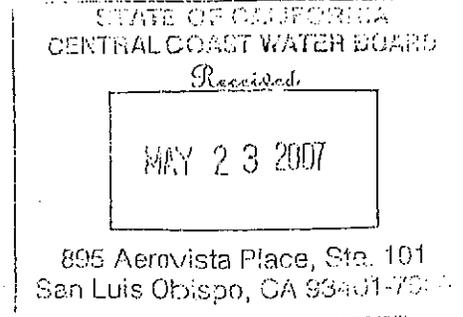
cc: SBC Planning Dept.
SBC Water District
City of San Juan Bautista



City of San Juan Bautista

The "City of History"

May 14, 2007



P.O. Box 1420
311 Second Street
San Juan Bautista
California 95045
(831) 623-4661
Fax (831) 623-4093

Joe Torquato
Facility Manager
Earthbound Farm
San Juan Bautista, CA 95045

Re: Water Reclamation Plant for San Juan Bautista

City Council
Mayor
Priscilla Hill

Vice Mayor
George Dias III

Councilmember
Rick Edge

Councilmember
Edward Laverone

Councilmember
Robert Paradice

City Manager
Jan McClintock

City Clerk
A. Shawna Serna

City Treasurer
Paul Petersen

Fire Chief
Scott Freels

The City of San Juan Bautista would like to express our interest in working with Natural Selection/Earthbound towards the completion of our water reclamation facilities. The City has been planning on completing this plant, but did not have the funds available to make it happen. In preparation for this eventuality, the city has required that recent subdivisions plumb for purple valve water for landscaping purposes. Additionally, we have cultivated potential customers with the San Juan Bautista Cemetery District and CalTrans.

The City views this project as critical for the City's water future. The use of non-potable water for landscaping is conservatively estimated, at current usage rates, to save the City over 1 million gallons per year in potable water. This saving represents direct savings to the rate payers and direct improvements to the Pajaro River Basin water quality.

Please keep the City informed in how we can assist you with your presentations to the Regional Water Quality Control Board.

Sincerely,

Mayor Priscilla Hill

cc. Lloyd Bracewell

San Juan Bautista Wastewater Treatment Plant Effluent Reclamation Project

The following is an outline of a basic reclamation project for implementation at the existing wastewater treatment plant as a potential environmental enhancement project that Earthbound Farm implement using a portion of the Administrative Civil Liability penalty expected to be imposed by RWQCB. Considering both treatment upgrades required at the plant, areas where reclaimed effluent is proposed to be used and administrative issues, the following provides a brief project description:

1. Existing Treatment Plant

- a. The existing treatment plant utilizes a sequencing batch reactor activated sludge process to produce an effluent quality of about 10 mg/L total solids, a turbidity of 5 NTU or less and total nitrogen less than 6 mg/L as N.
- b. The SBR effluent passes through a flow equalization basin with a detention time of about 24 hours and a fixed film nitrification reactor for further polishing with an average effluent turbidity less than 3 NTU.
- c. The nitrification reactor effluent discharges to 2 pressure mono media filters, 7 feet in diameter. The plant design capacity is 270,000 gpd or 187 gpm but currently, effluent flow rates average less than 170,000 gpd or 118 gpm. Thus the hydraulic loading on one filter at the design flow rate is 4.9 gpm/ft. sq. while currently it is about 3 gpm/sq. ft. With the large flow equalization basin, the effluent flow rate is regulated to provide an almost constant flow rate at all times.
- d. Coagulant addition can be provided into the pipeline about 200 feet ahead of the filters to provide for mixing, however coagulant addition is not normally practiced.
- e. The turbidity of the filtered effluent is measured using a continuous turbidity analyzer and is usually about 1 NTU.
- f. The filtered effluent is disinfected by a Trojan ultraviolet lamp system with a design intensity of 190 micro watts per cm^2 using 3 banks of lamps with a redundant 4th bank. Effluent coliform counts using the multiple tube method are almost always less than 2.2 MPN/100 mL measured on a twice weekly basis.
- g. The UV disinfected effluent passes through a 10,800 gallon old chlorine contact buried pipe system. Water from this chlorine contact pipe is pumped as backwash water for the filters.

2. Treatment Plant T22 Upgrades

- a. Title 22 Disinfection
 - i. It is assumed that the reclaimed effluent will need to be chlorinated but it is unknown if a 450 min-mg/L contact time is required if the chlorine is added to UV disinfected effluent
 - ii. If UV effluent can be chlorinated without meeting the contact time requirement, then as UV disinfected effluent from the chlorine contact pipe was pumped to a pressure tank using variable speed pumps, chlorine would be metered into the discharge pipe. The discharge from the pressure supply tank would be distributed to the irrigation areas upon demand. A chlorine analyzer

and continuous chart recorder would record the residual of the reclaimed water.

- iii. A continuous chart recorder would be added to the filter effluent turbidity meter to record the filtered effluent turbidity.
- iv. If the chlorine contact time still must be met, then we would have to
 - (1) Split the effluent using existing piping so that effluent needed for backwash and reclamation would be diverted into the chlorine contact system to keep it full and add chlorine to that side stream. The remainder of the UV effluent would be discharged directly to the outfall without any chlorine addition.
 - (2) The filter backwash pump would pump chlorinated effluent for filter backwashing and a dechlorinating agent would be added ahead of the filters to ensure there was no chlorine in the filters so that when the filters started filtering effluent there could be no chlorine in the effluent discharged to the plant outfall. A continuous chlorine analyzer and chart recorder would need to be added to comply with RWQCB monitoring requirements.
 - (3) It is also assumed daily coliform testing will be required.

3. Reclaimed Water Uses

a. Creekbridge Estates

- i. Purple pipe has already been installed in this small development of about 20 homes for irrigation of a small park area and a grass strip between the sidewalk and the street.
- ii. A pipeline from the treatment plant would need to be extended approximately 1000 feet to provide reclaimed water to irrigate this small area. The water demand is unknown at this time but expected to be around 1000 gpd.
- iii. A cross-connection survey will need to be performed to ensure all requirements would be met.

b. San Juan Bautista Cemetery

- i. The cemetery is adjacent to the southern border of the treatment plant and would require approximately 1500 feet of pipe to provide reclaimed water for irrigation of the cemetery.
- ii. A cross-connection survey will need to be performed to ensure all requirements would be met.
- iii. The reclaimed water pipeline would be installed roughly parallel to the raw wastewater forcemain that runs up the hill at the treatment plant but a minimum horizontal separation distance of 10 feet will have to be maintained. However, would there be a requirement that the reclaimed water line be installed at an elevation above the raw wastewater forcemain? If that is the case another alignment will be needed that could add 500 feet to the reclaimed water pipeline.

4. Timing

- a. The upgrades required at the treatment plant appear to be minimal depending on additional or more stringent requirements by DHS or RWQCB with the

installation of the pumping and pressure storage system being the most significant. Installing chemical feed pumps, chlorine analyzers, and chart recorders is a minor task. Completing design and installation is expected to take 2 months from the time a notice to proceed with the project is given.

- b. Completion of the cross-connection surveys would be required prior to design of the reclaimed water distribution system and would not take more than a few days.
- c. Installation of the reclaimed water pipelines totals about 2500 feet and unless there are right-of-way or competitive bid issues should also be accomplished in about 2 months from the time a notice to proceed with the project is given.

5. Funding

- a. If approved by RWQCB, the source of funding for this project would come from using \$50,000 to \$80,000 of the ACL penalty to be imposed on Earthbound Farm by RWQCB.
- b. The funds would be placed in a separate City of San Juan Bautista trust account for disbursement of payments for completion of the reclamation project.

6. Project Management

- a. The reclamation project will be managed by Bracewell Engineering, Inc. covering design, construction, and operation.

Listed here is a spreadsheet for use in compiling a cost estimate for the reclaimed water project for the San Juan Bautista WWTP.

Daniel W. Hugens HDK Associaes 5/9/2007

File: SJB Reclamation Engineers Estimate 5-9-07.xls

Assumptions:

Use Irrigation Rate of 40 GPM for the sizing of pipes and pumps

Description	Quantity	Units	Unit Cost	Extension	
1.0 Pump Pad					
Pump Pad Concrete	3.57	cu yd	530	\$1,894	
Pump	1	ea	1,500	\$1,500	
Hydro-Pneumatic Tank	1	ea	3,500	\$3,500	
Pressure Switch	1	ea	100	\$100	
Pump Piping & Valves	1	lot	2,000	\$2,000	
Electrical Combination Starter	1	ea	1,000	\$1,000	
Conduit & Wire	1	lot	700	\$700	
Supports and Mounting	1	lot	500	\$500	
Sales Tax	7.50%			\$697.50	
Contractors Mark-Up on Equipment and Materials	15.00%			\$1,395	
Installation	20.00%			\$1,860	
Subtotal Pump Pad					\$15,146
2.0 Waterline to Housing Development					
Waterline Installed	1000.00	ft	15	\$15,000	
Subtotal Waterline to Housing Development					\$15,000
3.0 Waterline to Cemetery					
Waterline Installed	1300.00	ft	15	\$19,500	
Subtotal Waterline to Cemetery					\$19,500
4.0 Turbidity Meters					
Turbidity Meter Dual Sensor	1	ea	3,300	\$3,300	
Chart Recorder; 2 pen	1	ea	900	\$900	
Conduit & Wire	1	lot	700	\$700	
Supports and Mounting	1	lot	250	\$250	
Sales Tax	7.50%			\$386.25	
Contractors Mark-Up on Equipment and Materials	15.00%			\$773	
Installation	20.00%			\$1,030	
Subtotal Turbidity Meters Installed					\$7,339
5.0 Chlorination / Dechlorination (Optional - might not be needed if existing UV meets T22 standards)					
Concrete Pad for Chemical Storage	0.89	cu yd	\$530	\$473	
Chlorine Residual Analyzer	1	ea	\$3,000	\$3,000	
ORP Analyzer	1	ea	\$5,000	\$5,000	
Chlorine Chemical Pump	1	ea	\$800	\$800	
Dechlorination Chemical Pump	1	ea	\$800	\$800	
Tubing, etc.	1	lot	\$500	\$500	
Chart Recorder; 2 pen	1	ea	\$726	\$726	
Chemical Drum Secondary Containment	1	ea	\$941	\$941	
Pump Enclosure	1	ea	\$750	\$750	
Conduit & Wire	1	lot	\$700	\$700	

Supports and Mounting	1 lot	\$500	\$500	
Sales Tax	7.50%		\$1,028.75	
Contractors Mark-Up on Equipment and Materials	15.00%		\$2,058	
Installation	20.00%		\$2,743	
<i>Subtotal Turbidity Meters Installed</i>				\$20,020

6.0 Miscellaneous

DHS Review	1 ea	2,000	\$2,000	
Title 22 Report	1 ea	5,000	\$5,000	
Engineering Design	1 ea	10,000	\$10,000	
<i>Subtotal Miscellaneous</i>				\$17,000

Total Budget: \$94,005