

Draft SLPOA Newsletter Article

Over the past two years the Wastewater Treatment Plant (WWTP) operated by the Donner Summit Public Utility District (DSPUD) has been in the process of re-licensing, and after conclusion of that process determining the requirements for meeting the more restrictive discharge limitations imposed by that license. On April 24, 2009 the California Regional Water Quality Control Board, Central Valley Region (CVRWQCB) reissued the license with more restrictive standards for the contaminants contained in the discharge produced by the plant after processing, primarily ammonia and nitrate. Since the plant was not meeting these standards (or even the previous standards on a consistent basis) the permit was accompanied by a Cease and Desist Order (CDO) that required the plant to meet permitted standards within five years (April, 2014).

Based on these requirements DSPUD contracted with ECO:LOGIC, a water and wastewater consulting engineering firm, to develop a plan to enable the District to meet the required limitations by April, 2014. ECO:LOGIC investigated ten possible alternatives based on processing plant technology, disposal options and treatment variations. A committee consisting of Board Members and staff from both Districts evaluated the alternatives presented by ECO:LOGIC and selected the best option in an iterative process that consisted in a series of meetings where a process of evaluation and re-evaluation resulted in the selection of a Membrane Bioreactor (MBR) system as the basic processing technology. The decision was based on the conclusion that only an MBR system was capable of meeting permitted discharge limitations.

As a result of the decision to select an MBR system a schedule was developed to implement the project. There were two sets of tasks within the schedule. First was the construction of the new plant itself; and second were the necessary auxiliary requirements, which consisted of the environmental reviews and expansion of the spray irrigation fields on the Soda Springs ski hill. Since the plant site is owned by the Forest Service a NEPA review will be required for the project. A CEQA document will also be required to fulfill California's environmental requirement. Initial indications are that a single document will be prepared to fulfill the requirements for both NEPA and CEQA, and further, that the minimum reporting requirement (a mitigated

negative declaration) will be sufficient. If these objectives are met the environmental review process could be completed by December, 2010. However, if a complete environmental impact review is required the process would not be completed until June, 2011. Preliminary engineering design is in progress concurrently to develop the site plan for plant layout and the specifications for the MBR processor and ultraviolet disinfection system. Potential vendors will be surveyed and preliminary orders for the equipment will be developed with the selected manufacturers. After completion of these tasks final design engineering will be initiated with a target completion date of December, 2011. The bid process will then be initiated with completion in time to break ground in June, 2012. Two construction seasons are anticipated – the summers of 2012 and 2013 – with completion of the project scheduled for December, 2013.

During the initial selection of the MBR technology a cost estimate of \$21,500,000 was developed by Jeff Hauser of ECO:LOGIC as the projected cost of construction for the MBR option. This is still the best estimate we have at this time. However, project cost estimates are subject to change during the design process; and they are certainly subject to change during the actual construction process. After final costs for the project are known in the spring of 2014 they will have to be allocated between the two Districts – Donner and Sierra – based on the breakdown between upgrade and expansion cost components; and then reallocated within each District between developed and undeveloped lots. Consequently, due to the possibility of significant variances in the entire sequence of costs and allocation processes it is not realistic to estimate a cost per equivalent dwelling unit (EDU) at this point in time. However, as the process evolves the basis for estimating will become more and more accurate and costs per EDU will be developed.

Despite our inability to accurately estimate the impact of construction costs on each EDU it is obvious that it will be significant. However, construction costs will not be the only element affecting rates per EDU during the next four years. The cost of financing is not included in the \$21,500,000 estimate by Jeff Hauser. It will vary with the term and interest rate that the District is able to negotiate with lenders. Government financing is available but it is not certain that our District, Sierra, will qualify for either the State or Federal programs. No grants are available to either District. Operating costs will probably be higher for the Wastewater Plant after conversion to the MBR system. The influent will be heated by a propane or diesel boiler at critical

processing times with an increased cost for fuel (influent was not heated in the prior system). Costs for electricity will increase due to the additional pumping required by the MBR system and the additional power necessary to operate the ultraviolet disinfection system. There will be some offsetting reductions in the use of chemicals, primarily chlorine for disinfection.

Additional costs which will have an effect on rates are as follows:

1. The District became subject to an accounting standards regulation in 2010 – GASB 45 – which requires the calculation and funding for post employment health benefits. An actuarial study determined that we had an unfunded liability of \$1,282,000, which we can resolve over a period of years. However, our annual operating costs will be increased by \$70,000 each year until this deficit is resolved.
2. Over the past four years we have had an infrastructure repair and replacement program for our water delivery and sewer collection systems – primarily underground facilities. This project, supplemented by previous expenditures for facility repair at Donner for the WWTP, has resulted in a draw of \$5,000,000 against our line of credit with Bank of the West. We have been paying interest only on this draw but will have to initiate repayment of principal within the next two years.

These extraordinary costs will result in increases in our basic rate structure and will be in addition to the costs generated by the WWTP expansion/upgrade at Donner

This article is the first in a continuing series that will be written to monitor the progress of the WWTP project at Donner and assess the impact upon service charges and associated infrastructure costs within the Sierra Lakes District.