

Cascade Shores Wastewater Treatment Plant Update

November 20, 2006

Background Information

Cascade Shores is a small, unincorporated subdivision east of Nevada City in Nevada County. The subdivision is comprised of 375 parcels and is currently about 80 percent built-out. It was determined that 104 parcels had soils that were unsuitable for individual septic systems. These were required to connect to a centralized sewer system for wastewater collection, treatment and disposal.

Current wastewater treatment plant (WWTP) was constructed in 1996 to replace old pond system to serve 104 connections within Cascade Shores. Much of wastewater collection system was also replaced. Total project cost of \$2,130,000 was funded by Small Community Wastewater Grant (SGWG), State Revolving Fund Loan (SRF), and Nevada County Loan.

Nevada County Sanitation District No. 1 operates system on behalf of residents of Cascade Shores, Zone 8, Service Area (NCS D1CS). There are 80 homes, a fire station, and a local market currently connected to system as shown on attached Service Area Map.

Cascade Shores WWTP currently discharges treated and disinfected wastewater into Gas Canyon, a tributary to Greenhorn Creek and Rollins Reservoir. WWTP is permitted to operate under National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements (WDR) Order adopted by Central Valley Regional Water Quality Control Board (RWQCB). WDR included a compliance milestone of June 14, 2006, to comply with new effluent limitations which existing WWTP was not designed to meet. WWTP must also provide continuous monitoring for several constituents, as well as composite sampling of several other constituents. RWQCB has promulgated similar discharge requirements for other Central Valley WWTPs discharging to effluent dominated water bodies. NCS D1CS is also required to characterize effluent compliance with the California Toxics Rule (CTR). It is expected that permit renewed in 2006 will contain numerical limitations for CTR pollutants detected in effluent. Compliance with CTR will be required by 2010.

Landslide occurring in May 2005 adjacent to existing WWTP created a safety hazard. District's Geotechnical engineer, confirmed that "instability of the cliff and potential for continued landslides and location of the WWTP, pose a significant threat of the continued ability of the WWTP to treat wastes." Therefore, it is necessary to replace and upgrade treatment processes needed to provide wastewater services to residents of service area in a manner that complies with State and Federal regulations.

Interim Compliance Measures

Temporary sewer main and pump station; interim compliance measures, ongoing maintenance, and oversight; and directional bore permanent replacement of temporary sewer main and pump station project costs of approximately \$794,000 have been mostly funded with insurance proceeds from insurance carrier of Sanitation District with a portion provided by Sanitation District. Attached picture taken on April 13, 2006 shows success of interim compliance measures

Emergency Plan

District prepared and submitted an emergency plan to comply with RWQCB Cleanup and Abatement Order. This plan identified what will be implemented for a number of different emergencies, including failure of interim compliance measures prior to completing the long-term measures identified in Facilities Plan. Emergency plan, if implemented, will be funded by District's insurance carrier.

Treatment Plant Improvement Project

Cascade Shores Wastewater Treatment Plant Facilities Plan Update was completed and submitted to RWQCB and funding agencies. Plan identified long-term compliance measures that need to be implemented and defines alternatives available for replacing and upgrading treatment facilities needed to provide compliance with State and Federal regulations. Recommended alternative is continued discharge into Gas Canyon with advanced treatment. A copy of this plan is located at project website www.mynevadacounty.com/cstreatmentplant.

Major portions of proposed project include:

- Excavation and site grading
- Headworks
- Flow equalization basin
- Membrane bioreactor (MBR) package filtration system with fine screens and anoxic zone
- Ultraviolet (UV) disinfection system
- Sludge storage tank
- Effluent reaeration tank
- New effluent pipeline to Gas Canyon
- Building housing a small laboratory, electrical room, and chemical systems
- Pipes, valves, and fittings required to connect all treatment processes
- Electrical equipment, instrumentation, and control systems
- Demolition of existing WWTP

NCSD1CS received Administrative Civil Liability Complaint (ACLC) for Cascade Shores WWTP from RWQCB in the amount of \$541,000, of which \$498,000 is mandatory minimum penalty required for effluent violations and \$43,000 is additional liability for sewage spill.

\$498,000 of proposed ACLC will be applied towards completion of Cascade Shores WWTP Improvement Project to achieve compliance with WDR Order. This was based on State Water Resources Control Board (SWRCB) determination of NCSD1CS as a small community with a financial hardship. **Cascade Shores, Zone 8, Service Area median household income is \$35,681.**

NCSD1CS received Cease and Desist Order (CDO) for Cascade Shores WWTP from RWQCB. CDO extended compliance deadlines to September 30, 2007.

NCSD1CS plans to complete the Cascade Shores WWTP Improvement Project to achieve full compliance with WDR by September 30, 2007 and anticipated CTR 2010 requirements. Final design of the project was completed. Bid opening was held on September 7, 2006, with K. G. Walters as the low bidder in the amount of \$5,084,076. This low bid was substantially higher than expected and has created additional financial problems. Consideration for award of this bid by the District Board needs to be done by December 12, 2006. The estimated project cost is \$6,440,000 and summarized in Table 1:

Table 1

Planning (ECO:LOGIC contract)	\$128,040
Design (ECO:LOGIC contract)	\$416,313
Construction Management (estimate)	\$764,000
Construction (K. G. Walters Bid)	\$5,084,076
DOTS Construction Administration (estimate)	\$47,571
Estimated Project Cost	\$6,440,000

Financial Planning

The District and its consultants have been working with the County and State developing a financial plan to fund the estimated project cost and related expenses of \$6,440,000. Results of those efforts are summarized in Table 2:

Table 2

Work Force Housing Reward Program Grant	\$9,000
Community Development Block Technical Assistance Grant	\$30,000
Community Development Block Grant	\$407,000
Small Community Wastewater Grant	\$2,000,000
Estimated Net Insurance Proceeds	\$714,000
Local Share Contribution (\$50,000/year for 3 years)	\$150,000
State Revolving Fund Loan	\$3,130,000
Total	\$6,440,000

Nevada County provided short-term revolving loans to NCS D1CS to maintain cash flow for project up to its loan limit in accordance with Government Code Section 23014. The previous project that was constructed in 1996 has existing debt of \$286,000 (SRF and Nevada County loans) that is planned to be repaid from some of the insurance proceeds. Final project funding needs to be completed prior to construction beginning. Final cost of the project will be determined based on actual construction costs and financing.

Proposed Sewer Charges

The proposed new connected sewer service charges and standby sewer charges per EDU for Fiscal Year 2006/07 are shown in Table 3:

Table 3

	Sewer Service Charge per EDU for a single family residence	Sewer Standby Charge per EDU for a vacant lot
Existing	\$1,995	\$735
Proposed Increase	\$2,505	\$1,965
Proposed Annual Charge	\$4,500	\$2,700

The Cascade Shores wastewater facility has 83 connected Equivalent Dwelling Units (EDUs) and 22 standby EDUs. An EDU is the sewer capacity required by the average single family dwelling. The cost of the project not funded by grants or net insurance proceeds will need to be funded by the Cascade Shores EDUs.

This increase is needed to provide local share funding of the estimated \$6,440,000 for replacing the existing Cascade Shores Wastewater Treatment Facility. It will also fund the increased operating cost of the new facilities.

Public Hearing

A Public Hearing will be held on December 5, 2006 to consider an amendment to the 2006/07 Nevada County Sanitation District No. 1 Capital Acquisition and Improvement Budget for Cascade Shores, Zone 8, and to consider increasing sewer service and sewer standby charges for the 2006/07 Fiscal Year to support the budget amendment for Cascade Shores, Zone 8. The recommended sewer charge increases for Zone 8 are subject to the requirements of Proposition 218. Notices for the proposed sewer service charges were mailed to District customers. **These proposed charges are subject to protest by the property owners in accordance with Proposition 218 as follows:**

Sewer Service Charge

At the public hearing, the Board will consider all written protests against the proposed sewer service charges and tabulate them. The Board shall not impose the proposed sewer service charge if there is a majority protest. A majority protest exists if, upon the conclusion of the hearing, the written protests submitted in opposition to the proposed sewer service charge is a majority of the total connected EDUs allocated to properties within the zone. In tabulating the written protests, they shall be weighted according to the number of connected EDUs allocated to each property. A majority protest would result in the existing sewer service charges being maintained.

Sewer Standby Charge

At the public hearing the Board will consider all ballot protests against the proposed sewer standby charges and tabulate the ballots. The Board shall not impose the proposed sewer standby charge if there is a majority protest. A majority protest exists if, upon the conclusion of the hearing, the ballots submitted in opposition to the proposed sewer standby charge exceed the ballots submitted in favor of proposed sewer standby charge. In tabulating the ballots, the ballots shall be weighted according to the number of standby EDUs allocated to each property. A majority protest would result in the existing sewer standby charges being maintained.



Cascade Shores Plant Site on April 13, 2006

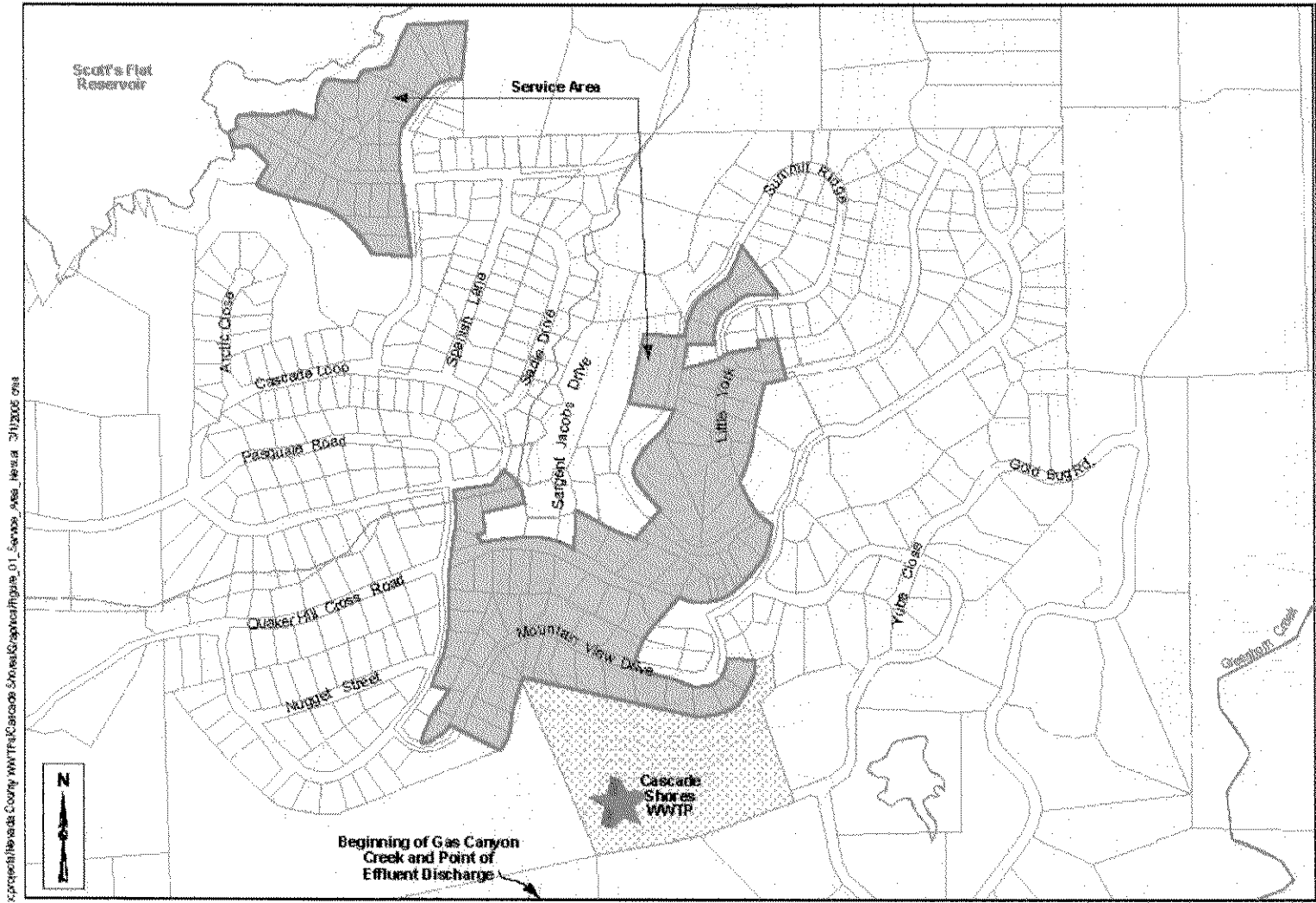


Figure 1-1
Cascade Shores Zone 8 Service Area