

WASTEWATER TREATMENT IN WESTERN NEVADA COUNTY

REASON FOR INVESTIGATION

Recent local newspaper articles have covered plans for modification of county-operated wastewater treatment plants within western Nevada County. The Grand Jury, in response to these articles, initiated an investigation to examine both the County's actions and its future plans with respect to wastewater treatment, and in particular, the source of funding for wastewater treatment plant improvements.

BACKGROUND

The U.S. Environmental Protection Agency (EPA), State Water Quality Resource Control Board (SWB), and the Central Valley Regional Water Quality Resource Control Board (CVB) regulate wastewater treatment plants.

Nevada County Local Agency Formation Commission (LAFCO) initiated a study that concluded in January of this year and is a major source of information for this report titled: Final Municipal Service Review Report Nevada County Western Region Wastewater Service Agencies. The LAFCO study regarding wastewater is comprehensive and deals with projected population growth and government structures required to meet that growth.

A majority of the population of Nevada County uses septic systems that could be as small as a single-family residence system or as large as a community septic system serving several homes, an apartment complex, or an industrial park. The federal government assumes no direct role in regulation of on-site sewage systems and regulation is delegated to state and local government.

That portion of the County that does not use septic systems uses treatment facilities provided by wastewater treatment plants. These treatment plants, regulated by multiple levels of governmental authority, operate within a complex and legally unsettled regulatory framework that includes the following:

- EPA as regulator of the Clean Water Act, 33 USC 1311, and the Federal Water Pollution Control Act, 33 USC 1251 et seq.,
- The SWB and the Porter-Cologne Water Quality Control Act, California Water Code Division 7, effective January 1, 2003, sometimes called the "California Toxics Rule" (CTR), and
- The CVB affecting western Nevada County.

Environmental Protection Agency

The EPA's mission is to protect human health and to safeguard the natural environment - air, water, and land - upon which life depends. The Clean Water Act (CWA) of 1972 and amended in 1987 is the primary Federal statute regulating the protection of the nation's waters. With respect to **funding** for EPA-mandated changes, it is relevant to note:

*United States Code, Title 33, Chapter 26, Subchapter I, Sec. 1251 (4)
which states ...“it is the national policy that Federal financial assistance
be provided to construct publicly owned waste treatment works.”*

State Water Quality Resources Control Board

The California Water Code is the principal state regulation governing water quality protection and the use of water resources. This code established the (SWB) and the California Regional Water Quality Control Boards.

Regional Water Quality Control Boards

The mission of the nine Regional Water Quality Control Boards is to develop rules to enforce water quality and thereby protect the State's waters. The primary duty of CVB (Region 5b) is to protect the quality of the waters within the central valley region including western Nevada County.

It is relevant to note that the CVB has the authority to regulate **any** wastewater system within its jurisdiction. The CTR requires that any person discharging or proposing to discharge waste, even individual septic systems for single-family residences, file a report with the regional offices. In the early 1950's, CVB waived the filing of reports for dischargers from individual sewage disposal systems in counties with satisfactory ordinances or regulations.

Nevada County Sanitation District No. 1

Nevada County Sanitation District No. 1 was formed in 1965. It is a dependent special district governed by the County Board of Supervisors. It administers, operates and maintains sewage collection systems and treatment facilities at the following areas: Lake Wildwood, Lake of the Pines, North San Juan, Gold Creek, Penn Valley, Mountain Lakes Estates, Cascade Shores, Eden Ranch, Dark Horse, and Higgins Village.

METHOD OF INVESTIGATION

The Grand Jury interviewed wastewater operations management, attended multiple outreach meetings conducted by County-employed consultants, reviewed documents prepared by County-employed consultants hired by LAFCO, and researched the topic of wastewater in California through multiple sources.

FINDINGS

1. All wastewater treatment plants that discharge to surface waters are issued a National Pollutant Discharge Elimination System (NPDES) permit that sets specific discharge requirements to ensure protection of public health and water quality. These permits are renewed every five years by the California Regional Water Quality Control Boards. At *each renewal*, the permit renewal process may incorporate new treatment objectives and discharge regulations that might require upgrades or modifications to the facility.
2. In the last year, testing of effluent (output) at wastewater treatment plants within Sanitation District No. 1 has revealed levels of contaminants that exceed CTR water quality criteria.
3. Regional Water Quality Control Board Orders implement EPA standards and require *all* treatment plants within Nevada County to meet a higher quality of water discharge to maintain their permits. Current plants will not remove trace contaminants as required by the new standards. Failing to meet discharge requirements may subject the plants to fines.
4. The LAFCO report indicates that given the current land use patterns and projected growth areas, it is impracticable to have one centralized regional wastewater system within Nevada County.
5. The report also states that it is inefficient and costly for the wastewater agencies to service projected growth through a series of small “package plants” and agencies/zones as has been done in the past.
6. “Package plants” must also meet the same water quality standards as large plants and, as a result, typically have higher costs and charges for property owners. The government structure is also affected. Since adoption of an ordinance in 1982, Nevada County has required some wastewater systems be operated by a public agency or to annex to an existing public agency. The result has been that either a very small district is formed or annexation to a public agency is required. A majority of the annexations has been to the Nevada County Sanitation District No. 1, which now operates some systems with comparatively few customers.
7. LAFCO’s report also noted that “package plants” cannot achieve the economies of scale required for efficient and cost-effective processing of wastewater.
8. The western Nevada County review commissioned by LAFCO estimated the current cost to meet CVB’s discharge requirements for Nevada County Sanitation District No. 1, including only Lake Wildwood, Lake of the Pines, Penn Valley, and Cascade Shores, at over \$12 million.
9. Nevada County Sanitation District No. 1 projected maintenance and capital improvements at a higher cost than LAFCO. The cost for maintenance and capital

improvement to meet CVB's revised standards in Lake Wildwood (LWW), Lake of the Pines (LOP), Penn Valley (PV), North San Juan (NSJ), Cascade Shores (CS), Gold Country (GC), and Mountain Lake Estates (MLE) was estimated in May of 2003 to be in excess of \$15 million, and in April of 2004, in excess of \$23 million, as shown in the following chart. Estimates for Eden Ranch (ER), Dark Horse (DH), and Higgins Village (HV) were not included in either total.

Fiscal Year	All Zones	LWW	LOP	PV	NSJ	CS	GC	MLE	ER	DH	HV	Total
2003/04	\$284,592	\$317,000	\$526,700	\$26,006	\$5,000	\$22,000	\$4,000	\$3,000				\$1,188,298
2004/05		\$1,256,515	\$782,696	\$30,000	\$5,000	\$78,000	\$4,000	\$3,000				\$2,159,211
2005/06		\$843,315	\$6,758,472	\$8,000	\$5,000	\$429,500	\$4,000	\$3,000				\$8,051,287
2006/07		\$5,560,000	\$5,974,109	\$8,000	\$5,000	\$229,500	\$4,000	\$3,000				\$11,783,609
Total	\$284,592	\$7,976,830	\$14,041,977	\$72,006	\$20,000	\$759,000	\$16,000	\$12,000				\$23,182,405

Source: Nevada County Sanitation District No. 1, April 16, 2004

10. The Lake Wildwood Wastewater Treatment Plant currently discharges into Deer Creek, which during many months of the year has little or no flow below the Lake Wildwood Dam. CTR standards must be met at the point of discharge. The consultant's recommendation for Lake Wildwood as of March 9, 2004 was to build a 5-mile pipeline from Lake Wildwood to a point of discharge at the headwaters of the South Yuba River where the volume of natural water would be sufficient *at this time* to meet CTR rules and disperse the effluent.
11. The Lake Wildwood plant must comply with a new discharge permit by 2007. To have facilities constructed and operational by that time, the Nevada County Sanitation District No. 1 projects that it must select a treatment and disposal alternative, establish a new fee structure, start environmental studies and documentation, begin engineering during 2004, and complete design of those facilities by early 2005.
12. The current proposal for Lake Wildwood would require a minimum upgrade to the treatment facility and would encapsulate Deer Creek's flow for much of the year in a pipe at a cost estimated at \$5 million. The effluent would be transported around Deer Creek and thus conform to CVB's *current* point of discharge rule.
13. Lake Wildwood individual sewer charges are projected to increase from \$315 to \$843 per year in order to comply with CVB's new requirements.
14. The current proposal to meet the long-term needs of Lake of the Pines is to upgrade the treatment plant at its current location. The upgraded facility will discharge year-round to Magnolia Creek but provisions will be made to resume seasonal pastureland dispersal should it become desirable in the future.
15. Estimates for sewer charge increases to fund the Lake of the Pines wastewater treatment plant upgrade are not firm at this time. The estimated construction costs to upgrade the Lake of the Pines wastewater treatment plant could cause individual sewer charges to increase from the current \$315 to \$1035 per year in 2006/07.

16. The Cascade Shores wastewater treatment consists of a stream discharge system into Gas Canyon Creek. Built in 1996, it met the effluent discharge requirements then in effect. The wastewater discharge permit is up for renewal and requires the treatment plant be upgraded by 2006 to meet the new CVB requirements. In March 2004, Cascade Shores' charges increased from \$910 to \$1795 per year by order of Nevada County Board of Supervisors acting as the Board of Directors of the Sanitation District in ordinance No. SD-46. Proposed disposal options are still being evaluated.
17. The County is handing the cost of meeting toxic rule requirements to those communities that have separate water treatment plants.
18. Nevada County is charging for wastewater treatment improvements on residents' tax bills. The California Attorney General warns that such charges do not have a "direct relationship to property ownership." There is legal uncertainty in the State as to whether such charges constitute a tax increase (forbidden by various propositions) or a permissible fee for service assessment.
19. Grant funds were reported by County-employed consultants to be *unavailable* on September 16, 2003 at a Lake Wildwood community outreach meeting. An article in The Union on November 20, 2001 alluded to an \$85,000 grant requested by the Nevada County Resources Conservation District of the David and Lucille Packard Foundation. The grant had been turned down due to a lack of 50 percent matching funds. On January 27, 2003, The Union reported that the Yuba Watershed Council "had received \$1.2 million in grants from the \$1 billion Clean Water Act passed in 1996." On March 8, 2003 The Union reported that Nevada City was "applying for a U.S. Department of Agriculture rural development grant" to improve their wastewater treatment plant. The same consultants reported grant funds to be *under study* on March 9, 2004.
20. *Funding to meet these requirements is unbudgeted. If the county cannot obtain federal or grant funding, the current plan is to pass on the costs of each project to the property owners served.*
21. *The United States Code, previously cited, states that it is the national policy that Federal financial assistance would be provided for wastewater treatment plant upgrades.*

CONCLUSIONS

1. The County's efforts at addressing a solution for the smaller wastewater treatment plants in Sanitation District No. 1 are fragmented and not cost-effective.
2. Even if the Lake Wildwood proposal was acceptable to county residents on Deer Creek below Lake Wildwood, there is every possibility that such a discharge, even if Lake Wildwood property owners would approve expending \$5 million, would be unacceptable to the CVB in the future given planned and approved major housing developments west

of the Nevada County line.

3. The current Lake of the Pines proposal is likely to be expensive for property-owners and not at all cost-effective.
4. The residents of Cascade Shores, threatened by the CVB with substantial fines, are being penalized with cost increases that are unconscionably high to support one small “package plant.”
5. Charges for wastewater treatment applied to residents' tax bills may eventually be found to be an illegal tax increase in the interpretations of Propositions 13, 62, and 218. Thus, Nevada County may be inviting expensive and prolonged litigation.

RECOMMENDATIONS

1. The Board of Supervisors should direct the Department of Transportation and Sanitation to address wastewater processing in western Nevada County with a master plan. Efforts to address individual wastewater treatment upgrades that are not cost-effective should be abandoned once the master plan is implemented.
2. The Board of Supervisors should evaluate the LAFCO report’s recommendation that:

“The western Nevada County wastewater agencies should also consider ways to provide regional wastewater services either through an informal group or a long-term, legal arrangement such as a joint powers authority (JPA). Even if existing systems could not be shared, regional services that could be shared or coordinated might include developing approved standards lists, standardizing specifications and drawings, and agreeing on design manuals in order to have a standardized regional system. Wastewater providers could also act as a single unit for lobbying, funding/grant efforts, preparing master plans, and outsourcing services such as engineering, legal services, information services, lab testing, printing, insurance, audits, landscaping, billing, and vehicle purchase/maintenance in order to realize costs savings.”
3. The Board of Supervisors should **vigorously assert** their influence with state and federal legislators as to the financial impacts to county residents as cities and counties and especially smaller treatment plants react to meet the more stringent requirements for wastewater treatment.
4. Board of Supervisors should evaluate alternative ways of recovering the costs of wastewater treatment services, e.g., attaching the charges to water bills as some percentage of water used.
5. The Board of Supervisors should direct the Department of Transportation and Sanitation

to seek out grant money to assist in meeting the challenges facing the County with renewal of treatment plant permits.

REQUIRED RESPONSES

Nevada County Board of Supervisors – August 26, 2004

COUNTY OF NEVADA

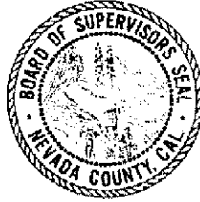
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August 11, 2004

The Honorable Judge Ersel Edwards
Presiding Judge of the Nevada County Courts
Nevada County Court House
Nevada City, CA 95959

Subject: Board of Supervisors Responses to the 2003-2004 Nevada County Civil Grand Jury Report, dated May 28, 2004 regarding Wastewater Treatment in Western Nevada County

Dear Judge Edwards:

The attached responses by the Board of Supervisors to the 2003-2004 Nevada County Civil Grand Jury Report, dated May 28, 2004, are submitted as required by California Penal Code §933.

These responses to the Grand Jury's Findings and Recommendations were approved by the Board of Supervisors at their regular meeting on August 10, 2004. Responses to Findings and Recommendations are based on either personal knowledge, examination of official County records, information received from the Department of Transportation and Sanitation, the County Executive Officer or the Board of Supervisors and County staff members.

The Board of Supervisors would like to thank the members of the 2003-2004 Grand Jury for their participation and effort in preparing their Reports, and their participation in the Grand Jury process.

Sincerely,

Robin Sutherland
Chair of the Board

Attachment

cc: DOTS
Foreman, Grand Jury
Rick Haffey, County Executive Officer

REV'D
8-16-04
ER

**NEVADA COUNTY BOARD OF SUPERVISORS RESPONSES TO
2003-2004 CIVIL GRAND JURY REPORT
DATED MAY 28, 2004**

RE: WASTEWATER TREATMENT IN WESTERN NEVADA COUNTY

Responses to findings and recommendations are based on either personal knowledge, examination of official county records, review of the responses by the County Executive Officer, Department of Transportation and Sanitation, or testimony from the Board Chair and county staff members.

I. GRAND JURY INVESTIGATION:

Wastewater Treatment in Western Nevada County.

A. RESPONSE TO FINDINGS & RECOMMENDATIONS:

Findings:

- 1. All wastewater treatment plants that discharge to surface waters are issued a National Pollutant Discharge Elimination System (NPDES) permit that sets specific discharge requirements to ensure protection of public health and water quality. These permits are renewed every five years by the California Regional Water Quality Control Boards. At each renewal, the permit renewal process may incorporate new treatment objectives and discharge regulations that might require upgrades or modifications to the facility.**

Agree

- 2. In the last year, testing of effluent (output) at wastewater treatment plants within Sanitation District No. 1 has revealed levels of contaminants that exceed CTR water quality criteria.**

Agree

- 3. Regional Water Quality Control Board Orders implement EPA standards and require all treatment plants within Nevada County to meet a higher quality of water discharge to maintain their permits. Current plants will not remove trace contaminants as required by the new standards. Failing to meet discharge requirements may subject the plants to fines.**

Partially Agree

At this time, the only Sanitation District No.1 wastewater treatment facilities that have RWQCB Federal NPDES Permits subject to Federal EPA standards are Cascade Shores, Lake of the Pines, and Lake Wildwood. These three wastewater treatment facilities presently discharge effluent to surface water sources and are now required to meet stringent new Federal EPA Clean Water Act requirements for surface water treatment facilities.

The District also has four other wastewater treatment facilities (Penn Valley, North San Juan, Higgins Village, and Dark Horse (still under construction) that have RWQCB WDR Permits but are not subject to Federal EPA Clean Water Act regulations because they do not discharge effluent to surface water sources.

The three remaining District facilities (Gold Creek, Mountain Lakes Estates, and Eden Ranch also do not discharge to surface water and have permits issued by Nevada County Environmental Health Department. The County regulates these three facilities because the State RWQCB has not taken jurisdiction over them.

The Lake Wildwood and Lake of the Pines wastewater treatment plants must achieve full compliance with the new wastewater discharge requirements by April 30, 2007. Cascade Shores must comply with its operating permit by June 14, 2006.

4. **The LAFCo report indicates that given the current land use patterns and projected growth areas, it is impracticable to have one centralized regional wastewater system within Nevada County.**

Agree that the LAFCo report referenced by the Grand Jury, the *Final Municipal Service Review Report (MSRR) of Nevada County Western Region Wastewater Service Agencies*, dated January 2004, states it is impractical to have one centralized regional wastewater system within Nevada County given current land use patterns and projected growth areas.

The Board of Supervisors however, does not agree or disagree with the overall determinations and conclusions reached in this report. The report was prepared for LAFCo by an outside consultant and does not necessarily reflect the factual determinations, views and recommendations of the Nevada County Sanitation District No. 1 (Board of Supervisors) and the Nevada County Department of Transportation and Sanitation (DOTS).

The Board of Supervisors does agree that it is impractical to have one centralized regional wastewater system within Western Nevada County due to population density, actual and projected development patterns, and infrastructure and facility costs.

5. **The report also states that it is inefficient and costly for the wastewater agencies to service projected growth through a series of small "package plants" and agencies/zones as has been done in the past.**

Agree that the LAFCo report referenced by the Grand Jury, the *Final Municipal Service Review Report (MSRR) of Nevada County Western Region Wastewater Service Agencies*, dated January 2004, states that it is inefficient and costly for the wastewater agencies to service projected growth through a series of small "package plants" and agencies/zones as has been done in the past.

The Board of Supervisors agrees that it may be impractical for the Sanitation District No. 1 to provide projected demands for service through a series of new small on-site surface discharge water treatment facilities. The Sanitation District No.1 however, will make these determinations on a case-by-case basis as specific needs are identified and evaluated and recommendations as to how best to provide new services are developed.

Also see the disclaimer in the Board response to Finding No. 4 regarding conclusions and determinations in the LAFCo report.

6. **“Package Plants” must also meet the same water quality standards as large plants and, as a result, typically have higher costs and charges for property owners. The government structure is also affected. Since adoption of an ordinance in 1982, Nevada County has required some wastewater systems be operated by a public agency or to annex to an existing public agency. The result has been that either a very small district is formed or annexation to a public agency is required. A majority of the annexations has been to the Nevada County Sanitation District No. 1, which now operates some systems with comparatively few customers.**

Agree

This is the same conclusion reached in the LAFCo report referenced above.

Also see the disclaimer in the Board response to Finding No. 4 regarding conclusions and determinations in the LAFCo report.

7. **LAFCo’s report also noted that “package plants” cannot achieve the economies of scale required for efficient and cost-effective processing of wastewater.**

Agree that the LAFCo report referenced by the Grand Jury, the *Final Municipal Service Review Report (MSRR) of Nevada County Western Region Wastewater Service Agencies*, dated January 2004, noted that “package plants” cannot achieve the economies of scale required for efficient and cost-effective processing of wastewater.

The Board of Supervisors and DOTS do not know on what basis the LAFCO consultants came to this conclusion. Future decisions regarding solutions to increased demand for wastewater treatment will be made on a case-by-case basis in full consideration of all viable options (see the Board response to Finding No. 5).

8. **The western Nevada County review commissioned by LAFCo estimated the current cost to meet CVB’s discharge requirements for Nevada County Sanitation District No. 1, including only Lake Wildwood, Lake of the Pines, Penn Valley, and Cascade Shores, at over \$12 million.**

Agree that the LAFCo report referenced by the Grand Jury, the *Final Municipal Service Review Report (MSRR) of Nevada County Western Region Wastewater Service Agencies*, dated January 2004, estimated the current cost to meet discharge requirements for Nevada County Sanitation District No. 1, including only Lake Wildwood, Lake of the Pines, Penn Valley and Cascade Shores, at over \$12 million.

The Board of Supervisors and DOTS believe the cost of upgrading these four facilities to meet discharge requirements to be almost \$23 million. (See Sanitation District No. 1 chart, dated April 16, 2004 in Finding No. 9).

- 9. Nevada County Sanitation District No. 1 projected maintenance and capital improvements at a higher cost than LAFCo. The cost for maintenance and capital improvement to meet CVB's revised standards in Lake Wildwood (LWW), Lake of the Pines (LOP), Penn Valley (PV), North San Juan (NSJ), Cascade Shores (CS), Gold Country (GC), and Mountain Lake Estates (MLE) was estimated in May of 2003 to be in excess of \$15 million, and in April of 2004, in excess of \$23 million, as shown in the following chart. Estimates for Eden Ranch (ER), Dark Horse (DH), and Higgins Village (HV) were not included in either total.**

Fiscal Year	All Zones	LWW	LOP	PV	NSJ	CS	GC	MLE	ER	DH	HV	Total
2003/04	\$284,592	\$317,000	\$526,700	\$26,006	\$5,000	\$22,000	\$4,000	\$3,000				\$1,188,298
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Total	\$284,592	\$7,976,830	\$14,041,977	\$72,006	\$20,000	\$759,000	\$16,000	\$12,000				\$23,182,405

Source: Nevada County Sanitation District No. 1, April 16, 2004

Agree

The Nevada County Department of Transportation and Sanitation (DOTS) cannot confirm why the figures in the LAFCo report (\$12.2 million) are lower than the Sanitation District No. 1 estimates for LWW, LOP, PV and CS (\$22.9 million). The department is unaware of how the LAFCo consultants prepared their cost estimates, although the difference may be due to the timing of when LAFCo and DOTS prepared their cost estimates. The figures may be based on preliminary estimates prepared before the facility plans were prepared. Based on current information, DOTS believes their estimates to be accurate.

- 10. The Lake Wildwood Wastewater Treatment Plant currently discharges into Deer Creek, which during many months of the year has little or no flow below the Lake Wildwood Dam. CTR standards must be met at the point of discharge. The consultant's recommendation for Lake Wildwood as of March 9, 2004 was to build a 5-mile pipeline from Lake Wildwood to a point of discharge at the headwaters of the South Yuba River where the volume of natural water would be sufficient a this time to meet CTR rules and disperse the effluent.**

Agree (See response to Finding No. 12)

11. **The Lake Wildwood plant must comply with a new discharge permit by 2007. To have facilities constructed and operational by that time, the Nevada County Sanitation District No. 1 projects that it must select a treatment and disposal alternative, establish a new fee structure, start environmental studies and documentation, begin engineering during 2004, and complete design of those facilities by early 2005.**

Agree.

12. **The current proposal for Lake Wildwood would require a minimum upgrade to the treatment facility and would encapsulate Deer Creek's flow for much of the year in a pipe at a cost estimated at \$5 million. The effluent would be transported around Deer Creek and thus conform to CVB's *current* point of discharge rule.**

Partially agree.

The proposal to discharge wastewater from the LWW treatment plant by pipeline to a discharge point in the South Yuba River below Englebright Dam could comply with the new Federal EPA clean water requirements, depending on resolution of numerous issues related to the siting of the pipeline and the discharge point. Final cost estimates, environmental impact determinations, and the full extent of needed facility upgrades are still to be determined.

This proposal is one of four major wastewater disposal alternatives considered in the Lake Wildwood Wastewater Treatment Facilities Improvement Project Summary prepared in April 2004 by ECO:LOGIC, the Consulting Engineers for Sanitation District No. 1. The other three alternatives are: 1) discharge to Deer Creek, 2) disposal on pastureland, 3) disposal on LWW golf course. Included in the consideration of discharge options is potential for treated water reclamation by the Nevada County Irrigation District (NID) for agricultural use and water storage in ponds for fire safety. This option is presently being informally discussed and will be considered if it appears to be feasible and cost effective.

The consultant's analysis concluded that the Yuba River discharge option is the most cost effective, most reliable, and most compliant solution available to LWW residents. Major issues related to routing and construction of the pipeline, environmental documentation for the pipeline route and discharge point, coordination with numerous State and Federal agencies and stakeholder organizations, water rights, and salmon spawning habitat locations were also identified by the consultant as issues that will have to be addressed before proceeding with this alternative.

13. **Lake Wildwood individual sewer charges are projected to increase from \$315 to \$843 per year in order to comply with CVB's new requirements.**

Partially agree

The Sanitation District No. 1 Board on July 13, 2004 approved the Lake Wildwood Zone 1 annual sewer service charge for FY 2004-2005. The fee will be \$650 (from current \$315) for each connected unit of sewer capacity (EDU). This fee reflects current operation and maintenance costs and \$65 for debt service on a \$2 million loan to fund Phases II and III of the previous facility upgrade project. It does not include the cost of facility upgrades needed to meet the new discharge and clean water requirements. These fees for FY 2004-2005 will be added to the tax rolls and included in the tax bills to be mailed to property owners in October 2004.

The annual fee is projected to rise to \$845 by 2006-2007 in order to fully comply with all requirements. However, until the design of the facility upgrade is completed and bids for construction and financing have been received and are in place, the actual final charge cannot be accurately determined.

- 14. The current proposal to meet the long-term needs of Lake of the Pines is to upgrade the treatment plant at its current location. The upgraded facility will discharge year-round to Magnolia Creek but provisions will be made to resume seasonal pastureland dispersal should it become desirable in the future.**

Agree

- 15. Estimates for sewer charge increases to fund the Lake of the Pines wastewater treatment plant upgrade are not firm at this time. The estimated construction costs to upgrade the Lake of the Pines wastewater treatment plant could cause individual sewer charges to increase from the current \$315 to \$1035 per year in 2006/07.**

Partially Agree

The current DOTS estimate for annual Lake of the Pines Zone 2 sewer service charge is \$1,040 (from current \$315) per connected unit of sewer capacity (EDU). The increased fee includes the cost of upgrading the facility and expanding its capacity by 500 EDUs. However, until the design of the facility upgrade plan is completed and bids for construction and the financing have been received and are in place, the actual charge cannot be accurately determined.

- 16. The Cascade Shores wastewater treatment consists of a stream discharge system in Gas Canyon Creek. Built in 1996, it met the effluent discharge requirements then in effect. The wastewater discharge permit is up for renewal and requires the treatment plant be upgraded by 2006 to meet the new CVB requirements. In March 2004, Cascade Shores' charges increased from \$910 to \$1795 per year by order of Nevada County Board of Supervisors acting as the Board of Directors of the Sanitation District in ordinance No. SD-46. Proposed disposal options are still being evaluated.**

Partially agree

The permit was renewed in 2001 and is presently up for renewal. The Cascade Shores Zone 8 annual sewer service charge was increased to \$1,795 (from previous \$910) per connected unit of sewer capacity (EDU).

The Cascade Shores wastewater treatment plant must be in full compliance with all requirements by June 14, 2006.

17. The County is handing the cost of meeting toxic rule requirements to those communities that have separate water treatment plants.

Partially agree

Within Sanitation District No.1, each zone is responsible for the costs associated with having their respective wastewater treatment facilities meet wastewater discharge & Clean Water Act requirements. Compliance with water quality requirements is not a responsibility of all residents of the district but only of the residents in each zone. This is not a discretionary policy decision by the Directors of Sanitation District No. 1 (Board of Supervisors), but rather a requirement of Proposition 13, Proposition 218 and other implementing statutes and regulations.

Each zone in the district has a budget for operations and maintenance (O&M) and capital expenses. The O&M budget is divided between the EDU's in use to determine the annual O&M charge and the capital budget is divided among all of the EDU's (i.e. including stand by EDU's). The proposed fees are then reviewed by the Sanitation District No. 1 Advisory Committee and recommended to the District Board for adoption. The adoption process is done in conformance with the provisions of Proposition 218.

18. Nevada County is charging for wastewater treatment improvements on residents' tax bills. The California Attorney General warns that such charges do not have a "direct relationship to property ownership." There is legal uncertainty in the State as to whether such charges constitute a tax increase (forbidden by various propositions) or a permissible fee for service assessment.

Partially agree. The Board of Supervisors agrees that the County is charging for wastewater treatment improvements on property owners' tax bills. The Board disagrees with any implied conclusion by the Grand Jury that this process is inconsistent with applicable Health & Safety Code and Proposition 218 requirements. The Board and County Counsel are also unaware of the citation referenced by the Grand Jury that ... "The California Attorney General warns that such charges do not have a "direct relationship to property ownership".

Each year, Nevada County Sanitation District No. 1 adopts an Ordinance establishing annual sewer charges. The district also adopts a Resolution that requests the County of Nevada place the Sanitation District No. 1 sewer service and standby charges for individual zones on the County tax roll. This is a convenient and economic method of billing the District's customers. This is done in accordance with Health and Safety Code Section 5473 and Proposition 218.

County Counsel has advised that this procedure is legal and consistent with applicable statutes and State Constitutional provisions.

19. **Grant funds were reported by County-employed consultants to be unavailable on September 16, 2003 at a Lake Wildwood community outreach meeting. An article in The Union on November 20, 2001 alluded to an \$85,000 grant requested by the Nevada County Resources Conservation District of the David and Lucille Packard Foundation. The grant had been turned down due to a lack of 50 percent matching funds. On January 27, 2003, The Union reported that the Yuba Watershed Council "had received \$1.2 million in grants from the \$1 billion Clean Water Act passed in 1996." On March 8, 2003 The Union reported that Nevada City was "applying for a U.S. Department of Agriculture rural development grant" to improve their wastewater treatment plant. The same consultants reported grant funds to be *under study* on March 9, 2004.**

Partially agree

Sanitation District No.1 continues to actively seek grant funding to upgrade wastewater treatment facilities. However, the availability of grant funds may be dependant on how the funds would be applied. Also, current Federal EPA policy is to primarily provide assistance in the form of loans to communities rather than grants (except for the Virgin Islands and Washington D.C.). Examples of potential funding sources currently being explored include:

- A. United States Department of Agriculture, Rural Utilities Service Program (USDA-RVS)** - offers 40-year low interest wastewater infrastructure improvement loans. The Lake of the Pines Zone 2 Median Household Income would qualify for the programs current "market" interest rate of 5%.
- B. State Water Resources Control Board (SWRCB) State Revolving Fund Program (SRF)** - offers 20-year low interest loans for construction of publicly owned wastewater treatment facilities. The current interest rate is 2.6%. This program is authorized through the Federal Clean Water Act, however, due to the State's fiscal challenges this program is currently without staff to process loan applications.
- C. California Infrastructure and Economic Development Bank Program (CIEDB)** - offers low-cost financing to public agencies. Loans are available up to \$10,000,000 with current interest rates at 3.15% for 20-year term or 3.50% for a 30-year term.
- D. Water Resources Development Act (WRDA)** - This is a grant program administered by the Army Corps of Engineers. The agency contributes 25% matching funds to the Federal grant of 75%. Nevada County could receive up to \$10,000,000 to be equally distributed over several years between 5 eligible agencies (Nevada County Sanitation District No. 1, the Cities of Grass Valley and Nevada City, NID, and the Eastern County) for a variety of wastewater, water reclamation, and water source availability projects. Funding will be subject to annual appropriation by Congress.

The Board of Supervisors submitted a request in March 2004 through Congressman Doolittle, and received his support, for potential Federal grant funding available under the Water Resources Development Act of 2003 (WRDA). In this request, the Cascade Shores wastewater treatment facility was identified as the Board of Supervisors' top priority. The Board requested \$750,000 in grant funding for Cascade Shores and, if received, a 25 percent local match (\$250,000) will be required. The availability of this potential funding will not be known until the fall of 2005 with funding to begin in January 2006.

- E. Sale of Revenue Bonds** - Because of the uncertainties that exist within the previous four options a preliminary financing plan was developed for Lake of the Pines using this option to estimate annual debt service per EDU. The debt service is estimated at \$340 per EDU per year assuming a 25-year bond at 6% interest. Bond issuance costs were assumed at 3% and a bond reserve of 7% was assumed. Interest income was calculated based on 3%. These are conservative estimates, but appropriate when setting connection fees and debt service. Based on these assumptions the proposed connection fee would be \$9,700 for the 500 additional EDUs.
- F. Bank Loans** - Because of the uncertainties that exist within the previous first four options and added costs for revenue bonds, and need for immediate cash to continue into phase 2 of the project, a preliminary financing plan was developed for Lake Wildwood using this option to estimate annual debt service per EDU. A short-term (two-year) loan of \$2,000,000 was assumed with an interest rate of 4.75%. This loan would be refinanced with a long-term (25 year) loan of \$9,000,000 with an interest rate of 6%.
- G. Water Recycling Construction Program** - The SWRCB Water Recycling Construction Program provides low-interest grants and loans to local public agencies for the design and construction of water recycling facilities. The types of facilities include wastewater treatment and facilities, pump stations, and recycled water distribution systems. Presently, however, none of the recommended solutions qualify for funding under this program.
- H. Small Communities Wastewater Grants (SCWG)** - The Small Community Wastewater Grant (SCWG) Program, funded by Proposition 40 and Proposition 50, provides grant assistance for the construction of publicly owned wastewater treatment and collection facilities. Grants are available for small communities with financial hardships. Communities must also meet qualifying population restrictions (maximum population of 20,000 people) and annual Median Household Income (MHI) (maximum annual MHI \$37,994) provisions.
- Priority is given to local agencies that seek to install or repair sewer systems in communities that lack adequate sewer systems and to assist the expansion of systems in communities with population growth pressures.
- The County recently applied for a \$1.3 million SCWG grant to fund the Cascade Shores Community Wastewater Treatment Plant Upgrade Project. The State Water Resources Control Board (SWRCB) will consider this grant request after completion of an income survey needed to determine the eligibility of the Cascade Shores community for the grant.

- I. Other Funding Sources** - will be considered and investigated as we develop the final financing plan for each project. There may be some benefit in doing a joint financing plan that accommodates several projects.

The Board will continue to make the effort to obtain grant funding for wastewater treatment plants a top priority. The Department of Transportation and Sanitation, on behalf of Sanitation District No. 1, will continue to seek grant funding and keep the Board informed on the current status of this effort.

- 20. Funding to meet these requirements is unbudgeted. If the county cannot obtain federal or grant funding, the current plan is to pass on the costs of each project to the property owners served.**

Partially agree

The respective Nevada County Sanitation District No. 1 Zones have not yet budgeted all the funding needed to upgrade the wastewater treatment plants to meet new wastewater discharge and clean water requirements.

Funding has been budgeted and expended in FY 2003-2004 for the first phase of the Lake Wildwood Zone 1 and Lake of the Pines Zone 2 projects. Funding has been budgeted in FY 2003-2004, but not yet spent, to begin the first phase of the Cascade Shores Zone 8 project. A budget was developed for FY 2004-2005 for each of the three projects. The Sanitation District No. 1 Board approved the budgets for the Lake of the Pines Zone 2 and Cascade Shores Zone 8 on June 22, 2004 following public hearings. The budget for Lake Wildwood Zone 1 was approved on July 13, 2004. If grant funding cannot be obtained, or other revenue sources are not identified, sewer system users in each respective zone will be responsible for providing the revenue needed to fund the budgets. Because of concerns raised by the public and the need to further investigate and seek grant funding for facility upgrades, only the FY 2004-2005 budgets have been approved.

- 21. The United States Code, previously cited, states that it is the national policy that Federal financial assistance would be provided for wastewater treatment plant upgrades.**

Partially Agree

United States Code, Title 33, Chapter 26, Subchapter I, Sec. 1251 (4) states..."it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works". However, Federal EPA financial assistance is now only provided in the form of loans to communities rather than grants (except for the Virgin Islands and Washington DC).

Recommendations:

- 1. The Board of Supervisors should direct the Department of Transportation and Sanitation to address wastewater processing in western Nevada County with a master plan. Efforts to address individual wastewater treatment upgrades that are not cost-effective should be abandoned once the master plan is implemented.**

The recommendation to develop a Western Nevada County Wastewater Infrastructure Plan has not yet been implemented but is expected to be within the next two to three years.

The Nevada County Department of Transportation and Sanitation (DOTS) and Department of Environmental Health (EH) jointly presented a preliminary work plan for the development of a Western Nevada County Wastewater Infrastructure Plan to the Board of Supervisors on June 1, 2004. The Board approved the concept to develop a plan and gave direction to DOTS and EH to proceed. The departments were also directed to contact Grass Valley and Nevada City regarding their participation in the development and funding of the plan. The estimated cost of the plan is \$200,000 - \$300,000. This estimate will be refined as Phase I of the project proceeds. This Phase will include requesting proposals from consultants to develop the plan, preparing a work plan, and obtaining public comment about the issues and concerns that should be addressed.

At this time, there is not enough information to know whether or not individual plant upgrades will be cost-effective in comparison to other potential options. Following adoption of the Master Plan, DOTS and the Sanitation District No. 1 Advisory Committee will evaluate all viable alternatives before making recommendations to the Board regarding abandonment of individual wastewater treatment facility upgrades.

- 2. The Board of Supervisors should evaluate the LAFCo report's recommendation that:**

"The Western Nevada County wastewater agencies should also consider ways to provide regional wastewater services either through an informal group or a long-term legal arrangement such as a joint powers authority (JPA). Even if existing systems could not be shared, regional services that could be shared or coordinated might include developing approved standards lists, standardizing specifications and drawings, and agreeing on design manuals in order to have a standardized regional system. Wastewater providers could also act as a single unit for lobbying, funding/grant efforts, preparing master plans, and outsourcing services such as engineering, legal services, information services, lab testing, printing, insurance, audits, landscaping, billing, and vehicle purchase/maintenance in order to realize costs savings."

The recommendation will be partially implemented in conjunction with the development and implementation of the wastewater infrastructure plan described in the response to Recommendation No. 1.

The Sanitation District presently has informal agreements with the City of Grass Valley and Nevada City to provide emergency assistance in clearing sewage blockages and cleaning up sewer spills. The Department of Transportation and Sanitation (DOTS) is also working with Placer County to establish agreements for joint emergency assistance and capital equipment purchases. Full standardization of equipment and facility plans and specifications would be difficult at this time because each agency already has its own set of adopted standards for the equipment and facilities they presently use.

Nevada County Sanitation District No. 1 and DOTS will continue to seek additional opportunities for standardization and cooperative efforts with other wastewater agencies. As the wastewater infrastructure plan is developed and the scope of participation with the cities of Grass Valley and Nevada City is known, new initiatives for regional cooperation should be possible. Other opportunities for cooperation will continue to be evaluated and implemented as they are identified.

3. **The Board of Supervisors should vigorously assert their influence with state and federal legislators as to the financial impacts to county residents as cities and counties and especially smaller treatment plants react to meet the more stringent requirements for wastewater treatment.**

The recommendation has been implemented.

The Board of Supervisors has fully supported, and has been directly involved both as a Board and as individual Supervisors, in the effort to educate legislators and regulatory agencies on the significant financial impacts the new wastewater discharge requirements will have on small wastewater systems, and the users who are responsible for upgrading their systems to meet the new standards.

Members of the Board have regularly met with the RWQCB, talked to and corresponded with our legislators, and successfully worked with Congressman Doolittle and the Regional Council of Rural Counties (RCRC) to seek funding for the upgrade of wastewater treatment facilities in Western Nevada County. As a result of this effort, Nevada County received Congressman Doolittle's support for the allocation of approximately \$10 million in Water Resources Development Act 2003 Funds for Nevada County wastewater, water reclamation, and water availability projects beginning in 2006. Although these funds will still need to be appropriated, it is a significant first step towards that goal. (See response to Finding No. 19).

Another example of the Board's efforts to seek regulatory and financial relief include the adoption of a resolution for Cascade Shores asking for special consideration regarding compliance with the new requirements and financial assistance based on site-specific factors and financial hardships. Cascade Shores was also included as a case study in a "white paper" prepared by California Coalition for Clean Water entitled "Reassessing California's Water Quality Program". This paper has been submitted to the State Water Resources Control Board

and hopefully will help influence state regulation of the small wastewater treatment facilities throughout the State.

Finally, individual supervisors and DOTS staff have been attempting to work with State staff to negotiate the requirements, and have requested the following considerations:

1. An extended deadline for compliance, in order to evaluate the most cost-effective long-term alternatives.
2. Revised permit requirements that specifically address the unique conditions at each of the facilities.

Members of the Board and Sanitation District No 1. Zone representatives will additionally be meeting with State Senator Sam Aanestad in September to discuss potential legislative changes in current State income requirements for wastewater facility upgrade grants. Eligibility for grant funding should be based on how much users must pay as a percentage of their disposable income rather than on the total average income of the community.

4. **Board of Supervisors should evaluate alternative ways of recovering the costs of wastewater treatment services, e.g., attaching the charges to water bills as some percentage of water used.**

The recommendation will not be implemented at this time.

The present basis for annual sewer charges using the average sewer capacity for a single-family residence is used by many agencies, because it is economical and efficient. Using a percentage of water bills would also only be an approximation and require water use information that is not available in all zones, as some zones do not have community water systems with meters. It would also require additional staff time to track and add to the cost of billing.

5. **The Board of Supervisors should direct the Department of Transportation and Sanitation to seek out grant money to assist in meeting the challenges facing the County with renewal of treatment plant permits.**

The recommendation has been implemented.

The Board of Supervisors and DOTS will continue an aggressive effort to seek out and obtain grant funding to upgrade Nevada County wastewater treatment facilities. (See response to Finding No. 19 and to Recommendation No. 3).

REQUIRED RESPONSES

Board of Supervisors – by August 26, 2004

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