

WASTEWATER: MONEY DOWN THE DRAIN?

Summary

It has long been stated that the history of California is the history of water. It is, and always has been, a highly politicized issue. The forty-niners came to California for gold, but they could not have survived without water. Preservation of our precious potable water supply depends particularly on successful wastewater management, how and what we do with our sewage.

The road to efficient water management has not traditionally been an easy one. The sheer number of regulators presents a formidable barrier. Each sanitation or water district operates independently of others and sometimes of each other. There is little commonality of purpose across county agencies. Development projects in the county have often been limited by water and disposal capacity and environmental considerations. Environmental concerns across the county can be very different.

There is the potential for partisan decisions and conflict of interest regarding water and wastewater decisions because entities deciding wastewater and water issues overlap. The Sonoma County Board of Supervisors sits as the Board of Directors for the Sonoma County Water Agency (SCWA) and has since 1949. The Laguna treatment plant that processes wastewater is controlled by the City of Santa Rosa. The Board of Public Utilities is appointed by the Santa Rosa City Council.

The cost of capital improvements needed to improve wastewater quality and distribution is significant, especially for smaller facilities. Millions have been spent in the past to improve our water supply, and sometimes spent without achieving the anticipated results. Federal and state money is no longer as readily available as in the past, making infrastructure improvements difficult.

A different body of laws applies to ground water than for surface water confusing what can be done with effluent. More and more laws have been passed to protect our water resources. Different treatment standards apply depending on where the effluent is discharged. Water quality standards have become more stringent. The highest level of treatment (tertiary) is required for discharge into the Russian River.

No one entity has control, and no one entity can compel performance from another. And there is still no overall plan for managing ground water, surface water and wastewater disposal. As a result, the residents of Sonoma County are faced with the possibility that water and wastewater disposal needs may not be met, as well as the certainty that both sewer and water rates will continue to increase.

Reason for Investigation

The grand jury began an investigation as a result of:

- Widespread and substantial sewer rate increases
- Multiple conflicts about basic water and sanitation issues
- Increasing litigation focused on water, water rights and development
- Headlines that warn we are in the first year of a drought
- The need to clarify complex wastewater issues.

Background

Many years ago, waste used to be discharged into the nearest stream. Concern for public health resulted in treatment systems and the use of chlorine to kill pathogens. In 1977 the Federal Clean Water Act set standards for water quality and provided money to improve water treatment. As time has passed, standards have become more and more strict. By 1990 the strict regulations, dry years with low flow of the Russian River (The River), and increasing population led Santa Rosa to seek an alternative to direct discharge into surface waters.

Recognizing the increasing need of a growing population for water, Lake Sonoma was created. The River gets a steady flow of water from the lake through Dry Creek, which flows from the lake to Healdsburg. While Lake Sonoma holds a significant supply of potable water, that water currently cannot be used for maximum benefit. Environmental concerns for Dry Creek have limited the amount of water that can be released. Environmental regulations require the flow be maintained between an upper and lower level. Increased flow can result in "fish flush" that will kill the salmon. While a number of solutions have been considered, pipeline, ponds, removal of nooks, there is no agreement on how to deal with the Dry Creek issue, and any solution will be extremely expensive.

In 1998 the Geysers Project was selected to help meet the wastewater disposal demands of the communities served by the Santa Rosa Sub-regional Reclamation System. With the city of Santa Rosa as the managing partner, the system treats and distributes recycled water for Cotati, Rohnert Park, Santa Rosa, Sebastopol and South Park. Prior to the Geysers Project, about 50% of tertiary treated water was used for irrigation. During the winter months, the remaining 50% of tertiary treated water was discharged into the Russian River. The Geysers Project cost \$187 million and involved a 41 mile underground pipeline. This water is injected into underground wells at depths of 4,000 to 11,000 feet. There it provides steam used to generate electricity. The system protects the Russian River from excess discharge of recycled water during winter months. Completion of the project required a state/federal/local partnership, a common aim (energy), and the need to reach legal and administrative agreement with numerous public and private stake holders: environmental, regulators, operators, and property owners.

Begun in 1995 and completed in 2003, the Geysers Project has added a positive dimension to our water/wastewater picture. In 2004, the once scorned Laguna Plant wastewater was touted as a sought after commodity that earned the company operating the geysers over \$50 million a year. The disposal of the remaining tertiary treated water was held to be an offset that, when used for irrigation, saves use of potable water. In 2004 the Board of Public Utilities stated that the system was working so well that the wastewater storage ponds were virtually empty, and because competition existed between irrigation needs, residential needs and power production, there was not enough treated wastewater to go around. In 2006, however, less than two years later, the SCWA once again sought an alternative to discharging into the Laguna. SCWA (The Agency) determined that without increased use of tertiary treated water, its capacity is less than is needed to meet its commitment to its contractors. Thus the geysers project has not proved to be the total solution to waste disposal problems it was once thought to be.

There are two main players in Sonoma County who have major impact on water related issues.

The Board of Public Utilities (BPU) consists of seven members appointed by the Santa Rosa City Council. The BPU has general policy authority and direction over the management and operation of the City's water and sewer utilities. Policy is determined

by the City Council in accord with the General Plan. Although the Board takes the position that their role is only to implement policy, the Board advises the City Council on what should be done in these areas, and the Council, who appointed them, is likely to follow the course recommended by the Board.

The Sonoma County Water Agency is a water wholesaler, the largest water source in the county. Sonoma County derives its water supply from both ground and surface water. Groundwater is pumped from wells and surface water is supplied by rivers and streams. Different bodies of law apply to each. The Agency was formed in 1949 to manage flood control and water in the Russian River Watershed. In 1994, 45 years later, the SCWA was authorized to provide services to waste disposal and sanitation districts. The County Board of Supervisors sits as The Agency's Board of Directors. The SCWA purchases water rights from the state (which owns all the water) and allots them to its contractors (customers). Its contractors are Santa Rosa, Rohnert Park, Petaluma, Cotati, Sonoma, Windsor, North Marin, Marin Municipal, Valley of the Moon and Forestville.

The SCWA also provides a variety of services to agencies in the unincorporated areas. All of these agencies function independently. The SCWA has no control over what the contractor does with its water, but in periods of drought, they can revise the amount of water allotted to the contractors. The basic rate charged each is the same, but part of the rate is held in a reserve for recycled water projects. Estimates indicate only about \$9 million will be distributed in the next five years. Given the extent of the infrastructure improvements needed, this will fall far short of financing improvements.

The SCWA has received more than a few challenges to its operations and plans for the future. As previously indicated, there are two principal sources of water, surface and ground, governed by two separate bodies of law. Traditionally, anyone who owned property was able to drill a well on their property. Having paid for the well, the water was "free." Earlier this year an attempt by the county to monitor wells was defeated by public opposition. Property owners with wells saw it as a further step into property rights and it was feared that it would eventually lead to paying for the water. In a recent court decision, attempts to limit pumping rights in Dry Creek Valley were overturned. The limits would have encouraged growers to use recycled water supplied by a massive distribution system that would cost an estimated \$395 million. If the growers are able to drill a well and get their own water, they might prefer that option to paying for and using the recycled water.

The Agency has also been sued by 14 different groups claiming that it is ignoring signs of an impending water shortage. Then in 2003 the California Court of Appeals refused to let the SCWA increase its annual diversion from the Russian River despite the decrease planned for the Eel River diversion. The state has not been particularly cooperative either. The Agency asked the state for 35% more water from its reservoirs to meet projected water needs until 2020. The Agency's request for additional water rights was not approved, in part, because of environmental concerns.

There is also a multitude of laws, legislation, and regulators on the state or federal level concerned with water. Some of the most important are:

- State established Nine Regional Water Quality Control Boards
- California Department of Water Resources (DWR)
- Federal Clean Water Act

State Porter Cologne Water Quality Act
California Toxics Rule
California Environmental Quality Act (CEQA)
NPDES Permits (National Pollutant Discharge Elimination System)
Proposition 218
SB 610

Two pieces of legislation that have recently received the most local attention locally are:

Proposition 218 constrains the ability of local governments to tax or assess property owners to finance local services, especially to pass on administrative costs and the cost of general government services. Sewer rate increases are subject to the constraints imposed by proposition 218.

SB 610 requires additional information to be included in urban water management plans. For any development, SB 610 requires the plan to forecast demands and supplies within a service area. The forecast must include a groundwater management plan. The plan must deal with the issue of whether the area has been "over pumped." The concept of "area" was also broadened.

In addition to the complex legislation, the multitude of regulators and the entities managing waste water, there is conflict between the environmentalists and developers. Environmental experts have stated that additional tertiary discharge into the Russian River might further compromise the filtration bank. The gravel that has already been removed from the banks of the River has decreased the natural filtering capability, and has had a negative impact on the storage capability of the aquifer. The negative effect on the aquifer is demonstrated by the fact that the aquifer has fallen twenty two feet since the gravel mining began.

Although Santa Rosa and Rohnert Park did revise their growth estimates upward to accommodate anticipated development when the Geysers Project was completed, Santa Rosa claims that these revisions did not increase the amount of sewage. The increase, if any, was taken care of by reuse of the tertiary treated water. Santa Rosa also agrees with the SCWA that tertiary water has no negative impact on the environment.

So how is Sonoma County doing? How do we measure performance? In 1997 the State Legislature empowered the already existing Local Agency Formation Commissions (LAFCO) agencies to have the responsibility and more influence to oversee growth in California. Every five years they conduct (using an independent contractor) Municipal Service Reviews. Water and wastewater are two of the service areas reviewed. Note that there are multiple independent wastewater entities with little in common managing waste water. One thing they do have in common is that all need infrastructure improvements. Some sewer service results of the 2006 Municipal Service Reviews follow.

In general these reviews revealed:

- Primary source of funds is user fees with impact (connection, developer) fees a secondary source
- No consistency in facilities management
- All districts have aging infrastructure
- Cost of capital improvements is high.

For the individual cities and the county the following wastewater issues were noted:

CITIES

Cotati: Effluent treated at Laguna plant

- High rates and additional increase coming
- 11,000 + feet of pipe needs replacement costing over \$10 million.

Cloverdale: city provides both water and waste disposal (own plant)

- Area displays fastest growth in county
- Only city in county without a voter approved urban growth boundary
- Caltrans bypass runs between the water treatment plant and two reservoirs
- Water treatment is only secondary, not tertiary
- Heavy pressure to allow more annexation.

Sonoma: city buys from the SCWA. Waste, Sonoma Valley Sanitation District (own plant but managed by the SCWA)

- Must rehabilitate wells to improve reliability
- Need new pipe to transport effluent to storage
- Hard time meeting NPDES water quality requirements due to heavy wet inflow
- Worn out equipment, insufficient storage and dispersal system.

Windsor: town provides both water and wastewater disposal (own plant), tertiary treatment

- Need to rehabilitate wells and add two new wells
- Facing rate increases
- New ponds, expanded reclaimed water use, dual piping.

Petaluma: city water and waste (own plant currently secondary treatment), treats Penngrove effluent, buys water from the SCWA

- May need increased water allotment from the SCWA and the SCWA may not get additional water rights
- New sewer plant to treat urban water to tertiary standards
- Facing large rate increase and litigation
- Must replace significant amount of piping.

Healdsburg: city water, waste disposal (own secondary plant)

- Facing significant user fee increases
- Inadequate pressure for fire flow because of elevation changes
- Must expand existing distribution system
- Is building new sewer plant to achieve tertiary treatment.

Sebastopol: city water (own wells) and waste disposal (own plant, but piped to Laguna for disposal), financed by user and developer fees.

- Need new treatment system and water main replacement
- Need new booster station.

COUNTY OF SONOMA

Bodega Bay: both sewer and water

- Need increased storage
- Need new well
- Facing increased permanent population.

Camp Meeker Recreation and Park District: owns and operates water and sewer

- Needs new sewer system
- Pursuing consolidation with Occidental.

Occidental Community Service District: has its own plant. The SCWA operates facilities. Pursuing consolidation with Camp Meeker

- Wastewater must be both chlorinated and UV exposed. Chlorination system often fails.
- No automatic monitoring system
- Rates almost highest in county so can't raise them
- Revenue inadequate to support program
- Minimum level of service
- Treatment capacity barely OK, secondary only
- Multiple NPDES violations
- Sanitation in "critical state of disrepair".

Forestville Water District: Now a sewer service zone, own plant (tertiary)

- District smaller than Water District
- Interchange with Graton
- Need new pipe between Forestville and Graton to transfer wastewater.

Graton: Needs increased storage

North Bay Water District: this is a paper agency

- No facilities, but a Board of Directors

Rains Creek Water District: provides water, contracts sewer to Russian River Utilities

- Old pipes.

Russian River County Water District: provides water (tertiary) and services to others. The SCWA operates facilities

- Needs increased storage in summer
- Constraints in flood condition and wet weather flow. Must upgrade treatment
- Must increase dispersal capacity
- Rates increasing, even though already high, to ensure long term viability.

Sonoma Mountain County Water District:

- Aging infrastructure, with no money set aside to fix.

Sweetwater Springs (Guerneville and Monte Rio)

- Large number of liability claims because of leaks
- Boundaries for sanitation zone not the same as water district
- Water special permit amount will be decreased
- Monte Rio will need new sewer; sewer not the responsibility of the SSWD.

Timber Cove County Water Agency:

- At build out, infrastructure and water treatment will have to be upgraded
- No plan to address future needs.

Valley of the Moon Water: has its own board, gets SCWA water. shares aqueduct with city of Sonoma

- Needs additional parallel aqueduct
- Twelve miles of pipe need repair
- Has reached its current SCWA allotment
- Future reliability of groundwater uncertain.

Airport/Larkfield/Wikiup Sanitation Zone: own treatment facility (tertiary)

- Has to add treatment, storage, dispersal capacity to accommodate future growth
- Urban Service boundary and zone service area not the same.

Geyserville: own treatment plant, the SCWA operates, secondary treatment; funded by users. Recycled waste disposed of through percolation and evaporation

- Inadequate capacity after five years (2010)
- Large expenditure needed to increase capacity
- No money set aside for repair, although has reserves and a budget
- No master plan.

Penngrove Sanitation Zone: The SCWA operates facilities, collects sewage and routes to Petaluma

- Needs new sewer trunk line to convey waste to Petaluma. Now budgeting for it.

Sea Ranch Sanitation Zone: the SCWA owns the facility, but Sea Ranch Water operates. Have two treatment plants, treats to secondary level. North Plant sends on to Gualala to treat to tertiary level. Both discharge to irrigate. Will consolidate plants

- Most homes have private septic
- Central plant needs more storage and disposal capacity.

Sonoma Valley County Sanitation District: the SVWA collects and treats waste, secondary treatment, the SCWA manages plant. Rates lower than most, because more people and urban.

- Difficulty meeting NPDES water quality standards due to high wet weather flow
- Need to replace main sewer trunk line
- Need plant upgrades.

South Park Sanitation District: SCWA owns facilities, Santa Rosa operates. District will be transferred to Santa Rosa by 2011.

- HVOC (high volatility organic compound violations and fines)
- Service area consists of non contiguous parcels. Makes monitoring hard
- 41,000 feet of pipe need replacement
- Santa Rosa will have to find additional disposal capacity beyond Geysers.

What has been the impact of increased infrastructure needs on the county's residents? All districts are facing the need for rate increases. It first must be noted that it is the appropriate city council or board of supervisors that authorize rate increases or connection fees. The process begins with rate modeling which is done every two years. While there is no question that the public must be advised, and public hearings held, voter approval is not required. Rates for those

agencies discharging wastewater into surface water bodies such as the Russian River tend to be particularly high because the rules regarding this type of discharge are extremely strict. That is especially true if the agency is small (serving fewer than 2,500 connections)

In Santa Rosa the average monthly sewer rates for an average single family residence:

Flow G/p/M	1/1/06	1/1/07	Percentage Increase	Dollars
5,400	\$55.21	\$60.19	9%	\$4.98

Average single family dwelling sewer rates in the Bay area for 2005 ranged from a low of \$22.87 in San Francisco to a high of \$68.22 in Cotati.

Effective January 1, 2007, Santa Rosa moved to a tiered rating system to encourage conservation. The sewer rate cap is based on indoor water use in the months of December, January and February, the months of lowest water use, because there is normally little or no irrigation needed in these months. The full effect of the switch to tiered rates will not be felt until the summer of 2007.

In June of 2006, the city agreed to wait on a sewer proposal that would have required property owners to inspect and repair leaking sewer lines as a part of a home sale. The cost was to be passed on to the property owner when a preliminary estimate to fix the city's aging and leaking pipes was estimated at \$600 million.

In addition to increased water and sewer rates, "hookup" fees have also jumped dramatically. These are the fees charged to connect to the sewer system. (The basis for these fees varies from city to city.) They do not include the cost to do the hookup. These fees are particularly steep for businesses, and are cited as being large enough to discourage business development. The cost to single family residence owners is not small either. In Rohnert Park, five years ago, the hookup cost was estimated at \$5000. Recent estimates put it at \$17,500 plus water hookup fees. That does not include the estimated \$10,000 to contractors to actually perform the hookup.

What has been the reaction to increased rates, increased impact (developer) fees, and facilities project costs being passed on to users? Virtually all communities within Sonoma County have seen protests. Three communities have been the most active: Rohnert Park, Petaluma and most recently Windsor.

In Rohnert Park, a Proposition 218 lawsuit was filed alleging that the city owes homeowners a \$5.2 million refund for sewer rate overcharges stemming from the doubling of rates two years ago. Rates went from \$32.50 to \$64.60 per month. The allegation is that the city failed to provide the required notice to property owners. Additionally, the opening of the Green Music Center was delayed because the city put a moratorium on new hookups when Sonoma State University exceeded its discharge allocation. Recent conservation measures by the college appear to have resulted in a green light for the music center. It has been alleged that Rohnert Park's failure to regulate water has contributed to the need for the rate increase. It has also been alleged by environmental groups that the city has been over-pumping the aquifer in an attempt to justify development.

In Petaluma, which has its own sewage plant and is constructing a new one, spending on water and sewer improvements may hit \$264 million. It does not include the \$110 - \$165 million for the new sewer plant. Petaluma needs significant repairs to pipes and pumping stations. Those and

the cost of the new treatment plant would necessitate sewer rates to increase from \$44.00 to \$80.00, almost double. Earlier in 2007, a lawsuit based on Proposition 218 was filed alleging that the city had diverted \$2.4 million in excessive administrative charges. The suit also alleges that the cost of the new plant should be scaled back to about \$50 to \$60 million. Attempts are being made to make the increases a ballot measure. Although the original suit has been "settled," the controversy continues and there is the likelihood a new suit will be filed.

Meanwhile, in the northern part of the county, Windsor, which in 2006 had received the Governor's Environmental and Economic Leadership award (the highest environmental honor) is now struggling with sewer and water rate costs. The costs are estimated to increase 66% from about \$48.20 to \$79.94 per month over the next two years. Until now, Windsor rates have been lower than most in the county. The rate increase is designed to encourage conservation, but conservation may come at the expense of development.

As the largest stakeholder in the county, the choices Santa Rosa makes regarding effluent treatment and discharge are critical. One of the most controversial of the issues facing Sonoma County is what to do with the effluent coming from the Laguna plant. Currently, most of the discharge goes to the geysers for geyser recharge. A small amount of the tertiary treated water is used for agricultural or urban irrigation, and the balance is released into the Laguna de Santa Rosa. Since the Laguna is a tributary of the Russian River, ultimately the treated effluent finds its way to The River.

Continued discharge into the Laguna is also controversial, although it does not rank with changing the discharge to the Russian River. The current NPDES permit, that allows discharge into the Laguna and establishes the criteria for continuing to do so, came up for renewal in 2006. The requirements are significantly more stringent than under the previous permit. This is especially true with regard to temperature and oxygenation standards. Standards applicable to small accidental overflows, location of monitoring devices, and the limits on the amount of nutrients permissible, especially nitrates and phosphorus, also became stricter. The state and many environmental groups maintain that these measures are necessary to bring the Laguna back to full health. The city has appealed several of the requirements and a temporary compromise has been worked out. The Regional Water Board has extended the permit for five years contingent on meeting requirements that may be difficult to meet within the five-year extension.

It must also be noted that the amount of discharge must fall within a specific range. They cannot discharge more or less than the range. The discharge into the River is also set at no more than 5% of the corresponding daily river flow, and discharge is not allowed from May 15 until October 1 when the river flow is very low.

The feasibility and particularly the cost of improvements to the Laguna treatment facility have reopened the possibility of moving the discharge point to the river. Changing the discharge site to the Russian River is the most controversial plan for Santa Rosa waste disposal. This option, however, will almost certainly be even more costly than the Laguna requirements. It may offer the possibility of being a more permanent solution. It remains a preferred option because it would circumvent the low, slow, flow of the Laguna and therefore standards would be less stringent. Depending on how the plan is implemented, it may even mean that the treated water can be classed as ground water not surface water, and thus subject to less stringent regulations.

In addition to the cost of such a move is the certain opposition of downstream residents to the discharge itself and to the facilities that would have to be constructed. What will be the impact on potable water at discharge sites? Of additional concern is the construction of a cooling tower to decrease wastewater's temperature and increase oxygenation. A typical cooling tower is 500 feet long and 50 feet high. Discharge points on the river remain one of the preferred options, despite the fact that multiple promises have been made to river residents that the city would not return to increased river discharge. The truth is that changing the location of the City's discharge point will not in itself eliminate the discharge problem. The "time of the year" issue will still remain. In the winter, there will still be more wastewater than can be legally discharged into the Russian River. In the summer, there will still be less than is needed for irrigation.

There are other alternatives that either alone or in combination with others were presented in the Incremental Recycled Water Program Discharge Compliance Project, outlining discharge alternatives for the Laguna Plant's wastewater discharge. Two of these are irrigation (urban or agriculture), and storage. Santa Rosa has indicated that the best alternative, based on cost, is to stay in the Laguna, create additional storage facilities, and store excess effluent through the winter to be used for urban irrigation in the summer. It is estimated the cost of additional storage facilities will be in the \$100 million range because Santa Rosa will only need additional storage space for five million gallons and owns the possible sites for the tank.

Currently, of the total discharge from the Laguna plant, 12,410 acre feet go to the geysers each year. The Urban Water Management Report released by the SCWA and recommending a \$395 million agricultural irrigation project indicates that the total amount of tertiary water is at about 26,074 acre feet per year. That is projected to increase to 31,902 acre feet per year by 2020. The approximate amount of treated waste water available for irrigation is, therefore, substantial. The projected agricultural recycled water use by some of the contractors that would offset potable water use is shown below in acre feet per year:

City of Rohnert Park	1135
City of Petaluma	190
City of Santa Rosa	344

Based on the projected agricultural reuse, which is far less than the wastewater available, it would appear that Santa Rosa's preferred choice is urban reuse, not agricultural reuse. A spokesperson for Santa Rosa has indicated that urban reuse would have a greater offset for potable water. Santa Rosa has also indicated that it has not promised tertiary water to anyone, nor has Santa Rosa been asked to provide it by anyone. If Santa Rosa's final choice is the Laguna, urban water, and storage, it will create difficulties for implementation of the Urban Water Management Plan. The Plan indicates a significant need for reused water for irrigation in the Alexander Valley. As these figures show, the largest contractor is projected to contribute little to agricultural reuse.

In fact, one additional "choice" does exist: increased groundwater use. The truth is that all that is necessary to drill a well, except in close proximity to rivers or streams, is a permit. Unfortunately, additional wells may not be a solution. To begin with, there is an intimate relationship between groundwater and surface water. It is also true that groundwater is not limitless. Its availability is subject to recharge from the surface. The allegation has been made that current pumping already exceeds the recharge rate. Although some work has begun, beyond knowing that there are four aquifer basins in the county, there is not enough information to determine with any certainty whether the aquifer has been over pumped. Currently there is no active plan to pursue a ground water management plan. Further, increased use of wells will

almost certainly reduce the demand for tertiary treated irrigation water, and thus further reduce our sources of potable water. Use of groundwater also needs to be managed. If it is not, the result will eventually be a limit on growth because of inadequate water capacity or the inability to handle wastewater. The Environmental Impact Report will dictate which path is selected. The basic truth, however, is that the choice of an alternative is up to Santa Rosa. As the largest producer of waste, and the managing partner of the Laguna plant, Santa Rosa alone will control the option selected. The smaller governmental entities will have little to say about which option is selected. Once the Environmental Report is issued, the Board of Public Utilities will certify the plan chosen. It will go to the Santa Rosa City Council for approval. Ultimately, the only effective challenge to its decision will be in the courts.

Investigative Procedures

Interviews

BPU	Member, Board of Public Utilities
SCWA	Manager, Chief Engineers, Deputy Chief Engineers, Sr. Environmental Specialist
OWL (Open Space, Water Resource Protection And Land Use)	Foundation Members
City of Santa Rosa	Managers
Petaluma Water	Water District Manager
LAFCO	Representatives
A retired city official	

Document Review

Municipal Service Reviews

Sonoma County	
Sonoma	Healdsburg
Petaluma	Sebastopol
Cotati	Windsor
Cloverdale	Santa Rosa

Geyser Material, including

- The Geysers Recharge Project
- Environmental Protection Act, Superfund re Geysers
- Memo of Understanding between Santa Rosa and the Geysers operators
- The Geysers One Year Later

Proposition 218

- Best and Krieger Legal E Bulletin regarding Proposition 218
- SB 610

Santa Rosa Wastewater Fee Schedule 2006

Santa Rosa Incremental Recycled Water Program Master Plan

City of Santa Rosa Alternatives Proposal

Incremental Recycled Water Program: Discharge Compliance

California Water Districts and Associations, UC Archives

Wikipedia Sewage Treatment Analysis

OWL & other environmental organization material

Agricultural Reuse Project Feasibility Study

Sonoma County, Santa Rosa, and SCWA Budgets, including SCWA Financial Summary

2005 Urban Water Management Plan dated 12/2006
Sonoma Valley Water Project re Napa Issue
Mark West Feasibility Study
Water Rate Impact, City of Santa Rosa
Single Family Residential Water & Wastewater Rate Comparison
Petaluma, Sonoma County Water Department Budget(s)
Memo of Understanding between SCWA and its contractors
Revised Memo of Understanding between SCWA and its contractors
Narrative for the Laguna de Santa Rosa video tour
Official city and county websites

Findings

- F1 There is no overall plan for wastewater/ground water/surface water use and protection for any governmental entity within the county.
- F2 There is an integral relationship between recycled water distribution, its usage and the need for potable water.
- F3 The SCWA has no ability to impose use reductions or other requirements directly on consumers.
- F4 There is no consensus on wastewater priorities or objectives throughout the county.
- F5 Regarding water issues, the Board of Supervisors and the Sonoma County Water Agency Board include the same people.
- F6 The number and diversity of the wastewater treatment districts makes coordination difficult.
- F7 There is inadequate funding for capital improvements and facilities.
- F8 Not one entity can afford the cost of its capital improvements from user fees alone.
- F9 The planned SCWA reserve for needed wastewater projects is inadequate.
- F10 Changing discharge points cannot resolve the wastewater issue.
- F11 The estimate for the number of customers for recycled tertiary water was based on well pump-out limits, since overturned in a court decision.
- F12 Information regarding aquifer capacity is largely unavailable.
- F13 Water allotments were based on getting the 35% additional water rights from the state, but the request was not approved.
- F14 The SCWA may not be able to meet its current contractual commitments.

Conclusions

Effective overall management of Sonoma County's water and waste may be limited by the absence of a central decision making entity. Each district, large or small, maintains its independence. This is the case even when there is inadequate or no funding to provide or improve water quality or increase quantity. Certainly few, if any, are in a financial position to improve their facilities. While it is clear that complete physical plant consolidation is not feasible or desired, consolidation of some of the smaller entities might well lead to cost saving efficiencies. Further, there is currently nothing to compel performance or to make decisions based on the overall impact those decisions will have on the county as a whole. Decisions, therefore, tend to be made primarily on what is best for that particular entity. Failure to consider the county as a whole in the process can lead to short term, expedient "solutions." For example, Santa Rosa might enhance its ability to get rid of waste, but that does not resolve the wastewater problem, and could create problems for others in the county.

It appears that the Board of Supervisors, sitting as the Board of Directors for the Sonoma County Water Agency and the Board of Public Utilities being appointed by the Santa Rosa City Council are organizational structures that can serve to politicize decisions about resources. Decisions regarding our precious natural resources might be better made on a non-partisan basis.

The system of financing capital improvements almost entirely with user fees coming from the individual entity's users is clearly a concept that is past its time. While no one is happy about paying for improvements they will not personally use, the fact is that virtually none of the districts can afford, on their own, the improvements that are needed. There is no uniformity of user fees across the county. Over five years ago, the SCWA recommended consolidation of the smaller districts (under 2500 connections served) to provide less expensive service. To date there has been only one consolidation, and that one has been partial.

All of this has a very direct impact on healthy growth and development of the county and its cities. The extent to which water and wastewater will constrain future growth will depend on the amount of ground water available to supplement the surface water supply, and the amount of treated wastewater used to offset potable water use and agricultural demand. Making wise decisions requires the kind of stake holder cooperation that brought the geysers project to a successful conclusion.

Commendations

The grand jury commends the stakeholders whose cooperation across partisan lines enabled the successful completion of the Geysers Project.

Recommendations

- R1 Begin the creation of a master plan that includes ground water, surface water, and waste water.
- R2 The SCWA and the BPU should contact other counties that have created a central, separate water board to examine its feasibility and adaptability to Sonoma County.
- R3 The cities and county should consider creation of a common fund, pooling grants and a percentage of user fees to cover capital improvements.
- R4 Determine overall county priorities regarding wastewater and examine sewer rate models to see if they are designed to accomplish the desired goals.

- R5 Determine how much, realistically, should be set side for capital improvements.
- R6 Reopen the examination of consolidation of smaller facilities and continue consolidation efforts.
- R7 Develop a plan to increase the quantity of water that can be discharged from Lake Sonoma.
- R8 Continue and expand the study of the aquifers to better determine their health and capacity.

Required responses to Findings

None

Requested responses to Recommendations

None

Required responses to Recommendations

City of Santa Rosa, Board of Public Utilities	R1, R2, R6
Sonoma County Water Agency	R1, R2, R3, R5, R6, R7, R8
Sonoma County Board of Supervisors	R1, R2, R3, R4, R5, R6, R7, R8
City of Santa Rosa	R1, R2, R3, R4, R5, R7
All Sanitation Districts Laguna De Santa Rosa, Cotati, Cloverdale, Sonoma, Windsor, Petaluma, Healdsburg, Sebastopol, Bodega Bay, Camp Meeker, Occidental, Forestville/Graton, Rainscreek, Russian River, Sonoma Mountain, Sweetwater Springs, Timber Cove/Larkfield/Wikiup, Geyserville, Penngrove, Sea Ranch, Sonoma Valley	R1, R5, R6