The Awful Offal of Sebastopol

By

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Numerous people, especially current and former city employees, assisted in the process of gathering the research material for this historical sketch. Their assistance, sometimes simply commiserating with the task, is gratefully acknowledged.

While the specifics of the Sebastopol story are of local interest, the overall story is undoubtedly similar to many other towns in California. It's a story of incremental progress in the ever changing, long-term goal of pollution free disposal of municipal wastes. By current standards many disposal conditions of the past were simply horrible – the same judgement that will likely be made when looking back on many present conditions 100 years from now. In the early 1970s the relatively small City of Sebastopol with a population of about 3,500 entered the beginning of the modern era of ever increasing and more expensive sewage disposal requirements with considerable difficulty. The minutes of the council clearly indicate that at times confusion and emotions were very high as the city administration and the councils systematically plotted their way through new regulations and requirements, potential cease and desist orders, multiple agencies, available funding and cost implications to city residents, etc. Towards the end of the process, one councilman even suggested that members of the local water quality board be arrested if they stepped onto city property. The solution involved the familiar story of consolidation and loss of city control at more expense to city residents.

Apparently by the late 1800s much of the town of Sebastopol often reeked with the smell of

sewage. Prompted by a diphtheria outbreak, a group of citizens met in January 1898 to discuss the town's horrible sewage situation and attempt to abate the problem. The town's recently appointed health officer, Dr. Benepe, considered that the town's numerous exposed and failed cesspools were a particular menace to the health of the community. The group discussed incorporation of the town as one possible solution to the problem. With the advice of the state Board of Health the group identified and prioritized the town's problem sewers and cesspools, and determined that an "odorless excavator" (probably an early version of what we now know as septic tank pumper) to pump out the failed cesspools and sewers in the town would cost about $1,000. However, the group soon disbanded owing to the lack of attendance and interest in the sewage problem by the town's property owners.

About two years later, an editorial in the *Sebastopol Times* addressed the deplorable sewage conditions of the town – "on all sides there are offensive, filthy cesspools and in many places drainage runs on to the streets and vacant lots." The editorial stated that the sewage disgrace should not be tolerated – "the health of the community is in jeopardy," and called for the immediate eradication of the evil to avoid a dreadful state next summer. The same addition of the paper included a story on the sewage disposal plight of the recently completed Baxter-Bennett brick block on the west side of Main Street. The article describes Mr. Baxter as being sensitive to the property rights of those on the east side of Main and those downslope to the Laguna (the "easterners"). Baxter's initial plan was to run an underground sewer along Main to the open ditch that crossed Main on its way to the Laguna. But first, the town's roadmaster forbade Mr. Baxter to disturb the bitumen surface of Main Street and then the "easterners" emphatically refused to allow Baxter's sewage to pass through their properties. Mr. Baxter was forced to simply empty the new building's drainage into the street gutter in front of the block.

In May 1902, nearly two and one-half years after the local paper's first damning sewage editorial, a new editorial urged a yes vote in the coming election to incorporate the town. The editor argued that the only way to address Sebastopol's sewage filth was to incorporate. He pointed out that there were numerous miniature sewer farms scattered throughout the town that were in abominable condition and produced, especially in the summer, an unbearable and sickening stench. The editorial concluded that only a municipal government law of compulsion could force a solution to the problem that for many years Sebastopol has reeked "the most detestable foulness imaginable." Incorporation would purify the "disease laden atmosphere" of the town.

Sebastopol, with about 1,000 inhabitants, incorporated as a town in the spring of 1902. Within the first six months the founding town trustees had: (1) established a volunteer fire department and purchased and equipped an old fire truck; (2) accepted a site and a bid for a firehouse

building; (3) purchased a lot on Main Street for a town jail; (4) purchased an odorless excavator (for $600 from Studebacker Bros. in San Francisco); (5) taken steps to prevent the spread of a smallpox epidemic; and (6) implemented the digging of four wells for fire protection in the central part of the newly incorporated town. In mid-January 1903 the trustees condemned an old well which had been used for many years as a cesspool and decided to seek bids for pumping out the problem cesspools and sewers with the town's new odorless excavator.

In a special election in August 1905, about 13 months after the first electric train came up Main Street, voters overwhelmingly approved the town's first issuance of municipal improvement bonds (totaling $60,000 – municipal water works, $37,000; sewer system, $16,000; town jail, $500; fire engine, $3,000; 200 feet of fire hose, $1,500; and a tract of land for municipal purposes (sewer farm), $2,000. The new sewer system in the central part of town was completed about a month before the major earthquake of April 18, 1906 struck the region. The minutes of the special public meeting of the trustees on the day of the disaster simply describe the town as being "destroyed by an earthquake shock." The minutes of a subsequent meeting of the trustees record only that a report on the sewer system was read and accepted, but provide no details of the extent and earthquake damage, if any, to the town's new sewer system. About three months after the earthquake, the trustees approved a resolution for the first extension of the sewer collection system and instructed the town engineer to design and estimate the costs of a septic tank to complete the system as per the municipal bond election. In the late fall of 1906 the septic tank was completed and flush tanks for periodically cleaning the sewers were connected to the town's new water system. The trustee minutes indicate that the sewer farm was obtained at no cost from the estate of John A. Brown to honor a verbal agreement with Mr. Brown before his death. The $2,000 bond money to purchase the land appears to have been transferred to the general fund.

Excluding the contents of the odorless excavator which were undoubtedly dumped into the Laguna, in today's terms Sebastopol's new sewer system cleaned up the unsanitary conditions of the town at the expense of the water quality in the Laguna. Sebastopol began to befoul the upper end of its nearby recreational lake, Lake Jonive, in late 1906 by adding year-round discharges of unsterilized septic tank effluent to its industrial discharges. *(1)*

An old sewer system map of the town appearing to date to the late-1920s shows two septic tanks (the age of the second tank was not established) in the approximate position of where the Teen Center off Morris Street is today – the location of the city's sewer farm and is still indicated as such on the current assessor's parcel map. The current Youth Park and the Laguna Wetlands Preserve are an assemblage of at least six parcels acquired by the city over the years for a corporation yard and for the disposal of sewage, garbage, and industrial wastewater. *(2)*

In November 1908 the Cameron Septic Tank Company of Chicago notified the town trustees that the town's septic tank infringed on the company's patents. It was not until June 1919 that the trustees adopted a resolution to settle the patent infringement litigation with the Cameron company. *(3)*

In the fiscal year ending June 30, 1911 (the year in which the Andrew Carnegie Foundation gave Sebastopol $7,500 to construct a free public library) the city spent $316.31 on sewer repairs, $1,301 on new sewers, and received $711 in new sewer connection charges. In the summer of 1915 the state Board of Health was concerned about a typhoid epidemic and inspected the sanitary conditions of all the summer camps and resorts in the county. The Spanish flu epidemic broke out in Analy Township in October 1917, about two months after the local Company E boys were reported to have arrived safely in England on their way to the war. Part of Sebastopol's response to the flu epidemic was to make a major commitment to the promotion of sanitation and cleanliness in the town. *(4)*

The sewer farm was described in the council minutes (Sebastopol changed its name to a city in April 1924) in the summer of 1926 as an "unsightly mess" and the council accepted a contract for monthly garbage collection in the city with the garbage to be dumped at the sewer farm. The council approved an ordinance in the early spring of 1929 which required connecting to a nearby sewer and banned all cesspools, septic tanks and privies in all properties in the city within 200 feet of a sewer. The connections to the sewers were to be made at the owners expense and there were numerous protests. *(5)*

In July 1929 the council announced plans to replace the old antiquated and inefficient wooden septic tank with a late-type sewage treatment plant and contracted with an engineering consultant to design the proposed new plant according to the needs of the city. However after conferring with the state Board of Health, the city engineer promptly reported to the council that the city's sewage disposal needs could be most inexpensively met with a low-tech system of a new septic tank discharging into a series of oxidation and settling ponds. But the council's final decision was to select a more expensive and "modern," technologically sophisticated plant primarily because such a plant would use the gases produced and promised to have no odors. *(6)*

The mayor's appeal to voters to approve the bond issue to build the modern treatment plant divulged that the state Board of Health had demanded that the city address its deplorable sewage disposal conditions. According to the mayor, if the bond measure failed it was highly likely that the state itself would build the necessary plant at considerably more expense to the city. With a population of about 2,700 and with only 360 of the 892 registered voters voting in a special

election in November 1929, the issuance of $22,000 in sewer bonds passed with over 80% approval. (A proposition for a $29,400 bond issue to build a new City Hall and firehouse in the same election failed by one vote to get the necessary 2/3 majority. A new City Hall vote had also failed in 1922 but finally passed in 1936.)

Sebastopol's "latest in design" sewage treatment plant, almost identical but smaller than the one being built at the time at Chico, began operation in September 1930. An engineer was hired to operate the new plant which did not include the chlorination facilities shown on the plans – chlorination was to added "at a future date." The construction plans for the new plant included moving the garbage debris and rubbish to another part of the sewer farm – compacting the small stuff and moving the larger material such as old car bodies to form a bulkhead next to the bank of the lagoon. Garbage dumping at the sewer farm was temporarily cancelled during construction of the new plant, but began again with new rates ($0.25 for a small load, $0.75 for an old auto) as soon as the plants' construction was finished.

WPA projects in the winter of 1939 included sewer and water systems extensions in the city and installing a sewer system bypass of the treatment plant to prevent the overflowing of sewage in the residences near the treatment plant during heavy rain storms. About one month before the Laguna flood of 1940, the council passed a resolution to annex the sewer farm to the city. *(7)*

The polio epidemic broke out in most of California in the summer of 1943 and the incidence in Sonoma County, centered around Santa Rosa, was apparently considered to be more severe than in any other part of the state. "Laguna Creek" at Sebastopol was declared unsafe for swimming in July 1943. A sanitary survey of the county was completed early in the following year. The survey report identified numerous unsanitary conditions in the county and under the overall dictum of "clean up and keep clean," the report made many recommendations to control the spread of the greatly feared and horrible disease. Of the reports 10 recommendations for the county, the two relevant to Sebastopol were: (1) the designation of official county garbage dumps with rigorous enforcement of sanitary conditions and the prohibition of dumping garbage elsewhere (apparently, the feeding of hogs on private dumps scattered throughout the county was common at this time); and (2) the expansion of the Gold Ridge Soil Conservation District to include properties on the east side of the Laguna and the improvement of the Laguna channel to minimize the time sewage polluted water was spread over the farm lands along the Laguna during floods (the conservation district was already planning to channelize the Laguna at the time). Specific recommendations for the City of Sebastopol were: (1) to reconstruct the levees of the treatment plant's oxidation ponds to ensure that they were not damaged when flooded by the Laguna; and (2) to select a new site for the city's garbage dump away from a populated area or stream. *(8)*

In the early summer of 1946 the council directed the city engineer to survey the city's sewer and water systems and make recommendations for any necessary improvements. The sewage plant was said to be working at its full capacity and needed to be completely remodeled and modernized to properly handle the current load and to provide for growth of the city. The chief of the state sanitary engineering bureau assured Sebastopol residents that the state was committed to modernizing all municipal sewage treatment plants and that if a bond measure to update the city's plant did not pass, Sebastopol's future was "gloomy." With a landslide vote of almost 10:1 and with about 436 people voting in a population of about 2,400, voters approved the issuance of a total of $210,000 in municipal improvement bonds in a special election in early 1947 (street improvements, $35,000; water system improvements, $90,000; new fire fighting equipment, $20,000; and improvement and modernization of the sewage treatment plant, $65,000).

While the $210,000 in municipal bonds were sold about eight months after the voter approval election, only the street improvements were begun immediately and were completed in the summer of 1948. Next came the water system improvements which were completed by the following spring. At the end of 1948 the plans for the new treatment plant were described as "progressing." By late January of 1949 the city's new fire equipment and truck were in service and the council called for bids for the equipment for the new sewage treatment plant (a circulating clarifier, new digester, pumps and valves, etc.). The council expected at least a six-month delay in delivery of the new equipment and did not accept a bid for the construction of the new plant until early 1950. The new plant was reported to be operating about six months later. The new sewage treatment plant had double the capacity of the old 1930 plant and was essentially an extensive remodeling and an addition to the old plant.

The *Sebastopol Times* carried numerous articles and photographs of the new, 1950 treatment plant during its construction and after its completion – including a detailed article on how the new plant worked with its additional clarifier, new settling ponds, multiple digester, etc. The total project included installing new sewer mains in places in the city and cost $81,485 ($65,000 in municipal bond funds and $16,485 in state "Christmas Tree" funds for local sewage disposal improvements).

City officials at the time estimated that the new modern sewage treatment plant would meet the city's needs for the next 20 years or so. But it was not to be so simple.

In 1949 the state legislature passed the Dickey Act which established the nine regional water pollution boards in the state (now Regional Water Quality Control Boards, RWQCB) and transferred the regulation of wastewater discharges from the state Department of Public Health to

the new boards. The immediate priority for the local North Coast RWQCB was to adopt new wastewater discharge requirements for Santa Rosa – the largest city in the region with a population at the time of about 18,000, compared to Sebastopol's population of about 2,600. *(9)*

In June 1951 Sebastopol amended an existing ordinance prohibiting rainwater from roofs entering the sewers to also require screens and traps on the sewage discharges of the local fruit processing plants (there were at least four or five processing plants producing mostly apple wash water at this time) and to ban any waste containing tannic acid or other chemicals or liquids in such amounts as to interfere with the natural digestion process of the sewage treatment plant. In December of the same year a three-day downpour flooded much of the city and presumably also flooded at least the oxidation and sludge drying ponds, and the city dump. About two years later it was reported that the council was considering either building a garbage incinerator or constructing a 400 foot wall along the Laguna to make the city dump meet the health requirements. A major three-day storm hit the region in late January 1954, brought nearly six inches of rain, and caused much damage. Flooding again closed most of the roads crossing the Laguna, was extensive along the lower Russian River, and presumably flooded the city dump and most of the sewage plant. In June of the same year residents of an unimproved section of the town (Johnson Ave., Flynn, and McKinley streets) protested to the council that their lack of a sewer and improperly functioning septic tanks and cesspools produced an unhealthy stench. About six months later, after county health officials agreed that the unimproved section of the city must be served by a sewer, the residents formed a sewer assessment district to pay for their new sewer. Shortly thereafter the council clearly recognized that more money was needed for sewer farm maintenance and improvements.

A local RWQCB investigation of Sebastopol's sewage plant effluent in the spring of 1955 determined that major plant improvements were required to meet the state requirements. News accounts of the board's investigation reported that routine and preventative maintenance of Sebastopol's plant was far below state standards, that many of the plant's components were not operable (a settling tank was out of operation, a digester was cracked allowing waste gases to escape, and the four oxidation ponds were badly sedimented reducing their capacity). In addition the RWQCB determined that at least two new oxidation ponds needed to be added to comply with the state requirements. The RWQCB also recommended: (1) that the city purchase a sewer cleaning machine and rehabilitate the sewer system as necessary; (2) that the sewage plant operators establish and keep a complete record system; and (3) that the city should recognize that operation of the sewage plant was a full-time job and the current operator should be relieved of his city dump responsibilities. In the same meeting in which the council reviewed the RWQCB's report, the county health officer requested that the council verify that all city

residents were connected to a sewer and were not still using septic tanks or cesspools. The county officer reported that at least two city residences were still using septic tanks. Despite the 1929 ordinance, complaints that city residents were still using septic tanks occurred periodically at least through to the 1970s. *(10)*

Like many other communities in the state with sewage containing agricultural processing plant wastes, Sebastopol's councils and administrative staff began at this time to deal with the knotty problem of proper sewage disposal for the city. The general fund was overdrawn and there was no current way to properly fund even the annual maintenance costs of city's sewer and disposal systems, let alone expand the plant to meet the state requirements. The 1950 plant had become inadequate in only five years instead of the 20 years expected. Building two new oxidation ponds alone would probably require moving the city dump (and/or the disposal plant). But remodeling and expanding the plant would encourage industry since the city's canneries were the largest employers in the city at the time and would allow for annexation of properties adjacent to the city. The size and design of the existing plant was more than adequate for the residential users, but was not adequate for both the residential and the industrial users (the cannery inflows were about equal to the residential inflows at the time). Many in the community felt that the residential users should not be burdened with the costs of accommodating the needs of the industrial users and questioned why the canneries had been allowed to connect to the 1950 sewer plant. The council's initial possible solution was to float a bond issue to pay for the necessary improvements to be paid back by new sewer use charges based on both the volume and the "strength" (organic content) of the sewage.

A huge rainstorm breaking 40 years of records and dumping over 6.5 inches of rain in 24 hours struck the region just before Christmas 1955. The damage in Sebastopol was relatively light compared to other locations in the county. The Laguna flooded and again the roads crossing it were closed. The lower portion of the city was flooded with up to 10 feet of water. News articles describe the city' sewage plant as being in a "pitiful state" with the oxidation ponds, clarifiers, and digesters under water (the sludge drying pond wasn't mentioned but would have also been submerged). "Cans and garbage" from the city dump were washed away and "drifted in the laguna." The Laguna flooded again in early February of 1962. A news photo taken on High School Road at the time was captioned "Lake Sebastopol." Relatively minor Laguna flooding also occurred in the fall of the same year. A news photo of a trapped car in the trailer park on Sebastopol Road (Avenue) next to the Laguna shows the car submerged in water to just above the wheels.

By the early 1960 the councils had: (1) appointed a citizen committee to study the sewer problem and make recommendations to the council; (2) received a suggested "revolutionary" plan from a citizen for a new sewer plant based on anaerobic digestion which would not require additional oxidation ponds if the canneries built their own sewage disposal plant; (3) hired a

consultant to analyze the city's sewage problems and received his recommendation that the city should build a new $250,000 sewage disposal plant; (4) received vehement citizen opposition and the threat of a taxpayer's lawsuit if the council selected the consultant's 1/4 of a million dollar solution of a new sewer plant; (5) received a proposal to use the sewage plant effluent for agricultural irrigation; (6) received a petition against the sale or use of "sewer water" for agricultural irrigation; (7) accepted the city manager's negotiations with the county to dump the apple waste solids from the city's canneries at the county's Windsor dump rather than at the city dump; (8) approved building a separate sewer line for the canneries to relieve the congestion in the sewer collection system; (9) cleaned out an old outfall sewer line and irrigated the industrial wastewater on small pasture adjacent to the sewer plant (which appears to have allowed the canneries to bypass the sewage plant and discharge much of their wastewater indirectly into the Laguna); and (10) adopted an ordinance which for the first time imposed a monthly sewer use charge and established higher sewer connection fees.

In meeting the state sewage disposal requirements and the city's problems of congested sewers, excessive smell of its oxidation ponds and inadequate treatment plant, Sebastopol at this time separated its cannery discharges from its sewage plant, built an industrial wastewater sump next to the plant, and disposed of the industrial wastewater by irrigation. *(11)*

In the early 1960s the city purchased the land between the Laguna and Morris Street north of Sebastopol Avenue to the sewer farm. After dredging the Laguna to fill the land, the city sold most of land as lots for an industrial park. The profit from selling the lots was used to bring sewer service to the industrial park. The city kept lots for a corporation yard, to double the size of the city's dump, and to expand the industrial waste irrigation area. The city also at this time dredged the Laguna to build a levee in the back of the dump. City officials estimated at this time that with perhaps relatively minor modifications (renovating the digester, possibly another oxidation pond, etc.), the 1950 sewage plant was adequate for the residential needs for the city to at least double its population (up to about 6,000 people – the 1960 census count of Sebastopol was 2,694).

While the Christmas storm of 1955 remained a local rainfall record, news stories reported near record storms in February 1960, October 1962, December 1964, and again in January 1966. Each storm resulted in much damage and flooding in the region and closed the Sebastopol Avenue crossing of the Laguna. Presumably the city dump and sewage plant were also impacted by the flooding of the Laguna although the municipal facilities were not mentioned in the news articles about the storms. The city manager reported to the council that the December 1964 storm had necessitated the removal of much plant equipment and had left a considerable mess to clean up. The county district sanitarian inspected the city's dump in early January 1966 soon after the flood waters had receded and within weeks after the flood, the council accepted the city

manager's advice to close the dump by the end of the year. However about six months later, the director of the county health department appeared before the council to explain his recommendation that the city close and relocate its dump immediately. The director presented the council with an extensive list of reasons warranting immediate action to close the dump, including the unsanitary conditions, contamination of the Russian River recreation area, and the dump's smoke and smell over the city from regular burning, etc. After the county official agreed to close the airport wrecking yard across the Laguna from the city dump, the council voted to close the city dump in 90 days and to deposit the city's garbage at the county's dump on Roblar Road – a decision that nearly doubled the city's garbage collection fees. By the end of year, Sebastopol completed its first major sewer cleaning project in 40 years and removed an estimated 20 tons of debris from the city's sewer lines.

Early in 1967 the North Coast RWQCB required that all of Sebastopol's wastewater discharges to the Laguna be disinfected (similar disinfection requirements were also imposed by the board on the discharges of over a dozen other cities in the region at this time). In the fall of the same year it was reported to the council that the wastewater discharges to the Laguna in the summer (Santa Rosa via Santa Rosa Creek, Cotati, Rohnert Park, and Sebastopol) were causing the Russian River to turn green after its confluence with the Laguna. At the end of the year a consultant for a joint county and City of Sebastopol report recommended that Sebastopol expand its sewer service area to the north presumably to serve the Graton area and then in Stage II close the city's sewer plant after connecting to the planned interceptor on Llano Road going to Santa Rosa's soon to be completed, Laguna sewage treatment plant. The consultant also noted that since the average wet weather inflows to Sebastopol's plant were about 3.5 times the average dry weather inflows, the city's sewer collection system was in poor condition allowing excessive storm water infiltration.
(In the previous year the same consultant had submitted a relatively expensive package of interim improvements that were needed to the Sebastopol plant.)

While there clearly appears to have been a consensus that Sebastopol needed to relocate its sewage treatment plant out of the flood plain of the Laguna, the possibility of eliminating its plant and connecting to Santa Rosa's new Laguna plant was not an immediate option. Available federal grant funds in 1969 would cover only 33% of the project costs and there was no apparent way to fund the remainder of what was estimated to be at least a million dollar project. In addition the possibility of connecting to the Laguna plant would have to wait many years until after Santa Rosa had obtained grant funds to expand its Laguna plant for its own future needs and to accommodate sewage inflows from any other city in the area. Sebastopol of course was very reluctant to spend money to install a chlorination system and make any other improvements to its existing plant which would apparently have to be abandoned in a few years.

Consultants to the state water boards (the North Coast RWQCB and the State Water Resources Control Board, SWRCB) reported in 1969 that while historically agricultural pumping from the Laguna had kept wastewater discharges to the Russian River negligible, their water quality tests documented that the Laguna in the summer was made eutrophic by the wastewater discharges and that the discharges were causing algal blooms in the lower Russian River. The consultants concluded that further growth on the Santa Rosa Plain, without limiting sewage effluent discharges to the Laguna in the summer, would have a marked increase in the nutrient content of the lower Russian River and would slowly and inexorably continue to degrade the water quality in the lower river. *(12)*

Two new laws about this time would greatly affect Sebastopol's options. The sate legislature passed the Porter-Cologne Water Quality Act in 1969 which included giving the state's nine regional water boards significant new powers in water quality and planning (for example, the floating power to issue fines, cease and desists orders, and to establish basins plans, etc.). The Federal Water Pollution Control Act of 1972 (the Clean Water Act) established national discharge standards and a national discharge permit system (NPDES permits – administered in California by the RWQCBs), and most importantly, led to major grant funding for water pollution projects and essentially made possible the solution to the areas wastewater discharge problems of the 1970s (75% EPA; 12.5% SWRCB; 12.5% local).

The North Coast RWQCB adopted an Interim Basin Plan in the spring of 1971. The plan called for the protection of the beneficial uses of the Russian River – i.e. restrict wastewater discharges to the Laguna in the summer (prohibitions for Santa Rosa were from May 15 to September 30. Santa Rosa's permitted winter discharges were further restricted in the following year to a maximum of 1% of the flow in the Russian River). The plan also called for the expansion of Santa Rosa's Laguna plant to accommodate the city's own needs and the treatment needs of other nearby cities. *(13)*

Sebastopol's significant sewage related events in the early 1970s included: (1) forming an Industrial Wastewater Assessment District and installing an irrigation system on 58 acres of land on the east side of the Laguna opposite the sewer farm; (2) repairing a break in the Petaluma Avenue sewer which resulted in raw sewage flowing into the Laguna for two days in February 1971; (3) increasing sewer service charges to conform to the Porter-Cologne act and to build up the sewer fund to begin a program of gradually replacing over time all undersized sewers and abating the problem of excessive storm water infiltration; (4) avoiding an expected RWQCB cease and desist order by implementing many interim sewage plant improvements. *(14)*

Sebastopol's 1970 Water Pollution Control Facilities project was completed in the fall of 1972 and included chlorination (sterilization) and numerous other necessary improvements. The city manager was quoted in an October 1970 news article as describing the existing plant as "falling

apart" and pointing out that some of the interim plant improvements were necessitated by state occupational safety requirements. Apparently early negotiations with Santa Rosa to connect to its Laguna plant were not going well. The same news article quoted a Sebastopol councilman as saying that the bigger city wants Sebastopol first to become West Santa Rosa. Soon after the city met the RWQCB sterilization requirements, the state Department of Fish and Game required the city to dechlorinate its effluent prior to discharging it to the Laguna. How one state agency could require chlorination and another state agency could require dechlorination caused much consternation on the council.

New RWQCB requirements in November 1972 directed that Sebastopol had only about eighteen months to design and construct a new sewage treatment and disposal facility. The water board's new order was not well received by the council. Essentially the council objected to an unelected body lacking responsibility for local costs, giving orders to the city. Sebastopol had two options – to go it alone or to connect with Santa Rosa's Laguna plant. A subsequent consultant's report compared building a new treatment plant above the Laguna flood plain with storage and irrigation facilities on what is now Santa Rosa's Brown Farm with a project to connect to the Laguna plant. The consultant concluded that connecting to the Laguna plant was Sebastopol's most cost effective option. In a public hearing on Sebastopol's Draft EIR on Alternative Wastewater Management Plans in early March 1975, the city engineer confirmed that after weighing all of the factors, the connection to Laguna plant was the best alternative for the city. The connection project would raise the residential bimonthly sewer service charge from $7.11 to $12.32 (an increase of 73%, but the rates for high users such as laundries would increase three or four times). While many people apparently still preferred the go-it-alone alternative, essentially Sebastopol's decision became moot less than two weeks later when the state formally declared that the connection to the Laguna plant was the most cost effective and beneficial project for the region – i.e. the state would only approve grant funds for a project to connect to the Laguna plant. (The RWQCB's preference for the connection to the Laguna plant was hardly a surprise. The consolidation was described in the Interim Basin Plan and had been openly discussed for nearly a decade in numerous council meetings and in many local newspaper articles during this period.) Sebastopol's council then approved the Final EIR for the city's wastewater alternatives and with apparent resignation, promptly agreed to join with the cities of Santa Rosa, Rohnert Park (and presumably also the City of Cotati, although this city was not mentioned in Sebastopol's council minutes), and the county's South Park Sanitation District to form a consolidated subregional sewage treatment system at Santa Rosa's Laguna plant. Santa Rosa remained the owner and majority managing partner of the system with about a 70% interest and with Sebastopol as a small minority participant with only a 4.7% interest. *(15)*

The Laguna portion of Santa Rosa's long-term wastewater disposal alternative in 1973 was to expand its treatment capacity to provide for growth, to consolidate inflows from its College Avenue plant at the Laguna plant, and to construct the Laguna Effluent Disposal System (LEDS)

– a storage pond/irrigation system, to meet the RWQCB's prohibition of summer discharges to the Laguna/Russian River. Although much of the Laguna's water was being pumped out for agricultural irrigation, it was estimated at the time that about 58% of the water in the Laguna during the summer was wastewater. A series of Clean Water Grants were obtained to build the wastewater disposal system and to increase its size in order to accommodate the inflows from the subregional partners. Santa Rosa acquired nearly 1,500 acres in the Laguna for its irrigation system (Alpha, Brown, and Kelly Farms, and the Meadow Lane and other storage ponds). *(16)*

1977 was an extreme drought year – the driest rain year in the Sebastopol area since records were first kept in 1896, but the subregional system's pond/irrigation system had just begun to be implemented and was very incomplete. By the end of February only 9.33 inches of rain had fallen since July 1, 1976 (only about 25% of the yearly average) and the RWQCB estimated that about 25% of the flow in the lower Russian River was secondary treated sewage effluent. Lower river residents we angered to say the least, with sewage concentrations in the river so much in excess of the allowed maximum of 1%. The residents took every opportunity to protest the situation and even unsuccessfully instigated for the filing of criminal charges against the discharging cities on the Santa Rosa Plain. By the early spring the RWQCB required Santa Rosa and the nearby cities to take emergency measures to prevent the sewage pollution of the Russian River. Sebastopol accomplished zero summer discharge by arranging for all of its oxidation pond effluent to be irrigated on the dairy ranch to the immediate north of the sewer farm. (Sebastopol's wastewater was also used for irrigation on the same dairy ranch in the following summer before the city connected to Santa Rosa's Laguna plant.) Santa Rosa built a temporary dam on the Laguna east of Palm Avenue to capture the summer discharges from its Laguna plant for irrigation. Rohnert Park also damned the Laguna below its wastewater treatment plant. The temporary dams on the Laguna broke after a heavy rain in late November of 1977. The drought ended with the storms and floods of the winter of 1977/1978 – one of the wettest years on record with about 60 inches of rain.

Emotions were quite high at times against the state water board and its responses to the sewer crisis on the lower Russian River. A December 1977 article in the *Sebastopol Times* quotes a city councilman saying "that we are going to sit here and let those bastards perpetuate their havoc over the cities bugs me." Sebastopol was committed to joining a subregional wastewater disposal system that was obviously not weather independent and by the late fall of 1977, Sebastopol and the other cities on the Santa Rosa Plain agreed to participate in a county sponsored study of wastewater disposal alternatives for the entire region. By the spring of 1980 the preferred alternative of this huge study became know as the "Triple Use Plan" and involved a large storage reservoir in the South County at Tolay, very large agricultural irrigation areas in the south and

central county, and continued discharges as permitted from the Laguna plant and from a marsh adjacent to the Petaluma River. While the large study and project alternative EIR were funded by Clean Water Grants, grant funding for reclamation projects disappeared and the proposed county project was abandoned. Had the project been built, Sebastopol would have become a participating city in a county administered, regional wastewater disposal system. After abandonment of the county system, to meet the RWQCB's additional discharge requirement of at least 1,000 cfs flow in the Russian River, Santa Rosa built the large Delta Pond effluent storage facility next to Santa Rosa Creek's confluence with the Laguna.

The subregional wastewater disposal system was completed in the summer of 1978. A few days after an open house and tour of Santa Rosa's Laguna plant on September 8 and 9, Sebastopol decommissioned its sewer plant by throwing the valves to the pump station on Morris Street and the force main to the sewer interceptor pipeline on Llano Road. (At the time there were reported to be about 7 MGD of inflows to the Laguna plant: Santa Rosa, 3 MGD; Sebastopol, 0.3 to 0.4 MGD; South Park Sanitation District, 1.5 MGD; and Rohnert Park/Cotati, 2 MGD. Santa Rosa was also processing several million gallons per day of sewage in its College Avenue plant. The population of Sebastopol in 1978 was now about 5,500 – about 1/10 the size of Santa Rosa's population.)

In early February 1985 a manhole near the Laguna plant overflowed and an estimated 5 million gallons of raw sewage spilled into the Laguna. About 750 million gallons of treated effluent stored in Delta Pond were deliberately released about 10 days later to prevent an uncontrolled overflow of the pond. The deliberate discharge was estimated to be about 15 times greater than the permitted discharge. The reaction of residents in the lower Russian River dwarfed their reaction to the sewer crisis of the drought eight years earlier. The pollution of the lower river with sewage brought much local and national media attention. The situation became even more rousing early in the following year when the subregional system's discharges exceeded the 1% maximum flow in the Russian River. The increased discharge led to an interim plan which allowed, with the RWQCB's permission, a river discharge to a 5 % maximum of the flow in the river. (The so called "sewer wars" between Santa Rosa and lower river residents continued for many years and there were numerous lively protests and public hearings.)

Cost allocation for the subregional system is very complicated. Essentially each partner pays an annual operations and maintenance fee in proportion to its sewage inflows plus a proportional allocation of the costs associated with the seemingly endless and increasingly expensive long-term disposal studies and the project implementation costs, if any. Since the sewage treatment needs of Sebastopol's estimated growth in its planning cycles have been below its current allotment of 0.84 million gallons per day of sewage (the city's census count in 2000 was 7,7774), the city has only had to pay for the regulatory portion of the long-term studies and project implementation

costs. The city's ratepayers have not had to pay for the system expansion demands necessitated by the rapid growth on the Santa Rosa Plain. For example, if it is deemed that half of the soon to be completed Geysers project is necessary to meet regulatory requirements and the other half accommodates growth, Sebastopol residents will be charged for only 4.7% of half of the total costs of the Geysers project.

The city's sewage disposal situation has not been prominent in the local news and public consciousness for nearly 25 years – until August 6, 2002 when Sebastopol's force main to Llano Road broke next to the Laguna and released over 400,000 gallons of raw sewage into the Laguna. (Much of the force main was replaced and moved out of the Highway 12 right-of-way in association with the highway widening project in about 1995. However, the break apparently occurred in a section of the original force main.) *(17)*

Today there is no surface evidence of Sebastopol's sewer plant. After it was decommissioned in the fall of 1978 the plant was kept for a number of years as a possible standby facility for the city's industrial wastewater producers, but the plant appears to have been demolished by the mid-1980s. (Apparently the plant's deep pits were filled with plant debris, covered with soil, and are still there below the ground.) The Community Center is a renovated former Boys Club building built about the mid-1970s (the Youth Park was officially established in June 1977 with the Boys Club and the Little League as tenants). The old oxidation ponds 1 and 2 were probably filled by the mid-1980s (said to be filled with old sewer plant debris covered with native soil) and have recently become the amphitheater of the Laguna Wetlands Reserve. Pond 5, adjacent to the Laguna, was excavated in the early 1970s for a dechlorination pond before the sterilized effluent was discharged into the Laguna (the effluent was chlorinated in pond 4). Pond 5 began to be filled in about 1983 with old sewer plant debris and continued with street sweepings and other city debris until December 1987 when the U.S. Army Corps of Engineers issued a cease and desist order against the city for filling a wetland. The illegal fill was recently removed during implementation of the wetlands reserve. Old oxidation pond 3 is no longer reserved for the temporary storage of apple processing wastewater and like ponds 4 and 5 are in the wetlands reserve but there are no current plans to modify them. The path of the wetlands reserve south of the ballfields crosses the Laguna on a bridge and then runs around the perimeter of the industrial waste field – the southern portion of the old airport and subsequent auto wrecking yard property.

NOTES

1. When working properly, septic tank effluent is roughly equivalent to primary treatment – i.e. removal of most of the solids. Prior to installation of the sewer system, the town's industrial sewage appears to have been discharged

directly to the Laguna. The Italian Swiss Colony winery granted a sewer right-of-way through its property to the city for the right to connect to the new sewer. The city also obtained a sewer right-of-way from the California Canning Company, but no record was identified which indicated that this cannery connected to the new sewer system.

2. Nearby Santa Rosa had began to construct a sewer system with flush tanks in 1886 and had built its first septic tank with additional filter beds in 1902. In 1905, with a population of about 7,000, Santa Rosa expanded its sewer farm by about 100 acres, built a new wooden septic tank, and added five settling/aeration/seepage ponds for the septic tank effluent.

3. The courts upheld the patent rights of the Cameron company. Sebastopol, like Santa Rosa and many other communities throughout the U.S. who had not worked with the company in installing their septic tanks in the early 1900s, were forced to settle patent infringement claims with the Cameron company.

4. The Petaluma and Santa Rosa electric railroad was extended from Forestville to Mirabel Park in the fall of 1919. The railroad along with improved highways and the automobile made the Russian River recreation area very accessible to Sebastopol. Pollution by sewage and industrial wastes, sedimentation, and ready access to the Russian River appear to have been the main contributors to the end of the popularity of Lake Jonive by World War I.

5. Santa Rosa began to use its sewer farm as a garbage dump in 1909.

6. A septic tank/pond system was operating at Sonoma and one was also being constructed at Calistoga at the time. Santa Rosa had received a state operating permit for a septic tank/pond system about four years earlier.

7. Apparently, during heavy rain storms excessive rainwater would infiltrate the sewer system and without a bypass, inflows would have overwhelmed the sewer plant. Depending on the severity of the rain storm, the bypass would have allowed raw sewage to be discharged directly into the Laguna for many days after the storm. The bypass was installed just in time for the heavy rains and flooding of the Laguna in the winter of 1940.

8. The 1944 sanitary survey report of the county is an amazing documentation of the relatively poor sanitary conditions in the county at the time and became seminal in directing many improvements in subsequent years. Highlights include for example, the discharge of unsterilized effluent from the county hospital's septic tanks into Piner Creek, and septic tank effluent flowing into the road gutters and ditches in the suburbs of Santa Rosa reminiscent of the poor sanitary conditions in Sebastopol at the beginning of the 20th Century.

9. The new RWQCB requirements resulted in Santa Rosa replacing its old 1925 septic tank – aeration/settling pond system with a new secondary, million dollar College Avenue treatment plant.

10. Santa Rosa had purchased its first sewer cleaning machine in 1915.

11. The disposal of the city's cannery wastewater appears to be a very complicated story in itself and the records consulted were too fragmentary to unravel the details accurately. The volume of the industrial wastewater irrigated on the small pasture next to the sewer plant in the early 1960s would have seasonally peaked at several 100,000 gallons per day and would have been many times greater than could have been reliably absorbed by the pasture. The industrial irrigation would have been very prone to accidental runoff and subsurface flow to the Laguna. Any such runoff to the Laguna, while not a human health problem, would have certainly degraded the water quality in the Laguna. The water quality in the Laguna was apparently already very poor. Proponents of a project to channelize the Laguna at the time, claimed that a benefit of their project was that it would abate the recurrent problem of dead fish floating in the Laguna. By current standards apple wastewater would require considerable pretreatment to lower its acidity and organic content to even be acceptable as an inflow into the Laguna Wastewater Reclamation plant. Apple

processing wastewater is quite acid, has a highly imbalanced constituency, and may have more than four times the "strength" or organic content of domestic sewage.

12. At the time the population of Santa Rosa was about 45,000 and the city was discharging most of its treated effluent into Santa Rosa Creek from its West College plant. Santa Rosa's 2-year-old Laguna plant had and initial capacity of 2.5 million gallons per day and was discharging to the Laguna at Llano Road. Also upstream of Sebastopol, the small City of Cotati with a population of about 1,400 had been discharging its treated sewage to the upper Laguna since December 1954. The rapidly growing new City of Rohnert Park with a population of about 6,000 had been discharging its treated effluent to the Laguna (via Hinebaugh Creek) since circa 1957. While the evidence is not totally clear, it appears that by 1969 Cotati had closed its small primary only treatment plant, a county utility district plant, and connected with Rohnert Park's larger and more sophisticated treatment plant. Of the 40 remedial proposals evaluated by the consultants to the state, the most cost effective solution to remedy the sewage degradation of the lower Russian River was to build a 35 foot high dam at the lower end of the Laguna with control gates to permit flood flows in the river to freely enter the Laguna and to control outflows from the Laguna to enter the river. Had such a dam project materialized and also assuming that the wastewater dischargers to the Laguna did not upgrade their treatment plants, by now the Laguna north of Sebastopol would be a relatively shallow, about a 1,500 acre predominately wastewater lake in the late summer.

13. Santa Rosa's Laguna plant was usually referred to at the time as the Llano plant.

14. Sebastopol's industrial irrigation field was apparently acquired by condemnation – the southern portion of the old Sebastopol airport which had subsequently become the airport auto wrecking yard. The operation of the industrial irrigation disposal facility was problematic from its outset in the fall of 1972 and undoubtedly a bane to both the RWQCB and the city. Suffice it to say, its current operation, with only one of the original five apple processing plants still using the facility, is an anachronism of a bygone era. Apparently the remaining processor has recently installed a pretreatment system and can now discharge its wastewater to the sewer when it is unable to irrigate.

15. Surprisingly at the council meeting to approve the Final EIR, a citizen asked for an explanation of the DEIR's findings of biotic life in the Laguna. The city engineer explained to her that the EIR's findings were based on a 1972 report by the state Department of Fish and Game which stated that there was no significant biotic life in the Laguna. The 1973 Open Space Amendment of the county's General Plan for the Sebastopol area recognized that there were endangered plant species in Pitkin Marsh that warranted the marsh's preservation, but the importance of the Laguna was only recognized for its general resources of open space, flood plain, and agriculture etc. The recreation element in the amended General Plan called for a detailed ecological/biological analysis of the Laguna as a precursor to establishing a Laguna Park adjacent to the City of Sebastopol.

16. Santa Rosa's Brown Farm, initially called Burbank Farm, is named for John A. Brown, its owner and prominent businessman and land owner in Sebastopol in the early 1900s (hence Brown Street). The dairy farm's owner when the property was condemned by the City of Santa Rosa in 1978 was Annabel Lagomarsino, great-granddaughter of John Brown and his wife, Barbara E. Annabel also owned the cattle ranch now know as Alpha Farm in 1978. Annabel was raised in what is now the forlorn old farmhouse, built in the early 1860s, on Santa Rosa's Stone Farm off Occidental Road near Sanford Road. Kelly Farm appears to honor the name of prominent family in the Sebastopol community in the early decades of the 20th Century.

17. Santa Rosa's long-term wastewater disposal studies have included for example, the preferred Ocean Outfall alternative of 1986; the long-term reclamation studies which resulted in the West County storage and irrigation alternative of 1990; the exhaustive long-term disposal studies which led to the soon to be completed Geysers project; and the current Incremental Recycled Water Program.

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