

INFORMATION ABOUT YOUR SEWER BILLS

City of Dixon Proposed Wastewater System Improvement Project

What is Dixon's wastewater system?

The City of Dixon operates a wastewater (sewer) system that serves residential, commercial, and industrial users in the City. The wastewater system includes a collection system and a treatment plant. The collection system includes the sewer pipes located in the streets of the City, which collect wastewater from homes, businesses, and industry, and convey it to the wastewater treatment plant.

The treatment plant consists of a headworks, and a series of treatment, disposal, and infiltration ponds, located on 400 acres of land approximately three miles south of the City. Wastewater enters the treatment plant at the headworks, where the solids in the wastewater are mechanically broken down. The wastewater is then pumped to the treatment ponds, where the wastewater is further decomposed using a natural, biological process. The treated wastewater is then disposed of by infiltration into the soil through the disposal and infiltration ponds. Some of the wastewater is also disposed of through evaporation to the atmosphere. Dixon's wastewater system is a critical component in removing pathogenic and disease-causing organisms from our immediate living environment, thereby ensuring a clean and healthy community.



Figure 1: Aerial view of a portion of the Dixon Wastewater Treatment Plant

Dixon's wastewater utility system falls under the regulatory control of the California Regional Water Quality Control Board. The Regional Water Board specifies rules and regulations which the City must follow in operating our wastewater utility system, including limiting criteria for the wastewater discharges from the ponds into the soil. This is very similar to how the Air Quality Control Board regulates emissions from citizen's automobiles.

The City's treatment plant is one of the most cost effective methods of treating wastewater, due to the natural, biological process. Therefore, the City has been able to maintain low sewer rates for many years. However, many of the components of the collection system and the treatment plant are showing signs of wear and tear due to age. In the collection system this shows up as cracked or collapsed pipelines, which create sewer back-ups, and allow groundwater to enter the system, using valuable capacity needed for existing users.

At the treatment plant this shows up in the form of corroded and collapsed pipelines, worn out pumps and motors, corroded electrical wiring and conduits, and other deteriorating equipment. This aging of the wastewater system increases operations and maintenance costs, repair costs, and electrical utility costs due to less efficient equipment. Additionally, the City has been mandated by the Regional Water Board to improve the quality of discharges from our treatment plant to the groundwater table, by reducing the levels of salts, such as sodium and chloride, from the levels currently in our wastewater stream.

What is the proposed improvement project?

On September 23, 2008, the City of Dixon received a revised Cease and Desist Order (CDO) from the California Regional Water Quality Control Board. CDO No. R5-2008-0136 includes a series of regulatory actions, technical studies, reports, and proposed wastewater treatment plant improvements the City must complete within specified dates to meet revised mandated wastewater discharge limits for the City's existing wastewater treatment plant. These mandated wastewater discharge limits, specifically regarding chloride and sodium, are part of an aggressive statewide initiative to reduce salinity in groundwater. The mandated wastewater discharge limits must be met by January 2014.

The CDO also includes a provision where the City can collect additional groundwater data and lobby the Regional Water Board in the year 2012 for a modification of the wastewater discharge limits. Successful modification of the discharge limits could potentially save the City from having to construct millions of dollars in expensive wastewater treatment plant process improvements solely for the purpose of removing chloride and sodium.

Therefore, the proposed project includes wastewater collection system and treatment plant improvements to address aging and deteriorating facilities, and to perform sanitary sewer system management studies required under a newly mandated State program. Additionally, the proposed project includes modifying the City's groundwater monitoring network, collecting groundwater data, performing technical studies, and preparing reports in support of requesting future modifications to the wastewater discharge limits. The proposed project does not include wastewater treatment plant process improvements solely for the purpose of removing chloride and sodium.

How much will these programs and projects cost ratepayers?

On September 23, 2008, the City Council received a preliminary Wastewater Financial Plan, which outlined the proposed programs and projects, their estimated costs, and the required revenues to fund them. The final Wastewater Financial Plan is expected to be completed by October 14, 2008. The total cost of the programs and projects to be funded through sewer rates is approximately \$11 million, over twelve (12) years. If the wastewater discharge limits are successfully modified in year 2012, the programs and projects identified above should address the City's major wastewater issues approximately until the year 2020.

How will the City pay for these programs and projects?

The wastewater collection and treatment system are operated as a stand-alone portion of the City's business operations, often referred to as an enterprise. This means the wastewater enterprise must pay for its own operation, maintenance, and expansion activities, including all labor, materials, design consultants, construction contractors, and other costs. This is done through two types of funding mechanisms:

(1) All activities and projects which benefit the existing users; including operations, maintenance, water quality sampling and reporting, and repair and/or replacement of deteriorated equipment, must be funded through sewer rates.

(2) All activities and projects which benefit new development; including expansion of sewer collection system capacity and treatment plant capacity, must be paid by developer impact fees or direct contributions from developers.

Some projects, such as the proposed Headworks Improvement Project to replace the City's old, seismically non-compliant headworks, which lifts wastewater from the large main sewer pipeline into the treatment plant, serve both existing users and new development. Therefore, the costs of this type of project are shared between user rates and development fees, based upon a distribution of cost by benefit.

The \$11 million in proposed programs and projects that benefit existing wastewater customers must be paid through usage charges paid by current residential, commercial, and industrial sewer ratepayers. Any improvements, or portions of improvements, that benefit new development must be paid through development impact fees.

The proposed sewer rates identified in the Wastewater Financial Plan were developed based upon engineering cost estimates to perform the investigations, studies, designs and construction of proposed wastewater system improvements within the schedule necessary to meet the requirements of the revised CDO. The schedule of the rate increases were developed to provide adequate pay-as-you-go financing within the first three years (2009 through 2011) to perform those studies, investigations, and improvements of immediate necessity. This reduces the amount of money the City would have to borrow, therefore eliminating the need to pay interest.

The schedule of the rate increases was also developed to provide adequate funding to pay debt service of major wastewater system improvements to be funded in FY2011/2012 through a proposed low interest State Revolving Fund loan. Supporting documents, including a list of proposed programs and projects, cost estimates, and a copy of the Wastewater Financing Plan and Sewer Rate Study may be viewed on the City of Dixon website.

How is this rate increase different than the one overturned by Measure L in 2006?

The rate increase overturned by Measure L in 2006 included funding for a proposed relocation of the City's wastewater treatment plant to several miles further south of Dixon than its current location. The total funding cost was approximately \$38 million over ten years, which included some of the sewer system repair and replacement projects in the current project. Additionally, the previous rate increase was developed to provide "backup" funding for projects that benefited new development as well as existing sewer customers. Though the cost of projects for new development would have been repaid by developer impact fees, the bonds would have been secured by rates. In other words, if new development were delayed for any reason, sewer rates would have had to "loan" the funds to pay the bond debt, until new development did occur.

The current rate increase proposal includes funding to perform needed improvements to the existing wastewater treatment plant, in its current location, at a much lower cost. Additionally, the current rate increase only funds programs and projects that benefit existing sewer customers. Sewer rates will not provide any funding for projects that benefit new development. New development will pay its own way through development impact fees or direct developer contributions. Therefore, the current rate increase proposal has a total cost of approximately \$11 million over twelve years, significantly less than the previous proposal.

The rate increase overturned by Measure L included a proposed rate increase for a single-family residential home from \$15.35 monthly to \$45.20 monthly, stepped over five years. The rate would have stayed fixed at \$45.20 per month for the remaining five years.

The current proposal will increase sewer rates for a single-family residential home from \$15.65 monthly to \$26.65 monthly, stepped over three years. The rate will stay fixed at \$26.65 per month for the remaining nine years, unless revised by the City Council. Additionally, the current proposal includes a procedure where a portion of the monthly sewer rate will be calculated based upon winter water use, when almost all of a household's used water goes into the sewer system. This will

encourage water conservation, and will reward those who conserve water with lower sewer bills. The following table shows the comparison between the previously proposed rate increase and the current proposal.

Table 1: Comparison of Previous and Current Proposed Rate Increases

<u>Year</u>	<u>Residential Sewer Rate 2006 Proposal</u>	<u>Residential Sewer Rate Current Proposal</u>
Current	\$ 15.35	\$ 15.65
1	\$ 24.90	\$ 23.65
2	\$ 31.85	\$ 26.15
3	\$ 40.80	\$ 26.65
4	\$ 44.90	\$ 26.65
5	\$ 45.35	\$ 26.65
6 - 10	\$ 45.35	\$ 26.65

If you have any questions regarding the City of Dixon's wastewater collection and treatment system, please contact Royce W. Cunningham, City Engineer, at (707) 678-7030.