

THE SAN JACINTO WATERSHED



The San Jacinto Watershed, upstream of Canyon Lake and Lake Elsinore, covers 720 square miles in the western half of Riverside County. It begins in the San Jacinto Mountains and runs west through Canyon Lake, ending in Lake Elsinore.

Legend	
City of Lake Elsinore	City of Canyon Lake
County of Riverside	San Jacinto Mountains
San Jacinto Mountains	San Jacinto Mountains
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Threats to the Watershed

The natural flow of water through the San Jacinto Watershed carries nutrient-rich sediment into our lakes each year. The sediment carries with it high levels of nitrogen and phosphorus that hurt water quality and threaten marine life in Canyon Lake and Lake Elsinore.

Enclosed you will find a brief history of the steps we have taken in the last decade to restore our water ways, and an update on what still needs to be done. Keeping our watershed clean and healthy will require the cooperation of stakeholders throughout our region, ultimately improving the quality of life for local residents.

YOUR ROLE & RESPONSIBILITY

You Can Help Protect Our Waterways!

- **Avoid the use of salt-based water softening systems.**
The average water softener discharges an additional 360 lbs of salt into the wastewater system every year.
- **Convert from septic to sewer service, where available.**

While stormwater systems route rainwater quickly off the streets, this water usually carries pollutants, sediment and harmful nutrients directly to our lakes.

Here are some tips to avoid sending pollutants into the stormwater system:

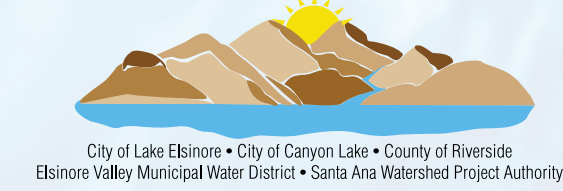
- **Don't dump waste on the ground or in the street.**
Automobile fluids, pet waste or other materials left on the ground are washed into storm sewers, and could end up in our streams and lakes.
- **Don't use excess pesticides and fertilizer or over-water landscaping.**
In addition to wasting scarce water supplies, runoff carries contaminants and washes waste into storm sewers.
- **Don't wash cars in driveways or in the street.**
Commercial car washes are required to remove the detergents, oils and grease that would otherwise flow into storm sewers.

Get More Information!

For more information about our local water resources, and to view a short video about LESJWA's efforts to-date visit www.MyWatersheds.com.

To schedule a presentation to your city council, board of directors or community organization, visit www.MyWatersheds.com or call **951-354-4221**.

Lake Elsinore & San Jacinto Watersheds Authority



LAKE ELSINORE & SAN JACINTO WATERSHEDS AUTHORITY

A Decade of Achievement, A Future of Action



Lake Elsinore & San Jacinto Watersheds Authority



ABOUT LESJWA



Formed in 2000, the Lake Elsinore and San Jacinto Watersheds Authority (LESJWA) was entrusted with \$15 million in state and local funding to improve water quality and wildlife habitats in Lake Elsinore, Canyon Lake and the surrounding San Jacinto watershed.

Thanks to this critical funding, a successful clean-up plan has been enacted over the last decade to improve the water quality in the over 720-square mile San Jacinto watershed with an emphasis on Canyon Lake and Lake Elsinore, two of the region's major recreational destinations.



What Is A Watershed?

A watershed is an area of land that drains into a lake or river. All land is part of a watershed. As rainwater and melting snow run downhill they carry sediment and other materials into local streams, lakes and groundwater.

LAKE ELSINORE & CANYON LAKE,

A History...

1920s-1990s: Fluctuating lake levels, including both dry and flood periods, and periodic fish kills in Lake Elsinore.



1927: Canyon Lake is formed after the Railroad Canyon dam is built.



1953: EVMWD and Temescal Water Company agree to store 3,000 acre-feet of water in Canyon Lake for domestic use. Today, Canyon Lake still serves as a drinking water reservoir.

2000: LESJWA is formed to improve water quality and wildlife habitats in Lake Elsinore, Canyon Lake and the surrounding San Jacinto watershed.



Clean Up Solutions

Scientific research identified the best methods for improving the water quality in Lake Elsinore and Canyon Lake, all of which are the basis for LESJWA's projects:

- Aeration
- In-lake Treatments
- Oxygenation
- Increased Lake Levels
- Fish Harvesting
- Silt/Sediment Removal



LESJWA IMPROVEMENTS TO-DATE

2000 – 2011: Improvement Projects Take Place

Lake Elsinore Carp Removal

Removed more than 1 million pounds of carp from Lake Elsinore. Carp stir up nutrients on the lake bottom, which can cause harmful algae blooms.



Island Well Pump Station Improvements

Island wells produce one million gallons of water a day to help stabilize Lake Elsinore's water level.



Striped Bass Stocking

Added hybrid striped bass in Lake Elsinore to help control overpopulation of fish that disrupt lake water quality.



Lake Elsinore Destratification & Mixing System

Mixes lake water to increase oxygen levels, improve water quality and reduce harmful algae growth.



Canyon Lake Dredging Project

Removed 20,000 cubic yards of excess sediment from Canyon Lake and improved water quality for recreational use.



Recycled Water Nutrient Removal & Conveyance Pipeline

Removes excess nutrients from recycled water and brings the water to Lake Elsinore, improving water quality and helping to stabilize the lake level.



Lake Habitat Improvements

In addition to new shallow water habitat in the Lake Elsinore Back Basin wetlands area, future efforts will help establish diverse aquatic plant communities at both lakes to increase biodiversity and improve water quality.

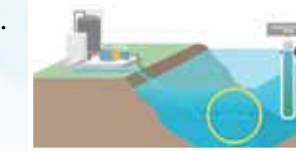


PLANNED FUTURE EFFORTS

Moving Forward: Local Projects & Regional Partnerships

Canyon Lake Treatment Processes

In order to reduce excessive nutrients that have plagued Canyon Lake for decades, a variety of approaches are being considered for in-lake treatment including a system that would pump additional oxygen into the lake along with the application of chemical algae-control treatments.



These efforts would improve water quality in Canyon Lake while also limiting nutrients that would otherwise flow from Canyon Lake into Lake Elsinore.

Regional Collaboration

Reducing harmful nutrients in Lake Elsinore and Canyon Lake is the responsibility of every citizen of the San Jacinto Watershed, which stretches from Lake Elsinore north all the way to the San Jacinto Mountains. By working together, our region has the opportunity to improve water quality in the San Jacinto Watershed more than ever before.



What's Next...

Excessive nutrients entering Canyon Lake and Lake Elsinore hurt water quality and threaten marine life in Lake Elsinore and Canyon Lake. These nutrients are naturally occurring and therefore, not easily controlled. Currently, LESJWA's main priority is working with local stakeholders to reduce excessive nutrients in the lakes and ensure compliance with local and federal guidelines.

In order to protect water quality, the Environmental Protection Agency (EPA) and the Santa Ana Regional Water Quality Control Board have established limits on nutrient levels called Total Maximum Daily Loads (TMDLs). These limits are established through extensive monitoring, modeling and studies with local stakeholders and are intended to help achieve lake water quality targets by future deadlines.

TAKING RESPONSIBILITY for LOCAL WATER QUALITY

The Lake Elsinore & Canyon Lake TMDL Task Force

LESJWA now serves as the administrator of a task force of more than 20 agencies and organizations who have been identified by the Regional Water Quality Control Board as watershed nutrient contributors to both lakes.



A Promising Future

As indicated by the TMDLs and other stormwater control requirements issued by the Regional Water Quality Control Board, agencies and organizations in the TMDL task force are responsible for contributing to regional efforts that protect water quality in Lake Elsinore and Canyon Lake.

These efforts will include both regional compliance strategies as well as the construction and operation of new in-lake projects. By working together to fund and implement these projects, the TMDL Task Force can help assure that the region's water quality targets are met by 2015 (interim) and 2020 (final).