



Summer Edition

REFLECTIONS

Upon a Delicate Treasure!

July 2006

Safeguarding the Kings River for future generations.

Water Quality and the Kings River

By David Cehrs

The Kings River is a major source of high quality, unpolluted, fresh water to the San Joaquin Valley. It is quite obvious to most of us but this is one feature of the river that is overlooked when trying to justify the preservation of rivers.

The San Joaquin Valley uses immense amounts of water annually. The vast majority of it is used by irrigated agriculture but

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an ever increasing demand is coming from the expanding urban and suburban populations. The source of the consumed and utilized water is either surface water (rivers and canals) or groundwater. Since World War II we as an economic society in the valley have been using more water than nature gives us on a long term basis, which is unsustainable. This is displayed by two facts: in most years the rivers of the valley never debouch to their natural dis-

charges (for the Kings River this is Tulare Lake) and our groundwater table is declining.

But we are losing water another way: through pollution. Polluted water may range from contaminated and toxic, and thus be non-potable, to slightly contaminated, non-toxic and seem po-



table in the short term. The pollution may arise from anthropogenic pollution such as agricultural chemicals (pesticides, herbicides) leaching into the groundwater or from urban/industrial uses such as leaking gas station tanks and pharmaceuticals flushed down the drains and toilets of our households. This polluted water decreases our supply of fresh water in the valley as

(Continued on page 2)

A Costly Lesson of the San Joaquin

By Kent Kinney

A plan to restore the San Joaquin River will cost between \$600 million and \$1.2 billion. That money will pay for levees, streambed improvements and work along the state's second longest river. This cost will be paid by State bond money, local farmers and the federal government. Substantial water releases will be made throughout the year to sustain the fishery. A resolution to the long-standing, heated argument between farming and environmentalist interests now is being directed by a U.S. District Judge in Sacramento.

For the last century and a half the San Joaquin River has

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been a primary natural resource that greatly enhanced the human development of Central California. Its influence spans a full third of the state. It provides economic value for agriculture, industry, and urban enterprises. From its 1800's history as a shipping channel to irrigation, hydroelectric power, gravel mining, recreation and environmental health this river has yielded many benefits. Unfortunately, there is not enough

to satisfy the ever-increasing demand. And so, there have been battles over the legal rights of the different interests to use the resource.

As social awareness of environmental quality became a political issue in the 1960's the general public gradually recognized that the San Joaquin River had been greatly altered to serve a few specific economic interests at the expense of the natural environment. Those long-established entities had secured ownership, authority, and strong political support for their activities. The tradition of river alteration for development of our industrialized nation was generally accepted as 'the proper thing to do'. As, the new environmental awareness continued to grow over the last forty years, so did the strength of the environmentalist lobbies. This created a national political debate about the value of natural resources in general, and especially about rivers. Lawsuits were brought against public and private water users. And, because of this, the courts were called to scrutinize the complex multitude of laws that governed the use of the rivers and the watersheds that feed them.

At the same time, many new laws and agencies were created to manage the habitat and water quality of our nation's water-

(Continued on page 2)

Water Quality and the Kings River (Continued from page 1)
effectively as a drought would but more insidiously. In either case the water is no longer fresh, healthy water to animals or plants. Polluted water requires energy of some form to remove the pollutants or break them down to non-harmful by-products; this can be expensive and slow. Pollutants can be physically removed by filtration and air stripping, they can be chemically altered by reaction with oxidants, or they can be broken down by bacteria.

Another major source of pollution directly tied to water is soil salinity. Irrigated agriculture world wide and throughout history has problems with increasing soil salinities. This occurs as water is applied to the plants. This applied water has very small amounts of dissolved minerals in it; these minerals are acquired by the water as it moves across and through soils to streams and rivers. If the applied water is much greater than the evapotranspiration (ET) requirements of the plants then the excess water percolates down to the water table. If the applied water is very near the ET requirements of the plant then the unused water tends to remain in the upper soil column where it eventually evaporates leaving the mineral residue in the soil. Over time,

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through many seasons, this mineral content will build in the soil. Ultimately, the salt portion of this mineral buildup will exceed the growing tolerance of the plants and the soil will become ster-



Benjamin Kirk

ile and infertile. The only way to prevent this salt buildup is to continuously or periodically "flush" the salts out of the soil with excess, low salt, fresh water and move the minerals down to the water table. There are some very famous locals that have lost their fertility due to soil salinity: the fertile crescent (no longer) between the Tigris and Euphrates Rivers (The Garden of Eden), and currently the Nile Delta is becoming saline because of the loss of Nile floods below the Aswan High Dam.

So how does the Kings River factor into this discussion? The Kings is a major source of large volumes of clean, fresh wa-

(Continued on page 3)

A Costly Lesson (Continued from page 1)
ways. Those, such as the National Water Quality Act of 1987, are having a dramatic impact on industry, agriculture, and all other individuals that contribute to the contamination of fresh water. In California the Water Quality Control Board was created to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The California Department of Water Resources operates and maintains the State Water Project, provides dam safety and flood control services, assists local water districts in water management and conservation activities, promotes recreational opportunities, and plans for future statewide water needs. Even agencies that were



Benjamin Kirk

established prior to the environmental movement, including U.S. Army Corps of Engineers; U.S. Bureau of Reclamation and California Department of Fish and Wildlife, have adjusted the priority of enforcement to more vigorously conserve natural resources.

The current proposal to restore the San Joaquin River is a reflection of the national trend toward environmental protection. The controversy of water rights for capitalistic commercial uses

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will be ongoing. And, it appears that those uses will increasingly be challenged through legal action in the future. With this knowledge, it is obvious that the cost for restoration of degraded rivers and riparian areas need to be factored into our future economic plans. Not only will the price be formidable for farmers and gravel mine corporations, but it will also affect residential developers of riparian areas. Restoration will be a significant burden on our county, state and federal

government budgets long into the future. The reality is that, by degrading rivers, we create very costly financial problems for our businesses and our personal financial well being.

The San Joaquin River is one that has been heavily degraded. It has been dammed, diverted, dried up, mined, filled in, and contaminated. This was done, overwhelmingly, through legal activities that were supported by the social norms of the time. If the generations of people could have known what costs were to come to us would they have chosen not to pursue the projects? Would they have passed more restrictive laws to control water diversion,

(Continued on page 3)

Water Quality and the Kings River (Continued from page 2)

ter to the valley. This river water needs to be protected from man derived pollution including both municipal and agricultural derived pollutants. As such we need to prevent direct discharges into the river from municipal surface drains and agricultural tail water plus all the indirect discharges to the river from subsurface flows, ranging from septic tanks and sewer treatment facilities to agricultural percolation. Because of this it would behoove those residing within the Kings River basin to protect this valuable, fresh, water resource. One very good way to do this is to acquire riparian habitat land, agricultural land, and undeveloped land, through either purchases or easements, along the length of the river. If the banks were left natural or unused for some distance from the river bank this would allow attenuation of any pollutants before they entered the river and the preservation of the high water quality of the river for all users. So, there are both environmental and socio-economic arguments for the preservation of the riparian corridor along the Kings River.

Bob Frisch Memorial Ride

By Connie Krahn



El Río Reyes Conservation Trust will host its eighth annual *Bob Frisch Memorial Ride* on Saturday, September 9, 2006. This fundraising event was developed by Bob and it is fitting the ride be named for him. The ride will originate at the Reedley College Horse Unit. Registration will start at 9:00 A.M. at 10:00 A.M. the riders will begin a scenic four-mile guided tour on the Reedley College's Kings River Trail. A tri-tip barbecue lunch with all the trimmings will be served when the riders return.

After lunch the Trust will be offering a *Beginner's Packing Workshop* for those who attend the ride. The workshop will provide training in the proper saddling and loading of pack animals as well as instruction in tying the box hitch and diamond hitch. The Women's Powder Puff Team (winners of the 2006 Bishop Mule Days women's packing contest) will be on hand to provide instruction. Pack saddles will be available for those who wish to pack their own horse.

We invite you to take time out of your busy schedule and come join the ride, have a great lunch, and attend the *Beginner's Packing Workshop*.

Pre-registration by September 8th — \$30.00
Registration on the day of the ride — \$35.00

Please make checks payable to: el Río Reyes Trust
Mail to: P.O. Box 1339/Reedley, CA 93654

A Costly Lesson (Continued from page 2)

mining and other development along the river? We know that there were always persuasive arguments of public and economic good supporting the river alteration projects. It should not be difficult to understand how people supported and promoted activities which we must now bear the burden of restoration for.

Admittedly, even with restoration efforts, the San Joaquin

Voting citizens can still influence local government to control development within their cities and counties. We should not act as if we are powerless in that effort.

River may never be returned to pristine condition. There will have to be a limit to the amount of water diverted, gravel mined, habitat altered, and contaminants that enter the river. California's growth pattern does not lend favorably to the accomplishment of that goal. But, voting citizens can still influence local government to control development within their cities and counties. We should not act as if we are powerless in that effort.

We should use this opportunity to consider how the Kings River compares to the San Joaquin. To this point in time the Kings has been degraded far less than the San Joaquin River. Commercial and residential development has been less intense along its shores. And, until recently, the Kings River has not been subject to large scale gravel mining. Restoration of the most biologically problematic areas could be accomplished at far less cost than those on the San Joaquin. And the Kings River is still recognized as one of the most pristine of its type in Central California.

As we inherit the costly problems of the San Joaquin River we should carefully consider what the future of the Kings River should be. Not only will it make sense economically, but it also is the right moral choice for us to work together now to conserve the Kings River.

Water Safety on the Kings River

By Ted Tartaglia

Water safety should always be a priority but during periods of high water flow safety becomes even more important.

The river beckons during the summer when temperatures are high as a way to cool down and escape from the heat. But, we should be ever mindful that while the river beckons, danger is always present—especially when the river is running high. The water is cold and the current is swift, a dangerous situation. The cold water can sap the strength of even the most powerful swimmers and the current can sweep you down the river and into dangerous areas quicker than you can imagine.

According to the U.S. Army Corps of Engineers drowning is the **second** leading cause of accidental deaths for persons 15–44 years of age. The Corps also says the four major causes of drowning are: **not** wearing a life jacket, abuse of alcohol, lack of sufficient swimming skills, and hypothermia.

So, when the river beckons, make water safety your **#1** priority so that tragedy doesn't spoil your fun.

To meet Bobber, the Water Safety Dog, go to the following web page. <http://bobber.info/main.html>