

# THE CASE FOR REINVESTING IN THE LOWER PINE CREEK WATERSHED



THE SITUATION: A PROJECT, BY DEFINITION, HAS A BEGINNING AND AN END. WHEN A PROJECT REACHES THE END OF ITS EXPECTED LIFE, THEN WHAT? WE ARE LEARNING THAT QUALITY HAS A SHELF-LIFE.

The Lower Pine Creek Detention Basin in Contra Costa County, California is a PL83-566 project that was planned and constructed to provide watershed protection and reduce flood damages for a 100-year period. Although not originally planned for multiple purposes, additional recreation and wildlife components were added due to overwhelming public demand.

So what's the problem? Even though the basin is considered a success, there are a couple of issues associated with this project. One is the increased operation and maintenance (O&M) associated with heavy recreational use of the open space areas by trail bikers, equestrians, joggers and students. The local sponsors must pay to repair damages from the trails that develop. Another issue is the length of the O&M agreement. Although the detention basin has not yet reached even a fifth of its 100-year expected life, the vegetative portion of the project was designed with only a 10-year life. The question becomes, who pays for vegetative O&M after the agreements end? A continual investment in planning is needed to better understand the trade-offs that occur when natural resource management decisions are made.



*The Lower Pine Creek Watershed is one of 35 watershed projects in California. These projects have reduced flooding of homes, businesses, roads, and agricultural lands and have provided dependable water supplies for agricultural and industrial use.*



## PROJECT DESCRIPTION

- Size: Covers 12,420 acres in Contra Costa County, California
- Number of structures: 1 detention basin built (including inlet, outlet, and emergency spillway structures)
- Project start: Construction began in 1981
- Project end: Construction completed in 1983
- Primary Purpose: Watershed protection and flood damage reduction
- Population served: 60,000 people in the local benefited area



## PARTNERS:

- Contra Costa County Resource Conservation District
- Contra Costa County Flood Control and Water Conservation District
- United States Department of Agriculture - Natural Resources Conservation Service

## The Bottom Line:








WE HAVE LEARNED THAT QUALITY HAS A SHELF-LIFE, AND THAT OUR CHOICES REFLECT HOW WE VALUE THE TRADE-OFFS. NOW, HOW DO WE BETTER PLAN OUR FUTURE?



## LOWER PINE CREEK - AN INVESTMENT WORTH MAINTAINING

Through Public Law 83-566, Congress invested \$4,000,000 (1983 dollars) in construction on the Lower Pine Creek Detention Basin. The local sponsors and landowners have matched that investment with purchase of land rights, state dam filing fees, administration of the project, and operation and maintenance of the structure and landscaping for over 15 years. Local people are continuing to use local funds to operate and maintain the structure and its landscaping.

The monetary benefits of the project have already exceeded the costs, and in addition, have given benefits which impact the community significantly:

-  creation of wetland areas and the associated wildlife habitat
-  recreation areas for equestrians, joggers, bikers, hikers, and students
-  community open space in an area that is experiencing heavy urban development pressures
-  green space
-  reduced flood threats and the associated benefits to human welfare
-  increases in housing and land values in the area
-  new aesthetic standards for structures and development in the area; and overall community well-being.

The Lower Pine Creek watershed project is reducing flooding damages by about \$3,100,000 annually (1997 dollars), as well as reducing the threat to loss of life and the social costs associated with this threat. In addition, urban and residential development would probably have occurred within the basin area, removing a valuable open space and recreational area for local residents. With this development, the wetland and wildlife benefits of the project would also be eliminated.

The project received national recognition for design excellence as a finalist in the 1985 Presidential Design Awards Program, supervised by the National Endowment for the Arts, and received a Federal Design Achievement Award.

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*“Our award winners have also shown that good design need not be a luxury added onto a project at extra cost. In fact, good design can help us save money, and you know how much that warms my heart.”*

**President Ronald Reagan,  
1985 Presidential Design Awards Program**

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*“The operation and maintenance agreement established a 10-year life for the vegetative part of the Lower Pine Creek project. This made sense at the time. Today, however, we have discovered that we need a long term commitment by all parties to taking care of these projects — even after the agreements are over. Otherwise, the systems stop functioning.”*

**-Thomas Brumleve, President  
Contra Costa Resource Conservation District**

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## NEW OPPORTUNITIES

The positive local response to this project is encouraging the use of more aesthetically palatable designs in future projects that have traditionally used concrete structures to solve resource problems, such as flooding. As a result, other PL83-566 projects in California are being re-examined to incorporate landscape design features into the selected alternatives and to integrate multiple purposes, such as recreation and open space areas.



## STATE PERSPECTIVE

Because of the degree of seismic activity in California, and the associated dam safety issues, the small watershed program has been used in California to install smaller detention basins and channels more than large, water-holding reservoirs. As a result, there are about 30 dam structures built in California under the small watershed program. Most of these were built with the primary purpose of flood control and are being operated and maintained by local flood control districts, most of whom have adequate resources for this responsibility.

Californians today are still interested in reducing flood damages, but they are taking a closer look at the kinds of solutions they are willing to live with. NRCS is working with other agencies to provide local groups both facilitation and technical assistance in understanding all the trade-offs associated with their decisions. It is our hope that, through better planning and collaboration between stakeholders, we develop more holistic alternatives and solutions that Californians, and the rest of the world, can live with for many generations. It is through programs such as the PL83-566 small watershed program, that both planning and implementation (and now, rehabilitation) assistance can be provided to help local people solve their natural resource problems.