

REDESIGN OF A FLOOD CONTROL PROJECT BY CITIZEN INITIATIVE¹

Bev Ortiz²

Abstract: This paper describes the process used to redesign a flood control project on three creeks in central Contra Costa County, California, about 15 miles east of San Francisco. Involved was door-to-door organizing to form a neighborhood group which in turn used a county-appointed committee, a city-appointed committee, a State grant and a private consultant working with the county staff to help achieve an acceptable project. It was redesigned to preserve the riparian and environmental values of the urban creeks while providing 25-year flood protection. Detention basins and bypass pipes are key components of the project. On-going volunteer projects are planned involving channel clearing, revegetation, and bank stabilization.

"When all other factors are omitted from the problem, flood control, or the regulation of the flow of water, is a hydraulic-engineering design problem and the solutions reflect this and little else. The engineers are blamed for the rigid and austere final result. But no one mentions the simple fact that we, through our legislators, have never injected factors such as the protection and enhancement of environmental quality into their engineering equations." (Osmundson 1970)

On February 9, 1984, the Contra Costa County, California, Planning Department issued "Notice of Preparation of an Environmental Impact Report for Drainage Area 46 Improvements (PW 84-6) Including Murderers' Creek and the East Branch of East Fork of Grayson Creek." As described in the Notice of Preparation, the proposed "improvements" consisted of the construction of open, concrete-lined channels, pipes, culverts and box culverts for creeks in Drainage Area 46, including portions of Murderers' Creek, the East Branch of the East Fork of Grayson Creek, Matson Creek, and several "lines" or smaller tributaries. The project was developed to "...decrease future flooding in the area based on ultimate development" of the watershed. The design was predicated on a 3-hour duration, 25-year storm. (Contra Costa County Community Development Department 1985).

The proposal modified an earlier, less extensive plan to provide 100-year flood protection in Pleasant Hill, California, by creating a 7-acre detention basin and lining 4,000 feet of the East Branch of the East Fork of Grayson Creek with cement (Environmental Science

Associates, Inc. 1977). The latter had been rejected by the 1977 Pleasant Hill City Council "...because it would remove considerable land from tax increment." (See 1985)

The watershed of the affected creeks fell within the jurisdiction of several governmental bodies: three cities (Pleasant Hill, Walnut Creek, and Lafayette), one school district, one water company, two State Assembly districts, two Contra Costa County supervisorial districts, and the Contra Costa County Flood Control District which developed the plan. The creeks were also adjacent to about 300 households, many of which owned portions of the creeks.

A broad-based citizen effort to seek ecologically viable alternatives to creek channelization began the following August when one of the adjacent homeowners, the author, contacted the Urban Creeks Task Force of the Sierra Club's San Francisco Bay Chapter to receive a subscription to its Creekwalker's Journal. Subsequently, the Task Force sent notification of the flood control proposal. Over the next 3-1/2 years, local residents organized a successful campaign to develop alternatives to the plan which would leave the creeks intact while still solving flooding and erosion problems.

Citizens to Save Our Local Creeks Formed

The first step in opposing the flood control plan was to seek information about the political process and non-structural alternatives to channelization from knowledgeable groups and individuals, including the Urban Creeks Task Force and the Berkeley-based Urban Creeks Council. During this fact-finding process it was learned that a Notice of Preparation is required for such projects, and this document was requested and eventually received from the Flood Control District.

A petition was developed to "...urge the County to consider ecologically viable alternatives to this project which would leave these creeks and their surrounding environment intact" (Original petitions on file, Friends of Creeks in Urban Settings, Walnut Creek, California). Petition signers had an opportunity to become ad hoc members of the newly designated organization, Citizens to Save Our Local Creeks.

¹ Presented at the California Riparian Systems Conference; September 22-24, 1988; Davis, California.

² Founder and President; Friends of Creeks in Urban Settings; Walnut Creek, California.

The next step was to publicize the project and its alternatives. An informational article and a mini-version of the petition was published in the November edition of a Sierra Club newspaper (Ortiz, 1984). The Club's San Francisco Bay Chapter also provided a small grant which covered costs of producing a leaflet about the project. Titled "Local Creeks Threatened," (Brochure on file, Friends of Creeks in Urban Settings, Walnut Creek, California). The leaflet described the proposal, provided background on its impacts, outlined alternative methods for solving flooding problems and provided addresses of public officials to whom letters of concern could be addressed.

Community Outreach

The most important phase in the creek preservation campaign was a door-to-door canvassing effort targeting people directly impacted by the project, i.e. people living adjacent to the affected creeks. Canvassers carried the brochure and petition with them, along with forms on which they recorded the following information: positive and negative comments about the creek, the name, address and phone number of respondents, and length of residency. The addresses of residences with absent occupants were noted so they could be revisited at a later date.

Resident contacts were invaluable for several reasons. First, they provided critical information about locations experiencing long-term flooding and erosion problems, making it possible to track consistently troublesome areas. A map of flood and erosion locales showed that the vast majority of problem areas were downstream of existing, inadequate culverts. Obstructions created by residents who installed well-meaning, but ineffective erosion-control devices were also located.

The contacts provided a means to educate individuals about non-structural alternatives to channelization which could provide flooding and erosion control while preserving the creeks. This effort culminated in a presentation by a California Department of Water Resources spokesperson about the alternatives. Residents with creek problems were specifically targeted for this meeting, which was attended by nearly 100 people.

Canvassing also brought people together over an area of mutual concern. Often, as walkers progressed along their route, residents were seen meeting in front of their houses to discuss the project. Lists were maintained of people who were given the leaflet, who were sympathetic to the creek, who were asked to sign the petition, and who were encouraged to write letters. Such individuals were also listed for notification of future public hearings.

Unsolicited donations resulted from the canvassing, as did a corps of people who wanted to become actively involved, including present and future public officials who owned creekside lots. Several people volunteered to circulate petitions, type and word process, create graphics and provide free copy work.

About 85 percent of the residents along the creek expressed support for the creeks. Many recalled pleasant childhood memories of the creeks; they saw the creeks as part of the area's "rural" heritage. Others expressed environmental and aesthetic concern. Some felt the project would be growth-inducing and feared their taxes would be raised to solve the runoff problems created by future development. Some feared loss of private property values; others distrusted government and felt the project was unnecessary.

Those who favored channelization expressed erosion and flooding concerns. One person felt the creek was unsafe for children; another wanted to be rid of the raccoons; and a third feared prowlers along the creek.

Concurrent with the canvassing, a directory of community organizations was obtained from the local Chamber of Commerce. Environmental, hiking, and historical organizations were targeted because of their potential concerns about the project.

Speaking engagements were arranged, information was exchanged, petitions were circulated, and endorsements were sought. Ultimately, nine organizations endorsed citizen efforts to preserve the creeks, ranging from a growth control organization and a democratic club to various ecology groups.

Invaluable contacts were made at organizational meetings. Some contacts spoke with public officials in their acquaintance while others published articles about the project in their newsletters. One Mount Diablo Audubon Association member, a high school science instructor, shared 21 years of ecological data which students under his direction had collected along a section of one of the threatened creeks, known locally as "The Ditch." (Lee, pers. comm. 1984; Lee 1986)

A key component in the preservation effort was public education about alternatives to channelization. This effort culminated in a presentation by A.L. Riley of the California Department of Water Resources about the alternatives. Residents with creek problems were specifically targeted for this meeting, which was attended by nearly 100 people.

Friends of Creeks in Urban Settings

As knowledge about, and concern and support for the creeks increased, residents decided to formalize their efforts by drafting organizational bylaws and establishing a dues structure.

CSOLC was renamed Friends of Creeks in Urban Settings (FOCUS), which elected its first seven-person Board of Directors in June of 1985. As outlined in the bylaws, "The purpose of FOCUS is to preserve and enhance urban creeks located in Contra Costa County, California. FOCUS recognizes the need to assure adequate drainage of rainwater from adjacent property, to prevent flooding of the creeks, and to prevent excessive erosion due to water volume and velocity in times of peak flow" (Bylaws in possession of author.)

Continuing FOCUS' tradition of education, the first membership meeting included a showing of "Our Little Creek Next Door," a slide show developed by the late Roland Hauck, an early-day Sonoma County creek activist, which is housed at the Sierra Club's San Francisco Bay Chapter office. Also, FOCUS developed an educational exhibit entitled "Creeks: A Problem or An Asset?" for which was awarded a first-place prize at the 1985 Contra Costa County Fair.

Creekscape

The same month that FOCUS elected its Board of Directors a University of California at Berkeley Master's Degree candidate in Landscape Architecture chose the group as the case study for his thesis, "A Citizen's Guide to Urban 'Stream Restoration.'" A "creekscape" was envisioned along a portion of the East Branch of the East Fork of Grayson Creek, the primary purpose of which "...is to combine a non-structural flood control solution, restored riparian zone and a recreational setting along an existing semi-public right-of-way."

Guiding principles of the creekscape proposal were listed as follows: "1. Before urban creeks can be recovered physically, they need to be psychologically reclaimed as integral parts of the community. 2. Streams can be seen as a theatre of imagination and play for children and a recreational context for adults." (Steere 1985)

Two public workshops were held to discuss ideas for the creekscape. Residents saw pathways, picnic sites, play equipment and creek revegetation as the most important components. While easement restrictions

have made an East Branch of the East Fork of Grayson Creekscape difficult to implement, it remains a positive model for future projects.

Draft Environmental Impact Report

The early work of citizens to raise concerns about the project generated numerous phone calls and letters to public officials and government agencies, newspaper publicity, and a study session convened by the Pleasant Hill Planning Commission, all prior to issuance of a Draft Environmental Impact Report (DEIR). In July 1985, when the long-awaited *Draft Environmental Impact Report for the Grayson-Murderers' Creeks Watershed Area and Drainage Improvement Plan Drainage Area 46* (Contra Costa County Community Development Department, 1985) was issued, it contained a section on "Issues Raised by the Public" which highlighted FOCUS' and other's concerns.

By this time, FOCUS had already presented its petitions with over 2,000 signatures to the City Councils in Walnut Creek and Pleasant Hill. The organization had also been able to secure an agreement from the Contra Costa County Flood Control District to act as a clearinghouse for distribution of the DEIR to every resident adjacent to the affected creeks in addition to the more usual procedure of placing copies for citizen use in libraries and city offices.

Along with the DEIR, FOCUS members delivered notice of a DEIR workshop sponsored by County Supervisor Sunne Wright McPeak. The workshop was attended by a lively crowd exceeding 200 individuals. Supervisor McPeak chaired the meeting, which opened with presentations by the Flood Control District and FOCUS, followed by innumerable public comments. Then, at the end of the meeting, McPeak announced an intention to form a task force to look at alternatives.

Drainage Area 46 and Zone 46 Task Forces

The task force convened in October with 23 members. In addition to McPeak, her Administrative Assistant, and a Flood Control representative, the Drainage Area 46 Task Force had five community representatives without flooding problems, three community representatives with flooding problems, and three city, six Flood Control Zone 3B, and six FOCUS representatives.

Early on, FOCUS provided the task force with a memo outlining drainage area concerns and problems

(based on its neighborhood survey) and suggested alternatives to channelization. Erosion and flooding problems were listed by street address, and described in the memo (Friends of Creeks in Urban Settings 1986). This data on problem areas was previously unknown to planning agencies, who were relying on hydrological projections.

The suggested alternatives included setbacks and on-site water control for all new development, including the use of flow metering devices, local detention basins, permeable pavement, and "softscape" surfaces; development fees for culvert improvements; bypass pipes and regional detention basins; creek revegetation; and riprap, gabions and check dams for erosion control. Creek widening in selected areas was indicated as a last resort. Finally, FOCUS recommended application to the California Department of Water Resources Urban Stream Restoration Program for a grant to investigate alternatives.

As the city most affected by the project, Pleasant Hill also established a task force on the creeks. This Zone 46 Task Force was comprised of Pleasant Hill's Director of Planning and Director of Public Works, three Zone 46 resident appointees, two FOCUS board members, one representative each from Pleasant Hill's Recreation and Park District, Redevelopment Citizens Advisory Committee, and Planning Commission, and one representative of the Mount Diablo Unified School District which owns redevelopment property along the creeks.

Urban Stream Restoration Grant

FOCUS applied for a Water Resources grant, November 1986. The grant application asked for \$19,250 to hire a hydrologist to prepare a plan which would preserve the creeks while solving flooding and erosion problems; fund a citizen cleanup and revegetation project; and prepare a brochure and slide show which would educate the public about creek preservation techniques and alternatives to channelization.

Widespread public support provided the underpinning for a successful application to this first-year program, from which FOCUS received the single largest award. The application received the endorsement of 10 community organizations: 7 environmental organizations, 1 historical society, and 2 growth control groups. It also received the endorsement of Democratic Assemblymember Tom Bates who sponsored the legislation making the grant program possible, Republican Assemblymember Bill Baker, the Contra Costa County Board of Supervisors, the City of Walnut Creek, and the Diablo

Valley College Department of Environmental Horticulture.

FOCUS sought sponsorship for its grant from Contra Costa County, but pulled its request when the County Board of Supervisors referred the matter to the Flood Control District. FOCUS then sought and received sponsorship from the City of Pleasant Hill.

Task Force Recommendations

In January of 1986 Supervisor McPeak presented the Drainage Area 46 Task Force recommendations to the County Board of Supervisors. The recommendations included a section of "proposed policies" that were nearly identical to those outlined in the FOCUS memo. Another section of "recommended alternatives" called for minimizing flood inflows by construction of detention facilities in the upstream watershed, keeping the creeks "in their existing state with the exception of minor deepening and widening in small, local areas," and "diverting the excess flows through bypass lines to a detention basin." (McPeak 1986)

In response, the Board of Supervisors unanimously adopted McPeak's motion to reject the proposed channelization project and accept the Drainage Area 46 Task Force Report. Later the same year, Pleasant Hill's Zone 46 Task Force recommended that Pleasant Hill adopt an ordinance allowing the collection of development fees to enable improvements of existing culverts.

Focus Grant

In April of 1986, FOCUS was awarded its State grant. After reviewing requests for proposals from hydrological consultants, FOCUS retained the firm of Philip Williams and Associates to seek alternatives to channelization in accordance with the grant. The firm had previously assisted interested individuals in drafting alternatives to a similar channelization proposal for Contra Costa County's Wildcat Creek.

By the time the consultant was retained, the Flood Control District had already begun to redesign the channelization project as per Drainage Area 46 Task Force recommendations, setting the stage for a cooperative working relationship between the consultant and District. While this process was taking place, FOCUS organized two successful creek cleanups and started raising native vegetation from locally harvested seedstock for its revegetation effort.

The first cleanup occurred on April 4, 1987, with the cooperation of Eco Info, Inc., a Walnut Creek-based ecology organization, the City of Pleasant Hill, the East

Bay Municipal Utility District, and the Mount Diablo Unified School District. That morning 30 citizen volunteers and 1 television crew watched as Assemblymember Bates planted the symbolic first tree. By day's end, the tired, but proud volunteers had removed all manner of "garbage" from the creeks, ranging from two schoolyard baseball backstops and two dead cats, to the requisite shopping cart. They then retired in deference to food and music in the yard of an historic, creekside house. The second cleanup was timed to occur before peak winter rains. The latter was accomplished with the help of Supervisor McPeak's office and the East Bay Conservation Corps, whose field coordinator had attended the earlier cleanup.

A New Plan

By the latter half of 1987, the revised plan for the creeks was completed. The plan called for the establishment of three detention basins and a series of bypass pipes to accommodate flood waters. Since the original lines were now eliminated, the work is estimated to cost anywhere from 2 to 5 million dollars less than the original 18 million dollar projection (Kent 1987). While the plan has some drawbacks—one house will have to be removed and Brookwood Park in Pleasant Hill will be impacted by placement of a detention basin there, three miles of creek habitat will be preserved for future generations to enjoy.

A Negative Declaration (Contra Costa County Community Development Department 1987) issued for the plan, indicating no adverse environmental impacts, was soon adopted by the two task forces and three cities within the drainage area. On January 12, 1988, it was unanimously adopted by the Board of Supervisors. At the time of its adoption, the Board authorized establishment of a third task force to study ways to mitigate impacts of the Brookwood detention basin. The task force will also discuss the ultimate size of the detention basin at the site owned by the Mount Diablo School District, the same site that had been proposed for a detention basin in 1977 and subsequently rejected.

The County is presently seeking funding through the United States Army Corp of Engineers to implement the plan. For its part, FOCUS' work is far from complete. The group's educational efforts will continue with the help of a brochure and slide show produced through State grant funds. Creek cleanup and revegetation efforts are also underway. Plans have begun to apply for grants for a comprehensive restoration effort on the creeks, a component that is lacking in the new plan.

FOCUS continues to provide advice, information and assistance to requesting groups and individuals, as it

had during the previous three years. It also continues to work for preservation of threatened creeks throughout Contra Costa County.

Finally, FOCUS remains active on a Contra Costa County Board of Supervisor's Internal Operations Committee-appointed task force. Established in February of 1986, this task force has made recommendations regarding creek and drainage issues for incorporation in the County's revised General Plan. The latter is also working on a revised drainage ordinance for the county emphasizing creek preservation through setbacks.

Conclusions

The redesign of the Drainage Area 46 channelization project was successful because of several factors. Most important was the early organizing of community residents, liaison work with community groups, work on other creek preservation projects, and the positive stance taken to seek alternatives to channelization rather than merely oppose the project. Because every resident concern was validated, even residents with creek "problems" became advocates of alternatives. The political support obtained from politicians, the ability to retain a hydrological consultant through a State grant, and citizen efforts to clean and restore the creek all contributed to the ultimate redesign.

References

- Contra Costa County Community Development Department. 1985. Draft environmental impact report for the Grayson-Murderers' Creeks watershed area and drainage improvement plan drainage Area 46. Martinez, California.
- Contra Costa County Community Development Department. 1987 October 2. 10 leafs. Notice of preparation, Negative declaration for the drainage Area 46 formation. County file #CP 87-122. Contra Costa County, California.
- Contra Costa County Planning Department. 1984 February 9. 11 leafs. Notice of preparation, Environmental impact report for drainage Area 46 improvements (PW 84-6) including Murderers' Creek and the East Branch of East Fork of Grayson Creek. County file #PW 84-6. Contra Costa County, California.
- Environmental Science Associates, Inc. 1977. Draft environmental impact report flood control on the east branch of the east fork of Grayson Creek, Pleasant Hill, California. Martinez, California: Contra Costa County Flood Control and Water Conservation District; 77 p.
- Friends of Creeks in Urban Settings [Memorandum to Drainage Area 46 Task Force]. 1985 November 6. 5 leafs. Located at: Friends of Creeks in Urban Settings, Walnut Creek, California.

- Kent, Ulf. 1987. Proposed flood control plan Grayson and Murderers Creeks Pleasant Hill Area. Located at: Contra Costa County Flood Control District office, Martinez, California.
- Lee, Tom E. Science instructor, Ygnacio Valley High School, Concord. [Personal communication with Bev Ortiz regarding biological studies of the East Branch of the East Fork of Grayson Creek, Pleasant Hill. 1984].
- Lee, Tom E. [Memorandum to Dennis Barry on Draft Environmental Impact Report for the Grayson-Murderers' Creeks Watershed Area and Drainage Improvement Plan Drainage Area 46]. Located at: Friends of Creeks in Urban Settings, Walnut Creek, California.
- McPeak, Sunne Wright [Memorandum to attendees at July 29, 1986, Meeting and Other Interested Parties about Drainage Area 46 (Grayson-Murderers' Creeks)]. 1986 February 7. 8 leafs. Located at: Supervisor District Four office, Concord, California.
- Ortiz, Bev. 1984. Local creeks threatened. The Yodeler, a publication of the San Francisco Bay Chapter of the Sierra Club. 1984 November.
- Osmundson, Theodore. 1970, summer. How to control the flood controllers. Cry California, the Journal of California Tomorrow, 5(3): 30-38.
- See, Jim [Memorandum to Zone 46 Task Force]. 1987 May 27. 2 leafs. Located at: City of Pleasant Hill Public Works Department, Pleasant Hill, California.
- Steere, John. 1985. Creekscape: elements of a stream-centered recreation and restoration project. Unpublished Outline for a proposal supplied by author.