CHAPTER 9
DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the results of feasibility level investigations undertaken to identify solutions to the water and related land resource problems and needs within the Onion Creek and Williamson Creek Watersheds in and around Austin, Texas.

DISCUSSIONS

The National Economic Development (NED) Plan identified as a result of these investigations includes the acquisition and removal of 81 structures in the Timber Creek area of interest. Another 410 structures would be acquired and removed in the Onion Creek Forest/Yarrabee Bend area of interest. The NED Plan also recommends excavation of 8,500 feet of overbank on one side or the other of Williamson Creek to create a benched channel. The bench was selected to reduce adverse aquatic resource impacts by disturbing only one side of the creek, preserving the baseflow channel, and allowing selected trees to be planted within the benched area after construction. The recommended benches would adversely impact approximately 15 acres of riparian woodlands, requiring 23 acres of mitigation. The Recommended Plan includes all flood damage reduction measures of the NED Plan, with the exception of the Williamson Creek portion. Any recommendation for Williamson Creek will be deferred. This will allow for the Corps evolving policies concerning ecosystem restoration in highly urbanized areas to mature, and for the project team to possibly reformulate the plan to more closely adhere to policy.

Recreational features would be added to the lands acquired for flood damage reduction purposes. In the Timber Creek area, the NED Plan includes constructing 20 picnic shelters, 8 small group shelters, 1 large group shelter, 2 basketball courts, 5,300 feet of unpaved trails and 1,200 feet of paved 10 foot wide trails, one waterborne restroom, 12,000 square feet of parking and the infrastructure associated with these facilities. In the Onion Creek Forest/Yarrabee Bend area, the NED Plan includes constructing 32 picnic shelters, 32 small group shelters, 1 large group shelter, 4 basketball courts, 2 tennis courts, 19 volleyball courts, 7,860 feet of unpaved trails and 9,680 feet of paved 10 foot wide trails (including 1 footbridge), 7,400 feet of equestrian trails, one waterborne restroom, 20,000 square feet of parking and the infrastructure associated with these facilities. The Recommended Plan includes these facilities it their entirety.

The National Ecosystem Restoration (NER) Plan includes restoring approximately 16 acres of riparian woodlands in along Timber Creek, for a gain of 5.86 average annual habitat units (AAHU). The NER Plan also includes restoration of approximately 190 acres of riparian woodlands in the Onion Creek Forest/Yarrabee Bend area, for a gain of 56.76 AAHU. Finally, approximately 114 acres of riparian woodlands would be restored along Williamson Creek, for a gain of 43.76 AAHU. Overall, the NER would result in a total gain of 106.38 AAHU and 320 acres of restored riparian woodlands. The Recommended Plan includes all ecosystem restoration measures of the NER Plan, with the exception of those along Williamson Creek. This results in a total gain of 62.62 AAHU and 206 acres of restored riparian woodlands.

CONCLUSIONS

The following conclusions were reached based on the results of the investigations conducted for this study.

1) A significant need exists to provide flood damage reduction measures, ecosystem restoration features, and recreation amenities within the Onion and Williamson Creek Watersheds.

2) The Recommended Plan offers a multi-objective solutions consisting of buyouts, ecosystem restoration features, and recreation facilities compatible with a larger, regional recreation master plan. The Total Recommended Plan has an estimated first cost of approximately $82.7 million, with a Federal cost share of approximately $52.7 million (63.7%) and a non-Federal cost share of approximately $30.0 million (36.3%).

3) Travis County has agreed to serve as the local sponsor for the construction of the Timber Creek portion of the project. The total project first cost for this component is estimated at $10.7 million. The Federal and non-Federal cost apportionments for the Recommended Plan are estimated at $6.7 million (62.8%) and $4.0 million (37.2%), respectively. Approximately $104,000 of the recreation costs would not be cost shared, but would be 100% non-Federally funded due to the type of recreation features.

4) The city of Austin has agreed to serve as the local sponsor for the construction of the Onion Creek Forest/Yarrabee Bend portion of the project. The total project first cost of this portion is estimated at $72.0 million. The Federal and non-Federal cost apportionments for the Recommended Plan are estimated at $46.0 million (63.9%) and $26.0 million (36.1%), respectively. Approximately $420,000 of the recreation costs would not be cost shared, but would be 100% non-Federally funded due to the type of recreation features.

5) According to an Environmental Assessment, no significant environmental impacts would occur as a result of implementation of the Recommended Plan. Therefore, a Finding of No Significant Impact (FONSI) has been prepared and is included herein.

6) Additional evaluation, including Value Engineering and sediment transport studies, will be conducted during the preconstruction, engineering and design phase. The results of these studies may alter the project materials, design, costs, and cost apportionment or amount of Federal participation in the project.

7) A letter requesting credit for any additional advanced buyout, as authorized by Section 104 of the Water Resources Development Act of 1986, was submitted by the City of Austin. The request was approved by the Assistant Secretary of the Army for Civil Works on September 14, 2006. The credit for advanced construction is limited to $3,500,000, excluding costs that are normally considered a non-Federal responsibility. Actual work to be accomplished under the Section 104 authority is highly dependent on the timing of project construction authorization.

RECOMMENDATIONS

I recommend that the flood damage reduction, ecosystem restoration and recreation measures identified as the Recommended Plan for the Onion Creek study area be authorized for construction.

This recommendation is made with the provision that prior to project implementation the non-Federal sponsors shall enter into a binding Project Cooperation Agreement (PCA) with the Secretary of the Army to perform the items of local cooperation, as specified in Chapter 5 of this document.

The recommendations contained herein reflect the information available at this time and current Departmental policies governing formulation of individual projects. They do not reflect program and budgetary priorities inherent to the formulation of a national Civil Works construction program nor the perspective of higher review levels within the Executive Branch. Consequently, the recommendations may be modified before they are transmitted to the Congress as proposals for authorization and implementation funding. However, prior to transmittal to the Congress, the sponsor, the state, interested Federal agencies, and other parties will be advised of any modifications and will be afforded the opportunity to comment further.

Christopher W. Martin
Colonel, Corps of Engineers
District Engineer

FINDING OF NO SIGNIFICANT IMPACT

LOWER COLORADO RIVER BASIN PHASE I, TEXAS
ONION CREEK COMPONENT

At the request of the Lower Colorado River Authority (LCRA), and under authority of an May 6, 1998, resolution by the Committee on Transportation and Infrastructure, the U.S. Army Corps of Engineers (Corps) conducted an Interim Feasibility-Level Report and Integrated Environmental Assessment to identify water and water-related land resource needs of the Onion and Williamson Creek floodplains within the Lower Colorado River Basin, Texas. The LCRA, in cooperation with the City of Austin, Travis County, the City of Sunset Valley, and with partial funding by the Texas Water Development Board (TWDB), provided non-Federal Sponsor support for the Onion Creek component of the Lower Colorado River Basin Phase I, Texas Project.

In order to evaluate a wide array of alternatives over a broad study area, areas of interest were identified based on historical reoccurring flood events. The areas identified for detailed investigation include the Timber Creek, Onion Creek Forest/Yarrabee Bend, Bluff Springs Road/Perkins Valley, Onion Creek Subdivision, Bear/Onion Confluence, and Williamson Creek. Structural, non-structural, combined multi-purpose and No Action alternatives were evaluated for the areas of interest. Structural alternatives evaluated included diversions, channel modifications, bench cutting, flood walls and levees. Non-structural alternatives included buyouts and raising structures in place. Ecosystem restoration alternatives included acquisition of property and native tree/shrub/grassland planting. In addition, recreation facilities would be added to some of the lands acquired for other project purposes. Combined multi-purpose alternatives provided combinations of the other alternatives.

No action is proposed in the Bluff Springs Road/Perkins Valley, Onion Creek Subdivision and Bear/Onion Confluence areas of interest because of the lack of sufficient economic justification to support Federal interest. The Recommended Plan for the Timber Creek and Onion Creek Forest/Yarrabee Bend areas of interest provides for the acquisition and removal of 81 and 410 residential structures, respectively in the 4% annual chance of exceedance (ACE) floodplain; permanent closure of several streets or parts thereof; restoration of 16 and 190 acres of land to riparian woodlands; and installation of recreation features such as picnic shelters, hiking trails, restrooms, and supporting infrastructure. Williamson Creek was deferred from action at this time and is not included for implementation as part of this FONSI.

The recommended plan has been reviewed in accordance with Section 404 of the Clean Water Act. The Recommended Plan in Timber Creek and Onion Creek Forest/Yarrabee Bend would consist of buyouts and would not affect Waters of the United States.

Executive Order 11988, Floodplain Management, was considered during the development of the Recommended Plan. Materials removed from the project during construction would be placed in approved landfills for the types of materials involved. Executive Order 11990, Protection of Wetlands, was also considered and no impacts would occur to wetlands as a result of implementation of the Recommended Plan. Executive Order 12898, Environmental Justice, was also considered during the development of the Recommended Plan. Low income and minority populations exist in the Timber Creek area of interest and would be affected by the Recommended Plan; however no other viable alternatives were identified that would solve the flooding problem exist. Relocation assistance would be provided to the displaced residents to aid them in finding alternate living arrangements.

Cultural resources compliance issues are undergoing consultation with the Texas State Historic Preservation Office (SHPO). No cultural resources would be impacted as a result of implementation of the Recommended Plan in the Timber Creek and Onion Creek

Forest/Yarrabee Bend areas of interest. Since excavation of a bench is proposed along the banks of Williamson Creek, deep test trenching is needed for cultural resource analysis. Since the proposed project area is located in residential backyards, the test trenching has been delayed until detailed design so that trenching only occurs in actual construction areas. A programmatic agreement (PA) is being negotiated with the SHPO to ensure compliance with Section 106 of the National Historic Preservation Act.

The Recommended Plan has been coordinated with the United States Fish and Wildlife Service and they have concurred that the recommended project is not likely to affect Federally-listed threatened or endangered species.

An Environmental Assessment has been completed for the Recommended Plan and its alternatives. Based upon review of the information contained in the Environmental Assessment and results of coordination, I have concluded that the recommended plan will not have a significant adverse effect on the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. In addition, construction of the project will not constitute a major Federal action of sufficient magnitude to warrant preparation of an Environmental Impact Statement.

Christopher W. Martin
Colonel, Corps of Engineers
District Engineer

Date: 10 October 2006