

RIVERSIDE OXBOW FORT WORTH, TEXAS

CHAPTER 6 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the results of feasibility level investigations made to identify solutions to the water and related land resource problems and needs within the Riverside Oxbow, Fort Worth, Texas study area.

DISCUSSIONS

The project study area encompasses the Riverside Oxbow watershed within the city of Fort Worth, Texas.

The primary planning objective for this feasibility level investigation was to determine the most economically feasible plan to restore the ecosystem along the oxbow, which would also be supportable by the local residents and sponsor. Cooperation between the city, TRWD, Streams and Valleys, Inc., and the Corps led to the adoption of restoration criteria.

The National Ecosystem Restoration (NER) Plan consists of reestablishing flows through the old West Fork of the Trinity River oxbow including replacing the existing Beach Street Bridge; creation of 69.6 acres of emergent wetlands, open water, and vegetative fringe habitat; habitat improvement of 179.7 acres of existing forested areas, including establishment of a 150 foot wide riparian buffer along the West Fork from Riverside Drive to East 1st Street; establishment of a buffer of native grasses and forbs on approximately 45.6 acres of land; reforestation of roughly 66.9 acres using a variety of native hard and soft mast trees and shrubs; and preservation and habitat improvements to approximately 206.9 acres of native floodplain grassland. The NER Plan also includes compatible linear recreation along a 9,000-foot by 10-foot wide concrete trail including one vehicular bridge, 1,400 feet of crushed aggregate trail, 7,600 feet of wood mulch equestrian trail, and other associated facilities (access points, parking lot, and restroom facilities).

The estimated first cost of the NER plan is \$13,355,000 with a Federal and non-Federal share of \$8,680,000 and \$4,675,000 respectively. The NER would produce approximately 301.61 average annual habitat units (AAHUs) at a cost of approximately \$3,213/AAHU. The estimated first cost of the recreation components of the NER is \$997,000 with a Federal and non-Federal share of \$498,500 and \$498,500 respectively. The average annual cost and benefit for these recreation components are \$78,961 and \$805,100 respectively with net benefits of \$726,139 and a benefit-to-cost ration of 10 to 1.

The NER Plan was viewed by the Tarrant Regional Water District (TRWD), the local sponsor, as a step toward implementation of a long-range master plan for the overall Clear Fork and West Fork of the Trinity River system within Tarrant County. In addition,

several locally preferred features, as described below, were desired by the TRWD to further address requirements of their long-range master plan. As a result, they selected a Locally Preferred Plan.

The LPP would consist of the NER plan features along with the several additional features, which includes eradication of 80 acres of invasive species and reestablishment of native species and creek bed protection on 112 acres within the Tandy Hills Nature Preserve, which is located on the south side of IH-30. The LPP also includes linear recreation in the form of 7,743 feet of crushed aggregate trail and associated facilities (access points and parking lot) in the Tandy Hill Nature Preserve; three observation areas on the lands associated with the NER plan; and a new Gateway Park entrance road and bridge. These additional features of the LPP would be funded entirely by the non-Federal sponsor. The estimated non-Federal first cost of the additional local features is \$7,846,000.

The Recommended Plan is the LPP. In total, the recommended plan would restore ecosystem values on 512.2 acres of floodplain lands, approximately 2 miles of Oxbow river channel, 56.5 acres of wetlands, and 112 acres of uplands. It would also provide 25,700 feet of mixed surface linear recreation trails. The estimated first cost for construction of the recommended LPP project is \$22,198,000, with a Federal cost of \$9,178,500 and a non-Federal cost of \$13,019,500.

The Recommended Plan is the Locally Preferred Plan (LPP), which is a combination of the National Ecosystem Restoration (NER) Plan and Additional Local Features (ALF), which would be funded entirely by the non-Federal sponsor (Tarrant Regional Water District). The total financial cost of the Recommended Plan would be approximately \$22,198,000. The total economic cost used to evaluate benefit-cost ratios would be approximately \$997,000, in the NER plan. Annual net benefits for the recreation features would total \$805,100, yielding a BCR of 10.0, excluding the costs and benefits of the additional recreation features associated with the LPP. Ecosystem restoration benefits which are measured in non-monetary terms would yield gains of 376.05 average annual habitat units (AAHU) over future without project conditions. The total first cost for the recommended plan would be \$22,198,000.

CONCLUSIONS

The following conclusions are based on the study findings conducted in connection with this feasibility level report:

- a. A significant need for implementation of ecosystem restoration measures and construction of recreation facilities to meet the identified needs of these project purposes.
- b. The Recommended Plan is a multi-objective project, which would consist of ecosystem restoration features and recreation amenities.

c. The Tarrant Regional Water District was identified as the local sponsor for construction of the project. Federal and non-Federal cost apportionments for the Recommended Plan were estimated at \$9,178,500 (41.3%) Federal and \$13,019,500 (58.7%) non-Federal.

d. The Recommended Plan will cause no significant environmental impacts within the study area. A draft Finding of No Significant Impact (FONSI) has been prepared and is included herein. Distribution of this report, including the draft FONSI, was made to the public for review and comment on April 14, 2003.

e. Further evaluation, including Value Engineering (VE) studies, will be conducted on the ecosystem restoration and recreation features in the pre-construction, 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.

RECOMMENDATIONS

I recommend that the ecosystem restoration and recreation features identified in the Recommended Plan for the Riverside Oxbow, Arlington, study area be authorized for construction in accordance with the cost sharing provisions set forth in this report.

This recommendation is made with the provision that prior to project implementation, the non-Federal sponsor shall enter into a binding agreement 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 budgeting 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 an opportunity to comment further.

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