

Aquatic Park Natural Resource Management Study (NRMS)



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1.0 INTRODUCTION

1.1 Purpose and Scope of Study

Aquatic Park is located on the western edge of the City of Berkeley and encompasses three separate lagoons stretching from north to south - the Main Lagoon, Model Yacht Basin (MYB), and Radio Tower Pond (RTP). These lagoons, artificially created in the 1930s, are separated from San Francisco Bay by Interstate 80 and receive tidal water through a series of culverts, or tide tubes. A variety of habitats border the lagoons along with roadways and parklands. Aquatic Park includes a number of active recreational areas including a Frisbee golf course, water-skiing and rowing areas, kids' playground, picnic areas and walking and bicycling trails. The Park totals 99 acres of water and upland areas.

In 2001, the City of Berkeley selected the team of Laurel Marcus and Associates, Hydroikos Associates, Hydrologic Systems, Inc. and Vallier Design Associates to prepare a Natural Resource Management Study (NRMS) for Aquatic Park.

The purpose of the Natural Resource Management Study (NRMS) is to evaluate the hydrological features, habitat extent and the recreational uses in Aquatic Park. The NRMS is primarily focused on improving water quality in the tidal lagoons of the Park and identifies a range of alternatives for water quality and habitat improvements, and management and maintenance needs. Each alternative provides the City of Berkeley with detailed information for use in the future management of Aquatic Park's natural and recreational resources. The NRMS uses an integrated approach to evaluate hydrologic improvements, potential habitat restoration concepts and existing recreational uses.

The NRMS includes a series of tasks:

Task 1: Collect and Review Relevant Existing Data

A broad effort was made to collect reports and studies on the natural resources of Aquatic Park as well as specific information relevant to the Study.

Task 2: Collect Additional Data

The primary focus of the NRMS is hydrological studies and monitoring, habitat analysis and evaluation of management and maintenance needs. A series of measurements were collected on the lagoons - bathymetry, or water depths; size and condition of all culverts, tide tubes and gates; tidal heights and duration, temperature and salinity of the Main Lagoon. Maps of the existing wildlife habitats and vegetation types around the lagoons, including locations of invasive non-native plants species and active recreational use areas of the Park were completed.

Task 3: Prepare Description of Existing Environmental Conditions

An Existing Conditions Report was prepared and submitted for review by the City and Advisory Committee.

Task 4: Identify Management Issues, Study Goals and Alternatives

Our team, in conjunction with City staff and the Advisory Committee, discussed a list of management issues and goals to be addressed in the development of alternatives for the NRMS. These goals address natural resources, water quality improvements, recreational uses and long-term management and maintenance.

Task 5: Evaluate Study Alternatives

Our team, in conjunction with City staff and the Advisory Committee, discussed a set of alternatives to improve water quality and increase habitat areas.

Task 6: Prepare Administrative Draft of Natural Resource Management Study

This Administrative Draft of the NRMS discusses existing conditions, the alternatives including hydrology improvements and habitat restoration areas. City staff and the Advisory Committee will review this Draft before it is finalized for public review.

Task 7: Complete Natural Resource Management Study for Public Review

The Administrative Draft Study will be revised based on City staff and Advisory Committee comments and a Final Study will be presented to the Parks and Recreation and Waterfront Commissions in a public meeting.

1.2 Goals of the NRMS

The overall goals of the Aquatic Park Natural Resource Management Study were developed in conjunction with City staff and incorporate the Revised Proposed 2000 Draft Aquatic Park Master Plan Goals. At two meetings of the Advisory Committee, the following goals were reviewed and approved for the NRMS:

- Balance recreational uses with the enhancement and restoration of wetlands, other aquatic and terrestrial habitats, and improvements to lagoon water quality and circulation. Evaluate the southern portion of the Park as a focus of restoration of habitat for birds and other wildlife.
- Identify locations of invasive non-native plants and diseased and senescent plants and revegetate with native plant species in upland and shoreline areas.
- Design restoration of native habitats to avoid increases in management and unacceptable activities in the Park.
- Focus on low maintenance structures to reduce the need for long-term funding.
- Evaluate approaches to address water quality problems through mechanical harvesting, dredging, and increasing water circulation with improved flow structures.

1.3 Relationship to the 1990 Aquatic Park Master Plan

In 1990, the City of Berkeley prepared the Aquatic Park Master Plan. Revised Proposed 2000 Draft Aquatic Park Master Plan Goals include:

- Enhance natural resources and systems within the Park by restoring, expanding and maintaining the Park's wildlife habitat and improving water circulation and quality. As part of this approach, protect and enhance the south end of the Park as a bird sanctuary.
- Increase the number of users and types of uses within the Park. Balance increasing Park use with protecting and enhancing the Park's natural resources.
- Improve circulation and support facilities within the Park for pedestrians, bicyclists and wheelchair users. Limit auto access and circulation mainly to entrance areas within the Park, providing adequate auto parking in those areas for regular visitors and for special events.
- Develop and implement a realistic and effective Park maintenance program, which is periodically updated and actively encourages involvement of Park tenants and users when feasible.
- Strategically pursue all viable and appropriate funding options to implement Park goals and strategies.

The following are examples of how the goals of the NRMS are consistent with the Master Plan goals:

- Focusing habitat restoration on the southern end of the Park;
- Enhancing the Park's physical appearance;
- Enhancing natural resources and improving water circulation and quality; and
- Developing a realistic and effective Park maintenance program.