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May 23, 2007

Comments on proposed habitat improvement work at Berkeley's Aquatic Park

Dear Aquatic Park Subcommittee Members:

On behalf of Golden Gate Audubon Society and our roughly 9,000 members and supporters, I thank you for the opportunity to comment on the proposed habitat enhancement work at Berkeley's Aquatic Park.

Aquatic Park is an important stopover for migrating birds on the Pacific Flyway and is also home to a significant number of resident birds. Its lagoons support fish, crustaceans, and shellfish on which the birds feed, and these species in turn feed on algae and insects in and around the lagoons. We strongly encourage habitat enhancement at Aquatic Park.

Aquatic Park does have several challenging characteristics that reduce its value to birds and other wildlife, including:

- Heavy daytime presence of people and off-leash dogs throughout the eastern portion of the park,
- Lack of native shoreline plants around most of the shoreline of the lagoons,
- Low levels of dissolved oxygen for much of the year, and the resulting poor habitat for many aquatic species,
- High summer water temperatures that many aquatic species cannot tolerate,
- High levels of sediment pollution brought in by years of runoff from Berkeley's streets, and
- Occasional winter influx of polluted fresh water brought in by runoff from Berkeley's streets.

Improvements at Aquatic Park, as currently being considered by the Aquatic Park Subcommittee of the Parks and Recreation Department, would address only a very narrow range of problems. Most of the changes, and the vast majority of the money spent on the project, would attempt to improve the water quality in the lagoons by exchanging

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more lagoon water with bay water in each tide cycle, and to some extent by altering the water flow pathways so that there are fewer areas of stagnant water.

Golden Gate Audubon believes that the proposed changes, if maintained correctly for many years, would improve the water quality at Aquatic Park and probably improve its habitat value. We are concerned, however, that the City of Berkeley might not operate the proposed water flow control gates in order to optimize water quality or habitat; instead, we are concerned that the actual operation of proposed changes will degrade rather than improve the water quality and habitat value. Golden Gate Audubon Society also thinks that even if the proposed changes were to be implemented and operated correctly, there are other possible changes at the Park that would provide more benefit for the same cost.

We support the several of the changes proposed by Laurel Marcus and Associates, with apparent support of City Staff, as follows:

1. **We strongly support repair of the “main tide tubes” that connect Aquatic Park to the San Francisco Bay, via pipes under the freeway.** These tubes are part of the existing infrastructure of Aquatic Park, and the City of Berkeley must maintain them if the main lagoon is to avoid becoming a stagnant pond. Repair of these tubes is absolutely necessary to maintain a healthy lagoon, but this repair should not subtract from State Coastal Conservancy money that is intended to create or enhance habitat.
2. **We strongly support creation of a “bird island.”** The conversion of the existing island just east of the main tide tubes into a “bird island” would provide a refuge that is inaccessible to people and dogs and thus safe for birds to nest or roost.
3. **We strongly support signage to encourage more habitat-friendly behavior.** Installation of signs to encourage people to leash their dogs and to stay out of important habitat areas would benefit Aquatic Park.
4. **We strongly support removing non-native plants and replacing them with native plants.** Removing invasive plants that have low habitat value and replacing them with high-value native plants would increase the value of the habitat to wildlife and enhance visitor experiences to the park.

Golden Gate Audubon is concerned, however, about the following recommendations put forth by Laurel Marcus and Associates:

1. Increasing the size of the opening between the Model Yacht Basin and the Potter Creek culvert, nor do we support the installation of flow control gates to control the direction and volume of flow.
2. Increasing the size of the opening between the Main Lagoon and the Strawberry Creek culvert, nor the installation flow control gates to control the direction and volume of flow.
3. Creating a large opening between the Model Yacht Basin and the Main Lagoon.
4. Attempting to create tidal mudflats in Aquatic Park.

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Golden Gate Audubon does agree that, *if properly operated*, the changes listed above might increase the flow of water between Aquatic Park and the Bay, which would lead to improved water quality, particularly in summer, when the dissolved oxygen levels and temperatures are worst. We are concerned, however, that the process put forth to operate the system—and ensure that polluted runoff does not enter Aquatic Park during storm events—will be difficult to implement and will lead to increased runoff in the lagoon.

Stormwater carries pollution washed off of city streets. It can also form a low-density, freshwater layer on the surface of the lagoons that prevents the denser salt-water below from absorbing oxygen from the air. Increasing the amount of stormwater that enters the lagoon beyond the amount that currently enters the lagoon would decrease water quality and diminish habitat in the lagoon. Moreover, this water quality degradation would likely occur during the rainy season, which coincides with a period when migrating birds use the lagoon more heavily.

Proper operation, as expressed by Laurel Marcus and Associates, would require opening the gates most of the time in order to allow significant tidal exchange between the lagoon and the Bay, but closing the gates most of the way before major storms in order to minimize the amount of stormwater that enters the lagoon. Thus proper operation will create the burden of multiple yearly adjustments for either the Public Works Department or the Parks and Recreation Department. In the event that proper adjustments are not made in a timely manner, the proposed alterations could result in either a larger flood of polluted stormwater during winter storms, which will degrade Aquatic Park's water quality in winter, or yet less water exchange with the bay at every tidal cycle, which could degrade water quality in summer.

Golden Gate Audubon greatly appreciates the time and effort invested in developing a plan to modify the water flow at Aquatic Park. Aquatic Park is of great importance, especially in winter for migrating waterfowl, and we would very much like to see improvements to its currently-marginal water quality. If the City of Berkeley can demonstrate a long-term plan to ensure proper operation of the gates, as well as addressing other concerns raised in this letter, then Golden Gate Audubon could reconsider our position on the proposed plans. At this time, we cannot support the plan in its entirety though we do support several of the elements proposed in the project.

Golden Gate Audubon encourages the use of the available funding for improvements to Aquatic Park that benefit wildlife, their habitat, and the visitors to the park. We look forward to an opportunity to continue to discuss the plans for Aquatic Park and how best to achieve improvements.

Respectfully,

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