

CITY OF GARDEN GROVE
INTER-DEPARTMENT MEMORANDUM

To:	George L. Tindall	From:	Richard J. Conrad
Dept:	City Manager	Dept:	Public Works
Subject:	CIVIC CENTER POND	Date:	June 11, 1997

OBJECTIVE

To provide an update on the status of the Civic Center Pond and recommend management practices.

BACKGROUND

When the Civic Center Pond was first constructed in 1977, it was designed with a sand bottom over a plastic liner. It had no means of filtration or exchange of water. The pond did have an overflow through which only about one-third of the pond water could be drained. This inability to adequately drain the pond, together with the sand bottom over plastic, made cleaning of the pond nearly impossible.

The simple circulation system of the pond was insufficient to satisfactorily oxygenate the water and keep the water acceptably clean. The thick green appearance of the pond was a result of an inordinate number of ducks secreting waste into the pond water.

The pond is a popular location where citizens come specifically to feed the ducks. Green material such as lettuce and bread, brought to feed the ducks, decomposes, adding waste to the pond.

DISCUSSION

The City invested \$190,000 in reconstructing the pond to make it more manageable. Reconstruction included a concrete bottom with drainage, a filtration system, and an improved aeration and circulation system. This design allows the pond to set up its own ecologically balanced bio-system; a natural equilibrium will be established within the water between the bacteria, nutrients, algae, and a limited number of wildlife. The water will be clear while the bottom will be covered with natural sediments which give it an earthen appearance.

The pond was filled on April 25, 1997. It has taken two months for the pond to begin to realize an ecological balance. In order to hasten this process, beneficial bacteria and aquatic plants were introduced to the pond. The pond is still transitioning toward that state of equilibrium.

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The introduction of a toxic chemical to eliminate or reduce a problem will result in the destruction of the ecologically balanced bio-system. A chemical that staff may be required to use is CUTRINE. CUTRINE is a non-toxic, non-hazardous copper-based chemical that further inhibits algae growth. It might be added once a year.

The pond began transitioning to its state of equilibrium with only two waterfowl present. It is known that an inordinate number of ducks and geese caused the odor and appearance problems in the old pond. It is unknown how many of these birds can be present at the reconstructed pond before the equilibrium is broken and the pond returns to an unhealthful state.

An ammonia imbalance that destroys beneficial bacteria in the water can be caused by either the introduction of processed foods to the water, or large numbers of birds to the pond.

It is important to control the population of ducks and geese, but more important is the control of their feeding. The feeding of wild birds domesticates them and they stay. If they are not fed, wild ducks will eventually fly on. There is sufficient natural forage material around and in the lake to sustain migrating birds.

It is important to set a foundation on how the pond is to be managed. Staff must have the ability to respond and correct conditions at the pond. It has taken over two months for the pond to build its biological balance, but the pond could deteriorate in less than a week under adverse conditions.

RECOMMENDATION

It is recommended that an aggressive "no feeding" program be developed. "No Feeding" signs should be posted at the pond, and a program developed to educate the public not to feed the birds.

Staff will begin taking water samples regularly to determine oxygen and ammonia levels within the pond. If the ammonia levels exceed allowable limits, staff should then be able to relocate a reasonable number of ducks and geese and introduce beneficial bacteria back into the pond to achieve the biological balance.

A municipal code needs to be developed which regulates the feeding of birds and wild animals, the abandonment of birds and other pets, and the importing or relocating of birds or other animals to City facilities.

RICHARD J. CONRAD
Public Works Director