



R-31

Date: December 19, 2006

To: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

From: Councilwoman Gerrie Schipske, Fifth District *G.S./jj*

Subject: AGENDA ITEM: Lakes and Pond Management: Water quality and water-fowl

DISCUSSION

The City of Long Beach maintains numerous man-made fresh water lakes and ponds that are home to a variety of fish, birds and other waterfowl. These lakes and ponds have a natural life cycle, which must be monitored and attended to by qualified limnologists. These experts in lake and pond management help assure that a lake and pond is in ecological balance: a healthy, dynamic ecosystem that ages at a very slow rate, where fish and other forms of aquatic life are present and there is an absence of foul odors and algae blooms.

Limnologists assess the quality of the water in these bodies in order to determine bacteria and chemical levels and oxygen levels that may be causing algae overgrowth. They also assess proper configuration of these bodies to decrease storm water runoff from impervious parking lot surfaces into these bodies and recommend whether or not lakes and ponds require hydrologic dredging and installation of aeration devices that increase oxygen levels and restore lakes and ponds to a healthier state.

Without proper management, lakes and ponds can develop a number of serious problems: weed and algae growth with high nutrient levels that result in sludge build-up and oxygen depletion issues such as odors and fish and bird kills.

Water Fowl

Because Long Beach lacks adequate wetlands, waterfowl seek out and use the man-made lakes and ponds in large numbers. Waterfowl can be significant contributors to a lake's nutrient load. Studies on waterfowl phosphorus (P) loading show that geese contribute about 1/2 pound and ducks about 1/3 pound of P per bird per year. The excessive bird feces can lead to algae blooms, accelerated eutrophication, depleted dissolved oxygen levels, and high bacteria levels in water bodies. These problems have a negative impact on the ecological balance of the water body, and can threaten other native species.

Visitors continue fishing in some of the lakes. Visitors also feed the birds and the excess food (usually bread and unfortunately, sometimes lettuce) contributes to the bacterial growth in the water. This type of artificial feeding also can cause Duck Virus Enteritis

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and Avian Botulism, which kill birds quickly. Moreover, rotting food can grow mold (which can also kill these birds) and the food attracts rats and insects. Some visitors toss coins into the lakes and ponds – which the birds ingest while searching the bottom for food. Research indicates that a penny contains enough zinc to kill a duck.

Most recently, more than 40 waterfowl were found dead or ill near these Long Beach lakes and ponds. The exact cause of their death is still pending.

RECOMMENDATION

It is recommended that the City Council request the City Manager to report within 45 days the following: 1) Does the City employ a limnologist who is responsible for on-going assessment and maintenance of the City's lakes and ponds? 2) Does the City have a comprehensive plan to manage and maintain these lakes and ponds? 3) Has the water quality and condition of these lakes and ponds been assessed and what are the results? 4) Are the configuration and management of these lakes and ponds a part of the City's storm water management program? 5) Does the City employ an avian specialist who can work with the City to develop an avian protection plan that includes a public education effort to discourage (and/or perhaps fine) visitors who feed birds at the lakes and ponds?