



Staff Report

City of Manhattan Beach

TO: Honorable Mayor Wilson and Members of the City Council

THROUGH: Geoff Dolan, City Manager

FROM: Neil Miller, Director of Public Works
Dana Greenwood, City Engineer

DATE: February 15, 2005

SUBJECT: Authorize the City Manager to submit a Bid for Groundwater Pumping Rights and approve an Appropriation in an Amount not to Exceed \$3,000 per Acre Foot (Maximum of \$727,800)

RECOMMENDATION:

Staff recommends the City Council:

- A. authorize the City Manager to submit a bid for the purchase of ground water pumping rights in an amount not to exceed \$3,000 per acre feet or a total amount of \$727,800, and,
- B. approve an appropriation in an amount not to exceed \$727,800 should the City be the successful bidder.

FISCAL IMPLICATION:

The City's Water Fund has sufficient fund balance to consummate this purchase. The City's internal cost for pumping ground water (including pumping fees) is approximately \$246 per acre foot. The City's cost of purchasing imported surface water (which is approximately 85% of the water currently used per year) is \$535 per acre foot. Therefore there is a potential \$289 per acre foot annual savings (at current rates) for water pumped vs. surface water purchased. Using a straight line payback analysis, the City's investment at the maximum price would be recovered in 10.4 years. However, staff will most likely submit a bid for an amount less than the maximum authorization.

BACKGROUND:

A master plan for the City's water system was prepared by Kennedy-Jenks Consultants in 1994. This master plan evaluated the entire water distribution system and water supply options. In addition to recommending improvements to the water system infrastructure (most of which has been completed) the Plan's recommendations also included purchasing additional ground water pumping rights should they become available at a reasonable price (excerpt attached as Exhibit I). In addition the same firm completed a Water Well Development Study in 1995 which also discussed the conditions of the local ground water environment and reinforced the recommendation to acquire additional ground water pumping rights (excerpt attached as Exhibit II). As a result of these recommendations and staff's own analysis of the City's water supply needs, the City's

Capital Improvement Plan has included a recommendation to purchase additional ground water pumping rights up to a maximum amount of \$1,000,000. As there has not been an opportunity to purchase these rights in previous years, staff has continued to include this project in future years rather than the current year CIP budget (see attached page 66 from the 2004-2009 Capital Improvement Plan as Exhibit III). However, a local water company, Western Water Company has recently solicited bids to sell 242.6 acre feet of ground water pumping rights. Staff believes the current environment for purchasing ground water rights is favorable and the City should submit a bid for these rights.

DISCUSSION:

Ground water pumping rights are available to pumpers in the West Coast Basin due to the existence of a Ground Water Judgment which was a legal determination made in the late 1940's to set water pumping in the basin at a safe yield. Prior to the Judgment ground water pumping was unrestricted and over-drafting of the ground water basin was occurring. This over-drafting led to subsequent salt water intrusion into the fresh water basin which prompted the need to restrict ground water pumping. Therefore, a fixed amount of water pumping was determined for the West Coast Basin of which 1,131 acre feet was allocated to the City of Manhattan Beach. Other pumpers in the Basin also received fixed allocations. Total ground water pumping rights in the West Coast Basin is 64,468 acre feet.

For many years there has not been a market for the sale and purchase of ground water pumping rights. This is because it has traditionally been less expensive for water purveyors to pump water than buy imported water. However, in recent years certain developments have taken place that have resulted in ground water rights being available for sale. One, the construction of the West Basin Municipal Water District water reclamation facility located in the City of El Segundo, has provided a source of high quality water for certain industrial facilities such as the Chevron refinery, a holder of water rights, whom prefer the use of the reclaimed water for certain activities over the use of ground water. Another factor leading to the availability of ground water pumping rights is that certain parts of the ground water basin have constituents in the water such as chlorides, manganese and iron that have rendered the water uneconomical to pump due to subsequent required treatment costs. Therefore, pumpers in these areas, primarily in the Torrance and Dominguez Hills area, are not pumping all of the rights they own.

The two Manhattan Beach wells are located just east of the City limits on Manhattan Beach Blvd. The water quality of these wells has been stable for many years. It should be noted that when the City uses well water there can be minor taste and odor affects in parts of the system. These affects are mitigated by blending the well water with imported water in the City's reservoirs. Currently, only the smaller of the two City reservoirs is available for blending. However, the City Council has approved a capital project which will provide a pipeline to run well water to our larger reservoir which will provide an improved water blending situation. This project will be constructed within the next year.

The City currently owns 1,131 acre feet of ground water pumping rights. Owning these rights allows the City to pump this water and use it in the City's potable water system. 1,131 acre feet represents approximately 15% of the city's annual use. The City has the capacity to pump at least twice this amount of water if the rights were available. Currently, the City must pay a fee of \$128 per acre foot to the Water Replenishment District (WRD) when the water is pumped. This fee is

used by the WRD to conduct ground water replenishment activities. Other costs of utilizing ground water including energy cost of pumping and maintenance of wells and pipelines associated with the wells. Staff estimates that the total cost of utilizing an acre foot of ground water is \$246. Comparing this cost to the cost of purchasing imported water at \$535 per acre foot these is an annual savings of \$289 per acre foot of water pumped vs. purchased at current rates.

In addition to the potential costs savings over the long run of owning these water rights the City would also have the additional benefit of having more of its own direct water resources should there ever be a prolonged outage of the imported water supply lines.

Since the process of bidding for water rights is a competitive situation we are asking the City Council to authorize the City Manager to submit a fixed price bid not to exceed \$3,000 per acre foot. This will provide flexibility to submit bids of a lesser amount per acre foot.

Should the City be successful in winning the bid, staff will report the details of the purchase at a future City Council meeting.

CONCLUSION:

For the first time in many years ground water pumping rights are available for sale in the West Coast Ground Water Basin. The City has planned for the purchase of additional ground water pumping rights as recommended in the Water System Master Plan and the Capital Improvement Budget. Staff recommends the City Council authorize the submittal of a bid for these rights.

Attachments: Exhibit 1: Excerpt from “Water System Master Plan”, Kennedy-Jenks, April, 1994
Table ES-1 (not available in electronic format)
Exhibit II: Excerpt from “Water Well Development Study”, March, 1995, pages
23, 24 and 25 (not available in electronic format)
Exhibit III: Page 66 of the 2004-2009 Capital Improvement Plan (not available in
electronic format)