

CITY OF REDONDO BEACH

Budget Response Report #8

June 5, 2018

Question:

What is included in the FY 2018-19 Budget and Capital Improvement Program for the installation of a lower pond water feature at Wilderness Park?

Response:

At their meeting on November 15, 2016, the City Council allocated \$100,000 to capital improvements at Wilderness Park, including potential repair of the upper pond and optional projects at the site of the former lower pond. At their meeting on February 20, 2018, the City Council received a Budget Response Report detailing the cost estimate to repair and maintain the upper pond as well as broadly estimated costs to install a water feature at the site of the former lower pond. At that meeting, the City Council provided direction that the item be discussed by the Recreation and Parks Commission so that they may provide input on how the \$100,000 CIP budget could be allocated, including options for the upper pond and any potential projects at the site of the former lower pond.

The Recreation and Parks Commission considered the subject at their meeting on March 14, 2018. The Commission made the following recommendations to the City Council:

- Funding the upper pond repair and maintenance contract (\$19,700)
- Creating a butterfly habitat using certain types of feeding plants (\$5,000)
- Proceed with preliminary engineering (conceptual design alternatives, site survey, geotechnical study, constructability analysis, etc.) to install a new lower pond water feature (This work is preliminarily estimated at \$50,000 but has not been quoted.)
- Allocate funding to create micro grants to RBUSD students for study projects in the Park (\$5,000)
- Allocate funding to the South Bay Parkland Conservancy to operate programming in the Park (\$26,900)
- Explore rotating and permanent public art installations (no costs determined)

UPPER POND

Hopkins Wilderness Park is the City's 11 acre natural preserve of native plants, trees and various ecological habitats. Among the park's current features is a pond, referred to as the Upper Pond, located at the southern end of the park near the main entrance and visitor's center. The Upper Pond regularly experiences bacterial fluctuations leading to excessive algae production. The algae clouds the pond and at higher levels is beyond the capacity of the filtration system, which has exceeded its useable life. Additionally, there is a stream that is adjacent to the Upper Pond, not connected to or feeding into the

pond, which runs on a second filtration system that has also exceeded its useable life. The stream water is not circulating properly, leading to algae build up and pools of fetid water. Additional contributing factors include the run-off of dirt and debris into the pond during rain storms, the sand in the pond infiltrating the pumps and filters, and human influences which include overfeeding the fish and birds present, as well as the introduction of non-native species into the pond.

Following consultation with vendors who hold specialized experience with natural setting and fabricated water features, Staff recommends using \$10,400 for a budget to repair the Upper Pond. This includes the vendor's estimate for the one-time repair of \$8,323 plus a 25% contingency. The cost of \$9,300 for annual ongoing maintenance of the pond was provided by the same vendor.

A further breakdown of the repair and maintenance tasks are listed below:

<u>Repair (10 working days)</u>	<u>\$10,400</u>
Drain and clean out the Upper Pond and stream	
Remove all pond sand	
Remove perimeter sandbags	
Install ultraviolet sterilizer, skimmer, bead filter	
Add bacteria and water conditioner	
Add native water plants	
Install new grating for the under gravel filter	
Install new 1"-1½ " gravel	
Install new run-off barrier	
 <u>Monthly Maintenance</u>	 <u>\$9,300/year</u>
Check and clean filter and pumping system	
Water testing and treatment	
Debris and algae clearing	
Monitor fish and water plants	

It should be noted that during any Upper Pond repairs or maintenance, the existing aquatic life would be kept at the park in filtered tanks.

LOWER POND

Also in Wilderness Park, the area in the northern corner, referred to as the lower pond, is currently an earthen area surrounded by large rocks, trees and plants. The former pond at this location was drained several years ago due to water seepage from the pond into the adjoining neighborhood, which threatened to destabilize the ground under nearby homes. The pond's pumping system was also in disrepair and the water body was a breeding ground for mosquitos.

A new pond would require the installation of concrete and lining to create an impermeable underlayment for a main water body as well as an underlying concrete trough for the stream that would feed into the pond. It should be noted that a new water body would be recommended at a depth of no more than 18". Any greater depth would require a

minimum 5' fence or similar safety barrier as per Building Code. Any new water feature or amenity structures would require an engineering and geotechnical study, as well as the use of heavy equipment into a remote area of the park. Following consultation with contractors experienced with this type of work, the budget level estimate for the restoration of the Lower Pond is approximately \$450,000. Please note this is a preliminary estimate and would require both an engineering design and constructability review to determine a more accurate figure. The ongoing maintenance of a new water feature would be similar to the upper pond, approximately \$9,300.00 per year.

A further breakdown of the installation and ongoing maintenance tasks are listed below:

<u>Installation (3-6 months)</u>	<u>\$450,000</u>
Remove existing pump collection apparatus	
Geotechnical, Engineering Design	
Concrete underlayment for pond and stream	
Concrete runoff barrier	
Install 2 bead filters, 2 water pumps, ultraviolet sterilizer, 2 skimmers	
Add bacteria and water conditioner	
Add native water plants and fish	
Install grating and gravel filter	
Install 1"-1½ " gravel	

It should be noted that the budget level estimate does not include providing ADA access to the site of a new water feature at the location of the former lower pond. An outside analysis would be required to determine if the upper pond would be considered an equal public amenity, potentially minimizing the accessibility requirements for the former lower pond area. Under this scenario, ADA accessibility to the upper pond area may also need improvements.

<u>Monthly Maintenance</u>	<u>\$9,300.00/year</u>
Check and clean filter and pumping system	
Water testing and treatment	
Debris and algae clearing	
Monitor fish and water plants	