MEMO TO: Community Facilities District 2016-1 Board

FROM: Steve Hitch, Engineering Supervisor

DATE: October 6, 2020

SUBJECT: Community Facilities District 2016-1 Status Update

I. PURPOSE ☒ For Info Only

II. RECOMMENDATION

Provide a status update regarding Stormwater Projects funded by the Community Facilities District

III. DEPARTMENT CONTACTS

Dave Juarez, Director	425-556-2733
Steve Hitch, Engineering Supervisor	425-556-2891

Public Works Department

IV. DESCRIPTION/BACKGROUND

City staff presented the financial outlook for the CFD in July and followed up with a discussion about the progress of the stormwater projects in September. Recently, City staff provided a tour of the completed stormwater projects to Supervisor Stanton.

Today's briefing clarifies that from the City's perspective, the stormwater objectives of the CFD have been met and the City will be working on a proposal for how to use the balance of the CFD funds. Staff will first work with Microsoft to better understand the interests of the Company and will then return to the Board with initial proposal information around the end of 2020.

Within the 2016-1 CFD, $9,000,000 was set aside for stormwater projects that would benefit Lake Sammamish and Villa Marina Creek. The City began the process by evaluating what stormwater improvements would provide the greatest benefit for Villa Marina Creek and Lake Sammamish.

The results of that study identified what projects should be advanced, using the criteria established in the City's Watershed Management Plan. For stream restoration, there are three steps to restoring urban streams like Villa Marina Creek. These steps are best performed in order.

1) Flow control. Provide stormwater flow control facilities to reduce the frequency of damaging pulses in stream flow that cause erosion, flooding, and damage to fish habitat.
2) Water Quality Treatment. Provide water quality treatment facilities to remove pollutants from stormwater runoff before it flows into the creek.
3) In-Stream Habitat. Installation of large woody debris and improvement to stream substrate to create habitat for fish.

To address Flow Control, the City moved forward with the NE 40th Street Stormwater Trunk Extension. This project has the outcome of removing high flows from Villa Marina Creek that have caused historic flooding of property and stream bed erosion. This project has been completed and the City is managing the new stormwater trunk to gradually alter the flow patterns, diverting the highest flows from the creek so they flow directly into Lake Sammamish, without causing erosion at the lake shore.

To address water quality, the City performed an alternatives analysis to identify what existing developed areas might be contributing to water quality issues in Villa Marina Creek or Lake Sammamish. Several projects were considered and it was determined that a single project was recommended as having a good cost/benefit ratio, as providing stormwater runoff treatment from the most polluted surfaces in Redmond that drain to Lake Sammamish, and as allowing for suitable maintenance access. Additional project alternatives were deemed to have poor cost/benefit ratios and to have very poor maintenance access, so were ruled out. The selected project, the NE 40th Street Water Quality Facility is in final design and scheduled for construction in 2021.

Once flow control and water quality are addressed, the next step is to improve the in-stream habitat. This step is prudent when flow characteristics will not damage the new channel, when water quality is suitable for fish survival, and when stream buffers provide suitable protection for the stream. In the case of this stream the channel is perfectly straight, owing to the dramatic encroachment on the stream from each side by adjacent development. In-stream habitat restoration for the lower reach of Villa Marina Creek will rely upon expanded stream buffers, so must wait for redevelopment of the adjacent properties. The cost to acquire property and remove buildings to create the necessary stream buffers far exceeds any funding available from the CFD.

Based on this analysis, the City has completed the flow control project, is proceeding with the water quality project, and does not recommend an in-stream habitat project at this time.

As is shown in Table 1, the objective of spending $9,000,000 on stream improvement projects in the basin has been met, although the CFD share is only $7,000,000. The CFD's funding was used as leverage to obtain $3.7M in grants. With the anticipated total cost of the program at $10.8M, that leaves approximately $2,000,000 of CFD funding that is available for other projects. The City does not recommend constructing additional stormwater projects in this basin, at this time, but hopes that the Board of Supervisors will consider some alternative projects that would meet other goals of the CFD.

Table 1, Stormwater Project Costs and Funding Sources

Project	Total Project Cost	CFD 2016-1	City	King County	Ecology
40th Storm Trunk	$4.3	$4.2	$0.1		
40th Trunk Monitoring	$0.2	$0.2			
40th Storm Treatment	$6.3	$2.6		$0.1	$3.6
Total	$10.8	$7.0	$0.1	$0.1	$3.6

Staff plans to provide recommendations for unallocated CFD funding later in 2020.

V. TIME CONSTRAINTS

None.

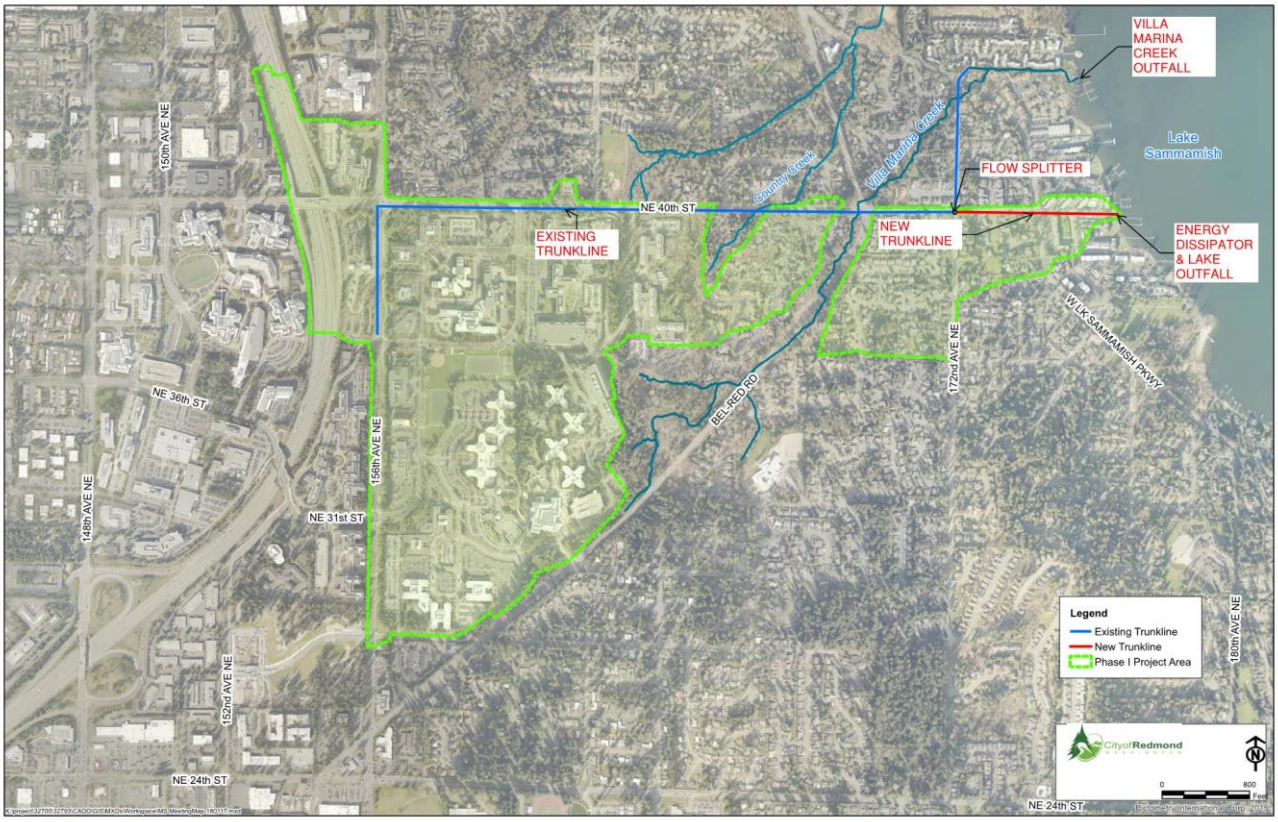
VI. LIST OF ATTACHMENTS

Attachment A: Flow Control Project

Attachment B: Water Quality Project Alternatives

Attachment C: Villa Marina Creek Constrained Channel

Attachment A: Flow Control Project

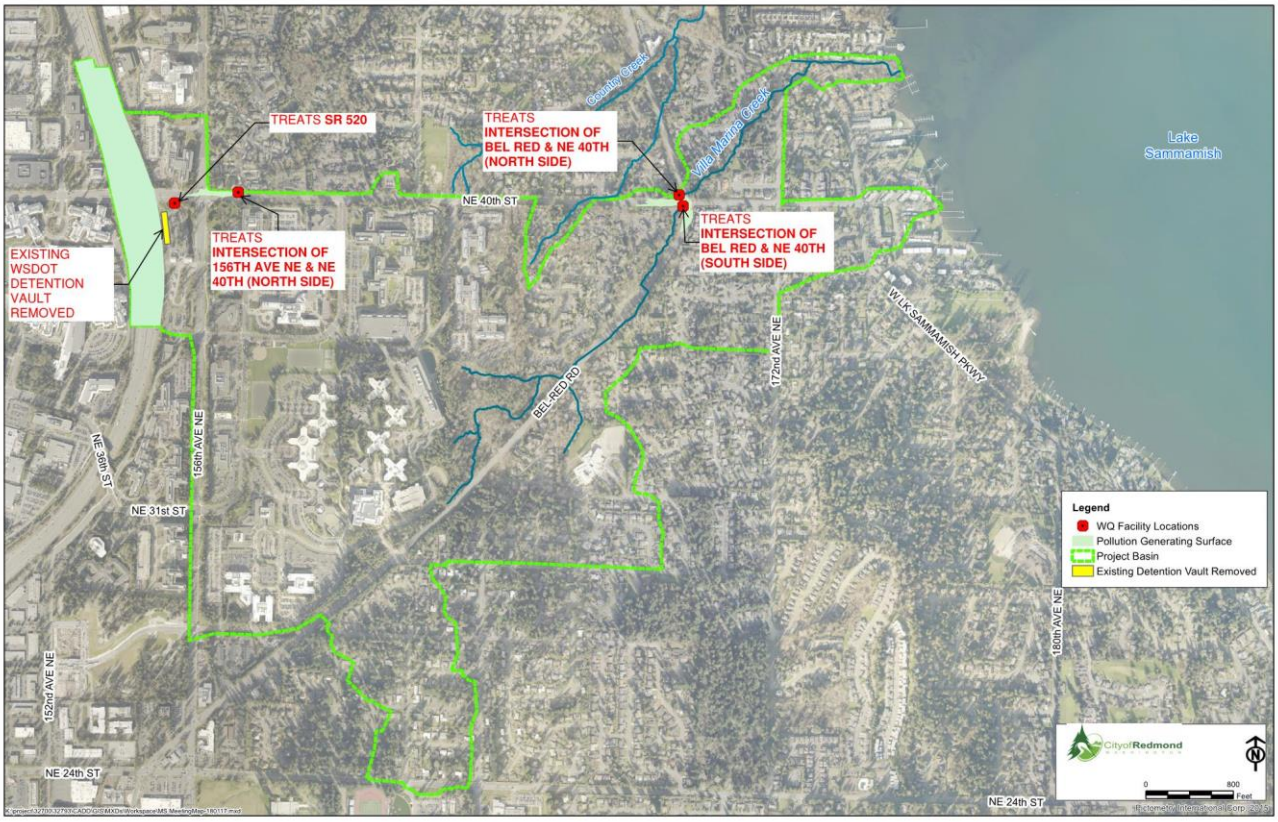


Vicinity Map

Outfall Vault to Lake Sammamish Outfall Channel

Outfall from Channel to Lake

Attachment B: Water Quality Project Alternatives



The NE 40th Water Quality Facility, located at the new Redmond Technology Station, will treat about 18 acres of SR520 and about an acre of NE 40th Street. The other projects identified here represent very small treatment areas, very challenging maintenance access and high cost.

Attachment C: Villa Marina Creek Constrained Channel

Villa Marina Creek – Constrained Between Two Developments