



# Project Report

## Proposed Neighborhood Dredging SSD

### Bayville Creek

March 24, 2011

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#### **Background:**

The concept and feasibility of establishing neighborhood navigation Special Service Districts was presented in a September 10, 2010 Policy Report titled Neighborhood Dredging for Old Donation Creek. Using that report as background and following an identical formulation, and at the request of citizens in Bayville Creek, the following Project Report has been prepared to outline the parameters of a potential neighborhood navigation SSD for Bayville Creek.

The proposed program for neighborhood navigation SSDs is entirely voluntary, considered only at the request of the community, and only with a supermajority (80%) of those impacted accepting the establishment of the district. Upon creation, the City would manage the design, permitting and construction of a system of navigation improvements in the community. Funding would be derived from three sources. The City would fund a segment of channel from the main City channel network into the neighborhood, this segment of channel is referred as a 'spur' channel. The collective district property owners would jointly fund the main neighborhood channel system through a real estate tax surcharge under a Special Service District. Finally, individual property owners would electively fund their links to the neighborhood channel system and respective turning basins.

It is anticipated that mechanical dredging will be the method employed for this project, with dredged material transfer to occur at a City owned transfer facility or within the neighborhood on properly released private property. Disposal of the dredged material will occur via truck transport to the Whitehurst Borrow Pit disposal area. The format of the SSD proposal is for a defined period of 16 years, during which three cycles of dredging are anticipated during years 2, 9 and 16.

This Project Report relies on the previous Policy Report to document a variety of related issues and focuses solely on the Bayville Creek Neighborhood project parameters to determine costs and the potential SSD real estate surcharge rate.

**Initial Estimate of Project Costs:**

The preliminary channel layout includes approximately 1,000 feet of City-funded spur channel and 1,500 feet of SSD funded neighborhood navigation channel. A hydrographic survey of Bayville Creek was conducted by Langley & McDonald, P.C., in 2003. Based on that survey and the anticipated channel widths and depths, it is estimated that the City-funded spur channel would require approximately 3,500 cubic yards of dredging, and that the neighborhood SSD-funded channel would involve approximately 8,000 cubic yards of dredging to construct a 20-foot wide channel at four feet below mean low water. It is assumed that the second dredging cycle will involve only 70% of the volume of the initial dredging, and that the third dredging cycle will involve even less volume, 50% of the initial.

The cost for mechanical dredging, scow transport, material transfer, trucking and disposal is currently estimated at \$30 per cubic yard. With the projected cost of fuel and labor expected to rise, a 5% cost escalation per year was applied for the second and third dredge cycles.

Surveys, design, permit acquisition, bid document preparation and construction administration for smaller scale navigation projects typically runs 20% of construction, and is added to overall construction costs in the tables below. Both the City-funded spur channel and the SSD-funded neighborhood channel will require adequate marking for safe navigation. It is estimated that three markers will be needed along the City spur channel, and three markers along the SSD neighborhood channel. Installation of these markers is estimated at \$2,000 each. This equates to an estimated additional \$6,000 (three markers) of upfront City construction costs, and \$6,000 (three markers) for the SSD funded channels and are added to the initial dredging cycle costs.

The following summarizes the initial cost estimates for each of the three dredging cycles for the City spur and SSD neighborhood channels:

**SSD Neighborhood Channel Cost Estimate**

Dredge Cycle	Cubic Yards*	Costs/Cubic Yard**	Cost ***
1	8,000	\$30.00	\$ 294,000
2	5,600	\$40.20	\$ 270,144
3	4,000	\$56.57	\$ 271,536
<b>TOTAL</b>	17,600	Average \$42.25	\$835,680

**City Spur Channel Cost Estimate**

Dredge	Cubic Yards*	Costs/Cubic Yard**	Cost ***
1	3,500	\$30.00	\$ 132,000
2	2,450	\$40.20	\$ 118,188
3	1,750	\$56.57	\$ 118,797
<b>TOTAL</b>	4,888	Average \$42.25	\$ 368,985

- \* Assumes a 3 foot dredge depth to reach -4 feet below mean low water
- \*\* Assesses a 5% yearly cost escalator
- \*\*\* Includes 20% design, and, navigation aids in the first year

## **Special Service District Analysis**

As shown on Attachment A, the proposed district is composed of 12 properties that could be served by the neighborhood channel. A listing of the current assessed value for those properties is included in Attachment B and totals \$14,415,700. A significant majority of these owners have informally indicated willingness to participate based on very preliminary computations of SSD surcharge rate.

In keeping with the format established in the previous Policy Report, no change in assessed value is incorporated in the computation of surcharge rate for the 16 year period. The rate is proposed to be re-evaluated on a 4 year cycle, where adjustments can be made to account for changes.

At \$14,415,700 assessed value for the 12 properties, each 1¢ raises \$1,441.5. At the end of the 16<sup>th</sup> year, and prior to the third dredging, the SSD would have to collect \$835,680, subject to cost estimates and assessment adjustments. Accordingly, the SSD real estate surcharge rate for this endeavor would be 36.3 cents per hundred dollars of assessed value.

A full pro forma showing revenues and expenses for the entire 16 year program is included with this report as Attachment C.

### **Future Actions Required:**

Several follow-on actions are necessary to bring this Special Service District proposal forward. These actions include:

- Brief City Council on Project Report
- Distribute the Project Report
- Obtain SSD letters of commitment
- Provide notice of a public hearing no sooner than ten days after the date the second notice appears in the newspaper
- Prepare an SSD Ordinance and obtain City Council adoption
- Obtain construction and right of way easements.
- Secure design and permitting services

### **Recommendation:**

Staff recommends that, if the Bayville Creek neighborhood can enlist the necessary 80% support for the SSD, they be authorized to prepare the SSD ordinance for City Council adoption and initiate a CIP neighborhood dredging project for Bayville Creek..

### **Prepared by:**

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Date

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**Approved by:**

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