

EXECUTIVE SUMMARY MASON CREEK

Masons Creek and Oates Creek (Masons Creek) are a tidal water body connected to Willoughby Bay by concrete channel and culvert through the Norfolk Naval Air Station in the northwest portion of the City. The natural connection between Masons Creek and Willoughby Bay was filled with spoils when Willoughby Bay was dredged for a Navy seaplane facility in 1940s, with the culvert being installed shortly thereafter. The culvert has a Tidal sluice gate that is operated by the Navy under specific written guidelines and is closed during abnormally high tidal conditions. Masons Creek one square mile water shed is therefore protected from tidal flood waters.

However, during persistent high tide conditions in conjunction with prolonged intense precipitation, some low lying areas of the Mason Creek watershed have been subjected to flooding. This condition was experienced in early September 2006 when the remnants of Tropical Storm Ernesto affected the area. Some property damage occurred in at least part of one house and some garages and yards.

Sedimentation build up over the years has turned some of the areas of Masons Creek into vegetated wetlands and mud flats. This has diminished the water ways recreational uses. No significant deficiencies with regard to tidal flushing were detected. Waterfront owners have also complained of perceived water quality degradation.

In response to citizen complaints and requests from members of City Council, Public Works commissioned several studies to address the concerns and identify issues that may need to be resolved by the City. These included:

Margaret Avenue Ditch Assessment: A hydrologic study and condition survey was conducted on a small ditch segment near Margaret Avenue. Based on the recommendations, a clean up of the ditch was conducted to improve the ditch's performance.

Hydrographic Survey: A complete hydrographic survey was conducted of the entire Masons Creek system. Some areas were identified as potential dredging opportunities to make marginal improvements to tidal flushing. Cost estimates for these areas are being developed for potential future funding.

Outfall Survey: All outfalls in the Masons Creek watershed were identified, mapped photographed and given a condition assessment. Work orders are being issued to address some deficiencies.

Water Quality Sampling: A four sample snap shot of the water quality of Masons Creek was made. No heavy metal contamination was detected and only one higher than expected bacteria level was noted. The sampling was not intended to be definitive nor part of an on-going water quality assessment.

Tide Survey: Three tide gauges were installed at various locations in Masons Creek for a three month period. Initial analysis of the tide data indicates no significant delay from the east side of Granby Street to the west side and showed normal tide cycles in Mason Creek.

Public Works is commissioning additional studies of the Granby Street culvert including a reservoir study. This study will assess the performance of the existing culverts as well as assess capacity flows and feasibility of storm water pumps being added to promote drainage.

Some citizens suggested that the area that drains to Masons Creek should be reduced to alleviate flooding. However, the costs, infrastructure, permitting and technical requirements to change the natural drainage courses throughout the City would be prohibitive.

Public Works is also sending out 7,000 brochures to all the residents in the Mason Creek watershed in an effort to inform residents on the importance of reducing sedimentation and other stewardship issues. Public Works will also be working with the associated Civic Leagues to promote a Clean the Bay Day for the area. In addition street sweeping frequency will be increased to once a month, as with the entire City.

Public Works will continue to work with the neighborhood and identify projects that are of a mutual interest between the City and the Masons Creek citizens.