



Engineering & Public Services

Departmental Activity Report

September - December 2009

ENGINEERING

Bylaws

Surface Water Runoff Bylaw

The Bylaw has received three readings and will be presented for adoption to Council on February, 1, 2010.

Projects

Transportation Projects

- East Saanich Road Bike Lanes and Trail
Paving works postponed to Spring of 2010 due to inclement weather. Opening ceremony planned for early June 2010.
- Traffic Speeding and Calming Issues
 - Council approval to install two speed humps on Early Place is being reconsidered.
 - A Supplemental Request for the installation of street lights on Early Place will be presented to Council during 2010-2014 Financial Plan deliberations.
 - A 2010 Supplementary Request for the purchase and installation of 3 pole mounted solar powered speed warning devices will be presented to Council during 2010-2014 Financial Plan deliberations.
 - A 2010 Supplementary Request for the installation of street lights in front of Saanich Peninsula Hospital on Mt. Newton Cross Road will be presented to Council during 2010-2014 Financial Plan deliberations.

- Oldfield Road Farm Signs "Slow Down"
Two signs have been installed.
- Installation of 40 km/hr Signs on Brentwood Bay Feeder Roads
This issue has been postponed for consideration for a period of one year.
- Bus Stop Improvement Program
One newer version bus shelter was installed on West Saanich Road in Brentwood Bay (south of 7135 West Saanich Road).
- BC Hydro Beautification (Brentwood Bay)
The project is on hold until after the Olympics. Telus and Shaw Cable works complete.
- Building Canada Fund Grant – East Saanich Road (Island View to Cultra) Project
The project is at 50% design stage. The first of two Open Houses will be held March 4th in the Fire Training Centre.
- Trees for Tomorrow Grant
A Landscape Architect is working with land owners to finalize design. Tree and shrub planting to occur in the Spring of 2010.
- Highway 17 Peninsula Steering Committee
Staff members are attending committee meetings as required.
- Benvenuto Avenue Restoration and Management Planning Study
Project initialization and stakeholder meetings will be conducted throughout November and December. Stantec Consulting Ltd. will develop preliminary concepts for the upgraded roadway to be presented at an Open House in early Spring 2010. It is

anticipated to be completed in early Summer 2010.

Integrated Stormwater Management (ISMP)

Council endorsed the ISMP Final Report and Implementation Plan, and directed staff to prepare the following ISMP Implementation Supplementary Budget requests to undertake the following projects in 2010:

- Dooley Road culvert replacement;
- Graham Creek Channel improvement designs (Stelly's to Centennial Park);
- Establishment of a Healthy Watershed Committee (HWC);
- Hire a Co-op student to help organize volunteers and the HWC; and

provide further updates and recommendations in regards to implementation strategies / work plans for immediate and short term items identified in the Implementation Plan including submission of appropriate Supplemental Budget requests for the years 2011, 2012, 2013 and 2014.

Tetayut Creek Stewardship Engineering and Public Works staff continue to work with Peninsula Streams representatives.

General Drainage Projects

Replaced sections of sub-standard drainage crossing on McHattie, Angler's Lane and at the intersection of Knott Way at Greig Avenue.

SCADA - Software and equipment upgrades will continue in 2010 to maintain compatibility with the CRD system.

Sewer System Modifications

- Root repairs – ongoing.

- **Hagan and Brentwood Sewer Pumping Options** Stantec Consulting is completing the feasibility study of options for the replacement of the asbestos cement forcemains from the Hagan and Brentwood sewer pumping stations. A component of the study will also consider the replacement or decommissioning of the Hagan Pumping Station. It is anticipated that the study will be completed in early 2010.

Anglers – Grilse Lane Watermain Replacement

The watermain replacement and paving of Anglers Lane was completed in late December.

Senanus Water Main Project

A request for an extension of the project completion date to March 31, 2012 has been requested to the Ministry of Community and Rural Development. The current program completion date is March 31, 2010. Design of the watermain has been completed but will not proceed to tendering and construction pending the outcome of a judicial review associated with the establishment of the Local Service Area Bylaw adopted for this project.

Brentwood Bay Water-Fire Protection

The District has not yet received confirmation of funding from an application submitted under the Canada-British Columbia Building Canada Fund Communities Component for 2/3 funding of the design and construction of the necessary works for the improvement of fire-fighting flows to the commercial area of West Saanich Road. The total estimated project cost in 2009 dollars was \$1,400,000.

P.S. On January 20, 2010, the District had received confirmation of an unsuccessful funding application for the above mentioned program. Staff will continue to investigate other funding options for this project through 2010.

Dock Maintenance

Maintenance and Inspection of the two dock facilities will be conducted by Advanced Contract Services until expiry of the maintenance contact in December 2009, after which time the

maintenance and routine inspections will be conducted by the CS Parks Division.

A full structural evaluation of both facilities is anticipated for Fall 2009.

The options for harbour storage of the concrete float at the Saanichton Bay Dock during the winter months will be investigated as well as the purchase of a wooden replacement float for year round installation.

Rezoning and Subdivision Applications
Engineering and Public Works Department continue to review the Subdivision, Rezoning and Development Permit applications referred by the Planning Department.

PUBLIC WORKS

Vehicle Equipment Maintenance

- ❖ *Police – regular servicing of the fleet.*
- ❖ *Fire –regular servicing of all fire equipment and PEMO vehicles.*
- ❖ *Roads/Drains – regular servicing and a replacement of a multi use flat deck truck. New flat deck put into service.*
- ❖ *Parks - regular servicing of vehicles and equipment.*
- ❖ *Water/Sewer – regular servicing Engineering and Inspections – regular servicing of vehicles.*

Water Maintenance

- ❖ *Water meter replacement program was completed for another year. Installed approximately 350 new meters with dual check valves into the residential service lines.*
- ❖ *Fire hydrants have all had a “B” service, which is a pressure check and to ensure they are properly drained for the winter months.*

- ❖ *All grass and brush has been cut around the hydrants.*
- ❖ *15 Water service leaks were identified and repaired. Broken meter bottoms and cracked service lines were the issue.*
- ❖ *The Air Valve Maintenance program started in August and was completed in early September. Thirty air valves were cleaned and serviced, with three of them replaced with new ones this year.*
- ❖ *Grilse water main upgrade was completed with installation of a new 6” Blue Brute water line as well as the upgrade of 6 new service connections and two new fire hydrants for fire protection.*
- ❖ *Scada was installed in the last two PRV stations. CRD is finalizing the programming schedule which is to be implemented in 2010.*
- ❖ *Maintenance and repairs are on-going with all of the PRV stations*
- ❖ *A new water meter was installed on the fire hydrant in the Public Works Yard to monitor more accurately how much water is consumed by Public Works Operations.*

Sewer Maintenance

- ❖ *Annual sewer main inspections and camera work was completed for this year.*
- ❖ *Approx. 2,000 meters of the sewer mains were flushed and cleaned to prevent blockages and backups.*
- ❖ *Flushing and cleaning the 17 sewer pump station wet wells.*
- ❖ *The re-lining of the bridged sewer line that runs over Tetayut Creek was completed – with the installation of a new fiberglass lining.*

- ❖ CCTV camera work was completed for the year. As a result of the camera work problems were identified and repaired. The majority of the problems were caused because of dirty lines and root blockages.
- ❖ Sewer root repair program is on-going with numerous problem areas located and fixed.
- ❖ Approximately 2,000 meters of sewer mains were flushed this quarter.
- ❖ Bi-weekly flushing of all the sewer stations, as well as inspection and maintenance of the 13 smaller grinder stations is on-going.
- ❖ The annual Fall sucking out and cleaning of all the sewer stations was completed. Lower amounts of debris and gravel was found in the system.
- ❖ A more routine scheduling of the sucking out of the sewer stations will be done for next year to ensure the stations are clear from debris and smells throughout the year.
- ❖ Weekly inspections of the sewer stations is on-going.
- ❖ Responding to residential and Scada calls as required.
- ❖ SCADA upgrades are well underway, which monitors and controls our sewer pumps stations and the water PRV stations. Adding onto this technology will be completed in 2010.

Roads and Drainage Maintenance

- ❖ Street sweeping cleaning up for 200 hours.
- ❖ Cleaned, inspected and effected repairs on all of the culvert ends within the municipality.
- ❖ Cleaned and flushed approximately 1300 catch basins for 300 hours.
- ❖ Completed the agriculture ditching portion of our maintenance program, approximately 3 kilometres of ditches through Maber flats and

Island View/ valley area and an additional 400 meters in various other locations.

- ❖ Washed and painted 1925 meters of guard rails though out the district.
- ❖ Completed painting all existing yellow curbs, plus adding new curbing.
- ❖ Installed a new bus pad, shelter, and bench on West Saanich Road in the Brentwood core.
- ❖ Added 30 truck route signs to the current inventory of signs and installed specialty signs and construction signs.
- ❖ Repairs to the storm drainage system including the installation of 4 new catch basins, replaced 5 old steal culverts and cleaned culvert ends.
- ❖ Flushed deep large diameter drain lines, root cut and removed protruding laterals in some lines.
- ❖ Started using new steam generating weed control machine for sidewalk crack and crevasse weed control.
- ❖ Last cut for flail mower for 200 hours.
- ❖ Repaired potholes for 300 hours.
- ❖ Maintained existing bus shelters and litter pick up.
- ❖ Built the Halloween bon fire.
- ❖ Responded to 4 events requiring salt and one event where it snowed in Brentwood only.
- ❖ Cleaned up branches and debris from winter storms on numerous occasions.
- ❖ Participated in regular training as scheduled.
- ❖ Provide service requests on a daily basis.

Parks Maintenance

- ❖ Performed routine Parks tasks such as litter collection and trail maintenance within the Parks System.

- ❖ *Routine grass cutting within our community, neighbourhood and nature parks into early November this season.*
- ❖ *Monthly park and playground inspections completed.*
- ❖ *Completed the Fall field maintenance which included aerating, mechanical weed removal in Centennial and Alexander Field.*
- ❖ *Performed projects in the Invasive Plant Removal Program within Centennial Park, Adam Kerr and Cooperidge Park.*
- ❖ *Continue to assist other sections of Public Works with tree related issues. Extensive tree planting will continue into 2010.*
- ❖ *Winterized all irrigation systems and equipment for the season.*
- ❖ *Performed routine parks tasks such as litter collection and graffiti removal.*
- ❖ *Pressure washing of play equipment.*
- ❖ *Horticultural maintenance weeding, mulching and pruning.*
- ❖ *Rodolph Park replaced fencing with a split rail system along the boulevard.*
- ❖ *Completed de-icing/sanding of all Municipal facilities and parking lots.*

Workplace Safety and Risk Management

In order to comply with Workers' Compensation Board (WCB) Regulations and limit the District's liabilities, the following steps were taken:

- ❖ *Weekly General Safety Meetings and Monthly Safety Committee Meetings were held at the Public Works Yard.*
- ❖ *Ensured the completion of quarterly inspections:*
 - i. *First Aid Kits*

- ii. *Eye wash stations*
- iii. *Emergency Lights*

- ❖ *Provided training/clinics for the following issues:*
 - i. *Snow Fighter Video*
 - ii. *Winter Driving Awareness*
 - iii. *Inattention/Driver Distraction*
 - iv. *5 Minute Fundamentals to Driving*
 - v. *Winter Driver Awareness*
- ❖ *Monitored Work Safe BC coverage of contractors who perform services for the Public Works Division.*
- ❖ *Completed physical verification of Public Works inventory of small equipment.*
- ❖ *Completed physical count and adjustment of Public Works materials inventory (evaluation report submitted separately).*
- ❖ *Completed compilation of aggregate use summary for Federal Minerals and Mining Statistics division.*
- ❖ *Completed annual update of commercial sign installation database.*

Public Services

- ❖ *Fuel Tanks:*
 - i. *Monitored tanks on a weekly basis to ensure that the tanks are not leaking, and*
 - ii. *Physically inventoried tanks on a monthly basis to ensure that there is not any fuel loss.*
- ❖ *Processed numerous requests for service.*

Vehicles, Equipment and Supplementary

- ❖ *Replaced vehicle #306 with #316, cab and chassis, hydraulic capabilities, power winch with snow plow.*
- ❖ *Began to retrofit a number of sanders to hydraulics to reduce emissions. Annual*

inspection on the vehicle hoist, 2 ton jib crane and crane on units #412 and 710.

- ❖ *Received delivery of a steam weed control system, to be used within the District to reduce the cosmetic use of pesticide in Public Works.*

Description	Budget	Actual Cost	Status
Snowplow, unit #273, for Veh #216	8,000	7,597.00	Rec'd Jul 21/09
Steam-Gen. Weed Control Sys, #274	15,000	17,933.20	Rec'd Sep 29/09
Replace vehicle #706 with new #716	50,000	38,153.54	Rec'd Jul 20/09
Scrap-It Revenue, Veh #706	0	-2,000.00	Rec'd Sep 30/09
Replace chrome wheels with steel wheels on Veh #716	0	2,006.25	Rec'd Jul 20/09
In-House upgrades to Veh #716 Seat covers, truck bed, mud flaps	0	819.14	Rec'd Aug 10/09
Replace vehicle #306 with new #316	75,000	35,943.09	Rec'd Sep 17/09
Service Body, for #316 (quote)	0	34,482.77	Rec'd Dec 31/09
Hydraulics, for #316 (quote)	0	8,558.93	Rec'd Dec 31/09
Replace vehicle #704 with new #714	160,000	135,572.99	Carry forward to 2010: ETA Mar/10
Replace Mower Head #375,** premature catastrophic failure	0	13,375.00	Rec'd Aug 10/09
Sander, hydraulic, pre-wet sys, #387**	0	10,590.41	Rec'd Dec 31/09
TOTAL	\$308,000.00	\$303,032.32	

** not originally forecasted for replacement in 2009 and was not indicated as such on 2009-2013 Equipment Fleet Summary.

Environmental Initiatives

- ❖ *Implementation of a steam weed control unit used in the reduction of weeds in sidewalks and curbs/gutters, fence line and around pump stations.*
- ❖ *Scraping out the grass and debris from sidewalks seems to prevent growth and reduce the need to use herbicides.*
- ❖ *All asphalt and concrete construction waste is returned to the production plant for recycling.*
- ❖ *Continue to implement the Integrated Pest Management.*
- ❖ *Initiate the use of hybrid technology to reduce emissions and fuel consumption.*
- ❖ *Ongoing installation of low power LED lights so vehicles don't have the motor running on the job. This initiative reduces fuel consumption and reduces harmful emissions.*
- ❖ *A fuel additive is added to the diesel and gas to reduce emissions and add lubrication to reduce maintenance costs.*
- ❖ *Continue to use Biodiesel in the Central Saanich Works Yard in an attempt to reduce air pollution and consumption of fossil fuels.*
- ❖ *Invasive Species Management Program to remove invasive species in District Parks.*
- ❖ *Urban Forest Management Plan, Parks continues to reestablish disturbed areas with native species.*
- ❖ *Continue with aerosol, paints and propane tank recycle program.*
- ❖ *Continue the use of biodegradable garbage bags. Bags degrade after one year.*

Nirmal Bhattacharya, P. Eng.
Municipal Engineer
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