



INFRASTRUCTURE SERVICES COMMITTEE

Thursday November 3, 2011
SCRD Board Room, 1975 Field Road, Sechelt, BC

AGENDA

CALL TO ORDER 1:30 pm

AGENDA

1. Adoption of the Agenda.

MINUTES

PETITIONS AND DELEGATIONS

REPORTS

2. Manager of Utility Services
Area A Water Master Plan (AAWMP) 2011 Update Report
Annex A
P 1 – 17
3. Manager of Utility Services
Referral Planning and Development Re: Water Capacity
Annex B
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4. Manager of Transportation and Facilities
Vaucroft Dock Repairs
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5. Water Conservation Assistant
Bathroom Fixture Replacement Program – Update
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6. Section Secretary
Infrastructure Services Monthly Report for October 2011
Annex E
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COMMUNICATIONS

7. Ministry of Environment
Update on Water Sustainability Act
Annex F
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IN CAMERA

That the public be excluded from attendance at the meeting in accordance with section 90(1) (b) of the *Community Charter* "personal information about an identifiable individual who holds or is being considered..."

NEW BUSINESS

ADJOURNMENT

SCRD STAFF REPORT

DATE: October 25, 2011
TO: Infrastructure Services Committee Meeting – November 3, 2011
FROM: Dave Crosby, Manager of Utility Services
RE: **AREA A WATER MASTER PLAN 2011 UPDATE REPORT**

RECOMMENDATION(S)

THAT the Manager of Utility Services' report entitled "Area A Water Master Plan (AAWMP) Open House 2011" be received;

AND THAT the Area A Water Master Plan 2011 Update Report be adopted as presented.

BACKGROUND

The updated Area A Water Master Plan (AAWMP) document was received by the Infrastructure Services Committee on October 7, 2010, leading to the following resolution that was adopted by the Board at its regular meeting held October 14, 2010 (410/10 No. 5)

THAT the Draft Area A Water Master Plan Update report be received and placed on the SCRd website for public review;

AND THAT a Public Open House be held to present the draft plan and receive input from the community.

As noted in the staff report dated September 27, 2010, the Updated AAWMP document is truly an update and not a rewrite. The updated report incorporates the ownership conversion of the North Pender Harbour water system and accounts for the many projects and that have been completed following the adoption of the original report in 2007. The purpose and strategic direction remain unchanged from the original plan, which continues to focus on sustainable water supply, water quality improvements, affordability and communication.

DISCUSSION

The draft AAWMP Update report was placed on the SCRd web site following the October 14, 2010, Board meeting. As per Board direction, an Open House was hosted by Infrastructure Services staff at the Madeira Park Legion on October 22, 2011, to present the Update report to the public.

Staff presented story boards outlining the highlights of the report. Thirty nine (39) people attended the Open House and most of them engaged in a dialogue with staff and consultant Steve Lee.

The majority of the conversation focused on the South Pender Harbour water treatment plant in terms of its progress, cost and treatment process.

Other items discussed also included the Middle Point water system proposal, Sakinaw Lake license application, water metering and Garden Bay Lake flow control structure.

By and large, the meeting and information were well received by the attendees. Staff have not received any requests for changes in direction or content to the Update report prior to or during the Open House.

Due to the one year time lapse between completion of the draft report and today's recommendation for adoption, staff have incorporated the following amendments into the attached final draft:

Page 5	Item A5 – removed reference to issuance of a conditional license for Sakinaw Lake
Page 5	Item A7: revised status to “Future Initiative”.
Page 6	Item Q5: updated status to completed.
Page 7	Item S18 – updated to completed.
Page 7	Item S20 – linked completion of this item to follow Item S19
Page 8	Changed heading from “2010 Update” to “2011 Update”
Page 13	Item A1 – updated status to note that the Sakinaw Lake water license application is still awaiting a decision from the Province.
Page 13	Item A2 – revised schedule to 2013 from 2011.
Page 13	Item A4 – revised schedule to start in 2013 instead of 2011.
Page 13	Items B1 to B5 – all projects are in progress. Updated schedule to match actual.
Page 13	Item B7 – deleted as project is completed.
Page 14	Item C3 – updated to completed.
Page 14	Item C5 – updated metering program schedule to start 2012 in place of 2010.



AAWMP 2011 Update

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Map - Area A watersheds and water service areas
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Minutes of meeting on 14 May 2009 and Power Point presentation
DWO Inspection Reports

ACKNOWLEDGEMENT

This document is primarily the outcome of the collaboration between SCRD staff and the major stakeholders, as facilitated by Mr. Steve Lee, MBA, P. Eng.

Stakeholder input has been provided by:

- Tim Adams, Drinking Water Officer, Provincial Health Authority
- Julia Berardinucci, Regional Manager (Water Stewardship) Ministry of Environment
- Tim Bennett, (Water Stewardship) Ministry of Environment
- Dave Nanson, Regional Biologist Department of Fisheries and Oceans
- Jordan Louie, Sechelt Indian Band
- Louise Todhunter, North Pender Harbour Water Service Area Advisory Committee
- Ryan Logtenberg, Area A Advisory Planning Commission
- Barry Wilbee, Area A Alternate Director SCRD
- Eric Graham, Area A Director SCRD
- Technical input has been provided by SCRD staff: Bryan Shoji, General Manager Infrastructure Services, Dave Crosby, Manager of Utility Services and David Rafael, Senior Planner.
- Administrative support has been provided by Joanne Bullock.

Steve Lee, MBA, P.Eng
Consultant
October 2011

1. Background

This document provides an update to the 2007 edition of the Area A Water Master Plan (AAWMP or “the Plan”) to make the Plan current to September 2010. The update captures the thoughts of, and dialogue between, SCRD staff and the major stakeholders. For more detailed background information readers should refer to the 2007 edition of the AAWMP.

1.1 2007 Initiative

With a strong mandate from the Community a select group of knowledgeable individuals representing both the Non-Governmental Organizations and Public sectors completed the Plan in early 2007. The Plan establishes general directions to address drinking water issues in Area A and provides a general framework to improve the systems to achieve the overall objectives.

1.2 2007 Business Environment

The business environment in 2006/2007 was most dynamic to say the least. The impetus to develop a Master Plan was provided by the following conditions:

- Environmental Appeal Board (EAB) ruling (2007 AAWMP, SCRD) on the Hotel Lake Water Application made certain demands of the SCRD, including developing a master plan.
- Considerable portion of the area residents were dissatisfied with the quality of drinking water supply and were also concerned with the environment and eco-system as the community grows.
- Water systems were generally sub-standard and systems were not developed on the basis of long range planning and comprehensive scientific analysis. Moreover, changing provincial standards and Drinking Water Officer (DWO) expectations require major upgrading to the water systems.
- Economic boom and projected near term new growth warranted immediate expansion in infrastructure. The Community, however, anticipated severe difficulties in funding major capital upgrades required to meet new standards and DWO expectations.
- The General Strategic Priority Funding (GSPF) program (from the Gas Tax revenue), Municipal Rural Infrastructure Fund, Green Municipal Fund, and Build Canada Fund grant programs were launched by the Federal and Provincial Governments to promote upgrading of infrastructure thus provided funding opportunities leading to a positive outlook.

1.3 2007 Objectives

The objectives in the 2007 Plan can be summarized as follows:

- Pursue water quality, environmental protection and system sustainability, including compliance with provincial regulations, EAB and DWO requirements
- Plan and design systems on the basis of science.
- Seek external funding and reduce cost to customers.
- Maintain adequate communication with the public.

1.4 Significant Events (2007 – 2009)

Since the adoption of the AAWMP, several significant events occurred, including but not limited to the following:

- The SCRD made separate applications to the three major funding programs in early 2007 for the AAWMP projects as a group. A total of over 2.8 million dollars was awarded to the SCRD for the improvements.
- In 2007, members of the South Pender Harbour Water District (SPHWD) voted in favour to convert the Water District to a Regional District service. The conversion process was completed in mid 2008.
- World wide economic downturn affected local economy.
- The SCRD made applications to construct water treatment plants for North Pender Harbour Service Area and the South Pender Harbour Service Area under the Building Canada Fund (BCF), a funding initiative launched by the Federal/Provincial Government in 2008. A grant in the amount of \$4.08M was awarded to the SCRD for the construction of a water treatment plant in South Pender Harbor and the installations of water meters.

1.5 2007 Program Status

The Tasks identified in the 2007 Plan include Grant Applications, Scientific and Feasibility studies and construction projects to address water supply and quality issues. Since then 38 of the 44 tasks have been addressed and/or completed. (See figure 1)

2007 AAWMP projects status (FIGURE 1)	
Initiatives (2007 AAWMP)	Status (May 2009)
Applications	
A1 - Grant funding application to FCM's Water RFP	Completed - 2006, approved \$1.0m, contract pending
A2 - Grant funding application to Canada-B.C. Municipal Rural Infrastructure Fund	Completed - 2006, application unsuccessful
A3 - Application for 14 M gal from Hotel Lake	Completed - 2006, license refused
A4 - Application for 25 M gal annual extraction from Garden Bay lake	Completed - 2006, approved 2007
A5 - Sakinaw Lake water license application	Completed - 2007
A6 - Grant funding application to Provincial Infrastructure Planning Grants Program	On-going project, specific pursuits
A7 - Grant funding application to University research programs (e.g. NSERC)	Future initiative
Implementations	
I1 - Implementation of GBWWD/HL system integration	Completed - 2007, improvements incorporated in annual program
I2 - Potential SPHWD/NPHWSA amalgamation	WTP Feasibility Study recommended not to amalgamate at this time
I3 - Implementation of SPHWD/NPHWSA system integration	Analysis completed, decision not to proceed
I4 - Potential SPHWD/NPHWSA amalgamation	Analysis completed, decision not to proceed
I5 - Replacement of distribution system for Egmont water system	Construction in 2009, GSPF funded
I6 - Water mains extension to service Jervis Inlet Rd. and Earl's Cove Rd.	Construction in 2009, GSPF funded
I7 - Transfer of assets from Clearwater Utilities to the SCRD	SCRD analysis complete, proponent discontinues initiative
I8 - Water mains extension to service N & S Oyster Bay	Construction in 2009
I9 - Water mains extension to service residents of Middle Point area	Preliminary analysis in 2009, proposal made by SCRD has not been accepted, no action expected

Water Quality	
Q1 - GBWWD/HL UV treatment	To be implemented as part of the proposed WTP, as per BCF Grant application
Q2 - Water treatment plant construction for SPHWD/NPHWSA	\$4.06M grant funding under BCF program approved in 2009, engineering design in progress for 2011 construction
Q3 - New treatment facility for Egmont water system	Construction in 2010, GSPF funded
Q4 - New UV disinfection system for Cove Cay system	Future initiative
Q5 - New treatment facility for Pender Harbour Secondary School	Completed - 2011
Studies	
S1 - Hotel Lake Hydrologic Study	Completed – 2007
S2 - Mixal Creek Hydrologic Study	Completed – 2007
S3 - Garden Bay Water Balance Study	Completed – 2006
S4 - Sakinaw Lake Hydrologic Study	Completed – 2006
S5 - GBWWD/HL system integration study	Completed – 2008
S6 - Water treatment plant feasibility study for NPHWSA	Completed – 2008
S7 - Development of drinking water source protection program	TBD
S8 - SPHWD/NPHWSA amalgamation feasibility study	WTP feasibility study recommended two separate service areas
S9 - SPHWD Source to Tap Study	Completed - 2007
S10 - SPHWD feasibility study for alternative supply options	Not initiated, S to Tap study established that current water supply source is adequate
S11 - SPHWD feasibility study for new water treatment plant	Completed - 2008
S12 - Preliminary feasibility studies for SCRD takeover of community systems	No current requests
S13 - Final feasibility study and design work for Egmont system upgrades	Completed - 2008
S14 - Final feasibility study of mains extension to service Jervis Inlet Rd.	Completed - 2008
S15- Final feasibility study of SCRD takeover of Dream Valley	(See I 7) Proponent discontinued pursuit

S16 - Final feasibility study of mains extension to service N & S Oyster Bay	Completed - 2008
S17 - Feasibility study of options for improving water quality at PH Secondary School	(See Q 5) Assessment to be conducted in 2011
S18 - Feasibility study of mains extension to service Middle Point area	Completed - 2010
S19 - Feasibility study for new function to support long term source development research	Study completed, pending referendum
S20 - Sakinaw basin data collection and motoring/modeling program	Pending completion of S19
S21 - Sakinaw Basin adaptive management study	To be considered after adequate data has been collected
S22 - Development of ground well inventory	Existing data on water quality deemed ground water in this area nit feasible for community water supply. Data is academic.
S23 - Aquifer Mapping	Same as S22
New/additional initiatives	
BCF grant applications	Completed - 2008
SPH conversion	Completed - 2008

2. 2011 Update

As stated in the 2007 Plan, the Master Plan should be updated on a regular basis particularly when considerable changes have occurred in the business environment since the completion of the Plan.

2.1 Participants - The Core Planning Group (CPG)

In view of its positive dynamics, many of the original participants in the 2007 Master Plan were invited to participate in this update. The CPG represents a diverse group of stakeholders, as follows:

- Provincial Health Authority (Tim Adams, DWO)
- Ministry of Environment (Julia Berardinucci, Regional Manager, Water Stewardship, Tim Bennett, Section Head, Water Allocation, Water Stewardship)
- Department of Fisheries and Oceans (Dave Nanson, Regional Biologist DFO)
- Sechelt Indian Band (Jordan Louie, absent)
- North Pender Harbour Water Service Area (NPHWSA) (Louise Todhunter, member NPHWSA Advisory Committee)
- South Pender Harbour Water Service Area (SPHWSA) (Richard Frappier, absent)
- Advisory Planning Commission (Ryan Logtenberg)
- Sunshine Coast Regional District (Dave Crosby, Manager of Utility Services)
- SCR D (E. Graham, Area A Director and B. Wilbee, Area A Director Alternate)

2.2 Process

SCR D Administration advocated a simple and concise update of the document. Using the 2007 Plan and Program Status as a starting point, the CPG engaged in a positive dialogue at a meeting(s) on 14 May 2009. (Appendix 1- Minutes of meeting on 14 May 2009 including powerpoint presentation) The Group focused generally on:

- System, science-based (knowledge, belief and truth) and big-picture thinking (aware of internal and external factors);
- Business environment, short and long term issues in drinking water supply;
- Opportunities, challenges, objectives and strategies; and
- Changes and adaptations required to render the system and services sustainable

2.3 Plan Objectives

The objectives established in the 2007 Plan are generally still valid. Strategies to adapt to the current business environment were discussed and the following objectives were re-affirmed:

- A. Establish long-term water supply to accommodate the current and future needs of the communities in Area A while minimizing the impact on the lake systems and the local eco-system.
- B. Provide high quality drinking water to the residents complete with multi-barrier protection against contamination.
- C. Plan and manage the delivery of service in a cost effective, fair and equitable manner.
- D. Maintain open communication and assist all Area A residents in addressing drinking water issues.

2.4 2009 Business Environment

With the economic downturn, decline in housing and construction markets, the 2009/2010 business environment appears to be considerably different from 2007. The main elements are:

- Community continues to demand good drinking water, and concerns for the environment and the eco-system remain a high priority.
- It is generally agreed that there is abundance of surface water supply to support the current and future population in the Area. Ground water has also been identified as a potential source of community water supply. While well water may have less particulates, arsenic contamination has been identified as a common occurrence in the Area.
- With the conversion of SPHWD in 2008, the SCRD has taken on the role as the main steward for drinking water supply in the Area. Integrity of most of the infrastructure in the Area is now being addressed in the development of the SCRD's 10-Year Plans.
- Drinking Water Officer has stated in his annual Inspection Reports (Appendix 2) that water treatment systems with multi-barrier protection are required for SPHWSA, NPHWSA, Cove Cay and Egmont.
- Due to the small market base, customers will continue to experience difficulties in funding major capital upgrades required to meet new standards and expectations. Economic recession has also caused significant changes in the money, housing and construction markets.
- Meaningful data to support scientific hydrologic studies remains inadequate.

- Federal and Provincial Government have launched major funding programs to stimulate the economy. Competition for such funding, however, remains extremely high.
- The Federal government has also launched “short notice” funding programs to stimulate the economy. Only projects that are “shovel ready” are being considered in this.
- NPHWSA operating requirements exceeded original projection in the Conversion Study. Operating costs for all systems will rise as systems are improved and will most likely become an on-going concern for all customers.
- Acceptance of certain Federal and Provincial funding (BCF and GMF) commits SCRD to a progressive water conservation program.
- **OCP and Planning Considerations**
 - Build-out capacity, as outlined in the current Official Community Plan for the Area has not changed since the 2007 Plan. While potential increase in residents in the area may be significant, actual trend of growth in the area has been relative stable. There may be spikes in annual growth rates, long-term trend however appears to be relatively stable at the 1.0% - 1.5% range.
 - Actual growth rate is typically a function of the general state of the economy, real estate values, employment rate in the area, regional growth strategy, demographic characteristics, transportation and other services, etc. While annual growth rates may fluctuate, rapid change in long-term trend is not expected, particularly within the planning horizon of this document.
 - Water demand is typically a function of population, climate, water conservation measures, quality of water, system expansion, etc. For the purpose of this edition of the AAWMP, it is assumed that demand management efforts will mitigate some of the increase due to population growth. The key, however, is to maintain meaningful data and be adaptive to changes and unforeseen circumstances.

2.5 Opportunities and Challenges

The new business environment provides the following opportunities and challenges:

2.5.1 Opportunities:

- In the spring of 2008 the Federal Government launched the Building Canada Fund program to stimulate the economy and strengthen Canada’s infrastructure. SCRD submitted two applications under this program for the construction of water treatment plants for the NPHWSA and SPHWSA respectively. A grant of \$4.06m

was approved for the construction of a water treatment plant for the SPHWSA was approved in 2009.

- Construction tenders in early 2009 have shown a considerable drop in construction prices. This appears to be an excellent time to undertake major construction.
- The current low interest rate is at all time low and is ideal for debt financing major capital projects.
- As the largest lake and watershed in the Area, Sakinaw Lake provides potential long-term supply and a great alternate source as a means to reduce environmental impact. The response from Ministry of Environment to SCRD's 2007 application for a (11.0 million gallon) water license was that there appears to be adequate water but SCRD must address issues raised by DFO and residents on the lake.
- The \$1.0 million Green Municipal Fund and the \$1.0 million Low Interest Loan approved in 2007 may provide 50% of the capital costs for water conservation improvements and water treatment plant design for both N & S Pender Harbour. An Alternate Approval process was successfully conducted in 2009.
- Federal/Provincial funding agencies demand water conservation, reward good management and encourage preparedness for construction.
- Harris Lake has been identified as a potential source of additional supply for South Pender Harbour Water Service Area (SPHWSA).

2.5.2 Challenges:

- A significant supply (McNeill Lake) capacity issue for the SPHWSA system surfaced in the peak season in 2008. This will need to be addressed in the immediate future. The issue was not identified in the capital plan in the Source to Tap Report.
- In July of 2009, SPHWSA also encountered severe poor water quality issues that resulted in the issuance of a Water Quality Advisory by the DWO.
- Lack of credible scientific data for most of the watersheds in Area A will continue to cast uncertainties in hydrologic analyses
- Due to the recent economic downturn, difficulties in tax-based funding will likely continue.
- Funding for major capital construction will continue to be an issue for the water service areas.
- Limited staff resources will continue to be a challenge in managing the systems.

2.6 Strategies

The following strategies will help design a program to achieve the objectives in this Plan:

- **Diversify Supply Sources.** This will ensure long-term supply capacity thus enabling the community to develop in accordance with the OCP. This will also provide the water purveyors with directions to manage the water supply so as to minimize impact on lake systems. Furthermore, this will enable purveyors to better manage (natural or accidental) bad water situations.
- **Protect Watersheds.** Watersheds are essential assets and resources supporting the community water supply and the eco-system. Damages to the watersheds will compromise the quality of such co-existence. Studies have identified that wildlife, human (septic, recreation, transportation, etc.) and industrial (logging, mining, etc.) activities are high risk activities in damaging the watersheds. Although standards and regulations are in place to protect the watersheds from such activities, competing interests often result in sub-optimization. Careful monitoring of on-going activities should be conducted to prevent undue damage to the watersheds.**Adopt Demand Management Policies.** Demand Management programs will help to reduce per capita consumption, thus improving sustainability of the systems and supply sources. This will also qualify the SCR D to pursue Federal and Provincial funding.
- **Establish Appropriate Service Levels.** In the context of water supply, services include supply management, water treatment with multi-barrier protection, fire flow distribution, back-flow prevention, regular testing, reporting, monitoring. Establishing service levels to meet the requirements of the DWO and Health Regulations will ensure water quality, and will qualify purveyors for Federal/Provincial grant funding.
- **Interim Water Quality Improvement for SPHWSA.** In light of the raw water quality issues to be addressed by the SPHWSA annually, construction of a water treatment plant is being noted as a high priority initiative. While design and construction are being pursued, interim measures in water quality improvement has been recommended by the DWO.
- **Improve watershed monitoring and related data collection.** This will enable scientists and engineers to conduct more credible analyses and provide better engineering designs.**Optimize Grant Funding Opportunities.** This will reduce overall costs to the water customers and advance the implementation of major infrastructure upgrades.**Establish Regular Communication Channels.** This will keep the communities informed and facilitate the residents to provide input to the SCR D regarding drinking water issues.

2.7 Programs and Projects

The programs, projects and tasks presented below are intended to be recommendations to be considered in the capital and operating programs for the respective water purveyors and the SCRD as appropriate.

Objective: A. Establish long-term water supply		
Strategies: Diversify Supply Sources Improve watershed monitoring and related data collection Adopt Demand Management policies		
Tasks	Est. Cost \$	Schedule
A-1 Sakinaw Lake water license application	50,000	With Province
A-2 Conduct watershed monitoring program as either a tax based initiative (pending referendum) or water user fee based program for the benefitting service areas	112,000	2013 annually
A-3 Conduct Adaptive Management study of Sakinaw Basin	tbd	2020
A-4 Conduct hydrologic study on Harris Lake	30,000	2013/2014
A-5 Conduct hydrologic analysis and feasibility study on transferring water among different watersheds, e.g., Klein, Ruby, Sakinaw, etc.	60,000	2015

Objective: B. Provide High Quality Drinking Water		
Strategies: Comply with standards and DWO Requirements Diversify Water Supply Source		
Tasks	Est. Cost \$	Schedule
B-1 Incorporate DWO recommendations in respective 10-yr plans	N/A	2012
B-2 Conduct WTP design for SPHWSA	550,000	2011
B-3 Construct WTP for SPHWSA and implement interim water quality improvement measures	4,000,000	2012
B-4 Conduct UV treatment design for NPHWSA	50,000	2011
B-5 Construct UV treatment for NPHWSA	300,000	2012
B-6 Extend water main to Middle Point area	2,400,000	tbd

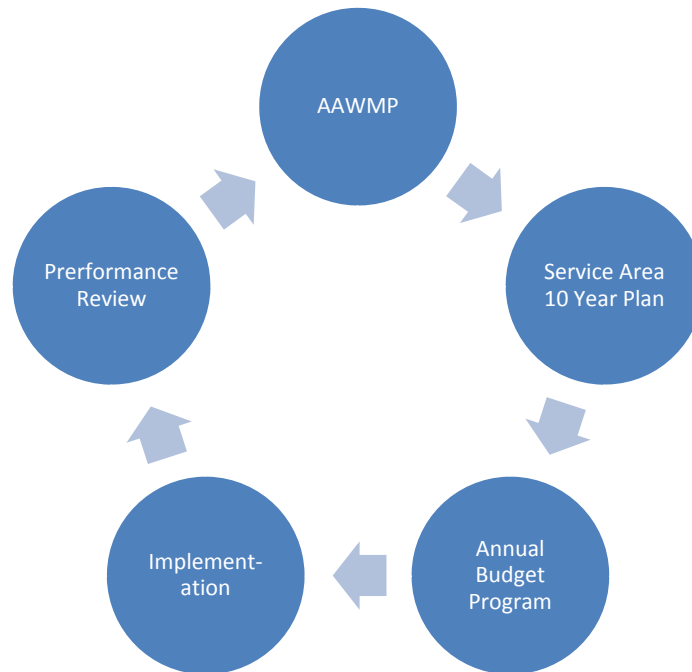
Objective: C. Provide Cost Effective Services		
Strategies: Optimize Grant Funding Opportunities Adopt Demand Management Policies		
Tasks	Est. Cost \$	Schedule
C-1 Grant application for WTP design for SPHWSA (see B 2)	N/A	
C-2 Grant application for WTP design for NPHWSA (see B 4)	N/A	
C-3 Finalize GMF funding and loan agreements		Completed - 2011
C-4 Make applications for Federal and Provincial funding		On-going
C-5 Implement metering program and meter rates	840,000	2012 - 2013
C-6 Implement Low Flow Fixture Replacement Program	840,000	2012 - 2013

Objective: D. Maintain Communication with the Community		
Strategies: Establish Regular Communication Channels		
Tasks	Est. Cost	Schedule
D-1 Maintain Public Advisory Committees as appropriate		On-going
D-2 Invite stakeholder representation to planning meetings		On-going
D-3 Post relevant documents on SCRD website		On-going
D-4 Conduct Open Houses for major initiatives as appropriate		On-going

3. Conclusion

Given the current business environment, the Stakeholder Group resolved, as strategies of this phase of the Master Plan, to pursue alternate supply sources, watershed monitoring and data collection, quality service level, demand management policies, Federal/Provincial grant funding (including preparedness to construct water treatment plants) and enhanced communication programs.

The programs and projects identified in this Plan reflect an overall funding requirement of 8 to 10 million dollars in construction and operating (for the next 10 years or so) in order to achieve the objectives of the Plan. The initiatives identified are by no means exhaustive and prescriptive. They are intended to be recommendations to the various water purveyors to be considered in their respective water system (capital and operating) planning. This Plan should be adopted as part of the following management model.



As the communities and business environment evolve, this Plan also has to evolve.

“The future is not some place we are going, but one we are creating. The paths to it are not found but made, and the activity of making them changes both the maker and the destination”

John Schaar, American Sociologist

SCRD STAFF REPORT

DATE: October 18, 2011
TO: Infrastructure Services Committee Meeting – November 3, 2011
FROM: Manager of Utility Services
RE: **REFERRAL PLANNING AND DEVELOPMENT – WATER CAPACITY**

RECOMMENDATION(S)

THAT the Manager of Utility Services' report entitled "Referral Planning and Development – Water Capacity" be received for information.

BACKGROUND

The following recommendation was made by the Planning and Development Committee at its regular meeting held October 13, 2011.

THAT the issue of the relationship between water capacity and rate of land development throughout the water service area be referred to the next SCRD Infrastructure Services Committee;

AND THAT SCRD staff bring a report on the SCRD 10 year water works plan.

DISCUSSION

The Comprehensive Regional Water Plan is currently in the development stage and will address water capacity extensively. Several factors are taken into account in regard to the relationship between water capacity and land development. These factors include historic population growth, population growth projections based on Official Community Plans, historic water consumption data, and demand management (conservation) strategies.

As mentioned at the October 24, 2011 Special Corporate Services Committee meeting, the Strategic Plan portion of the draft Comprehensive Regional Water Plan will be referred to the project's Technical Review Committee the week of October 31, 2011 and once comments are received and incorporated into the draft document it will be presented to the Infrastructure Services Committee for review.

SCRD STAFF REPORT

DATE: October 24, 2011
TO: Infrastructure Services Committee – November 3, 2011
FROM: Brian Sagman, Manager, Transportation and Facilities
RE: VAUCROFT DOCK REPAIRS

RECOMMENDATION(S)

THAT the Manager of Transportation and Facilities' report entitled "VAUCROFT DOCK REPAIRS" be received;

AND THAT the 2011 work plan be amended to defer dredging and installation of additional floatation in favour of a new ramp;

AND THAT additional reserve funding of \$2,500 be allocated to cover the residual costs of a new ramp.

BACKGROUND

The 2011 budget included an allocation of \$5,000 for dredging around the Vaucroft dock that is required periodically to address the accumulation of sediments as well as \$2,000 for additional floatation. In recent weeks residents of the area have noted that the roller at the base of the ramp has been damaged and is now causing damage to the frame that holds it in place. If not addressed the damage to the ramp will extend to the float itself as well as to other structural components of the wharf as the movement of the ramp becomes restricted.

DISCUSSION

In order to address the damage to the ramp and float, staff propose to reallocate the existing funding from the dredging project to the replacement of the existing steel ramp with an aluminum ramp. Aluminum ramps offer the benefits of low maintenance and have less weight than steel ramps so can address issues related to the float freeboard (height above water line). The cost of the ramp will be approximately \$8,500 plus an estimated \$1,000 for installation. Staff propose to defer the planned dredging and installation of additional floatation scheduled for 2011 at a cost of \$7,000 to offset the costs of the ramp. This will result in a residual of \$2,500 that will be covered by a transfer of funds from the capital reserve. The installation of a new aluminum ramp, with less weight than the existing steel ramp as well as better positioning on the float will hopefully eliminate the need for additional floatation for the near term.

SCRD STAFF REPORT

DATE: October 21, 2011
TO: Infrastructure Services Committee – November 3, 2011
FROM: Dayton Skei, Water Conservation Assistant
RE: **BATHROOM FIXTURE REPLACEMENT PROGRAM – UPDATE**

RECOMMENDATIONS

THAT the staff report entitled “Bathroom Fixture Replacement Program – Update” be received.

BACKGROUND

The purpose of this report is to provide an update from the February 19, 2011 report on the success and current status of the Bathroom Fixture Replacement Program.

The SCR D’s Bathroom Fixture Replacement Program was launched in March of 2006. The original program offered residential SCR D water customers Caroma dual flush high-efficiency toilets, water efficient showerheads and faucet aerators, at no cost to the customer for up to two bathrooms per household. Installation and disposal of old toilets was included. Commercial water customers have been able to participate since 2008, after a very successful pilot project.

The Bathroom Fixture Replacement Program ended for Regional water customers in May 2011. The Regional program was funded without grant support at a total cost of \$1.8 million. Customers that are still interested in replacing their toilets are encouraged to participate in the Toilet Rebate Program that is proposed to continue in future years subject to budget approval.

Residents serviced by the Regional Granthams Landing Water System were given an extension until July 15, 2011 to participate in the program, as they were only made eligible in 2009 (the year the SCR D began managing the Granthams Landing water system). Residents were contacted by mail-out, newspaper ads, door-to-door canvassing and phone. At the end of the extension, 68% of households had low flow/high efficiency toilets.

The SCR D will continue to accept applications from residents serviced by the North Pender Harbour and South Pender Harbour water systems as subscription rates have been low and we need to demonstrate to the grant funding partners that residents have had adequate opportunity to participate. A poster campaign and a direct mail-out in summer 2011 resulted in participation by 100 additional households.

In December 2008 and September 2011, the SCR D submitted applications to the FCM Sustainable Community Awards Program for the Bathroom Fixture Replacement Program to promote this one-of-a-kind program at a national level. Both applications were unsuccessful.

DISCUSSION

Residential Program

Of the 12,222 SCRD residential water customers in the Regional, North and South Pender Harbour Water Systems, there are estimated to be less than 2000 eligible households¹ remaining (i.e. SCRD water customers with older 13+ L toilets), down from 8100 eligible households when the toilet programs first began in 2001.

By October 2011 the total number of participating households in the Bathroom Fixture Replacement Program was approximately 4050, a participation rate of 50%. This represents the replacement of 6000 toilets, 2900 showerheads and 4100 tap aerators.

It should be noted that participation is greater when the Toilet Rebate program is factored in. The Toilet Rebate program, which is still active, offers residential water customers up to \$200 per toilet (maximum of two per household) to replace their old 13+ L toilet for a high efficiency (4.8 L) toilet. As of October 2011, 2100 toilets have been exchanged through this program.

Together the Toilet Programs have seen 6150, or 76%, of eligible households participate.

Total water savings from the residential Bathroom Fixture Replacement Program is estimated at 110 million litres per year, or the annual amount of water consumed by 300 households on the Sunshine Coast.

Note on Water Savings Reporting: In this program we do not record the size of the toilets removed, which can range anywhere from 13 litres per flush (lpf) to over 20+ lpf. To avoid any exaggerations of water savings we use the base of 13 lpf. This means that the estimated water savings figures are conservative and actual savings are higher.

Commercial Program

The commercial program has seen a replacement of 350 toilets, 170 showerheads and 190 faucet aerators, with a total water savings of at least 6.5 million litres of water per year.

Local & National Feedback

This program has largely been a positive experience for residents and business owners alike. Through discussion with residents and visitors at community events most are thankful that the SCRD pursued such a proactive conservation project. For example, this past summer a discussion was had with a member from the Prairie Provinces Water Board in Manitoba that uses the SCRD's Bathroom Fixture Replacement Program as a success story in their presentations. Not only is the SCRD seeing direct results on the Sunshine Coast, but is also inspiring other regional districts and organizations to follow suit.

¹ Includes Toilet Rebate program

SCRD STAFF REPORT

DATE: October 25, 2011
TO: Infrastructure Services Committee – November 3, 2011
FROM: Section Secretary, Infrastructure Services
RE: **MONTHLY REPORT FOR OCTOBER 2011**

RECOMMENDATION(S)

THAT the Section Secretary, Infrastructure Services' report entitled "Monthly Report for October 2011" be received.

BACKGROUND

This report is prepared monthly as information for the Infrastructure Services Committee.

WATER TREATMENT PLANT*Achievements;*

- Reviewed the Chlorine Leak Emergency Response plan with water technicians.
- Further review of backwash residuals management plan.

Plans;

- Chapman Water Treatment Plant computer and SCADA upgrades are continuing.
- Repair of filter trough.

WATER DISTRIBUTION SYSTEM*Achievements;*

- Monthly coliform testing.
- Installed 8 water meters.
- Repaired water services on 15th Street and Kenyon Road.
- Installed 3 new water services.
- Six water services were located.
- Replaced two commercial water meters in Sechelt.
- Repaired sluice gate at Chapman Creek Intake.
- 100mm water main repair on Forbes Road.
- Located all services between Wakefield Road and Lawson Road.

Plans;

- Upgrade commercial meters.
- Complete ERP's for various systems.
- Davit arm base bolts to be installed.
- Installation of a cellular modem at Trout Lake Reservoir to increase communication reliability.
- Replace Chapman Intake sluice gate.
- Remove obsolete valves at the Pratt Road/ Sunshine Coast Highway intersection.
- Installation of reservoir ladder flashing to reduce trespass potential.

CAPITAL WORKS*Achievements;*

- The majority of 200mm DI water main has been installed between Wakefield Road and Lawson Road.
- In the process of installing a new roof on Granthams Landing Reservoir.

Plans;

- De-commissioning of the Cemetary/Payne Road pump station after the summer of 2012.
- Install new fire flow Pressure Reducing Station SCRD Zone 2-ToG Zone 2 near Venture Way.

THIRD PARTY*Achievements;*

- Inspections completed for installation of 150mm ductile watermain along Paggio Road in Roberts Creek for a two lot subdivision.

Plans;

- Commission new Pressure Reducing Valve on Woodland Road, in the Granthams Landing area.

WATER/WASTEWATER CREW*Achievements;*

- Toolbox meetings held at Pender and Wigard Road.
- One employee upgraded in Transportation of Dangerous Goods Training.

Plans;

- Scheduling of fall training in Chlorine Handler, Fall Restraint, water distribution.

WASTEWATER TREATMENT FACILITIES*Achievements;*

- Normal operations and sampling.
- Review meeting of upcoming waste water upgrades.

Plans;

- Improve billing and tracking procedures for lab samples.
- Odour control at Jolly Roger WWTP.
- Install Gen set adapters at Jolly Roger, Secret Cove and Square Bay WWTP.
- Repairs to YMCA doors and fan are needed due to corrosion.
- YMCA repair to doors that are corroding.

CHAPMAN WATERSHED SOURCE ASSESSMENT RESPONSE PLAN (SARP)

The next Technical Working Group (TWG) meeting is currently scheduled for November 1st. The agenda includes a presentation of the draft SARP document and a discussion on the draft to elicit comments from the TWG to be considered by the consultant for incorporation into the next draft that will be presented at the Special ISC on November 18th.

PENDER HARBOUR WATER SYSTEMS*Achievements;*

- Repaired water services on Bowsprit Road, Lee Road and Hotel Lake Road.
- Egmont Water Treatment plant tenders have been received.
- 60% design workshop with SCRD staff and consulting engineer for the South Pender water treatment plan was completed.

Plans;

- Repair McNeil Lake Line.
- Complete design of South Pender water treatment plant.
- Continue with the installation of UV in Garden Bay.
- Investigating pipe upgrades for Cove Cay pump station.
- Install McNeil Lake railings on dam.
- RFP being developed for safety review of the McNeil Lake dam.

SOLID WASTE**GARBAGE COLLECTION CONTRACT TENDER**

Staff from the Regional District, District of Sechelt and Town of Gibsons are working together to prepare harmonized tender packages for our jurisdictions for garbage collection services. The tenders will be jointly advertised. It is anticipated that the tenders will be issued the beginning of November with submissions due the end of November.

The existing contracts were awarded effective March 2007 for a three year term with provision to extend for up to two years. The term ends February 29, 2012 as all jurisdictions exercised the two year extension provision.

The new contract is for a three year term with provision to extend for up to two years, and is similar to the current contract with respect to service requirements.

The SWMP/ Zero Waste Plan recently adopted by the Regional District recommends consideration of a pay as you throw program. There was not sufficient time to incorporate this change into the current tender process as moving to a pay as you throw system is a complex undertaking requiring detailed planning and coordination amongst departments (e.g. finance). However, both tender and contract documents will contain provisions for changes to the service during the term of the contract. Should the SCR D proceed with pilot scale curbside collection services as recommended in the SWMP/Zero Waste Plan, this service could either be negotiated as a change to the work under this contract or could go out to bid as a separate project.

GYP SUM UPDATE

New West Gypsum (NWG) recently notified us of a change in their operations that will affect everyone delivering gypsum to their facilities. They are now enforcing their approved "asbestos exposure control program" that is required by Worksafe. NWG now requires those delivering gypsum to their facilities to pre-screen loads to ensure that the gypsum is from a structure built after 1984 or that analytical results are available confirming that the waste does not contain asbestos. NWG will levy fines for loads with asbestos containing gypsum. Over the past year staff have been liaising with other jurisdictions about this issue. Staff are attending the Coast Waste Management Conference where this issue will be discussed and staff will report back on what they find out.

TRANSIT

The Manager of Transportation and Facilities attended the fourth BC Transit workshop on their Enterprise Investment Initiative in Victoria. These sessions are designed to identify those processes that should be reviewed for improvement within the BC Transit enterprise that includes the municipal partners and operators among other stakeholders. This most recent session was to prioritize processes that have the greatest potential for improvement or "gain". Previous sessions identified those processes that inflicted the greatest "pain" on the transit enterprise. The Manager has also been asked by BC Transit to attend a follow-up session in December with BC Transit staff as one of three municipal representatives to determine specific priorities for process changes.

Staff are continuing discussions with BC Transit concerning the 2012/13 Annual Operating Agreement to clarify the calculations that provide the basis for cost estimates and ensure that to the degree possible all costs are recognized. BC Transit has yet to determine the level of expansion funding that will be available in 2012/13.

While the low floor buses are being repaired to address corrosion issues a replacement Denis Dart bus has been provided that will allow staff to evaluate its benefits and operational characteristics. This shorter bus (35 feet) should have fuel savings over the larger New Flyer buses (40 feet) that we now operate. The Denis Dart is also 8 feet wide as compared to the 8 ½ foot New Flyers so is better on some of the narrow roads where we operate. Drivers will require a minor amount of training on this bus due to the different configuration of controls and instruments.

PORTS

Staff are arranging for major inspections of the Vaucroft and Port Graves docks. An RFP will be going out shortly for the replacement of a portion of the Gambier Harbour float with a new low maintenance section.

BUILDING MAINTENANCE

Staff are continuing to complete various tasks for the Water Works division including work at the Mason Road yard. There has also been the need to repair walls that have deteriorated at the Roberts Creek Fire hall.

FLEET SERVICES

Staff have received the 35 foot Dennis Dart bus and completed their inspection and installation of the radio and farebox so that it can be used in revenue service.



Reference: 152478

October 12, 2011

Dear Mayors, Councillors, Chairs and Directors:

I would like to take this opportunity to bring you up to date on the Province's *Water Act* Modernization (WAM) project and the proposed new *Water Sustainability Act* (WSA).

The proposed WSA will build on and replace the current *Water Act* and respond to current and future pressures on water, including population growth, resource development and climate change. Updating our water laws is a key commitment in *Living Water Smart: British Columbia's Water Plan* and will position BC as a leader in water stewardship.

The Province has been engaging local governments and the Union of BC Municipalities (UBCM) on WAM since 2008 through regional workshops, discussion papers, UBCM-sponsored forums, teleconferences and the Living Water Smart Blog. Last December we released a Policy Proposal on the new WSA and received almost 1400 written submissions including over 30 submissions from local government.

Over the summer, MOE staff have been reviewing the public input, further refining the proposed policies and assessing implications. Throughout the engagement process we have received suggestions and ideas on an unprecedented scale and quality. Many local governments and British Columbians requested an opportunity to review and comment on the detailed policies and legislation. In response, I am pleased to advise that the Province has committed to take more time to engage on the draft legislation before it is finalized and introduced into the Legislature. Although our proposal to deliver a workshop at the UBCM Convention was not accepted, my staff will be working with UBCM to explore alternative venues and timelines this fall.

In addition, MoE staff are working closely with the Ministry of Community, Sport and Cultural Development to ensure the proposed *Water Sustainability Act* is integrated with other government policies and legislation.

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In closing, I would like to thank you for your contribution and commitment to water stewardship. I also encourage you to visit the Living Water Smart Blog (www.livingwatersmart.ca/blog) and website (www.livingwatersmart.ca/water-act). Together, we can build a sustainable future for British Columbia's water resources.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Lake". The signature is fluid and cursive, with a large initial "T" and "L".

Terry Lake
Minister of Environment

cc: Honourable Ida Chong, Minister of Community, Sport and Cultural Development
Gary MacIsaac, Executive Director, Union of BC Municipalities
Heath Slee, President, Union of BC Municipalities