AGENDA

WATER COMMITTEE
REGULAR MEETING

Wednesday, July 14, 2010
9:00 a.m.
2nd Floor Boardroom
4330 Kingsway, Burnaby, BC

Committee Members:
Chair, Director Tim Stevenson, Vancouver
Vice Chair, Director Marvin Hunt, Surrey
Director Brent Asmundson, Coquitlam
Director Brenda Broughton, Lions Bay
Director George Chow, Vancouver
Director Rick Green, Langley Township
Councillor Marvin Joe, Tsawwassen
Councillor Dan Johnston, Burnaby
Councillor Craig Keating, North Vancouver City
Councillor Alan Nixon, North Vancouver District
Vacant, Anmore

Please advise Airdre Kawasaki at (604) 432-6354 if you are unable to attend.
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NOTICE TO THE GVRD
WATER COMMITTEE

9:00 a.m.
Wednesday, July 14, 2010
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

A G E N D A

1. ADOPTION OF THE AGENDA
   1.1 July 14, 2010 Regular Meeting Agenda
       Staff Recommendation:
       That the Water Committee adopt the agenda for its regular meeting scheduled
       for July 14, 2010 as circulated.

2. ADOPTION OF THE MINUTES
   2.1 June 9, 2010 Regular Meeting Minutes
       Staff Recommendation:
       That the Water Committee adopt the minutes of its regular meeting held June
       9, 2010 as circulated.

3. DELEGATIONS
   No items presented.

4. INVITED PRESENTATIONS
   No items presented.

5. REPORTS FROM COMMITTEE OR STAFF
   5.1 Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds
       - Presentation
       Designated Speakers: Albert van Roodselaar and Derek Bonin
       Recommendation:
       That the Water Committee receive for information the report dated May 13,
       2010, titled “Fisheries Initiatives in the Capilano, Seymour and Coquitlam
       Watersheds”.
5.2 Request for Access Through Coquitlam Watershed - Presentation
Designated Speaker: Bob Cavill and Johnny Carline
Recommendation:
That the Board:
1. deny the request for North Vancouver RCMP to access Indian River Valley through Coquitlam Watershed for the purposes of controlling illegal activities within the Indian River Valley; and
2. recommend to the Provincial Ministry of Forests that it give serious consideration to re-establishing the deactivated section of the Stawamus-Indian River Road for the enabling of ground based access to the Indian River Valley.

5.3 Progress Report for the Drinking Water Management Plan
Designated Speaker: Stan Woods
Recommendation:
That the Board:
a) Direct staff to forward the “Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities” dated June 2010 to the member municipalities for information; and
b) Direct staff to arrange an opportunity, during a regular meeting of the Water Committee, for the committee to receive comments and submissions on Drinking Water Management Plan progress as described in the “Progress Report for the DWMP” dated June 2010.

5.4 LEED Certification
Designated Speaker: Jane Comeault
Recommendation:
That the Committee receive for information the report dated June 29, 2010, titled “LEED Certification”.

5.5 Metro Vancouver Ownership of Local Infrastructure in the Electoral Area
Designated Speaker: Christina DeMarco
Recommendation:
At its meeting of May 21, 2010, the Board referred the report dated May 11, 2010, titled “Metro Vancouver Ownership of Local Infrastructure in the Electoral Area” to the Water, Finance, Intergovernmental and the Regional Planning Committees for their examination of the potential impacts on Metro Vancouver.

Metro Vancouver is the local government authority for Electoral Area A. The purpose of the Local Infrastructure report (Attachment) was to provide direction in processing specific requests for infrastructure. An analysis of costs, benefits, and risk analysis for Metro Vancouver would be prepared for each individual request and reports would be submitted to the Committee and Board for their evaluation.

*Designated Speaker: Heather Shoemaker*

*Recommendation:*

5.7 Manager's Report

*Designated Speaker: Tim Jervis*

*Recommendation:*
That the Committee receive the “Manager’s Report” dated June 25, 2010 for information.

6. INFORMATION ITEMS

6.1 News Release re: Western Premiers Act on Water Conservation and Management Strategy

6.2 City of Surrey Inter-office Memo dated June 23, 2010 re Future Water Rate Increases

7. OTHER BUSINESS
No items presented.

8. RESOLUTION TO CLOSE MEETING
No items presented.

9. ADJOURNMENT

*Staff Recommendation:*
That the Water Committee conclude its regular meeting of July 14, 2010.
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Minutes
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GREATER VANCOUVER REGIONAL DISTRICT  
WATER COMMITTEE

Minutes of the Regular Meeting of the Greater Vancouver Regional District (GVRD)  
Water Committee held at 9:08 a.m. on Wednesday, June 9, 2010 in the 1st Floor Meeting  
Room, Seymour - Capilano Filtration Plant, 4400 Lillooet Road, North Vancouver, British  
Columbia.

PRESENT:  
Chair, Director Tim Stevenson, Vancouver  
Vice Chair, Director Marvin Hunt, Surrey (arrived at 9:10 a.m.)  
Director Brent Asmundson, Coquitlam  
Director Brenda Broughton, Lions Bay  
Director George Chow, Vancouver  
Director Rick Green, Langley Township  
Councillor Dan Johnston, Burnaby  
Councillor Craig Keating, North Vancouver City  
Councillor Alan Nixon, North Vancouver District

ABSENT:  
Councillor Marvin Joe, Tsawwassen

STAFF:  
Johnny Carline, Commissioner/ Chief Administrative Officer, Chief Administrative Officer’s  
Department  
Toivo Allas, Manager, Policy and Planning Department  
Tim Jervis, Manager, Engineering and Construction Department  
Ann Marie Lanz, Assistant to Regional Committees, Corporate Secretary’s Department

1. ADOPTION OF THE AGENDA

1.1 June 9, 2010 Regular Meeting Agenda

It was MOVED and SECONDED  
That the Water Committee:  
a) amend the agenda for the Water Committee regular meeting scheduled  
for June 9, 2010 by adding item 7.1 Commemorative Plaque for the  
Seymour - Capilano Filtration Plant; and  
b) adopt the agenda as amended.  
CARRIED

2. ADOPTION OF THE MINUTES

2.1 May 5, 2010 Regular Meeting Minutes

It was MOVED and SECONDED  
That the Water Committee adopt the minutes of its regular meeting held  
May, 5, 2010 as circulated.  
CARRIED
3. **DELEGATIONS**
   No items presented.

4. **INVITED PRESENTATIONS**

   4.1 **Water Metering: The West Vancouver Case Study**
   Ray Fung, Director, Engineering and Transportation, District of West Vancouver, provided members with a presentation detailing the inception of the water metering program in West Vancouver.

   Discussion ensued on the following:
   - Drivers of Water Conservation.
   - Strategies and Plans, including the business case for installing water meters.
   - Metered rate structures for water and sewer services.
   - Results of the water metering experience, including water usage analysis, water billing rates and information regarding lessons learned from this project.

   **It was MOVED and SECONDED**
   That the Water Committee receive for information the presentation titled “Water Metering: The West Vancouver Case Study”.

   **CARRIED**

   Presentation material is retained with the June 9, 2010 Water Committee agenda package.

5. **REPORTS FROM COMMITTEE OR STAFF**

   5.1 **Tap Water Campaign Water Wagon Update**
   Report dated May 31, 2010 from David Hocking, Corporate Communications Division Manager, Corporate Relations Department, and Dan Donnelly, Water Treatment and Systems Control Division Manager, Operations and Maintenance Department, responding to a request from the Water Committee to provide a comprehensive report regarding water wagons and the Metro Vancouver Tap Water Campaign.

   Members discussed the logistics in deploying water wagons fairly between municipalities, success measurements of the Tap Water Campaign and the benefits associated with water wagons, which include greater brand awareness and increased educational opportunities while participating in public events.

   **It was MOVED and SECONDED**
   That the Board direct staff to include the cost of two Kewl Earth water wagons at an approximate combined cost of $130,000 for consideration within the 2011 budget.

   **CARRIED**
5.2 Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds - Presentation
Report dated May 13, 2010 from Albert van Roodselaar, Division Manager, Policy and Planning Department and Derek Bonin, Planning Forester, Policy and Planning Department, updating the Water Committee on the fisheries initiatives that are underway in collaboration with Federal and Provincial Government agencies to mitigate the impacts to the fisheries resource within the Capilano, Seymour and Coquitlam watersheds.

It was MOVED and SECONDED
That the Water Committee receive for information the report dated May 13, 2010, titled *Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds*. The above motion was not voted on.

Request of Staff
Staff was requested to bring forward the presentation titled *Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds* to the next Water Committee meeting to be held on July 14, 2010.

5.3 Status of Utilities Capital Expenditures to April 30, 2010
Report dated June 1, 2010 from Tim Jervis, Manager, Engineering and Construction Department, and Phil Trotzuk, Financial Planning and Operations Manager, Finance and Administration Department, reporting to the Committee on the status of utilities capital expenditures.

It was MOVED and SECONDED
That the Water Committee receive the report titled *Status of Utilities Capital Expenditures to April 30, 2010*, dated June 1, 2010 for information. CARRIED
Director Chow absent at vote.

5.4 Summary of GVWD Quality Control Annual Report for 2009 - Presentation

It was MOVED and SECONDED
That the GVWD Board receive for information the report dated May 14, 2010 titled *Summary of GVWD Quality Control Annual Report for 2009*. CARRIED
5.5 Managers’ Report
Report dated June 1, 2010 from Toivo Allas, Manager Policy and Planning Department, and Tim Jervis, Manager, Engineering and Construction Department, reporting on building code changes and urinal flush volumes and the Water Committee 2010 Workplan.

It was MOVED and SECONDED
That the Water Committee receive the Managers’ Report, dated June 1, 2010 for information.

CARRIED

6. INFORMATION ITEMS
No items presented.

7. OTHER BUSINESS

7.1 Commemorative Plaque for the Seymour - Capilano Filtration Plant
Members discussed the need to have a commemorative plaque erected at the Seymour Capilano Filtration Plant to signify the involvement of Metro Vancouver in the building of the plant.

It was MOVED and SECONDED
That the Water Committee direct staff to design a commemorative plaque to be placed at the Seymour – Capilano Filtration Plant.

CARRIED

Request of Staff
Staff was requested to design and erect a commemorative plaque to be placed at the Seymour - Capilano Filtration Plant.

8. RESOLUTION TO CLOSE MEETING
No items presented.

9. ADJOURNMENT

It was MOVED and SECONDED
That the Water Committee conclude its regular meeting of June 9, 2010.

CARRIED
(Time: 11:12 a.m.)

Ann Marie Lanz
Assistant to Regional Committees

Tim Stevenson, Chair
Reports
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To: Environment and Energy Committee
   Water Committee  

From: Albert van Roodselaar, Division Manager, Policy and Planning Department  
      Derek Bonin, Planning Forester, Policy and Planning Department  

Date: May 13, 2010  

Subject: Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds  

Recommendation:  

That the Environment and Energy Committee receive for information the report dated May 13, 2010, titled "Fisheries Initiatives in the Capilano, Seymour, and Coquitlam Watersheds".

That the Water Committee receive for information the report dated May 13, 2010, titled "Fisheries Initiatives in the Capilano, Seymour and Coquitlam Watersheds".

1. PURPOSE  

To update the Environment and Energy Committee and the Water Committee of the fisheries initiatives that are underway in collaboration with Federal and Provincial Government Agencies to mitigate the impacts to the fisheries resource within the Capilano, Seymour, and Coquitlam watersheds.

2. CONTEXT  

Background  

The development of dams and reservoirs for drinking water supply and power generation on the Capilano, Seymour and Coquitlam rivers influenced the natural cycles in these ecosystems. The dams created a barrier to anadromous fish (fish migrating from saltwater to spawn in freshwater), regulated downstream flows, affected water temperatures in streams and reservoirs, and prevented the downstream passage of gravels and woody debris.

Metro Vancouver is currently working with senior governments, First Nations and other organizations to develop solutions for fisheries issues in conjunction with managing the watersheds for drinking water. The current fisheries initiatives underway in each watershed are as follows:

Capilano Watershed  

1. On the Capilano River downstream of Cleveland Dam at the Department of Fisheries and Oceans, Capilano Fish Hatchery a fish weir, a fish ladder and holding pond is maintained to provide brood stock for the hatchery and the transport of adult fish to the upper Capilano River.
2. The Capilano Fish Hatchery is provided by Metro Vancouver with a supply of water throughout the year that is required to meet specific water quality criteria for the operation of the fish hatchery.

3. The Capilano salmonid smolt trap and truck project is in its third year of operation of trapping smolts in the reservoir and in the upper Capilano River and then transporting them around Cleveland Dam to the lower Capilano River.

4. Long-term, cost effective strategies for increasing the survival of out-migrating smolts at Cleveland are being investigated, with the base case being the current trap and truck project.

5. Sampling of salmonids are measured, weighed, and tagged to improve the understanding of the coho, cutthroat and steelhead populations movement in the Capilano Watershed.

6. Near the mouth of the Capilano River a rotary screw trap is operated during the spring to provide an estimate of salmonid productivity and smolt survival in the lower Capilano River.

7. Capilano Watershed habitat assessments are underway to identify habitat deficiencies and opportunities to restore habitat as one element of the Capilano – Seymour water use planning process.

**Seymour Watershed**

1. On the Seymour River downstream of Seymour Falls Dam the Seymour Salmonid Society operates a fish hatchery that is supported by Metro Vancouver, Department of Fisheries and Oceans, Ministry of Environment, and the community sponsors.

2. The Seymour Fish Hatchery is provided by Metro Vancouver with a supply of water throughout the year for the operation of the fish hatchery.

3. The spillway on the Seymour Falls Dam is operated to facilitate the safe passage of out-migrating smolts to the river below.

4. About 10 km downstream of the Seymour Falls Dam, a rotary screw trap is being operated during the spring to provide an annual estimate of salmonid productivity from the lower Seymour River.

5. Within the Lower Seymour Conservation Reserve, habitat enhancement projects are implemented in conjunction with water system infrastructure and recreation projects that include the introduction of nutrients, gravel and woody debris into the Seymour River. As an example, spawning habitat will be created adjacent to a new bridge being constructed this summer for a recreation trail across the Seymour River.

6. Seymour Watershed habitat assessments are underway to identify habitat deficiencies and opportunities to restore habitat as one element of the Capilano – Seymour water use planning process.

**Coquitlam Watershed**

1. BC Hydro has set up the Kwikwetlem Salmon Restoration Program that has a committee to investigate the feasibility for the restoration of sockeye salmon to the Coquitlam Reservoir.

2. Metro Vancouver has retained an expert panel of water quality and public health engineers to assess any potential ecological and public health risks associated with the re-introduction of sockeye salmon into Coquitlam Reservoir. To assess these risks, Metro Vancouver is half way through a comprehensive 3-year limnological data collection program (chemical, physical and biological processes) for the Coquitlam Reservoir. The outcome of this assessment will determine the appropriate size of
fish runs that if re-introduced into the watershed would be compatible with maintaining current levels of drinking water quality.

3. On the Coquitlam River downstream from the Coquitlam Dam, a fish trap for migrating salmon is being outfitted with a video camera to monitor the return of sockeye salmon and arrange to have this viewable through the internet access.

4. Kwikwetlem First Nation, BC Hydro, Department of Fisheries and Oceans and Metro Vancouver will be providing a public event titled, Working Together for our Coquitlam Watershed and Kwikwetlem Sockeye from 6:00 to 8:00 PM on June 16, 2010 at the Poirier Community Centre in Coquitlam.

3. ALTERNATIVES

No alternatives presented.

4. CONCLUSION

Metro Vancouver is working with senior levels of government, First Nations and other organizations to address limitations to fish migration and survival that have resulted from managing the watersheds for drinking water. The management of the current level of safe, reliable sources of drinking water while maintaining and re-establishing fish and fish habitat in Metro Vancouver’s watersheds will demonstrate long-term watershed sustainability.
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To: Water Committee

From: Bob Cavill, Division Manager, Watershed Management
Johnny Carline, Commissioner

Date: June 17, 2010

Subject: Request for Access through Coquitlam Watershed

Recommendation:

That the Board:
1. deny the request for North Vancouver RCMP to access Indian River Valley through Coquitlam Watershed for the purposes of controlling illegal activities within the Indian River Valley; and
2. recommend to the Provincial Ministry of Forests that it give serious consideration to re-establishing the deactivated section of the Stawamus-Indian River Road for the enabling of ground based access to the Indian River Valley.

1. PURPOSE

The purpose of this Report is to provide information to the Board in consideration of a request for access through the Coquitlam Watershed to Indian River Valley.

2. CONTEXT

On May 13, 2010, Constable Joey Starr, Integrated First Nations Unit, North Vancouver RCMP, wrote to Metro Vancouver staff requesting access through Coquitlam Watershed to Indian River Valley for both the RCMP and Provincial Conservation Officers on a monthly basis to deal with illegal activities in Indian River Valley including poaching (see Attachment 1).

Access to the Indian River Valley used to be via a road starting at Squamish, the Stawamus-Indian River Road, which leads south-eastward to the Indian River Valley (see Attachment 2). However, after local slides and erosion occurred a few years ago, a significant portion of this road was deactivated by the Provincial Ministry of Forests and thereby rendered impassable.

Prior to these deactivation activities, pressures on GVWD to provide access to Indian River Valley were minimal. As a result of this deactivation work, the only option currently available to those wishing to access the Indian River Watershed, the Coquitlam Watershed route aside, is by boat or barge access up Indian Arm.

The Greater Vancouver Water District’s long standing policy and practice has been to preserve its watershed lands for drinking water supply and, to the greatest extent possible, exclude all individuals seeking entry for other purposes. The vast majority of those who have been issued permits for access to the watershed are either Metro Vancouver staff and
Request for Access through Coquitlam Watershed
Water Committee Meeting Date: July 14, 2010
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Contractors or one of the two utilities, B.C. Hydro and Terasen Gas. These two utilities need to access watershed lands to undertake work on their facilities within those lands. While there has been increasing pressure from some quarters for more watershed access, staff continues to observe general public support for closed watersheds. Metro Vancouver’s current Drinking Water Management Plan addresses the value of closed watersheds since their closed nature serves as a primary barrier to water supply contamination.

In the summer of 2009 the Tsleil-Waututh Nation (TWN) requested access through the Coquitlam River Watershed to the Indian River Valley. TWN’s specific intent at that time was to have crews and equipment access, through Coquitlam Watershed, Hixon Creek Road in the Indian River Valley for upgrade work (see Attachment 2). After considering the TWN request at its July 31 meeting, the GVWD Board determined the risks to be too great and denied access.

Through discussions with the Provincial Ministry of Forest’s District Staff, Metro Vancouver staff was informed that the cost of re-establishing the deactivated section of the Stawamus-Indian River Road for the enabling of ground based access to the Indian River Valley approximates $1,000,000. Staff has no detailed information on the basis for this estimate. There are two creek crossings near the ‘divide’ along the Stawamus-Indian River Road where bridges would need to be reinstalled. This construction of these two bridges would be the most significant cost elements in terms of re-activating this road. Whether the two bridge installations together with requisite culvert installations along the deactivated road section would justify the $1,000,000 cost estimate is not immediately clear.

The Stawamus-Indian River Road has historically been relied on by B.C Hydro, Terasen and the public as an access corridor leading to and from the Indian River Valley. The Ministry of Forests advises that the two utilities (BC Hydro, Terasen) have been assigned Road Use Permits for this road, holding them responsible for maintenance activities such as ditching, culverts, grading, and brushing. Larger expenditures associated with clearing of landslides and replacement of large stream crossings along the Stawamus-Indian River Road have been assumed by the Provincial Ministry of Forests.

Given the deactivation of the Stawamus-Indian River Road by the Province and the higher cost associated with water access up Indian Arm to Indian River Valley it appears that the Coquitlam Mainline road through Coquitlam Watershed may increasingly become viewed as most cost-effective and therefore the route of choice to the Indian River Valley. This is a matter of considerable concern.

Access to the Indian River Valley through Coquitlam Watershed requires twenty-seven kilometres of travel through the entire length of the Coquitlam Watershed. The Coquitlam Mainline road in Coquitlam Watershed is characterized by some precarious road sections with steep drops, the Coquitlam Reservoir located directly below. Staff believes that the overall risk level to Coquitlam Watershed will increase should the Coquitlam Mainline become the preferred route to the Indian River Valley.

Fly-In Branch, the most northerly section of Coquitlam Watershed road system leading up to the ‘divide’ between Coquitlam Watershed and Indian River Valley, has numerous steep road sections containing “water bars” for water control, making Metro Vancouver’s road maintenance costs for that section minimal. While the water bars would likely be able to withstand this single specific request for access, should this request tend to lead to other requests for access to the Indian River Valley through Coquitlam Watershed, the water bars will likely have to be removed. Fly-In Branch will then have to be routinely maintained by Metro Vancouver staff in order to ensure a suitable road standard.
Corporate policy stipulates that all three GVWD Watersheds (Capilano, Seymour, and Coquitlam) are closed to public access. The policy allows for staff authorization of “Representatives of Senior Government including Provincial Ministries and agencies carrying out their official duties such as the Ministry of Forests and Ministry of Environment” (see attachment 3). However, staff believes that intent of this specific policy statement was to address work to be conducted by these agencies within the watershed area as opposed to enabling a more cost-effective route to an adjacent valley.

Of specific concern is that action, or inaction, by the Province, in not maintaining the entire length of Stawamus-Indian River Road has and will lead to increasing requests for access through the Coquitlam Watershed, with resulting violations of a fundamental water quality/health risk management policy and likely increased maintenance and possible liability risks to Metro Vancouver.

Metro Vancouver has usually sought to cooperate with the RCMP wherever possible (e.g. the recent extension of permission to maintain an explosives disposal site in the Lower Seymour). However, in this case, staff’s view is that the firm ‘no access’ policy that has served Metro Vancouver well for so many years should be maintained. Moreover, the most convenient alternative road access appears to have been deactivated by the Province, presumably as a cost saving measure. That may result in increased pressure on Metro Vancouver to relax its protection of its watershed from unnecessary access. Staff therefore suggests that the Board communicate these concerns to the Province and recommend it give serious consideration to reactivating the former access road to the Indian Valley.

3. ALTERNATIVES

a) Authorize the access proposed by RCMP and Provincial Conservation Officers through Coquitlam Watershed to Indian River Valley;

Should this be the only request of its kind, staff are reasonably confident that a once per month access by RCMP and Provincial Conservation Officers is manageable through the implementation of a rigorous process of communication and coordination.

There is alternate access by water but this would be more expensive and less convenient.

b) Not approve this proposed access request and encourage the utilities, agencies and TWN to either rely on Indian Arm water access or to communicate to the Ministry of Forests, the need for re-opening the Stawamus-Indian River Valley Road as a ground-based access alternative to Indian River Valley;

This access request does not conform to the long standing closed watershed policy. Metro Vancouver staff believes that authorizing this request will lead to numerous similar requests for access through Coquitlam Watershed to the Indian River Valley. If the Coquitlam Mainline route were to become the key access route to Indian River Valley, risks to the watershed and water quality will increase, as well as possible increases in maintenance costs and liabilities. Metro Vancouver staff believes that it will become increasingly difficult for the Board to make determinations around each request that could occur.

4. CONCLUSION
The long-standing closed watershed policy has resulted in the positive outcome of ensuring that protection of the water supply sources remains high.

There are other options for access to Indian River Valley. Water access up Indian Arm to Indian River Valley has provided access for vehicles, equipment and facility in the past. As well, the Stawamus-Indian River Road has historically provided reasonable ground access and could once again. Staff believes that a re-opening of this road by the Ministry of Forests, should it be treated as a priority, could be done expeditiously and could continue to serve as suitable ground access to Indian River Valley.

Staff does not believe that the nature of this access request conforms to the closed watershed policy. Nor does it believe that, by denying this request, future developments and activity in the Indian River Valley are unduly compromised, given the options available.

Attachments:

Attachment 1 - Map – Indian River Valley – Coquitlam Watershed (Orbit #4214482)
Attachment 2 - Email communication dated May 13, 2010 to Ken Juvik from Constable Starr, RCMP (Orbit #4180956)
Attachment 3 - Classification of Requests for Watershed Access, GVWD Board Report, March 15, 1996 (Orbit #4180682)
As per our conversation, I'm am seeking permission to use the road through the watershed to gain access into the north end of the Indian Arm. I currently have an active file open regarding the recent complaint NV10-11894 of trespassing and unsafe discharge of firearm. I am currently assigned to the Integrated First Nations Policing Unit in North Vancouver. Our patrol area is all first nations properties in North Vancouver, West Vancouver and Squamish. The Tsleil Waututh Nation has property which is classified as reserve on the North end of the Indian Arm. From the head of the lake to approximately the 8KM of the forest service road. Past problems consist of, vandalism, trespassing, illegal cutting of trees, pointing of firearms to persons, unauthorized motor vehicles (ATV & Motorbikes) etc. Last week myself along with 4 emergency response members, Conservation Officers, West Coast Marine and members of the Tsleil Waututh Nation attended the area for a complaint of trespassers and unsafe discharge of firearms. Tsleil Waututh Nation personnel work in the area and they feel that it is unsafe up in that area. This has been known as a lawless area due to the fact of limited access by enforcement officers. There is an ATV at the head of the lake but we are not legally permitted to operate the ATV. We do not own any ATV's in our detachment so access for us is by boat or vehicle.

On 2010-05-12 I learned that there is a road which is passable by motor vehicle to gain access into the Indian Arm. Our plan is to conduct patrols with Conservation officers and our unit by vehicle approximately once a month. We are in a process of working out an agreement with Tsleil Waututh Nation to use the ATV which they own and are stored at the end of the Indian Arm. We have to ascertain what legal requirements are needed prior to using the machines since they are not property of the RCMP.

We are planning to attend the area on 2010-05-19 as the hunters will still be in the area.

Your assistance is greatly appreciate in this matter. You can contact the writer at the below noted cell phone at any time.

Thank you in advance

Cst. J.L. (Joey) STARR
Integrated First Nations Unit
North Vancouver RCMP
147 East 14th St.
North Vancouver BC
V7L 2N4
(604) 985-1311 Main
(604) 817-4654 Cell
(604) 985-0935 Fax
Item No. 4.3

Greater Vancouver Water District

Established 1924

TO: Administration Board
FROM: Manager, Water and Construction
DATE: March 15, 1996
RE: Classification of Requests for Watershed Access

Recommendation

THAT the Administration Board receive the report titled Classification of Requests for Watershed Access, dated March 15, 1996, and that the report be adopted as the process for evaluating requests for access.

1. Purpose

To summarize the present administrative process that is followed when considering requests for access to the District's watersheds.

3. Policy

The access policy has been rigidly adhered to by staff over the years to ensure that the intent of the policy is followed and to ensure consistency in its application. All requests for access must be made in writing and the classifications of the application is then determined. The general groupings are:

A. Routine Administrative - Applicability is determined by staff to the following prescribed situations:
   i. Staff specifically required to carry out the programs and duties of their position with the District.
   ii. Representatives of Senior Government including Provincial Ministries and agencies carrying out their official duties such as Ministry of Forests, Ministry of Environment, etc.
   iii. Individuals or organizations conducting research projects authorized or financially supported by the District.
   iv. Contractors or tradesmen performing work requested by the District.
   v. Directors of the Board, members of municipal council, approved municipal committees and medical health officers.
   vi. Accredited media representatives with appropriate arrangements.
B. **Tours of Proposed Forest Management Activity Areas** - Access for individuals and groups as determined by the Water Committee as these areas are brought forward for consideration. (Approved by the Board September, 1992.)

C. **Other** - Access for individuals and groups can be provided by the Board for specific or predetermined purposes. (Approved by the Board September, 1995.)

The District’s long standing policy and practice, is to preserve the lands for water supply and to exclude all individuals seeking entry for other purposes, other than those meeting one of the above classifications.

In examining requests for access for research projects staff generally consider the following criteria:

- applications must be supported or sponsored by an accredited academic institution (UBC or equivalent) or Senior Government Agency (MOE, MOF, DFO, etc..);
- researchers must have appropriate scientific credentials or be working under the direction of someone with suitable credentials;
- the methodology, objective of the research project and timeframe must be clearly set out;
- the location of the field research is defined if a specific site is appropriate and access is restricted to that location;
- no private or industry based research is permitted;
- research should be suitable for peer review;
- the sponsoring organization must provide suitable liability coverage to protect the Water District;
- preference is accorded to projects that are of value to the District in managing the lands for water quality purposes.

If accepted, researchers meeting the above criteria are issued an access permit after demonstrating, by way of a written test, their understanding of procedures while in the watershed.

Typical types of research carried out as examples:

- fish habitat (DFO as sponsor);
- spotted owl (MOE as sponsor);
- forest science (UBC, Department of Forestry, as sponsor).

12. **Committee Comments**

The members agreed to adopt the report as the process for evaluating requests for access.
4.3 Classification of Requests for Watershed Access
Report dated March 15, 1996 from the Manager, Water and Construction titled "Classification of Requests for Watershed Access" summarizing the present administrative process that is followed when considering requests for access to the District's watershed.

**It was MOVED and SECONDED**
That the matter of classification of requests for watershed access be referred back to the Water Committee for reconsideration.

- **DEFEATED**

**It was MOVED and SECONDED**
That the Administration Board receive the report titled "Classification of Requests for Watershed Access", dated March 15, 1996, and that the report be adopted as the process for evaluating requests for watershed access.

- **CARRIED**

4.4 Watershed Security - Unauthorized Access
Report dated March 15, 1996 from the Water Committee titled "Watershed Security Unauthorized Access" formulating a District policy to deal with individuals who breach the provisions of the signed waiver form or existing requirements for entering the watersheds.

Directors Broughton and Drummond departed the meeting (Time: 10:55 a.m.).

**It was MOVED and SECONDED**
That the Administration Board confirm that, in the absence of a satisfactory explanation being provided to the Water Committee from those individuals who breach the provisions of the signed waiver form and/or the District’s closed Watershed Policy requirements, further access be denied.

- **CARRIED**

4.5 1996 Water District Final Budget
Report dated March 15, 1996 from the Water Committee and Budget and Administration Committee titled "1996 Water District Final Budget" providing the Administration Board with the 1996 Water District Final Budget, which is presented on behalf of the Commissioner, including information on program adjustments made to the Provisional Budget.
To: Water Committee  
From: Stan Woods, Senior Engineer, Policy and Planning Department  
Date: June 14, 2010

Subject: Progress Report for the Drinking Water Management Plan

Recommendation:

That the Board:

a) Direct staff to forward the “Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities” dated June 2010 to the member municipalities for information; and

b) Direct staff to arrange an opportunity, during a regular meeting of the Water Committee, for the committee to receive comments and submissions on Drinking Water Management Plan progress as described in the “Progress Report for the DWMP” dated June 2010.

1. PURPOSE

To present to the Board the Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities (Attachment).

2. CONTEXT

In September 2005, the Greater Vancouver Water District (GVWD) Board approved the Drinking Water Management Plan for the GVWD and Member Municipalities. The Plan was amended in July 2007 with the addition of a new goal to fully incorporate watershed management. The Drinking Water Management Plan (DWMP) is an action oriented plan that addresses water quality, water supply and water conservation from the source watersheds to the consumer’s tap. The DWMP takes an adaptive management approach with a progress report provided on a regular basis. The June 2010 progress report follows the format of the June 2007 progress report and the 2005 Drinking Water Management Plan. The latest Progress Report for the Drinking Water Management Plan has been prepared with input from municipal staff.
3. ALTERNATIVES

The GVWD Board may:

1. Adopt the following recommendation:
   a) Direct staff to forward the “Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities” dated June 2010 to the member municipalities for information; and
   b) Direct staff to arrange an opportunity, during a regular meeting of the Water Committee, for the committee to receive comments and submissions on Drinking Water Management Plan progress as described in the “Progress Report for the DWMP” dated June 2010.

or:

2. Direct staff to revise the progress report to incorporate Water Committee input.

4. CONCLUSION

With input from municipal staff, Metro Vancouver staff have prepared the attached progress report for the Drinking Water Management Plan. The progress report presents an overview of the GVWD’s and member municipalities’ progress in implementing the DWMP by:

- summarizing trends in DWMP performance measures and progress in achieving the goals of the plan; and,
- reviewing progress on implementing DWMP actions.

ATTACHMENT

Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities dated June 2010 (4188213)
Progress Report for the Drinking Water Management Plan for the GVWD and Member Municipalities

June 2010
1. Drinking Water Supply in Greater Vancouver

The Greater Vancouver Water District (GVWD) and member municipalities work together to supply clean, safe drinking water to over two million people and associated businesses. The sources of water supply are the Capilano, Seymour and Coquitlam Watersheds. Dams in each watershed impound water and provide releases to the drinking water system and to downstream rivers for fish and wildlife.

In September 2005, the Greater Vancouver Water District Board approved the Drinking Water Management Plan for the GVWD and member municipalities (dated August 2005). The Plan was amended slightly in July 2007 with the addition of a new goal to fully incorporate watershed management. The revised Drinking Water Management Plan (DWMP) contributes to a healthy sustainable region through wise stewardship of our drinking water resources. The DWMP takes an adaptive management approach that includes providing a progress report every two to three years. This is the second progress report.

The 2005 Drinking Water Management Plan with the 2007 amendment has the following goals:

- Provide Clean, Safe Drinking Water
- Watersheds that Provide Clean, Safe Water and Are Managed and Protected as Natural Assets
- Ensure the Sustainable Use of Water
- Ensure the Efficient Supply of Water

To achieve each of the above goals the DWMP has strategies, actions, and performance measures. Grouped by goal, section 2 of this progress report:

- summarizes trends in performance measures and progress in achieving the goals of the plan; and,
- reviews progress on implementing the plan actions.

Next Steps in Building a Sustainable Region

The Sustainable Region Initiative provides an ongoing process for linking the Drinking Water Management Plan with other regional plans like the recently approved Integrated Liquid Waste and Resource Management Plan. Major reviews are currently underway for other plans such as the Regional Growth Strategy and Integrated Solid Waste and Resource Management Plan. The following Metro Vancouver websites provide additional information:

- Sustainable Region Initiative – [www.metrovancouver.org/about/sri/Pages/default.aspx](http://www.metrovancouver.org/about/sri/Pages/default.aspx)
- Water quality and treatment – [http://www.metrovancouver.org/services/water/qualitytreatment/Pages/default.aspx](http://www.metrovancouver.org/services/water/qualitytreatment/Pages/default.aspx)
- Water conservation - [http://www.metrovancouver.org/buildsmart/design/Pages/WaterConservation.aspx](http://www.metrovancouver.org/buildsmart/design/Pages/WaterConservation.aspx)
- Smartsteps – business tools for sustainability - [http://www.metrovancouver.org/SmartSteps/Pages/default.aspx](http://www.metrovancouver.org/SmartSteps/Pages/default.aspx)
- Tap Water Campaign – [http://www.metrovancouver.org/region/tapwater/Pages/default.aspx](http://www.metrovancouver.org/region/tapwater/Pages/default.aspx)
Goal - Provide Clean, Safe Drinking Water

There are two strategies to achieve this goal: Use a Risk Management Multi-barrier Approach from Source to Tap, and Identify and Secure Additional Water Supplies for the Region.

Performance Measures for Goal – Provide Clean, Safe Drinking Water

The Drinking Water Management Plan identifies the following performance measures to monitor progress in providing clean, safe drinking water.

Treated water samples positive for total coliforms (striving for low percentages).

Water quality analysis of about 25,000 water samples per year indicates the drinking water provided by the GVWD is safe. Total coliform bacteria are used as an indicator of primary (or source) disinfection efficiency and bacterial regrowth in the water distribution system. Total coliform levels are low and have dropped significantly since improvements in the water distribution system rechlorination stations and water main flushing programs were implemented in 1998 (Figure 1).

![Figure 1: Percent of Municipal Samples Positive for Total Coliform Bacteria](image)

Percentage of water supplied with optimum primary disinfection despite events such as turbidity, power outage or similar event (striving for 100 percent).

Primary disinfection facilities for the three water supplies were effectively operated with very few interruptions over the 2007 to 2009 period, especially during high turbidity periods. The primary chlorine disinfection for Seymour and Capilano sources operated effectively 99.98 percent of the time, while Coquitlam was at 100 percent when in use. The ozone disinfection facility for Coquitlam operated effectively 99.74 percent of the time when in use.

Treated water samples positive for *E. coli* bacteria (striving for zero).

The detection of *Escherichia coli* (*E. coli*) bacteria, in a treated water sample, triggers a protocol which involves immediate notification of health and municipal officials, resampling and an investigation into the possible cause. In 2007, no treated water samples tested positive for *E. Coli* bacteria. However, one sample in 2008 and one sample in 2009 tested positive. Repeat samples were negative in both cases and investigations indicated the samples were likely contaminated during sampling.
Progress on Actions to: Provide Clean, Safe Drinking Water

Progress is being made on upgrading the GVWD’s water treatment system to meet 2005 revisions to the Canadian drinking water guidelines and to provide more reliable treatment during turbidity events and power outages. The Seymour-Capilano Filtration Plant went into service in December 2009 and early results indicate that the plant is operating successfully. One preliminary but significant result is the improvement of the chlorine residual levels in the water distribution system receiving filtered water.

Work continues on the twin tunnels linking the Capilano source with the Seymour-Capilano Filtration Plant with completion expected in mid 2013. Once finished, the tunnels will allow water from the Capilano source to be treated at the filter plant. Since 2000, the water from the Coquitlam source has been treated with ozone for primary disinfection. Ultraviolet light is being added as another primary disinfectant at this source with the upgraded plant expected to be operational in late 2012.

The following provides an update on some of the actions that will increase the water supply capacity of the regional system:

- completion of the Capilano Twin Tunnels in mid 2013 will increase the ability to drawdown and supply water from the Capilano Reservoir; and,
- construction of a new second intake on the Coquitlam source that along with associated treatment and transmission facilities, will increase the supply from the Coquitlam source. Due to decreasing per-capita water use the start up date for this second intake system has been delayed until 2025. Conceptual engineering of the second intake system is ongoing.

Priorities

Giving priority to the following assessments will improve progress towards this Goal:

- The GVWD and its member municipalities will reassess the chlorine residual levels and secondary disinfection system for areas receiving treated water from the Seymour-Capilano Filtration Plant. As the GVWD gains more experience with the water quality from the filtration plant it is expected that chlorine doses can be reduced resulting in fewer taste and odour concerns for the consumer and a reduction in disinfection byproduct levels.
- GVWD is continuing to assess climate change impacts on the regional drinking water system and take adaptation actions.
2. GOALS, STRATEGIES, ACTIONS AND PERFORMANCE

Goal – Watersheds that provide clean, safe water and are managed and protected as natural assets

The Capilano, Seymour, and Coquitlam watersheds are the region's “Jewel in the Crown” in providing clean, safe water and protecting natural resource values. The closed and protected watersheds are the first barrier in place to ensure the best possible source water quality and ultimately clean, safe drinking water. These pristine watersheds provide source water that is untouched by contaminants found in watersheds with industrial, agricultural, or residential developments. With source water coming straight from nature in the form of rainfall and snowmelt, Metro Vancouver promotes its tap water as “mountain fresh”.

Tap Water Campaign

The watershed lands are also an immense resource and repository of terrestrial and aquatic biological diversity. Protecting watershed lands and associated biological diversity as part of the region’s conservation areas significantly contributes to the region’s sustainability objectives (Figure 2).

Figure 2: Protected Watersheds and Adjoining Conservation Areas
Proposed Performance Measure for Goal - Watersheds that Provide Clean, Safe Water and Are Managed and Protected as Natural Assets

Percent of Source Water Samples Exceeding 20 E. coli/100 mL (striving for low percentage).

The quality of the source water is an indicator of the degree of contamination, and the treatment required to ensure a safe drinking water supply. Canadian water quality guidelines suggest that for unfiltered sources, prior to treatment, the number of E. coli bacteria in the source water can exceed 20/100 mL in not more than 10% of the weekly samples from the previous 6 months. Source water samples from 2005 to 2009 indicate excellent source water quality (Figure 3). Wildlife is the likely source of the E. coli detected in the source water.

![Figure 3: Percent of Source Water Samples Exceeding 20 E. coli/100 mL](image)

Progress on Watershed Management Actions

Metro Vancouver continues to improve its monitoring and forecasting capabilities to provide reliable and timely information on source water quality and watershed snowpack, stream flow, and fire risk. This information is used in managing the source reservoirs and optimizing water treatment. In 2009 additional turbidity monitoring stations were added to Coquitlam Reservoir to provide earlier indication of turbidity events.

To minimize the risk of landslides and erosion and reduce long-term maintenance costs, Metro Vancouver is deactivating un-needed watershed roads. Many of the steeper roads at highest risk of erosion have been deactivated. About 100 kilometres of road have been deactivated or two-thirds of the roads ultimately slated for deactivation.

Priorities

Protection of the source watersheds continues to adapt to new risks. In recent years, motorized recreational use of the Eagle Mountain area adjacent to the Coquitlam Watershed was increasing and so in 2010 the Province, with support from the City of Coquitlam and Metro Vancouver, established a Managed Area restricting motorized recreational use in this area.

![Coquitlam Lake Reservoir](image)
2. GOALS, STRATEGIES, ACTIONS AND PERFORMANCE

**Goal - Ensure the Sustainable Use of Water**

There are two strategies to attain this goal: Use Drinking Water Sustainably and Match Water Quality to Usage Requirements.

Performance Measures for Goal – Ensure the Sustainable Use of Water

The plan includes the following performance measures to monitor progress in ensuring the sustainable use of water.

**Peak day per capita water use by all customers (trend over time and compare to other jurisdictions).**

The upper line in Figure 4 shows peak day water use in litres per-capita per day for the years 1985 to 2009. This is total water use in the GVWD, inclusive of water system leakage and all water uses at home, work and school. Peak day water use is responsive to summer weather conditions, being higher in years with hot-dry summers such as 2003 and 2009 and lower in years with cool-wet summers such as 2000. The lawn sprinkling regulations, implemented every summer since 1993, are attributed to reductions in peak day per-capita water use of 25 percent.

**Average day per capita water use by all customers (trend over time and compare to other jurisdictions).**

The lower line in Figure 4 shows the average day water use in litres per-capita per day for the years 1985 to 2009. Water use in the GVWD in 2004 was lower than the average day per capita water use in other regions of British Columbia, Canada, and the United States by 12 percent, 7 percent, and 13 percent, respectively, according to the most recent statistics (2004).

![Figure 4: GVWD Peak Day and Average Day Water Use (inclusive of all users)](image)

As average day water use, is responsive to weather conditions, winter water use was analyzed to determine trends in water use when outdoor water use is minimal and water use is insensitive to weather conditions. Figure 5 shows the monthly GVWD per-capita water use for the winter months of November to March for 1993 to 2010. Over the 1993 to 2010 period, winter per-capita water use declined at a rate of over 1% per year.
As expected, implementation of the Drinking Water Management Plan in September 2005 is speeding the decline in per-capita winter water use. Since 2005, per-capita winter water use has been declining at the rate of over 2% per year due to the following:

- actions to reduce the liters per flush volume of toilets from 20 litres (pre-1995 regulation) to 6 litres (2005 DWMP) to 4.8-litre (October 2010);
- regulations requiring more energy efficient and water efficient fixtures and appliances;
- water conservation education programs aimed at schools, businesses, and the public;
- improvements to water metering and leak reduction programs.

Per capita water use by residential customers (trend over time and compare to other jurisdictions).

For the reasons discussed above, per capita water use by residential customers in the GVWD area is expected to be declining at about the same rate as that of total GVWD usage for all customers.

Progress on Actions to: Ensure the Sustainable Use of Water

Progress is being made on all ten actions related to this goal. Metro Vancouver and member municipalities are progressively implementing more “green” projects and Leadership in Energy and Environmental Design (LEED) certified buildings that conserve water and expand use of rainwater and reclaimed wastewater. Metro Vancouver is refining its standardized water audit process developed for Industrial, Commercial, and Institutional water users to also provide a carbon tag that building owners can use to obtain eco-certification (e.g. LEED certification).

Priorities

To further reduce peak per-capita summer water use Metro Vancouver is implementing more frequent and targeted water conservation communication for lawn sprinkling.
2. GOALS, STRATEGIES, ACTIONS AND PERFORMANCE

Goal - Ensure the Efficient Supply of Water

There are two strategies to attain this goal: Manage Infrastructure Proactively, and Optimize Capacity through Effective Partnerships.

Performance Measures for Goal – Ensure the Efficient Supply of Water

The plan identified the following performance measures to monitor progress in ensuring the efficient use of water.

GVWD budget (trend over time and compare changes in the GVWD to changes in other jurisdictions).

The annual budget for the GVWD has been increasing as the region’s population and demand for water grow and as regulatory requirements necessitate additional water treatment facilities and seismic upgrades (Figure 6). For example, the $820 million Seymour-Capilano Filtration Project is required to meet new treatment requirements and has been the major reason for the increase in GVWD budget since 2004.

![Figure 6: Projected GVWD Per-Capita Budget](image)

GVWD Water Rate (trend over time and compare changes in the GVWD to changes in other jurisdictions).

The GVWD provides water on a wholesale basis to member municipalities. GVWD’s costs to provide water are higher in the peak summer season of June through September as the natural inflows to its source lakes are lower and the demand for water is higher. Consequently, in accordance with the Drinking Water Management Plan the GVWD began phasing in seasonal pricing in 2006. In 2010, the GVWD is charging member municipalities a summer season rate of about $0.56 per cubic metre and an off-peak season rate of about $0.45 per cubic metre (Figure 7). The water rates per cubic metre paid by residents and businesses in the Metro Vancouver region, include municipal water supply costs, and are typically in the range of $0.7 to $1.0 per cubic metre. Water rates in the Metro Vancouver region are still lower than other regions such as Seattle ($1.23), Calgary ($1.25), Edmonton ($1.56), and Toronto ($1.89).

Percentage of water supplied that is subject to unplanned supply interruptions (trend over time and compare GVWD levels to levels in other jurisdictions).

In recent years supply interruptions have been extremely rare and there was insufficient information to accurately calculate this performance measure.
Infrastructure Leakage Index (trend over time and compare GVWD levels to levels in other jurisdictions).

The Infrastructure Leakage Index is the ratio of the current annual losses to the unavoidable annual losses and shows how well the water system is being managed to control water losses. However, due to technical limitations in measuring water losses in the large buried pipes that comprise the GVWD’s water system, this indicator has proven very difficult to measure and will be re-considered in future revisions of the DWMP.

Progress on Actions to: Ensure the Efficient Supply of Water

GVWD and municipal water system assets are being managed proactively in accordance with water utility best practices. Steps are being taken to be more energy efficient, to improve the accuracy of water monitoring and metering systems, and reduce leakage. The GVWD is continuing to assess risks to the water system and providing appropriate improvements on an ongoing basis.

Priorities

Giving priority to the following action will improve progress towards this Goal:

• Refine performance measures and indicators

Metro Vancouver is developing and refining its own corporate performance measures and regional sustainability indicators on an ongoing basis. The adaptive management approach adopted in the DWMP means that, with more experience, the performance measures can be refined and calibrated to provide a better assessment of progress on the Plan’s goals.
To: Water Committee
From: Jane Comeault, Sustainability Strategist, Office of the CAO
Date: June 29, 2010

Subject: LEED Certification

Recommendation:

That the Committee receive for information the report dated June 29, 2010, titled “LEED Certification”.

1. PURPOSE
To clarify discussion at the October 14, 2009 Water Committee meeting on implications of pursuing LEED certification for Metro Vancouver buildings.

2. CONTEXT
Metro Vancouver adopted a policy for Design and Construction of Green Buildings in June 2008 (see Attachment 1) stating that it will:

   i. Achieve Leadership in Energy and Environmental Design (LEED) certification for all new buildings, occupied or unoccupied, greater than 500m².
   ii. Apply green building design principles for all facilities undergoing construction (i.e. those less than 500 m²) or renovation.

The procedures section of the policy outline further details for implementation, including a requirement that LEED certified buildings are operated and maintained in line with the original design intent, and that lessons learned during the entire project life cycle are documented and shared among staff to inform future projects.

In the review of its 2010 programs and priorities on October 14, 2009, the Water Committee expressed concerns about the application for LEED certification due to its costs. It is noted that the Committee’s concern was not in design and construction of buildings in accordance with green building principles, but specifically about the cost of LEED certification. This report provides information on LEED certification and its implications for Metro Vancouver.

A. What is LEED?

LEED is an internationally recognized rating system for the design, construction, and operation of green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in sustainable site development, water efficiency, energy efficiency, selection of materials, and indoor environmental quality. Building owners may pursue a range of credits towards a certified, silver, gold or platinum rating in the following rating systems, each focusing on a different building sector:
- New construction and major renovations, core and shell development
- Commercial interiors
- Existing building, operations and maintenance
- Homes
- Neighbourhood Developments

Certification of LEED buildings in Canada is overseen by the Canada Green Building Council.

B. Why Use LEED?

Rationale for Metro Vancouver’s Design and Construction of Green Buildings policy to adopt LEED certification was based on support of regional goals, recognized benchmark, minimum capital cost premium, and operations and maintenance cost control.

Support of Regional Goals
Green building design principles, such as those incorporated into LEED, directly support the objectives and specific goals of Metro Vancouver’s Sustainable Region Initiative and suite of management plans. For example, LEED certification recognizes concrete measures to reduce energy use by a minimum of 25%, significantly reduce water use, wastewater generation, and solid waste generation during construction and operation of the facility, encourage use of alternative transportation, and to protect greenspace and ecologically sensitive lands.

Recognized Benchmark
LEED is an internationally accepted rating system for the design, construction, and operation of green buildings. The third party verification required for LEED certification ensures a consistent and transparent performance standard has been met and it facilitates broad recognition for green building efforts.

Minimal Capital Cost Premium
Comprehensive research on green building costs show no significant difference in average costs for green buildings compared to non-green buildings. Many green buildings have been constructed with little or no added cost, and with budgets well within the cost range of non-green buildings with similar programs1.

Operations and Maintenance Cost Control
Green buildings enjoy lower operating costs – mostly through energy and water conservation2.

C. Who Uses LEED?

Numerous public and private sector organizations in Canada have adopted a policy to obtain LEED certification of some level (ranging from certification to gold) in their building stock3. Within local governments specifically, many municipalities have a policy

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2 Note: this is contingent on the building being operated and maintained according to the design intent. LEED certification for new construction (LEED NC) verifies design and construction practices however it does not guarantee actual performance over the building’s lifecycle. LEED’s (new) rating system for existing buildings operations and maintenance (LEED EBOM) validates ongoing building performance.

3 For example, the Governments of Canada, BC, Alberta, Manitoba, Ontario, Quebec, all BC Crown corporations, among others.
to obtain LEED certification in civic buildings or local development or both. Attachment 2 provides an overview of green building policies from other public sector organizations.

D. Implications for Metro Vancouver

Metro Vancouver’s first experience with LEED certification was the Surrey Transfer Station (STS). Certified to LEED Silver in June 2005, it was the first transfer station in North America to achieve LEED certification and received awards from the Federation of Canadian Municipalities and Solid Waste Association of North America for its pioneering design. The project cost was $7 million, of which $15,000 was LEED-specific certification costs – or about 0.2% of the project cost.

Operated by Covanta Energy, the Burnaby Waste-to-Energy Facility Administration Centre is currently seeking LEED platinum certification. The certification costs total $10,450 of an overall building cost of $1,200,000, or 0.9%.

The successful proposal for stimulus funding for the Annacis Academy included the provision of a LEED certified building. This is in step with provincial and federal policies for LEED certification in their own buildings.

Currently, two major GVWD projects are slated for LEED certification: the Seymour Capilano Filtration Plant (SCFP) Operations and Maintenance Centre (construction completed, facility in use), and the Coquitlam UV Disinfection (CUV) Facility (design phase). The costs associated with LEED certification are the application costs with the Canada Green Building Council and the third-party verification costs for the building energy simulation. The estimated cost for LEED certification of the SCFP Operations and Maintenance Centre is $12,750 and the CUV is $8,000. These costs represent less than 0.1% of the building construction costs.

A summary of the breakdown in costs for four of the buildings noted above is provided in Attachment 3.

3. ALTERNATIVES

None presented.

4. CONCLUSION

The credits required for LEED certification are well aligned with Metro Vancouver’s sustainability principles and contribute to the achievement of regional goals in the management of growth, water, solid waste, stormwater, wastewater, air quality, climate change, energy, and ecological health. The design parameters for LEED certification are more consistent and transparent than a general commitment to green design principles. LEED certification is the most widely recognized standard for green buildings in North America providing a third party verification for building performance, and the cost for obtaining LEED certification is low.

Metro Vancouver does not construct many new buildings so the implications for LEED certification are relatively minor. However, given the impact that wide use of green building

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4 For example, the cities of Calgary, Coquitlam, Electoral Area A, Kingston, New Westminster, North Vancouver, Ottawa, Pitt Meadows, Port Coquitlam, Port Moody, Richmond, Vancouver, West Vancouver, Waterloo, White Rock, among others.
principles throughout the region has on regional goals it is important for Metro Vancouver to demonstrate its leadership and commitment in this area.

Attachments:
   1. Metro Vancouver Design and Construction of Green Buildings Policy
   2. LEED Policies of Other Organizations
   3. LEED Certification Costs for Metro Vancouver facilities
6.6 DESIGN AND CONSTRUCTION OF GREEN BUILDINGS POLICY

**Effective:** June 18, 2008  
**Replaces:** June 11, 2008  
**Review Date:** May 1, 2011

**Approved:**  
Original Signed by Johnny Carline  
Chief Administrative Officer

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**PURPOSE**  
To outline the parameters for design and construction of new buildings to include green design principles.

**APPLICATION**  
Applicable to the design and construction of all new buildings owned or operated by the GVRD.

**POLICY**  
The GVRD will:

1. Achieve Leadership in Energy and Environmental Design (LEED) certification for all new buildings, occupied or unoccupied, greater than 500m².
2. Apply green building design principles for all facilities undergoing construction (i.e. those less than 500 m²) or renovation.

**DEFINITIONS**  
**Leadership in Energy and Environmental Design (LEED)**  
LEED is an internationally recognized rating system for the design, and construction of green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas: sustainable site development, water efficiency, energy efficiency, selection of materials and resources, and indoor environmental quality. Building owners may pursue a range of credits towards a certified, silver, gold or platinum rating. Certification of LEED buildings in Canada is overseen by the Canada Green Building Council.

**Integrated Design Process**  
The Integrated Design Process involves collaboration of key team members from building conception to post-occupancy, in order to create a high performance building with minimal life cycle impacts and maximum operational and maintenance savings. The process requires the use of design charrettes or workshops, the first of which is to establish a clear statement of vision, goals, and objectives for the building, which become measurable targets to guide the entire process. The design process is iterative, based on feedback about the interactions between different elements. This whole-systems thinking allows for optimization of building performance.

**PROCEDURES**  
The Corporation and its staff will:
1. Business case the optimal certification level for the building, either within the preliminary design business case as part of the regular capital development process, or in a distinct business case on the LEED certification level only.

2. Monitor the performance of buildings, benchmarking between building stock (green and conventional), and incorporating learning back into the organization.

3. Operate and maintain LEED certified buildings in line with the original design intent; and transfer knowledge and experience from LEED buildings to the operation and maintenance of other buildings.

4. Update GVRD Engineering Standards with green building design principles.

5. Train engineers and other relevant personnel on green building design, operation, and maintenance by including LEED accreditation in training and development plans for all utility divisions, especially for new hires but eventually for all engineering and other related staff.

6. Require application of a green building design checklist in the project development process.

7. Require the use of Integrated Design Process for buildings greater than 500m². The process should be based on the document *Roadmap for the Integrated Design Process*, eRIM no. 004496045.

8. Inform future projects with experience from past green building projects, including lessons learned in tendering, specifications, documentation, schedule, budget and operation.
LEED Policies of Other Organizations

Adoption of LEED in Canada
- Government of Canada
- Public Works and Government Services Canada
  - Goal 1: Governance for Sustainable Development (Federal SD Goal VI)
    - Targets and Performance Measures 1.1.9.1 – When soliciting leasing opportunities for newly constructed buildings (build to lease), PWGSC will require that the building meet the following LEED standards or equivalent: For lease purchase buildings, LEED Gold standard or equivalent. The costs to bring the building to this standard will be included in the selection process.
- Crown Corporations
  - All Crown corporations are mandated to build nothing less than LEED Gold.
- Government of BC
  - All new government buildings or facilities shall be built to a minimum LEED Gold or equivalent certification.
- Government of Alberta
- Government of Manitoba
  - Adopted LEED Silver for all new capital projects, including schools and health-care facilities on June 15, 2006.
- Government of Ontario
- Government of Québec
  - Québec City
  - Société immobilière du Québec (SIQ) for provincial buildings in their jurisdiction
  - City of Montreal
  - Mc Gill University, Concordia University, and University of Montreal
- City of Vancouver
- City of North Vancouver
  - Adopted LEED Silver as minimum, LEED Gold as preferred for all newly constructed civic buildings.
- City of West Vancouver
  - Adopted some LEED for Homes design criteria into Green Building Requirements for Properties to be Sold by the District.
- City of Richmond
  - Adopted LEED Silver as minimum.
- City of Coquitlam
  - Adopted LEED Certified as standard.
- City of Port Coquitlam
  - Incorporated into its municipal rezoning and development permit application process.
- City of Port Moody
  - Incorporated into its draft version official community plan to aspire to LEED Silver as minimum with a target of LEED Gold.
- City of White Rock
- City of Pitt Meadows
  o Use LEED standards in City construction\textsuperscript{16}.
- City of New Westminster
  o Adopted LEED Gold as preferred standard for all newly constructed civic facilities\textsuperscript{18}.
- Electoral Area A
  o Draft Recreation and Cultural Services Master Plan is considering that “Buildings should be planned with appropriate LEED principles …”\textsuperscript{19}
- City of Calgary
  o Adopted LEED Silver as minimum\textsuperscript{20}.
- City of Ottawa
  o Adopted LEED Certified as minimum in 2005\textsuperscript{21}.
- City of Kingston, Ontario
  o Adopted LEED as a design goal in April 2004\textsuperscript{22}.
- Region of York
  o Adopted LEED Silver as minimum for new regional facilities in 2006\textsuperscript{23}.
- Region of Waterloo
  o Adopted LEED Silver in April 2005\textsuperscript{24}.
- District of Saanich
  o Adopted LEED Silver as minimum for all new construction of civic buildings\textsuperscript{25}.
- APEGBC
  o Formally endorsed the use of LEED as the preferred method of building assessment in BC\textsuperscript{26}.
- University of British Columbia
  o Based on LEED, UBC developed their homegrown green building standard called the Residential Environmental Assessment Program (REAP)\textsuperscript{27}. All new residential construction follows the REAP\textsuperscript{28}.
  o All new construction is required to achieve LEED Gold certification\textsuperscript{28}.
- BC Interior Health Authority
  o Adopted LEED Gold as standard\textsuperscript{29}.
- Niagara Region, Ontario
  o Participates in the LEED Canada Pilot Program for administration buildings\textsuperscript{30}.
- Various other businesses, developers, building owners and more in the region.

**Adoption of LEED in the USA\textsuperscript{31}**

Various LEED initiatives including legislation, executive orders, resolutions, ordinances, policies, and initiatives are found in 45 states, including 206 localities (142 cities, 36 counties, and 28 towns), 34 state governments (including the Commonwealth of Puerto Rico), 14 federal agencies or departments, 17 public school jurisdictions, and 41 institutions of higher education across the United States.

Government owned or occupied LEED buildings make up 29% of all LEED projects. The federal government has 221 certified projects and another 3349 pursuing certification. State governments have 391 certified projects and 1993 pursuing certification. Local governments have 576 certified projects and 3196 pursuing certification.
References
11 West Vancouver Standard, Green Building Requirements for Properties to be Sold by the District, Document # 367034v1.
12 City of Richmond Design Services, City of Richmond.
13 Employment Information Series, Retail, Coquitlam Planning & Development, City of Coquitlam.
14 Port Coquitlam Official Community Plan (OCP), 2005.
16 Objective 8-1a, Environmental Strategic Plan, City of White Rock, September 2008.
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LEED Certification Costs for Metro Vancouver Facilities

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*building construction completed; certification pending  
**estimated building completion date
To: Intergovernmental Committee  
Regional Planning Committee  
Water Committee  
Finance Committee

From: Christina DeMarco, Division Manager, Policy and Planning Department

Date: June 11, 2010

Subject: Metro Vancouver Ownership of Local Infrastructure in the Electoral Area

At its meeting of May 21, 2010, the Board referred the report dated May 11, 2010, titled “Metro Vancouver Ownership of Local Infrastructure in the Electoral Area” to the Water, Finance, Intergovernmental and the Regional Planning Committees for their examination of the potential impacts on Metro Vancouver.

Metro Vancouver is the local government authority for Electoral Area A. The purpose of the Local Infrastructure report (Attachment) was to provide direction in processing specific requests for infrastructure. An analysis of costs, benefits, and risk analysis for Metro Vancouver would be prepared for each individual request and reports would be submitted to the Committee and Board for their evaluation.

ATTACHMENT

To: Board of Directors

From: Electoral Area Committee

Date: May 11, 2010

Subject: Metro Vancouver Ownership of Local Infrastructure in the Electoral Area

At its meeting of May 11, 2010 the Electoral Area Committee reviewed the report titled ‘Metro Vancouver Ownership of Local Infrastructure in the Electoral Area’ dated April 28, 2010. The Committee concluded that the matters raised in the report concerning local infrastructure provision by Metro Vancouver warranted and would likely stimulate a full debate at the Board level. Therefore, after a brief discussion of such issues on Metro Vancouver liability and potential growth strategy impact, it was determined that there would be little value added in a committee debate and that the report should be forwarded for a debate at the Board level without a committee recommendation.

Attachment: Report dated April 28, 2010, titled “Metro Vancouver Ownership of Local Infrastructure in the Electoral Area”
To: Electoral Area Committee  
From: David Boote, Electoral Area Planner, Policy and Planning Department  
Date: April 28, 2010  
Subject: Metro Vancouver Ownership of Local Infrastructure in the Electoral Area

Recommendations:

That the Board:

a) Consider whether or not to assume ownership of local infrastructure in the Electoral Area on a case by case basis in situations where the following conditions are met:
   i. GVRD is in receipt of a satisfactory petition for service from the property owners within the proposed service area in accordance with the provisions of the Local Government Act;
   ii. The petition for services proposed that 100% of the costs of the infrastructure including the necessary property interests, the design, construction, and ongoing maintenance costs will be borne by the property owners within the service area; and
   iii. All necessary project approvals, including any regulatory/permitting approvals and any acquisition of any necessary property interests have been obtained;
   iv. Arrangements for financing are in place; and
   v. The Service Bylaw and the corresponding Loan Authorization Bylaw receive approval of the Inspector of Municipalities, as required by the Local Government Act.

b) Request staff to report back to the Board on specific requests for local service area improvements in Electoral Area A.

1. PURPOSE

As a result of requests by property owners in the Electoral Area, this report proposes recommendations related to Metro Vancouver ownership and funding of local infrastructure.

2. CONTEXT

2.1 Background

At its meeting of March 19, 2010, the Electoral Area Committee requested staff to report back on the financing and ownership of local infrastructure in Electoral Area to respond to requests made by residents.

Metro Vancouver provides local government services for that part of the region known as the Electoral Area. Generally Metro Vancouver does not provide local infrastructure, such as roads, sewers, water, local parks etc. to communities in the Electoral Area. Local services provided by Metro Vancouver include planning, administration, building inspection and enforcement and emergency response preparation.
2.2 Legislative Considerations

The Local Government Act sets out the manner in which property owners may request local services from a regional district. The standard approach is to sign and submit a petition making a request for a specific service. The petition must describe the service, include the boundaries for the proposed service area and indicate the proposed method for recovering the cost of the service. In addition, the petition can contain any other information that the Board may require. To be considered by the Board, the petition must be signed by 50% of the property owners in the proposed service area and those owners must represent at least 50% of the assessed value of land and improvements in the proposed service area. The regional district would be required to certify that the petition had been completed in the proper manner.

Where the petition is verified as complete and correct, the Board may indicate its support by introducing a Service Bylaw. The Local Government Act lists the requirements for a Service Bylaw, which include a definition of the service, a description of the boundary to which the service applies, the method of cost recovery and the maximum amount of funds that may be used for the project.

If borrowing (from the Municipal Finance Authority) is to be part of the approval, then a Loan Authorization Bylaw would accompany the Service Establishment Bylaw. The requirements for a Loan Authorization Bylaw are also set out in the Local Government Act and the Community Charter. A Loan Authorization must include the amount to be borrowed, the purpose of the borrowing and the number of years for which funds will be borrowed. All costs incurred by Metro Vancouver in relation to the service, including costs of administration relating to the service and any feasibility studies conducted in respect of the service, may be recovered under provisions in the Local Government Act.

Before the Service Bylaw and the Loan Authorization Bylaw are adopted by the Board, they must be forwarded to the province for approval. Provincial approval is based on a review that confirms that the bylaws and petition meet the legislative requirements.

If approved by the Board, the bylaws must be forwarded to the province for approval – such approval is based on a review that confirms that the bylaws and petition meet the legislative requirements.

2.3 Approaches in other Electoral Areas

Provincial representatives confirm that local services requested by property owners in electoral areas generally are only provided by Regional Districts where there has been agreement that the costs will be covered by the property owners within the local service area. This approach is based on an understanding that those residents directly benefiting from the infrastructure should be the ones to pay for it, as opposed to the costs being borne by all ratepayers. The province confirms that there are no recent examples where the costs of local infrastructure are paid for by all ratepayers in an Electoral Area.

Where ratepayers have agreed to cover the costs of the infrastructure, options for payment do exist. There are several approaches to pay for infrastructure – property owners have been given a choice to:

- pay ‘up front’;
- pay over time, with interest charges factored in; or
- a combination of an initial payment for a portion of the cost and the remainder paid over time.
Operating and maintenance costs for local infrastructure must also be addressed, in order to identify responsibility and financing. In some cases a ‘user fee’ can be charged for all property owners in order to collect sufficient operating and maintenance funds to pay for infrastructure maintenance. In some scenarios, special assessments are required for larger maintenance efforts.

Many local facilities such as water systems have historically been operated by Improvement Districts. It has been the policy of the province to phase out these operations and have regional districts assume ownership and control.

In the Sunshine Coast Regional District over 20 Improvement Districts have been taken over, with the water systems now owned and operated by the Region. The Capital Region District also has more than 20 water systems that are governed by local service committees but operated by Region staff or in some cases by contractors. The size of the water systems owned by the Capital Region District ranges from 16 to 1000 connections.

2.4 Metro Vancouver Bylaw Requirements

Currently Metro Vancouver does not own any local infrastructure. In order to own local infrastructure, a bylaw to establish a Service Area within a portion of the Electoral Area would be required and it would need to address a number of key considerations. The bylaw would:

- Affirm that a request has been made by property owners within the area for the provision of the service;
- Confirm that the manner in which the request has been made is acceptable to Metro Vancouver;
- Establish a local service within a defined area; and
- State the intention of Metro Vancouver to carry out or cause to be carried out construction of the particular infrastructure;

Where borrowing forms part of the project, a Loan Authorization Bylaw accompanies the Service Establishment Area Bylaw and sets out the maximum amount of funds that may be borrowed.

Elector approval is required for both a Service Establishment Bylaw and a Loan Authorization Bylaw. In circumstances where the service in question is the result of a petition for service that meets the requirements of the Local Government Act, the written consent of the electoral area director to adoption of the bylaws constitutes the necessary participating area approval.

Once a decision to take on ownership of local infrastructure is made, resources to manage the development and maintenance of the infrastructure would be required, as would any specific project approvals and/or any rights of way.

In the past, the GVRD has owned local infrastructure, including water/sewer systems on Bowen Island and at Belcarra at a time when both had not yet been incorporated as municipal governments. In these cases, property owners initiated the request for local services and paid the cost of the infrastructure. Bylaws were adopted by the GVRD in order to allow for the provision of the infrastructure. These pieces of infrastructure were transferred by the GVRD to the municipalities upon their incorporation.
As well as the ownership of infrastructure, a key consideration is the extent to which Metro Vancouver may contribute to the financing of the infrastructure project. This raises issues related to property taxes paid in the Electoral Area.

2.5 Existing Tax Structure in the Electoral Area

Electoral Area taxes are collected by the provincial government and the Tax Notice is separated into three distinct sections:

1. Provincial Rural Tax
The provincial Rural Property Tax raises revenue to fund provincial programs which include general services as well as specific, targeted provincial programs such as grant programs to assist with the provision of local infrastructure. Rural Property Tax applies to land outside cities, towns, districts and village boundaries and is a uniform rate.

2. Provincial School Tax
School tax is levied in both rural and municipal areas. The tax rates are uniform within a school district. There are several different school districts applicable to the Electoral Area.

3. Local Service Taxes
The local service taxes raise revenues based on the budget needs set by provincial bodies as well as by local government bodies. Local Service Taxes collected help fund:
- BC Assessment Authority
- Municipal Finance Authority
- TransLink
- Police (Levied in rural areas and in municipalities with populations of less than 5,000 people)
- Islands Trust (Levied for Passage and Bowyer Islands)
- Electoral Area A/ Metro Vancouver.

Electoral Area A / Metro Vancouver services include:
- a) Local planning, administration and building inspection services as well as emergency service planning and response; and
- b) Regional parks, strategic/regional planning, 9-1-1, air quality, West Nile virus planning and general administration.

Metro Vancouver provides those services listed in Section a) only in the Electoral Area, while those services noted in Section b) are provided throughout the Region. A tax bill may also include local service area levies which can be calculated on a per-parcel basis or on its assessed value. At present, there are no local service areas in effect for Electoral Area communities.

The tax base for the remote communities in Electoral Area is very small. For most communities in the Electoral Area, Metro Vancouver taxes amount to approximately 5.25% of the total tax bill. However, for Passage and Bowyer Islands, the percentage of taxes paid to Metro Vancouver is 3.8%. The difference is because Passage Island property owners pay additional taxes for the operation of the Islands Trust. On a typical property, the annual taxes paid to Metro would be about $50.00.
2.6 Considerations for Metro Vancouver: Risks and Benefits

As owner of local infrastructure, Metro Vancouver will face unique challenges. For example, Metro Vancouver has limited experience in small water system operation. Any ownership would most likely involve contracting the operation of the system. Where a contractor is used to manage the infrastructure, Metro Vancouver would become a ‘middle man’ in some respects, as both users and maintainers may approach the owner on a range of matters.

The cost of administration is another issue, as relatively high costs result for small scale projects such as those potentially to be owned by Metro Vancouver. Administration costs increase if local service committees are established for management purposes. Managing contractors is another cost to be covered. To be totally cost-neutral for Metro Vancouver, administration costs would be a consideration in overall maintenance costs as well. Given the relatively small scale of the projects proposed, the cost-effectiveness of the arrangements may be an issue. Liability is a central consideration, especially in the maintenance of drinking water systems.

Under the Local Government Act it is possible for a local government to recover 100% of the costs associated with a service by way of property value taxes or parcel taxes or user fees. The costs that are recoverable include for example, administration costs and any costs ordered by a court to satisfy a court judgment (provided the judgment did not arise from the region’s negligence).

A clear understanding of the requirements associated with approvals for the provision of infrastructure would be needed at the outset. Metro Vancouver is the local government for the Electoral Area – to the extent that there is an expectation that Metro Vancouver shall assist in the provision of local services, ownership of local infrastructure meets this expectation and provides clear benefits to the local community. A structured and transparent approach to address the issues involved in assuming ownership in particular projects would provide clarity to all and address potential liability issues. Wherever Metro Vancouver is able to be both owner and operator of the infrastructure, Metro Vancouver would have greater control over potential liability issues.

3. ALTERNATIVES

The Board could:

1. a) Consider whether or not to assume ownership of local infrastructure in the Electoral Area on a case by case basis in situations where the following conditions are met:
   i. GVRD is in receipt of a satisfactory petition for service from the property owners within the proposed service area in accordance with the provisions of the Local Government Act;
   ii. The petition for services proposed that 100% of the costs of the infrastructure including the necessary property interests, the design, construction, and ongoing maintenance costs will be borne by the property owners within the service area; and
   iii. All necessary project approvals, including any regulatory/permitting approvals and any acquisition of any necessary property interests have been obtained;
   iv. Arrangements for financing are in place; and
   v. The Service Bylaw and the corresponding Loan Authorization Bylaw receive approval of the Inspector of Municipalities, as required by the Local Government Act.
b) Request staff to report back to the Board on specific requests for local service area improvements in Electoral Area A.

(Recommended)

2. Decline to become involved in local service delivery.

4. CONCLUSION

The range of services provided by Metro Vancouver in the Electoral Area is very limited compared to that provided by municipal governments. Electoral Area residents have chosen to live in remote areas of the region. Metro Vancouver does not currently own local infrastructure in the Electoral Area, however it has owned local water and sewer systems in the past. Property owners in a few different communities are now asking Metro Vancouver whether it is willing to own specific items of local infrastructure. There is also a request that Metro Vancouver fund the construction of this infrastructure. If there is a petition from local residents for the provision of local services, it is recommended that Metro Vancouver should agree in principle to ownership of the infrastructure subject to the conditions outlined in the recommendations. However, it is also recommended those people directly benefiting from the infrastructure should pay for its development and maintenance.
To: Water Committee

From: Heather Schoemaker, Manager, Corporate Relations

Date: June 29, 2010


Recommendation:


1. PURPOSE

To provide the Water Committee with information on the International Water Association (IWA) World Water Congress and Exhibition being held September 19-24th in Montreal.

2. CONTEXT

The IWA World Water Congress and Exhibition is a high profile international biennial event that in previous years has been held in Vienna, Beijing, Marrakech, Melbourne, Berlin and Paris. In 2010, the Association is partnering with the Canadian Water and Wastewater Association (CWWA) and the Canadian Association on Water Quality (CAWQ) to hold the event in Montreal.

The IWA is a global network of 10,000 individuals and 400 corporate water professionals in 130 countries. IWA members span the continuum between research and practice and cover all facets of the water cycle, from the science and management of drinking water, wastewater and stormwater to the conservation of water resources throughout the world.

The IWA World Water Congress and Exhibition attracts over 4,500 water professionals and organizations from across the globe. The strategic intentions for the congress are to engage with the dynamics of the water sector and its interfaces, including urbanization, climate change and energy. The key topics to be discussed at this event are: the science and application of water management, water, climate and energy, cities of the future, managing utilities and their assets, securing new and traditional water resources for the future, water ecosystems and catchments and water and health.
Metro Vancouver staff will be attending the Water Congress and have been given the opportunity, along with other major Canadian utilities (Montreal, Toronto, Edmonton and Calgary) to participate at a variety of levels at the event. Our involvement will identify Metro Vancouver in the context of Canadian utility providers, provide Metro Vancouver the opportunity to convey our messages and showcase our approaches and initiatives, it will recognize, on an international basis that we are actively involved in shaping the sustainable services and technologies of tomorrow and it will allow for international networking at the corporate level.

As part of our role at the conference Metro Vancouver will be joining the other major Canadian utilities to host a booth in the Exhibition Hall. This is a unique opportunity to highlight Metro Vancouver’s sustainable plans and operations in the water and wastewater sectors. It will also give the opportunity to display our efforts to advance wastewater as a resource and in particular promote the development of the Annacis Centre for Research and Education, the first of four Public Sustainability Academies.

In addition to the “Canadian Utilities Booth” we have the opportunity to participate in two industrial forums in which the Canadian utilities, either collectively or individually, can provide presentations, speakers on a particular topic or a panel.

3. ALTERNATIVES

None presented.

4. CONCLUSION

The IWA World Water Congress and Exhibition is a valuable and unique opportunity for the community of world-leading water professionals to meet, exchange ideas, explore the state of the art and debate the key issues underlying the science and practice of water. It is also where the water community congregates once every two years and where major utility providers can showcase their work and plans for future activities.
Water Committee Meeting Date: July 14, 2010

To: Water Committee

From: Tim Jervis, Manager, Engineering and Construction Department

Date: June 25, 2010

Subject: Manager’s Report

Recommendation:

That the Water Committee receive the Manager’s Report dated June 25, 2010 for information.

1. Metro Vancouver Tap Water Campaign Update - Tap Water Database – H. Shoemaker

Metro Vancouver set a goal to reduce bottled-water use by 20% by 2010. Research confirms that the vast majority of the region’s residents already drink tap water and would purchase even less water in single-use plastic bottles if our tap water was more accessible. To address that need, Metro Vancouver, in collaboration with member municipalities, has developed an iPhone application and web-based database containing the location of public drinking fountains throughout the region. The web-based database would also be accessed by mobile phones such as Androids and Blackberrys. Metro Vancouver is also in ongoing discussions with restaurant and hotel associations to identify those establishments willing to make their tap water available to the general public. Locations of participating establishments would also be included in our tap water database, with this portion of the database expected to be available as soon as August/September.

2. Water Committee 2010 Workplan – T. Jervis

Attached is the updated 2010 Workplan indicating the quarter that the priority will be considered by the Water Committee. Completed items are shown in bold.

Attachment: Water Committee 2010 Workplan
Water Committee 2010 Workplan

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<td>• 2010 GVWD Capital Projects</td>
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<td>• Seymour-Capilano Filtration Project Status – Q4 2009</td>
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<td>• Attendance at AWWA 2010 Annual Conference and Exposition</td>
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<td>• Off-Road Motorized Vehicle Use on Lands Adjacent to Eagle Mountain and Metro Vancouver’s Coquitlam Watershed</td>
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<td>• Water Supply and Water Conservation Update for Summer 2010</td>
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<td>• Tap Water Campaign - Water Wagon Update</td>
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<td>• Update on Fisheries Projects in the Capilano, Seymour and Coquitlam Watersheds</td>
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<td>• Official Opening of the Seymour-Capilano Filtration Plant</td>
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<td>• GVWD Quality Control Annual Report for 2009</td>
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<td>• Status of Capital Expenditures</td>
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<td>• Seymour-Capilano Filtration Project Status – Q1 2010</td>
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<tr>
<td>• Progress Report on the Joint Water Use Plan for Capilano and Seymour Watersheds</td>
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<tr>
<td>• New Agreement for Purchase of Coquitlam Lake Water from BC Hydro</td>
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<td>• Seymour-Capilano Filtration Project Status – Q2 2010</td>
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<td>• Status of Capital Expenditures</td>
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<td>• Seymour-Capilano Filtration Project Status – Q3 2010</td>
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<td>• 2011 Program and Priorities</td>
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Note: Completed items shown in bold.
Information Items
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WESTERN PREMIERS ACT ON WATER CONSERVATION AND MANAGEMENT STRATEGY

VANCOUVER – Western Premiers are taking the first step to a new strategy to conserve and manage Canada’s valuable fresh water supplies.

“Decreasing glaciers and snowpack, flood threats, and manageable water supplies do not stop at provincial and territorial borders,” said British Columbia Premier Gordon Campbell, chair of the 2010 Western Premiers’ Conference. “This work will help us make better decisions and develop comprehensive, long-term water management plans to secure our fresh water supply for future generations.”

Canada currently accounts for approximately seven to nine per cent of the world’s renewable fresh water supply. This supply faces increasing threat due to climate change and water consumption habits of industry, agriculture, citizens, and communities.

- Canada is ranked 29th out of 30 Organization for Economic Co-operation and Development (OECD) countries for per capita water consumption.
- Between 1985 and 2005, B.C. and Alberta glaciers show an 11.3 per cent decrease in area.

Western Premiers also agreed to promote action on water quality and water efficiency to lower water consumption. They supported establishing a national public-awareness campaign through product labelling that helps Canadians choose low-water-use appliances such as dishwashers and washing machines for use in their homes.

Premiers encouraged the federal government to conclude a memorandum of understanding with the United States to implement the WaterSense water-efficiency labelling program in Canada.

The Western Water Stewardship Council, created by Premiers in 2008, will be tasked with:
1. Identifying existing water and climate science and information activities, including how accessible this information is and how it can support decision making.
2. Identifying agencies and others currently engaged in these activities, and how their priorities can align with policy and decision making needs.
3. Establishing, as appropriate, improved mechanisms to better link these agencies and others, their activities and the policy and decision makers.
The western jurisdictions will also work with the public and private sectors to make the next World Water Day, set for March 22, 2011, a national event to promote water conservation.

Premiers agreed to a Water Charter to underscore the need for immediate action on water priorities. Western Premiers will ask all provinces to join the charter at the upcoming Council of the Federation meeting.

“Water is essential to agriculture, forestry, industry, communities, recreation, health and ecosystems,” said Yukon Premier Dennis Fentie. “Impacts of climate change and our growing population mean that we need a different approach to the use of our water – at home and in our businesses and industries.”

Western Premiers also discussed how severe wet weather this spring has become a major concern for prairie farmers.

Flooding has prevented seeding and is expected to result in the largest abandoned acreage in Western Canada since the early 1970s. According to the Canadian Wheat Board, between 8.25 million and 12.5 million acres of Prairie farmland will go unseeded this year.

Western Premiers today called on federal and provincial agriculture ministers to immediately discuss supports for our hard-hit farming communities.

“Our farmers are once again facing a difficult situation,” said Manitoba Premier Greg Selinger. “Although we have programs in place, governments need to work together to make sure our farmers get the help they need under these challenging conditions.”

“At this time, 30 per cent of Saskatchewan cropland remains unseeded and a significant number of seeded areas have been flooded,” said Saskatchewan Premier Brad Wall. “I toured just a small area of northeastern Saskatchewan yesterday and the damage is significant. Farm families are looking to their governments for support.”

“While flooding in Alberta is not as widespread, input costs and commodity prices are always a risk,” said Alberta Premier Ed Stelmach. “This year many of our farmers and rural communities face the additional challenge of getting a crop in.”

Contact: Bridgitte Anderson
Press Secretary
Office of Premier Gordon Campbell
Province of British Columbia
604 307-7177
WHEREAS water is an essential component of all life on earth and there is no substitute for water, and

WHEREAS adequate clean water is critical to human health, sanitation and the liveability of cities, and

WHEREAS water in its natural state is critical for supporting ecosystem health, maintaining fisheries, providing recreation and attracting tourism, and

WHEREAS water is an essential input to agriculture and is necessary for industry and resource development, and

WHEREAS the changing climate is already affecting this vital resource, and

WHEREAS Canadians recognize our collective obligation to be responsible water stewards for North America and the world and the need to continue to improve our water conservation and quality efforts, and

WHEREAS Canadians have the potential to help address global water issues by developing and commercializing innovative new technologies and services and to be leaders in the development and sale of new technologies and services to improve water conservation and quality across the world, and

WHEREAS, provinces and territories recognize that watersheds do not follow provincial and territorial boundaries, and

WHEREAS provinces and territories recognize we can improve our efforts by working in partnership and leveraging the successes in management of water conservation and protecting water quality in our individual jurisdictions.

Therefore we agree to:

• Reinforce water conservation and protection as a key priority for citizens and their governments.
• Make water use more efficient, beginning by challenging every water use sector to prepare Water Conservation, Efficiency and Productivity Plans.
• Increase our water monitoring effort and cooperate and share information on water conservation and water quality.
• Work with municipalities to ensure they have plans to deal with water-related emergencies and enhance best-practice sharing of planning tools among communities.
• Encourage Canadians and Canadian companies to be leaders in the development and sale of new technologies and services for water conservation and protection.
• Work with public and private sector groups to make a World Water Day – March 22, 2011 - a national event with a visible and co-ordinated focus on the above priorities.
• Collaborate with State governments on transboundary issues.

Contact: Bridgitte Anderson
Press Secretary
Office of Premier Gordon Campbell
Province of British Columbia
604 307-7177

For more information on government services or to subscribe to the Province’s news feeds using RSS, visit the Province’s website at www.gov.bc.ca.
INTER-OFFICE MEMO

TO: Mayor Watts  
Councillor Hepner  
Councillor Hunt  
Councillor Villeneuve

FROM: General Manager, Engineering

DATE: June 23, 2010  
PROJECT FILE: 0455-20 (WC)

RE: Greater Vancouver Water District, Regular Meeting  
Our Comments on June 25, 2010, Meeting Agenda

We have briefly reviewed the reports to the Greater Vancouver Water District Committee Meeting on June 25, 2010, and wish to comment as follows:

E.1.1 Tap Water Campaign Water Wagon Update

The purpose of this report is to provide the Board further information on the proposed Water Wagon, and seek approval to purchase a water wagon at an estimated annual cost of $200,000.

The purpose of the water wagon is to provide a mobile drinking water facility that will encourage more residents to choose tap water over bottled water.

The City of Vancouver, in collaboration with the Province of Ontario, operated a water wagon in downtown Vancouver during the Winter Olympics, and they found it to be an effective means to educate residents on the source and treatment of our water, in addition to informing new residents that the region's water is safe to drink and that boiling or other treatment is not required.

Based on Vancouver's Olympic experience, and the demand for the service in Toronto, staff support the acquisition of two water wagons for the region as there are many large events in Surrey that could provide a suitable audience. These events include the Cloverdale Rodeo, Canada Celebrations, the Fusion Festival, the BC Summer Games in 2012, and tournaments at Softball City, however, we question the overall high cost of this campaign.

E.1.2 Summary of GVWD Quality Control Annual Report for 2009 – Presentation

The water quality monitoring program confirms that the multiple barrier approach, which includes watershed protection, water treatment, and ongoing operation of the water system to maintain water quality, is working effectively.
Capilano water source was taken out of service for a short period in the early part of 2009, and again in late October for the next 6 months and returned to service at the end of April 2010, because of turbidity events. Seymour and Coquitlam sources were in service for the entire year and were able to meet the Region’s demands during this period.

For your information, the Capilano source was taken out of service again in early June due to turbidity. Both the Seymour and Coquitlam sources have been able to meet the Region’s demands during this most recent period.

Additional Information

In addition to the comments provided above, staff suggest that the Board consider discussions on how residents should be advised of future water rate increases. During the budget consultation process, Metro Vancouver staff continued to communicate that Metro Vancouver’s water rates would be increasing by 17% for 2011, and the first justification for this rate increase was that effective conservation activities have reduced the region’s revenues.

Staff are quite concerned that the proposed rate increases are being primarily associated with reduced consumption. Even if water has a large fixed cost component and a reduction in demand increases the rate, the effect to the consumer should be neutral as their cost for water is the product of the rate by their consumption. Furthermore, as this approach is detrimental to the region’s water conservation initiatives. Therefore, staff suggest that Metro Vancouver develop an education campaign that clearly illustrates all of the costs that are resulting in an increase to how much we pay for water as opposed to discussing rates, and that conservation initiatives are not effective rationale to gather public support for increases to our water rates.

If you require further information, please phone me at 604-591-4314.

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c.c. - City Manager
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