



REGIONAL DISTRICT OF NORTH OKANAGAN

GREATER VERNON ADVISORY COMMITTEE SPECIAL MEETING

Thursday, February 13, 2014
8:00 am

AGENDA

A. APPROVAL OF AGENDA

1. Greater Vernon Advisory Committee – February 13, 2014

RECOMMENDATION 1

That the Agenda of the February 13, 2014 Greater Vernon Advisory Committee Special meeting be approved as presented.

B. UNFINISHED BUSINESS

1. 2014 Budget Presentation – Greater Vernon Water – Presentation to be provided

FOR DISCUSSION

C. ADJOURNMENT

**Greater Vernon Advisory
Committee
Special Meeting**

**Greater Vernon Water
2014 Budget Presentation**

Presented by: Zoe Marcolin, P.Eng., Manager – Greater Vernon Water
David Sewell, General Manager Finance


February 13, 2014

Presentation Purpose

- Overview of Greater Vernon Water Utility (GVW)
- Review GVW:
 - Programs
 - 2014 Operations Budget
 - 2014 Capital Works Projects
- Financial Summary

GVW Program Objectives

- Provide **Clean, Safe** drinking water
- Comply with **Provincial Legislation**
- **Reliable** delivery
- In **Quantities** to meet current and future demand
- **Continuity** of service
- Ensure that Water Quality Events (i.e. Advisory or Boil Water) – are a **rare event**



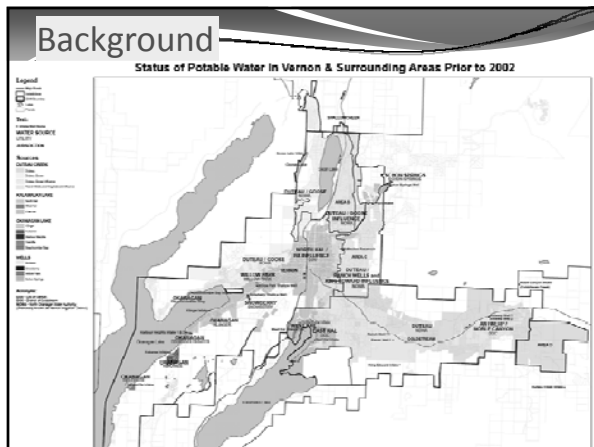
BC Drinking Water Protection Act

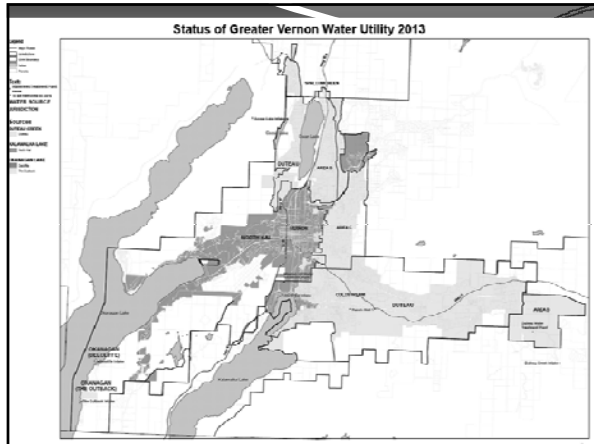
Interior Health assigned responsibility to oversee Drinking Water Systems

- IH 4-3-2-1-0 Objectives – Chlorination, UV and FILTRATION on Surface Water and GWUDI sources
- Water Notification to Customers:
 - Water Quality Advisory at turbidity above 1.0 NTU
 - Boil Water Notification at turbidity above 5.0 NTU

Interior Health (IH) Policies/Conditions on Permit

1. Watershed and Well Protection Plans for each source
2. Certified Operators
3. Water Quality Monitoring Program
4. Cross Connection Control Program
5. Continuous On-line Turbidity Monitoring
6. Continuous On-line Monitoring of Disinfection Process
7. Long-Term plans for source, treatment and distribution improvements
8. Emergency Response Planning
9. Monthly and Annual Reporting





GVW Statistics

- Service Area 244 km²
- 700 km of pipe
- 25 tanks (enclosed reservoirs)
- 57 pumphouses, 77 PRVs
- 86 pressure zones
- 6 open reservoirs (31,000 ML storage)
- 20,000 connections, est. 53,000 people
- Summer flows 260 ML/d (Duteau-220, Kal-40)
- Winter 30 ML/d (Duteau-8, Kal-22)
- Treatment - Duteau & Mission Hill Treatment Plants



Watershed Protection

- Duteau Creek Action Plan
- Kal Lake Limnology
- Kal Lake Watershed Protection Plan

The block contains three photographs illustrating environmental impacts. The first photo shows a stream with significant sediment and debris, labeled 'Environmental impacts from Cattle and Recreation Activities'. The second photo shows a stream with a fence and a vehicle nearby, labeled 'Off stream watering'. The third photo shows a stream with a fence and a vehicle nearby, labeled 'Off stream watering'.



Certified Operators

- Coldstream & Vernon contracted for distribution
- RDNO operators for treatment & supply
- Level 4 Distribution & Treatment
- Certified operators ranging from Level 1 to Level 4:
Vernon 24, Coldstream 10, RDNO 8
- 24 hour coverage




Water Quality Monitoring Program

- ~200 samples/month
- Customer communication
- Monthly and Annual Reports (Weekly Internal)
- 1 Boil Water Notice since 2012 – Avoided 3 BWN (2 Kal, 1 Duteau)
- Challenges:
 - Kal and Duteau - Different water quality
 - Duteau System - Cast iron pipe
 - Kal System - Hardness/Scaling & Algae



Cross Connection Control Program

- Cross Connection Control Officer 2011
- Aggressive Agricultural Program in 2013 (80%)
- Increasing Compliance ICI
- Program Importance – Significant Events:
Antwerp, Mission Hill Neighbourhood



Emergency Response

- 24 hour operational coverage
- SCADA – alarms and remote operations (also fulfill condition for Continuous On-line Turbidity and Disinfection Process Monitoring)
- Emergency Response Plan
 - Water Quality Deviation Response Plan
 - Complete Rewrite of ERP
 - Incident Tracking – Reporting & Continual Improvement
 - In Development - Operations Deviation Response Plan

Other Services

- Dam Safety – Annual and Surveillance Inspections
- Water Sustainability
 - Demand Side Management (Conservation)
 - Drought Management
 - Agricultural Metering
- Monitoring
 - Snow pack, stream flow, reservoir lake levels, groundwater
- Asset Management – partnership with UBCO
- Water Modeling
- Development Services
- Finance & Billing

Long-Term Plans For Source, Treatment and Distribution Improvements

- Master Water Plan – Steps on how to meet the *BC Drinking Water Protection Act*
- Duteau Treatment Plant - Filtration Required
 - To meet Protozoa criteria – *Cryptosporidium & Giardio*
 - High Total Organic Carbon ⇔ THMs (carcinogenic)
 - High Aluminum
- Kal Lake – Future Filtration Required
 - Not meet 1 NTU turbidity

2014 Capital Projects


- MASTER WATER PLAN
 - Design Projects
 - Lavington Separation - Detailed design (700K)
 - Duteau Filtration - Pilot Study Completion (50K)
 - Duteau Filtration - Peer Review (30K)
 - McMechan Reservoir Dedicated Supply Main - Detailed Design (95K)
 - Goose Lake Supply from OK Lake - Pre-design (100K)
 - 1.4 ML Reservoir in PZ431 -Design only (80K)
 - Pump Station Electrical Upgrade Study (70K)

2014 Capital Projects

- MASTER WATER PLAN
 - Construction- Completion of Projects Initiated in 2013
 - West Swan Lake (65K)
 - Springfield - Phase 1 (1.3M)

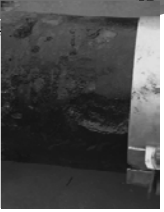

2014 Capital Projects

- INFRASTRUCTURE RENEWAL - OPERATIONAL
 - Replace 2000 Ford Ranger (40k)
 - Replace sludge mixers (35k)
 - Replace hypo tanks at Mission Hill (1 per year) (17k)
 - Replace load break switch - Kal Lk Pump Station (55k)



2014 Capital Projects

- **INFRASTRUCTURE RENEWAL
PIPE REPLACEMENTS**
 - PV Road: 41 Ave. to 46 Ave. (980k)
 - Hwy 6: Aberdeen to Nichol (325k)
 - 35th St & 27th Ave. (95k)
 - 19 St: 20 St to 21 St (110k)
 - 29th St: 41 to 43 Ave (279k)
 - Capital project contingency






2014 Capital Projects

- **SYSTEM IMPROVEMENTS**
 - McMechan Pump Station (400k)
 - Concrete Pad Duteau Switch Bin (18k)
 - Equipment - Digital & radio meter reader (50k)
 - BX Rd, Pipe upgrade PV Road to 17 St (18k)

2014 Capital Projects

- **SAFETY CONCERNS**
 - PRV 24 Upgrades (425k)
 - Headgates Dam Improvements (2.12M)
 - Haddo Low Level Outlet Repair (300K)
 - Nobel Canyon Decommissioning (25k)
 - PRV 1 Pump Station Separation (125k)



2014 Budget Summary

	2012	2013 Budget	2014 Budget	Variance	%
Operating	10.5	11.0	11.4	0.4	3.7%
Debt	2.9	2.7	2.7	(0.0)	-0.4%
	13.5	13.7	14.1	0.4	2.9%

▪ Significant additions:

- \$122k for operating support for SCADA network (per operating & maintenance agreement)
- \$65k Audit & Legal expenses (SROW acquisition ; Antwerp Springs)

2014 Budget History

Operating / Debt Expenditures

2.3% growth post-Duteau WTP

Operating costs are consistent with Capital additions

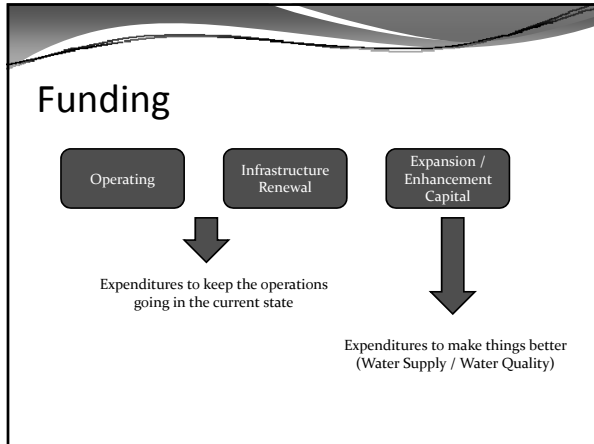
10.1% growth since 2008

2014 Special Projects

- SCADA network
- Data Monitor
- Network Tower

} \$133k

- Master Water Plan Referendum \$75k
- OKIM Replacement / Water Sustainability \$4k
- Peer Review of the Master Water Plan \$30k
- Kal Lake / Coldstream Creek Watershed Protection \$20k (Grant funded)



Funding - Magnitude

(\$millions)

	2008	2009	2010	2011	2012	2013 Projected	2014 Budget
Fees & Charges	(9.7)	(10.4)	(11.3)	(13.9)	(15.9)	(15.9)	(19.9)
Operating Costs	6.6	7.0	8.2	10.3	10.5	11.0	11.4
Debt	1.3	1.3	2.5	3.0	2.9	2.7	2.7
Available for Capital	(1.8)	(2.1)	(3.7)	(3.3)	(2.1)	(2.2)	(4.5)
Annualized Maintenance Spend	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Available for New Capital	0.1	(0.2)	1.2	1.6	(0.2)	(0.3)	(3.0)

Annualized Maintenance spend is average infrastructure renewal requirements to maintain system (amortization)

Capital Hierarchy

2014 Capital		
Carry Forward	2.4	← Reserves
Maintenance	2.2	← Included in Current Rates
Enhancement	2.8	} Need to Identify Funding Source
Master Water Plan	1.1	
	<u>8.4</u>	

Proposed Budget

372 - GREATER VERMON WATER UTILITY

	ACTUAL 2012	BUDGET 2013	FP 2014	VARIANCE	%
REVENUE					
PROPERTY VALUE TAXES	-	-	-	-	0.0%
INVEST. TAXES	-	-	-	-	0.0%
FEDERAL/FINANCIAL GRANTS	(98,071)	55,000	(21,775)	-	0.0%
GRANTS IN LIEU OF TAXES	-	-	-	-	0.0%
FEE, CHARGES & OTHER INCOME	(12,332,045)	(17,036,497)	(15,861,171)	(3,281,728)	12.2%
TRANSFERS FROM RESERVES	2,137,283	8,756	(895,000)	4,955,000	(63.7)%
TRANSFERS FROM ACCUMULATED SUPPLS	(1,353,703)	(1,353,000)	-	(895,000)	36.2%
CAPITAL REVENUE	-	-	-	-	0.0%
EXPENSES					
WAGES & BENEFITS	1,027,720	1,261,667	1,323,088	(17,201)	(1.3)%
OPERATING EXPENSES	3,438,448	3,071,000	3,263,577	420,888	4.7%
DEBT PAYMENTS	2,943,130	2,755,052	2,324,954	(15,143)	(1.4)%
TRANSFERS TO RESERVES	91,715	-	-	-	0.0%
TRANSFERS TO SUPPLIER/STATUTORY RESERVES	-	288,000	-	(288,000)	(100.0)%
CAPITAL EXPENDITURES	7,467,235	11,745,000	8,740,000	(2,995,000)	(25.5)%
NET	21,078,383	20,716,457	20,263,177	(453,280)	(2.2)%

Proposed funding is coming from rates ~\$3m and Reserves sim

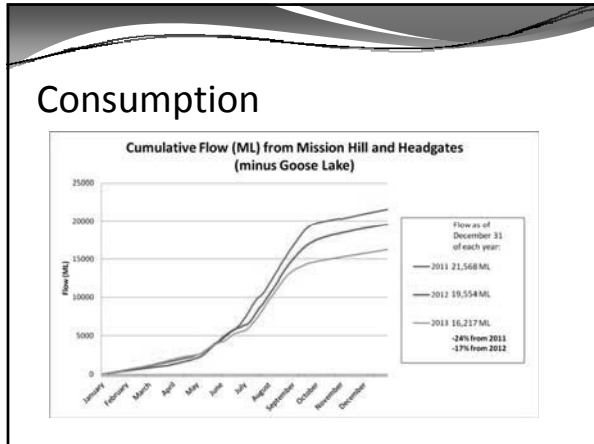
Funding - Magnitude

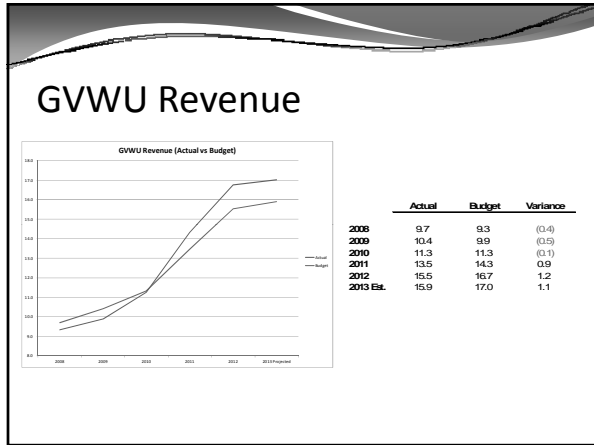
Grants	None secured for current MWP projects
Borrowing	Need to undertake elector approval process. Debt costs (interest) will add to funding requirements
Reserves	Finite ability to continue to draw on (is intended for capital replacement not enhancement)

Reserves

	Operating Reserves	Statutory Reserves	DOC's
Greater Vernon Water Utility	6,215,800	3,320,400	940,000

- Proposals for additional draws on reserves need to consider:
 - Average age of our infrastructure
 - Revenue variability (consumption patterns)
 - Ability to mitigate shocks to system
 - Critical nature of infrastructure





Summary

- Current and expected future capital plan (enhancement / expansion capital) require new funding in the amount of approximately \$4.0m to meet our program objectives of clean, reliable potable water at sufficient capacity without Water Quality Advisories
- 2014 proposed budget includes \$3m in rate increases and \$1m draw from reserves
- Rate recovery must consider impacts on consumption behaviour

