

LWMP Public Open House

PREPARED BY: Paul Nash
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Review of Goal Setting



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Agenda

- 6-6:30 Posterboards, Government Approved Refreshments
- 6:30-7:15 Presentation – please hold questions
- 7:15 - 8:00 Q&A





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Why are we here?

**“to develop an environmentally sustainable method to
treat the liquid waste that is produced by the Village”**





2.7 Evaluation System

What are we trying to decide, and when?

Stage 1	Which GROUP of these Options <i>can meet our needs</i> , and make the wants possible	Least Technical emphasis
Stage 2	Which of ONE of these Options <i>best meets</i> our needs and wants?	Most important decision
Stage 3	What is the <i>best way</i> to FINANCE this Option?	May change with grant programs
Request for Proposals	Which one of these proposals is the BEST WAY to <i>implement</i> that Option ?	Most Technical emphasis





LWMP Process

Stage 1 - Identify

- Define the baseline – where are we now?
- **Set the Goals, using the OCP for context – where do we want to be?**
- Develop the “long list” of options – how do we get there?
- Use the Goals to screen the options to the “short list” – the best ways to get there
- Identify any knowledge gaps and further studies needed to fill them
- Identify Funding opportunities





Stage 1 Timeline

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Overview of Wastewater Issues

- Discharge Locations
- Effluent Quality
- Treatment improvements
- Combined storm sewers
- 2020 Timeline
- Costs, Funding Sources
- Community benefits





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Example of a goal setting project

[Marwayne, AB](#)





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Example of a wastewater project

[Sechelt, BC](#)





2.6 Grant Funding- how is it awarded?

Increasingly, on factors other than the infrastructure project itself!

- New and innovative approaches
- Supports long term economic growth
- Supports sustainability principles
- Enhances and protects environmental health
- Efficient use of resources
- Quantified GHG reductions





Federation of Canadian Municipalities “Green Municipal Fund”

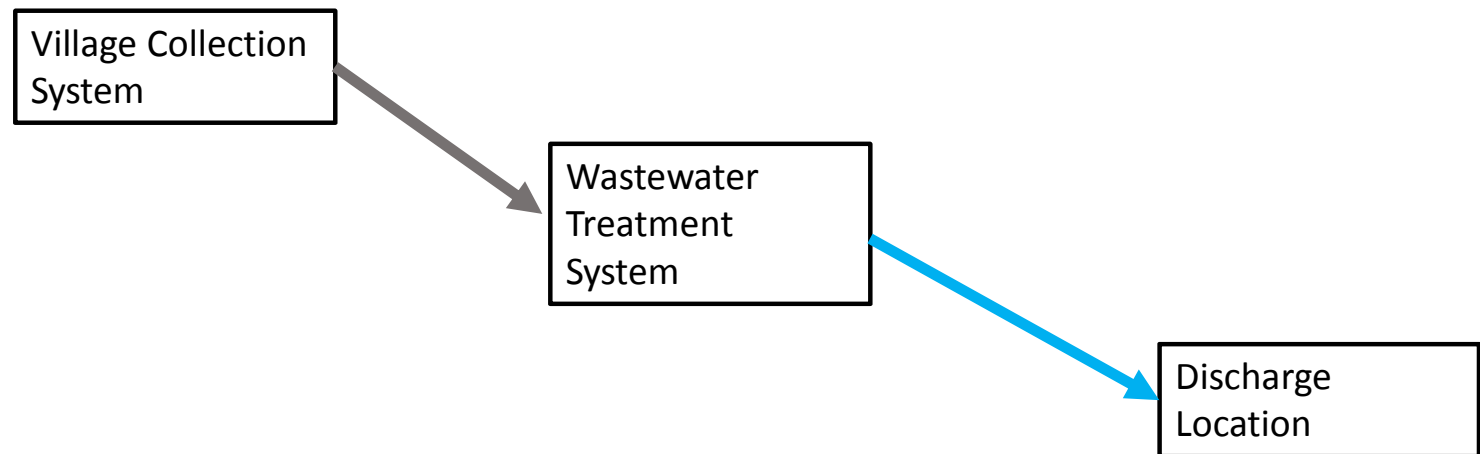
Evaluation Criteria	Points
Environmental performance	Total 40 Points
Primary Sector: Water	20
Secondary Sector: Energy performance	5
Secondary Sector: Waste reduction	5
Sustainable design, procurement and construction	10
Other benefits	Total 60 Points
Financial performance and sustainability	10
Community benefits	10
Community engagement	5
Alignment with supportive plans, policies, programs and investment	10
Measurement systems	10
Replication potential	15
	Total Score 100
Project Management	“Traffic Light” System
Project team	Red, Yellow, Green
Risk management and timelines	Red, Yellow, Green
Finance	Red, Yellow, Green





2.8 Technical Goals and mandatory requirements

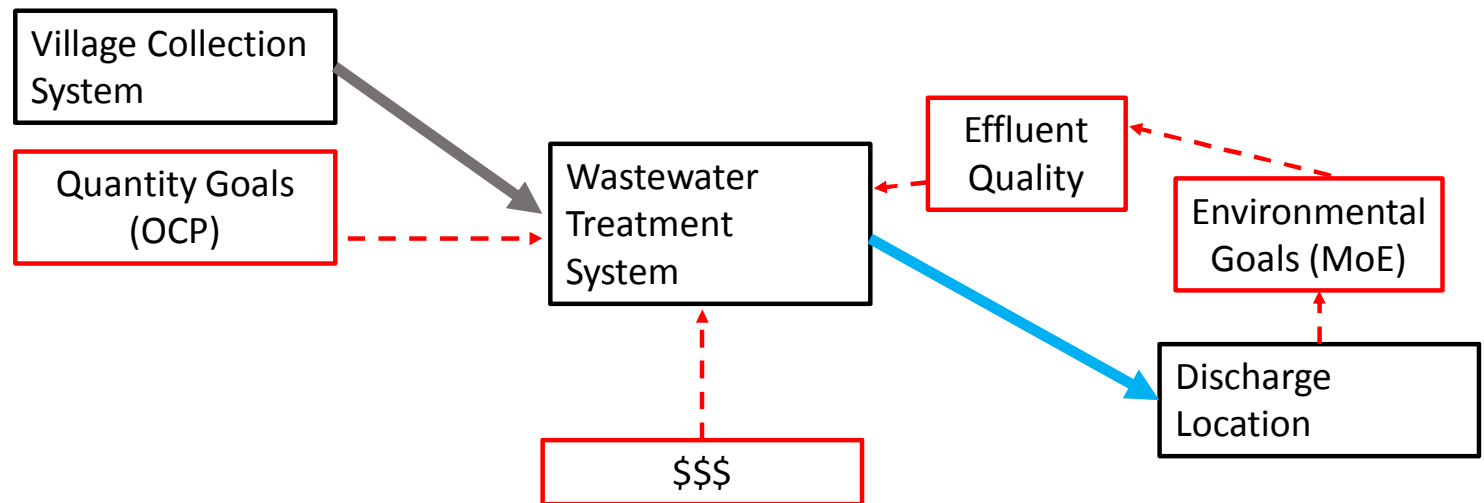
Engineer's view of Wastewater System





2.8 Technical Goals and mandatory requirements

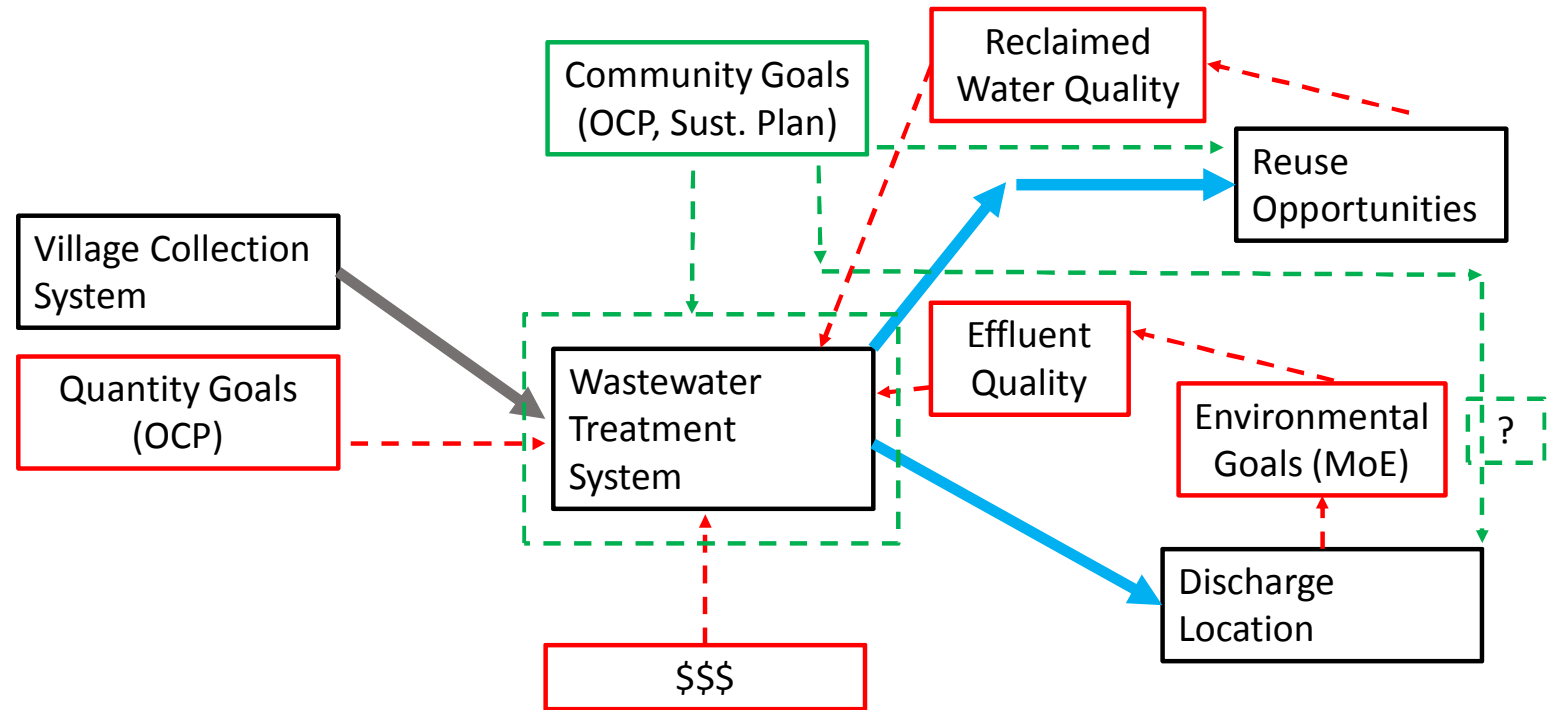
Engineer's view of Wastewater System Goals





2.8 Technical Goals and mandatory requirements

WAC view of Wastewater System Goals





Economic Goals

Goal Type	Category	Scores (max = 40)	Ranking	Description
Aspirational	Economic Cost	40	1	Affordability- Ensure tax burden on residents sustainable
Action	Economic Cost	30	2	Attract grant funding
Aspirational	Economic Benefit	24	5	Attract and retain Industry and draw tourism through innovation in meeting community wide goals, and branding green
Action	Economic Benefit	30	3	Productive use of reclaimed water - agriculture, industry (=job creation), potable water infrastructure reduction
Action	Economic Benefit	25	4	Reduce energy use, pursue renewable energy production and obtain GHG credits
Action	Economic Benefit	12	6	Artist based beautification





Environmental Goals

Goal Type	Scores (max = 40)	Ranking	Description
Aspirational	27	1	Innovation/Environmental leadership
Aspirational	20	5	Sustainability, Climate Change resilience/adaptation/robustness
Aspirational	10	6	Clean air
Action	23	2	Support health of waterways with robust treatment
Action	23	3	Use of existing ecosystems to control cost including low tech solution and or bio solutions plus beneficial use of produced biosolids
Action	9	7	reduce manmade toxins
Total Environmental Goals	112		





Social Goals

Goal Type	Scores (max = 40)	Ranking	Description
Aspirational	37	1	Inclusivity of Cumberland to create an identity and or positive legacy adding to the social license
Aspirational	8	4	Coal Mine/Railroad Heritage
Aspirational	1	7	Strengthen Comox Valley relationship
Action	15	2	Inclusive costing/metered sewer
Action	12	3	Purple pipe ready
Action	8	5	Public Education
Action	8	6	gardens/zen/all year green lawns
Total Social goals	89		





Decision Gates, Stage 1

Area	Criteria	Determined by	On basis of	Decision Type
Regulatory	Environmental regulations/ effluent quality	Ministry of Environment Ministry of Health	Discharge location & time of year	pass/fail
Technical	Technical feasibility	Technical Consultants	Treatment system required to meet effluent quality	pass/fail
	Constructability	Technical Consultants	complexity, site requirements	high/low
	Time risk for 2021 deadline	Technical Consultants	complexity, permits, etc	high/low
Politics	Politically acceptable to Cumberland	WAC	Cumberland values	pass/fail
	Politically Acceptable Externally	WAC	External Values	pass/fail
Affordability	Capital cost	Technical Consultants	Treatment + piping to disch location	pass/fail
	Grant probability	PC+TC+staff	Everything	high/med/ low
	Ability to pay	Staff	Reserves, borrowing capacity, DCC's	high/med/ low





Evaluation system, Stage 2

Area	Criteria	Determined by	On basis of	Decision Type	Weighting	Comments
Cost	Net Economic Cost	Project Coordinator, Technical Consultant, staff	Combination of capital cost, operating cost, grants, ability to pay	score	20%	Net Cost = [cost - grants]
Benefits	Economic	WAC	Goal Setting, (OCP, etc)	score	25%	Benefits that occur over the life of the project
	Environmental	WAC	Goal Setting (Sustainability Strategy, etc)	score	30%	Benefits that occur over the life of the project
	Social	WAC	Goal Setting (Social Procurement Policy, etc)	score	25%	Benefits that occur over the life of the project





Comox Valley Sustainability Strategy (2010)

2050 goals for Water (p7)

Target: ALL WASTEWATER TREATMENT IN THE COMOX VALLEY WILL BE TO TERTIARY OR REUSE LEVEL.

Rationale: Tertiary wastewater treatment provides a higher level of environmental protection and creates opportunities to reuse water rather than further use of the fresh water supply.

Target: Reduce (non-agricultural) fresh water use by 50% per capita

Rationale: To achieve sustainability, we need to significantly change our water use habits, and reduce our demand for fresh water.





Comox Valley Sustainability Strategy (2010)

Other goals;

- **Decrease energy consumption per capita**
- **Decrease GHG emissions**
- **Restore and manage degraded ecosystems**
- **As new or upgraded wastewater facilities come online, treatment and reuse capabilities can increasingly be pursued and integrated with non-potable water demand.**
- **Consider developing pilot projects for water conservation and alternative systems and monitor the results using an Integrated Resource Recovery approach**
- **Pursue eco-industrial development**





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**Bringing it all
together**

[Cranbrook BC](#)

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