CORE AREA SEWAGE TREATMENT
TECHNICAL AND COMMUNITY ADVISORY COMMITTEE (TCAC)
WORKSHOP RESULTS

August 29, 2007

Prepared for: The Capital Regional District

Prepared by: Westland Resource Group Inc.

Agenda

Wednesday, August 29, 2007 from 11 a.m. – 2 p.m.

11:00	Introduction to the Project and Public Involvement	Dwayne Kalynchuk CRD
11:15	Introduction to the Site Selection and Environmental and Social Review (ESR) Processes	David Harper Westland Resource Group Inc.
11:40	Explanation of Working Sessions	
11:45	Lunch	
12:15	Small Group Session #1 to: 1) Review and discuss site selection criteria (45 min.) 2) Report back to larger group (15 min.)	
1:15	Small Group Session #2 to: 1) Review and discuss topics to be included in the Screening ESR (20 min.) 2) Report back to larger group (10 min.)	
1:50	Next Steps	
2:00	Adjourn	

Attendance

Committee Members:	Chair Clement (arrived late), Michael Baxter, Charlotte Bell, Tony Boydell, Gilbert Coté, Colin Doyle, Richard Gordon, Peter Justo, John Manson, John McInerney, John Newcomb, Justin Schmid, Dave Tabbernor, Dick Taylor, Paul West, Christianne Wilhelmson
Absent:	Michael Baxter, Magnus Bein, Jim McIsaac, Peter Sparanese, Lorne Whyte
External Resources:	Blake Medlar and Randy Alexander (MOE)
CRD Staff Resources:	Dwayne Kalynchuk, Seamus McDonnell, Dan Telford, Susan Norrington, Simon Joslin, Jody Watson, Tara Mills (attended until lunch)
Consultants:	David Harper, Wayne Biggs, Rahul Ray

Small Group Session #1 Results

Table 1: Comments on Site Selection Criteria

Topic	Criteria	Indicators	Ratings	Scores	TCAC Comments
Biological Features	Ecological integrity	Extent of site disturbance	Low—0 to 25%	1	• Need to define 'ecological integrity'
			Moderate—25-50%	2	
			High—50-100%	3	
	Ecological features	Extent of sensitive ecosystems (source: CRD SEI data and site inspections)	Extensive sensitive ecosystems	1	
			Some sensitive ecosystems	2	
			No sensitive ecosystems	3	
		Presence of important habitat (source: VNHS and site inspections)	Extensive important habitat	1	• Need to define 'important habitats'
			Some important habitat	2	
			No important habitat	3	
		Rare species (source: BC CDC database)	Site provides habitat for rare species or habitats	1	• Need to include SARA and critical habitat requirements if federal lands are considered. • Include federal SARA database • Consider effects of SARA species on site selection
			Part of site provides habitat for rare species or habitats	2	
			Site does not provide habitat for rare species or habitats	3	
	Watercourse sensitivity	Presence of important watercourses (fish-bearing, restored streams, etc.)	Watercourses within 10 m	1	
			Watercourses within 30 m	2	
			Watercourses within 50 m	3	
Community	Land use	Proximity to residential areas	0-50 m	1	• Need to clarify where 50 – 100 m is measured from. Is it from the centre of the plant, or the edge of the building? Property line? • Land use proximity does not include visual and smell • Impact of surrounding property values • Buffer zone depends on method used • Odour visibility
			50-100 m	2	
			100 m +	3	
		Proximity to commercial, light industrial, institutional areas	0-50 m	1	
			50-100 m	2	
			100 m +	3	
		Consistency with community plans and bylaws	Considerable inconsistency	1	• Need to identify conflict with bylaws and regulations that are being developed. An example was given around the prohibition of truck traffic in some Esquimalt neighborhoods that would limit the construction of a sewage treatment plant.
			Some inconsistency	2	
			No inconsistency	3	
	Local use	Level of informal community use	High	1	• Discussion that buffers may provide for community use. Parcel sizes should be large enough to provide community amenities. • Capture site for public use • Include opportunities for local amenities as a
			Moderate	2	
			Low	3	
		Level of organized community use (primarily recreation)	High	1	
			Moderate	2	

Topic	Criteria	Indicators	Ratings	Scores	TCAC Comments
			Low	3	residential mitigation • Local use potential
Archaeology & Heritage	Archaeology	Density of registered sites	High	1	
			Moderate	2	
			Low	3	
		Archaeological potential	High	1	
			Moderate	2	
			Low	3	
	Traditional use	Level and importance of traditional use reported by First Nations	High	1	
			Moderate	2	
			Low	3	
	Heritage structures	Presence of registered heritage structures	Within 20 m	1	
			20 - 50 m	2	
			More than 50 m	3	
Geotechnical	Foundation support conditions	Presence of fill	More than 3 m deep	1	• Is the presence of fill positive or negative? Filled areas may be suitable for tankage • Change "surface" to Surficial geology • Most foundation support conditions can be engineered
			1-3 m deep	2	
			0-1 m deep	3	
		Surface geology	Poor	1	
			Good	2	
			Excellent	3	
		Site drainage	Poor	1	
			Good	2	
			Excellent	3	
	Site stability	Slope stability	Poor	1	• Include depth of groundwater and perviousness and recharge areas • Flood issues include low lying areas • Go-no go criteria • Prediction of sea level need to be considered
			Good	2	
			Excellent	3	
		Seismic risk	High	1	
			Moderate	2	
			Low	3	
		Flood hazard	In floodplain	1	
			Near floodplain	2	
			Outside floodplain	3	
Engineering	Slope	Site steepness	8 – 15%	1	• Relates to buffering
			2 – 8 %	2	
			Less than 2%	3	
	Elevation	Elevation above sewer trunk	More than 20 m	1	
			10 - 20 m	2	
			Less than 10 m	3	
		Elevation above discharge point (sea level)	Less than 5 m	1	• Climate change effects on sea level – NRCA data (October) – David Maite (Vancouver)
			5 - 10 m	2	

Topic	Criteria	Indicators	Ratings	Scores	TCAC Comments
			More than 10 m	3	
	Trunks	Proximity to existing sewer trunks	More than 1 km	1	• Concern about the capacity of trunks on the West Shore. Clarification that 10-15 years growth is thought to exist on the West Shore.
			500-1,000 m	2	
			Less than 500 m	3	
	Outfall location	Proximity to potentially suitable marine outfall location	More than 250 m	1	• What about wetlands effluent
			100-250 m	2	
			Less than 100 m	3	
Existing contamination	Known contamination	Registered contaminated sites	Registered contaminated site	1	• Comment that the presence or absence of contamination is a simplistic view. Need to consider what the contamination is. • Are contaminated sites favorable or unfavorable, and is there an opportunity to rehabilitate a site. • Drop contaminants – difficult to interpret • Contaminated sites – ok – opportunity to clean up Brownfield sites • Potential to clean up site • This should not be used to evaluate potential sites • Reverse order – contaminated sites are good sites to build
			Unknown or potential contamination	2	
			Free of contamination	3	
Transportation	Road adequacy	Distance to arterial roads	More than 250 m	1	• Bylaws being developed to restrict truck traffic (e.g. Esquimalt)
			100 - 250 m	2	
			Less than 100 m	3	
		Adequacy of local roads for facility traffic	Poor	1	
			Adequate	2	
			Good	3	

New Siting Criteria Proposed

1. Odour or chemical air emissions
    - Design for no detectable odours at property line
    - Criteria needed
    - Odour effects need to be considered in siting
    - Missing air emissions – odour, chemical air emissions. So, air or wind direction and speed normals

2. Land costs
    - Land costs need to be reflected in siting criteria –
    - Different costs would be incurred by isolating the plant versus locating the plant near communities and spending money on technology/mitigation.
    - Consider land acquisition and land costs
    - Budget cost. Better solutions may be more but worth it
    - Expropriation or compensation

3. Noise
    - Noise effects need to be considered in siting.

4. Resource Recovery
    - Ensure sites are adequate for technology, resource recovery
    - May need to alter scores if resource recovery part of design
    - Opportunities for resource recovery, reuse and education (new criteria)
    - Proximity to markets for reuse products
    - Need to be able to respond to technologies for each location

5. Distance to Hartland

6. Potential for site mitigation e.g. Haro woods

7. Sea level rise predictions
    - Do not want the plant to be underwater in 20 years if built too close to the shoreline
    - I.e. will Macaulay and Clover be above sea level in 20 years?

8. Flexibility of new sites for potential innovation and treatment technologies
    - Absolutely essential that the criteria include flexibility to accommodate technological advances, particularly recycling, re-use
    - Educational opportunities (social). Can the site demonstrate state of the art sustainability principles?

9. Size and shape of facility
    - Minimum area and shape needed for treatment facilities

10. GHG emissions
    - Examine cost of conversion of natural areas (loss of GHG absorptive capacity)

11. Integration potential: i.e. can the facility itself become part of a community amenity?

General Comments on Site Selection

- Expansion of scores to reflect difference between really bad, and really good
- Include zeros in ranking to identify completely unsuitable sites
- "Show-stoppers" not accounted for
- Some criteria have to be pass/fail
- Two sites needed for West Shore site due to Colwood and Langford issues.
- Explain how secondary effects, construction impacts are assessed
- Landforms, geology, soils and contaminated site
- Set out regulatory framework – fed or provincial or municipal
- Problem description
- Process model such as level of treatment
- What about Millstream Meadows? Already contaminated site
- Must include "base case", present scenario of sewage treatment
- Replace land use, proximity criteria with visual and smell. A highly attractive site may not be an issue visually, and close proximity isn't relevant if smell is addressed
- Weights should be dependent on technology chosen at each site
- Change Table 1 title to "Potential Selection Criteria for Saanich East/Colwood Treatment Site Options"
- Ecosystems are difficult or impossible to replace while 'manmade' structures including 'heritage' sites can be replaced

Table 2: Site Selection Criteria Weighting Recommendations

Topic	Criteria	Weight	Weight	Weight	Weight	Weight	Weight	Average
Biological Features	Ecological integrity	4	3	5	3	3	5	**3.83**
	Ecological features	4	5	5	4	4	5	**4.50**
	Watercourse sensitivity	3	4	5	5	4	5	**4.33**
Community	Land use	3	3	4	3	5	4	**3.67**
	Local use	3	3	4	1	3	4	**3.00**
Archaeology & Heritage	Archaeology	2	4	3	3	3	3	**3.00**
	Traditional use	3	3	4	3	3	4	**3.33**
	Heritage structures	4	4	3	3	3	2	**3.17**
Geotechnical	Foundation support conditions	2	2	5	4	4	5	**3.67**
	Site stability	5	5	5	5	5	5	**5.00**
Engineering	Slope	4	4	5	5	3	5	**4.33**
	Elevation	4	4	4	4	3	4	**3.83**
	Trunks	4	3	4	3	2	4	**3.33**
	Outfall location	4	4	3	3	2	3	**3.17**
Existing contamination	Known contamination	2	2	3	1	3	2	**2.17**
Transportation	Road adequacy	4	3	4	3	5	4	**3.83**

Note: Weights range from 1 (unimportant) to 5 (critically important) for facility site selection decisions.

Small Group Session #2 Results

Comments on the ESR Report Topics

Methodology

- 10 to 5 to 1: Comment that an interim step is need in the siting assessment. The broad assessment completed through the application of siting criteria in Table 1 will isolate numerous sites, perhaps on the order of 3-4 for the West Shore and Saanich East. The current work plan moves to an assessment of 1 site in the ESR. There is a need for a detailed assessment of the 3 to 4 sites in each area, with a public consultation phase as an interim step.
- Describe a short list of sites – allow public comment
- Prepare public-focused summary
- Triple Bottom Line – not used (outline missing 'environ. economics')
- Cumulative effects not applicable at the site scale
- Recommendations and next steps: preferred sites within each of the 2 areas – must be clearly identified (with maps) and easy to find in the document – at the end of the day that is what people are going to want to know
- Visual and odour, not land use (the drivers)
- Make sure individual sites are evaluated separately for each technology option

Report Contents

- Add a descriptive section on reuse or recovery
- Revise 5.2.1 heading from landforms, geology, soils to landforms, geology, soils, and contaminated sites
- Define the regulatory context for each element of Section 5.2 in a new subsection 5.2.1.1: Regulatory context. Include federal, provincial, municipal legislation or guidelines from each element.
- Include a problem description. Why are we building a plant and why are we undertaking a siting study?
- Need recommendations
- Outline ok for technical audience
- Call the first phase "initial", not screening
- Section 4 – include rationale for optimum site and short list of rejected sites
- "Plant and ecosystems" instead of plant life
- "Animals and habitat" instead of animal life
- Include First Nations

- Create a single Cumulative Effects section
- Move cumulative effects to separate section
- Change heading 3.0 to 'Description of the Treatment Alternatives' (not facility)
- The topics should be the same as the site selection criteria
- Simplify design – move technical info to appendices
- Phase 1 – is high level screening
- Connection to Local Area Plans and to total opportunity costs (how much public land is being used)
- Phase 1 words such as 'site selection' should not be used because we are eliminating sites

General

- Problem of not being able to do a proper ESR without knowledge of project description (land area) (treatment methods)
- How will community input be presented in the ESR?
- It would have been nice to have these outlines in advance of the meeting – pretty high expectations of TCAC members to get all this info and make their recommendations within a 3 hour timeframe
- Is the use of the land for sewage treatment highest and best use?

Workshop Handouts

TCAC Workshop August 29, 2007

WORKBOOK FOR SMALL GROUP SESSIONS

SESSION #1: REVIEWING SITING CRITERIA

1. After reviewing the Table 1 draft siting criteria, are there any other important considerations in siting a sewage treatment facility that you think are missing from this list?

2. Are there criteria on the list that should **not** be applied to evaluating potential sites for sewage treatment plants in the CRD?

3. We need to determine whether some criteria deserve more "weight" in selecting potential sites. In the "weight" column of Table 1 (the list of criteria), please enter one of the following numbers:

    5 = Critically important (e.g., a poor rating should disqualify a site from consideration)
    4 = Very important
    3 = Moderately important (e.g., this criterion is useful, but not critical, in site selection)
    2 = Not very important
    1 = Unimportant (e.g., this criterion should have little effect on site selection)

If you wish to provide your thoughts on weighting, or to explain your ratings, please use the space below.

4. Are there any additional comments you would like to make about the siting criteria or the siting process?

TCAC Workshop August 29, 2007

WORKBOOK FOR SMALL GROUP SESSIONS

SESSION #2: REVIEWING ESR TOPICS

1. Please review the ESR Contents. Are there any topics that should be considered that are missing from this list? Is so, why should they be included?

2. Are there any topics that are **not** necessary to include in the ESR? If so, why?

3. Are there any additional comments you would like to make about the ESR topics or how the information will be reported to the public and decision makers (report format or style, methods of distribution, etc.)?

Table 1
Potential selection criteria for Core Area Treatment Facilities
DRAFT

Topic	Criteria	Weight	Indicators	Ratings	Scores
Biological Features	Ecological integrity		Extent of site disturbance	Low—0 to 25%	1
				Moderate—25-50%	2
				High—50-100%	3
	Ecological features		Extent of sensitive ecosystems (source: CRD SEI data and site inspections)	Extensive sensitive ecosystems	1
				Some sensitive ecosystems	2
				No sensitive ecosystems	3
			Presence of important habitat (source: VNHS and site inspections)	Extensive important habitat	1
				Some important habitat	2
				No important habitat	3
			Rare species (source: BC CDC database)	Site provides habitat for rare species or habitats	1
				Part of site provides habitat for rare species or habitats	2
				Site does not provide habitat for rare species or habitats	3
	Watercourse sensitivity		Presence of important watercourses (fish-bearing, restored streams, etc.)	Watercourses within 50 m	1
				Watercourses within 30 m	2
				Watercourses within 10 m	3
Community	Land use		Proximity to residential areas	0-50 m	1
				50-100 m	2
				100 m +	3
			Proximity to commercial, light industrial, institutional areas	0-50 m	1
				50-100 m	2
				100 m +	3
			Consistency with community plans and bylaws	Considerable inconsistency	1
				Some inconsistency	2
				No inconsistency	3
	Local use		Level of informal community use	High	1
				Moderate	2
				Low	3
			Level of organized community use (primarily recreation)	High	1
				Moderate	2
				Low	3
Archaeology & Heritage	Archaeology		Density of registered sites	High	1
				Moderate	2
				Low	3

Topic	Criteria	Weight	Indicators	Ratings	Scores
			Archaeological potential	High	1
				Moderate	2
				Low	3
	Traditional use		Level and importance of traditional use reported by First Nations	High	1
				Moderate	2
				Low	3
	Heritage structures		Presence of registered heritage structures	Within 20 m	1
				20 - 50 m	2
				More than 50 m	3
Geotechnical	Foundation support conditions		Presence of fill	0-1 m deep	1
				1-3 m deep	2
				More than 3 m deep	3
			Surface geology	Poor	1
				Good	2
				Excellent	3
			Site drainage	Poor	1
				Good	2
				Excellent	3
	Site stability		Slope stability	Poor	1
				Good	2
				Excellent	3
			Seismic risk	High	1
				Moderate	2
				Low	3
			Flood hazard	In floodplain	1
				Near floodplain	2
				Outside floodplain	3
Engineering	Slope		Site steepness	8 – 15%	1
				2 – 8 %	2
				Less than 2%	3
	Elevation		Elevation above sewer trunk	More than 20 m	1
				10 - 20 m	2
				Less than 10 m	3
			Elevation above discharge point (sea level)	Less than 5 m	1
				5 - 10 m	2
				More than 10 m	3
	Trunks		Proximity to existing sewer trunks	More than 1 km	1
				500-1,000 m	2
				Less than 500 m	3
	Outfall location		Proximity to potentially suitable marine outfall location	More than 250 m	1
				100-250 m	2
				Less than 100 m	3
Existing contamination	Known contamination		Registered contaminated sites	Registered contaminated site	1
				Unknown or potential contamination	2
				Free of contamination	3
Transportation	Road adequacy		Distance to arterial roads	More than 250 m	1
				100 - 250 m	2
				Less than 100 m	3
			Adequacy of local roads for facility traffic	Poor	1
				Adequate	2
				Good	3

PHASE 1 REPORT:

CORE AREA LIQUID WASTE TREATMENT SITE SELECTION AND SCREENING LEVEL ENVIRONMENTAL AND SOCIAL REVIEW

DRAFT CONTENTS

5.2 Environmental and social review
- 5.2.1 Landforms, geology, and soils
  - 5.2.1.1 Study methods
  - 5.2.1.2 Existing conditions
  - 5.2.1.3 Landforms, geology, and soils impacts and mitigation measures
  - 5.2.1.4 Cumulative effects assessment – landforms, geology and soils
- 5.2.2 Hydrology and water quality
  - 5.2.2.1 Study methods
  - 5.2.2.2 Existing conditions
  - 5.2.2.3 Hydrology and water quality impacts and mitigation measures
  - 5.2.2.4 Cumulative effects assessment – hydrology and water quality
- 5.2.3 Plant life
  - 5.2.3.1 Study methods
  - 5.2.3.2 Existing conditions
  - 5.2.3.3 Plant life impacts and mitigation measures
  - 5.2.3.4 Cumulative effects assessment – plant life
- 5.2.4 Animal life
  - 5.2.4.1 Study methods
  - 5.2.4.2 Existing conditions
  - 5.2.4.3 Animal life impacts and mitigation measures
  - 5.2.4.4 Cumulative effects assessment – animal life
- 5.2.5 Transportation
  - 5.2.5.1 Study methods
  - 5.2.5.2 Existing conditions
  - 5.2.5.3 Traffic impacts and mitigation measures
  - 5.2.5.4 Cumulative effects assessment – transportation
- 5.2.6 Land use and community
  - 5.2.6.1 Study methods
  - 5.2.6.2 Existing conditions
  - 5.2.6.3 Land use and neighbourhood impacts and mitigation measures
  - 5.2.6.4 Cumulative effects assessment – Land use and community
- 5.2.7 Archaeology and heritage
  - 5.2.7.1 Study methods
  - 5.2.7.2 Existing conditions
  - 5.2.7.3 Archaeology and heritage impacts and mitigation measures
  - 5.2.7.4 Cumulative effects assessment – archaeology and heritage

6.0 WEST SHORE AREA

6.1 Site selection
- 6.1.1 General area description
- 6.1.2 Site selection analysis and results

6.2 Environmental and social review

6.2.1 Landforms, geology, and soils
6.2.1.1 Study methods
6.2.1.2 Existing conditions
6.2.1.3 Landforms, geology, and soils impacts and mitigation measures
6.2.1.4 Cumulative effects assessment – landforms, geology and soils
6.2.2 Hydrology and water quality
6.2.2.1 Study methods
6.2.2.2 Existing conditions
6.2.2.3 Hydrology and water quality impacts and mitigation measures
6.2.2.4 Cumulative effects assessment – hydrology and water quality
6.2.3 Plant life
6.2.3.1 Study methods
6.2.3.2 Existing conditions
6.2.3.3 Plant life impacts and mitigation measures
6.2.3.4 Cumulative effects assessment – plant life
6.2.4 Animal life
6.2.4.1 Study methods
6.2.4.2 Existing conditions
6.2.4.3 Animal life impacts and mitigation measures
6.2.4.4 Cumulative effects assessment – animal life
6.2.5 Transportation
6.2.5.1 Study methods
6.2.5.2 Existing conditions
6.2.5.3 Traffic impacts and mitigation measures
6.2.5.4 Cumulative effects assessment – transportation
6.2.6 Land use and community
6.2.6.1 Study methods
6.2.6.2 Existing conditions
6.2.6.3 Land use and neighbourhood impacts and mitigation measures
6.2.6.4 Cumulative effects assessment – Land use and community
6.2.7 Archaeology and heritage
6.2.7.1 Study methods
6.2.7.2 Existing conditions
6.2.7.3 Archaeology and heritage impacts and mitigation measures
6.2.7.4 Cumulative effects assessment – archaeology and heritage

7.0 REFERENCES

8.0 APPENDICES