

SWOT Analysis

SWOT Analysis related to the Ecological Integrity of the Cowichan-Koksilah Estuary

Background and Introduction by Dr. Goetz Schuerholz

“SWOT” is an acronym for Strengths, Weaknesses, Opportunities, and Threats

A SWOT analysis is an extremely useful tool for the general understanding of a problem/project/issue and can be very helpful for decision-making and planning. It has become a key tool in the process of strategic planning.

A SWOT analysis provides an excellent framework for reviewing and designing strategies, position and direction of an existing organisation, company, business proposition, development project, or as in our case, the restoration of the Cowichan-Koksilah Estuary. Completing a SWOT analysis is very simple, and is a good subject for a workshop.

What makes SWOT analysis particularly powerful is that with a little thought and effort by the participants (key stakeholders with interest in the subject matter) it provides a formidable basis for planning and risk assessment. It substantially contributes to the desirable “ownership” development by stakeholders and it helps to uncover opportunities and threats that are crucial for the success or failure of a project. The analysis of opportunities and threats greatly enhances the design of priority action programs and strategies.

It is of importance to describe the subject for the SWOT analysis clearly so that persons contributing to the analysis, and those seeing the finished product, properly understand the purpose of the SWOT assessment and its implications.

Key advantages of SWOT are:

Stakeholder analysis

Stakeholders get to know each other

Trust building and bonding

Dialogue/communication

Group interactions/dynamics

Ownership development in subject matter through thinking process and individual contributions

Visibility of results (using library cards for each comment/issue/statement to be displayed on billboard

Joint group assessment of opportunities and threats leading to joint risk assessment, and the design of strategic programs organized by priorities.

SWOT Workshop

In order to make full use of the impressive and highly diversified expertise of CERCA's group members a SWOT workshop was held on the 24th of October 2012 to jointly define, discuss and analyse the Strengths of The Estuary and the Threats and Weakness jeopardizing its ecological integrity. This was followed by the identification of opportunities offered by the Estuary with due consideration of the multi-layered stakeholder demands. The results are presented as follows.

Strengths

Policy and Legal Framework

- Existence of Cowichan Estuary Management Plan;
- Existence of Cowichan Recovery Plan and OCP;

Governance and Administrative Framework

- CVRD supportive of wildlife habitat management priorities;
- Existence of Cowichan Watershed Board;
- Existence of Cowichan Estuary Environment Committee;

Ecological Framework

- Estuary one of most important ecosystems;
- Estuary critical rearing habitat for salmon;
- High bio-diversity;
- Key wintering area for waterfowl;
- Creation of Nature Centre (increased public awareness and education);
- Secured Estuary marshlands through purchase by Land-Trust and Ducks Unlimited;
- Existing First Nations' and CERCA's holistic approach to estuary and related watersheds;

Socio-Cultural Framework

- Significant First Nation culture and presence;
- One of the largest First Nation groups on Vancouver Island;

- Powerful draft First Nation estuary restoration plan;
- Strong cultural heritage;
- High aesthetic value;
- Existence of active environmental NGOs within CVRD and region;
- Numerous NGO-initiatives and activities;
- Strong ownership of First Nations and Cowichan Bay residents in future of Estuary;
- High percentage of resident artists in Cowichan Bay attracted by the Estuary with artistic approach to estuary conservation;

Economic Framework

- Prime bird and wildlife viewing area;
- Estuary important for fishing industry;
- Prime tourist destination;
- Changing demographics within the CVRD with changing perception of the environment and Estuary.

Weaknesses

Policy and Legal Framework

- Outdated and insufficient policy and legal framework in support of estuary, floodplain and watershed protection;
- Outdated Water Act;
- Outdated CEEMP;
- Too many mandates and players;
- Lack of enforcement of laws, policies and regulations;

Governance and Administrative Framework

- Deregulation and downsizing of government services;
- Lack of ministerial long-term vision and clear objectives;
- Poor inter-agency cooperation, overlapping mandates and lack of regular inter-agency meetings; Divided governance on ministerial level, low awareness of local situation;
- Poor stakeholder coordination;
- Poor communication and
- Estuary divided between CVRD and Municipality of North Cowichan;
- cooperation between government and public in particular Lands Branch;
- Outdated CEEMP;
- Bureaucracy inertia, lack of transparency and accountability;
- Weak Environmental Committee, insufficient transparency, pro industry;

Ecological Framework

- To date little concern/ activity for Koksilah River;
- Lack of holistic approach to Koksilah and Cowichan Watersheds forming joint floodplain and estuary;
- Poor agricultural practices in floodplain (sources of contamination);
- Too much flood control (dyke construction and in-filling) in absence of proper settlement planning;
- OCPs and other land-use plans poorly synchronized;
- Waterfowl hunting incompatible with new perceptions of estuary conservation;

Socio-Cultural Framework

- Poor cooperation between government on all levels and public;
- Shellfish Closure severe impact on First Nation lifestyle;

Economic Framework

- Current Forestry related industrial Leases key sources of Estuary contamination and destruction of eelgrass;
- Current industrial Leases not in compliance with original Lease agreements;
- Lack of transparency regarding status-quo of existing Leases;
- Different sources of noise and light pollution mostly related to industrial Leases;
- Adverse visual impacts through unsightly structures on Westcan Terminal;
- Industrial waste littering Westcan Terminal and former lumber storage area;
- Deteriorating dock and Westcan loading facilities posing environmental and liability hazard.

Opportunities

Policy and Legal Framework

- Harmonisation of environment and economic activities;
- CEEMP and Ministry of Environment stipulate re-zoning of abandoned industrial Leases into habitat management;

Governance and Administrative Framework

- Formation of joint stewardship for the Estuary;
- Need for representative pro-active Steering Committee;

- Need for public participation in Cowichan Estuary Environmental Committee decision-making process;

Ecological Framework

- Restoration of eelgrass fields and kelp beds;
- Restoration of shellfish industry;
- Available funding from abandoned railway trails for estuary restoration
- High re-zoning potential of abandoned industrial Leases in favour of habitat conservation;
- Sound biological and ecological research opportunities (priority to applied research);

Socio-Cultural Framework

- High potential of First Nation cultural renewal;
- CVRD committed to Slow Food Movement;
- Presentation of Vision of Estuary through artistic means (painting, sculpting, photography, writing, music);

Economic Framework

- Carbon sequestration of Estuary offering opportunity for carbon trade;
- Excellent potential for job creation through tourism- and cottage-industry;
- High potential for birding, wildlife viewing, sea-kayaking;
- Outstanding nature-based and cultural tourism destination;
- Potential for organic farming in river floodplain.

Threats

Policy and Legal Framework

- Long-term existing industrial Lease-agreements (50 years);

Governance and Administrative Framework

- Non-transparent permitting system (docking of dismantled bridge);

Ecological Framework

- Rising sea level and sea temperature through climate change;
- Upstream contaminants from known and unknown sources
- Significant loss of eelgrass and other Estuary habitat through harmful forestry, agriculture and residential activities;

- Marine industrial slum;
- Poorly controlled and illegal garbage and waste water dumping;
- Uncontrolled anchoring activities of leisure boats;
- Uncontrolled permanent anchoring of abandoned ships and sea vessels;
- Estuary's compromised ecological integrity by forest industry-, agriculture-, and human effluent related causes;

Socio-Cultural Framework

Economic Framework

- Non-compatible business interests overriding environmental concerns;
- Overriding interest in industrial development and related job creation;
- Crown Leases poor revenue base compared to Cowichan Bay waterfront properties (Under-valued Lease land);
- Unsustainable land-use (agriculture and contaminating industries).

Rating and Ranking identified Threats and Opportunities

Subsequent to the joint identification of Strengths, Weaknesses, Opportunities and Threats, group members were asked to rate the Threats and Opportunities according to their personal perception on a scale of 1 (highest priority/importance) to 3 (lowest priority/importance).

Based on the individual assessments of the identified Threats and Opportunities the mean priority rating for each issue was then calculated and ranked on a scale of "high", "medium" and "low" in descending order.

The following table provides an overview of all Threats and Opportunities that ranked "high". This was followed by a subjective attempt by the evaluator to assess to which extent each issue can be influenced by CERCA using the same rating scheme.

Threats/Weaknesses

Mean Rating*	Ranking*	Possibility to influence*
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Policy and Legal Framework

1.2 2 Outdated and insufficient policy and legal framework in support of estuary, floodplain and watershed	H	M
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1.2 Lack of enforcement of laws, policies and regulations	H	M
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Governance and Administrative Framework

1.5 Weak Cowichan Estuary Environmental Committee, low transparency and accountability	H	M
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1.5 Lease and Permit system not very transparent and pro-industry (docking of dismantled bridge, abandoned ships etc.)	H	M
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1.7 Poor inter-agency cooperation, overlapping mandates and lack of regular inter-agency meetings	M	I
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1.7 Divided governance on ministerial level, low awareness of local situation, low level of ownership	M	M
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1.8 Deregulation and downsizing of government services	M	I
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1.8 Lack of ministerial long-term vision and clear objectives	M	M
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1.8 Poor communication, information dissemination and cooperation between government and public (Lands Branch)	M	M
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1.8 Divided Governance (CVRD, Municipality of North Cowichan and First Nations)	M	I
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2.2 Poor stakeholder coordination	I	M
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2.5 Bureaucracy inertia, lack of transparency and accountability	I	M
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Ecological Framework

1.2 Severely compromised ecological integrity of estuary and adjacent floodplains	H	H
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1.2 Too much flood control (dyke construction and in-filling) in absence of proper settlement and land-use planning	H	M
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1.3 Lack of holistic approach to Koksilah and Cowichan Watersheds forming joint floodplain and estuary;	H	H
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Low attention to Koksilah Watershed	M	H
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1.5 Contamination from city sewer lagoons and up-stream known and unknown sources	M	M
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1.5 Current Forestry related industrial Leases key source of Estuary contamination and destruction of eelgrass	M	M
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1.7 OCPs and other land-use plans poorly synchronized	M	I
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1.8 Waterfowl hunting incompatible with new perceptions of estuary conservation	M	M
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1.8 Poorly controlled and illegal garbage and waste water dumping	M	M
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1.8 Poor agricultural practices in floodplain (sources of contamination)	M	M
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2.0 Rising sea level and sea temperature through climate change	I	I
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2.0 Marine industrial slum	I	H
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2.2 Unsustainable logging and poor logging practices in upper watersheds	I	I
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3.0 Uncontrolled anchoring of leisure boats	I	I
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Socio-Cultural Framework

1.0 Shellfish closure heavy impact on First Nation economy and traditional lifestyle	H	M
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1.0 Destruction of herring habitat (eelgrass fields) adverse impact on traditional food source of First Nations	H	H
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1.2 Increasingly compromised First Nation culture and lifestyle (compromised estuary and floodplain)	H	I
Declining fishing industry (partly resulting from destruction of fish rearing habitat)	H	I

1.5 Poor cooperation between government on all levels and public	M	M
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Economic Framework

1.0 Non-compatible business interests overriding environmental concerns	H	M
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1.0 Deteriorating dock and Westcan loading facilities posing environmental and liability hazard	H	H
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1.3 Overriding interest in industrial development and related job creation	H	M
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1.3 Unsustainable land-use (agriculture and contaminating industries)	H	H
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1.5 Current industrial Leases not in compliance with original Lease agreements	M	H
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2.0 Crown Leases poor revenue base compared to Cowichan Bay waterfront properties (Under-valued Lease land)	I	M
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2.0 Industrial waste littering Westcan Terminal and former lumber storage area	I	H
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2.0 Different sources of noise and light pollution mostly related to industrial Leases	I	H
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2.8 Destruction of view-scapes causing adverse impacts on tourism (unsightly structures on Westcan, corn-fields etc.)	I	H
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Opportunities

Mean Rating*	Ranking*	Possibility to influence*
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Policy and Legal Framework

1 CEEMP and MoE stipulate re-zoning of abandoned industrial Leases into habitat management	H	H
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1,2 Harmonization of environment and compatible economic activities	H	M
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Governance and Administrative Framework

1 Formation of joint stewardship for the Estuary	H	H
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1 Synergies through sound cooperation with NGOs and institutions affiliated with estuaries and watersheds	H	H
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1,4 Creation of representative pro-active Steering Committee	H	M
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Ecological Framework

1 Good re-zoning potential of abandoned industrial Leases in favor of habitat conservation	H	H
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1,2 Restoration of eelgrass fields and kelp beds	H	H
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1,2	Restoration of shellfish industry	H	H
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1,2	Restoration of ecological integrity of estuary	H	H
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1,2	Sound biological and ecological research opportunities (priority to applied research)	H	M
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1,4	Available funding from abandoned railway trails for estuary restoration	H	H
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Socio-Cultural Framework

1,2	High potential of First Nation cultural renewal	H	H
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1,4	CVRD committed to Slow Food Movement	H	H
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1,6	Presentation of Vision of Estuary through artistic means (painting, sculpting, photography, writing, music)	M	H
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Economic Framework

1	Outstanding nature-based and cultural tourism destination	H	H
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1,4	High potential for birding, wildlife viewing, sea-kayaking	H	H
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Ranking*: 1-1.5=high; 1.5-2.0=medium; 2-3=low

Possibility to influence*: high, medium, low

Mean Rating* of relative importance of issue on a scale of 1 to 3: 1=high, 2=medium, 3- low

Based on the rating, ranking and personal perception on how CERCA may be able to provide solutions to issues, influence issues and make use of opportunities offered by the estuary, CERCA members will jointly define CERCA's work-and action programs for 2013 and beyond.