

## GREEN SHORES PILOT RATINGS - SUMMARY OF COMMENTS

(Last revised 20 May 09)

PILOT PROJECT	STATUS
<b>DM = DICK MURPHY</b>	Completed
<b>SFC = SOUTH FALSE CREEK OLYMPIC VILLAGE</b>	Initial completion; pending discussion with assessment team and proponent (City).
<b>ESS = ESSENCIA</b>	Preliminary submission received; assessment team assembled.
<b>BAM = BAMBERTON</b>	Proponent interested.

Credit		Source (Pilot)	Review Comment	Action Comment
ID #	Name			
<b>PBS1 (prere- quisite)</b>	<b>Siting of New Permanent Structures</b>	DM	Granted or non-applicable if no new structures associated with the project?	Interpretive guidance needs to be added to rating document – either give the point or make NA and remove from prerequisite requirements. Needs to be consistent for all pre-requisites.
		DM	No structures means less optional credits are available, possibly base certification on percent of applicable credits?	Requires discussion at end of pilot phase - sites with no buildings have advantages in other credits (e.g., storm water, riparian)
		DM	Option A - may be too easy and potentially not appropriate for some sites	For discussion at end of pilots
		SFC	Long history of filling – original natural boundary no longer exists/locatable. However, no ‘new’ natural boundary indicated in submission docs – should be clearly indicated.	In “Submission Checklist” emphasize need to indicate location of natural boundary and minimum setback (15 m and/or local regulations) on all plans. Where buildings are located within setback, provide rationale as to why.
		SFC	Vertical elevations: elevation of natural boundary and of occupied portions of buildings not indicated in submission docs.	In “Submission Checklist” emphasize need to indicate elevations of natural boundary and occupied portions of building structures within X m of natural boundary.
		SFC	Vertical elevation requirement: GSTAG should review whether both conditions need to be met where local Flood Construction Level requirement is less than 2 m above natural boundary elevation.	Review: should 2 m be minimum regardless of lesser local requirement?
		SFC	“Though the hard surface of the public walkway and bikeway are exempt from the 15 m natural boundary setback requirement, perhaps a greater degree of setback for such an extensive non-permeable hard surface could be encouraged through the rating system. A greater	Consider in an optional credit...?

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			degree of setback would facilitate expanding the marine riparian planting above the higher high water level.”	
<b>PBS2</b>	<b>Siting of Permanent Structures (opt)</b>	SFC	“ .. the entire SFC waterfront development is built on fill material. As such, it is considered not a candidate project for this credit.”	Not sure that this is valid rationale for eliminating this credit. NOTE: “extrapolated position” of the natural boundary means...? – needs explanation
<b>PBS3</b>	<b>Site Design with Conservation of Shoreline</b>	SFC	GSTAG should provide a definition of “conservation area or park” to assist applicants and assessors in determining applicability of this credit. A conservation area is very different than park land. ‘Park land’ may not maintain nor enhance habitat diversity and function – a Green Shores Principle, particularly if the public will have open access to (the only) potential ground-nesting bird habitat on the entire site.	Review terms used – define more carefully, taking into account following note:  NOTE: While the shoreline is generally designated as “park” in this project, the assessors characterized it as “a hard-edged urbanized environment” that does not meet the primary objective of a conservation area/park as defined in this credit. Only the habitat island was considered to meet this objective; however, it comprises only 20% of the total shoreline and does not meet the 75% requirement of this credit. Lastly, the shoreline park does not meet the minimum average width of 30 m - not counting intertidal area that City suggested, but assessors wondered whether City had jurisdiction to call it ‘park’.
		SFC	A suggestion would be to remove the park land designation from this credit. Any “waterfront park land” whose primary goal would be “to connect people to the shore environment” would be required to meet the criteria of a minimum of 75% of the shoreline within the park land to be designated a conservation area.	Not sure what the assessors are getting at.
		SFC	In the guidelines for applicants, cross reference could be made to completing SHCP1, SHCP2, SHCP3, and SHCP4 prior to submitting supporting documentation for this credit.	Consider
<b>PBS4</b>	<b>Re-development of designated Contaminated Sites</b>	DM	Perhaps should apply to non-designated sites, where removal of derelict buildings etc. takes place	Requires discussion at end of pilot phase – this credit was built on LEED credit, if building removal etc results in rehabilitation of coastal processes or habitat, this will be captured by other credits.
		SFC	BC MOE letter authorizing remediation measures included (proves eligibility for this credit), but not documentation that it had been completed.	If assessing a design or plan, can this completion letter be an expectation?

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<b>SHCP1 (prereq)</b>	<b>Conservation of Critical/Sensitive Habitat</b>	SFC	The interpretation of this credit needs to be clarified. Since habitat protection is required by law, it is not clear if qualification for this credit should be based solely on meeting the applicable government regulations. If applicable regulations are not met, the project should be prohibited by law from proceeding.	??
		SFC	Freshwater riparian/estuarine and marine riparian areas can both be components of a coastal ecosystem yet these environments have distinct characteristics. It is suggested that when referring to the marine riparian environment, the adjective ‘marine’ always be used. GSTAG could create a more clear definition within the rating system between these environments and require qualified professionals with experience in each environment to document conservation/restoration methods, should both of these environments exist within the project area.	Perhaps should clarify that Rating System does not address the freshwater riparian environment, hence applicants should not be seeking credits for riparian habitat conservation. Define how far ‘up’ the marine/estuarine environment goes.
		SFC	Credit cannot be granted without baseline (pre-development) intertidal and subtidal inventories, marine habitat information {?}, and confirmation of functionality of compensation fish habitat.	Item for “Submission Checklist”. Be clear about what constitutes “baseline” – i.e., pre- <u>this</u> development or “original”. In brownfield re-development, usually looking for substantial improvement over existing condition.
<b>SHCP2 (prereq)</b>	<b>Marine Riparian Zone</b>	SFC	The stated “requirement” does not address ecological function of the proposed marine riparian vegetation, one of this credit’s intents, but rather has a focus on quantity.	Come up with a way of measuring restoration of “function”, as opposed to just a minimum width.
		SFC	The GSTAG could consider expanding the requirements for this credit to include an assessment of the re-vegetation plan, including selected plant species by an assessor who is a qualified professional biologist with expertise in marine riparian habitat. The question of “authenticity” of plant species assemblages needs to be addressed by GSTAG. For the most part, the assemblages specified for SEFC use BC native plants, not necessarily found in coastal Vancouver areas, in various percentages. The habitat planting and landscape design should be matched to the natural characteristics of the marine environment at the project site; e.g., exposed sandy, rocky, protected estuary, mudflats, etc.	Consider

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		SFC	If the intent of the habitat area planting is to create habitat, it would be useful to know “for whom {or what} is the habitat being created?” - e.g., dune/beach grass vs. coastal forest. {And, is the habitat being restored appropriate to the site?}	Consider; include in “Submittal Checklist”?
		SFC	Bathymetric contours on the landscape planting plans would be very helpful to assist in determining whether the intertidal planting areas will actually be intertidal.	“Riparian” does not include intertidal (does it?) – consider where to account for intertidal planting areas...?
		SFC	The requirement for all developmental activities to occur outside of the designated 5.0 m area as measured horizontally from the natural boundary is in conflict with the requirement for a restoration of the marine riparian vegetation and ecological function over a minimum of only 50% of the shore length. The assumption would be that this setback for developmental activities is not a requirement in the 50% of the shore length that does not meet the 5.0 m setback requirement	The building “setback” is minimum 15 m over the whole shore length (PBS1); the 5 meter “riparian buffer” is a separate item that needs to occur within this setback over a minimum of 50% of shore length.
		SFC	One stated intent of this credit is retention of stormwater runoff yet neither the requirements nor the submittals mention this important criterion. The GSTAG should consider including documentation of stormwater infiltration design initiatives specifically for the areas of marine riparian (terrestrial) vegetation.	Check this against SWM1.
<b>SHCP3 (prerequisite)</b>	<b>Conservation of Sediment Processes</b>	DM, ESS	To what extent should areas outside the project area be included?	Interpretive guidance required, for discussion at end of pilots.
		SFC (Brian)	Interpretive guidance needs to be provided as to submittal requirements for sites with minimal or no sediment processes e.g. for South False Creek is a sediment balance and pathway map etc. required?	Requires discussion at the end of pilot exercises – <i>see comment above about NA prerequisites.</i>
		SFC	GSTAG should revise this credit to include consideration of low-energy environments and environments dominated by suspended sediment transport processes	Consider – revise accordingly.
<b>SHCP4</b>	<b>Rehabilitation of Critical/Sensitive Habitat</b>	SFC	No rehabilitation plan for foreshore and marine riparian areas. Inadequate documentation of pre-existing habitat conditions for intertidal zone; no information to support the classification of compensatory habitat as critical or sensitive.	Include in “Submission Checklist”.
<b>SHCP5</b>	<b>Rehabilitation</b>	SFC	Required “foreshore remediation plan” not submitted –	The assessors related “remediation” to contaminants,

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	<b>of Degraded Habitat</b>		assessors refer to” documentation of sources of contamination and confirmation that remediation plan has been completed.:	which is the common use of the term. Credit should be revised to refer to “rehabilitation”, as it refers to other forms of degradation (riprap, bulkheads, etc.)
<b>SHCP5/ SHCP8</b>	<b>Habitat and CP Remediation Credits</b>	DM	Double counting for Bulkhead removal which is an “Extra” point under each credit	Was designated an “Extra” point as bulkhead removal is a challenging approach to achieving either credit. Possibly the “extra” credit can be granted for either habitat or CP remediation but not both, eliminating the possibility of double counted – For discussion
<b>SHCP6</b>	<b>Enhanced Riparian Zone</b>	SFC	Reference made to intertidal and sub-tidal habitat and vegetation.	Clarify that revegetation refers to riparian area – check that other credits cover enhanced intertidal and subtidal planting.
<b>SHCP8</b>	<b>Remediation of Coastal Sediment Processes</b>	SFC	GSTAG should revise this credit to include consideration of low-energy environments and environments dominated by suspended sediment transport processes.	Consider
<b>SWM1</b>	<b>Integrated Stormwater Management Planning &amp; Design</b>	SFC	<p>The GSTAG should review that submitted documentation is in the format required and advise applicants seeking certification if the required format has not been met.</p> <p>It is not clear how the credit requirements match or exceed existing guidelines and regulations. The specified requirements for this credit should be compared with existing guidelines and standards of practice and designed to exceed them. {reference to DFO, MWALP guidelines}</p> <p>GSTAG should consider making this credit a prerequisite at a basic level, with additional credits available for exceeding the prerequisites.</p> <p>The technical basis for the selection of a 25 mm storm event for GS evaluation is unclear. GSTAG should consider a return period rainfall event approach in order to incorporate site conditions into the assessment – with a range of credits based on the degree of post-development flow reduction and water quality for a range of storm intensities.</p>	<p>Review this credit’s requirements against:</p> <ul style="list-style-type: none"> <li>- LEED stormwater</li> <li>- Water Balance Model assumptions</li> <li>- DFO and MOE guidelines (if applicable)</li> <li>- some more ‘advanced’ municipal regulations; Campbell River?</li> </ul> <p>Review with Dave R?</p>
<b>PDP1 (prereq)</b>	<b>On-site Env’l Management Plan</b>	SFC	Additional monitoring reports could be required to determine long term performance	Consider as optional credits?
		SFC	GSTAG should provide guidelines for developments with	Tough one.

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			multiple individual properties and/or multiple construction contracts such as SE False Creek to ensure that collectively the individual environmental management plans address the intent of the credit.	
<b>PDP2</b>	<b>Innovation</b>	DM	Need to put bounds on # of innovation credits a project can obtain	Only 1 or 2 points are available, therefore bounds are already in place. Intent was one point per innovation-maximum of 2 points. Interpretation required?
		SFC	Many of the design approaches in this project reflect routine shoreline treatments for steepened and hardened shorelines and thus are not considered to qualify for this credit. Habitat island – provides greater diversity of substrate materials than adjacent shoreline treatments, the shore slopes are much steeper than those that would occur naturally in similar low energy environment; compensatory habitat that more closely resembles natural, pre-development environment would have been considered a more innovative design, as would have been creation of an eelgrass bed in the intertidal zone.	
<b>PDP3</b>	<b>Outreach and Education</b>	SFC	Informed of site tours and articles written about the waterfront development. How these enable the outreach and uptake of GS design requires additional documentation. Noted that signage, site tours, etc. were prepared by applicant prior to familiarization with GS.	

## Summary comments on Ratings System in general

Source (Pilot)	Review Comment	Action Comment
1	1. Need for Green Shores certification signage/plaque	Need to incorporate into Business Plan
1	2. On site visit and applicant interview is essential	Need to identify which credits absolutely require a site visit; e.g., outreach (signage), innovation, lighting and some others can probably be granted based on submittals, not a site visit.
Tech Team	3. Credits should be numbered sequentially for ease of interpretation/navigation	Pilot system attempted to follow LEED model of numbering according to credit category, This is not essential, should the revised rating system not used credit categories?, Should all prerequisites appear first in the listings (as per the ratings matrix?)
DM, Tech Team	4. At what development stage should a credit or certification be granted - Final Design, As Built, Post Performance Monitoring	Interpretive guidance required, current intent is the “As built” stage but this is not stated explicitly. Possible certification can be “granted” conditional to post construction performance monitoring. For discussion
SFC – pre-assessment meeting with Assessment Team and City reps.	5. Many credits were not applicable to a “brownfield” (degraded) urban site; or conversely, it is difficult to get credit for creating/re-creating habitat in a brownfield site – such sites can’t get a few prerequisites the way they are worded now (e.g., SCHP1 and 3)	Look particularly at the credits mentioned
	6. How to “dismiss” pre-requisites as “Not Applicable”.	If proponent can prove, and assessors agree, that a pre-req is NA: a) give the point automatically and do not revise total points required; or b) remove the point and reduce total points required.
	7. Develop “streams” of credits/credit variations: - greenfield shores - mixed: some greenfield, some degraded/brownfield - all brownfield	
	8. No recognition of/credits for “social” benefits – e.g., allowing for public access (as long as environmentally benign) – except possibly in “innovation”	Should think about
	9. Credits focus on physical processes and riparian zone; need more focus on the <u>biology</u> of the shoreline, particularly intertidal and subtidal communities; not obvious in “critical habitats”.	Think about credit that asks: does the development create appropriate dynamics, substrate, etc. that is good for biological communities; e.g., good flushing, micro-currents or upwellings; etc.
	10. Is “marine riparian” a useable concept? Would it not be more useful to address “marine backshore” – the area that influences but is also influenced by the marine environment (froth zone, salt spray, etc.)	
	11. Credits focus a dynamic shoreline environment – i.e., prevent	

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	erosion. Don't address low energy systems that well.	
	12. Credits require submittal of plans and QPs reports, but says nothing about the adequacy of the content of those reports.	Something that the assessors should comment on...?
	13. Do not refer to "Geotechnical Engineer" – just "Qualified Engineer or Geoscientist".	Revise?
	14. Assessment team needs full size of critical site plans or drawings.	Revise submittals list or communication with proponent (agreement).
	15. Certification process needs to be sure that what is "designed" (i.e., reviewed for certification) is subsequently built and monitored for success in meeting GS objectives.	Clarify "evolution" of GS certification ...?
SFC – Assessment Team, post assessment	16. Professional issues (notification, signatures, and liability) need to be addressed and resolved with APEGBC, CABBC, BCSLA, and others.	
	17. Contracts should be set up between Green Shores, Project Applicants, and Assessors. The roles, responsibilities and liabilities of all parties need to be clearly defined in the contract documents. Even as volunteers, assessors need to be protected (liability) by Green Shores, in order to get both good critical work and a body of knowledgeable and willing assessors!	
	18. Assessors need to be compensated or acknowledged in some way. Compared to a simple park as used in the first pilot project, complex urban shoreline assessments are lots of work, and involve many hours of plan and report reading as well as multiple site visits and meetings.	
	19. The multidisciplinary team approach is critical.	
	20. Stormwater expertise should be added to the Assessment Team for urban developments such as SEFC.	
	21. A checklist should be developed for applicant submissions and attached to the submittal letter to ensure all documentation is in place and ready for review.	
	22. The Green Shores organization should pre-screen applications for completeness prior to submission to assessors.	
	23. Green Shores should provide technical support to applicants in developing their projects through to submission for certification. A roster of qualified Green Shores professionals could be created: engineers, landscape architects, biologists. Criteria for inclusion on the roster of qualified professionals would also need to be developed in order to ensure fairness to all.	

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	24. The preparation of the submission document requires additional work and costs for the applicant to put together. Applicants may need to see demonstrated value for Green Shores certification.	
	25. Confidentiality should be maintained by all parties until the process is complete. There should be no media exposure for projects under evaluation until the evaluation is finished.	
	26. The accreditation process should not be automatic and granted merely for following applicable laws and regulations (although they are often ignored for smaller developments). The stated goals of the Green Shores rating system are to “reduce environmental impact” and to “transform the market”. In order to achieve these goals, the accreditation process needs to move beyond standard practices, target “leaders and the early adopters” and encourage innovation.	
	27. One of the difficulties encountered in this process is the lack of definitions for what constitutes “standard practice” for coastal projects. It is the Assessment Team’s experience that Qualified Professionals are often not used in coastal projects in British Columbia. As a consequence, a wide range of local practices are encountered and the regional “standard practice” does not necessarily represent what would be accepted elsewhere as “standard practice” by Qualified Professionals.	
	28. Is accreditation too easy for certain types of projects under the current rating system? e.g., SFC – given that buildings are sited appropriately (local regs) and the contamination controlled (local regs), this type of project could be certified by providing an appropriately vegetated marine riparian zone over 50% of the shoreline and minimizing lighting. Might meet certification criteria but doesn't it meet the overall intent of certification program.	
	29. Consider the need for future project recertification audits, undertaken at regular intervals of say 5 years – to ensure that site uses such as conservation areas, riparian plantings, etc. have not been converted to other uses (playgrounds, boat launches, etc.)	
	30. Submission should be provided in summary form – to provide applicant (and assessors) opportunity to avoid data deficiencies.	Checklist approach as summary?
	31. Easier for a project to meet GS requirements if project is	

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	initially conceptualized with GS principles/ credits in mind.	
	32. Ensure all submissions conform to format and documentation outlined in Rating Credits document.	
	33.	