



How Green Was My Shoreline...

Setting Standards for Coastal Shores – a Tale of Collaboration

Urban Waterfronts 2010

November 5, 2010

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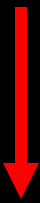
The shoreline disconnect...

- What we think we want and what it takes to get it
- What the consequences are of getting what we thought we wanted
- How can we reconcile these differences?

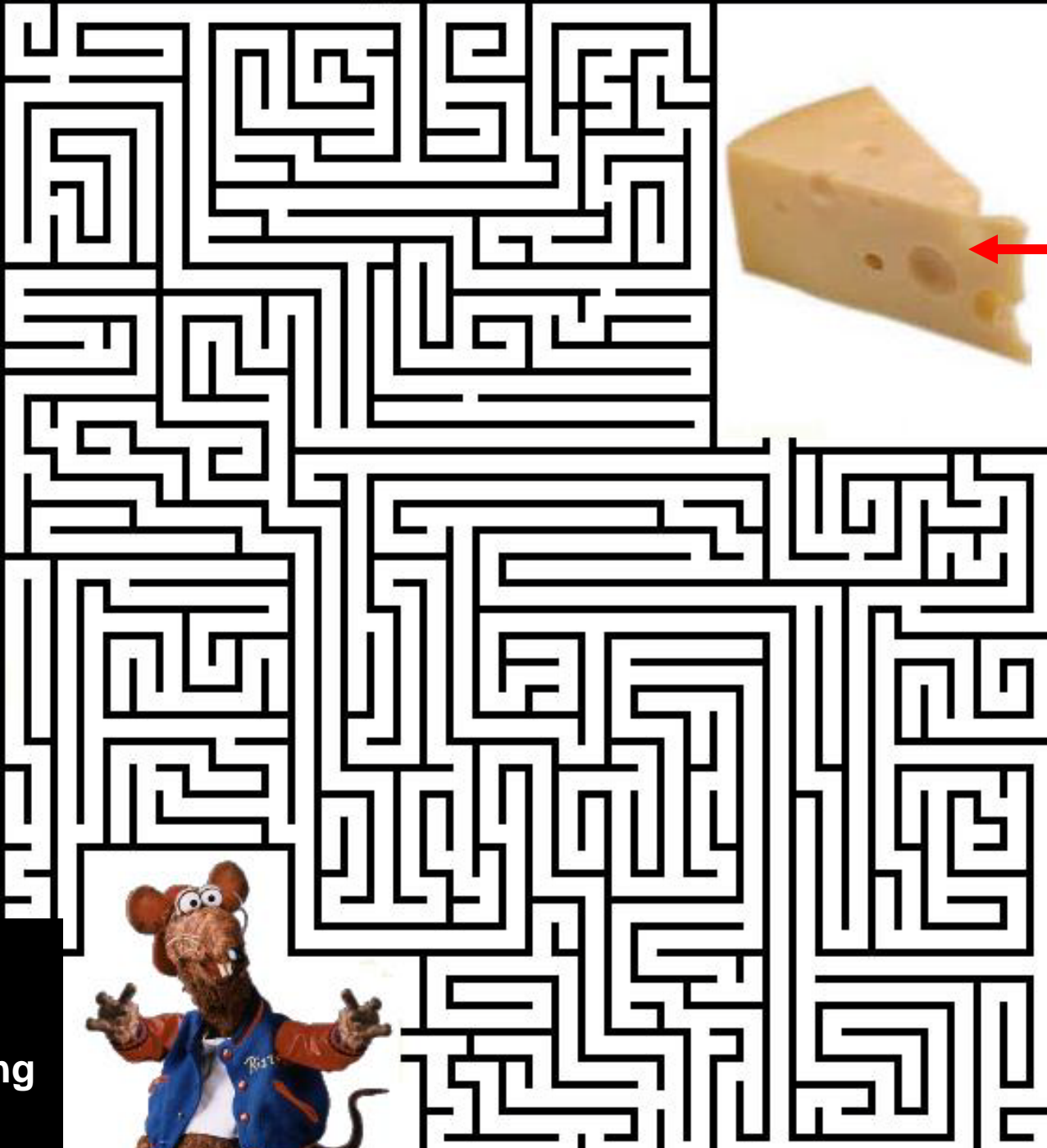
What People Think They Want....



Start here



**Innocent
and
Unsuspecting
Applicant**

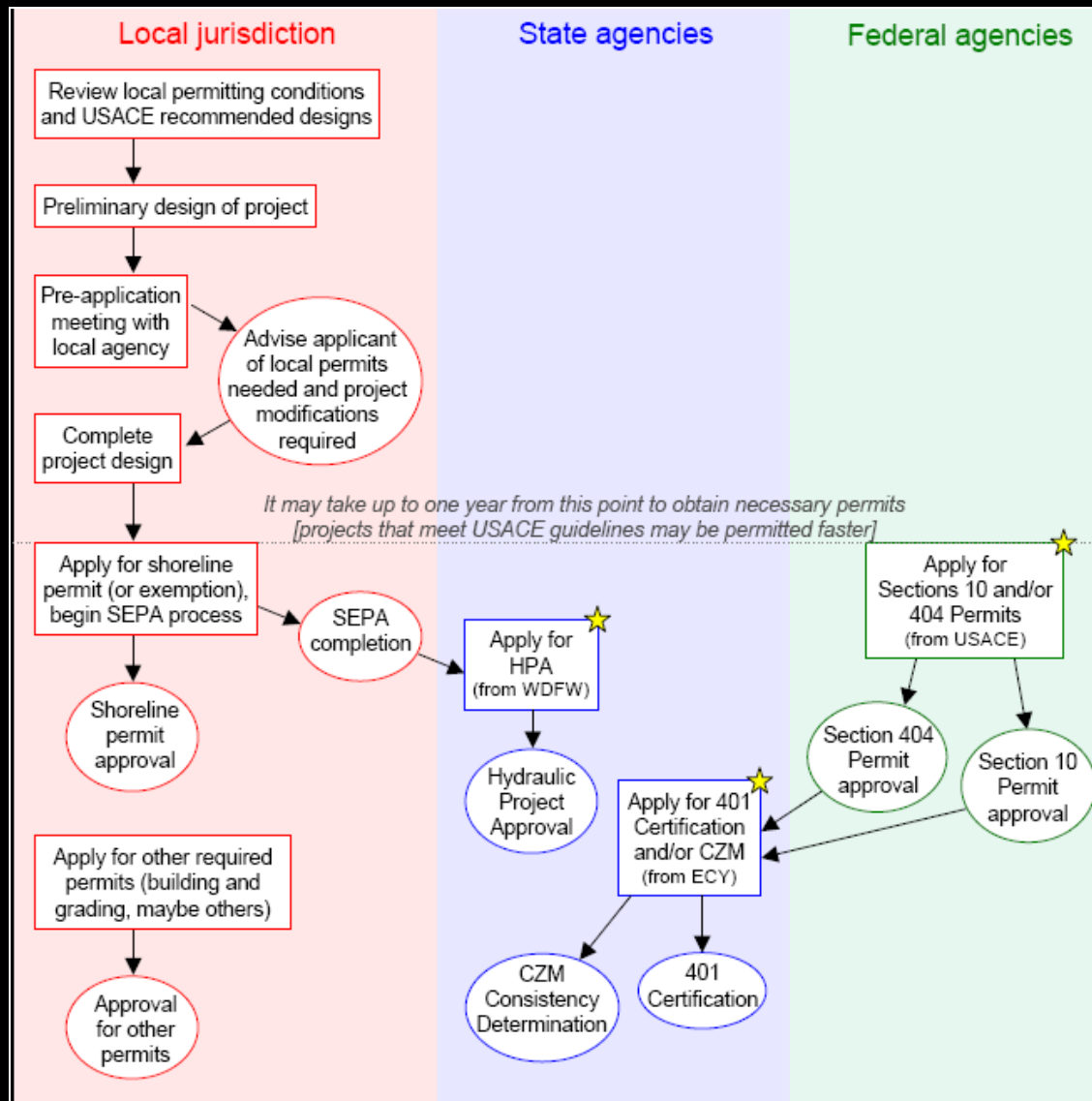


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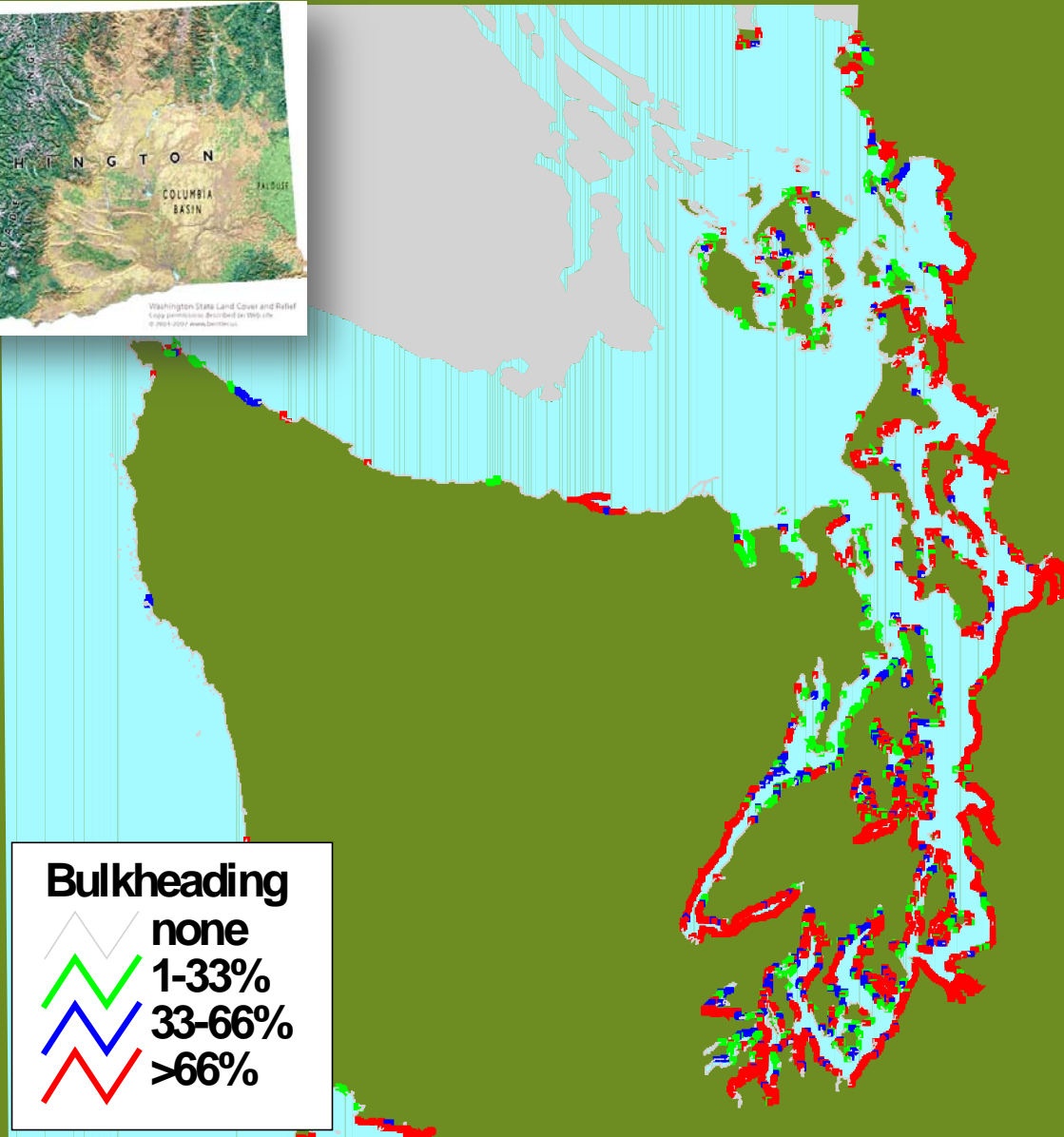
**Local,
State and
Federal
Permits
Issued**

The details of "getting there"



“In the next century, the majority of America’s tidal shorelines could be replaced by **a wall**, not because anyone decided that this should happen but because no one decided that it should not.”

J. G. Titus, Maryland Law Review 57(4), 1998



What's Happening to our Shorelines?









1977

2009





- What makes humans change behavior?
- How can you get people to initiate a process voluntarily?
- What does it take to make that happen?
- Do we need to give Gold Stars?



How can we get from this....



...to this...



Or from this ...



...to this!



**Let's take a step back and
look at another
example....**

What helped get us here?



What is so attractive about LEED?

- Clear Guidelines
- Training
- Models and Case Studies
- “Gold Star” at the end
- Market Incentive
- Financial Incentives – Tax
- Improved Permitting Process



So.....

**what if there were a similar
rating system for
Shoreline Development?**



Green Shores

- Started in British Columbia in 2007
- Encourage sustainable use of coastal ecosystems through planning and design which recognizes the ecological features and functions of coastal system
- Joint Public and Private Venture (like LEED)
 - Government Funding (B.C. and EPA)
 - Private Sector Funding



Green Shores

- Adapted from LEED™ program
- Third Party Ratings
- Commercial and Residential, not Industrial
- Credits for:
 - Project and Building Siting
 - Shore Habitat and Coastal Processes
 - Storm water Management
 - Project Development Process and Education



Puget Sound - beach replenishment with buried bulkhead





Guiding Principles

- Preserve the integrity or connectivity of coastal processes.
- Maintain or enhance habitat diversity and function (on a local or regional scale).
- Minimize or reduce pollutants to the marine environment.
- Reduce cumulative impacts to the coastal environment.



4 Pilot Projects

GREEN SHORES CREDITS

The five GREEN SHORES prerequisites, eleven optional credits (with 28⁴ possible credit points), and three certification levels are summarized below.

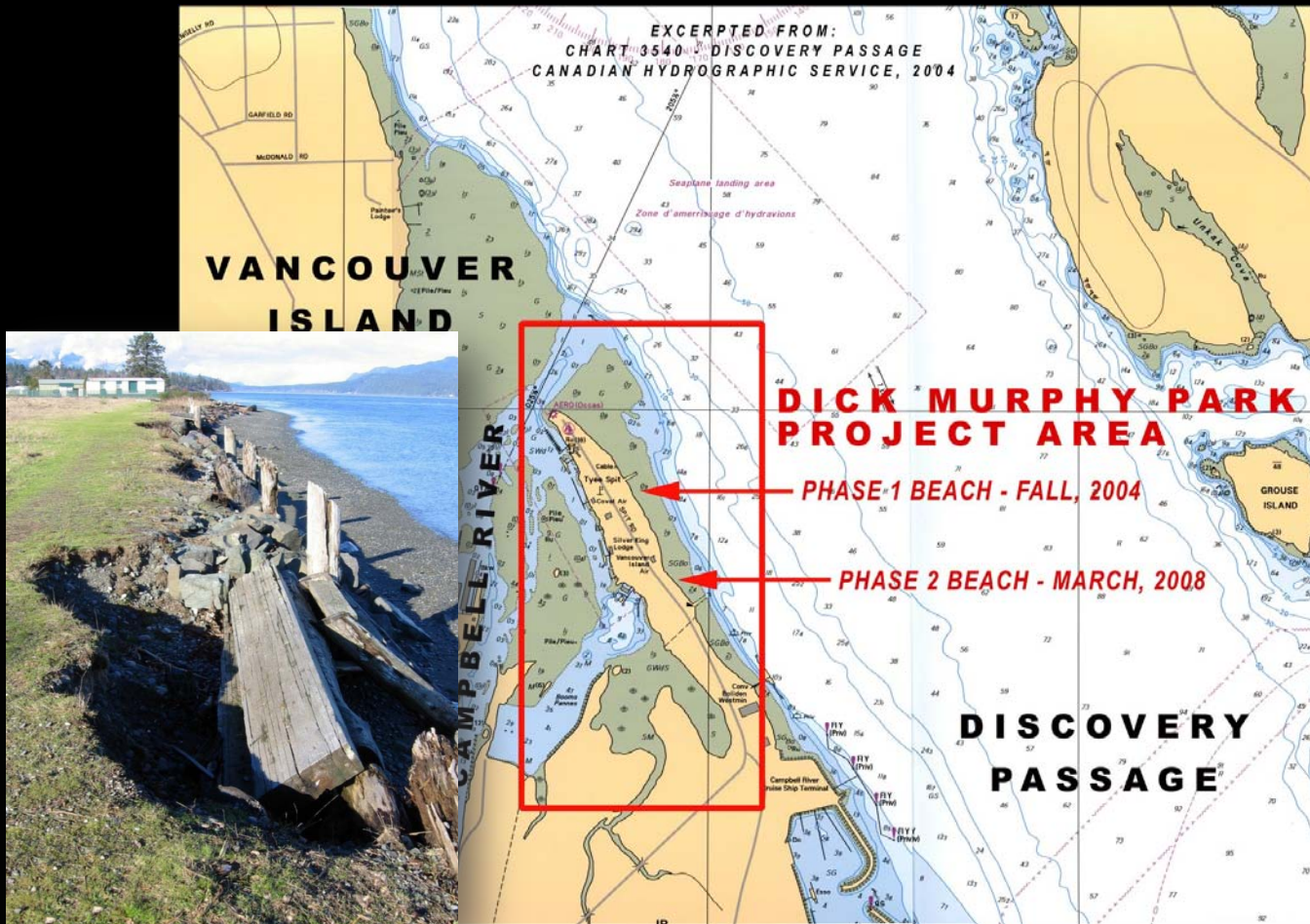
Prerequisites	
Prerequisite 1	Siting of Permanent Structures
Prerequisite 2	Conservation of Critical or Sensitive Habitats
Prerequisite 3	Riparian Zone Protection
Prerequisite 4	Conservation of Coastal Sediment Processes
Prerequisite 5	On-Site Environmental Management Plan

Credits		
Credit 1	Site Design with Conservation of Shore Zone	1 to 3 points
Credit 2	Shore Friendly Public Access	1 point
Credit 3	Re-Development of Contaminated Sites	1 point
Credit 4	Climate Change Adaptation Plan	1 to 5 points
Credit 5	Rehabilitation of Coastal Habitats	0.5 to 4 points
Credit 6	Rehabilitation of Coastal Sediment Processes	2 to 3 points
Credit 7	Enhanced Riparian Zone Protection	0.5 to 4 points
Credit 8	Light Pollution Reduction	1 point
Credit 9	Integrated Stormwater Planning and Design	1 to 4 points
Credit 10	Innovation	1 to 2 points
Credit 11	Outreach and Public Education	1 point



Pilot Project #1

Dick Murphy Park, Campbell River, B.C.



Design and Post Construction



Timber wall removal, beach replenishment and planting



Pilot Project #2

SE False Creek Olympic Village Waterfront, Vancouver B.C.



Habitat Island constructed in False Creek





Pilot Project #3

Essencia Development, Vancouver Island, B.C

- Mixed residential/commercial development
- Low lying setting inside a coastal lagoon
- Currently in design stage





Pilot Project #4

Snaw'naw'as First Nation Beach Berm





Post Construction Beach berm and fill, riparian vegetation





Results of Pilot Projects

- **Multi-disciplinary assessment team is essential**
- **Differences between development sites and park/recreational sites**
- **Desire to have credits which address social benefits such as shore access**
- **Need to incorporate climate change effects**
- **Need for a template for submission documents and plans.**
- **The certification bar was set too low**



Green Shores for Homes

Marine and Fresh Water

- EPA Grant - Seattle, WA Sea Grant, San Juan County and Island Trust in B.C.
- Focus on freshwater and marine shorelines
- Develop incentives that benefit home owners to improve shoreline ecological conditions



<http://www.greenshores.ca>





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