



Managing the Visual Landscape of Oregon's Territorial Sea.

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Presentation Outline

Introduction and Background:

- * Statewide Planning Goal 19: Ocean Resources
- * Territorial Sea Planning Process for Marine Renewable Energy
- * Framework for Visual Resource Management (**Highlighting use of GIS**)
 - * Elements of the framework
 - * Methods for conducting a Visual Resource Inventory Assessment
 - * **Identification of VRIA sites**
 - * **Conduct of VRIA field surveys**
 - * **Modeling the survey results**
 - * Visual Class standards
- * Project Results
- * Next Steps

Example Wave Energy Devices



An Aesthetically Important Place



The Oregon Territorial Sea



Territorial Sea Plan Public Process

- * Statewide Land Use Planning Goal 19: Ocean Resources recognizes aesthetic resources as one of the beneficial uses of the Territorial Sea
- * The Planning bodies:
 - * Oregon Ocean Policy Advisory Council
 - * Territorial Sea Plan Advisory Committee (and subcommittees)
- * Public testimony (written & oral) provided feedback that visual impacts to the environment were one of the dominant public concerns related to MRE development.
- * Agency Staff were asked to produce a method (in conjunction with the public policy process) for determining how to deal objectively with the concerns related to visual impacts.

Draft Recommendation for TSP Amendment

Renewable Energy Exclusion Area (REEA)	Proprietary Use and Management Area (PUMA)	Resources and Uses Conservation Area (RUCA)	Resources and Uses Management Area (RUMA)	Resources and Uses Development Area (RUDA)	Renewable Energy Permit Area (REPA)
Special Management Areas designated by statute and OAR	Areas with authorized uses and special management designations under Goal 19	Areas with important, sensitive, or unique Goal 19 Resources and Uses	Areas with important or significant Goal 19 Resources and Uses	Areas of least conflict with Goal 19 Resources and Uses	Areas of existing MREC permits
MRE applications will not be accepted within these areas	MRE applications will not be accepted unless legally permissible, comply with the authorized use and area standards, and agreed to by the authorized users.	MRE applications must demonstrate no reasonably foreseeable adverse effects on inventoried marine resources and uses.*	MRE applications must demonstrate no significant adverse effects on inventoried marine resources and uses.	MRE applications must comply with TSP Part Five Sections B and C , general standards, and the applicable regulatory and proprietary requirements of state and federal agencies.*	Delineated sites with existing authorization for the development of MRE testing, research or facilities.

Visual Resource Area Overlay

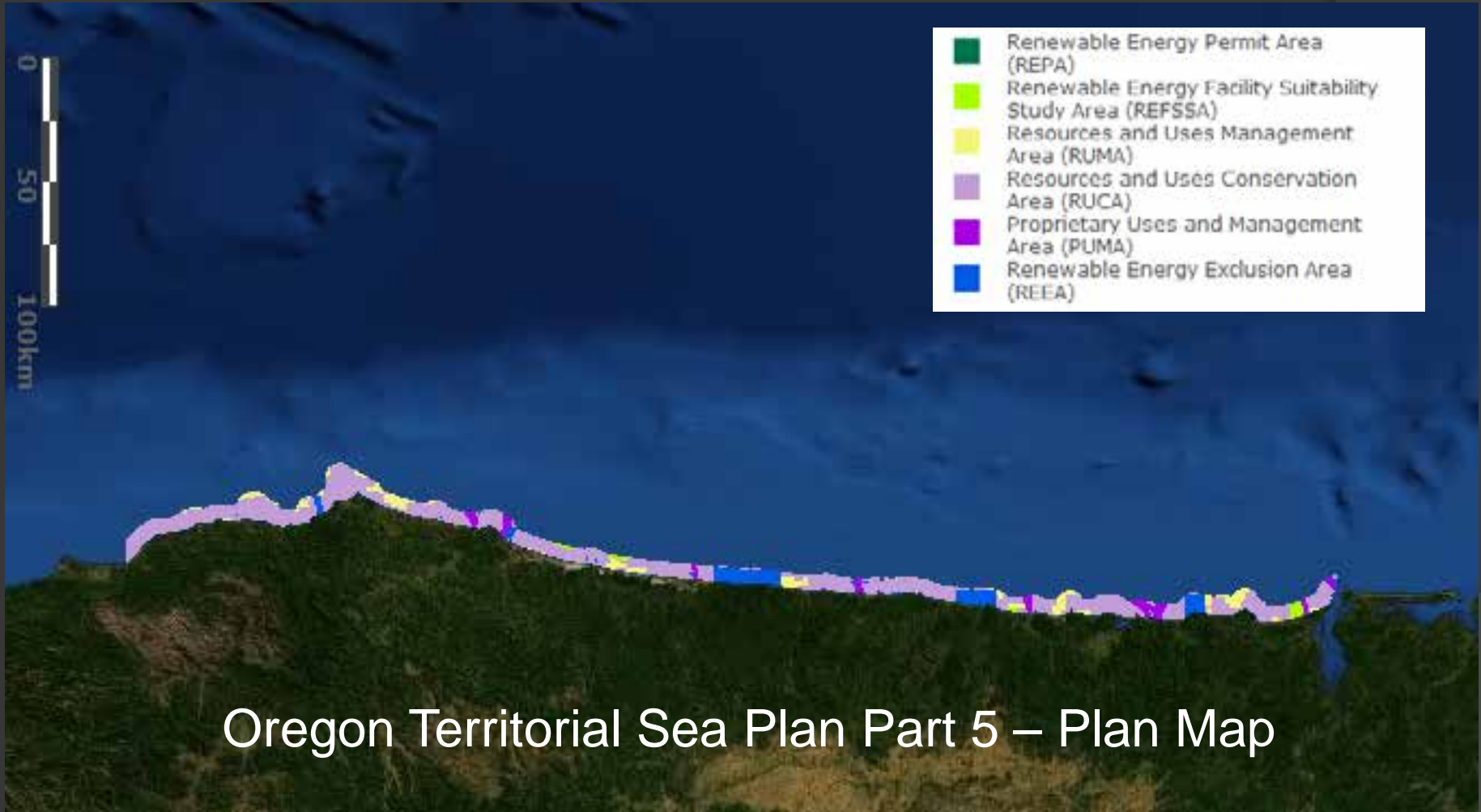
Marine Recreation Area Overlay

Screening standards applied across all areas

Higher Permitting Difficulty Level Lower

Already permitted.

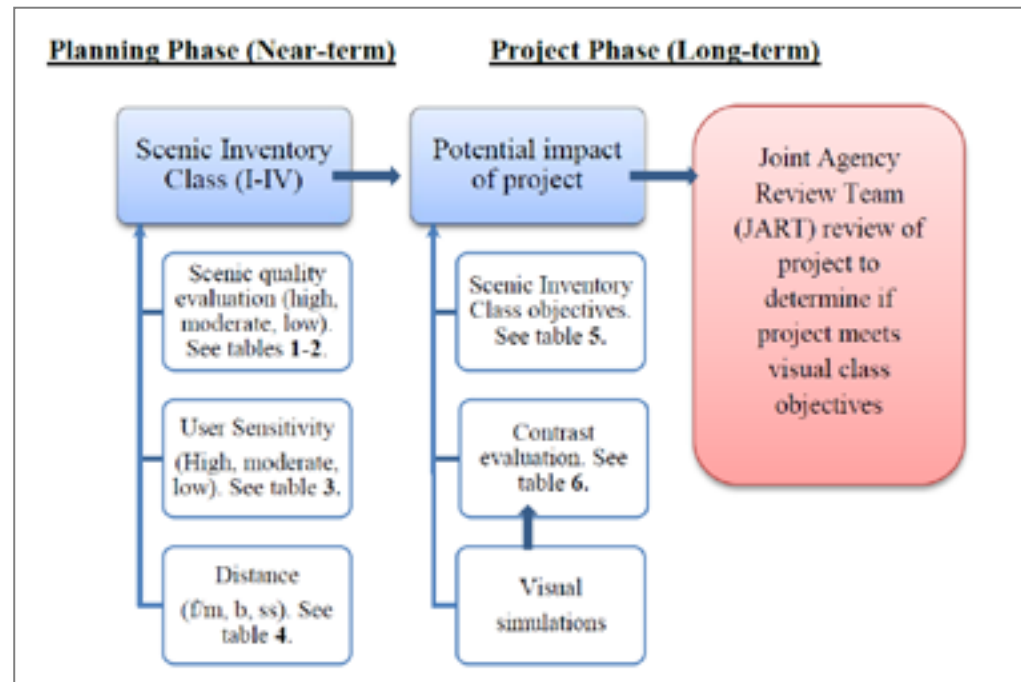
Area Management for Marine Renewable Energy



Elements of The Framework

- * Methods for conducting a Visual Resource Inventory Assessment Survey
- * Identification of Visual Resource Inventory Survey Sites
- * Conduct of VRIA surveys
- * GIS Modeling of the Survey Results
- * Establishing VRM Class Standards
- * Evaluation Process of proposed MRE Visual Impacts

Visual Resources Management Diagram



Project Steps

Establish Methods

- Determine Survey Locations
- Field Surveys Methods
- GIS Modeling
- Adopt Visual Class Standards

Conduct Surveys

- 2 Teams
- 144 sites
- Public Review

Model Results

- Viewsheds
- Distance
- Class

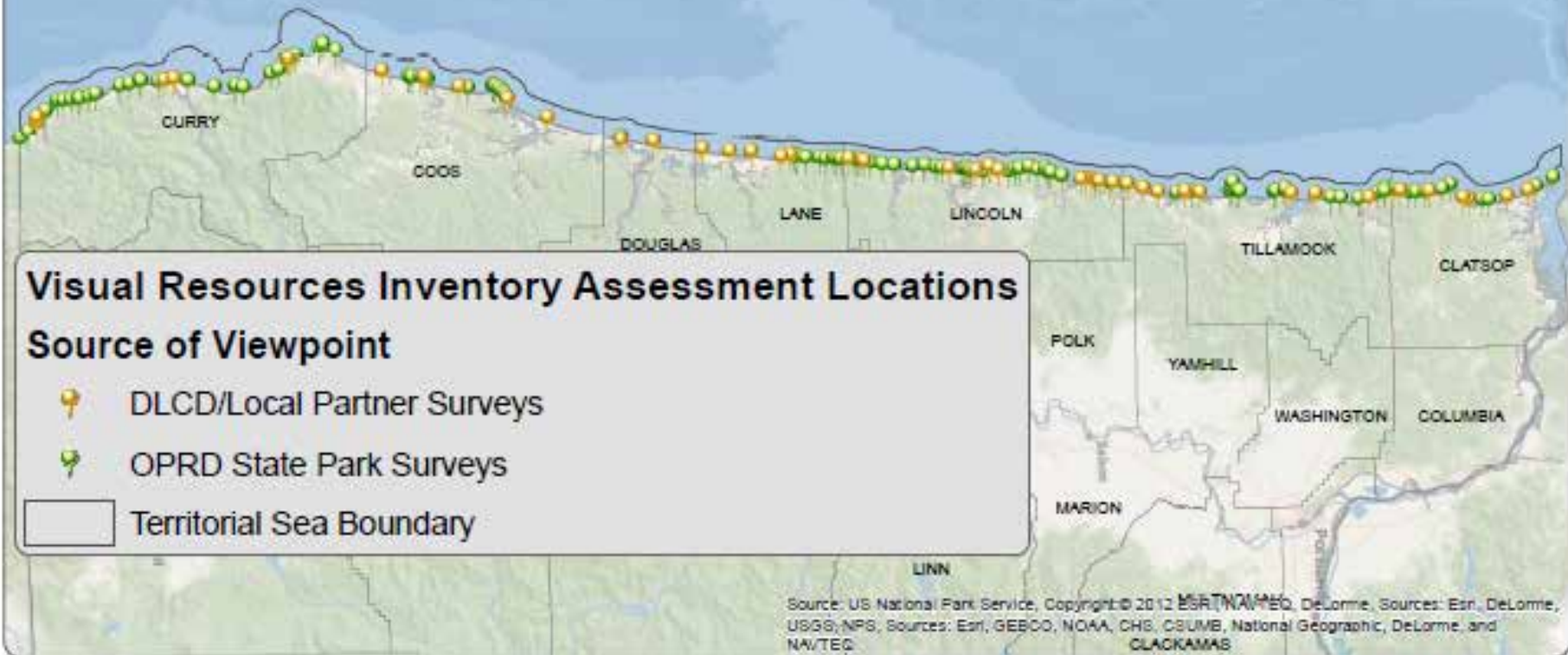
Product Generation

- Maps
- Reports
- GIS Data

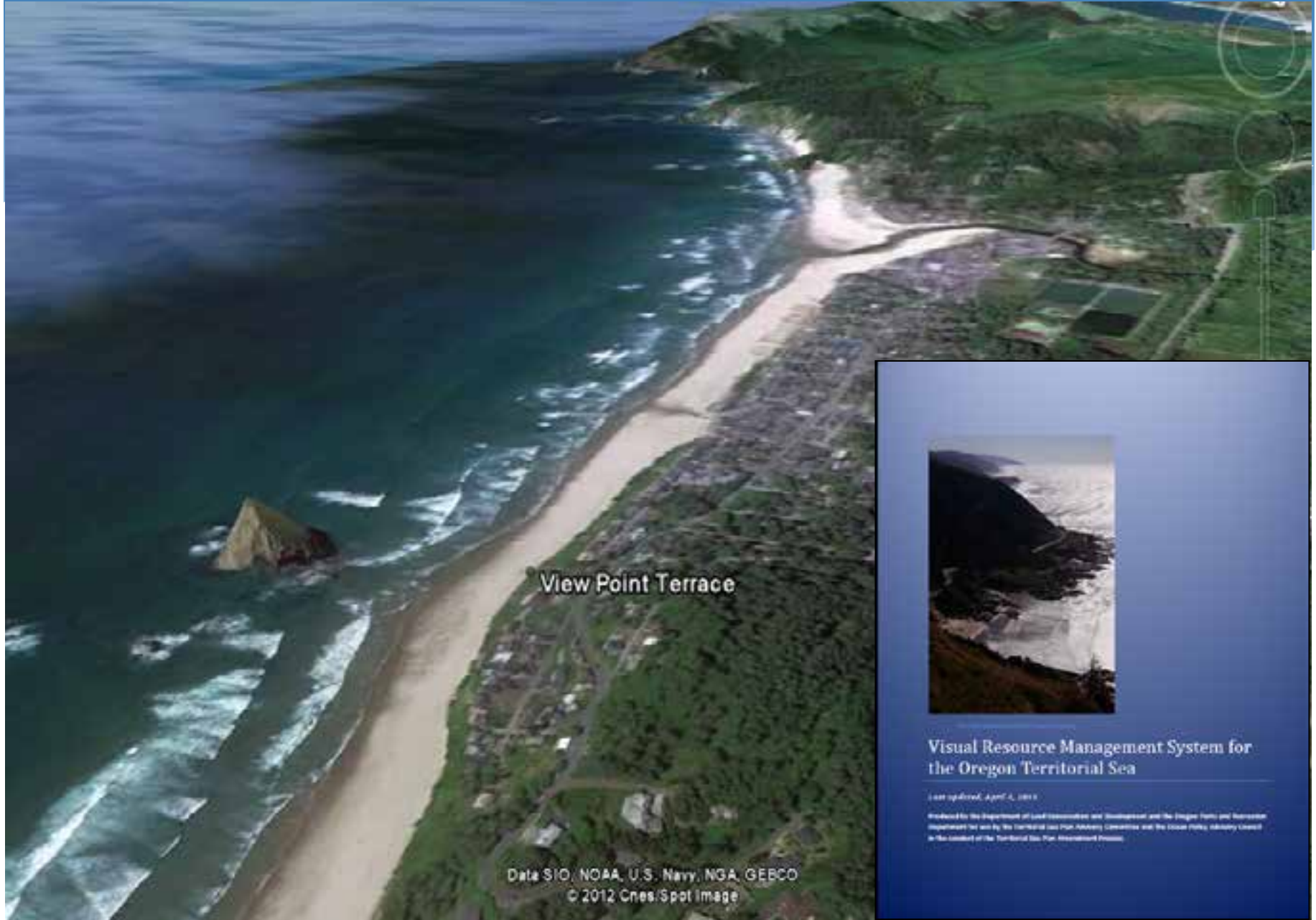


Use of GIS to Determine Survey Locations

Oregon Territorial Sea Viewshed Inventory Survey Locations



Example Assessment: View Point Terrace – Cannon Beach



Example Site: Haystack Rock



Survey Conduct:

1. Determine viewpoint
2. Set view angles
3. Collect Attribute data in committee
4. Score the data




Assessment Parameters:

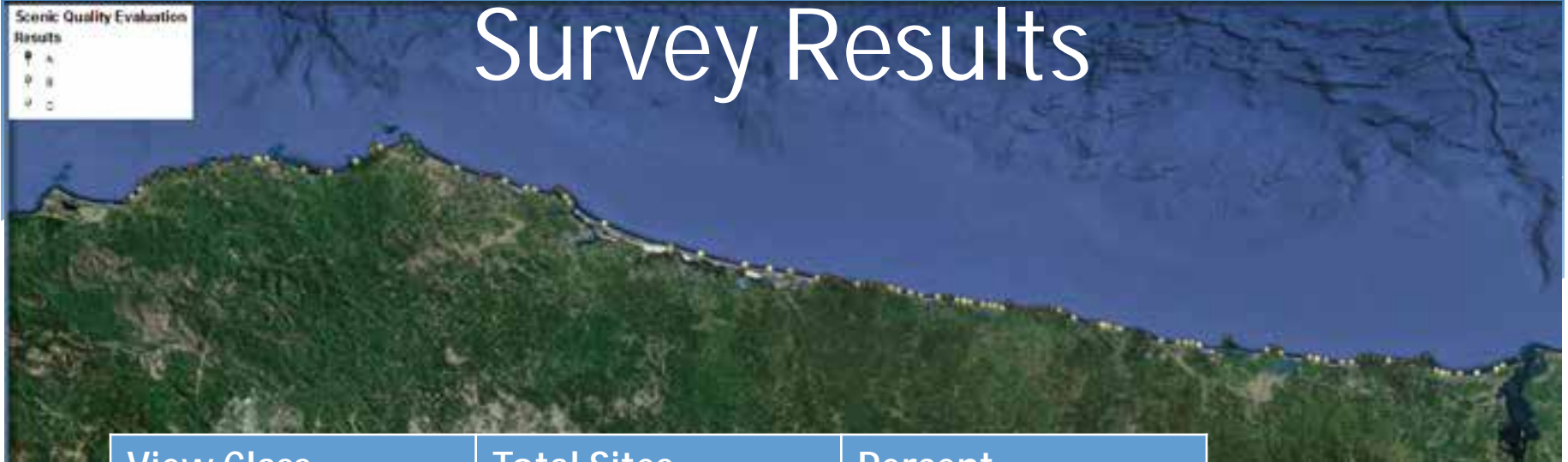
- **Landforms:** Unique forms, rocks, beach types
- **Vegetation:** Level of variety and unique plants
- **Water Features:** Streams, waterfalls, crashing waves
- **Color:** Diversity and uniqueness of colors in sand, soils, vegetation or ocean
- **Adjacent Scenery:** Context of site including forest types or development
- **Scarcity:** How rare the view is along the Oregon coast
- **Cultural Modifications:** Developments in view, such as homes or lighthouses

Site Report

View Point Terrace, Cannon Beach

SITE NAME View Point Terrace, Cannon Beach	SITE ID: CLA005	COUNTY Clatsop
DESCRIPTION The viewpoint is from a viewing deck accessed by a set of stairs from Viewpoint Terrace and Hemlock Street. The view is directly to the east of Haystack Rock and provides a sweeping view to the north and south. It includes the lifeguard station and educational displays are at Haystack Rock.		
DATE: 6/26/12	TIME: 15:00	WEATHER: Sunny
Panorama Photos		WIND: N/A
		
ATTRIBUTE	SCORE	DESCRIPTION
Landform	5	Haystack Rock and offshore rocks drive the view. Tillamook Head to the north and distant headland to south.
Vegetation	4	Foreground mix of ornamental shrubs and grasses. Waving grass on Haystack Rock and distant mix of forests on the heads to the north.
Water	2	Wave action and currents around Haystack Rock.
Color	5	Ocean colors varied with blues/greens. Soil and sand colors are browns/tans. Slide areas on headland add to color with exposed soil.
Adjacent	2.5	Dense low- height development that is screened by vegetation and fits in well. Forest on steep relief behind the view and staircase up to road.
Scarcity	5	Unique Haystack Rock view. One of a kind.
Cultural	1.5	Lighthouse in distance, lifeguard station adds to value. Some small regulatory signs near Haystack Rock.
Total	25	Class A View

Survey Results



View Class	Total Sites	Percent
Class A	75	52%
Class B	54	38%
Class C	14	10%
Total Sites	143	

Survey Agency	Total Sites	Percent
DLCD	47	33%
OPRD	96	66%
Total Sites	143	

Project Steps

Establish Methods

- Determine Survey Locations
- Field Surveys Methods
- GIS Modeling
- Adoption of Class Standards



Conduct Surveys

- 2 Teams
- 144 sites
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Model Results

- Viewsheds
- Distance
- Class

Product Generation

- Maps
- Reports
- GIS Data

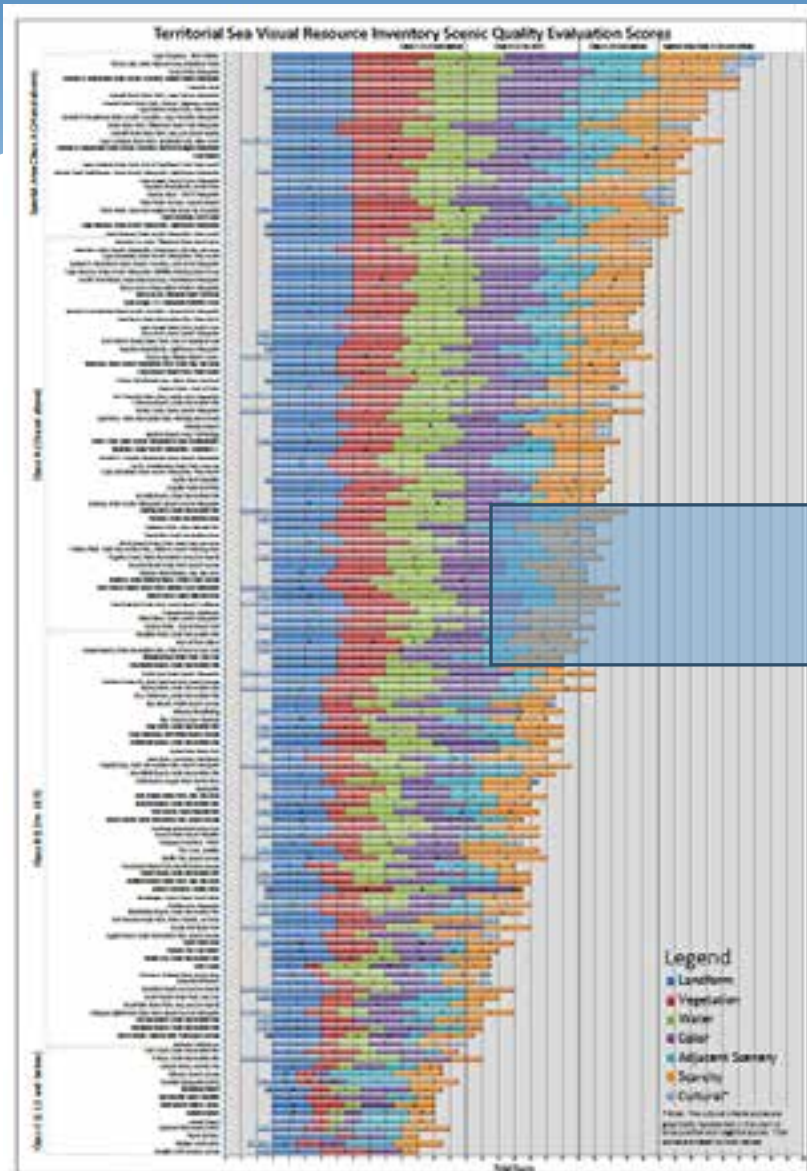
Visual Resource Classes

Table 5. Visual Resource Classes

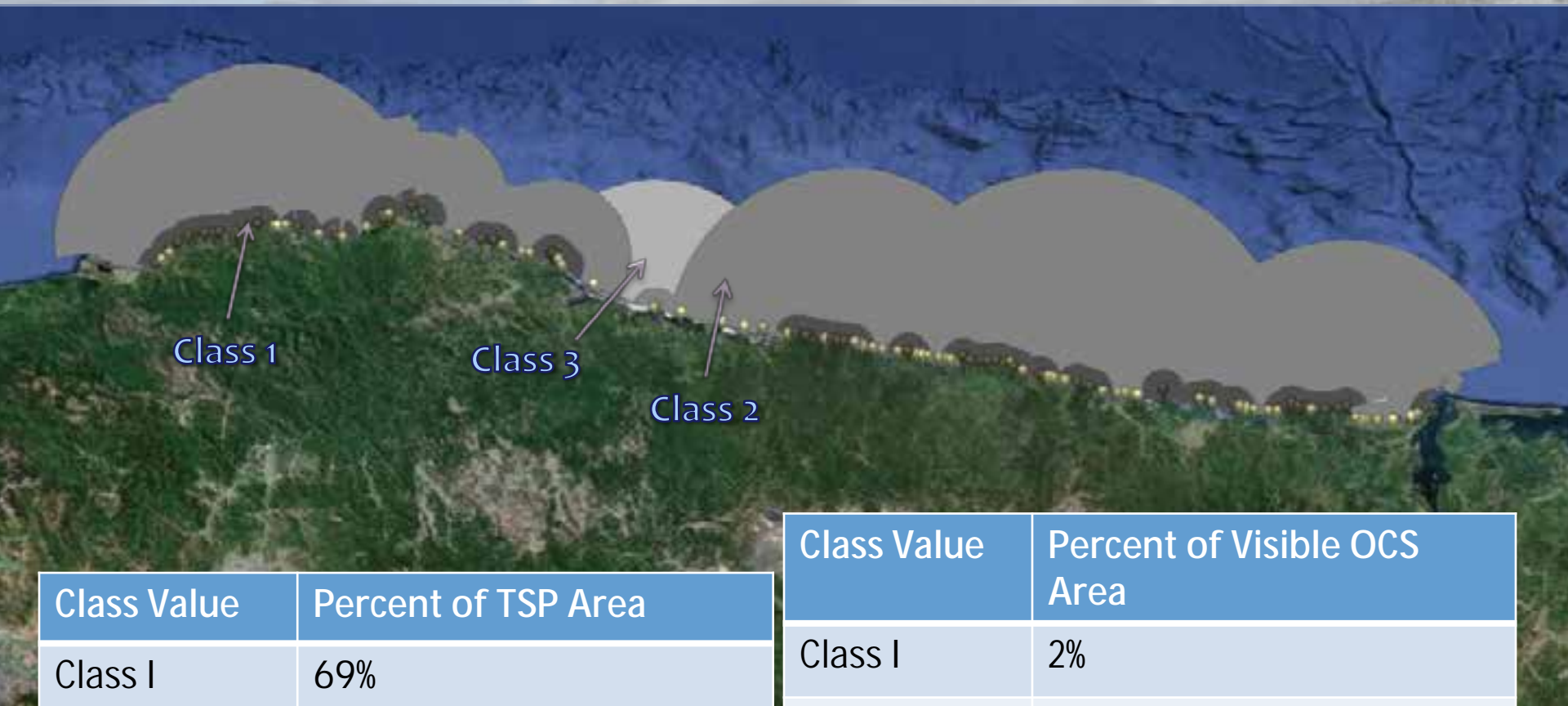
Special Areas		I	I	I
Scenic Quality	A	I	II	II
	B	II	III	III*
				IV*
	C	III	IV	IV
		f/m	b	s/s
		Distance zones		

Example: Class II is assigned to the background and seldom seen areas of a Class A viewshed and the fore and mid-ground of a site designated Class B.

Viewshed Modeling with GIS



Distribution of Visual Classes



Class Value	Percent of TSP Area
Class I	69%
Class II	30%
Class III	1%
Class IV	<1%

Class Value	Percent of Visible OCS Area
Class I	2%
Class II	93%
Class III	5%
Class IV	<1%

Visual Resource Class Standards (**new**)

VRM Class	Visual Resource Objective	Change Allowed (Relative)	Relationship to the “casual observer”
Class I	Preserve the existing character of the seascape. Manage for natural ecological changes.	Very Low	Activities should not be visible and shall not attract attention.
Class II	Retain the existing character of the landscape	Low	Activities may be seen, and may attract minimal attention, but shall not dominate the view.
Class III	Partially retain the existing character of the landscape	Moderate	Activities may attract attention but shall not dominate the view.
Class IV	Provide for management activities which require major modification of the existing character of the landscape	High	Activities may attract attention, may dominate the view, but are still mitigated.

Visual Resources Management System

Portfolio of products including:

- * Updated Visual Resource Methods document
- * Visual Resource Inventory Assessment Baseline Report (144 sites)
- * Geospatial products:
 - * Modeled Viewshed displayed on Oregon MarineMap (Google Earth platform) showing class value.
 - * ArcGIS online Maps and Service Layers
- * Visual Resources Standards Language – in TSP Part 5.
- * Process framework for evaluating applications for MRE development

What's Next?

Review an application for marine renewable energy to test the framework that was adopted in the Territorial Sea Plan, Part Five.

- * Will include public review of Visual Impacts Analysis of the proposed technology.
- * Will require visual simulations to be produced.

Questions ???

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