COLUMBIA
RIVER GORGE
COMMISSION

To: All Interested Parties

From: Gorge Commission Staff

Date: January 11, 2011

Subject: Special Meeting for the Vital Signs Indicators Project

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The purpose of the Gorge Commission special meeting is to update the public and other stakeholders on the Vital Signs Indicators progress and provide a forum for public discussion and questions. Staff and guest speakers will discuss the process that was used to create the Indicators, describe ongoing research and work, confirm project priorities, and look forward to next steps. Please see attached agenda for more information and approximate times.

The process to date has included more than 70 public meetings and presentations and the formation of a community advisory team and a technical advisory team charged with creating valid, relevant, consistent, clear, obtainable, repeatable, policy-oriented and comprehensive indicators.

Our ongoing work continues to include research into the best metrics and methods to measure indicators as well as collaboration with multiple agencies that have common goals and staff with expertise in various relevant fields.

Through collaboration with gorge citizens, partner agencies, tribal members, university staff and students, and others we have developed 51 high level indicators to assess the condition of the scenic, natural, economic, cultural and recreation resources in the Scenic Area. Through public meetings and our Vital Signs website (www.gorgevitalsigns.org) we will continue to provide information regarding our methods and results as it becomes available. This information will be used to inform our management plan review and provide empirical information for adaptive management.

The attached packet includes documents detailing the 51 indicators with associated goals and objectives, a timeline of the process to date, a list of team participants, copies of the team reports, as well as other documents that help explain our efforts.

We welcome questions and comments regarding the process, indicators, and our next steps as we continue to make progress on the Vital Signs.

Please feel free to contact Michele Dailey, Vital Signs Program Manager at (509)493-3323 x 226 or michele.dailey@gorgecommission.org or Angie Brewer, Lead Planner for the Vital Signs Project at (509)493-3323 x 232 or angie.brewer@gorgecommission.org.

COLUMBIA
RIVER GORGE
COMMISSION

Special Meeting of the Gorge Commission
January 11, 2011
Hood River Best Western Inn – Gorge Room
8:30 am to 12:30 pm

Agenda

8:30 am Opening Remarks and Welcome – Jill Arens and Dan Harkenrider
8:40 am History of project, teams, indicators, report – Angie Brewer and others
- a. Project goals
- b. Partners involved
- c. Public advisory team process and creation of the indicators
- d. 2009 VSI State of the Gorge Report

9:30 am BREAK
9:40 am Current and ongoing work – Michele Dailey and others
- a. Framework: Progress, science/technical standards – Michele Dailey
- b. User survey/Public perception – Robert Burns
- c. Resource groups:
  - Recreation – Angie Brewer
  - Scenic – Angie Brewer
  - Cultural – Jennifer Ball Kaden, Marge Dryden
  - Economic – Michele Dailey, Carolyn Meece
  - Natural – Michele Dailey
- d. Summary/Next steps – Michele Dailey

10:50 am BREAK
11:00 am Conversation and questions with expert/staff panel – Dan Harkenrider
- Summary
- Comments from audience, panel of experts to answer questions
- Priorities

12:00 pm Next Steps – Dan and Jill
- Conclusion
- How we use this
- Continue to engage – web, packets, email

12:30 pm ADJOURN

Timeline of Vital Signs Indicators Project

Time Period	Status of Project / Task:
June 2007 through August 2007	Goals and draft objectives created by staff from the National Scenic Area Act to provide a framework for the technical and community advisory teams
August 2007 Commission Meeting	Gorge Commission provides approval of project goals and grants permission to recruit advisory team members
August 2007 through October 2007	Recruitment of technical advisory team members
October 2007 through April 2008	Technical advisory team meetings (all open to the public)
October 2007 through November 2007	Solicitation for community advisory team nominations and approval of team members by the Gorge Commission's Assessment Committee
December 2007 through April 2008	Community advisory team meetings (all open to the public)
December 2007 through April 2008	Joint technical and advisory team meetings (all open to the public)
Thursday, April 03, 2008	Final joint advisory team meeting - conclusion of prioritization process (public)
April 2008 through April 2009	Continuation of technical advisory team subgroup work, research, methodology development, fieldwork, etc.
April 2009 through July 2009	Writing of first report: *Vital Signs Indicators Project - State of the Gorge 2009*
July 2009 Commission Meeting	Presentation of the 2009 State of the Gorge report to the Commission and public
July 2009 - August 2009	Presentation of the VSI SOG to gorge communities and commissions (19 presentations)
August 2009	Creation of a dedicated Vital Signs Indicators website to share all available information: *www.gorgevitalsigns.org*
August 2009 to present	Continuation of work by staff and active subgroup members to develop methodologies for indicators yet to be reported on and continue work on those that were described in the 2009 report
August 2009 to present	Quarterly presentations to the Gorge Commission to provide public status reports

An unprecedented level of community and partner agency involvement has occurred as a result of this project. More than 70 public meetings and presentations have been held to date, specifically for this project. Five goals, 13 objectives and fifty-one indicators were created through an open and transparent public process, utilizing a community advisory team working in tandem with a technical advisory team. The teams were comprised of gorge citizens, partner agencies, universities, tribal members, leading technical experts and others.

Comprehensive list of the five goals, 13 objectives and 51 Indicators included in the 2009 Report:

Goal	Objectives and Indicators
Scenic: Protect and enhance scenic resources	
Objective 1.1: Protect and Enhance Scenic Quality	
	1.1.a: Overall Scenic Quality: Percent of public who perceive scenic resources to be in good condition or better according to both: a) residents and b) visitors.
	1.1.b: Development Impacts: Percent of seen area, as viewed from public vantage points, containing development that highly contrasts with its surrounding landscape: a) within 1/4 mile; b) between 1/4 mile and 3 miles; and c) beyond 3 miles.
	1.1.c: Development Impacts: Number of developed areas, as seen from public vantage points, that highly contrast with their surrounding landscape: a) within 1/4 mile; b) between 1/4 mile and 3 miles; and c) beyond 3 miles.
	1.1.d: Vantage Point Quality: Number of scenic observation points with significantly impaired panoramic views due to vegetation.
	1.1.e: Litter and Graffiti Impacts: Percent of highway miles with significant graffiti or litter.
	1.1.f: Night Light: The effect of ambient light on the night sky.
	1.1.g: Visibility: Placeholder for visibility indicator.
Objective 1.2: Protect the Visual Character of Diverse Landscapes	
	1.2.a: Overall Landscape Quality: Percent of each landscape type that is in good condition.
	1.2.b: Development Impacts: Percent of land area with development for each landscape type.
Natural: Protect and enhance natural resources	
Objective 2.1: Protect and Enhance the Native Plants and Animals and the Habitats which Support Them	
	2.1.a: Habitat Quality: Percent of priority habitat types rated as properly functioning.
	2.1.b: Habitat Fragmentation: Percent of priority habitat types that are lost or fragmented by human activity.
	2.1.c: Species Health: Percent of at-risk species whose populations in the gorge are healthy.
	2.1.d: Species Range: Percent of native species (wildlife, plants, invertebrates) with ranges that are declining.
Objective 2.2: Protect and Enhance Quality of the Water and Aquatic Habitats	
	2.2.a: Surface Water Quality: Percent of streams, including the Columbia River, whose water quality is a) poor, b) fair, c) good, and d) excellent.
	2.2.b: Habitat Quality: Percent of native fish habitat that is properly functioning.
	2.2.c: Surface Water Quantity: Percent of streams with satisfactory in-stream flows.
	2.2.d: Groundwater Quantity: Square miles of groundwater restricted areas.
	2.2.e: Groundwater Quality: To be developed.
Objective 2.3: Protect and Enhance Quality of the Air	
	2.3.a: Air Quality: To be developed.

Indicators Continued:

Economic: Protect and support the economy	
Objective 3.1: Enhance and Sustain the Economic Vitality of the Urban Areas	
	3.1.a: Income: Per capita income of NSA urban area residents as a percent of state and non-metro per capita income: a) Oregon side and b) Washington side.
	3.1.b: Job Growth: Net job growth: a) Oregon side and b) Washington side.
	3.1.c: Construction: Building permits issued by urban area: a) housing, b) commercial, and c) industrial.
	3.1.d: Vacancy Rate: Commercial vacancy rate by urban area.
	3.1.e: Housing Affordability : Percent of households that can afford the median priced house.
Objective 3.2: Protect and Enhance Agriculture and Forestry	
	3.2.a: Activity: Total number of a) agriculture and b) forestry enterprises.
	3.2.b: Revenue: Total revenue of a) agriculture and b) forestry enterprises.
	3.2.c: Payroll: Total payroll of a) agriculture and b) forestry enterprises.
	3.2.d: Land Base: Total acreage in a) agriculture uses and b) forest uses.
Objective 3.3: Allow Economic Development in Rural Centers and Non-urban Areas Consistent with the Protection and Enhancement of the Scenic, Natural, Cultural and Recreation Resources	
	3.3.a: Income: Per capita income of NSA non-urban area residents as a percent of state and non-metro per capita income: a) Oregon side and b) Washington side.
	3.3.b: Job Growth: Net job growth in rural areas: a) total; b) Oregon side; c) Washington side.
	3.3.c: Construction: Building permits issued in rural centers and non-urban areas: a) housing, b) commercial, and c) agricultural.
	3.3.d: Activity: Number of rural and rural center enterprises: a) total; b) Oregon side; c) Washington side.
Cultural: Protect and enhance cultural resources	
Objective 4.1: Protect and Enhance Significant Archaeological Resources	
	4.1.a: Condition: Percent of all monitored archaeological sites in good condition.
	4.1.b: Awareness: Percent of stakeholders understanding the archaeological resource protection process.
	4.1.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of archaeological resources.
	4.1.d: Inventory: Number of new significant archaeological resources identified each year.
Objective 4.2: Protect and Enhance Significant Historic Resources	
	4.2.a: Condition: Percent of all monitored historic resources in good condition.
	4.2.b: Awareness: Percent of stakeholders with understanding of historic resource protection process.
	4.2.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of historic resources.
	4.2.d: Inventory: Number of new significant historic resources identified each year.
Objective 4.3: Protect and Enhance Significant Traditional Cultural Properties	
	4.3.a: Condition: Percent of all monitored traditional cultural properties in good condition.
	4.3.b: Awareness: Percent of stakeholders understanding the traditional cultural properties protection process.
	4.3.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of traditional cultural properties.
	4.3.d: Inventory: Number of new significant traditional cultural properties identified each year.

Indicators Continued:

Recreation: Protect and enhance recreation resources	
Objective 5.1: Address the Demand for Resource-Based Recreation Opportunities in an Environmentally Sustainable Manner	
	5.1.a: Recreation Demand: Percent of recreation sites at or above capacity more than X percent of the time on high season days - total and by recreation activity type.
	5.1.b: Environmentally Sustainable Recreation: Percent of recreation sites that are environmentally degraded - total and by recreation activity type and specified as improving or not improving.
	5.1.c: Recreation Availability: Percent of visitors and residents rating the access to recreation activities as good or better - total and by recreation activity type.
	5.1.d: ADA Accessibility: Percent of recreation sites that meet ADA standards - total and by recreation activity type.
Objective 5.2: Protect and Enhance the Quality of Recreation Experiences	
	5.2.a: Recreation Quality: Percent of visitors and residents rating the overall recreational qualities of the Gorge as good or better.
	5.2.b: Recreation Site Quality: Percent of site users rating their overall experience as good or better - total and by recreation site.
	5.2.c: Recreation-related Conflicts: Number of reported incidents relating to recreational uses by type of incident.

In total, 24 of the 51 Vital Signs Indicators are discussed in the 2009 report.

Vital Signs Indicators Project Participants:

Assessment Committee of the Columbia River Gorge Commission (2007 – 2009)

Dan Harkenrider, Chair
Harold Abbe
Walt Loehrke
Carl McNew
Jim Middaugh
Honna Sheffield

Community advisory team (CAT)

North Cheatham, CAT Chair, Hood River resident
Andrew Brahe, Portland resident
Ron Carroll, Mosier area resident
Susan Garrett Crowley, Hood River area resident
Robert Leipper, Corbett resident
Robert McCormick, Lyle area resident
Don Morby, Mill A resident
Mary Repar, Stevenson area resident
Julie Reynolds, The Dalles resident
Simon Sampson, Underwood and Toppenish resident
Victor Schmidt, Corbett area resident
Phyllis Thiemann, Corbett area resident
Jamie Tolfree, Stevenson resident
Catherine Whalen, The Dalles resident
Carol York, Hood River area resident
Mark Zoller, White Salmon area resident

Technical advisory team (TAT)

Susan Wolff, TAT Chair, Chief Academic Officer for Columbia Gorge Community College
Bill Weiler, former Klickitat County Wildlife Area Manager, Washington Department of Fish and Wildlife
Todd Cornett, Planning Director, Wasco County
Charles Hudson, Manager for the Columbia River Inter-Tribal Fishing Commission (CRITFC) Public Information Office
Brian Bainnson, Landscape Architect with Quatrefoil, Inc., Portland, OR
Richard Davis, Area Manager Goldendale Area, Washington State Parks
Kevin Price, District Manager Gorge District, Oregon State Parks
Greg Webb Resource Manager, The Dalles/John Day/Willow Creek Projects, U.S. Army Corps of Engineers
Jim Runkles Resource Manager, Bonneville Lock and Dam, U.S. Army Corps of Engineers
Greg Griffith, Deputy State Historic Preservation Officer, Washington Department of Archaeology and Historic Preservation
Carolyn Meece, Business Development Officer, Oregon Economic and Community Development Department (OECDD)
Randall Bluffstone, Professor of Economics, Environmental Economics Department, Portland State University

Technical advisory team sub-group participants (including staff)

Jill Arens, Executive Director, Columbia River Gorge Commission
Tom Ascher, Land Use Planner, Columbia River Gorge Commission
Mike Benedict, Planning Director, Hood River County
Ken Borne, Transportation Planner, Multnomah County
Peggy Bryan, Executive Director, Skamania County Economic Development Council
Jeanette Burkhardt, Biologist, Yakama Nation Fisheries Resource Management Klickitat Project
Robert Burns, Ph.D, Recreation Specialist, West Virginia University
Todd Chase, Assistant Branch Manager, FCS Group
Peter Cornelison, Field Representative, Friends of the Columbia Gorge
Greg Cox, Natural Resources & Administrative Staff Officer, U.S. Forest Service CRGNSA Office
Michele Dailey, Spatial Analyst, U.S. Forest Service CRGNSA Office & the Columbia River Gorge Commission
Robin Dobson, Ecologist/Botanist, U.S. Forest Service CRGNSA Office
Sally Donovan, Historic Preservationist
Margaret Dryden, Archaeologist and Heritage Program Manager, U.S. Forest Service CRGNSA Office
Bill Fashing, Economic Development Coordinator, Hood River County
Aaron Ferguson, Gorge Commission Vital Signs Indicators Intern (2008)
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Jeremy Fivecrows, Publications Editor and Webmaster, Columbia River Inter-Tribal Fishing Commission (CRITFC)
Dallas Fridley, Regional Economist, Workforce and Economic Research, Oregon Employment Department
Kevin Gorman, Executive Director, Friends of the Columbia Gorge
Jergen Hess, Landscape Architect
Robert Hadlow, Ph.D, Senior Historian, Oregon Department of Transportation, Region 1
Stan Hinatsu, Forester/Recreation Manager, U.S. Forest Service CRGNSA Office
Jennifer Ball Kaden, Land Use Planner, Columbia River Gorge Commission
Andrew Kallinen, Park Ranger, Columbia Hills State Park, Washington State Parks
Angie Brewer, Lead Planner for the Vital Signs Indicators Project and Land Use Planner, Columbia River Gorge Commission
Pieter Kleymeer, Gorge Commission Vital Signs Indicators Intern (2007)
Jeanette Kloos, Friends of the Historic Columbia River Highway
Mark Kreiter, Hydrologist, U.S. Forest Service CRGNSA Office
Michael Lang, Conservation Director, Friends of the Columbia Gorge
Brian Litt, Planning Manager, Columbia River Gorge Commission
Cheryl Mack, Archaeologist for the U.S. Forest Service Gifford Pinchot
Mark Mazeski, Senior Planner, Skamania County
Jessica Metta, Project Manager, Mid-Columbia Economic Development District
Diana Ross, Landscape Architect, U.S. Forest Service CRGNSA Office
Kristen Stallman, Columbia River Gorge National Scenic Area Coordinator/Historic Columbia River Highway Coordinator, Oregon Department of Transportation
Kelly Thomas, Park Ranger, The Dalles/John Day/Willow Creek Project, U.S. Army Corps of Engineers
Karen Witherspoon, Planning Director, Skamania County

Special thanks to:

Jeff Condit, former Gorge Commissioner
Doug Crow, former Gorge Commissioner

Gorge Commission
Vital Indicators Development

Technical Advisory Team Summary Report
April 25, 2008

The Vital Sign Indicators Project began with Commission staff working with Jeff Tryens to develop indicator goals and objectives for each of the five categories identified in the National Act legislation to protect the Columbia River Gorge. The indicators will guide future decisions and guide the Management Plan.

The work of the Technical Advisory Team for the Vital Indicators Project began in October 2007 with the chairs and sub-group members of each of the five categories of indicators (Scenic, Natural, Cultural, Economic, and Recreation) meeting with Gorge Commission staff. The chairs and sub-group members were chosen for their knowledge of the region, expertise in their fields, technical knowledge and understanding of data and its use, and understanding of the National Scenic Act and its framework for the Commission's mission.

This first meeting set the stage for the work to be done with a suggested timeline and the understanding that the drafted goals and objectives were open for review and change. Three types of indicators were to be produced. Those types are 1) readily available indicators, 2) moderately available indicators, and 3) developmental indicators.

To assist the work of and communication among and between members of the Team, a website and Wiki were provided by Columbia Gorge Community College. This technical tool allowed the sharing of vast amounts of data and work to be reviewed by the sub-group members in each area, across all five areas, and by the Community Advisory Team. Commission staff provided excellent support for each of the sub-groups by coordinating meetings and providing technical assistance.

The work was not without some difficulty in that the task felt over-whelming to the sub-group members and chairs who already have full-time positions. Broad questions such as, "What is meant by the health of the Gorge," "Is the suggested indicator something the Gorge Commission has control of," "How often will data be collected and analyzed," and "What can reasonably be done with current resources" were often discussed as part of the decision-making process. Each of the sub-groups could and sometimes did look at these broad questions from different perspectives. However, each sub-group took ownership very quickly of their assigned task and the identified outcomes. The sub-groups also addressed common elements that could be addressed in more than one of the categories of indicators.

With the implementation of the Community Advisory Team in December, the sub-groups were offered suggestions and questions related to the work they had completed to date. From this feedback and involvement, the quality of the vital indicators became richer. As the facilitator for the Technical Advisory Committee and of the joint Technical and Community Teams, it is clear that there is high energy in protecting the assets of the Gorge as well as the recognition of the difficulty in balancing development with protection.

The completed work for each of the sub-groups will be presented Friday, April 25th to the Assessment Committee for their review. The legacy of our work lies in the criteria for the identified indicators. Those criteria ask the following for each indicator: is it valid, relevant, consistent, clear, obtainable, repeatable, policy-oriented, and comprehensive? It has been my pleasure to work with all members of the two Advisory Teams, Jeff Tryens, Sally Duncan, and Commission Staff.

Submitted by:
Dr. Susan J. Wolff, TAT Chair

Community Advisory Team

Vital Signs Indicators Project

Summary Report

April 25, 2008

The Community Advisory Team (CAT) was formed at the end of October, 2007 to assist the Technical Advisory Team (TAT) to select a set of objective measures to assess how well the Columbia Gorge Commission's Management Plan is protecting and/or enhancing the scenic, natural, economic, cultural, and recreational resources of the National Scenic Area (the "SNECRs"). The Commission intends to use these measures to: 1) periodically gauge the condition of the Gorge for the benefit of policy makers and the general public, and 2) subsequently develop additional high level agency performance indicators in Phase Two to assess its performance in achieving the goals and objectives of the Act through the Management Plan.

Team members were selected by the Commission's Assessment Committee after reviewing solicited applications. Those who served on the Team included articulate, opinionated, and knowledgeable representatives from diverse disciplines, political views, and geographical areas.

One of the CAT's most important responsibilities was to provide feedback regarding the importance and understandability of the indicators proposed by the technical team, once we developed a working understanding of the TAT's mission. This in turn allowed greater consolidation among proposed indicators to avert confusion and perceived duplication by the public. Our team met repeatedly and collaboratively with the TAT and shared a dynamic and positive relationship with them. Frequently members from our group participated in and contributed to technical sub-group meetings on specialized topics of interest, and the vast majority of all the WIKI postings to the discussion forums of both Advisory Teams have been from CAT members. Almost all of our members remained active and engaged throughout our entire six month tenure, which clearly underscores our intense and collective interest in achieving a successful conclusion to this phase of the Indicators Project.

Initially, significant frustration threatened the process. Issues of contention were: our advisory versus initiating role, confusion in distinguishing between discussion topics, vital signs indicators, and agency performance indicators, and a perceived need to refine the project objectives to more accurately match the provisions and definitions of the NSA act. Although our Charter begins by referencing our responsibility to assist the Commission in assessing the success of the Management Plan regarding resource protection or enhancement, all subsequent discussion and interaction with the TAT reverted back to the Act itself.

Together with the TAT, several of the goals and objectives of the Vital Signs Indicators Project were revised accordingly, and much of the remaining confusion and frustration we had experienced evolved into a better understanding of the terminology and the issues.

These early concerns were soon replaced by a new source of frustration: the development of a daunting and unmanageable number of indicators, while some additional concerns of our team never seemed to be adequately addressed.

The primary product of our combined efforts has been the completion of a consolidated and concise set of indicators, spanning all the SNECRs. Our team members not only exhaustively debated all the indicators proposed by the technical team and the sub-groups, but also referred back to them additional concerns the public would be expected to have:

1. Litter and graffiti;
2. Excessive and/or unnecessary night lighting;
3. Watershed and aquifer quality and condition;
4. Air quality;
5. The importance of commercial vacancy rates; and
6. The importance of gauging the growth of development and economic activity outside urban areas.

Additional discussion topics were never resolved into vital signs indicators, but hopefully will be developed into enforcement and consistency agency performance measures in Phase Two:

1. The value of tracking economic grants by urban area;
2. The need to establish an inventory of developed property with conventional septic systems versus tertiary on-site waste treatment;
3. The extent to which building permit conditions for resource protection outside urban areas have met compliance requirements; and
4. The need to document recreational impacts on species habitats.

Of particular concern to the CAT was Objective 3.3 under Economic Goals. At the time the NSA act was drafted, many enclaves of rural residential development, or "rural centers" subsequently defined by the Management Plan, did not achieve the exempt status or recognition of urban areas. Furthermore, this designation appears to have been somewhat arbitrary. Tracking how the Commission has allowed development within these communities and recognizing the economic needs of these communities was a primary focus of several members of our group. The extent to which that development has been consistent with resource protection was also discussed, but not resolved. Other CAT members felt that concentrating development in the designated urban areas was more consistent with the purposes of the Act. Communities in the NSA not recognized as urban areas include Corbett, Bridal Veil, Dodson/Warrendale,

Rowena, Skamania, Underwood, Murdock, and eastern portions of Troutdale and Washougal.

All proposed indicators were scrutinized and subsequently prioritized by the CAT to assure that they were clearly understood and would be considered important by the public. This was to avert potential criticism and assure that no esoteric, or "feel good" indicators survived the prioritization process.

A total of 57 proposed indicators remain. We have been sensitive and sympathetic to staff capabilities, budget restraints, and the expenses associated with original data collection.

Key among our concerns going forward is the need to consider cumulative impacts. This is required of the Commission by the NSA Act. For many of the final set of indicators, data exists back to 1986 or further for baseline information. In some cases, we need to establish baseline data now.

Projecting cumulative impacts is essential to establishing acceptable thresholds for the environment before these thresholds are actually exceeded. The results of these projections would then allow the development of a maximum theoretical build-out scenario, made possible in part by using the trend values of the indicators. Prior to exceeding a responsibly defined carrying capacity, costly, undesirable, and possibly irreversible consequences can be avoided. It would be irresponsible not to define both the ecological and human carrying capacity in the Columbia Gorge as the most important outcome of the Vital Signs Indicators Project.

Are the remaining stocks of natural, scenic, cultural, and recreation resources sufficient to sustain the anticipated pressure and effects of human activity in the future? To what extent can each of the scenic, natural, economic, cultural, and recreation resources be degraded or encroached from its present condition and still be deemed functioning, healthy, and viable? Natural resource habitat fragmentation and highly contrasting visible development from public vantage points are two primary examples of the need for establishing cumulative impacts and carrying capacity.

In summary, the experience of Community Advisory Team leads to a number of recommendations for the Gorge Commission:

1. Develop a robust set of agency performance indicators in Phase Two, concentrating on enforcement and consistency. These indicators should be developed from consultants independent of the agency, not staff.

2. As part of Phase Two, include an analysis of discussion topics 1 – 4 listed on page three of this report.

3. The CAT strongly urges the Commission to view the indicators developed to date as a comprehensive set which should remain intact wherever possible to maximize the value of our involvement.

4. Re-convene the CAT for additional feedback prior to the conclusion of Phase Two and Phase Three.

5. Improve understanding, compliance, and communication with the public regarding their perception of the Commission's policy for allowing development outside recognized urban areas. The results of the Vital Signs Indicators should help document the extent of confusion that now exits.

6. Amend the Indicator Project goals to include the development of a Maximum Build-Out scenario, from which associated SNECR thresholds are defined. Then open the process for community feedback to explore public preferences and trade-off awareness.

Phase One of the Indicators Project has now been completed. I would like to personally thank all persevering CAT members, dedicated Commission consultant Jeff Tryens, tireless planner Angie Kenney, Executive Director Jill Arens, as well as other Commission staff and technical experts who provided critical support and encouragement. Collectively, you have made possible the opportunity to serve and provide a lasting impact on protecting and enhancing the National Scenic Area. It has been a fulfilling and valued experience for all of us.

North Cheatham, Chair
Community Advisory Team

Community Advisory Team Members:

Andrew Brahe	Ron Carrol	North Cheatham
Susan Crowley	Robert Leipper	Robert McCormick
Don Morby	Mary Repar	Julie Reynolds
Victor Schmidt	Phyllis Thiemann	Jamie Tolfree
Carol York	Mark Zoller	
Simon Sampson	Catherine Whalen	

Final Report

Columbia River Gorge Vital Signs Indicators Project

Prepared by
The Institute for Natural Resources
Oregon State University

for
The Columbia River Gorge Commission

October 2008

The Institute for Natural Resources

Created by the Oregon Legislature through the 2001 Oregon Sustainability Act, the Institute for Natural Resources' mission is to provide Oregonians with ready access to current, relevant, science-based information, methods, and tools for better understanding natural resource management challenges and developing solutions.

The Institute for Natural Resources is an Oregon University System institute.

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1.0 Introduction

Until now, the Columbia River Gorge Commission has not put in place an evaluation process for its ongoing work on managing the health of the gorge. The Columbia Gorge Vital Signs Indicators Project marks the first comprehensive and ongoing evaluation in the Commission's 20-year history, an important milestone in implementing the Management Plan for the Columbia River Gorge National Scenic Area.

The Commission established a community advisory team (comprised of self-nominated interested citizens/residents from both Oregon and Washington as well as the eastern and western ends of the Gorge) and a technical advisory team (comprised of local experts and staff from state, federal and local agencies with expertise in the various resources at issue in the Gorge) to develop a set of indicators. Seeking a neutral unbiased process the Commission requested that the Institute for Natural Resources (INR) staff this effort — helping to shape the process, get needed reference materials, ensure the validity of the process, and consider how to measure performance.

The future of the Columbia River Gorge National Scenic Area involves complex interconnections between various aspects of society—economic, environmental, and social. These aspects must all be monitored to ensure that the purposes of the National Scenic Act are being appropriately followed. The highly valued natural, cultural, scenic, and recreational resources offered by the Gorge must be protected, and the economic strength and vitality of the area must be sustained in a manner that is consistent with resource protection.

A comprehensive assessment was needed to determine the success and effectiveness of the outcomes of Columbia River Gorge Commission decisions, to inform future Management Plan reviews, and to facilitate adaptive management by the Commission.

1.1 Project Goals

The Vital Signs Indicators Project incorporates multiple goals, most particularly:

1. Provide a tool upon which to base statutory assessment of the effectiveness of the Management Plan in implementing the Scenic Area Act;
2. Increase performance accountability and tie Commission actions to the purposes of the Act;
3. Foster dialogue among counties, treaty tribes, business leaders, municipalities, ports, the public, and other stakeholders;
4. Facilitate adaptive management in future Commission decisions; and
5. Inform periodic and statutory reviews of the Management Plan.

2.0 Approach

2.1 Civic Science Framework

The project was organized around a concept sometimes called civic science. In this context, civic science means a problem-solving process based on regular interaction between technical experts and engaged citizens. Unlike many scientific exercises, where scientists work exclusively among themselves until findings have been developed, civic science allows citizens to provide input along the way. In this case, citizens informed the Vital Signs Indicators Project through a structured deliberation process. A Technical Advisory Team (TAT) met regularly for eight months, and was assisted after the first two months by a Community Advisory Team (CAT) that met monthly. Generally, the TAT proposed and the CAT reviewed and critiqued. The CAT also proposed topics for TAT consideration that were not on the TAT's agenda or preliminary list of Gorge health measures.

The success of a civic science project hinges on three elements. First, the two groups must speak a common language. Second, the two groups must agree on what's important as outcomes to the project. And, third, trust and mutual respect must be built during the process. Practically, both Vital Signs teams worked from charters that spelled out their mutual roles. (The CAT and TAT charters are attached.)

2.2 Sequence of Events

The process, then, consisted of three overarching components – creation of advisory teams, nomination of a neutral observer, and design and launch of the wiki.

2.2.1 Creation of Technical and Community Advisory Teams

The Technical Advisory Team (TAT) was created by a combination of invitation of identified experts and available personnel. These people came from federal and state agencies, non-governmental organizations, and Oregon universities – wherever the requisite expertise was available and willing to dedicate time to the benefit of the Gorge and future generations. The TAT members were asked to provide sub-group leadership for the SNECR categories: Scenic, Natural, Economic, Cultural, and Recreation. Their task was to develop high-level indicators by which the health of the Gorge could be monitored through time. Sub-groups met as often as was required to develop an acceptable list of indicators. They also attended several joint meetings with the Community Advisory Team (CAT).

The CAT was created by open invitation to Gorge residents and interested citizens, and participation brought a wide range of ages, occupations, and expertise to the table. Their task was to respond to and critique the indicators developed by sub-groups, in an iterative process guided by the principles of "civic science" described above. They provided their

feedback in both separate and joint meetings with TAT members. Towards the end of the project, they engaged in a prioritization exercise with the facilitator, at which they were asked to rate proposed indicators from the public's perspective. They had to answer two questions: 1) will the public understand the indicator's meaning, and 2) will the public understand the indicator's importance? Subsequently a complex matrix was developed to incorporate indicators and their relative rankings (spreadsheets containing the ranked indicators are attached).

2.2.2 Nomination of INR to provide neutral observation of the process

INR was approached to provide observation of the process, so that the Gorge Commission could consider whether it should be used, modified, or discarded for future projects. To achieve this, two INR staff attended TAT meetings, and shortly into the process, agreed to provide a form of "roving attendance" to cover as many sub-group meetings as possible. Jimmy Kagan covered Natural, Scenic, and Recreational meetings, and Sally Duncan covered Economic and Cultural meetings. They also attended full TAT and joint TAT-CAT meetings. Finally, they worked with staff to produce an online survey of all participants, to garner as much feedback as possible on attitudes toward the process and notes for its improvement. Staff managed the survey; its results analyzed by INR.

2.2.3 Design and launch of the wiki

The wiki was hosted by the Columbia Gorge Community College, and provided a collaborative work space through which all TAT and CAT members could interact. The site allowed documents to be uploaded, unlimited comments to be inserted, and group interaction to be watched or participated in. Because some participants experienced initial difficulty with the novel form of interaction, some communication took place through regular e-mail or by phone with staff.

All interactions and documents on the wiki are archived and are available for interested parties at the Commission office.

3.0 Process Analysis

3.1 Final CAT/TAT Comments

Comments captured from the final session of the concluding, April 3 joint meeting in Hood River, Oregon, provided insights into the civic science process followed for the project. These reflections were shared informally by attendees; the majority came from CAT members, but some TAT members also provided comments.

3.1.1 Positive Comments

- CAT perceives CRGC staff to be very helpful, accessible, patient and respectful, and importantly, open to the iterative ebb and flow of the process
- The attempt to get input from the Gorge as a whole provided a good forum; in addition, the diversity of the group, the charter, the openness of the process provided a good learning curve and no one felt marginalized
- Very little attrition from CAT group speaks to the level of welcome and commitment – the collaboration between CAT and TAT was particularly good, with CAT members at sub-group and technical meetings
- Facilitation was well done, the matrices for indicators from each group were helpful, the sub-group chairs were committed and hard-working
- The wiki put some people off but ultimately provided one place to "work it all out"
- Trust was maintained from the start, helped keep the process on track

3.1.2 Negative Comments

- There seemed to be some changes to indicator matrices without notice
- Groups needed a water quality expert
- There was early confusion due to excess data, and the process was entirely new
- The wiki would be improved by using deadlines
- The timing of CAT-TAT group starts could have been improved
- Latecomers to the TAT groups were a problem, had to start over
- Confusion between higher level Gorge health indicators and agency performance indicators persisted well into the process.

3.2 Survey Results

As a concluding component of the Columbia Gorge Vital Signs Indicators Project, a web-based survey elicited input from the entire list of participants in the public involvement process. The results are to be used for adaptation and modification of the process in future phases of Gorge management. This report summarizes the results from the survey.

3.2.1 Public Involvement

A total of 43 people responded to the online survey, out of 78 contacted by e-mail by Gorge Commission staff. These results were divided roughly equally between members of the Community Advisory Team (CAT, 12), members of the Technical Advisory Team (TAT) and members of technical sub-groups (11 combined), Commissioners (12), and Commission staff (7), with 3 members of the public who merely observed. Eighty percent of these respondents attended two or more meetings, either in person or by phone. Of the 10 people who dropped out of the process short of this amount of attendance, 9 did so because of personal time constraints. The other commented that s/he did not think her/his comments would make any difference.

Of the 43 respondents, 17 answered only the first two questions (placing themselves in a group and noting they attended more than two meetings). The make-up of this group of 17 included 8 Commission members, 3 technical sub-group members, and 2 each of project staff, public observers, and CAT members.

3.2.2 Public Process

Three survey questions relate to overall impressions of the public involvement process. The first asked whether respondents felt their views were valued. Well over three-quarters (84%) said either Yes or Most of the Time. One other respondent noted the unnecessarily “doctoral” level of some technical leaders’ discussions.

Another question asked how well respondents would rate the quality of the overall process. Just under three quarters (73%) said either Excellent or Good. The three comments copied below illustrate the range of opinions captured both in the clear majority noted here, and in the remainder of responses:

> There was an impression given by certain people involved that this process was an inconvenience, and not really something that would alter the MO of the Commission. It seemed a number of the more difficult decisions were deferred rather than addressed. The process didn't seem entirely genuine and open, as though decisions were already made about the direction of the GC, and this was just a hoop that needed to be jumped through for appearances.
>
> Political process was OK, technical work was not.
>
> I wanted a Very Good! in here but since it wasn't there, I'll have to go for GOOD! For such a short, time-constrained process, I think the technical folks, staff, and the community did a good job. The

quality of the process was affected by the rapid timeline. But, on the other hand, a quick and dirty timeline does tend to focus us. So, overall, it might not have been a bad thing to have a less than 6 month timeline.

Finally, when asked how pleased they are with the results, 88% said either Very Pleased or Somewhat Pleased. Comments in this case suggested a clear concern with follow-up work (e.g. "still a lot of work to be done") which is seen to be essential for the process to have made any difference at all. These results were expanded upon in the question about how confident respondents are that the Gorge Commission will follow through with tracking the Vital Signs Indicators that were developed. While 50% of respondents were Very Confident that follow-through would occur, the remainder fell into the Somewhat Confident and Not Very Confident categories. Comments emphasized the importance of not losing either momentum or public involvement, and of keeping the focus on the indicators rather than getting hijacked by day-to-day business.

3.2.3 Providing Information

Two questions addressed information and how it was provided. Clarity of information provided by five different sources – the advisory team charters, the consultant Jeff Tryens, project staff, the wiki/moodle site, and the Commission web site – was consistently rated by large majorities to be either Very Clear or Somewhat Clear. For the first three categories, the combined Very/Somewhat Clear was over 80%. The two web-based sources of information had the largest Don't Know/Not Applicable responses (23% for wiki, 39% for Commission site), and the few comments suggested this was because some people did not draw at all from electronic sources of information.

The question about technical information – whether it was applied in a timely manner, whether it was clear, whether it was appropriately used, and whether questions about it were answered – revealed a similar set of clear majorities responding Strongly Agree or Somewhat Agree, all well over the 80% mark when Strongly/Somewhat Agree were combined. One open-ended comment expressed concern that air and water quality were two very significant areas that had no technical experts brought onto the team to address them.

3.2.4 Meeting Process

Three questions related to specific aspects of meeting conduct. One asked how well specific components of the project worked: size of advisory group or sub-team, number of meetings, frequency of meetings, participation via conference calls, communicating directly with staff, and use of the wiki site. Each of these received large majorities (80 to 90%) in the Very Well and Somewhat Well categories, *except* for use of the wiki site. More than a third (39%) responded Somewhat Poorly or Very Poorly in respect to use of the wiki, and a further 15% didn't know, in line with comments suggesting that use of the wiki was frustrating and confusing, was avoided outright or was only used for genuine interaction by CAT members and <u>not</u> by TAT members. Another question addressing the

productivity of using the wiki site found that nearly half (45%) of respondents answering this question felt the interaction on the wiki site was either Somewhat Unproductive or Not At All Productive. One person (only) commented that the wiki site was a terrific idea!

The question addressing the *productivity* of various types of meetings found majority responses in the Very and Somewhat Productive categories for CAT meetings, TAT meetings, sub-group meetings, joint meetings, interaction with own team members, and interactions with Commission staff. Interactions with staff received a 100% rating outside of Don't Know/Not Applicable. The Somewhat Unproductive category was greatest for the prioritization of indicators process with Jeff Tryens, though Very and Somewhat Productive still summed to over 75% on this point. On this part of the process, one comment notes:

> I would have liked to have seen the indicators prioritized more rapidly and according to several prioritization areas. For example, prioritizing by available data, by urgency of need (do we need to know what our air quality is NOW, not in 2 years, for example); would have liked to have seen how some of the urban areas and elected officials would prioritize the list.

Interaction with sub-groups also had a higher Somewhat Unproductive rating (24%). Again, the wiki site appears not to have worked well for just under half the respondents (42%). Notably, 23% of respondents probably did not use the site at all, choosing Don't Know/Not Applicable.

For the most part, the advisory team meetings, attended by both CAT and TAT members, were perceived to proceed quite well. Over 90% of respondents chose Strongly Agree or Somewhat Agree that participant discussions were encouraged and input was valued. The remaining specific process issues received only slightly lower marks: a strong majority chose Strongly Agree or Somewhat Agree responses to questions about whether the chair was knowledgeable about the issues at play in the Gorge (85%); whether the chair was knowledgeable about the National Scenic Area Act and the goals of the Gorge Commission (80%); whether team meetings were kept on task (77%); and whether discussions were well-managed (81%). Comments on this question, however, reveal some concerns about individuals bringing bias and inflexible world views to meetings. Several comments here related to those made on other questions about the perception that decisions were made outside of CAT meetings that left that group feeling excluded from decision making.

3.2.5 SUMMARY

In general, the public involvement process designed and implemented by the Gorge Commission to establish Vital Signs Indicators appears to have received consistently high marks from the majority of participants who responded to the survey. One comment in particular puts the process in a useful perspective:

> The overall experience was a great first attempt to further the work. I applaud the staff, the Commissioners and Jeff for trying to herd a bunch of cats in to consensus. I think we are going in the right direction.

This comment takes into account the "first attempt" and the fact that this is by no means a completed process. The "bunch of cats" is an apt comment on any public process involving potentially volatile content and opinions. Other summary comments concurred, noting for example that careful vetting of chairs is important, and that clarity of goals is periodically elusive in a complex project such as this.

Several comments suggested the weighting of CAT and TAT opinions and input was biased in favor of the technical group rather than the community group. Specific comments to this effect included the lack of technical expertise on air and water quality, which was seen negatively by some CAT members, since these two issues are so important to the local community. Finally, differing perspectives exist on tracking build-out, for example whether non-urban or maximum build-out is most important to gain the full picture of Gorge health.

Without wishing to give any one person undue weight, one longer comment provided concise input that served to summarize a number of concerns across all questions:

> Suggestion #1: involve the public at all phases, including phase 2, where as it is proposed now is an agency self-audit process, without any public input or oversight until a final report is issued at the end of phase 3.
>
> Suggestion #2: post the entire wiki comments on the GC website, rather than force the public to figure out where and how to get a hardcopy once they have figured out the info is out there. This should be an open, transparent process, not a hide the pea shell game.
>
> Suggestion #3: make sure charters are clear, concise, correct and consistent. If one team charter says one thing and another team charter is conflicting, the teams can't interact on the same level.
>
> Suggestion #4: make sure the facilitator is there to facilitate and not control the process. It is still unfortunate to me that no enforcement or compliance indicators were included (nor were) little indicators important to gorge residents.

It was particularly notable how well-regarded the Gorge Commission staff is. This provides a very strong basis for the next phases of Gorge/public interaction, suggesting that staff may provide the best focal point upon which to make any adjustments to the public involvement process.

4.0 Conclusions and Recommendations

Following the completion and analysis of the survey, INR notes here a number of potential steps that could help the Commission retain and build public support for the ongoing efforts they are making with the Vital Indicators process.

1. To the degree possible, support ongoing staff interactions with the public, thereby building on the strong existing goodwill. This may mean providing several points of access, both online and person-to-person. It could include developing an e-mail list for updates, a printed newsletter, an Indicator-specific series of public meetings, a liaison group, or other solutions. To have this level of goodwill at the outset of such a long-term project is a tremendous strategic advantage which should not be wasted.
2. Adjust the level of involvement of the Community Advisory Group for the next iteration of the process, to reduce the sense of marking time, exclusion, or confusion of effort that plagued the beginning of this process.
3. Develop a plan for credibly addressing air and water quality with trusted technical input. This is perceived, rightly or wrongly, by community members as a crucial neglected area.
4. Consider ways to provide buildout scenarios for public review and input, with careful definitions of what each scenario means and what assumptions are included. Expect very well-informed questions, just as much as you expect "soapbox" stands on particular issues.
5. Carefully consider who is to chair any new community advisory groups, seeking to identify chairs who do not advocate for particular positions but instead for a fair and balanced process.
6. Do not lose momentum. The Vital Indicators process has the potential to engage the community in designing a sustainable future, building on trust that is irreplaceable. One way to enhance that trust is to continue to make and share progress.


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VSI designation	Paraphrase of Indicator	Status of Progress/Actions					Future Considerations
		Data Collection/Compilation	Research	Methods	Reporting	Priority	
Scenic							
1.1.a	Perception of Scenic Quality	Data collected Summer 2010.			Report available March 2011.		Need to secure finding for future surveys and analysis.
1.1.b, 1.1.c	Development impacts (2 VSI)		Research and training ongoing.	Method development ongoing with research and training.			Data to be collected by staff once methodology complete.
1.1.d	Vantage point quality	New photos not available until ~ 2011.			2009 data already reported.		Data will be collected again ~2011 via Google Earth application
1.1.e	Litter and Graffiti	Data not available.				Low priority	
1.1.f	Night Light	Citizen data collected yearly. (Minimal public participation to date.)			Will report latest data Winter 2010/2011.		
1.1.g	Visibility related to Air Quality	Data collected weekly by 2 USFS IMPROVE monitor stations - one station to be closed 5/1/2011 due to funding issues.		Based on Rick Graw's work.	Will report Winter 2010/2011.		Can repeat reporting once a year using data from one monitor
1.2.a, 1.2.b	Landscape visual quality and development impacts as seen aerially (2 VSI)	Need to acquire fine scale satellite imagery*, have no funding at this time.	Ongoing research into metrics and parameters of landscape types.	Classification and quantitative analysis methods part of ongoing research, threshold determination not yet undertaken.			Determine interval of repeat analysis based on sensitivity of change as well as availability of funding for imagery
* Acquisition of this imagery is also crucial to Natural and Economic VSI.							
Natural							
2.1.a, 2.1.b	Upland habitat function and fragmentation (2 VSI)	Need to acquire fine scale satellite imagery, have no funding at this time. LiDAR would also help but consistent data not available and funding for acquisition not available.	Research ongoing.	In development with research.			Determine interval of repeat analysis based on sensitivity of change as well as availability of funding for imagery
2.1.c, 2.1.d	Species health and range (2 VSI)	Appropriate data for these are not available.	Research ongoing to tie species requirements with habitat assessment.				
2.2.a, 2.2.b, 2.2.c	Surface water quality, quantity, and in-stream habitat quality (3 VSI)	Compiled GIS data, some in-stream data collected by FS.		Using AREMP model, working on mass wasting model			In-stream surveys and remotely sensed data will be required at a time interval that captures sensitivity of change of resource.
2.2.d, 2.2.e	Ground water quality and quantity (2 VSI)	Comprehensive/appropriate data not available.				Low priority	
2.3.a	Air quality as measured by impact on lichen	Possess data collected by Linda Geiser, USFS.			Will report Winter 2010/2011		Future analysis depends on Geiser and USFS finding.
Economic							
3.2.d	Land base in agriculture	Need to acquire fine scale satellite imagery (limited by funding). Data for cattle numbers will be collected through the Ag Census in 2012.			Reported 2002 and 2007 cattle data in 2009. Reported coarse agriculture land cover data classified from 2004 imagery in 2009.		Need to secure funding for imagery.
	Land base in forest	Need to acquire fine scale satellite imagery (limited by funding).	Further research needed to determine best metrics.				Need to secure funding for imagery.
3.1.a, 3.1.e, 3.3.a	Income, housing affordability	New data for 2009 can be reported when the 2010 Census data becomes available. Census summary files will be released on a flow basis from April 2011 through September 2013.			Reported 1989 and 1999 data in 2009.		
3.1.b	Job Growth	New data available for 2009.			Reported 1992-2007 data in 2009.	Low priority	
3.1.c	Construction	New data available for 2009.			Reported 1996-2005 data in 2009.	Low priority	

VSI designation	Paraphrase of Indicator	Status of Progress/Actions					Future Considerations
		Data Collection/Compilation	Research	Methods	Reporting	Priority	
	Tourism and recreation spending from user survey	Data collected Summer 2010.			Report available March 2011.		Need to secure finding for future surveys and analysis.
Need to investigate meaningful economic indicators that can be attributed to the geography and particular resources unique to the NSA as well as its management.			Research ongoing.				
Cultural							
4.1.a, 4.2.a, 4.3.a	Condition	Data for archaeological and historic condition assessment are collected on a two year cycle. In process	Outside agencies doing research and collaboration to define and identify Traditional Cultural Properties (TCPs).	Waiting for outside TCP work to be done before adopting methods.	Report projected to be available 2011/2012.		
4.1.d, 4.2.d, 4.3.d	Inventory	Data for archaeological and historic inventories are collected each year. Possess 2009 and 2010 data.	Outside agencies doing research and collaboration to define and identify Traditional Cultural Properties (TCPs).	Waiting for outside TCP work to be done before adopting methods.	Report available Winter 2010/2011		
4.1.b, 4.2.b, 4.3.b	Awareness : stakeholders	Data not available, requires focus group meetings for which we have no funding.				Low priority	Need to secure finding for future surveys and analysis.
4.1.c, 4.2.c, 4.3.c	Awareness: residents and visitors	Data collected Summer 2010.			Report available March 2011.		Need to secure finding for future surveys and analysis.
Recreation							
5.1.a, 5.1.b, 5.1.d	Demand, environmental degradation, ADA standards met	Data collected 2008 reported in 2009. New data will be collected winter 2010/2011.			Report available January 2011.		Have active partnership with recreation providers and involvement in FS Sustainable Recreation program and assume future data collection will continue and be improved by relationships.
5.1.c, 5.2.a, 5.2.b, 5.2.c	Access, overall and site quality, user conflicts	Data collected Summer 2010.			Report available March 2011.		Need to secure funding for future surveys and analysis. Active partnership may facilitate this.

Data limitations highlighted
Research and methodology development highlighted
Previously reported
Projected reporting