

Vital Signs Indicators Project State of the Gorge 2009



A report on the conditions of scenic, natural,
economic, cultural and recreation resources in the
Columbia River Gorge National Scenic Area



May 2009

Columbia River Gorge Commission
USDA Forest Service Columbia River Gorge NSA

Columbia River Gorge Commission Members

Joyce Reinig, Chair
Harold Abbe
Judy Davis
Sara Grigsby
Dan Harkenrider
Jane Jacobsen
Walt Loehrke
Lonny Macy
Carl McNew
Jim Middaugh
Joe Palena
Governor Barbara Roberts
Honna Sheffield

Consulting services provided by

Jeff Tryens, Indicators Consultant
Measures Matter

Sally Duncan, Manager
Policy Research Program
Oregon State University Institute of Natural Resources

Jimmy Kagan, Director
Oregon Natural Heritage Information Center and
Coordinator of the Information Program
Oregon State University Institute of Natural Resources

Columbia River Gorge Commission Staff

Jill Arens, Executive Director
Nancy Andring, Administrative Assistant
Tom Ascher, Planner
Jennifer Ball Kaden, Planner
Michele Dailey, Spatial Analyst
Aaron J. Ferguson, former Vital Signs Intern
Angie Kenney, Planner
Pieter Kleymeer, former Vital Signs Intern
Brian Litt, Planning Manager
Jeff Litwak, Counsel
Jessica Metta, former Planner
Kathy Obayashi-Bartsch, Administrative Specialist

USDA Forest Service – Columbia River Gorge National Scenic Area Office Staff

Daniel Harkenrider, Area Manager
Robin Dobson, Botanist/Ecologist
Margaret Dryden, Heritage Program Manager
Chuti Fiedler, Fish and Wildlife Biologist
Mark Kreiter, Hydrologist
Diana Ross, Landscape Architect

Columbia River Gorge Commission

1 Town and Country Square
PO Box 730
White Salmon, WA 98672
(509) 493-3323
www.gorgecommission.org

USDA Forest Service Columbia River Gorge National Scenic Area Office

902 Wasco Ave., Suite 200
Hood River, OR 97031
(541) 308-1700
www.fs.fed.us/r6/columbia

Graphic Design

Angie Kenney, Lead Planner
Vital Signs Indicators Project

Administrative services provided by the
Columbia River Gorge Commission Staff

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Columbia River Gorge Commission
& USDA Forest Service - Columbia
River Gorge National Scenic Area



Joanna Grammon



Hood River Waterplay



Joanna Grammon

Foreword

The Columbia River Gorge National Scenic Area Act of 1986 has two purposes. The first mandates protection and enhancement of scenic, cultural, natural and recreation resources. The second requires protection and support of the economy of the gorge by encouraging growth in existing urban areas and by allowing future economic development in a manner that is consistent with protection and enhancement of resources.

The Columbia Gorge National Scenic Area is renowned for its spectacular beauty. Scenic resources span a diverse array of landscapes including dense forests, rolling farmlands and semi-arid grasslands. Cultural resources, including prehistoric sites and historic structures are epitomized by the famous Indian petroglyph “She Who Watches,” and trace a human history in the gorge that is over 10,000 years old. Natural resources include diverse landscapes that support habitat for sensitive wildlife and plants; streams; lakes; wetlands and riparian corridors. These resources and more are found in abundance throughout the National Scenic Area (NSA). And then there is recreation . . . The NSA is known worldwide for the variety and quality of its recreational opportunities: windsurfing, hiking, fishing, mountain biking, kayaking and kiteboarding. And, with all of this - it’s also a place where thousands of people make their homes, work and play.

The National Scenic Area Act designated special protection for 292,500 acres on both sides of the Columbia River from the outskirts of Portland-Vancouver in the west to the semi-arid regions of Wasco County and Klickitat County in the east. The NSA is categorized into three areas: Special Management Areas, General Management Areas and Urban Areas.

Special Management Areas (SMA), which generally contain the most sensitive resources, total 114,600 acres. Much, but not all, of the SMA are national forests managed by the Forest Service. General Management Areas (GMA), with 149,400 acres, include a mixture of land uses such as farming, forest practices and cattle grazing. Development on state and private lands within the GMA and SMA are administered by gorge counties and the Columbia River Gorge Commission. Exempt from Scenic Area regulations are 13 Urban Areas in the gorge: Cascade Locks, Hood River, Mosier and The Dalles in Oregon; and North Bonneville, Stevenson, Carson, Home Valley, White Salmon, Bingen, Lyle, Dallesport and Wishram in Washington.

The Vital Signs Indicators Project is the Columbia River Gorge Commission’s highest priority. To fulfill our responsibilities under the Scenic Area Act, the Commission and our partner agencies must be able to understand and track changes to the condition of gorge resources. The complexities of our region and the inter-relatedness of seemingly distinct issues make this task challenging, but no less necessary.

The Vital Signs Indicators Project has multiple goals:

1. Develop a set of high level measures to assess the conditions of gorge resources
2. Inform future plan review sessions, and guide adaptive management
3. Build new and strengthen existing relationships with our partner agencies and gorge communities
4. Share information through community presentations and a dedicated website

This report contains the high level measures of gorge health identified in the first goal listed above and what we know about them using the most current available information. The measurements were developed through a transparent public process with the help of two chartered teams (a technical advisory team as well as a community advisory team composed of experts, residents and other stakeholders in the gorge), involvement by our partner agencies and with independent oversight from the Institute of Natural Resources. Additionally, the Commission’s Assessment Committee provided guidance throughout the process. The information included in this report relies heavily on work done by our partner agencies, Forest Service and Commission staff. It serves as the starting point for future reporting to track changes in condition over time, enabling more informed and proactive management decisions.

A letter from the chair

The Columbia River Gorge has a rich and storied history – historic home of native people; exploration pathway for European settlement; salmon lifeline; agricultural gem; scenic wonderland; hydroelectric power provider; and, most recently, recreational mecca. Without doubt, the gorge is one of the special places on earth.

In 1986, Congress recognized that the gorge needed protection if it was to remain special, enacting the Columbia River Gorge National Scenic Area Act. This law created an expectation that the scenic, natural, cultural and recreational qualities of the gorge would be protected and enhanced while allowing economic development to occur in ways that did not denigrate its special qualities. The Columbia River Gorge Commission was created to carry out this mission.

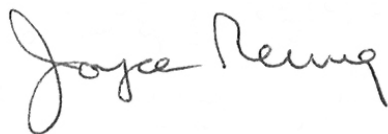
The release of *Vital Signs Indicators Project – State of the Gorge 2009* marks the beginning of a new era for the Gorge Commission. For the first time in its history, the Commission will have information that assesses and tracks the overall health of the gorge over the long term. The report provides us with a set of facts about key issues in the gorge. For the first time, we know how much visible development is increasing, the degree to which environmental degradation is occurring in recreation areas, and the status of at-risk plants in the gorge.

The release of this first report is just the beginning of our journey toward understanding the issues affecting the long term health of the gorge. We need to continue to evaluate this new information to address scenic, natural, economic, cultural and recreation issues or concerns in a timely manner. We also need to develop indicators for the remaining topics that are not included in this first report. Finally, the Commission will need to decide whether or not to set goals or identify potential thresholds for the Vital Signs once we have a better understanding of current conditions.

The creation of the Vital Signs provides the Commission with the opportunity to better understand the effectiveness of its efforts to protect and enhance gorge resources. Along with the Vital Signs, the Commission is developing a set of agency performance measures that will allow us to judge our performance in carrying out the strategies that have been put in place. Together, this information will be used to inform the next update of the National Scenic Area Management Plan.

I want to thank all the individuals who devoted their valuable time and energy to this effort. In my 22 years on the Commission, I have never seen a more inclusive and transparent process than the development of this report. This Vital Signs Indicators Project would not have been possible without the collaborative involvement of the Forest Service, the treaty tribes, our stakeholders and partner agencies and the citizens of Oregon and Washington. Assessment Committee Chair Dan Harkenrider, Technical Advisory Team Chair Susan Wolff and Community Advisory Team Chair North Cheatham deserve special recognition for their leadership in this process.

In five years, I expect to be able to look back at the publication of this report as a milestone for the Columbia River Gorge Commission in focusing on the long term health of the gorge and the contributions the organization makes to that health.



Joyce Reinig
Chair, Columbia River Gorge Commission

A letter from the director

What is happening with the SNECRs (scenic, natural, economic, cultural, recreation resources)? Ever since I became the executive director of the Gorge Commission, finding out how the scenic, natural, economic, cultural and recreation resources in the gorge were faring has been my highest priority. The *Vital Signs Indicators Project – State of the Gorge 2009* report provides the Commission with its first set of clues to answer that question.

Despite its slim appearance, *Vital Signs Indicators Project – State of the Gorge 2009* contains a great deal of new information. Of the 24 indicators included in this report, only five had data that was available “off the shelf.” Thirteen required staff to perform extensive analysis on existing information to create useful information, and six others had to be developed from scratch. With few exceptions, data is simply not collected that is specific to the National Scenic Area.

No doubt this report will raise more questions than it answers. Is, for instance, an eight percent increase in visible development over a 15-year period something to be concerned about? Or is the fact that 20% of recreation sites are considered significantly environmentally degraded an issue? Or what to do about the fact that only three of 14 landscape elements in the gorge are considered to be high functioning?

Challenging, yes, but for the first time commissioners and stakeholders will be discussing a mutually agreed upon set of facts that paint the big picture when deciding a future course of action on a particular issue. As indicators consultant Jeff Tryens likes to say, “This report won’t end the bickering about what’s best for the gorge but, from now on, you can argue about the meaning of facts rather than relying on anecdotes.”

When I decided to throw this party, I wondered whether anyone would come. I am happy to say that the engagement by everyone involved in the development of this report has been extraordinary. The Community Advisory Team had almost as many members at its last meeting that it had at its first. Technical Advisory Team members provided their uncompensated expertise until the job was done. Commission Assessment Committee members provided valuable on-going guidance. And Commission staff performed admirably in the unaccustomed role of data developers. A special thanks goes to lead planner Angie Kenney for her ability to keep everyone on board and on task despite some very challenging conditions. See the acknowledgements page for a complete list of participants.

What next? Successful completion of the Vital Signs Indicators Project remains the Gorge Commission’s highest priority. Trying budgets may slow the process down but this report will most certainly not become one of those reports “gathering dust on a shelf.” The Commission will use the information to better inform itself about key issues that need to be addressed in the next update of the management plan. Adaptive management strategies will be developed to respond to issues flowing from the report. And agency performance measures that were created as part of this process will allow staff resources to be deployed more strategically. In the coming months we will begin developing data for the indicators scheduled for the second phase of the project.

Tracking these indicators over time will provide invaluable information about trends in gorge resource health. The more we and our partners use this data the better it will become. As new information becomes available, it will be posted on the Commission website. I urge every stakeholder and interested citizen to dig into this information, including all the linked back-up material, to raise questions, post theories and make suggestions for improving how the Commission goes about its business.



Jill Arens,
Executive Director, Columbia River Gorge Commission

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Executive Summary

This report is designed to provide readers with a succinct overview of what is known about the current conditions of scenic, natural, economic, cultural and recreation resources (SNECRs) in the Columbia River Gorge National Scenic Area. With a continued effort in collecting this data, the information contained in this report will serve as a point from which to track change in conditions over time. A team of experts, citizens and stakeholders volunteered their time to help craft 51 measures that they believe can tell the story of how the gorge is faring over time. These measures are known as the Vital Signs Indicators.

Engaging in a process known as civic science, groups of technical experts and gorge citizens spent six months working together to hone a set of measures that was both technically sound and meaningful to the public. The typical “scientists propose/citizens oppose” scenario was replaced by experts and citizens working together from the beginning to identify what mattered. While interactions between the Technical Advisory Team (TAT) and the Community Advisory Team (CAT) were sometimes quite lively, the final set of indicators was enthusiastically adopted by both groups.

State of the Gorge 2009 presents data on 23 of the highest priority Vital Sign Indicators. At least a few indicators are included for each of the five SNECRs. Much of the information is brand new; either because this is the first time the data has been gathered (like number of buildings seen from selected public vantage points) or because existing data was reinterpreted to focus on the National Scenic Area, like per capita income. Some of the measures, as noted, are proxies for the original TAT/CAT measures. This is because the specific data needed to answer the original measure simply was not available. The proxy measures provide an overview of the most relevant information that is currently available while staff works toward developing new data to answer the original measure or refining the measures to provide us with better information.

What story do the measures tell? Since the indicators were chosen, at least partially, to measure areas of concern, the challenges they identify should come as no surprise in hotly contested areas like environment and scenic quality. What may surprise you is how little is known about very important aspects of gorge health. For instance, no scientific consensus exists regarding air quality trends. No clear methodology is available for gauging the overall condition of gorge cultural resources. Assessments of the condition of at-risk species in the gorge are limited to plants and are spotty at that.

State of the Gorge 2009 is not a “report card” on the health of the gorge. It is simply a report on what is known about key issues related to the long term health of the five gorge resource areas identified in the National Scenic Area Act.

The information for each of the five resource areas tells a somewhat different story.

Scenic Resources – The scenic resource story is about establishing a base for future comparison. This chapter provides new information on three important scenic resource issues: 1) the amount of development that noticeably contrasts with its surrounding landscape; 2) the amount of visual impairment of views caused by vegetation; and 3) the amount of development within landscape types.

Natural – The natural story is that most of the indicators show the resource functioning at varying levels of capability. The natural resources section provides information on five issues: terrestrial habitat quality, aquatic habitat quality, surface water quality, air quality and the condition of at-risk plant species in the gorge. This information is derived from existing sources. All of the natural indicators incorporate some standard relating to good quality (e.g. habitat types that are “properly functioning”). For all of the indicators, except air, the data shows that the current situation is less than good in the majority of cases.

Economic – In the economy arena, the gorge story is similar to that of its host states. This area has the most indicators in this report, six, and the most indicators with data available over multiple years. Issues covered include income, building activity, agricultural use of land and housing affordability. Much of the information is reported for the first time at the NSA level. Generally, the economic well being of NSA residents and the economies of the four rural gorge counties mirror state trends but the data show significant variation among counties.

Cultural – Because of the vast cultural significance of the gorge we continue to learn more about its past every day. Assessing the condition of archaeological resources that have been here for millennia and historic resources that vary greatly in type is a complex task. We learned there is no consensus among experts on a straightforward methodology for consistently gauging the condition of cultural resources. Two salient facts are known: the number of significant resources identified and the number of known resources damaged by development. The data shows that an average of five new archaeological and three new historic resources are identified each year. Also no significant sites were damaged due to development in the past two years.

Recreation – The story in recreation is the need for an understanding of what “good” is. The section covers four recreation related issues: overcrowding, environmental degradation, disability access and visitor experience. Data for the first three topics are derived from a new survey completed by the Commission in 2008. The visitor experience indicator is drawn from five surveys conducted by the Forest Service and the two US Army Corps of Engineers dams in the gorge. The Commission survey of all gorge recreation providers, another first of its kind, showed that about 1/5 of all sites are overcrowded more than 30% of the time in high season. Twenty percent of sites were deemed to have significant human-caused environmental damage. Also, about 50 percent of all sites meet at least one Americans with Disability Act requirement.

The development of this information is an important first step but it’s just the beginning. Understanding what the information is saying about the condition of gorge resources is the next task. Is a half percent per year increase in noticeably contrasting visible development in rural areas of the gorge tolerable? How serious are the problems with watersheds that are deemed impaired? What’s the Commission’s role in addressing problems raised by the report?

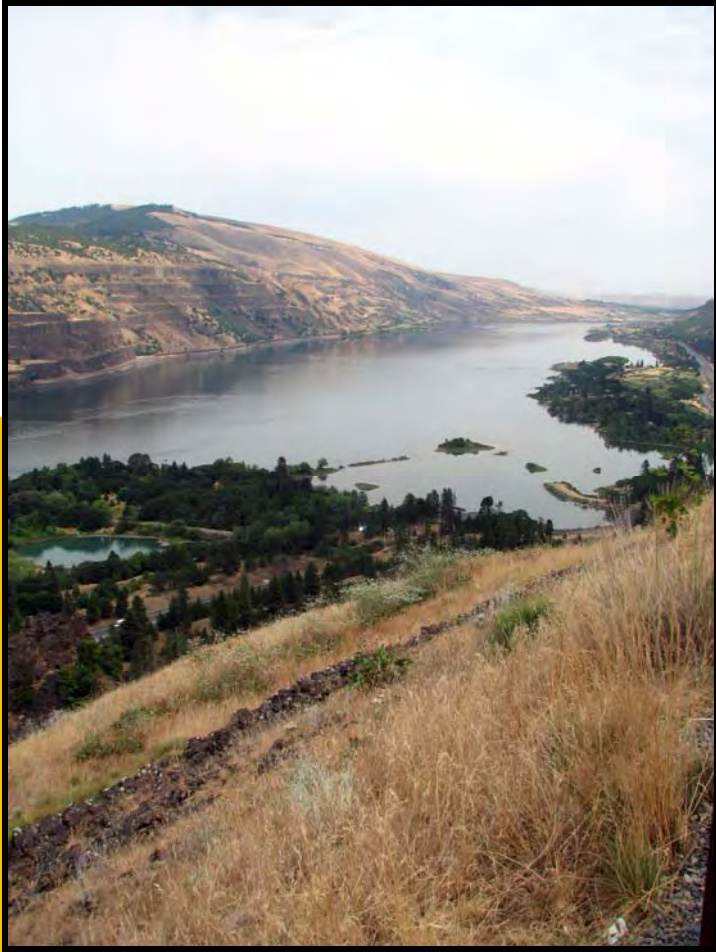
Over the next several years, the Commission will work with stakeholder groups, agency partners, tribal nations, experts and interested citizens to answer these and the many other questions raised by this important report.

Comprehensive list of all 51 Vital Signs Indicators

Goal	Indicator	Status
Scenic: Protect and enhance scenic resources		
	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.	2011
	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.	2011
	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.	2009
	1.1.d: Vantage Point Quality: Number of scenic observation points with significantly impaired panoramic views due to vegetation.	2009
	1.1.e: Litter and Graffiti Impacts: Percent of highway miles with significant graffiti or litter.	2011
	1.1.f: Night Light: The effect of ambient light on the night sky.	2011
	1.1.g: Visibility: Placeholder for visibility indicator.	Summary in 2009
	1.2.a: Overall Landscape Quality: Percent of each landscape type that is in good condition.	2011
	1.2.b: Development Impacts: Percent of land area with development for each landscape type.	2009
Natural: Protect and enhance natural resources		
	2.1.a: Habitat Quality: Percent of priority habitat types rated as properly functioning.	2009
	2.1.b: Habitat Fragmentation: Percent of priority habitat types that are lost or fragmented by human activity.	2011
	2.1.c: Species Health: Percent of at-risk species whose populations in the gorge are healthy.	2009
	2.1.d: Species Range: Percent of native species (wildlife, plants, invertebrates) with ranges that are declining.	2011
	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.	2009
	2.2.b: Habitat Quality: Percent of native fish habitat that is properly functioning.	2009
	2.2.c: Surface Water Quantity: Percent of streams with satisfactory in-stream flows.	2011
	2.2.d: Groundwater Quantity: Square miles of groundwater restricted areas.	2011
	2.2.e: Groundwater Quality: To be developed.	2011
	2.3.a: Air Quality: To be developed.	Summary in 2009
Economic: Protect and support the economy		
	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.	2009
	3.1.b: Job Growth: Net job growth: a) Oregon side and b) Washington side.	2009
	3.1.c: Construction: Building permits issued by urban area: a) housing, b) commercial, and c) industrial.	2009
	3.1.d: Vacancy Rate: Commercial vacancy rate by urban area.	2011
	3.1.e: Housing Affordability : Percent of households that can afford the median priced house.	2009
	3.2.a: Activity: Total number of a) agriculture and b) forestry enterprises.	2011
	3.2.b: Revenue: Total revenue of a) agriculture and b) forestry enterprises.	2011
	3.2.c: Payroll: Total payroll of a) agriculture and b) forestry enterprises.	2011
	3.2.d: Land Base: Total acreage in a) agriculture uses and b) forest uses.	2009

	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.	2009
	3.3.b: Job Growth: Net job growth in rural areas: a) total; b) Oregon side; c) Washington side.	2011
	3.3.c: Construction: Building permits issued in rural centers and non-urban areas: a) housing, b) commercial, and c) agricultural.	2009
	3.3.d: Activity: Number of rural and rural center enterprises: a) total; b) Oregon side; c) Washington side.	2011
Cultural: Protect and enhance cultural resources		
	4.1.a: Condition: Percent of all monitored archaeological sites in good condition.	2009
	4.1.b: Awareness: Percent of stakeholders understanding the archaeological resource protection process.	2011
	4.1.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of archaeological resources.	2011
	4.1.d: Inventory: Number of new significant archaeological resources identified each year.	2009
	4.2.a: Condition: Percent of all monitored historic resources in good condition.	2009
	4.2.b: Awareness: Percent of stakeholders with understanding of historic resource protection process.	2011
	4.2.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of historic resources.	2011
	4.2.d: Inventory: Number of new significant historic resources identified each year.	2009
	4.3.a: Condition: Percent of all monitored traditional cultural properties in good condition.	2011
	4.3.b: Awareness: Percent of stakeholders understanding the traditional cultural properties protection process.	2011
	4.3.c: Awareness: Percent of residents of and visitors to the gorge understanding the importance of traditional cultural properties.	2011
	4.3.d: Inventory: Number of new significant traditional cultural properties identified each year.	2011
Recreation: Protect and enhance recreation resources		
	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.	2009
	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.	2009
	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.	2011
	5.1.d: ADA Accessibility: Percent of recreation sites that meet ADA standards - total and by recreation activity type.	2009
	5.2.a: Recreation Quality: Percent of visitors and residents rating the overall recreational qualities of the Gorge as good or better.	2011
	5.2.b: Recreation Site Quality: Percent of site users rating their overall experience as good or better - total and by recreation site.	2009
	5.2.c: Recreation-related Conflicts: Number of reported incidents relating to recreational uses by type of incident.	2011

Please note that both of the air quality indicators are discussed in one summary, included in the natural resources chapter. In total, 24 of the 51 Vital Signs Indicators are discussed in this report.



Angie Kenney



Daniel Otake



Columbia River Gorge Commission