

TO: Columbia River Gorge Commission

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RE: **Work Session***: Vital Sign Indicators Program: Progress Report for Draft Recreation Indicators

Purpose

This report provides an overview of the draft indicators developed for the Recreation Vital Sign topics described in the August 2021 VSI Scenic and Recreation Progress Report. These Recreation Vital Sign topics include Visitor Experience, Recreation Equity, and Recreation Impacts on Other Protected Resources. Staff welcomes questions and feedback on draft recreation indicators included in this report. During the December 13th Commission meeting, staff requests the Commission’s approval to move forward with draft recreation indicators, incorporating modifications as needed based on Commission and public input.

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I. Overview of Recreation Monitoring in the National Scenic Area

Recreation managers have monitored recreation use in the Gorge since the early 1990s, though the comprehensiveness of that monitoring data is varied. Data sources include guest book

signatures, comment cards, campsite booking data, parking lot car counts, visitor counts, and surveys administered online and in-person. Recreation use is also considered in economic studies of the area, including a 2011 report completed for the National Scenic Area (NSA) as part of the initial VSI effort. In addition, the Gorge Commission participates in the Interagency Recreation Team, which in 2015 produced a comprehensive report on recreation use in the National Scenic Area.

Since 2006, the USDA Forest Service has conducted thorough surveys on recreation use through the agency's National Visitor Use Monitoring (NVUM) program. NVUM reports on total visitation to Forest Service units, types of recreation use, demographics of recreation users, and satisfaction with recreation experiences. This survey is conducted every five years, with the last survey occurring in 2021. NVUM is the most comprehensive data source on recreation use and experience in the National Scenic Area; however, it only applies to National Forest System lands and cannot be extrapolated to represent all recreation lands in the NSA.

Currently, there is no comprehensive data on recreation site quality or on recreation impacts to other protected resources. Some data may indicate where these recreation impacts occur, such as trail maintenance reports, though to date, comprehensive impact analysis at a landscape scale has not been conducted. The draft indicators described in this report fill a critical information need by integrating existing visitation and visitor satisfaction datasets across public land ownership and establishing a new spatial dataset focused on unofficial trails and impacts on cultural, natural, and scenic resources.

II. Summary of 2021-2022 Recreation Vital Sign Indicators Update Process

The Vital Sign Indicators (VSI) program evaluates the long-term health of scenic, natural, cultural, and recreation resources, and local economies, of the Columbia River Gorge National Scenic Area (NSA). Vital Sign Indicators are measures of trends and conditions that assess how well we are protecting and enhancing National Scenic Area resources. Building on the original 2009 VSI effort, the Commission and USDA Forest Service initiated work on a comprehensive VSI update in 2021. See [Appendix A](#) for VSI monitoring definitions used in this report.

Commission staff has worked with a variety of partners across the NSA to develop the draft recreation indicators recommended in this report. Below are key milestones in this process:

- **Framework for Updating Vital Sign Indicators:** In February 2021, staff presented the VSI Assessment to the Commission, a comprehensive summary of key themes from informational interviews with Forest Service and Commission staff involved in the original VSI effort, as well as various agencies, organizations, and other specialists involved in monitoring across the region. See pages 19-21 in the [VSI Assessment](#) for discussion of recreation.
- **Recreation Vital Sign Topics:** In August 2021, staff presented priority recreation Vital Sign topics for indicator development: Recreation Opportunities and Visitor Experience; Equity and Access; and Recreation Impacts on Other Protected Resources. At that time, the

Commission approved moving forward with these topics. Two Recreation Vital Sign titles from the August 2021 staff report have been simplified to clarify and narrow the scope of what we will focus on initially: “Recreation Opportunities and Visitor Experience” is now “Visitor Experience,” and “Equity and Access” is “Recreation Equity.” Visitor Experience indicators will still encompass different forms of recreation by looking at participation in different recreation activities and overall visitor satisfaction. Both “equity” and “access” can mean different things to different people, and staff felt it was more straightforward to simplify this Vital Sign title by focusing on equity to start. For more background information on each recreation Vital Sign topic, see pages 7-10 in the [August 10, 2021 VSI Scenic and Recreation Resources Progress Report](#).

- **Draft Recreation Indicators:** Building from Commission and public feedback at the August 2021 meeting, staff worked with many recreation partners over the past year to explore potential indicators and available datasets. This fall, staff convened two VSI recreation indicator work sessions to further refine and prioritize indicators based on Commission-approved criteria. These sessions involved various agencies, organizations, and research institutions including USDA Forest Service, Washington State Parks, Oregon Parks and Recreation Department, Washington Trails Association, US Fish and Wildlife Service, Army Corps of Engineers, Columbia Gorge Tourism Alliance, West Virginia University, USDA Forest Service Pacific Northwest Research Station, and others.

The draft recreation indicators described in this report reflect input from these work sessions and are also informed by ongoing collaboration with regional recreation networks including the Columbia River Gorge Interagency Recreation Team, Gorge Stewardship Network, and Columbia Gorge Tourism Alliance.

III. Draft Recreation Vital Sign Indicators

A summary of the rationale, selection process, and description of draft recreation indicators is included in this section.

Rationale for Draft Recreation Vital Sign Indicators

Vital Sign: Visitor Experience

Indicators: 1. Visitor Satisfaction
2. Visitation

Rationale: The Management Plan directs the Forest Service and Gorge Commission to provide a diversity of high-quality, resource-based recreation opportunities that are accessible to all. Guided by this goal, staff recommend tracking (1) visitation estimates both on National Forest System lands and other public recreation lands as contextual trend information and (2) visitor satisfaction to assess how well we are providing high quality recreation experiences in the NSA. Reporting will include available demographic characteristics noted in the Management Plan (race, ethnicity, income

level, gender, ability, and age) where possible which also supports recreation equity described below.

Vital Sign: Recreation Equity

Indicators: 1. Percentage of Recreation Sites and Trailheads Accessible via Public Transportation
2. Percentage of Recreation Sites and Trailheads Requiring Access Fees

Rationale: Drawing from the definition of “equity” described in the Commission’s Draft Diversity, Equity, and Inclusion (DEI) Strategic Plan, staff is proposing recreation equity indicators focused on “eliminating barriers that have prevented the full participation of historically and currently oppressed groups.” Barriers are multidimensional and can range from not feeling welcome and safe to the cost of permits. As a starting point for VSI, staff recommends looking at two known barriers with available data, transportation and fees, while continuing to work with partners to better understand and address other barriers to visitation among diverse communities.

Vital Sign: Recreation Impacts on Other Protected Resources

Indicators: 1. Extent and Distribution of Unofficial Trails
2. Extent and Distribution of Official System Trails
3. Resource Impact Index (TBD)

Rationale: The Management Plan requires protection of natural, scenic, and cultural resources, and provision of diverse recreation opportunities. Population growth, high public interest in outdoor recreation, and robust tourism marketing efforts in the Pacific Northwest region are major drivers of recreation use in the Gorge. Climate change is expected to increase demand for water-based recreation and overall use during shoulder seasons as temperatures warm and snowfall decreases. When deciding which type of recreation use to focus on for this Vital Sign, staff and partners considered that ecological impacts, such as vegetation loss, human waste, and erosion, as well as impacts to cultural resources, are often more associated with unofficial trails, rather than developed site use.

The term, “unofficial trails,” refers to trails that exist on the landscape but are not part of the formal trail system that is purposefully planned, built, and managed. Unofficial trails can include the following: paths that develop as the unintended consequence of people walking to an interesting destination, rogue trails built without land manager approval, decommissioned roadbeds, and other pathways that people use that exist outside of the official trail system. (Definition adapted from Silver Star Area Vision Plan working draft developed through collaboration with USDA Forest Service, WA Department of Natural Resources, and other stakeholders.)

Staff recommends starting with an inventory of unofficial trails because hiking is consistently the highest reported recreation activity on National Forest System lands within the National Scenic Area, according to NVUM reports. Monitoring the nature, location, and extent of unofficial trails provides the Gorge Commission, Forest Service, and other recreation managers with information that can inform trails management and future sustainable trails planning and development to ensure that we are meeting the Management Plan's resource protection management goals while providing recreation opportunities. Details about these indicators are included in the summary table that follows.

Indicator Selection Process

Staff reviewed potential recreation indicators to determine whether each met Commission-approved indicator selection criteria listed in [Appendix B](#). All recommended indicators in **green** in the summary table on the following page are considered "high" feasibility indicators (met 6-7 criteria) and will have data available to begin implementation in 2023. Additional notes on one indicator, "Resource Impact Index," are included in **orange**, reflecting staff's suggestion that this is important to pursue and requires Forest Service capacity to implement. Forest Service and Commission staff plan to finalize the monitoring protocol for this index after the unofficial trails dataset is complete in 2023.

Draft Recreation Indicators: Summary Table

Management Plan Provisions	Vital Sign	Draft Indicators	Description and Status
<p>Provide a diversity of resource-based recreation opportunities that are accessible to all segments of the public that emphasize the quality of the recreation experience meeting present and future needs by protecting and enhance the natural, scenic, and cultural resources and support economies of local communities.</p>	<p>Visitor Experience</p>	<p>Visitation (National Forest System Lands in NSA)</p>	<p>This indicator tracks visitation estimates for different types of Forest Service recreation sites within the NSA (e.g., day use, overnight, wilderness, etc.). Data provided through National Visitor Use Monitoring (NVUM) program. Data available from 2006-2021 and reported out every 5 years (next report in 2026). Includes demographic analysis (e.g., race, ethnicity, gender, age, and income).</p>
		<p>Visitation (Non-National Forest System Public Lands in NSA)</p>	<p>This indicator tracks annual visitation estimates at non-Forest Service public lands recreation sites within the NSA with available car count and campground reservation data. Currently, this includes WA and OR State Parks, Bonneville and The Dalles Lock & Dam sites, and Spring Creek and Little White Fish Hatcheries. Data is available by month, and historic data availability varies by agency.</p>
		<p>Visitor Satisfaction (National Forest System Lands in NSA)</p>	<p>This indicator measures how satisfied visitors are overall with their visits to Forest Service sites within the NSA. Data available through NVUM.</p>
		<p>Visitor Satisfaction (Non-National Forest System Public Lands in NSA)</p>	<p>This indicator measures how satisfied visitors are overall with their visits to non-Forest Service public lands recreation sites in the NSA. WA and OR State Parks will be the initial focus for this indicator based on availability of comprehensive datasets for campground use. Staff will continue to work with partners to explore other public land visitor satisfaction data in the NSA as they become available.</p>

Management Plan Provisions	Vital Sign	Draft Indicators	Description and Status
<p>Provide equitable and accessible (regardless of income level, ethnicity, gender, ability, or age) resource-based recreation opportunities.</p>	<p>Recreation Equity</p>	<p>Percentage of Recreation Sites and Trailheads in the NSA Accessible via Public Transportation</p>	<p>This indicator tracks the percentage of recreation sites and trailheads in the NSA that are accessible via public transportation. Data available through Columbia Gorge Tourism Alliance, Ready Set Gorge project and can be reported annually.</p>
		<p>Percentage of Recreation Sites and Trailheads in the NSA Requiring Access Fees</p>	<p>This indicator tracks the percentage of recreation sites and trailheads in the NSA that require an access fee. These are generally day use or annual parking passes issued by each agency, though some specific recreation sites may have per-visit fees. Data available from managing agencies.</p>
<p>Protect scenic, natural, cultural, and recreation resources when providing new recreation opportunities.</p> <p>Collaborate with partner agencies and stakeholders to develop management strategies and actions to protect and enhance natural, scenic, and cultural resources from overuse at popular recreation sites and trails.</p>	<p>Recreation Impacts on Protected Resources (Cultural, Natural, and Scenic)</p>	<p>Extent and Distribution of Unofficial Trails (All Public Lands in NSA)</p>	<p>This indicator measures the total miles and spatial distribution of unofficial trails on public lands within the NSA. Unofficial trails data will be overlaid with natural and cultural resource data. Work is underway with the USDA Forest Service, Washington Trails Association, and Trailkeepers of Oregon to complete a dataset of unofficial trails that will serve as the baseline for this indicator, starting with data available from online mapping applications (e.g., Strava, TrailForks, Gaia, etc.). The final dataset will inform trails management and future sustainable trails planning and development. Frequency of reporting is anticipated to be every 3-5 years.</p>
		<p>Extent and Distribution of Official System Trails (All Public Lands in NSA)</p>	<p>This indicator measures the total miles and spatial distribution of official system trails on public lands in the NSA. This dataset will be integrated with the unofficial trails data and natural and cultural resource layers to inform trails management and future sustainable trails planning and development.</p>

Management Plan Provisions	Vital Sign	Draft Indicators	Description and Status
		Resource Impact Index (To be developed)	<p>This index measures the impacts of unofficial trails on cultural, natural, and scenic resources through key metrics (e.g., loss of vegetation and presence of human waste) that will be finalized after the extent and distribution of unofficial trails dataset is complete. Forest Service and Commission staff plan to develop a monitoring protocol to deploy on National Forest System lands in the NSA that can also be used by partner agencies.</p>

IV. Next Steps for Indicator Development and Implementation

- Staff will work with partners to finalize monitoring methodologies for recreation Vital Sign Indicators and begin implementation in mid-2023.
- Staff will work with Forest Service Cultural Heritage Program staff and Tribes on cultural resource indicators and anticipate sharing a progress report in April 2023.
- A comprehensive VSI list will be presented to the Commission in summer 2023.

V. Topics for Commission Consideration

Does the Commission support moving forward with the draft recreation indicators in the summary table on pages 6-8 of this report?

Appendix A: VSI Monitoring Definitions

Management Plan Goal: A goal included in the text of the Columbia River Gorge National Scenic Area Management Plan.

Desired Condition: *To be developed.* (Example: Often a statement of aspiration that describes resource conditions the USDA Forest Service and Gorge Commission strive to achieve and maintain to meet Management Plan goals.)

Management Question: A priority question or information need identified by the Gorge Commission and USDA Forest Service to support implementing the Management Plan.

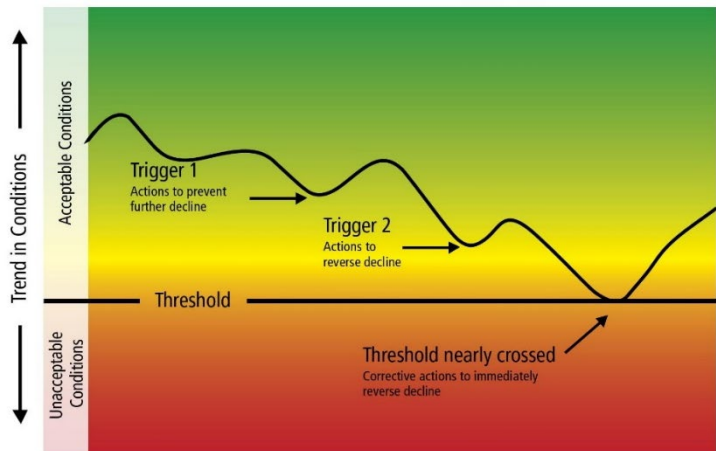
Vital Sign: The topic for a high-level indicator. Represents important attributes or components of protected resources that guide assessment of progress toward Management Plan goals and desired conditions (e.g., visitor experience). Each Vital Sign is represented by one or more indicators.

Indicator: A brief description of what is being measured (e.g., visitor satisfaction).

Metric: The specific measurement method or unit of measurement for an indicator (e.g., percentage of NSA visitors surveyed through NVUM who are “very satisfied” with the condition of the trails).

Threshold: *To be developed.*
(Example: A minimally acceptable condition associated with each indicator, typically based on physical, biological, or social conditions.)

Trigger: *To be developed.* (Example: A condition of concern for an indicator that is enough to prompt a management response to ensure that desired conditions continue to be maintained before the threshold is crossed.)



Appendix B: Indicator Selection Criteria

In February 2021, the Commission approved the following criteria to guide selection of updated indicators across all VSI topic areas including climate change, natural resources, scenic resources, cultural resources, recreation, and economic vitality.

1. **Measurable:** Indicators should be directly measurable through repeatable quantitative or qualitative methods.
2. **Relevant to management actions:** Indicators should provide information on the condition of protected resources related to specific Management Plan provisions.
3. **Clear:** Indicators should be understandable by the public and policymakers.
4. **Consistently available:** Indicator data should be reliably available over time to track long-term status and trends.
5. **Obtainable:** Indicator data should be available through existing monitoring programs whenever possible.
6. **Cost-effective:** Indicator data acquisition, analysis, and reporting should make efficient use of limited financial and staff resources.
7. **Additional Consideration:** While criteria 1-6 should be the primary criteria for selecting indicators, the ability of indicators to tell a *compelling story* that calls attention to the status of scenic, natural, cultural, and recreation resources, and economies, of the National Scenic Area, should also be considered.

Appendix C: Crosswalk of 2009 Recreation Vital Sign Indicators and 2022 Draft Recreation Vital Signs

This chart describes how the 2022 Draft Recreation Vital Signs highlighted in this report build upon the 2009 Recreation Vital Sign Indicators.

2009 Recreation Vital Sign Indicators								2022 Recreation Vital Signs
Objective	Vital Sign Number	Title	Measure	Proxy Measure	Year Reported	Connects to Management Plan Provision? YES/NO/UNCLEAR	Management Plan Reference and Notes	
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	Percent of surveyed recreation sites above capacity more than 30% of the time on high season days	2009	YES--Vital Sign topic connects with MP resource protection goals; Review of measure needed	Collaborate with partner agencies and stakeholders to develop management strategies and actions to protect and enhance natural, scenic, and cultural resources from overuse at popular recreation sites and trails.	Recreation Impacts on Other Protected Resources
	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	(1) Percent of each surveyed recreation site that is more than 10% environmentally degraded as a result of human activity and (2) percent that are (a) improving, (b) not changing, and (c) worsening.	2009	YES--Vital Sign topic connects with MP resource protection goals; Review of measure needed	Protect scenic, natural, cultural, and recreation resources when providing new recreation opportunities.	
	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		TBD in 2011	YES--Vital Sign topic connects with MP accessibility goal; Review of measure needed	Provide equitable and accessible (regardless of income level, ethnicity, gender, ability, or age) resource-based recreation opportunities.	Recreation Equity
	5.1.d	ADA Accessibility	Percent of recreation sites that meet ADA standards--total and by recreation activity type	Percent of surveyed recreation sites that meet one or more ADA accessibility standards	2009	YES--Vital Sign topic connects with MP accessibility goal; Review of measure needed		
5.2 Protect and Enhance the Quality of Recreation Experiences	5.2.a	Recreation Quality	Percent of visitors and residents rating the overall recreation qualities of the Gorge as good or better		TBD in 2011	YES--Vital Sign topic connects with MP recreation opportunities and experience goal; Review of measure needed	Provide a diversity of resource-based recreation opportunities that are accessible to all segments of the public that emphasize the quality of the recreation experience meeting present and future needs by protecting and enhance the natural, scenic, and cultural resources and support economies of local communities.	Visitor Experience
	5.2.b	Recreation Site Quality	Percent of site users rating their overall experience as good or better--total and by recreation site		2009	YES--Vital Sign topic connects with MP recreation opportunities and experience goal; Review of measure needed		
	5.2.c	Recreation-Related Conflicts	Number of reported incidents related to recreational uses by type of incident		TBD in 2011	NO	Site level management topic.	