

TO: Columbia River Gorge Commission

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DATE: April 12, 2022

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

Purpose

This report provides an overview of the draft indicators developed for the Draft Priority Scenic Vital Sign topics described in the August 2021 VSI Staff Report. These Scenic Vital Sign topics include Landscapes Visible from Key Viewing Areas, Landscape Settings, and Visibility. A summary of the VSI update process is included to ensure that Commissioners have background information on how draft indicators were selected.

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I. Summary of Scenic Indicator Development 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 (CRGNSA). Vital Sign Indicators are high-level measures that guide assessment of progress toward Management Plan goals. Building on the original 2009 VSI effort, the Commission and Forest Service initiated work on a comprehensive VSI update in 2021. Below are the main steps of the scenic indicator update process. (See [Appendix A](#) for definitions of monitoring program

terminology used in this report.)

- **Identify key management questions:** Starting with the 2009 VSI list of scenic indicators, staff compiled key management questions and possible Vital Sign topics based on review of the Gorge 2020 Management Plan revision process, informational interviews conducted for the VSI Assessment, and a joint USDA Forest Service and Commission staff work session in June 2021. (See [Appendix C](#) for details on how the draft scenic indicators in this report connect with the original 2009 indicators.)
- **Select priority Vital Signs:** In the summer of 2021, staff identified Vital Sign topics based on their clear connection to protected scenic resources and scenic standards in the Management Plan. Staff also considered factors such as agency opportunity to affect resource condition, land use stressors, and climate change impacts. In August 2021, staff presented this draft list of Scenic Vital Sign topics, and the Commission approved moving forward with these topics for indicator development. (See the [August 2021 VSI Program Scenic and Recreation Resources Progress Report](#) for details on the rationale for each Vital Sign.)
- **Develop indicators:** Based on Commission and public feedback at the August 2021 meeting, staff have been developing potential indicators for each Scenic Vital Sign. The following feasibility-focused criteria, approved by the Commission in February 2021, were used to guide indicator selection:
 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.

This report describes the draft scenic indicators identified through this selection process.

II. Draft Scenic Vital Sign Indicators

Staff reviewed potential scenic indicators to determine whether each met the above criteria. All recommended indicators in **green** in the summary table below are considered “high” feasibility indicators (met 6-7 criteria) and will have data available to begin implementation in 2023. Additional notes on a lower feasibility “Visual Subordinance” indicator are included in **orange**, reflecting staff’s suggestion that this is important to pursue yet requires additional capacity to implement.

Two Scenic Vital Sign titles from the August 2021 staff report have been modified slightly for clarity and simplicity: “Scenic Quality at Key Viewing Areas” is now “Landscapes Visible from Key Viewing Areas,” and “Landscape Setting Quality” is “Landscape Settings.” The Management Plan defines Key Viewing Areas as “those portions of identified important public roads, parks, or other vantage points within the National Scenic Area from which the public views National Scenic Area Landscapes.” Examples include specific viewpoints such as Crown Point and roads such as Highway I-84.

Background on Scenic Monitoring Approach

The recommended indicators for Landscapes Visible from Key Viewing Areas and Landscape Settings reflect protocols used by the USDA Forest Service Scenery Management System (SMS). SMS mapping protocols provide a systematic approach to inventory, assess, define, and monitor both existing and desired scenic resource conditions on National Forest System lands. The basic framework and definitions for the SMS have been in place for over 20 years and represent the Forest Service’s latest science in fulfilling its legal requirements for managing scenic resources and achieving high-quality scenery. Concepts and tools defined in the SMS are recognized and used beyond the federal government, although they are most widely used in the Forest Service.

Existing Scenic Integrity is an inventory of existing conditions and measures the degree to which the landscape attributes in the Landscape Setting character description are intact. The Visibility, or Seen Area map, measures degree of discernable detail as seen from Key Viewing Areas.

Visual Monitoring Point (VMP) photos will continue to be used as contextual information and support other monitoring processes. New VMPs have been added to include broader and more relevant views. In the future, it may be prudent to consider adding VMPs which overlap with KVA viewsheds and capture landscapes with high levels of landscape setting intactness.

Lastly, it is important to keep in mind that several priority habitats included in Natural Resource Vital Sign Indicators approved by the Commission in December 2021 overlap with landscape settings assessed through these Draft Scenic Vital Sign Indicators. For example, tracking extent and land use change across coniferous woodlands in the NSA also supports scenic integrity assessment for the coniferous woodland landscape setting. In this way, natural resources and scenic monitoring are mutually beneficial. (See [Appendix B](#) for a crosswalk of draft scenic indicators with other Vital Sign focus areas.)

Recommended Draft Scenic Indicators: Summary Table

The table below provides brief descriptions of **recommended draft scenic indicators** for the three Draft Scenic Vital Signs presented to the Commission in August 2021. After the Forest Service Existing Scenic Integrity and Seen Area maps are completed in late fall of 2022, staff will be finalizing the appropriate metric and methodology for each indicator below.

Management Plan Provision	Vital Sign	Draft Indicator	Description and Status
Emphasize protection and enhancement of National Scenic Area landscapes visible from key viewing areas (KVAs). (Scenic standards that development be visually subordinate and not visually evident as seen from KVAs.)	Landscapes Visible from Key Viewing Areas	<p>Intactness of Landscape Setting as seen from Key Viewing Areas</p> <p>Visual Subordinance</p>	<p>This indicator assesses if defining characteristics of the Landscape Setting are noticeably degraded as seen from KVAs. The USDA Forest Service is completing an Existing Scenic Integrity Map in 2022 that will be used, along with Seen Area Maps, as data sources for this indicator.</p> <p>Note: While the “Intactness” indicator above will help us determine whether we are protecting landscape views at KVAs, it will not on its own assess how well we are achieving scenic standards for visual subordinance. Staff feel this type of compliance monitoring is important and requires additional staff capacity to develop and implement. The Forest Service Seen Area Map which will help assess visibility as seen from KVAs.</p>
Maintain the diversity of Gorge landscapes to protect and enhance the Gorge's scenic beauty.	Landscape Settings	Intactness of Landscape Settings	This indicator assesses the defining characteristics of Landscape Settings and whether they are intact or degrading. An <i>intact</i> Landscape Setting retains the overall character of the landscape setting as described in the Management Plan. USDA Forest Service Existing Scenic Integrity Map will be used for this indicator.
Air quality shall be protected and enhanced, consistent with the purposes of the National Scenic Area Act. Coordinate with federal and state agencies on air quality and visibility in	Visibility	Haze (Approved as Natural Resource Air Quality indicator)	This indicator measures the number of days per year with visibility impairment. Also measures chemical composition of fine particulates (<2.5 um diameter). Data available through USDA Forest Service.

Management Plan Provision	Vital Sign	Draft Indicator	Description and Status
<p>the National Scenic Area and utilize the results of such monitoring in developing and updating the regional air quality protection and enhancement strategy described in SMA Natural Resources Wildlife and Plants Policy 15 (Part I, Chapter 3: Natural Resources).</p> <p>SMA and GMA guidelines requiring exterior lighting to be “sited, limited in intensity, shielded, or hooded in a manner that prevents light from being highly visible from key viewing areas and from noticeably contrasting with the surrounding landscape setting, except for road lighting necessary for safety purposes.”</p>	<p>Visibility</p>	<p>Light Pollution</p>	<p>This indicator measures how bright the night sky is directly overhead at strategic locations throughout the length of the NSA. By measuring artificial light at night, this indicator helps establish a baseline of current night sky quality as a foundation from which to evaluate change in nighttime visibility at specific KVAs. Plans to deploy a network of photometers to gather data for this indicator are underway in partnership with the Oregon Chapter of International Dark Sky Association. IDA Oregon will maintain equipment, compile data, and provide analysis in reports twice a year at no cost to CRGC and USFS. Staff are also working with IDA to explore the feasibility of night sky photography at select KVAs to assess effectiveness of lighting guidelines.</p>

III. Next Steps for Indicator Development and Implementation

- After field testing this spring, the USDA Forest Service Existing Scenic Integrity and Seen Area Maps will be complete in late fall 2022. Staff will then finalize scenic monitoring methodologies for the recommended indicators and begin implementation in 2023.
- Staff will continue to explore developing desired conditions, baseline conditions, and thresholds through an iterative process after Vital Sign Indicators are developed and approved.
- Based on the approved 2022 Commission Priorities Work Plan, staff will continue work on indicators for recreation, cultural resources, and economic vitality in phases throughout this year and present progress reports to the Commission.

IV. Topics for Commission Consideration

(1) Does the Commission support moving forward with further exploration of the recommended scenic indicators in **green** in the summary table on pages 4-5 of this report?

(2) Does the Commission have additional or different suggestions for measurable indicators that can help staff evaluate protection of scenic integrity over time?

Appendix A: 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 USFS and CRGC strive to achieve and maintain to meet Management Plan goals. In the case of Landscape Settings, the desired condition incorporates the defining characteristics of the landscape setting as described in the Management Plan.)

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

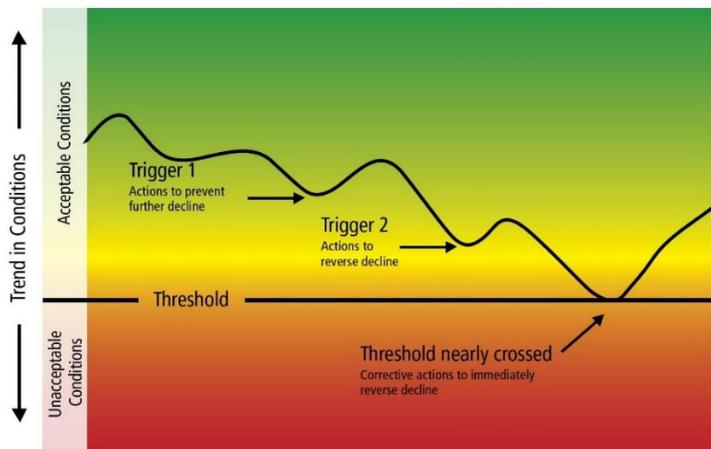
Vital Sign: The topic for a high-level indicator. Represents important attributes or components of protected resources that guide assessment of progress toward Management Plan goals and desired conditions (e.g., Landscapes Visible from Key Viewing Areas). Each Vital Sign is represented by one or more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

Indicator: A brief description of what is being measured (e.g., Intactness of Landscape Setting as seen from Key Viewing Areas).

Metric: The specific measurement method or unit of measurement for an indicator (e.g., landscape setting integrity rating from “low” to “very high”).

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: Crosswalk of Scenic Indicators with Other Protected Resources in the Management Plan

The chart below highlights how recommended scenic indicators connect with other Vital Sign focus areas including climate change, natural resources, recreation, cultural resources, and economic vitality. As a work in progress, this chart is not inclusive of all Management Plan implications; rather, it reflects overlap with Draft Natural Resource and Climate Change Vital Sign Indicators approved in December 2021, as well as connections to culturally important species identified through work on CCAP and VSI to date. Staff recognize the interconnected nature of many protected resources in the CRGNSA and anticipate that more overlap across Vital Signs will emerge as development of recreation, cultural, and economic indicators progresses.

Vital Sign	Draft Indicator	Scenic	Climate (Supports CCAP)	Natural	Recreation	Cultural	Economic
Landscapes Visible from Key Viewing Areas	Intactness of Landscape Setting as seen from KVA	●	●	●			
Landscape Settings	Intactness of Landscape Setting (Oak-Pine Woodland, Coniferous Woodland, and Grassland Landscape Settings overlap with approved natural resource indicators for these priority habitats.)	●	●	●		●	
Visibility	Haze (same as approved Visibility indicator for Natural Resources)	●	●	●			
	Light Pollution	●		●			

Appendix C: 2009 Scenic Vital Sign Indicators and 2022 Draft Scenic Vital Signs Cross-Walk Chart

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

2009 Scenic Vital Sign Indicators								DRAFT 2022 VSI Scenic Framework
Objective	Vital Sign Number	Vital Sign	Measure	Proxy Measure	Year Reported	Connects to Management Plan Provision? YES/NO/UNCLEAR	Management Plan Reference and Notes	Vital Sign
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		TBD in 2011	YES--Vital Sign topic; Perception is not part of MP; Review of measure needed	Scenic Quality captures four main scenic resource goals: Key Viewing Areas (KVAs), Landscape Settings, Scenic Travel Corridors, and Signs.	Landscapes Visible from Key Viewing Areas
	1.1.b	Development Impacts	Percent of seen area, as viewed from public vantage points, containing development that highly contrasts with its surrounding landscape: (1) within 1/4 mile; (b) between 1/4 and 3 miles; and (c) beyond 3 miles (use VMP photos)		TBD in 2011	UNCLEAR-- KVAs are in MP; Visual Monitoring Points (VMPs) are not; Review of measure needed		
	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 (used VMP photos)	Number of buildings, as seen from selected public vantage points, which noticeably contrast with their surrounding landscape	2009	UNCLEAR--Review of measure needed because type of buildings may be more useful than number to determine scenic impact (e.g., could have ag building that is compatible with landscape)		
	1.1.d	Vantage Point Quality	Number of scenic observation points with significantly impaired panoramic views due to vegetation		2009	YES--KVAs; Review of measure needed because this focused only on vegetation	Emphasize protection and enhancement of National Scenic Area landscapes visible from key viewing areas.	Visibility (Haze and Light Pollution)
	1.1.e	Litter and Graffiti Impacts	Number of scenic observation points with significant graffiti or litter		TBD in 2011	UNCLEAR--Review of measure needed		
	1.1.f	Night Light	Effect of ambient light on the night sky		TBD in 2011	YES	SMA and GMA guidelines requiring exterior lighting to be "sited, limited in intensity, shielded, or hooded in a manner that prevents light from being highly visible from key viewing areas and from noticeably contrasting with the surrounding landscape setting, except for road lighting necessary for safety purposes."	
	1.1.g	Visibility	Placeholder for visibility indicator		Summary in 2009	YES	Air quality shall be protected and enhanced, consistent with the purposes of the National Scenic Area Act.	
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-		TBD in 2011	YES--Landscape Settings; Review of measure needed	Maintain the diversity of Gorge landscapes to protect and enhance the Gorge's scenic beauty.	Landscape Settings
	1.2.b	Development Impacts	Percent of each landscape type that is in good condition.	Percent of land area with development for each landscape type	2009	YES--Landscape Settings; Review of measure needed		