



Data Quality Standards for Visitor Use Monitoring

Natural Resource Report NPS/SWAN/NRR—2018/1685



ON THE COVER

Photograph at Brooks Falls in Katmai National Park and Preserve of people watching bears from the platform.
NPS

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Introduction

The purpose of this report is to document the standards, used by the Southwest Alaska Network (SWAN) for activities related to the collection, processing, storage, analysis, and publication of monitoring data as described in the Visitor Use Monitoring Protocol (Shepherd et al. 2018). The policies and procedures documented in this quality-assurance plan for activities complement the quality-assurance plans for other monitoring activities conducted by the SWAN and supplement the National Inventory & Monitoring Division Quality Management Plan (In Progress). The plan also serves as a guide for all SWAN and park personnel who are involved in protocol activities and as a resource for identifying memoranda, publications, and other literature that describe associated techniques and requirements in more detail.

Protocol Overview

Human activities are identified as an important agent of change in SWAN ecosystems (Bennett et al. 2006). Recreational use by visitors and guides presents two resource protection issues in the parks: (i) direct impact to physical resources, plant and animals from actions such as vehicle use and camping (e.g., Smith 2002; Smith and Johnson 2004; French 2007; Deur 2008; Fortin et al. 2016), and (ii) indirect impacts such as disturbance or displacement of wildlife from actions such as aircraft over-flights (Smith 2002; Smith and Johnson 2004; Bennett et al. 2006; Fay 2007). Because of the impacts that human recreation can have on the environment, visitor use was ranked as a Tier 1 vital sign for the SWAN (Bennett et. al. 2006). Management also placed importance on knowing when and where people were visiting the park. Visitor use counts provided by CUA activity reports provide a low-cost means of estimating the potential impacts to park resources. In addition, they provide parks with enough data to allocate NPS staff to areas of high use. The data are harvested from reports, rather than taken from direct observations in the field, and we have no estimate of uncertainty for the visitor use counts that the CUA activity reports provide.

Sampling Design

Information regarding the sampling design for the data harvest is provided in Table 1.

Table 1. Sampling design for Visitor Use monitoring in the SWAN.

Activity Group	Measure	Activity	Sampling Design	Revisit Design
Site Recon, Establishment, and Maintenance	—	—	—	—
External Data	1	Commercial Use Authorization Activity Reports	Targeted; commercial operators with permits to operate within the park(s) are required to submit activity report(s).	Data harvest every (1) year
Sensor Data	—	—	—	—
Field Sample & Specimen Collection	—	—	—	—
Laboratory Data	—	—	—	—

Data Quality Objectives

Data quality values and standards for implementation are provided in Table 2 and Table 3.

Table 2. Measurement Quality Objectives for Visitor Use monitoring in the SWAN.

Activity	Measure	Quality Indicator	Quality Objective
Site Recon	–	–	–
Site Establishment	1	Location Description Detail	Name of Visitor Use Monitoring Areas to be used by CUA permit holders in the activity reports.
Commercial Use Authorization Activity Reports	2	Trip Start and End Dates	The End Date is equal to or greater than the Start Date.
	2	Location (Visitor Use Monitoring Area)	Selection of location name is controlled through a dropdown list.
	2	Activity	Selection of primary activity is controlled through a dropdown list.

Table 3. Level of data protection required for Visitor Use monitoring in the SWAN.

Type of Data	Data Name	Level of Protection	Rules for Dissemination
Resource Data and Information	–	–	–
Location Data and Information	–	–	–
Personally Identifiable Information	Company Name	Legally Protected	Information by individual company will not be released.

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