

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

### **Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

## **1. General Description of Data to be Managed**

### **1.1. Name of the Data, data collection Project, or data-producing Program:**

Mirror Lake salmon growth rate - Lower Columbia River Restoration Action Effectiveness Monitoring

### **1.2. Summary description of the data:**

1) The purpose of this project is to measure changes in juvenile salmon habitat occurrence and health following restoration activities at the Mirror Lake Complex and Horsetail Falls in the Lower Columbia River and estuary. Parameters measured include habitat conditions such as vegetation, water temperature, and dissolved oxygen; salmon diet and prey availability; weight, length, growth rate, lipid content, genetic stock, and chemical contaminant exposure.

2) Lyndal Johnson (NWFSC FTE) is the project lead, and other primary staff involved are Sean Sol and Paul Olson (NWFSC FTEs) and Kate Macneale (NWFSC term employee), but the project also involves other NWFSC FTEs, other term employees, contractors, and staff from other programs (Environmental Chemistry) and Divisions (FE, CB), as well as staff from collaborating agencies (e.g., the Lower Columbia River Estuary Partnership).

3) The project involves field surveys in which parameters measured include habitat conditions such as vegetation, water temperature, and dissolved oxygen; salmon diet and prey availability; weight, length, growth rate, lipid content, genetic stock, and chemical contaminant exposure.

4) Specific products to be produced include annual reports for the Lower Columbia Estuary Partnership, and manuscripts in peer-reviewed journals.

5) Specific audiences include (but are not limited to) the Bonneville Power Administration and other federal, state, and local agencies involved with salmon recovery and environmental management in the Columbia Basin (e.g., EPA, Washington Department of Ecology, Oregon Department of Environmental Quality, the City of Portland), the NMFS regional office, and other agency and academic scientists.

6) This is a stand-alone project, but it is also a component of a larger action effectiveness monitoring program overseen by the Estuary Partnership.

7) This is an ongoing project with a soft completion deadline; however, there are specific tasks to be completed on a yearly basis.

Growth rates of juvenile chinook salmon as estimated from otoliths.

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2007-04-01 to 2012-09-20

**1.5. Actual or planned geographic coverage of the data:**

W: -123.2557, E: -123.2557, N: 46.1399, S: 46.1399

Lower Columbia River: Lower Columbia River

W: -122.8622, E: -122.8622, N: 46.0038, S: 46.0038

Sandy Island: Sandy Island

W: -122.7706, E: -122.7706, N: 45.6455, S: 45.6455

Portland Harbor: Portland Harbor, OR

W: -123.2505, E: -123.2505, N: 46.1389, S: 46.1389

Wallace Island: Wallace Island

W: -122.559, E: -122.559, N: 45.595, S: 45.595

Sand Island: Sand Island

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*

Other

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**

Metadata Contact

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****2.4. E-mail address:**

nmfs.nwfsc.metadata@noaa.gov

**2.5. Phone number:**

(206) 860-3433

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

Lyndal L Johnson

**3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

Yes

**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):**

1%

**5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Lineage Statement:

These data were collected and processed in accordance with established protocols and best practices under the direction of the projects Principal Investigator. Contact the dataset Data Manager in section 3 for full QA/QC methodology.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

These data were collected and processed in accordance with established protocols and

best practices under the direction of the projects Principal Investigator. Contact the dataset Data Manager in section 3 for full QA/QC methodology.

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

### 6.1. Does metadata comply with EDMC Data Documentation directive?

No

#### 6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)

### 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

#### 6.2.1. If service is needed for metadata hosting, please indicate:

### 6.3. URL of metadata folder or data catalog, if known:

<https://www.fisheries.noaa.gov/inport/item/18132>

### 6.4. Process for producing and maintaining metadata

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

## 7. Data Access

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

### 7.1. Do these data comply with the Data Access directive?

Yes

#### 7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

#### 7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

**7.2. Name of organization of facility providing data access:**

Northwest Fisheries Science Center (NWFSC)

**7.2.1. If data hosting service is needed, please indicate:**

No

**7.2.2. URL of data access service, if known:**

<http://www.ncei.noaa.gov>

**7.3. Data access methods or services offered:**

At this time, contact the Data Manager for information on obtaining access to this data set. In the near future, the NWFSC will strive to provide all non-sensitive data resources as a web service in order to meet the NOAA Data Access Policy Directive (<https://nosc.noaa.gov/EDMC/PD.DA.php>).

**7.4. Approximate delay between data collection and dissemination:**

360 days

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

No Delay

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

NCEI\_MD

**8.1.1. If World Data Center or Other, specify:****8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:****8.2. Data storage facility prior to being sent to an archive facility (if any):**

Northwest Fisheries Science Center - Seattle, WA

**8.3. Approximate delay between data collection and submission to an archive facility:**

365 days

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

The Northwest Fisheries Science Center facilitates backup and recovery of all data and IT components which are managed by IT Operations through the capture of static (point-in-time) backup data to physical media. Once data is captured to physical media (every 1-3 days), a duplicate is made and routinely (weekly) transported to an offsite archive facility where it is maintained throughout the data's applicable life-cycle.

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*