# comprehensive Data delivery README FILE

|  |  |
| --- | --- |
| **Study Section** | Study 9.14: Genetic Baseline Study for Selected Fish Species |
| **Study Component** | Fish Collections for Genetic Analysis |
| **Field Date Range** | May 31, 2013 – October 15, 2014 |

**Introduction:** The primary goals of this study are to acquire genetic material from selected fish species and characterize the genetic structure of Chinook Salmon in the Susitna River drainage. Study 9.14 is focused on species and habitats with the potential to be affected by construction and operation of the proposed Susitna-Watana Hydroelectric Project (Project) in Alaska.

Five specific objectives have been developed for Study 9.14, a few of which include multiple tasks. Fish collections for genetic tissue samples are the basis of the study and supports all five objectives. Data collected as part of these studies will be used to provide a baseline characterization of fish assemblages in the Susitna River in support of identification and evaluation of potential Project-induced effects on fish assemblages, and inform development of any necessary protection, mitigation, and enhancement measures.

**Data Summary:** While other FAQ studies, namely fish distribution and abundance (studies 9.5 & 9.6), collected genetics samples in support of study 9.14, ADF&G sampling teams also conducted surveys targeted at certain species and locations. Data was collected during targeted surveys as described in the 2013 and 2014 Regional Operating Plans with the exception of the variances reported in the ISR Part D.

The ADF&G fish collections for genetics have been adapted into the Susitna-Watana FAQ data template and the data structure consists of detailed information about the site (location, water quality) and fish collected (species, count, measurements). Data entry and data management followed the QA/QC protocol described in the Revised Study Plan and annual Operational Plans ultimately resulting in a relational database of ADF&G collections. These fish are not recorded in other FAQ databases; users considering all fish for distribution analysis could include the fish in this database.

Data have undergone 5 levels of data quality control (QC), named QC1 to QC5. The QC levels, briefly, are as follows:

* QC1–Field Review: Review of field forms before leaving the field, or the QC level of raw data collected via field equipment such as thermistors, cameras, GPS units, etc.;
* QC2–Data Entry: Data from paper forms are entered into an electronic format and verified;
* QC3–Senior Review: Final review by senior professional before submitting field data to AEA, or the QC level of raw data cleaned up for delivery to AEA;
* QC4–Database Validation: Tabular data files are verified to meet Project database standards;
* QC5–Technical Review: Data revision or qualification by senior professionals when analyzing data for reports.

**Data Organization:**  Fish collections for genetic analysis are organized as an MS Access relational database, accompanied by a data dictionary for information such as table and attribute descriptions.

**Software Considerations:** MS Access version 2003 or newer is needed for database use.

**Online Data Link:** <http://gis.suhydro.org/SuWa/09-FISH/9.14-GENE>/

File 9\_FAQ\_Database\_Data\_Dictionary\_20170630.pdf at <http://gis.suhydro.org/SuWa/09-FISH/00/FAQ_Data_Documentation/>

**Online Report Link:** AEA has prepared several documents with data pertaining to this study component for both studies 9.14 and fish distribution (studies 9.5 & 9.6). However, because database QC is an ongoing process, the most recent version of the data found through the hyperlink above may supersede the results reported in study documents. Copies of the datasets used for analysis in the ISR and SIR are available through the hyperlink found at the beginning of the results section (Section 5). To aid review, study documents using this study component are listed below. Each of these documents is accessible on AEA’s Project licensing website (<http://www.susitna-watanahydro.org/type/documents/>) or through FERC’s eLibrary system (<http://www.ferc.gov/docs-filing/elibrary.asp>), in Docket No. P-14241.

| **Title** | **Date** | **Description** | **Link** |
| --- | --- | --- | --- |
| Draft Initial Study Report for Study 9.14 | 2/3/2014 | This draft of the ISR summarized the study methods and variances during the 2013 study season, and presented preliminary data collected for Study 9.14. This draft ISR was later republished as Part A of the final ISR. | [Draft ISR for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.14_GENE_ISR_Draft.pdf) |
| Initial Study Report for Study 9.14 | 6/3/2014 | This document is the Initial Study Report (Parts A, B and C) for Study 9.14. Part A republishes the Draft ISR. Part B identifies supplemental information and errata in Part A. Part C presents study modifications and plans for completing the study. | [ISR Part A for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.14_GENE_ISR_PartA.pdf)  [ISR Part B for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.14_GENE_ISR_PartB.pdf)  [ISR Part C for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.14_GENE_ISR_PartC.pdf) |
| Final 2014 Implementation Plan for the Genetic Baseline Study for Selected Fish Species in the Susitna River, Alaska (2014 Regional Operational Plan) | 6/3/2014 | Describes the operational plan for implementing the study in 2014 (filed as part of ISR Part B). | [June 2014 TM for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.14_GENE_ISR_PartB.pdf) |
| Genetic Baseline Study for Selected Fish Species Study Plan Section (9.14) - 2014 Study Implementation Report | 11/4/2015 | Describes AEA’s progress in implementing the Genetic Baseline Study 9.14 from September 2013 through December 2014. | [2014-2015 SIR for Study 9.14](http://www.susitna-watanahydro.org/wp-content/uploads/2015/10/9.14_GENE_SIR1.pdf) |
| Response to Comments on the Initial Study Report, Study 9.14, Section 2.6.10 | 10/24/2016 | This document contains AEA’s responses to agency’s comments and study modification requests in regards to their review of the ISR. | [AEA ISR Comment Response for Study 9.14, Section 2.6.10](http://www.susitna-watanahydro.org/wp-content/uploads/2016/11/ISR_Response_OCT_2016.pdf) |
| Draft Initial Study Report for Study 9.5 | 2/3/2014 | This draft of the ISR summarized the study methods and variances during the 2013 study season, and presented preliminary data collected for Study 9.5. This draft ISR was later republished as Part A of the final ISR. | [Draft ISR for Study 9.5 (File 1)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.05_FDAUP_ISR_Draft_1_of_2.pdf)  [Draft ISR for Study 9.5 (File 2)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.05_FDAUP_ISR_Draft_2_of_2_App_A-D.pdf) | |

|  |  |  |  |
| --- | --- | --- | --- |
| Draft Initial Study Report for Study 9.6 | 2/3/2014 | This draft of the ISR summarized the study methods and variances during the 2013 study season, and presented preliminary data collected for Study 9.6. This draft ISR was later republished as Part A of the final ISR. | [Draft ISR for Study 9.6 (File 1)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.06_FDAML_ISR_Draft_1_of_5.pdf)  [Draft ISR for Study 9.6 (File 2)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.06_FDAML_ISR_Draft_2_of_5_App_A.pdf)  [Draft ISR for Study 9.6 (File 3)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.06_FDAML_ISR_Draft_3_of_5_App_B.pdf)  [Draft ISR for Study 9.6 (File 4)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.06_FDAML_ISR_Draft_4_of_5_App_C.pdf)  [Draft ISR for Study 9.6 (File 5)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/01/09.06_FDAML_ISR_Draft_5_of_5_App_D-F.pdf) |

|  |  |  |  |
| --- | --- | --- | --- |
| Initial Study Report for Study 9.5 | 6/3/2014 | This document is the Initial Study Report (Parts A, B and C) for Study 9.5. Part A republishes the Draft ISR. Part B identifies supplemental information and errata in Part A. Part C presents study modifications and plans for completing the study. | [ISR Part A for Study 9.5 (File 1)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.05_FDAUP_ISR_PartA_1_of_2.pdf)  [ISR Part A for Study 9.5 (File 2)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.05_FDAUP_ISR_PartA_2_of_2_Apps.pdf)  [ISR Part B for Study 9.5](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.05_FDAUP_ISR_PartB.pdf)  [ISR Part C for Study 9.5](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.05_FDAUP_ISR_PartC.pdf) |

|  |  |  |  |
| --- | --- | --- | --- |
| Initial Study Report for Study 9.6 | 6/3/2014 | This document is the Initial Study Report (Parts A, B and C) for Study 9.6. Part A republishes the Draft ISR. Part B identifies supplemental information and errata in Part A. Part C presents study modifications and plans for completing the study. | [ISR Part A for Study 9.6 (File 1)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_1_of_5.pdf)  [ISR Part A for Study 9.6 (File 2)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_2_of_5_App_A.pdf)  [ISR Part A for Study 9.6 (File 3)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_3_of_5_App_B.pdf)  [ISR Part A for Study 9.6 (File 4)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_4_of_5_App_C.pdf)  [ISR Part A for Study 9.6 (File 5)](http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.06_FDAML_ISR_PartA_5_of_5_App_D-F.pdf)  [ISR Part B for Study 9.6](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.06_FDAML_ISR_PartB.pdf)  [ISR Part C for Study 9.6](http://www.susitna-watanahydro.org/wp-content/uploads/2014/06/09.06_FDAML_ISR_PartC.pdf) |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Draft Chinook and Coho Salmon Identification Protocol | 11/14/2014 | | This protocol describes methods AEA will implement to improve and evaluate the accuracy of field identification of early life stages of Chinook and Coho salmon. | | | [Nov. 2014 TM for Study 9.5](http://www.susitna-watanahydro.org/wp-content/uploads/2014/11/ChinookcohoIDprotocol_AEA_ReviewDraft.pdf) |
| Fish Distribution and Abundance in the Middle and Lower Susitna River (Study 9.6) – 2014 – 2015 Study Implementation Report | 11/5/2015 | | 2014 - 2015 Study Implementation Report for Study 9.6. | | [2014-2015 SIR for Study 9.6 (File 1)](http://www.susitna-watanahydro.org/wp-content/uploads/2015/11/09.06_FDAML_SIR.pdf)  [2014-2015 SIR for Study 9.6 (File 2)](http://www.susitna-watanahydro.org/wp-content/uploads/2015/11/09.06_FDAML_SIR_App_A.pdf)  [2014-2015 SIR for Study 9.6 (File 3)](http://www.susitna-watanahydro.org/wp-content/uploads/2015/11/09.06_FDAML_SIR_App_B_FishID.pdf) | |
| Fish Distribution and Abundance in the Upper River, 2014 - 2015 Study Implementation Report | 11/6/2015 | | This report presents methods, variances, and data collected for study components that have been completed since filing the June 2014 ISR. | | | [2014-2015 SIR for Study 9.5](http://www.susitna-watanahydro.org/wp-content/uploads/2015/11/09.05_FDAUP_SIR.pdf) |
| [Response of the Alaska Energy Authority to Comments on the Initial Study Report](http://www.susitna-watanahydro.org/wp-content/uploads/2016/11/ISR_Response_OCT_2016.pdf) | | 10/24/2016 | This document provides a technical response to stakeholder comments on the Initial Study Report. | [Oct. 2016 Response for Study 9.5](http://www.susitna-watanahydro.org/wp-content/uploads/2016/11/ISR_Response_OCT_2016.pdf) | | |
| [Response of the Alaska Energy Authority to Comments on the Initial Study Report](http://www.susitna-watanahydro.org/wp-content/uploads/2016/11/ISR_Response_OCT_2016.pdf) | 10/24/2016 | | This document provides a technical response to stakeholder comments on the Initial Study Report. | | [Oct. 2016 Response for Study 9.6](http://www.susitna-watanahydro.org/wp-content/uploads/2016/11/ISR_Response_OCT_2016.pdf) | |

**[[1]](#endnote-1)**

1. **Data Distributor Contact Information:**

   Alaska Energy Authority, 813 West Northern Lights Boulevard, Anchorage, AK 99503

   Voice: 907-771-3000, Email: [SUWAhelp@aidea.org](mailto:SUWAhelp@aidea.org)

   **Legal Constraints:** THE ELECTRONIC SERVICES OR PRODUCTS ARE PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE ALASKA ENERGY AUTHORITY, THE STATE OF ALASKA, OR THEIR RESPECTIVE EMPLOYEES OR AGENTS, BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH USE OF THE ELECTRONIC SERVICES OR PRODUCTS, ANY FAILURE THEREOF OR OTHERWISE, AND IN NO EVENT WILL THE STATE OF ALASKA'S LIABILITY TO THE REQUESTOR OR ANYONE ELSE EXCEED THE FEE PAID FOR THE ELECTRONIC SERVICE OR PRODUCT**.** [↑](#endnote-ref-1)