# comprehensive Data delivery README FILE

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| **Study Section** | Study 6.6: Fluvial Geomorphology (FGM) |
| **Study Component** | (1) Bed Evolution Model Development, Coordination, and Calibration |
| **Prepared By** | Tetra Tech, Inc. |
| **Data Collection and Processing By** | Tetra Tech, Inc. |
| **Field Date Range** | July 2013 – September 2014 |

**Introduction:** The overall goal of the Fluvial Geomorphology Modeling below Watana Dam Study is to model the effects of the proposed Susitna-Watana Hydroelectric Project (the Project) on the fluvial geomorphology of the Susitna River and to assist in predicting the trend and magnitude of geomorphic response. More specifically, the purpose of the modeling study, along with the Geomorphology Study (Study 6.5), is to assess the potential impact of the Project on the behavior of the river downstream of the proposed dam, with particular focus on potential changes in instream and riparian habitat.

The goal of the study component “Bed Evolution Model Development, Coordination, and Calibration” is to develop calibrated models to predict the magnitude and trend of geomorphic response to the Project and apply the developed models to estimate the potential for channel change for with-Project operations compared to existing conditions.

Bed-material and bank samples were collected along the main channel and bed-material samples were collected along tributaries to support development of the 1-D Bed Evolution Model.

**Data Summary:** A two-part sediment sampling program was developed to characterize the sediment gradations along the Susitna River and tributaries: a summer sampling program, when the river was ice-free, at the heads of mid channel islands and bars; and an ice covered program, when there was an ice-cover in the main channel.

Sediment gradation data and sediment distribution charts are presented in a series of spreadsheets.

**Data Organization:** Sediment gradation data are organized by the type of sediment sampling program in which they were collected. Sediment gradation data specific to each location is nested within the two subdirectories listed below.

* Summer\_Sampling\_Program
* Winter\_Sampling\_Program

**Software or Hardware Considerations:** none.

**Online Data Link:** Folder “Sediment” at <http://gis.suhydro.org/suwareports/SuWa/06-GEO/6.06-GEOMOD>

**Online Report Link: “**6.6 Fluvial Geomorphology Modeling below Watana Dam Study” under June 3, 2014; Initial Study Report – Part A, B, and C at <http://www.susitna-watanahydro.org/type/documents/> . *There are a total of 3 links associated with this report. There is one link for the following: (1) Main body text and tables [Part A 1 of 3], (2) Figures [Part A 2 of 3], and (3) Appendices and Attachment [Part A 3 of 3].*

“06.06 Fluvial Geomorphology Modeling below Watana Dam – 2014-2015 Study Implementation Report (Part 1 of 4)” under November 2015; Study Completion and 2014/2015 Implementation Reports at <http://www.susitna-watanahydro.org/type/documents/> . *There are multiple links associated with this report filing, however the link noted as “Part 1 of 4” is the most relevant to the sediment data collection.*

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

1. **Data Distributor Contact Information:**

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