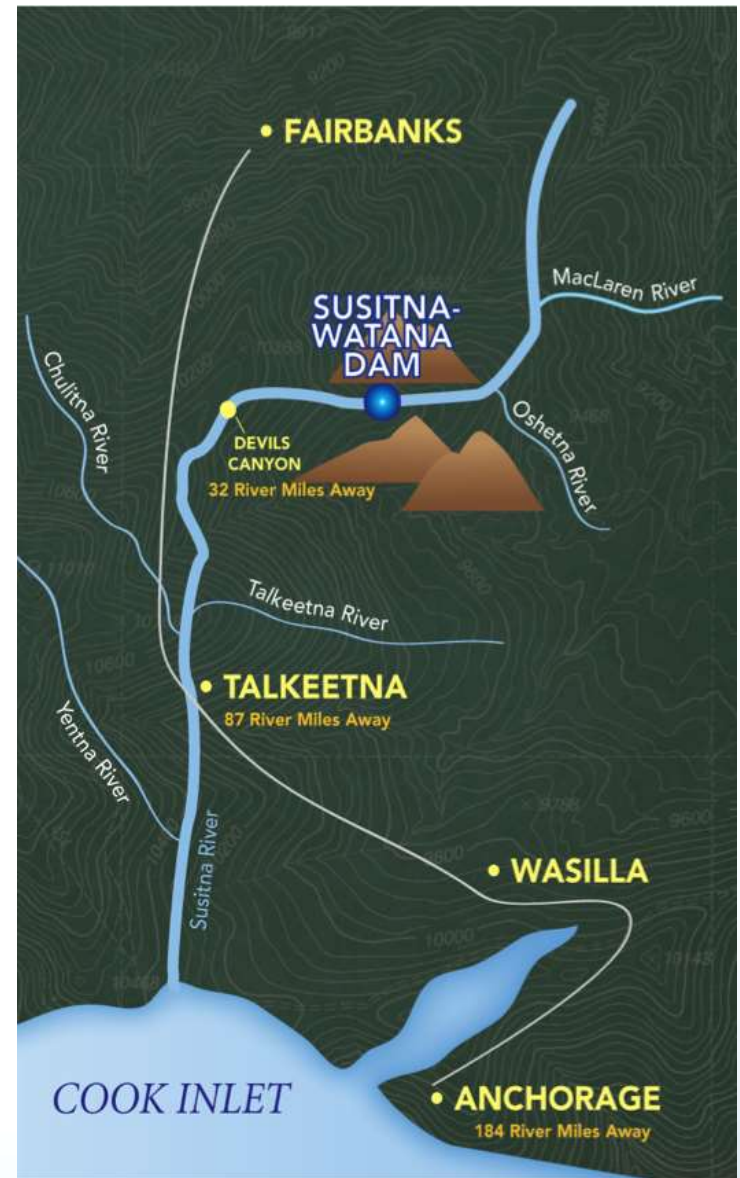


# Overview of 2012 Technical Memorandums and Q1/Q2 2013 Study Update

(RSP Section 6.5, 6.6)

Technical Workgroup Meeting  
March 28, 2013  
(April 5, 2013)

Prepared by: Tetra Tech  
Prepared for: Alaska Energy Authority



# Meeting Outline

- FERC Study Determination
- Progress updates on 2013 studies
- Present AEA 2012 study results  
(Technical Memorandums)



# FERC Study Determination

- SuWa RSP 2013 Section 6.5
  - FERC's study plan determination is scheduled to be completed by April 1, 2013
- SuWa RSP 2013 Section 6.6
  - FERC's study plan determination is scheduled to be completed by April 1, 2013

## 2012 Study Reporting Update: Posted and Presented 2012 Study Reports

- 2012 Technical Memorandum: *Stream Flow Assessment*
  - Filed with FERC: March 1, 2013
  - Posted to AEA website: March 1, 2013
  - Presented at TWG meeting 2/14/2013
- 2012 Technical Memorandum: *Initial Geomorphic Reach Delineation and Characterization, Middle and Lower Susitna River Segments*
  - Filed with FERC: March 1, 2013
  - Posted to AEA website: March 1, 2013
  - Presented at TWG meeting 9/14/2012

# 2012 Study Reporting Update: Presented at Today's Meeting

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- 2012 Technical Memorandum: *Development of Sediment Transport Relationships and an Initial Sediment Balance for the Middle and Lower Susitna River Segments*
  - Filed with FERC: March 1, 2013
  - Posted to AEA website: March 1, 2013
- 2012 Technical Memorandum: *Reconnaissance Level Assessment of Potential Channel Change in the Lower Susitna River Segment*
  - Filed with FERC: March 1, 2013
  - Posted to AEA website: March 1, 2013



# 2012 Study Reporting Update: Presented at Today's Meeting

6

- 2012 Technical Memorandum: *Mapping of Aquatic Macrohabitat Types at Selected Sites in the Middle and Lower Susitna River Segments from 1980s and 2012 Aerials*
  - Filed with FERC: March 2013
  - Posted to AEA website: March 2013
- 2012 Technical Memorandum: *Mapping of Geomorphic Features within the Middle and Lower Susitna River Segments from 1980s and 2012 Aerials*
  - Filed with FERC: March 2013
  - Posted to AEA website: March 2013



# 2012 Study Reporting Update: Presented at Today's Meeting

7

- 2012 Technical Memorandum: *Synthesis of the 1980s Lower Susitna River Segment Aquatic Habitat Information*
  - Filed with FERC: March 2013
  - Posted to AEA website: March 2013

# Geomorphology Study Q1 2013

## Activities (RSP 6.5)

- Complete 2012 Study efforts
  - Geomorphic reach delineation and classification
  - Habitat & geomorphic feature mapping 1980s/2012
  - Assess habitat and channel change 1980s to 2012
  - Complete stream flow assessment
  - Complete initial sediment balance
  - Complete recon-level assessment of potential channel change
  - Finalize Technical Memorandums – 7 TMs



# Geomorphology Study Q2 2013

## Activities (RSP 6.5)

9

- Review USGS 2012 sediment transport data
- Continue paleo geomorphic feature mapping
- Identify potential 1950s aerials
- Plan 2013 field activities
- Field Reconnaissance

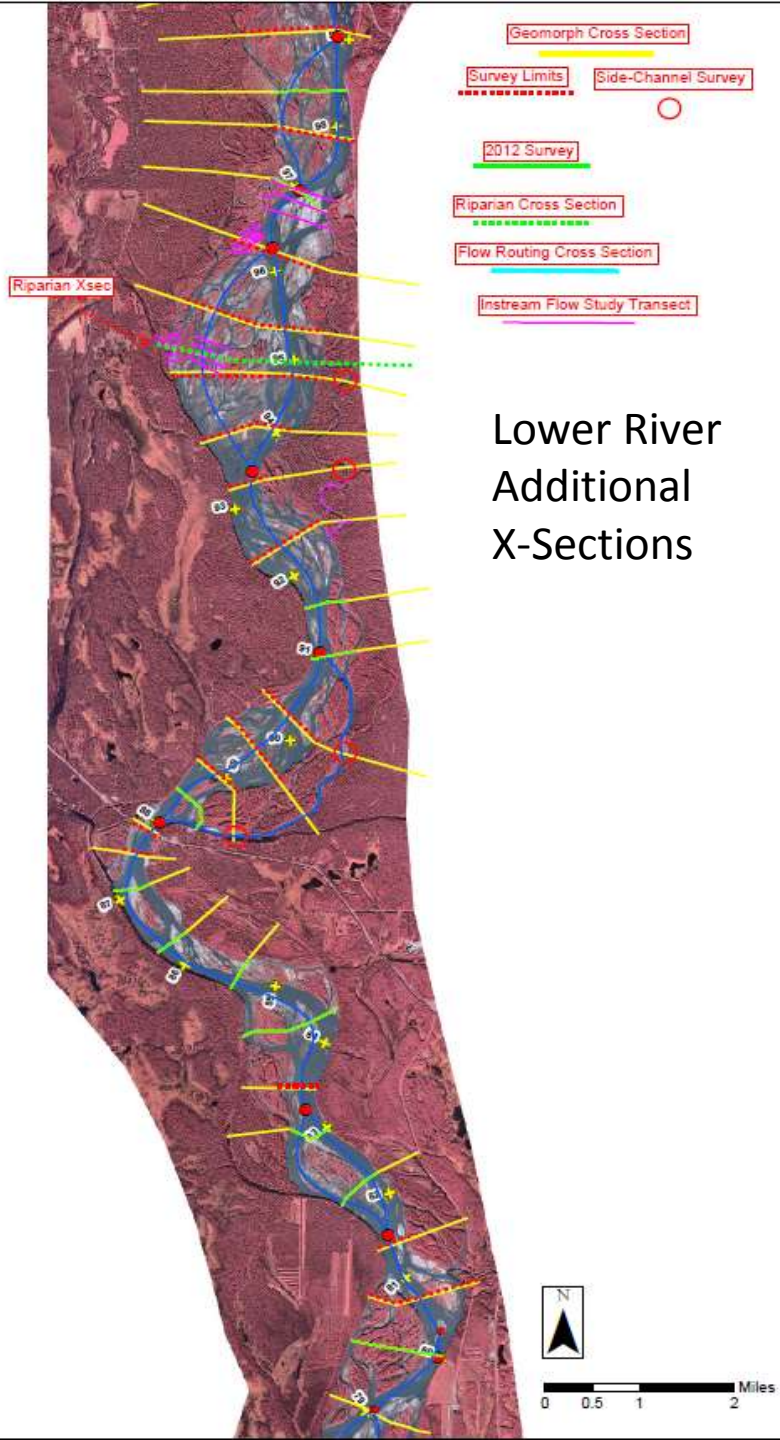
# Geomorphology Study Q2 2013

## Activities (RSP 6.5)

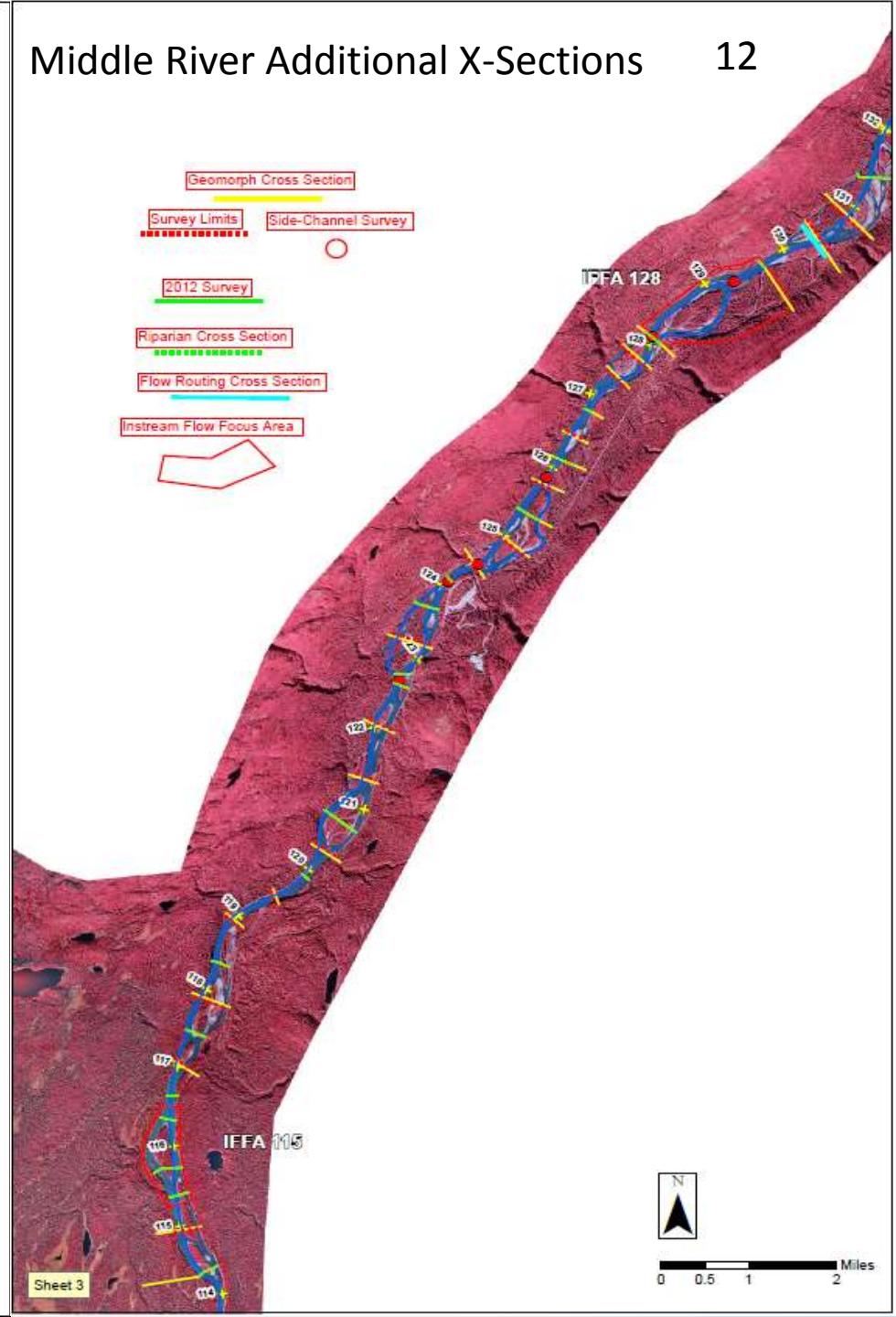
- Coordinate acquisition of remaining aerials
- Initiate aerial analysis of LWD
- Complete 100 percent of Middle River aquatic macrohabitat mapping
- Coordination and screening of tributaries Middle River and reservoir inundation zone
- Screening of road/transmission line crossings

# Fluvial Geomorphology Modeling Study Q1 2013 Activities (RSP 6.6)

- Test through ice bed material sampling
- Identify Lower River tributaries for 2013 study (Caswell, Trapper, Birch, Sheep, and Deshka)
- Identify additional Middle River and Lower River 1-D model cross sections



# Middle River Additional X-Sections 12



# Fluvial Geomorphology Modeling Study Q2 2013 Activities (RSP 6.6)

- Finalize selection of bed evolution model (TM 4/30/13)
- Finalize 2013 cross section locations
- Finalize LiDAR verification/acquisition planning
- Memo on through ice bed material sampling
- Prepare for field studies





# Bed Material Sampling through Ice – March 2013

14



# Fluvial Geomorphology Modeling Study Q2 2013 Activities (RSP 6.6)

- Screen tributary deltas Middle River
- Field reconnaissance
- Early season field activities
  - Bed material sampling
  - Site assessments
  - Geomorphic feature mapping
  - On site coordination with F&A and Riparian IFS

# END

