

APPENDIX A: REMOTE LINE MAPPING, 2012

**Susitna-Watana Hydroelectric Project
(FERC No. 14241)**

**Characterization and Mapping of Aquatic
Habitats (9.9)**

**Appendix A
Remote Line Mapping, 2012**

Initial Study Report

Prepared for
Alaska Energy Authority



SUSITNA-WATANA HYDRO

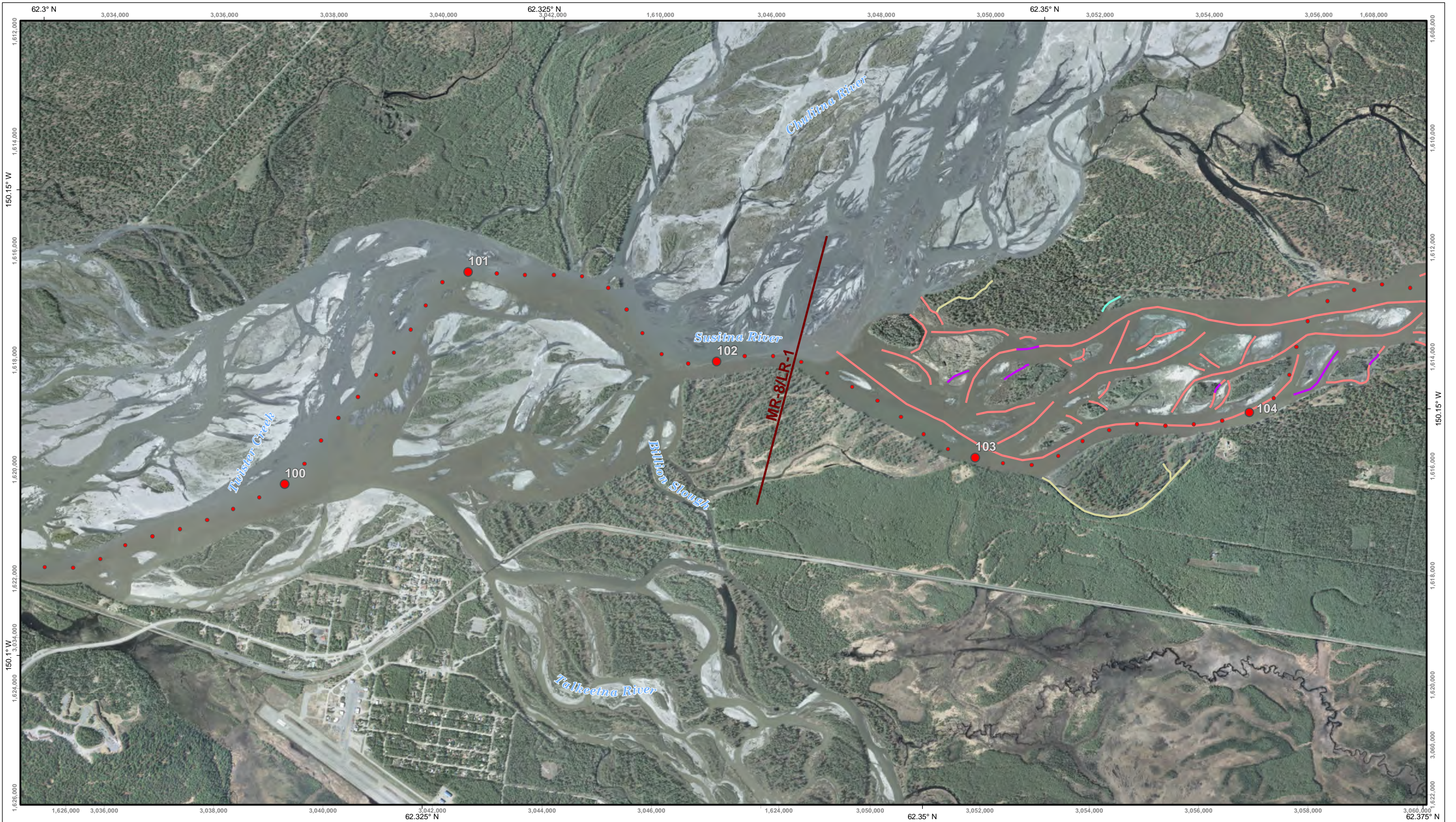
Clean, reliable energy for the next 100 years.

Prepared by
R2 Resource Consultants, Inc.

February 2014 Draft

INTRODUCTION

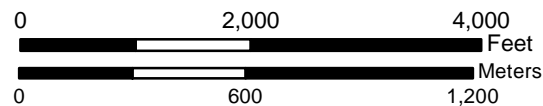
The maps contained in this map book were created using several sources of remote imagery in 2012. The habitat typing is consistent with the terminology that was current at that time, but has undergone refinement through 2013. In addition, an exercise to compare remote habitat typing with ground-based surveys conducted in 2013 is ongoing at the time of the publication of this ISR. Once this exercise is complete, final map books will be made that include both refinements of habitat definitions and typing.



Susitna - Watana Hydroelectric Project Fish Barrier and Aquatic Habitat Field Survey Map Book



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Map Projection: NAD83 State Plane Zone 4 (Feet)
Grid Interval: 2000'

General Features

- Susitna Project River Miles
- Susitna Geomorphic Reach Breaks
- Focus Area

Mesohabitats

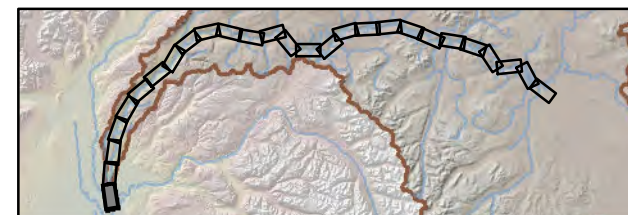
- Glide or Run
- Pool
- Rapid
- Riffle

Macrohabitats

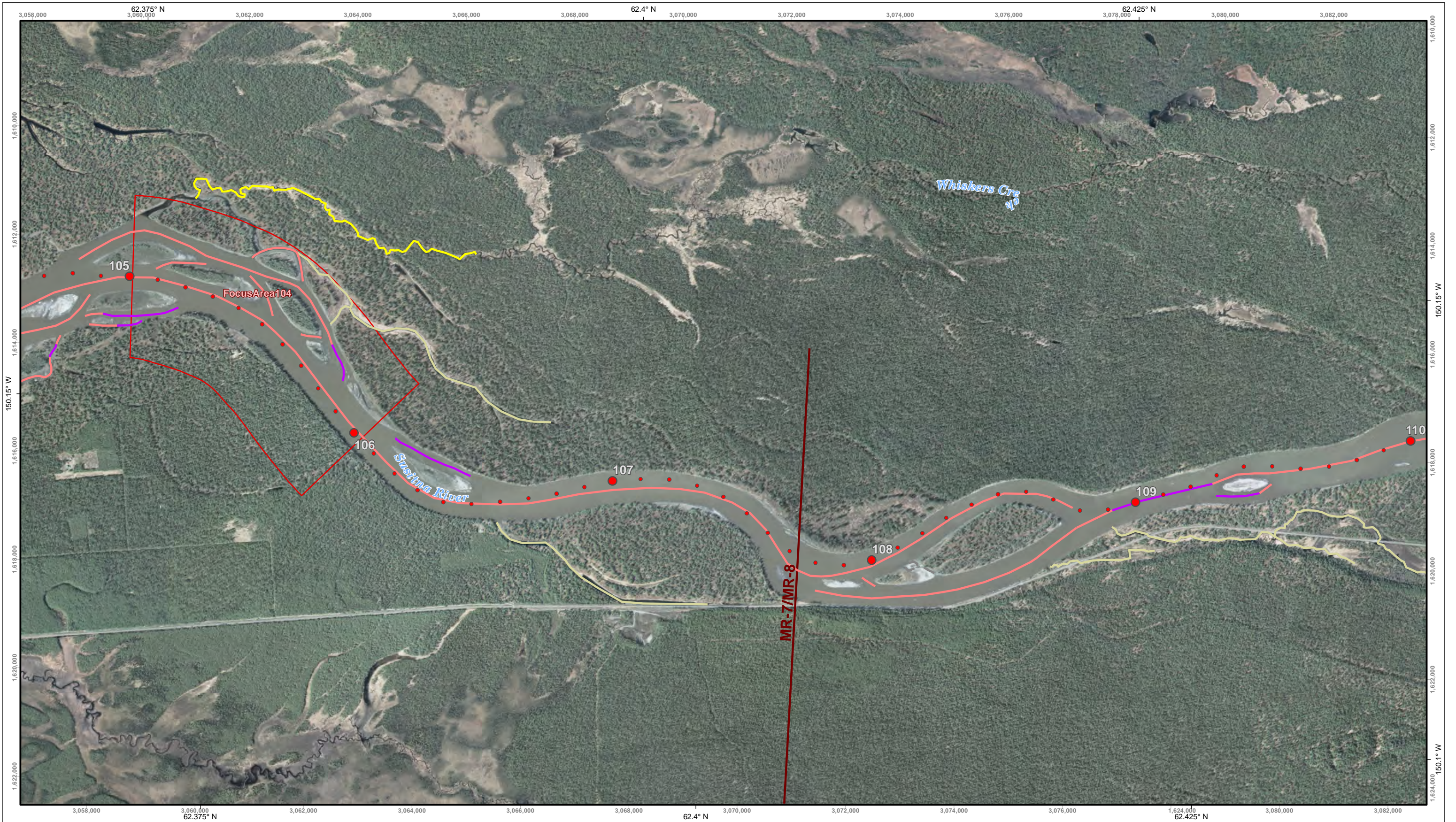
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- Tributary
- Unidentified
- Upland Slough

Special Habitat Features

- Backwater
- Beaver Complex



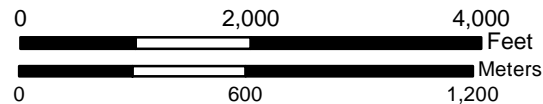
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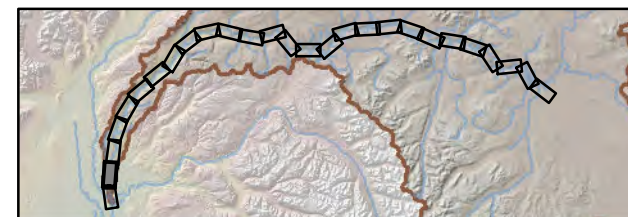


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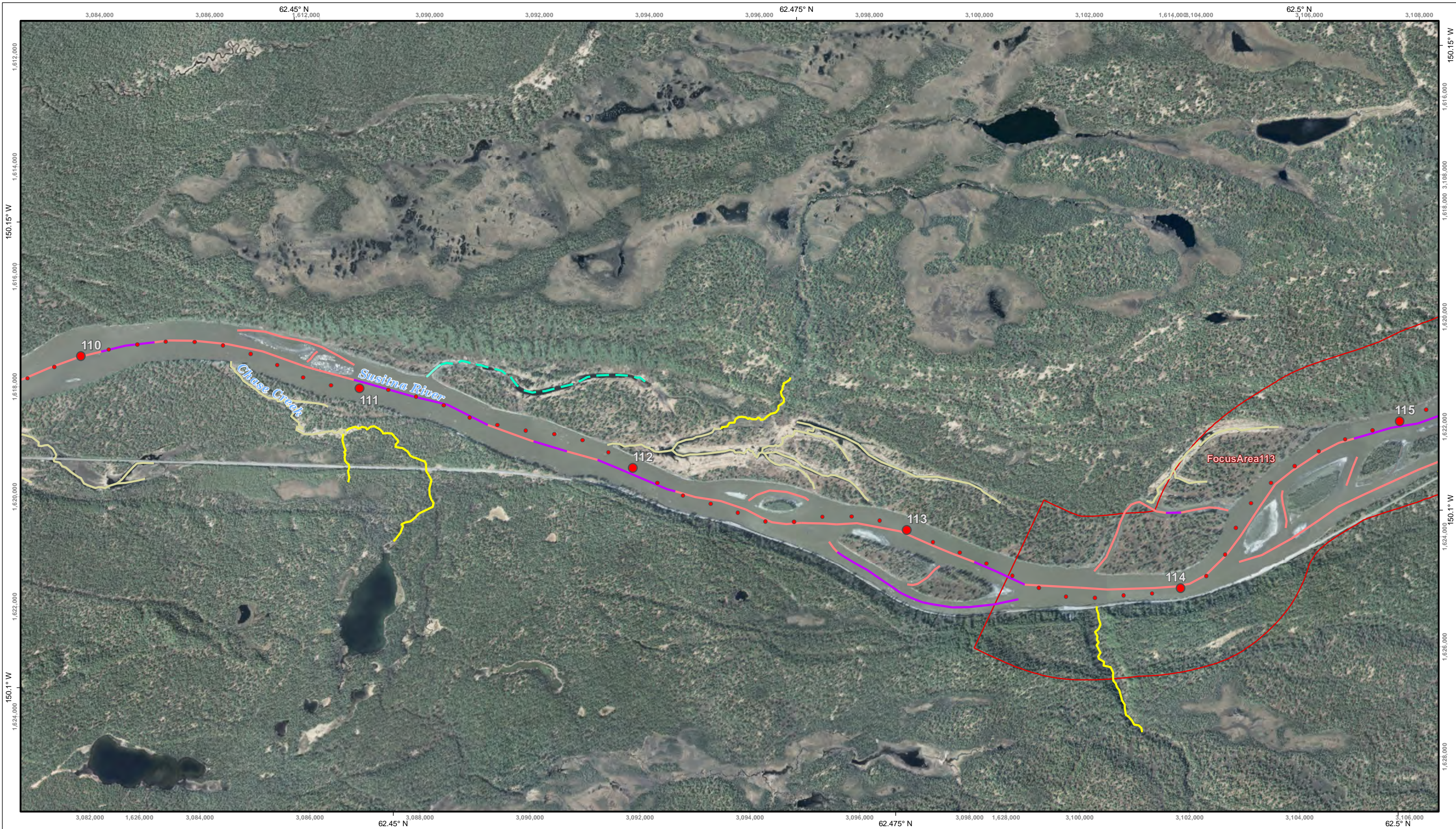


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	Focus Area	—	Rapid
		—	Riffle
Mesohabitats			
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		—	Tributary
		—	Unidentified
		—	Upland Slough
Macrohabitats			
		—	Backwater
		—	Beaver Complex



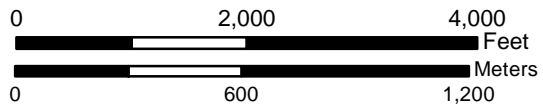
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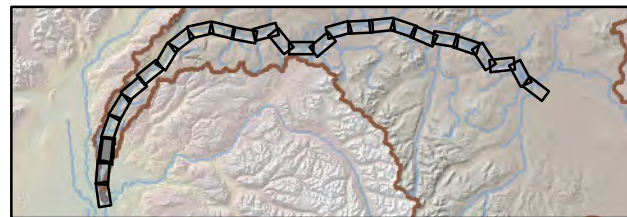
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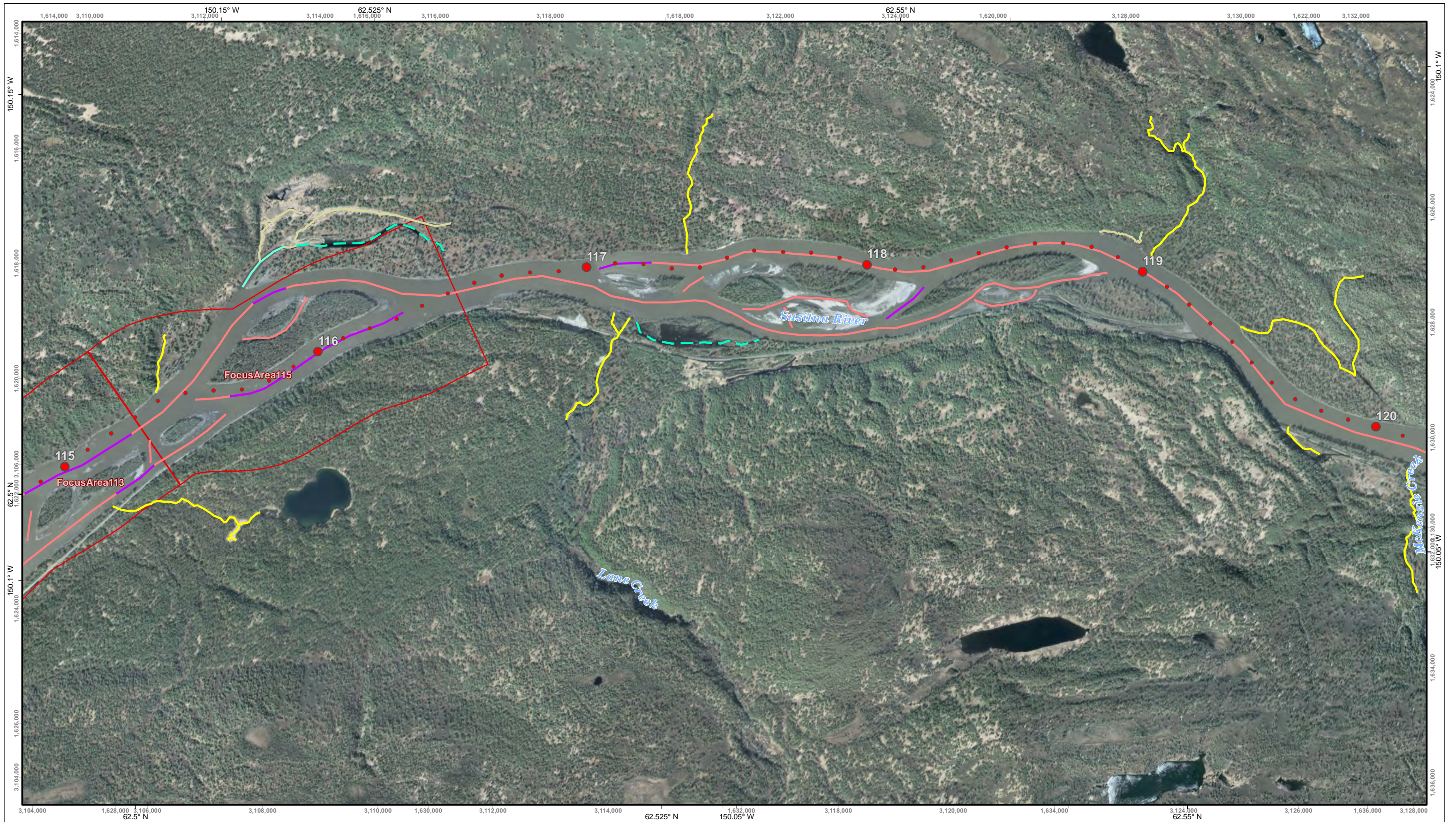
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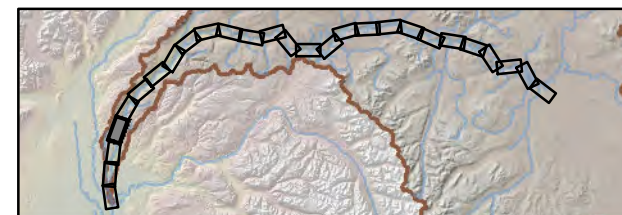
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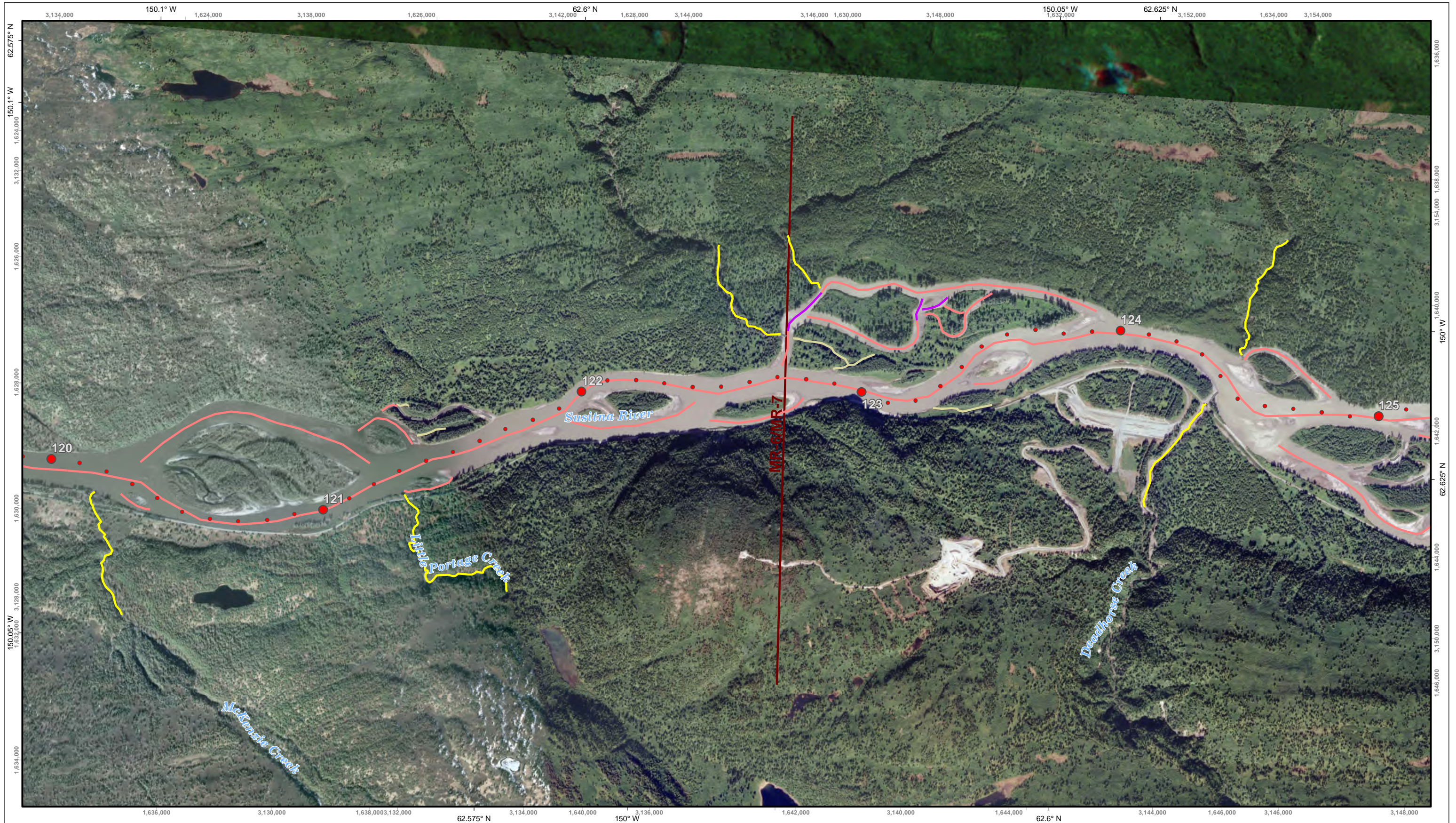
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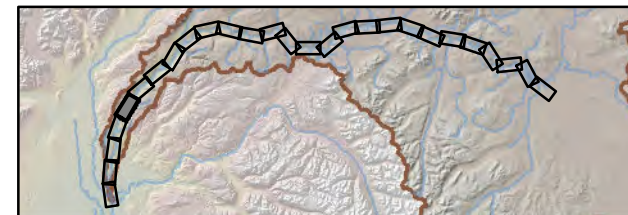


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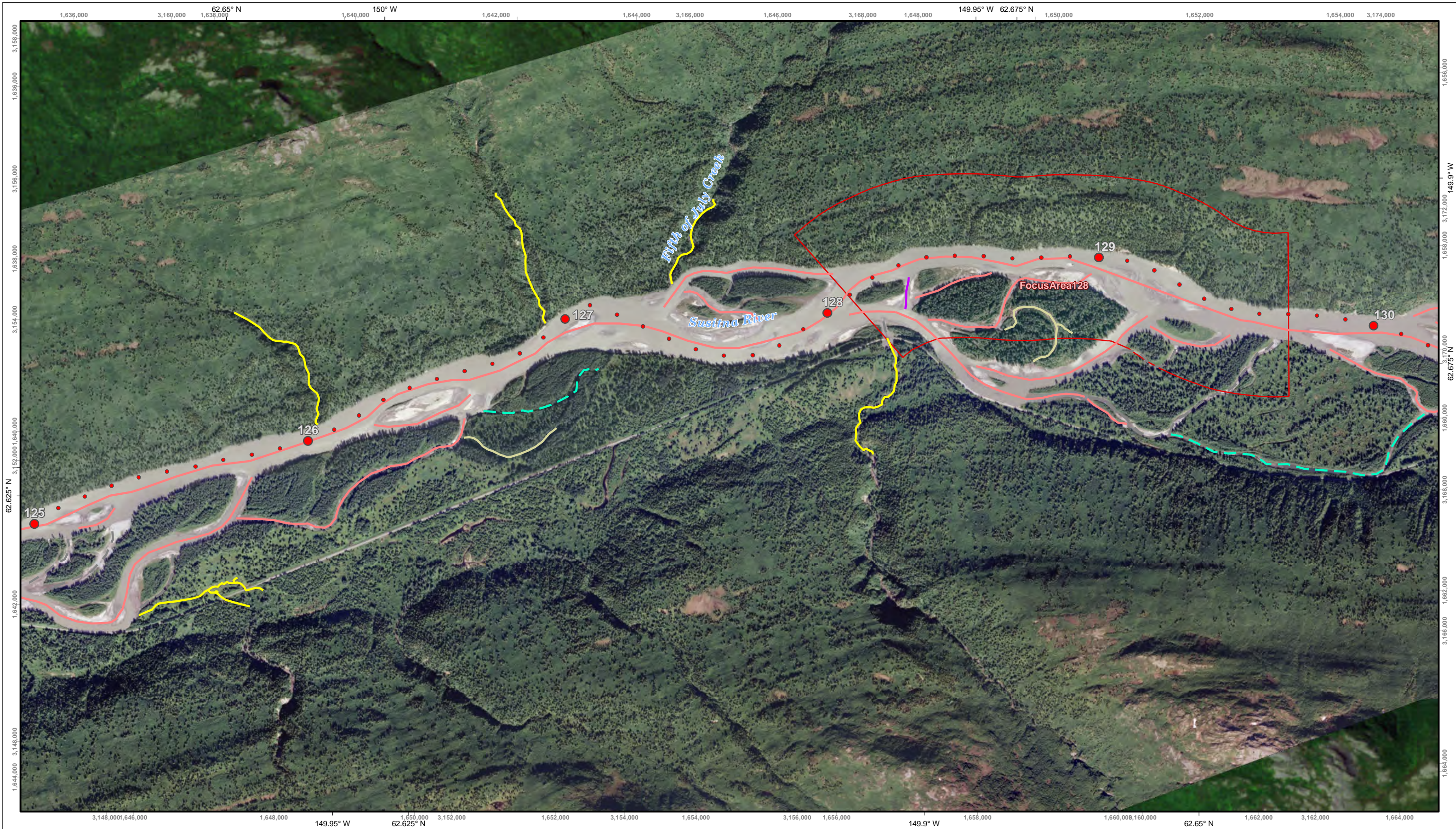


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General Features		Mesohabitats		Macrohabitats		Special Habitat Features	
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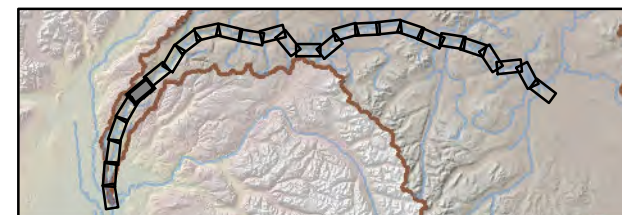
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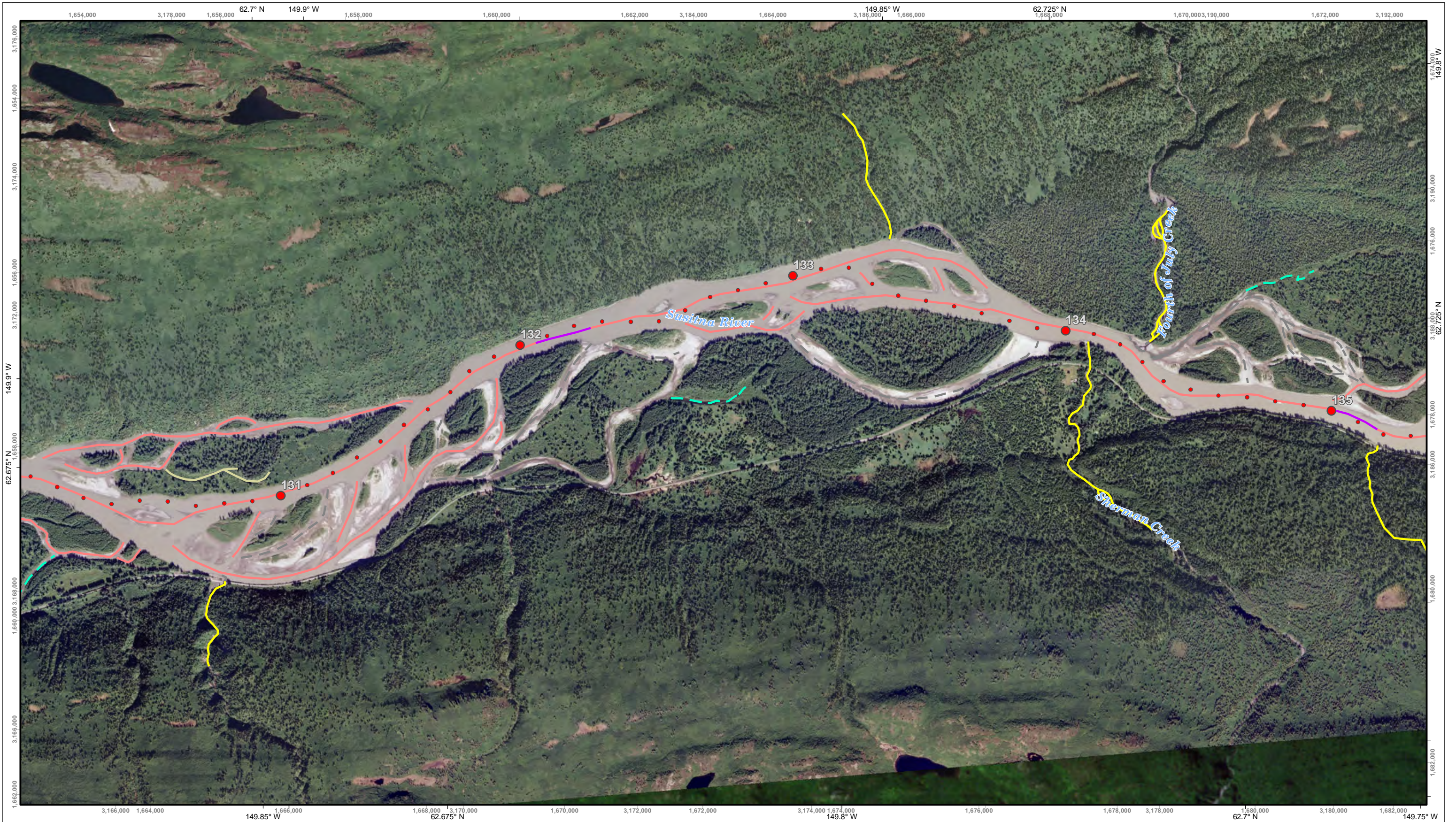
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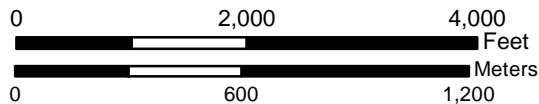
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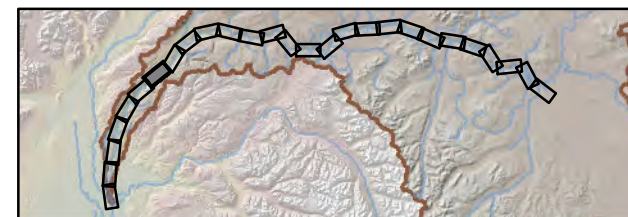
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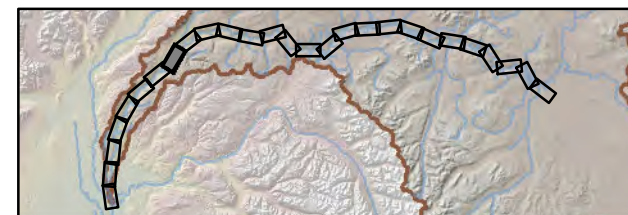
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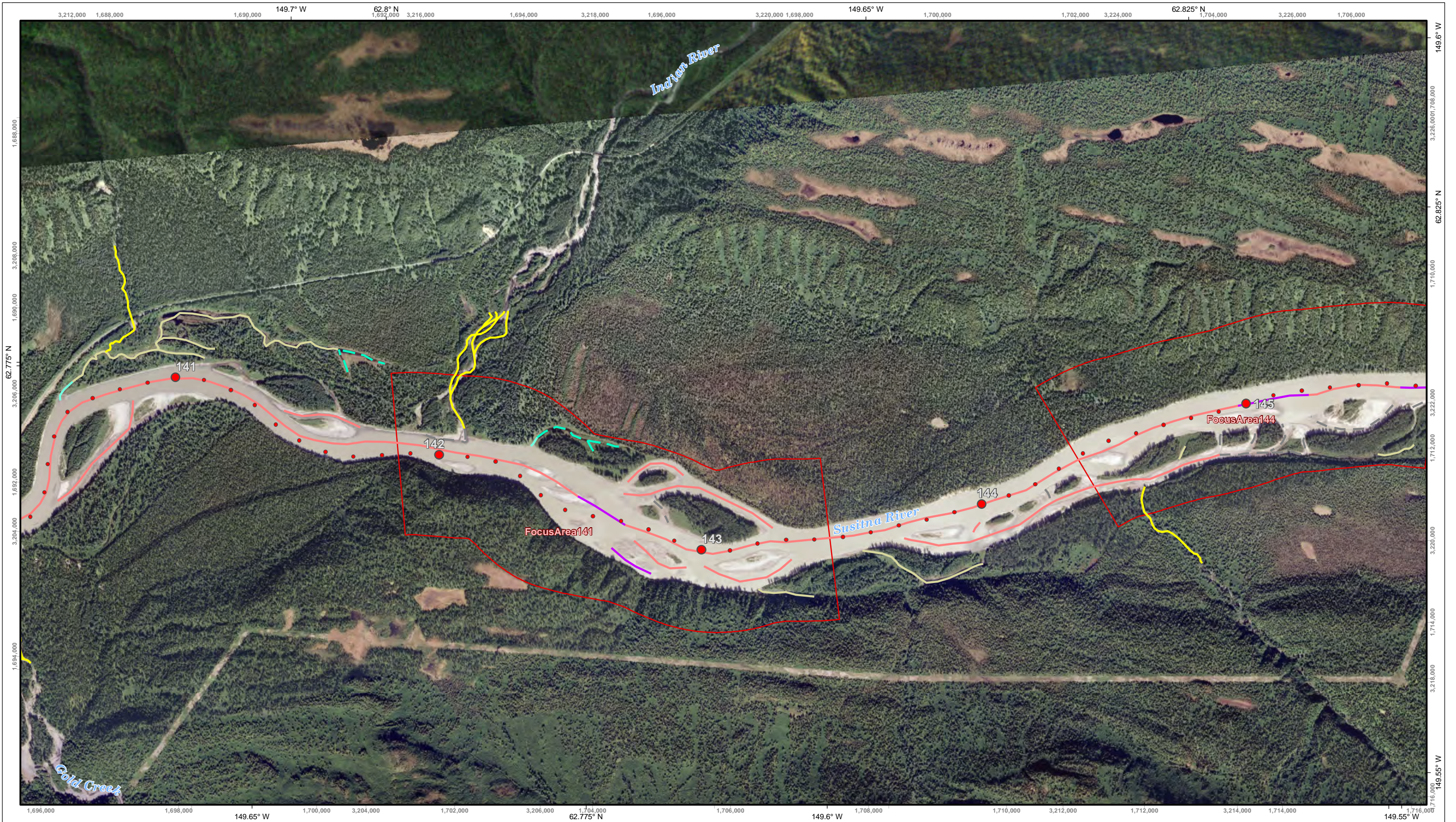
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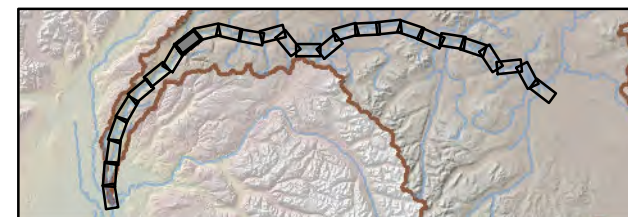


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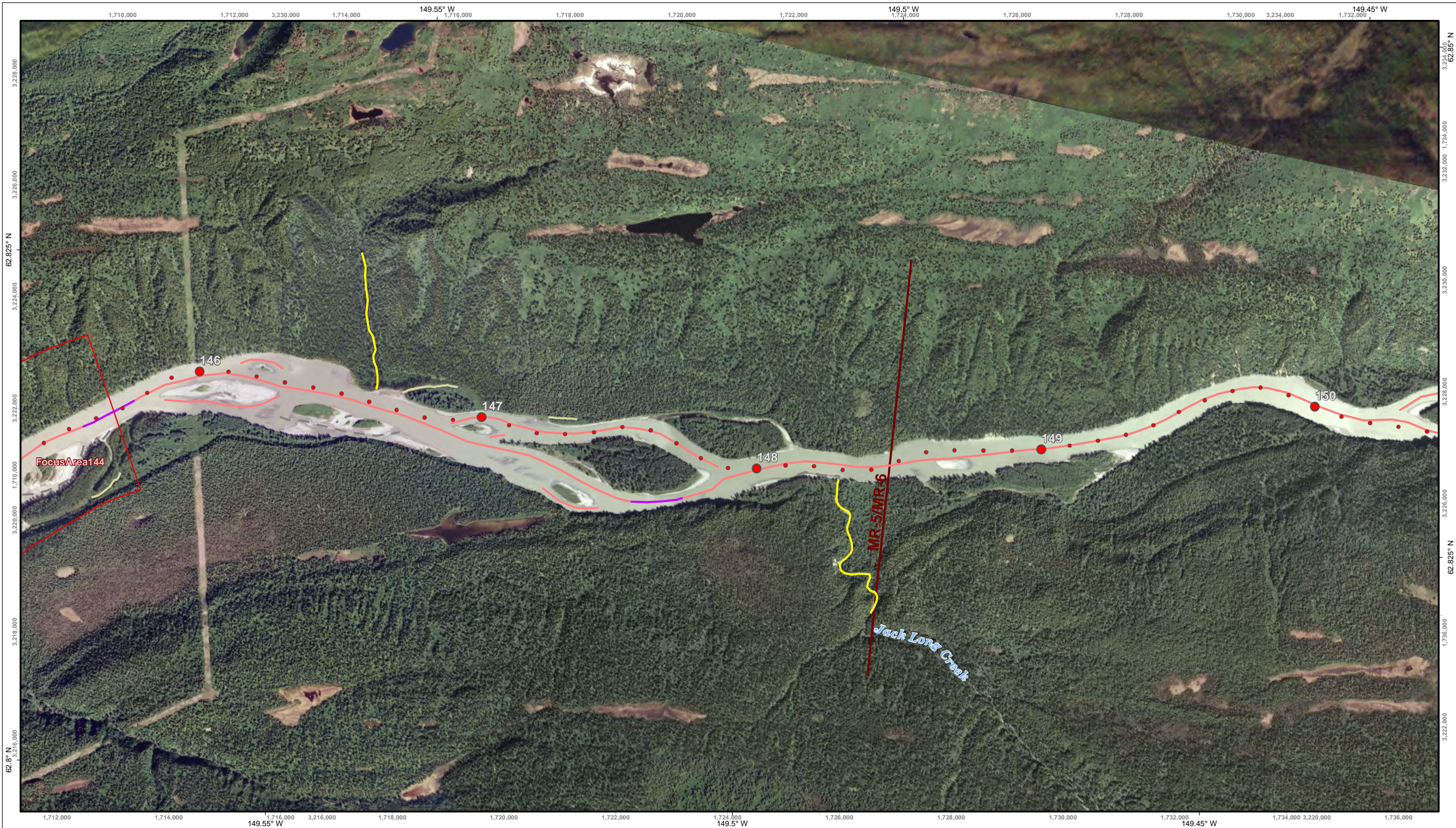


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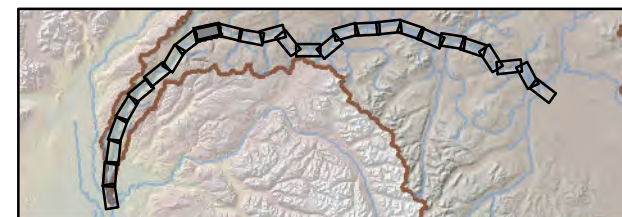
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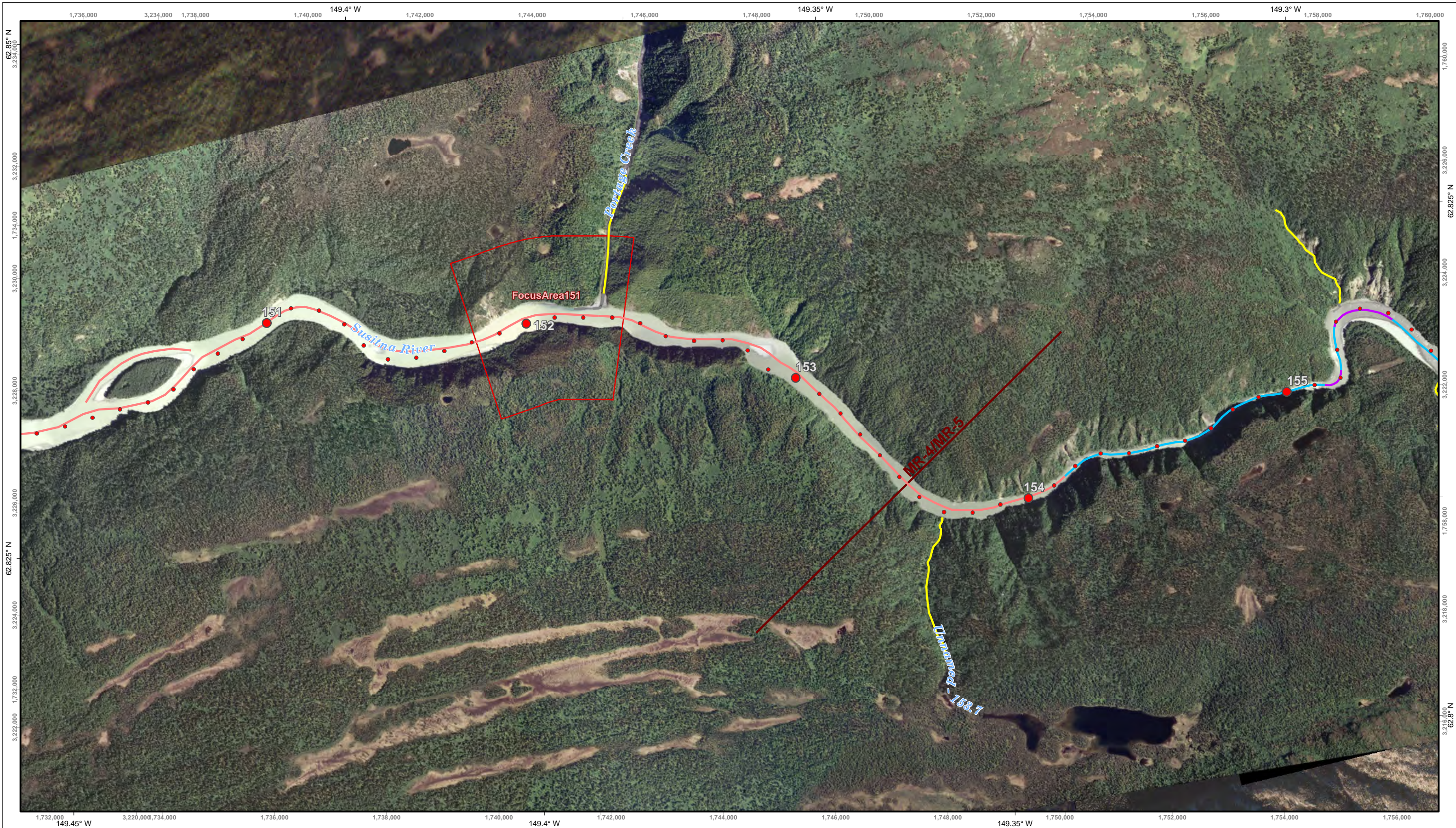
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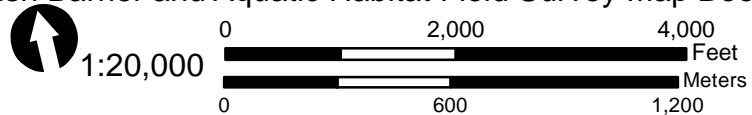
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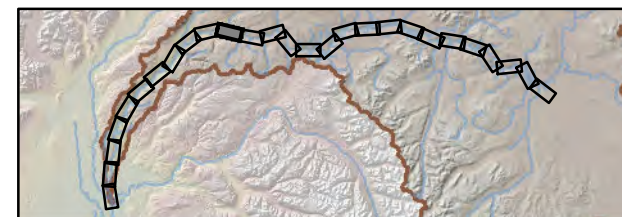


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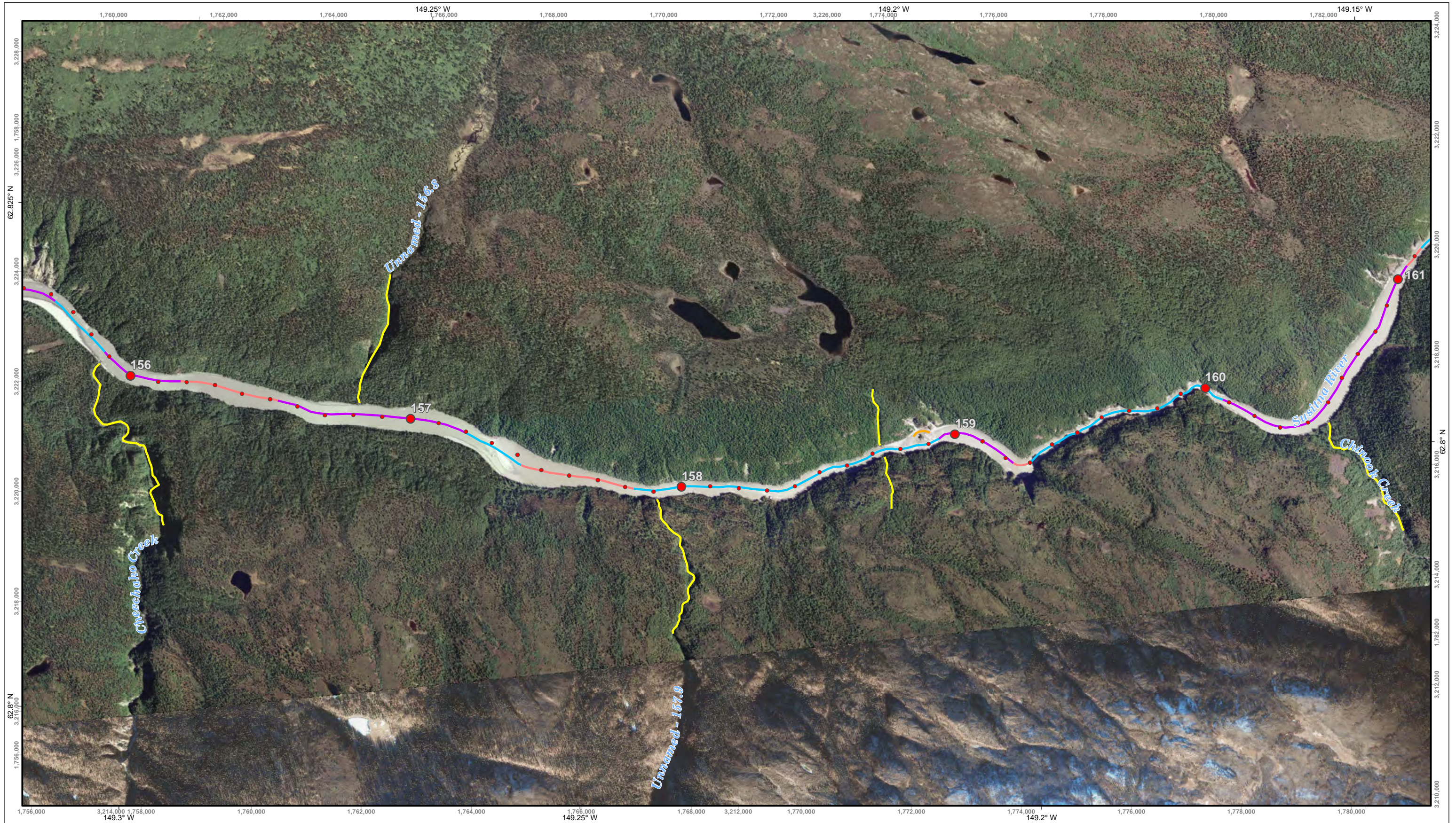


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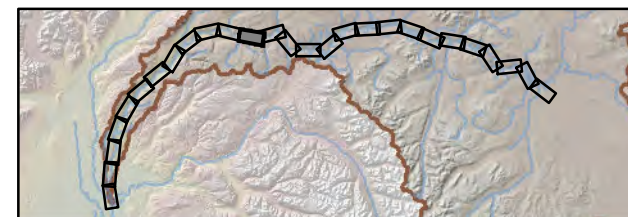
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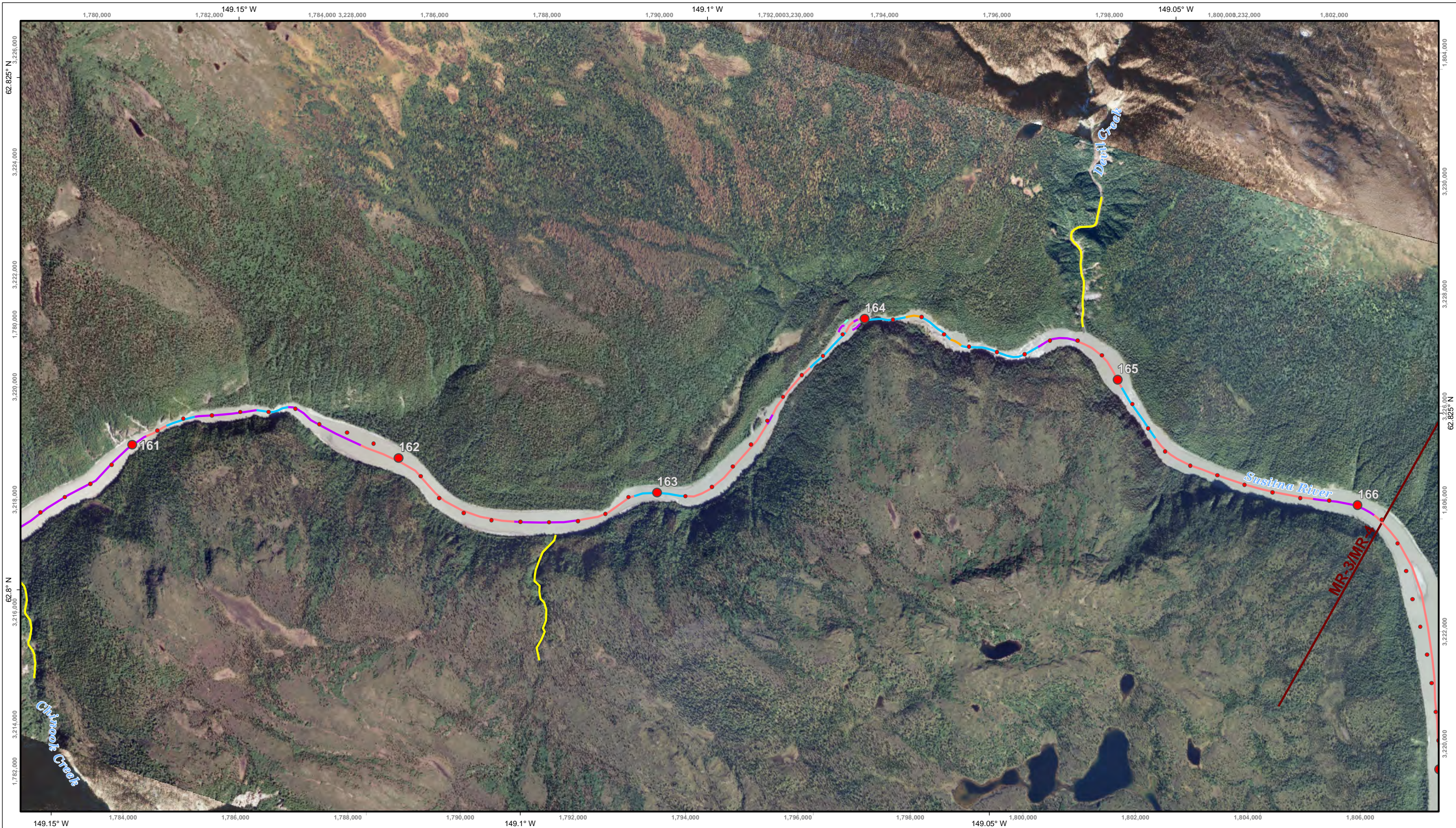
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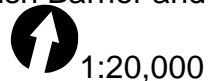
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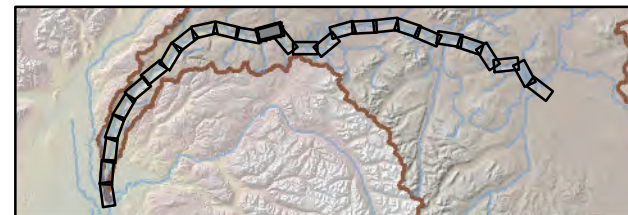
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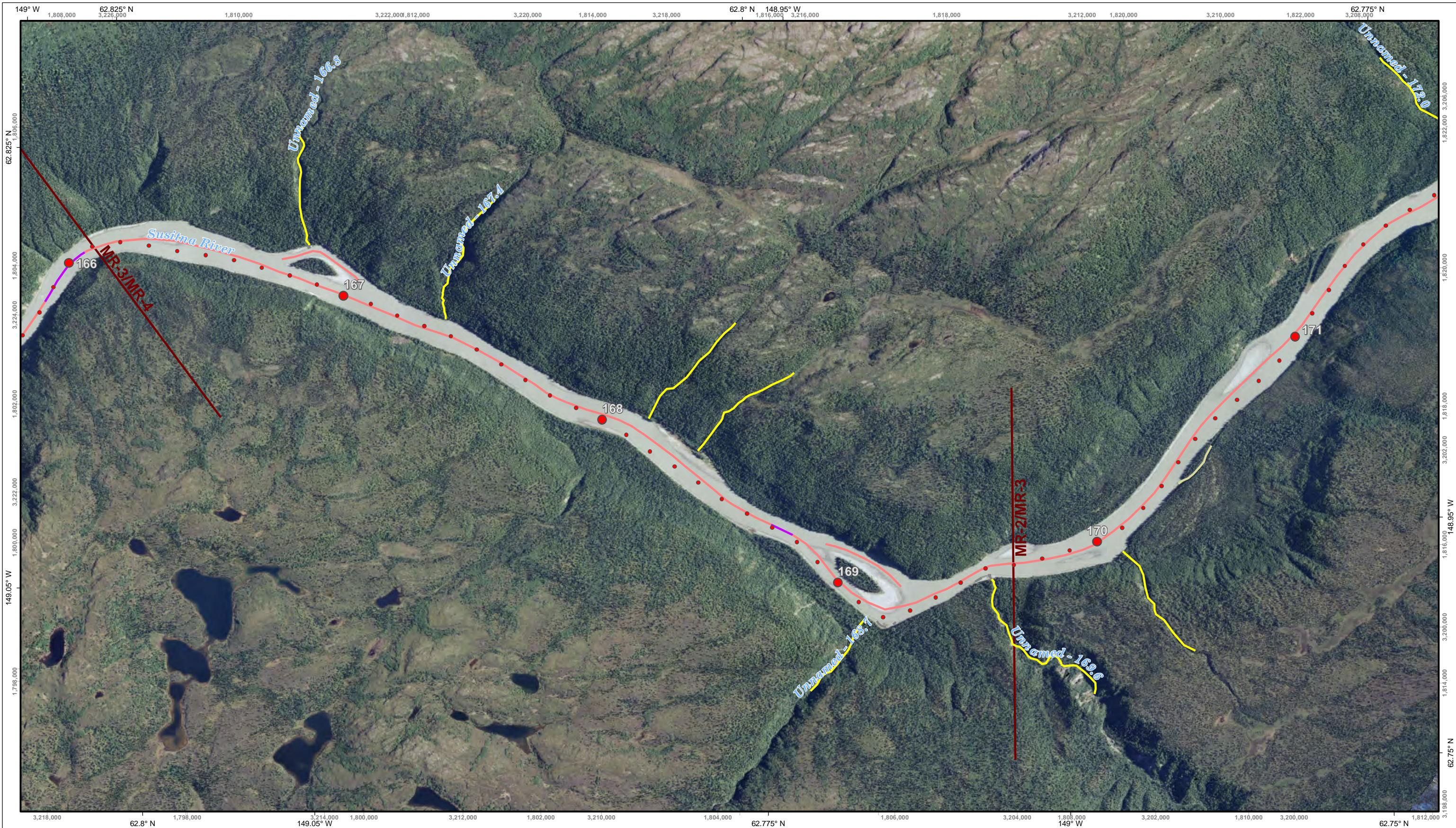
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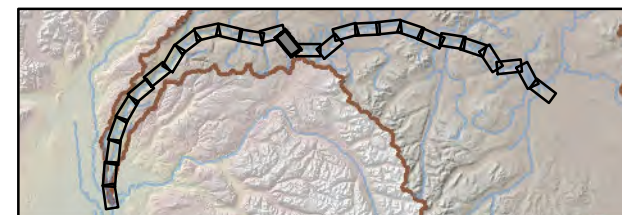
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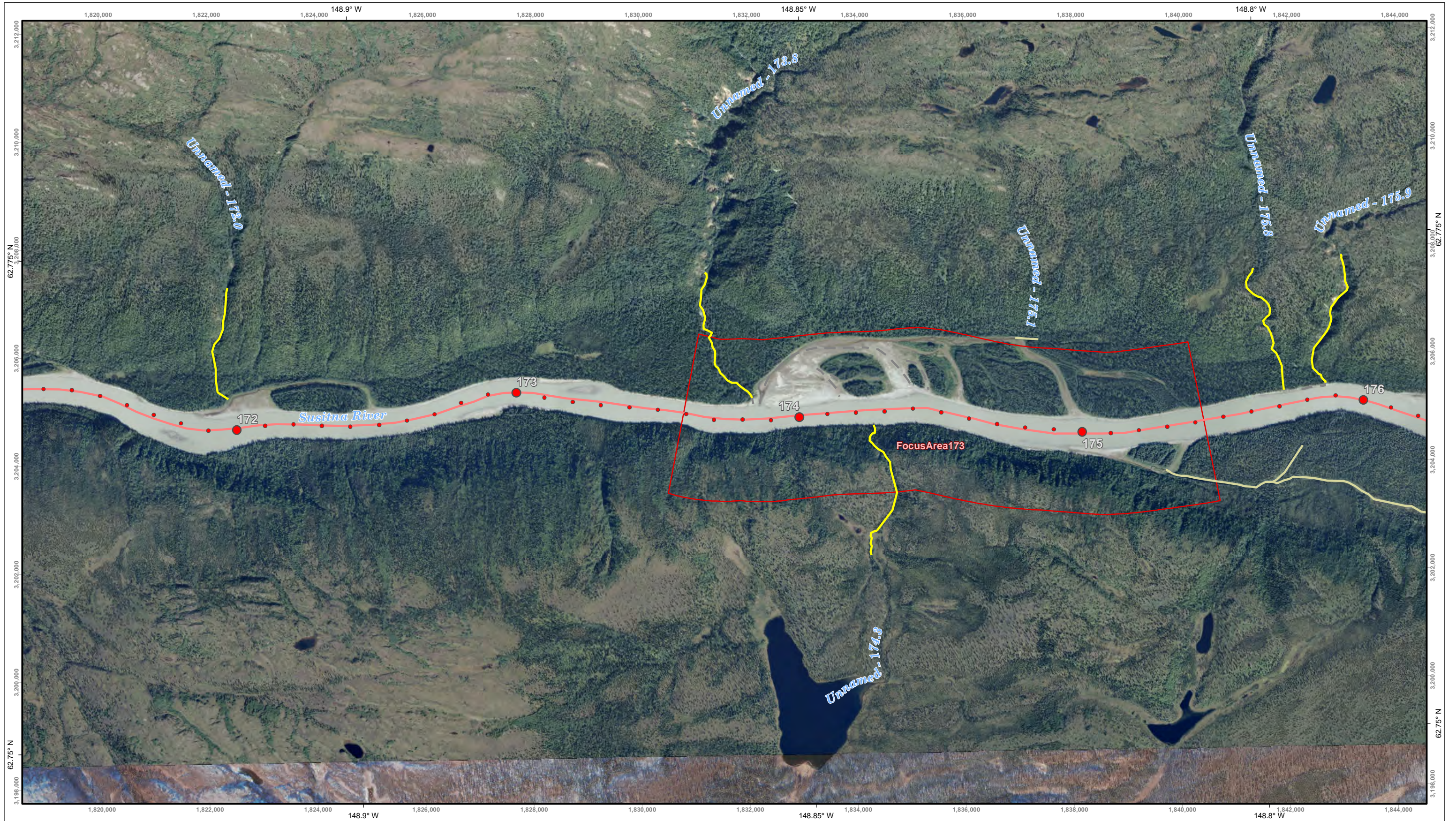
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|---|---|--|
| <p>Mesohabitats</p> <ul style="list-style-type: none"> — Glide or Run — Pool — Rapid — Riffle | <p>Macrohabitats</p> <ul style="list-style-type: none"> — Side Slough — Tributary — Unidentified — Upland Slough | <p>Special Habitat Features</p> <ul style="list-style-type: none"> — Backwater — Beaver Complex |
|---|---|--|



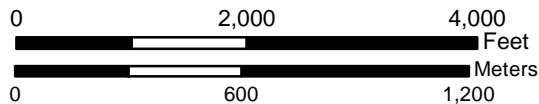
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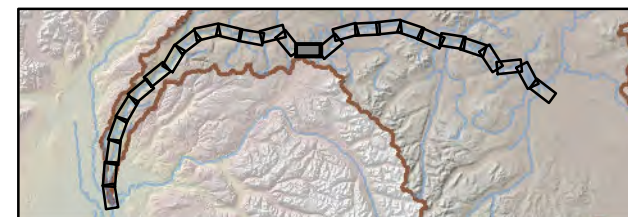
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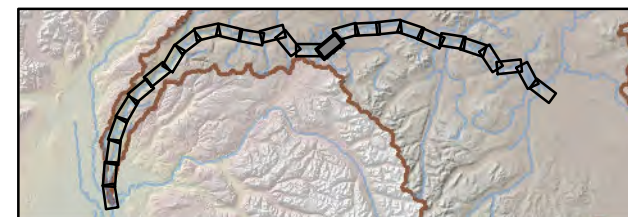
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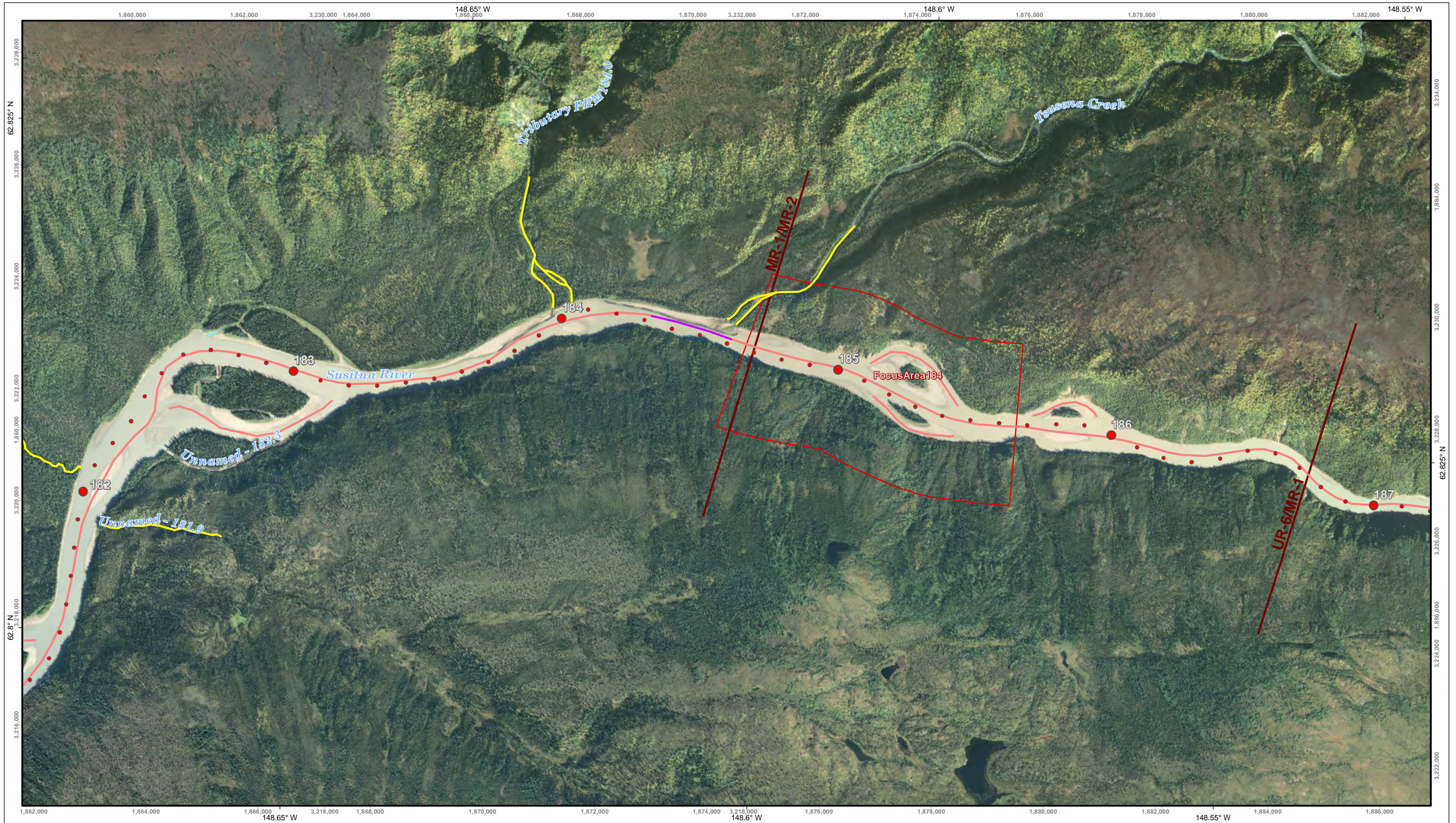
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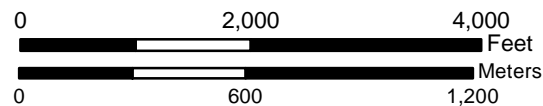
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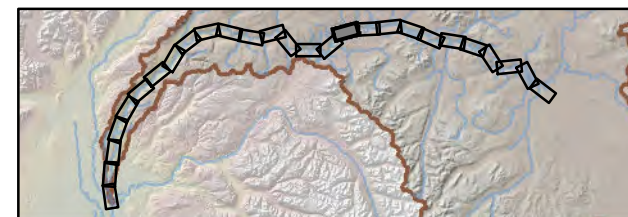


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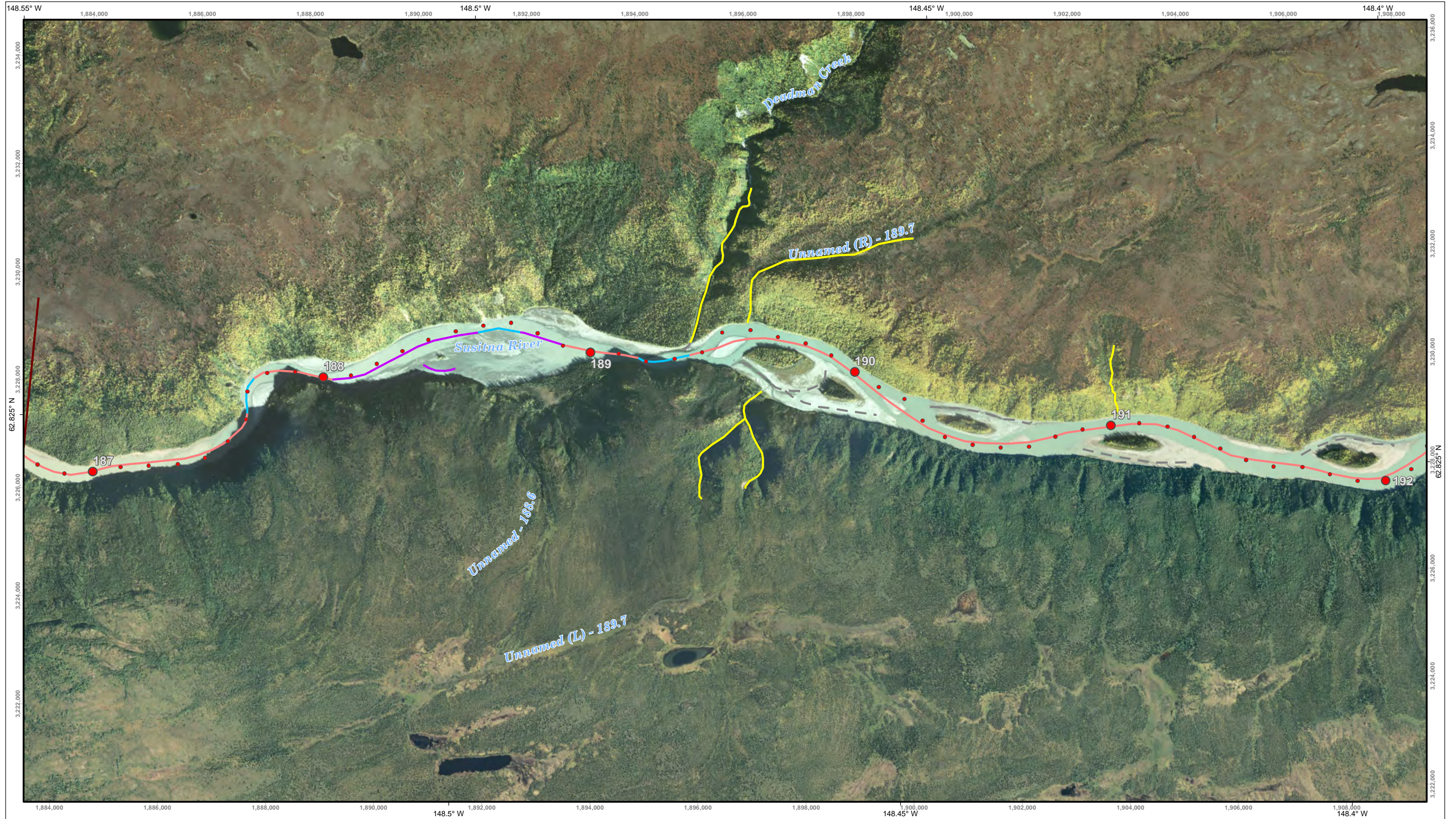


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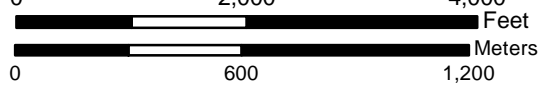
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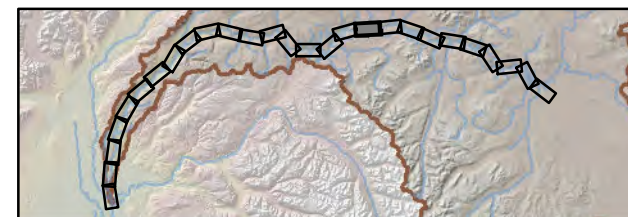
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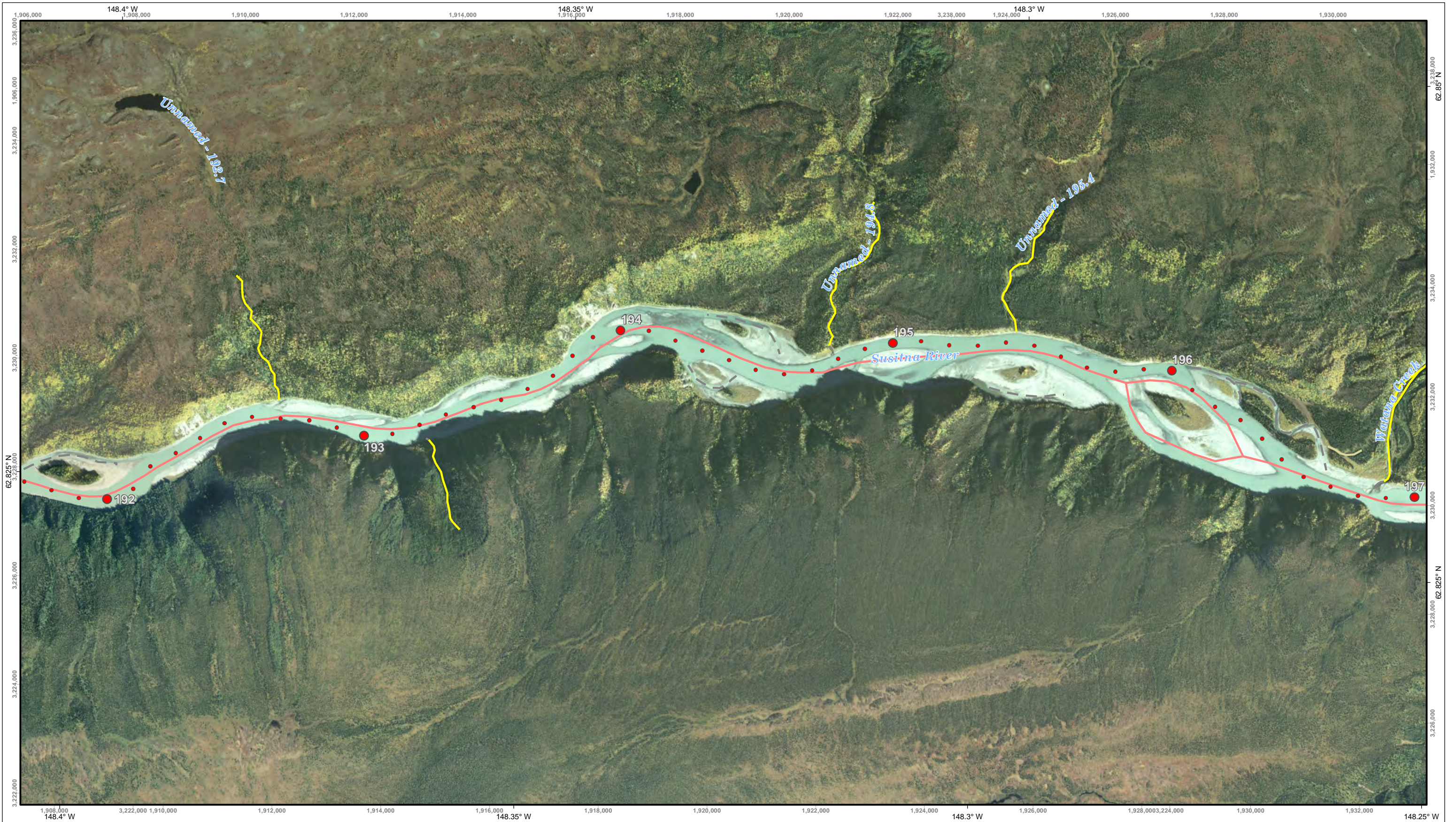
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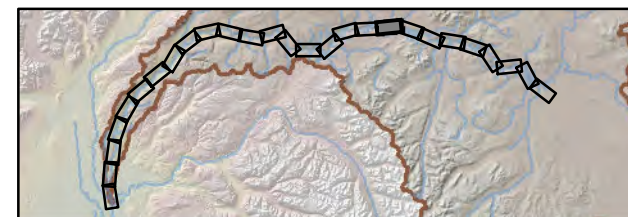
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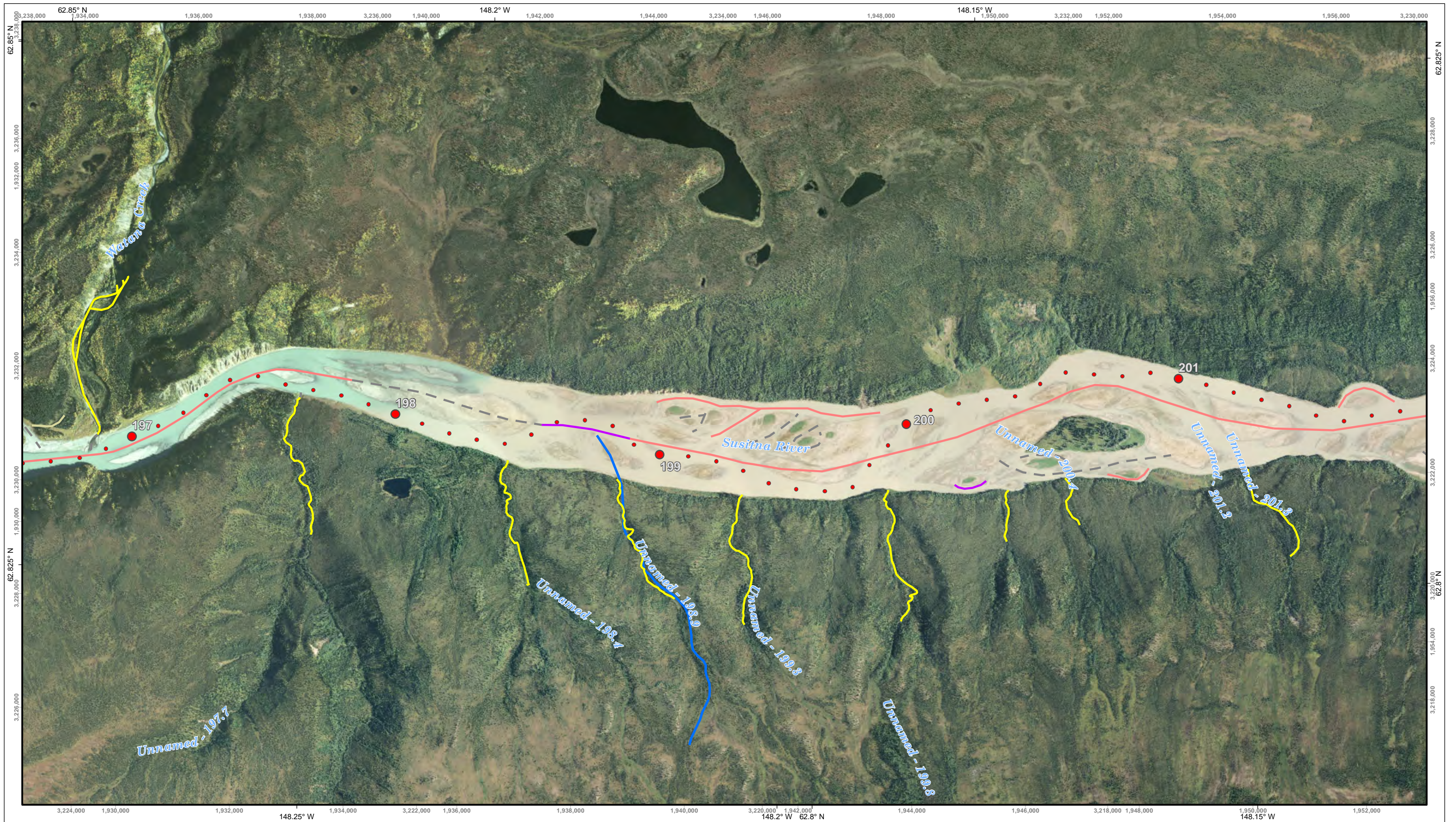
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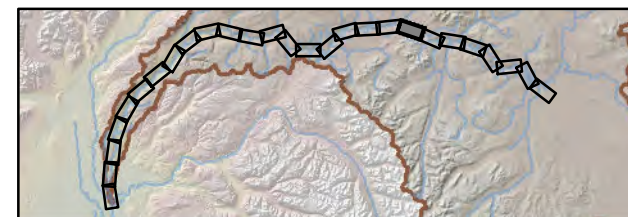
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- Rapid
- Riffle

Macrohabitats

- Side Slough
- Tributary
- Unidentified
- Upland Slough

Special Habitat Features

- Backwater
- Beaver Complex



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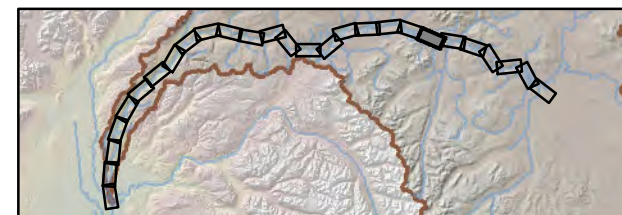
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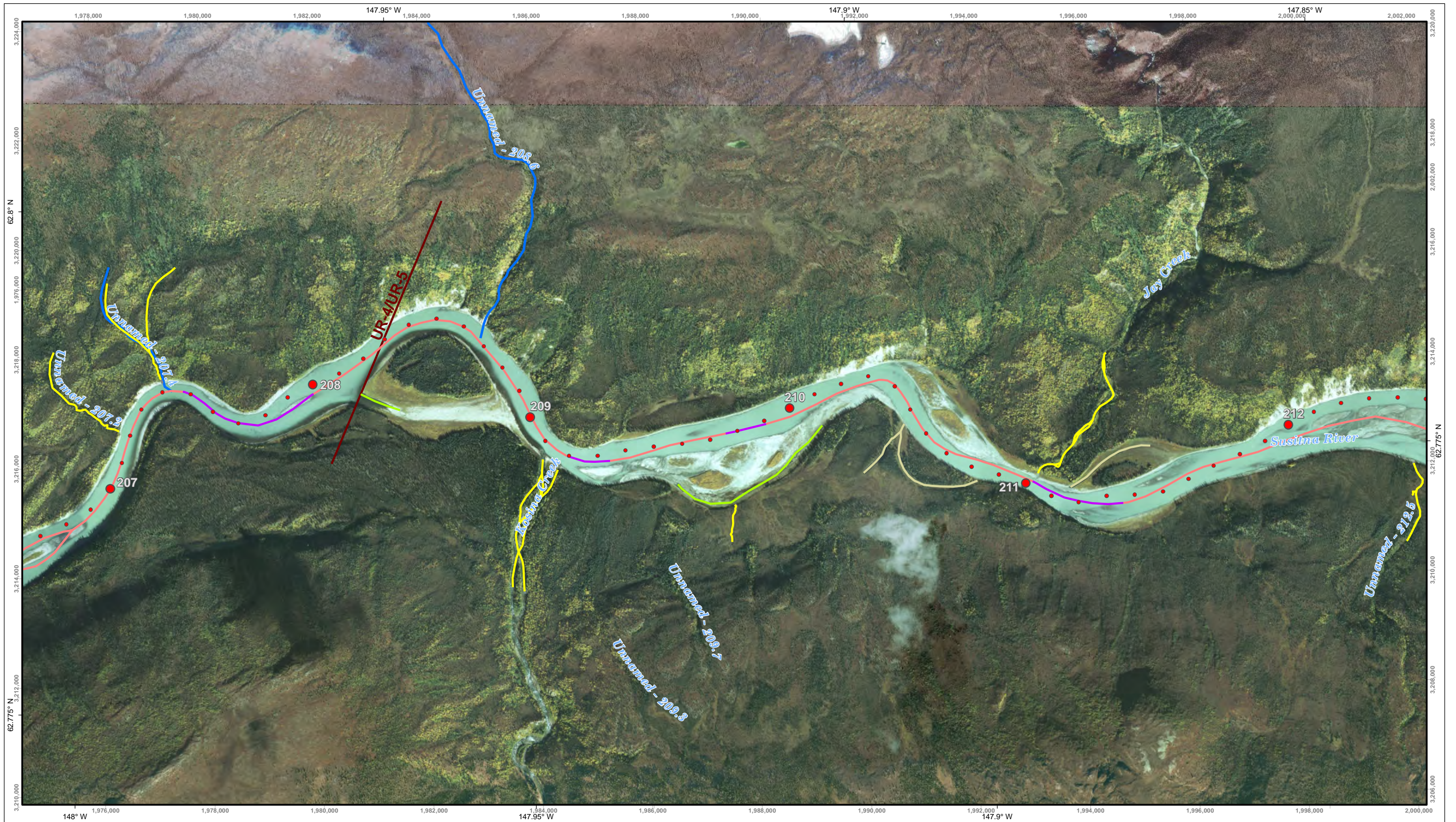
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 Grid Interval: 2000'

General Features

- Susitna Project River Miles
 - Susitna Geomorphic Reach Breaks
 - Focus Area
- | | | |
|---|--|---|
| <p>Mesohabitats</p> <ul style="list-style-type: none"> — Glide or Run — Pool — Rapid — Riffle | <p>Macrohabitats</p> <ul style="list-style-type: none"> — Side Slough — Tributary — Unidentified — Upland Slough | <p>Special Habitat Features</p> <ul style="list-style-type: none"> — Backwater — Beaver Complex |
|---|--|---|



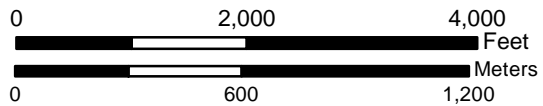
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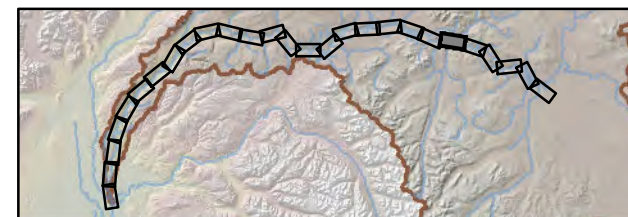
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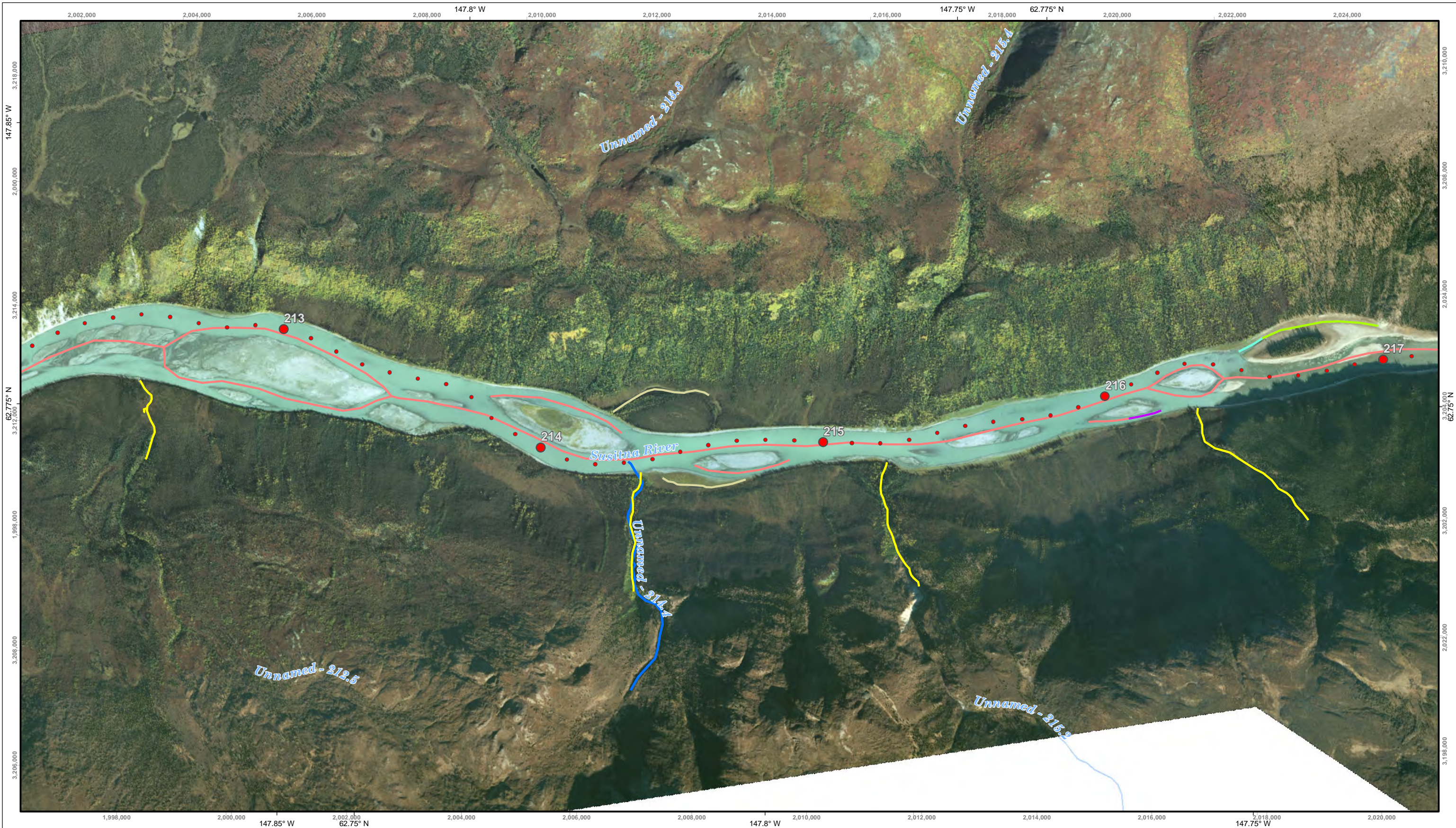
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General Features

- Susitna Project River Miles
 - Susitna Geomorphic Reach Breaks
 - Focus Area
- | | | |
|---|---|--|
| Mesohabitats
— Glide or Run
— Pool
— Rapid
— Riffle | Macrohabitats
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— Backwater
— Beaver Complex |
|---|---|--|



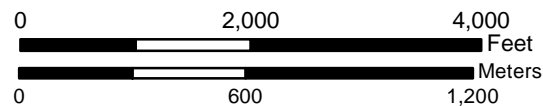
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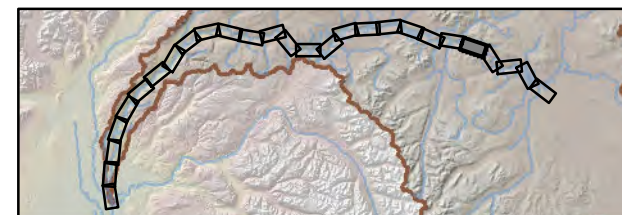
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General Features

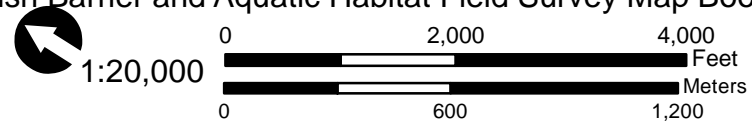
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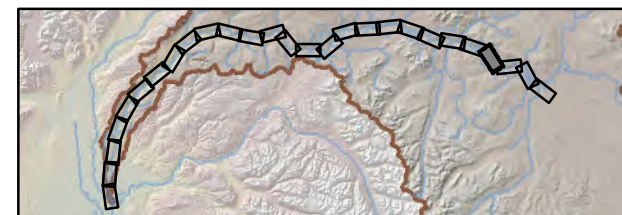


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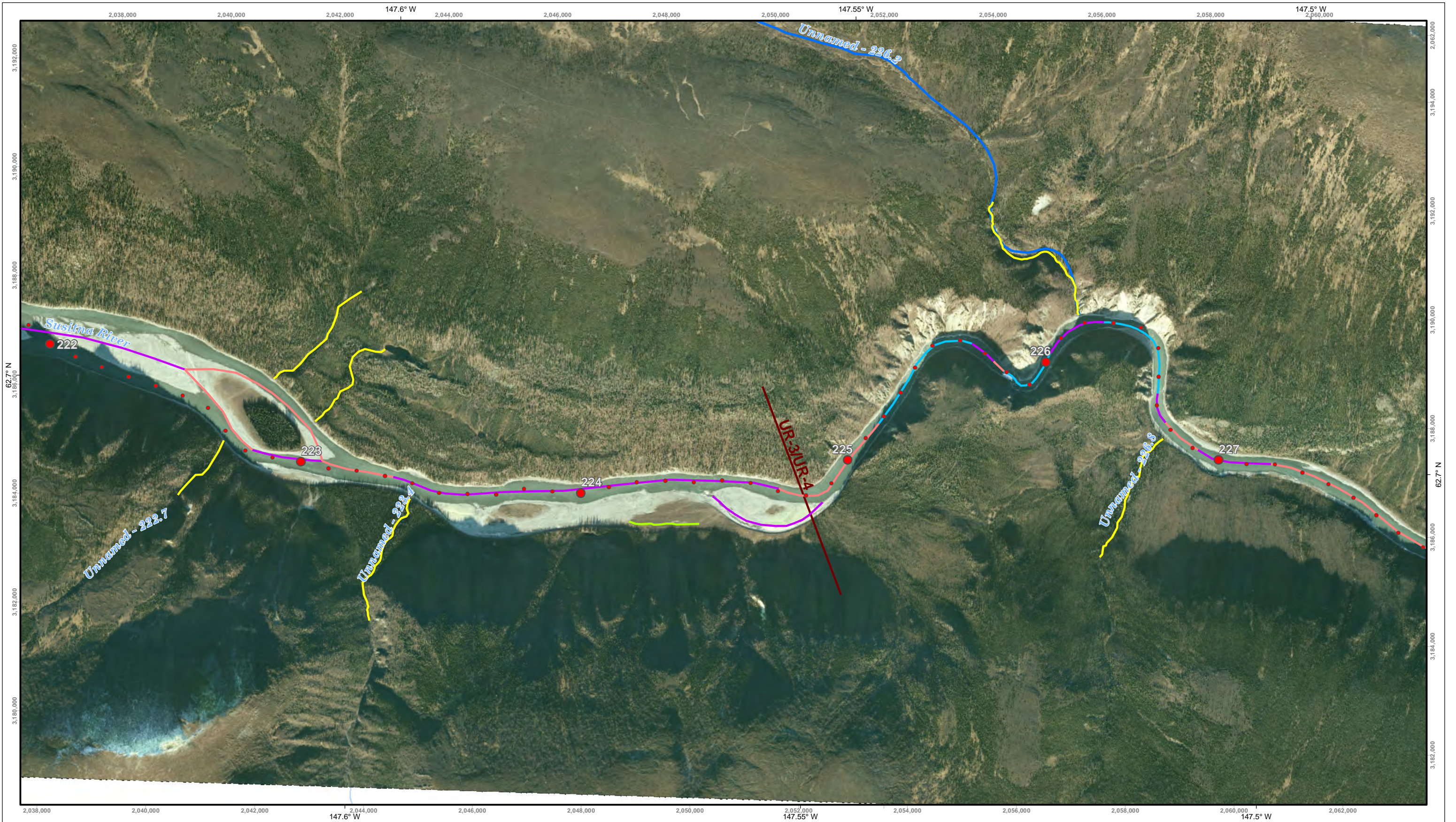


Map Projection: NAD83 State Plane Zone 4 (Feet)
 Grid Interval: 2000'

General Features			
●	Susitna Project River Miles	—	Side Slough
—	Susitna Geomorphic Reach Breaks	—	Pool
□	Focus Area	—	Rapid
		—	Riffle
		—	Tributary
		—	Unidentified
		—	Upland Slough
		—	Beaver Complex
		—	Backwater



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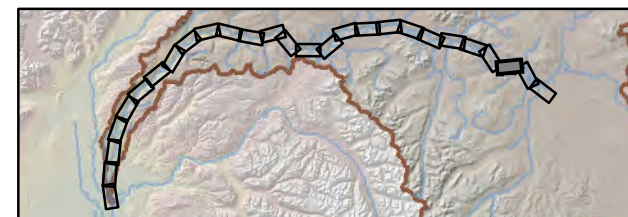
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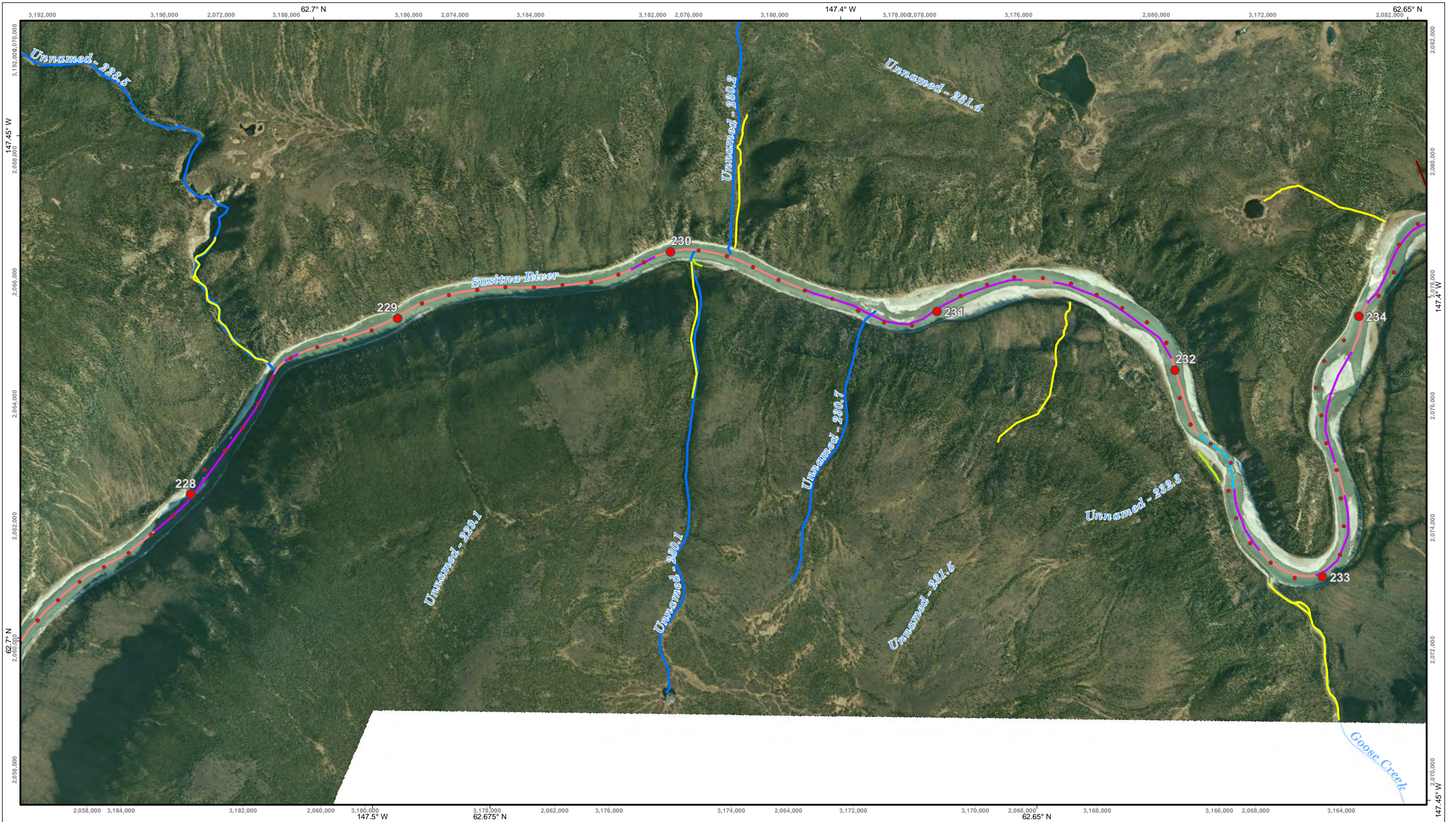
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General Features

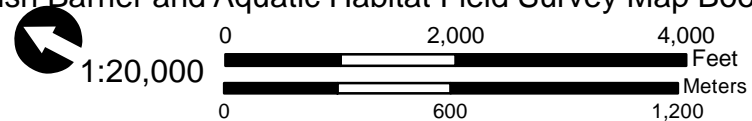
- Susitna Project River Miles
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|---|--|--|
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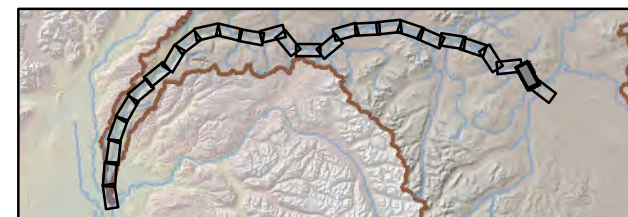


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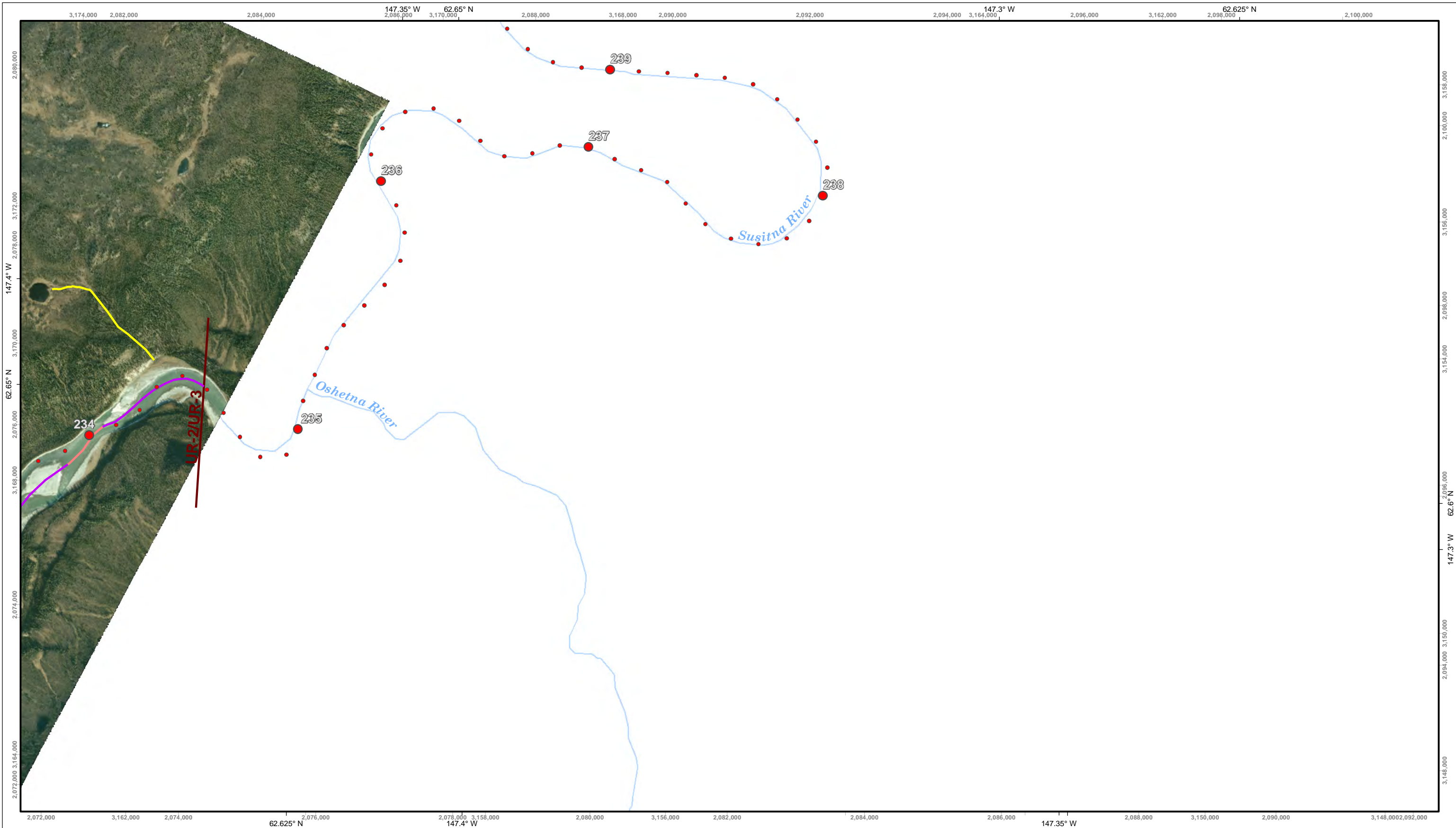


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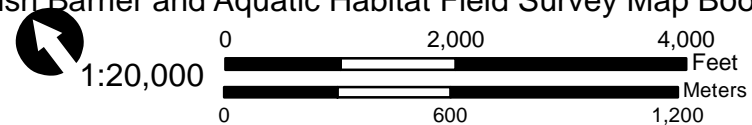
General Features			
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—	Susitna Geomorphic Reach Breaks	—	Pool
	Focus Area	—	Rapid
		—	Riffle
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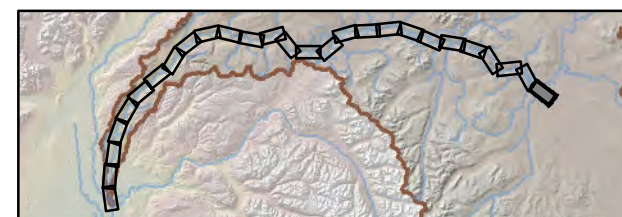


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General Features			
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— Susitna Geomorphic Reach Breaks	— Pool	— Tributary	— Beaver Complex
 Focus Area	— Rapid	— Unidentified	
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