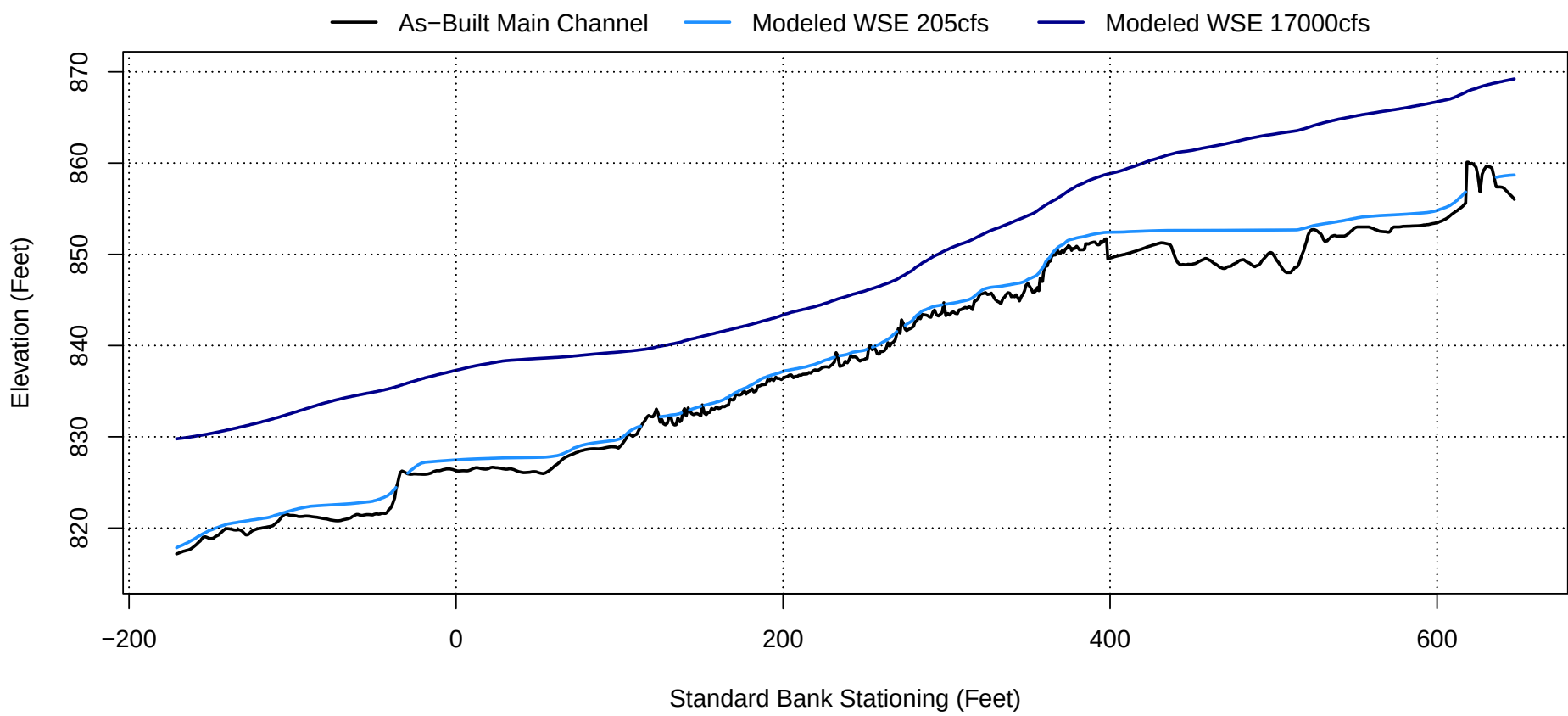


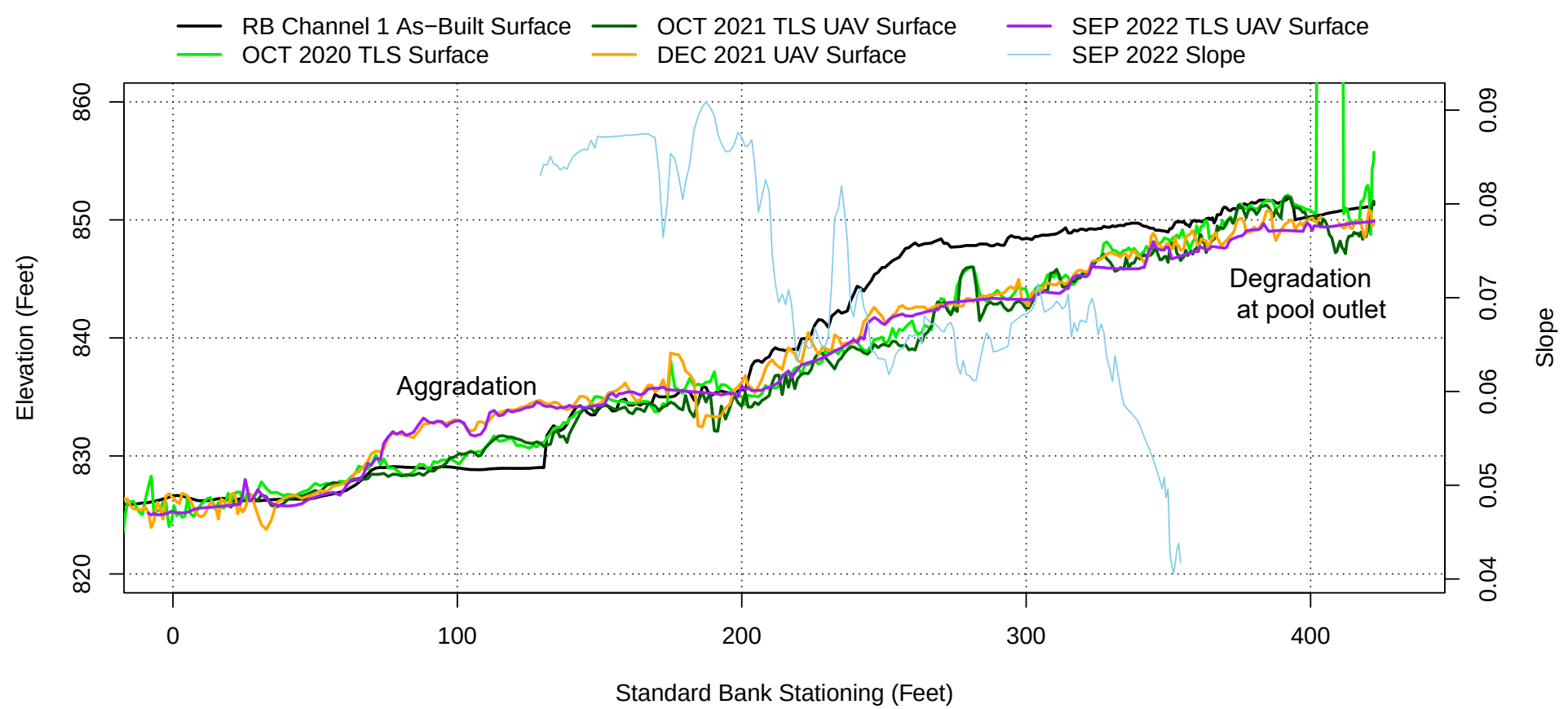
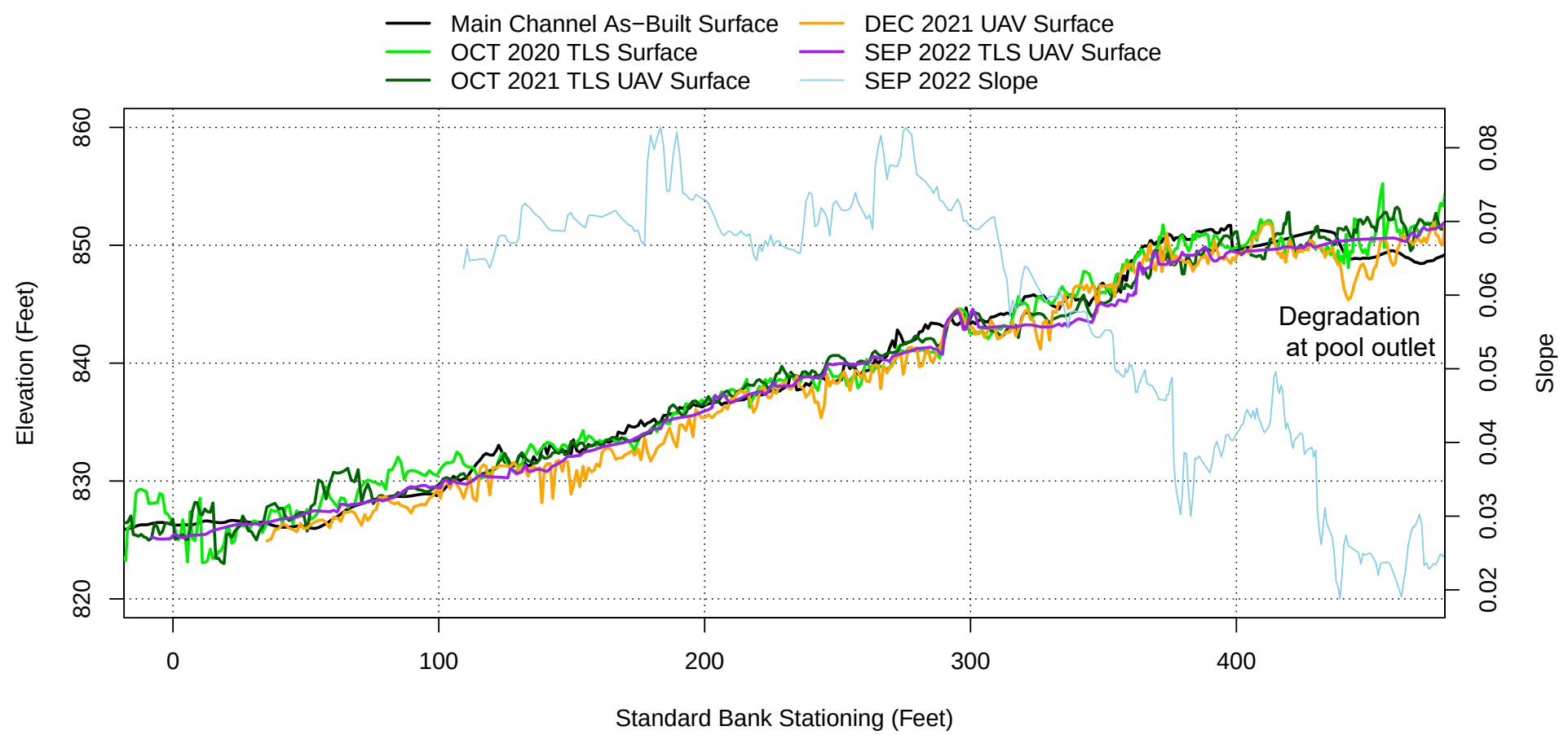
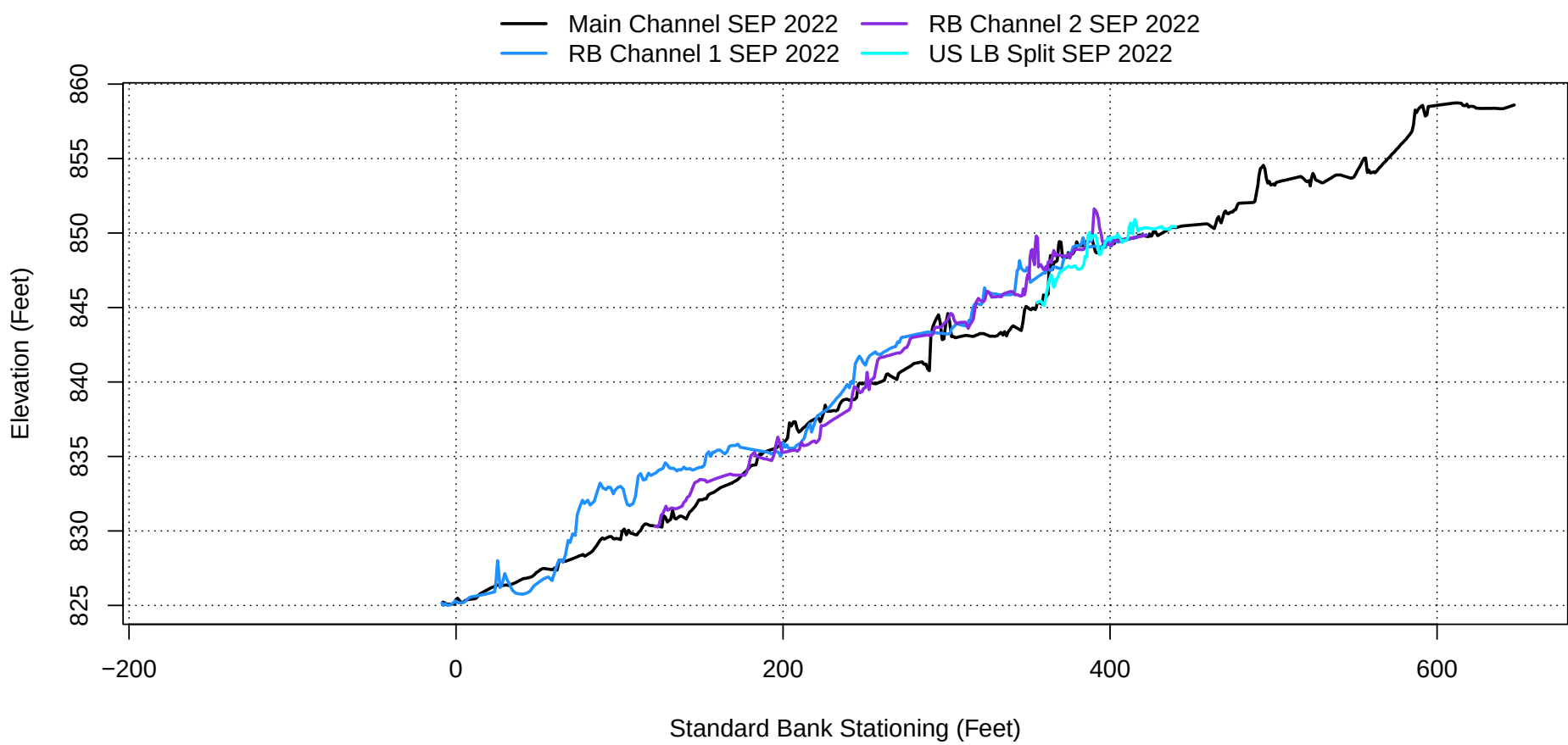
MF Nooksack River Fish Passage Two-Year Monitoring: Topographic and Photographic Analysis

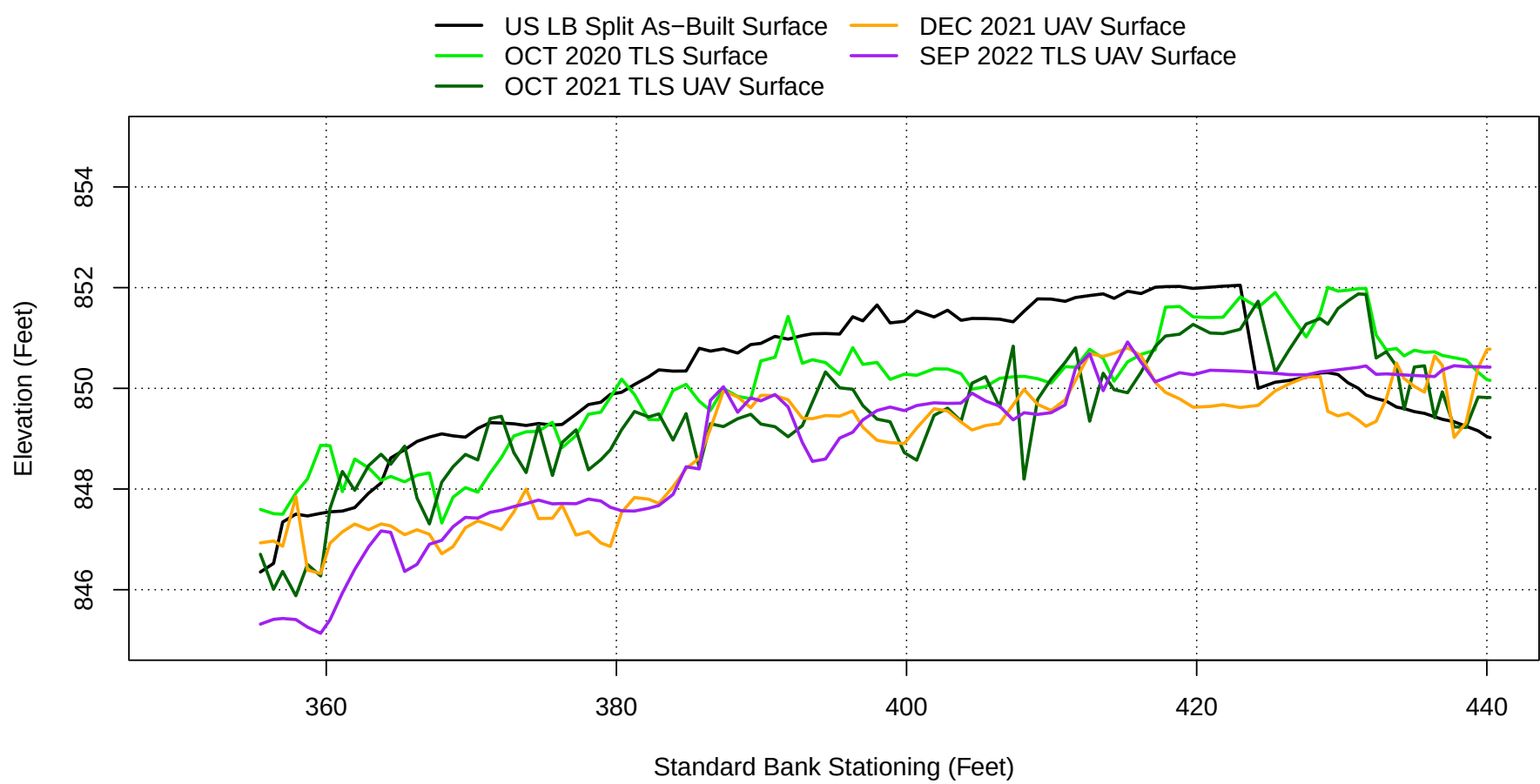
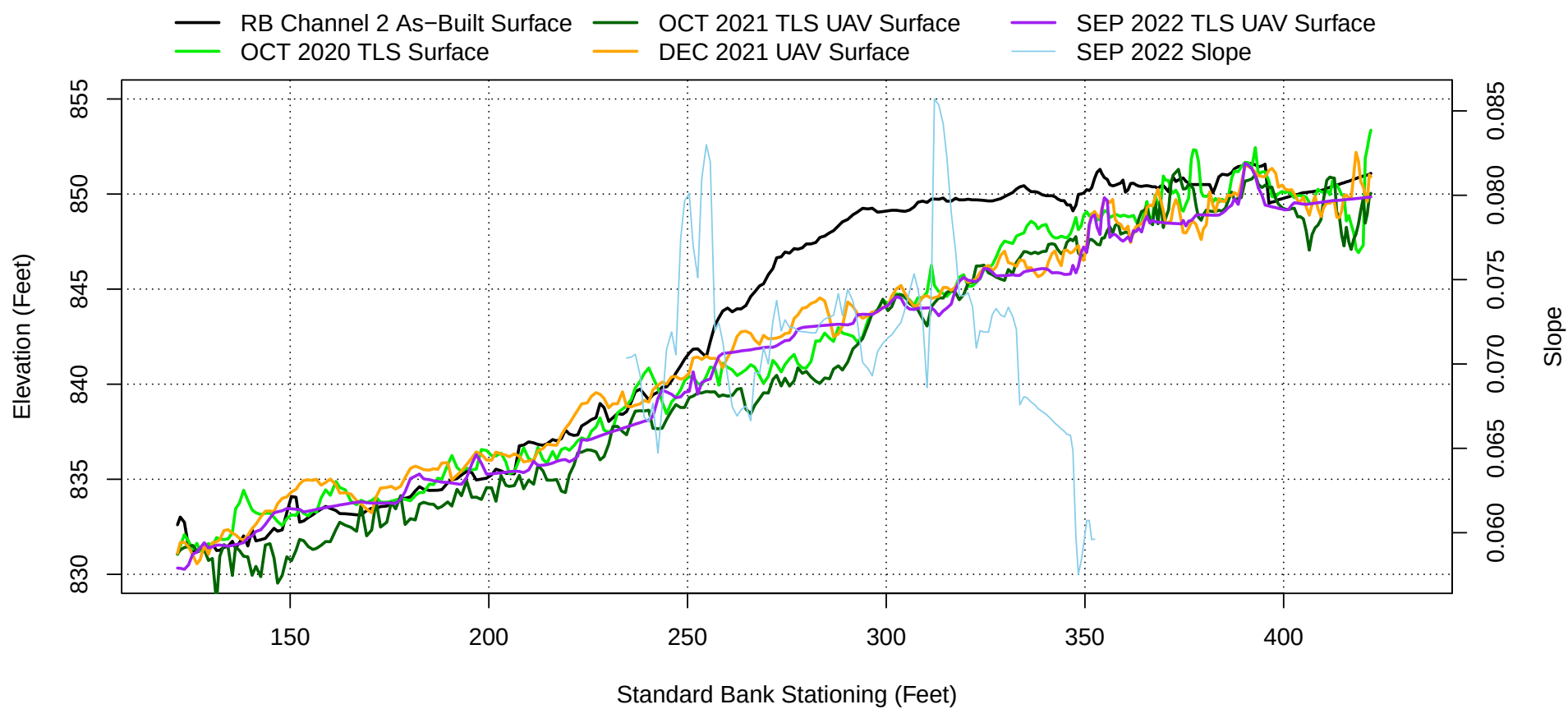
Channel Profiles

The following longitudinal profile plots include topographic data of the potential fish passage flow routes outlined in the Site Overview Map (Figure 2.1). Profile lines were extracted from the compiled as-built surface, the December 2020 UAV digital surface model, the modeled water surface elevations (WSE) at 170 cfs (the flows estimated at the time of the as-built survey), and the 200-ft slopes of the Dec 2020 terrain.

Modeled As-Built Conditions







Roadway near time lapse camera (“Small Bridge” on map)

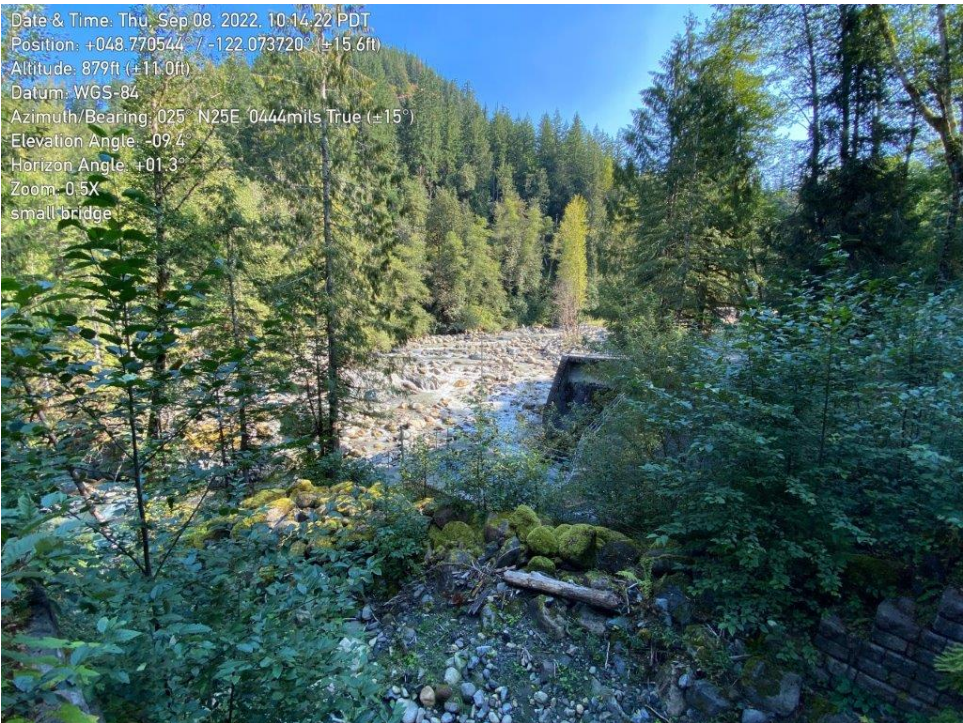
October 2020



September 2021



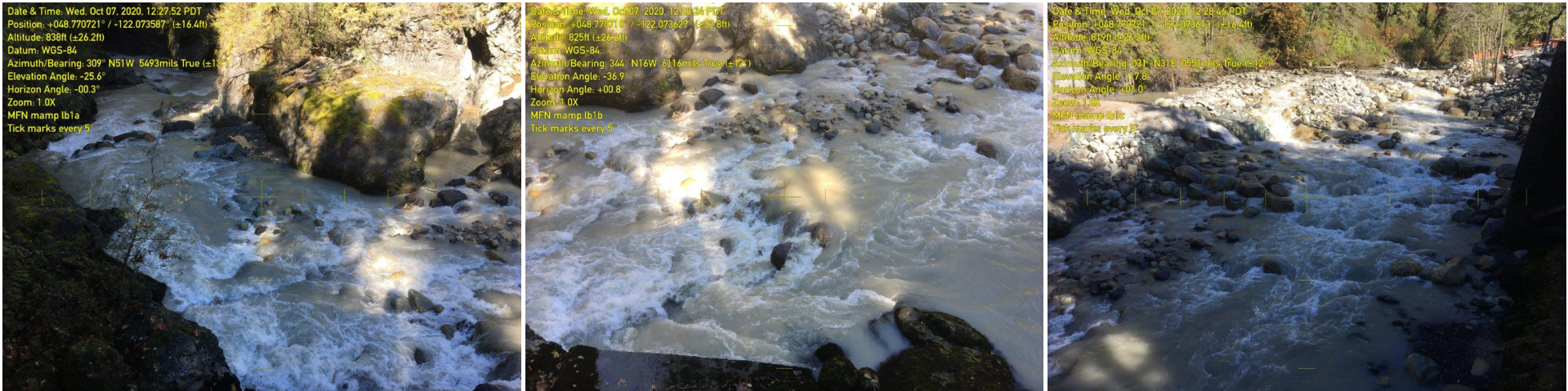
September 2022



Photograph taken looking upstream from the roadway at the approximate timelapse camera location

Left Bank Location 1 (LB1)

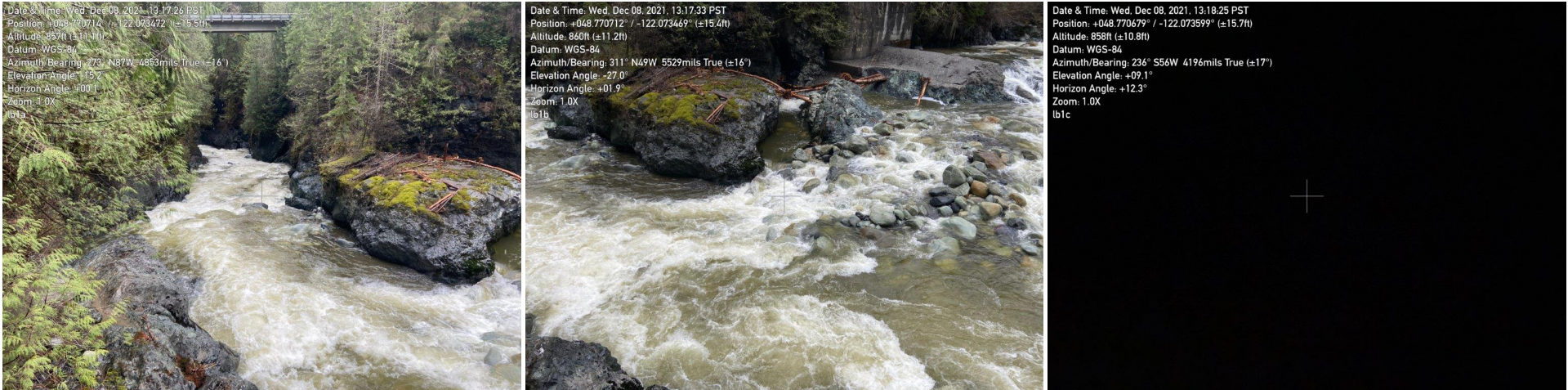
October 2020



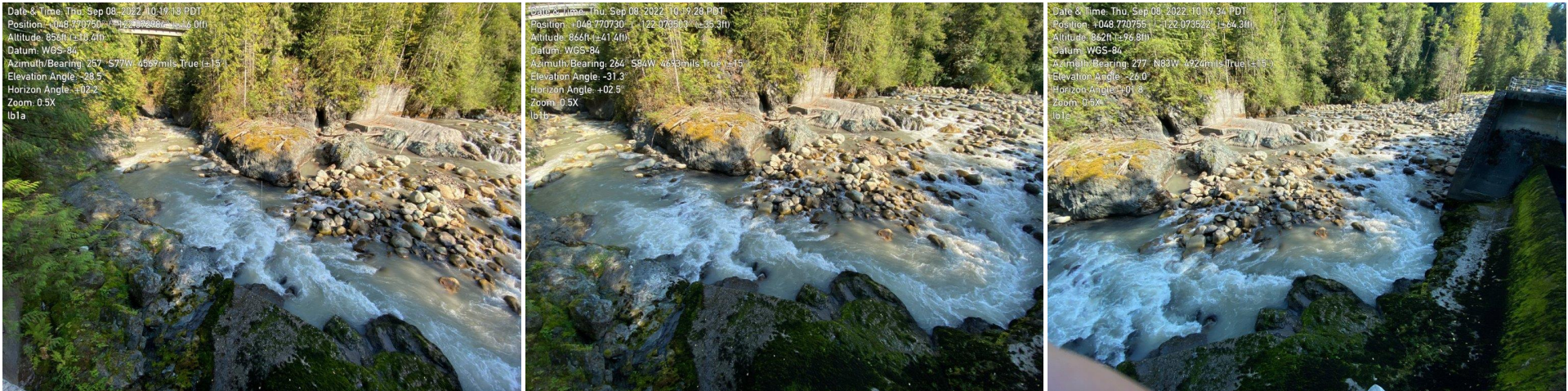
September 2021



December 2021



September 2022



Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the photograph location marker

Left Bank Location 2 (LB2)

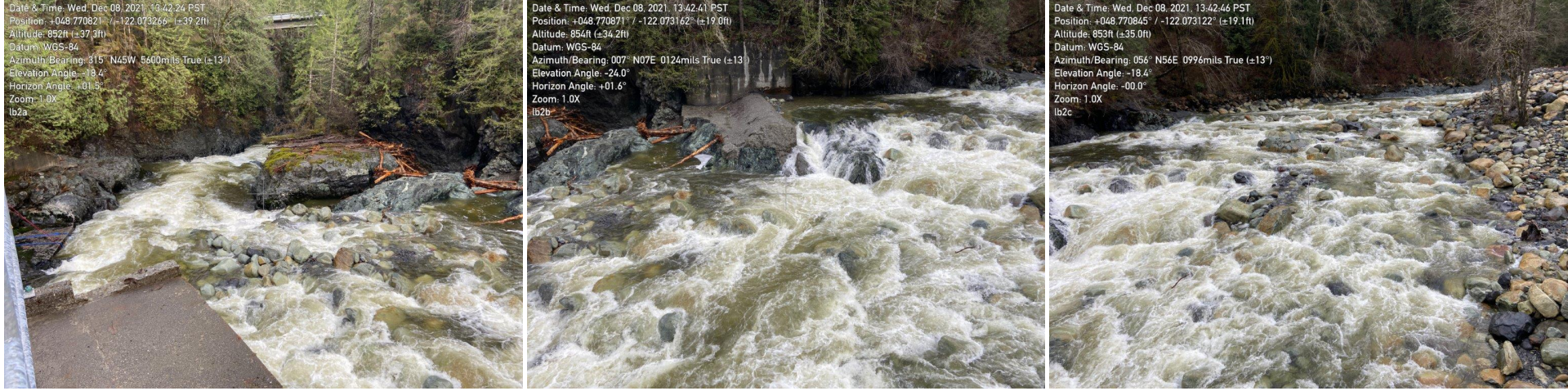
October 2020



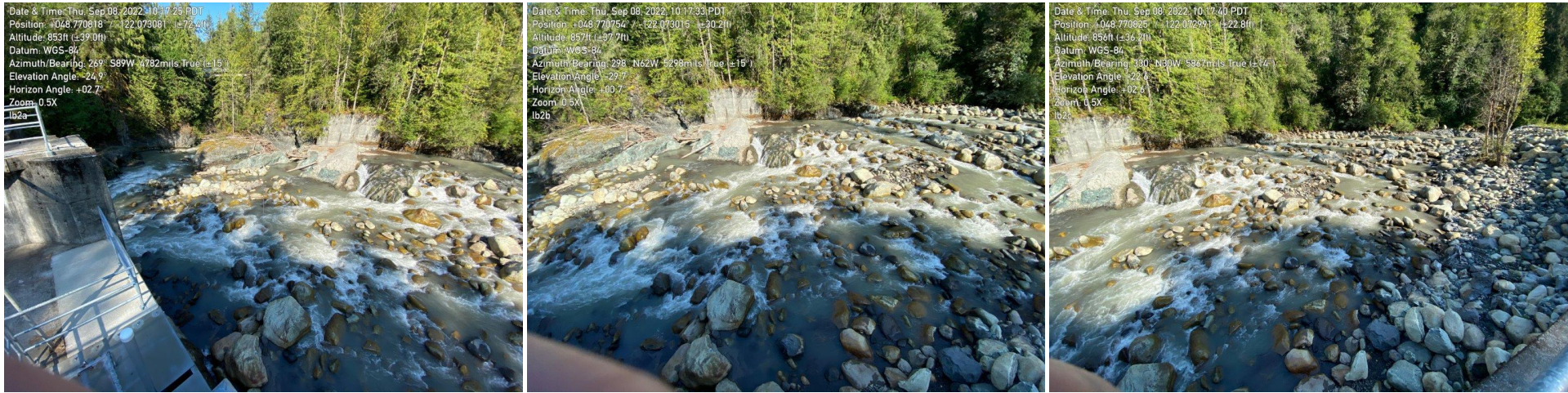
September 2021



December 2021



September 2022



Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the photograph location marker

Bridge Upstream Location (Bridge US)

October 2020



September 2022



Photographs taken from the bridge center railing looking at the upstream horizon (left), upstream oblique (center) and directly below bridge (right)

Bridge Downstream Location (Bridge DS)

October 2020



Photographs taken from the bridge center railing looking at the downstream horizon (left), downstream oblique (center) and directly below bridge (right)

Overview from Road

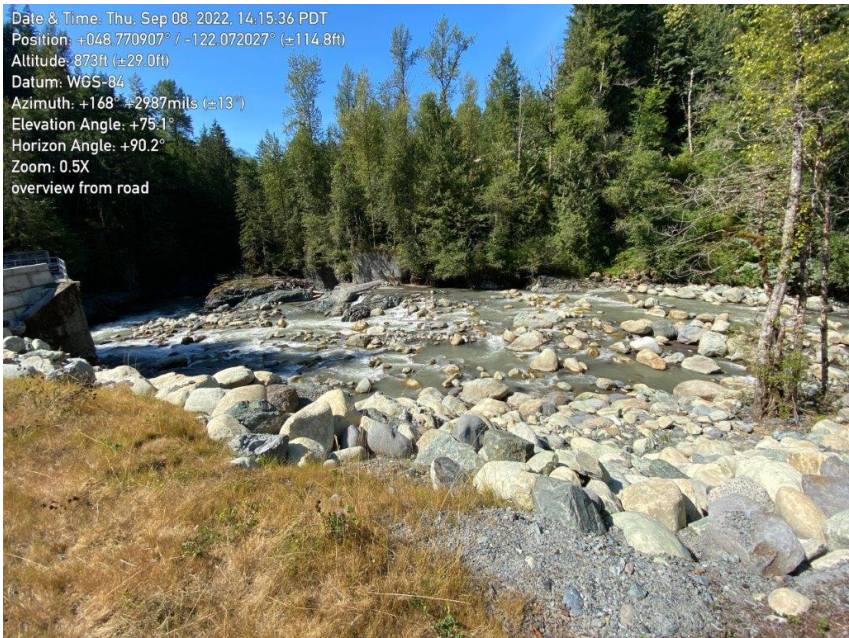
October 2020



September 2021



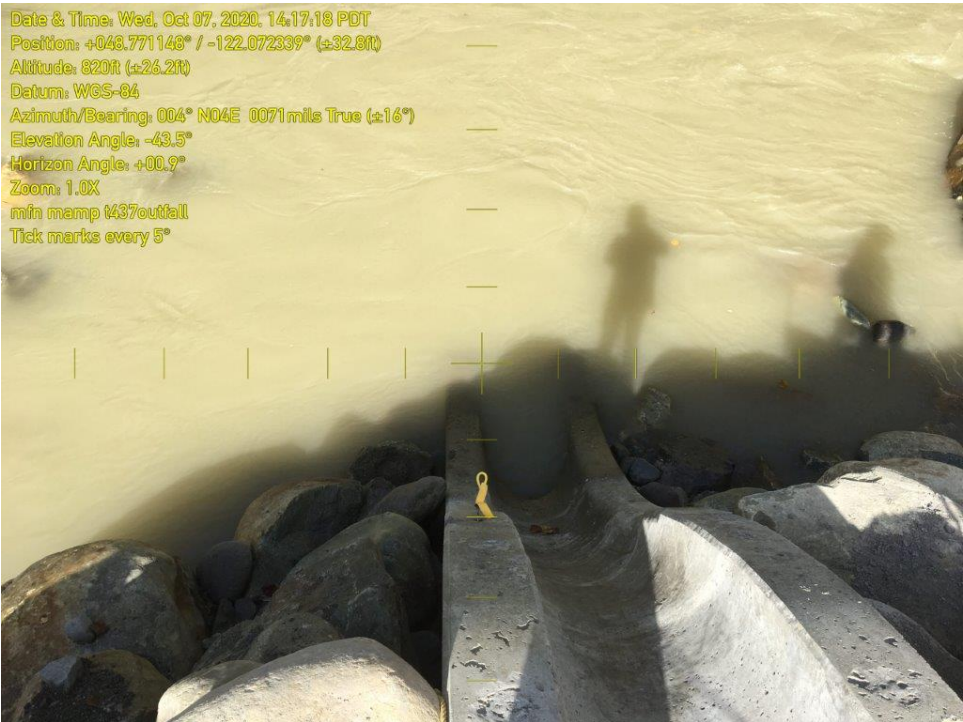
September 2022



Photographs taken looking downstream from construction roadway

Fishway Outfall Slide (Transect 437 on map)

October 2020



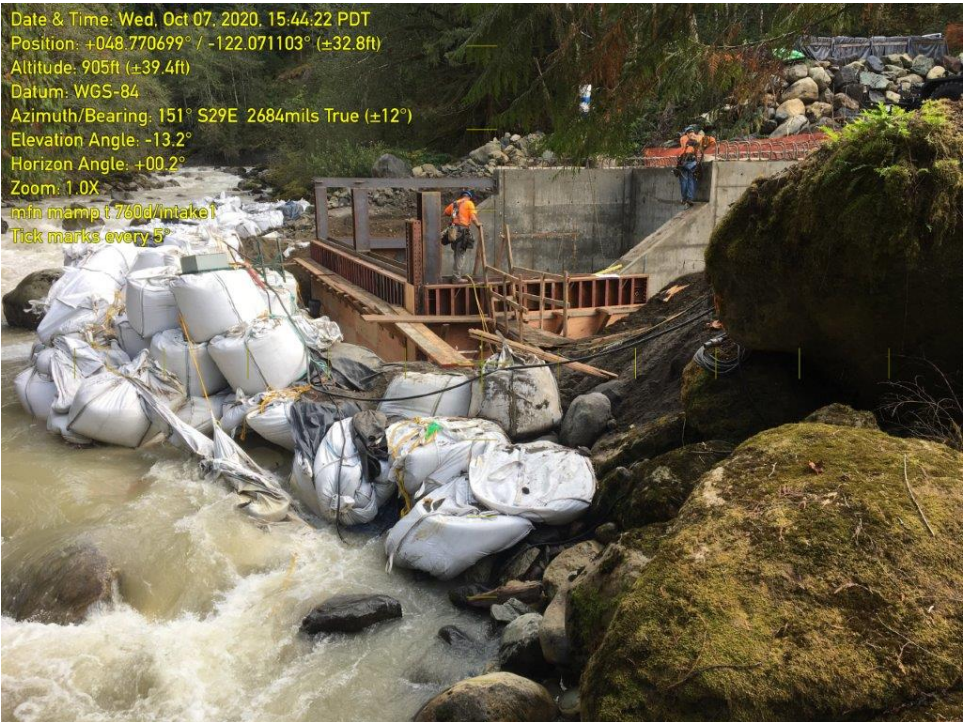
September 2022



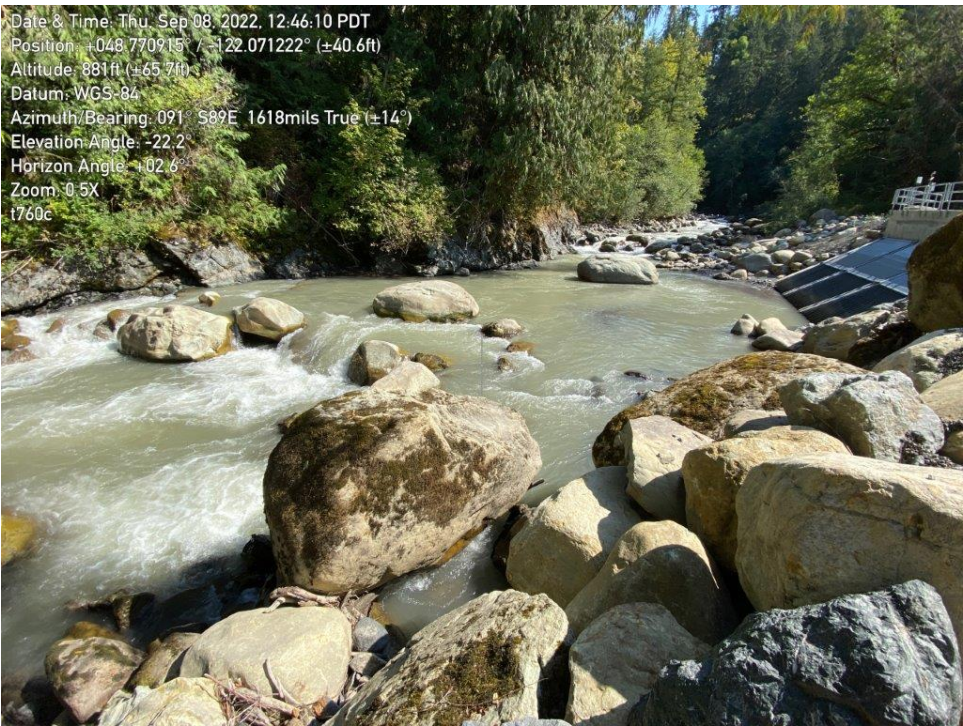
Photograph taken looking down at fishway outfall slide from Transect 437 marker

Intake 1 (Transect 760 on map)

October 2020



September 2022



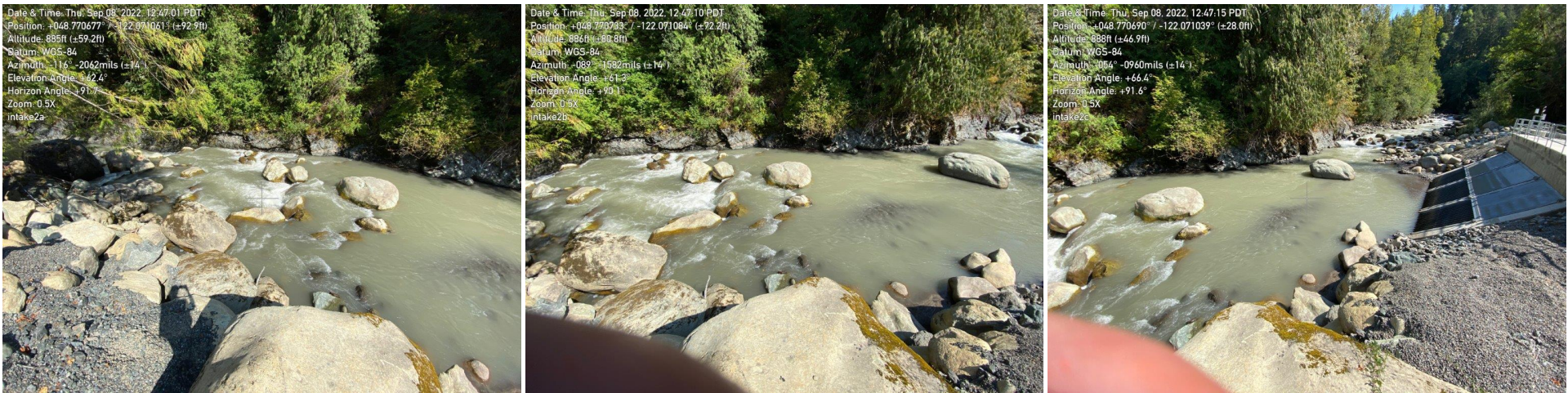
Photograph taken looking upstream from Transect 760 marker

Intake 2

October 2020



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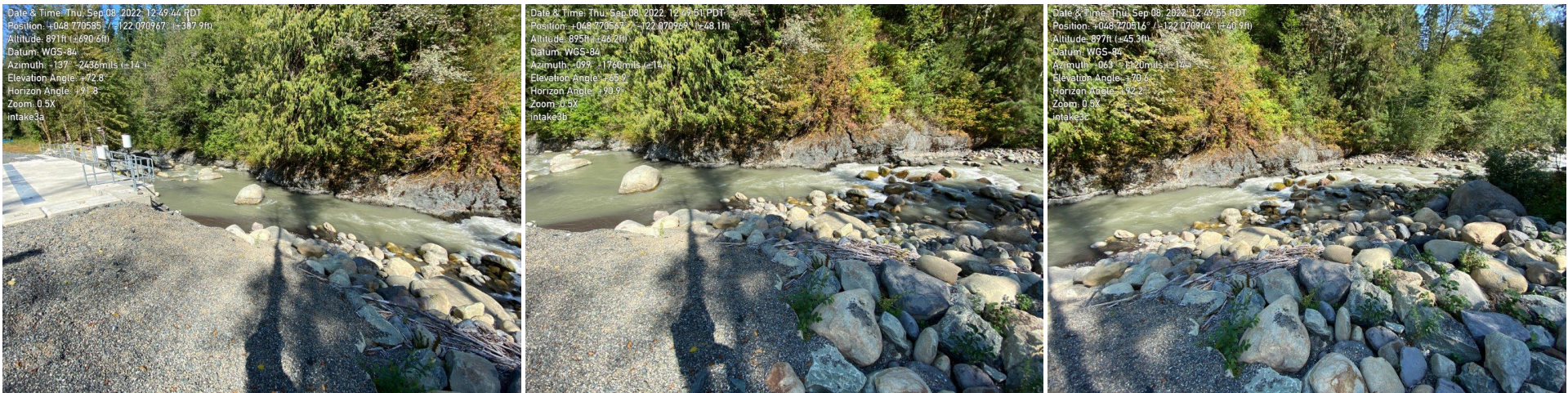
Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the photograph location marker

Intake 3

October 2020



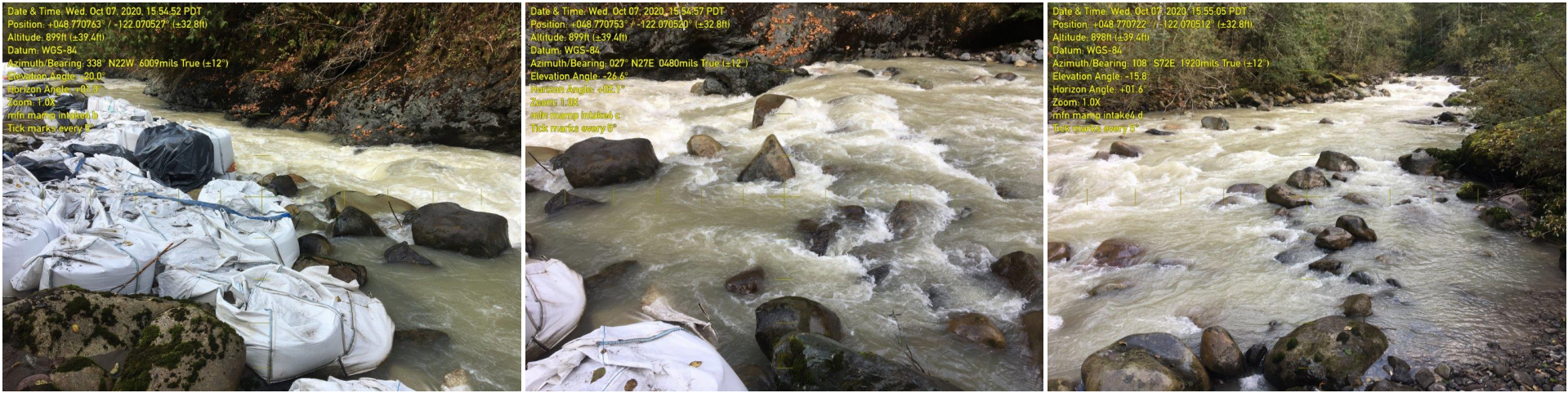
September 2022



Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the photograph location marker

Intake 4

October 2020



September 2022



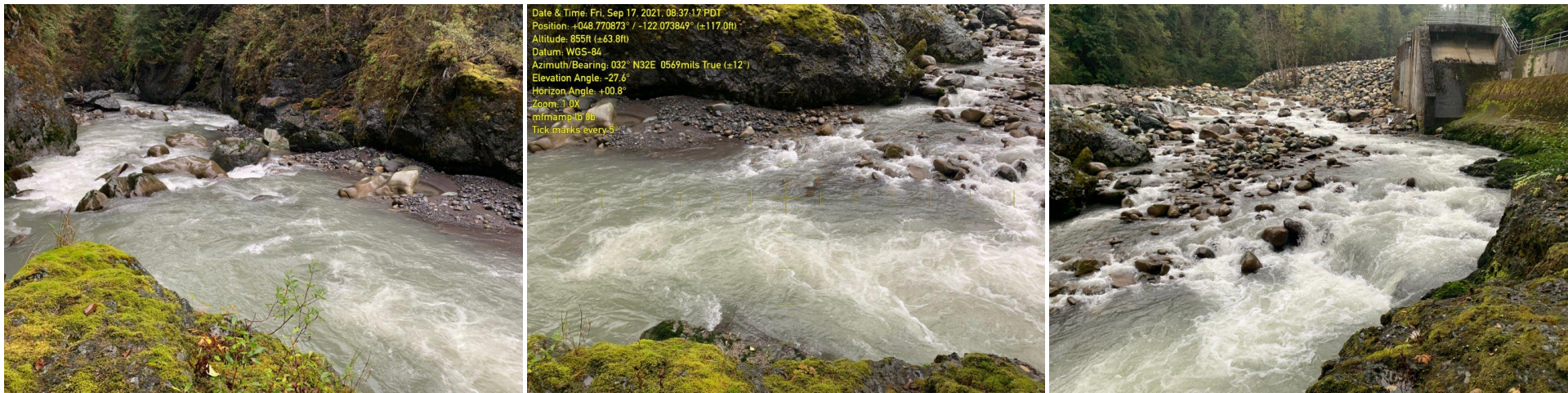
Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the photograph location marker

Transect 0

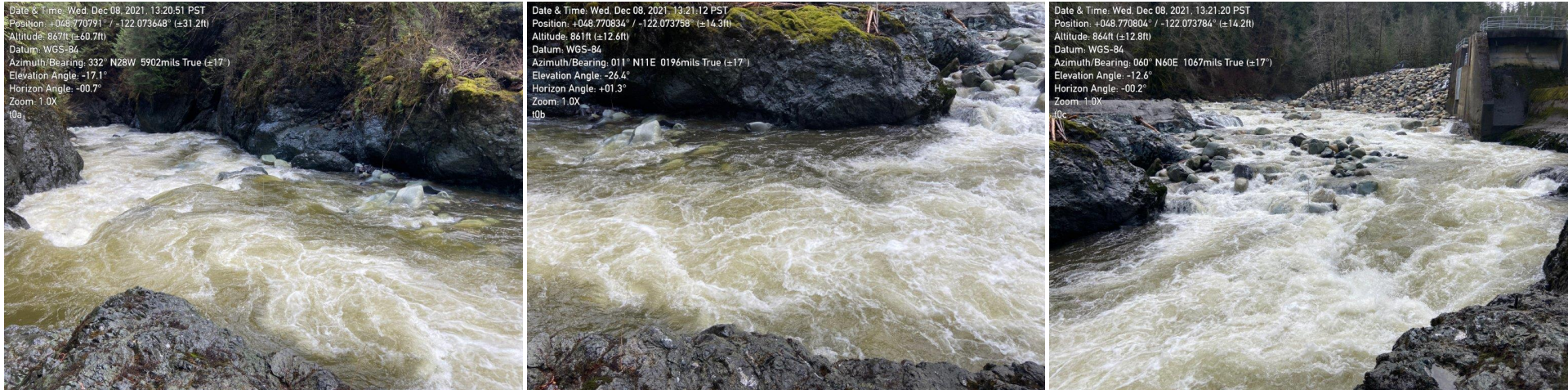
October 2020



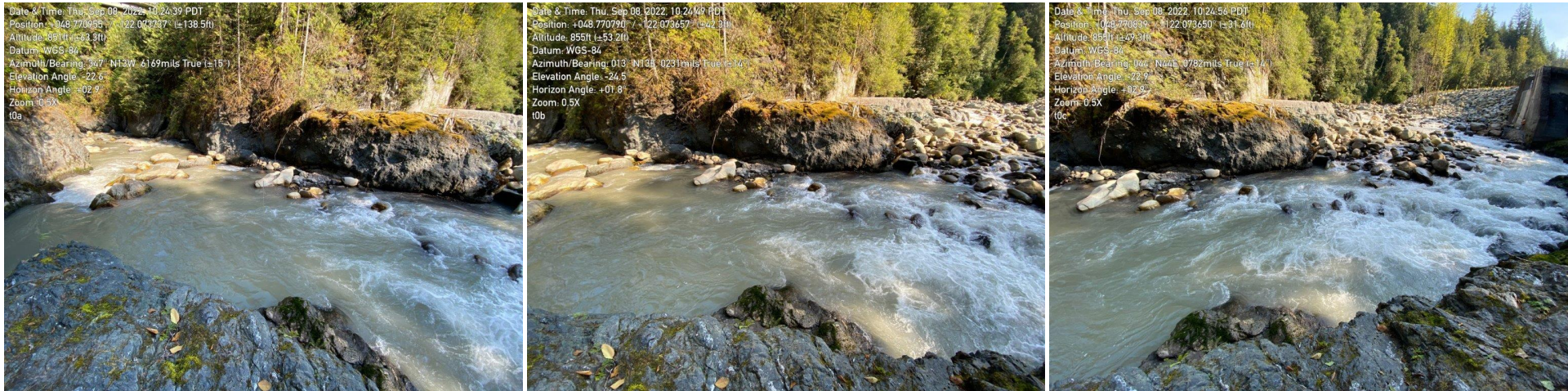
September 2021



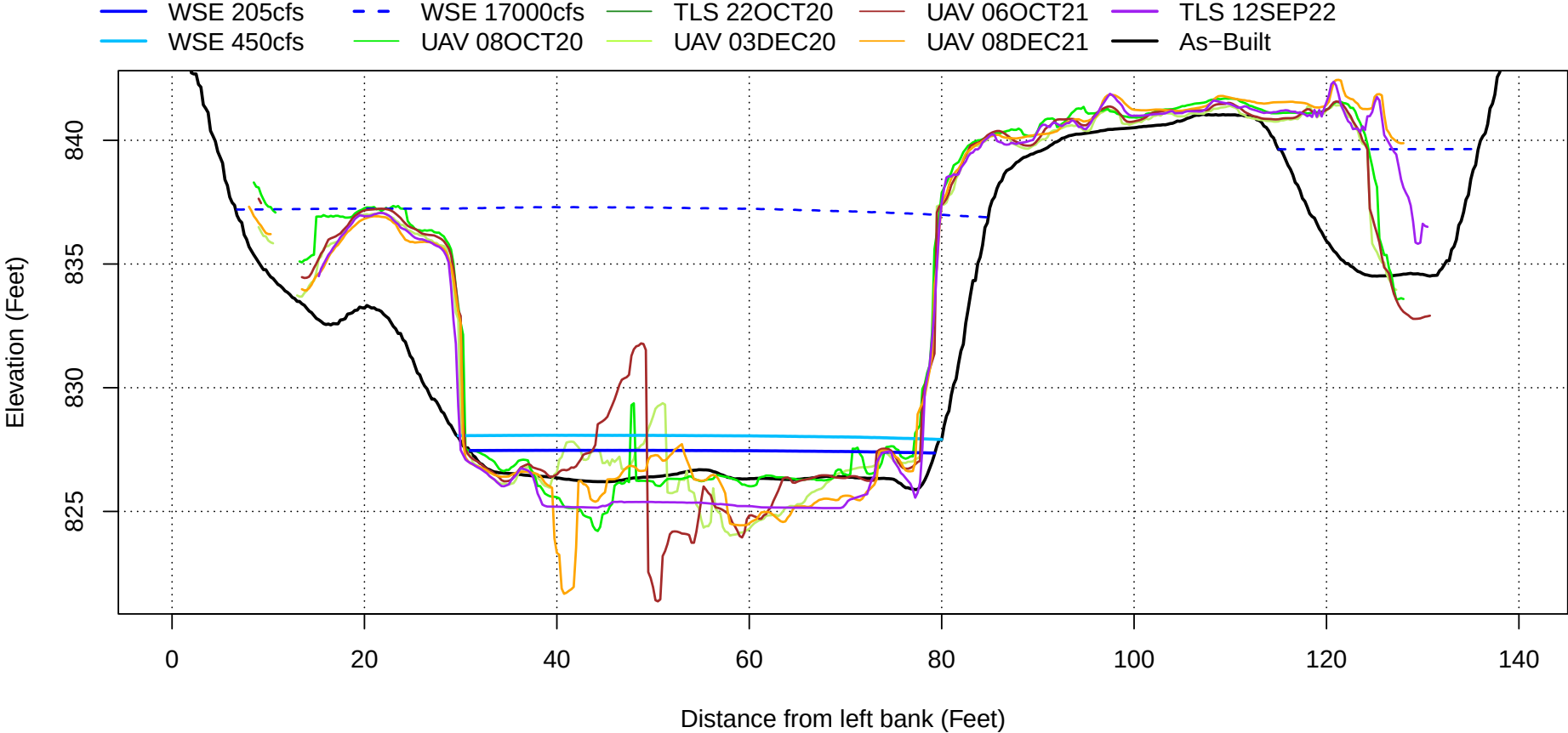
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

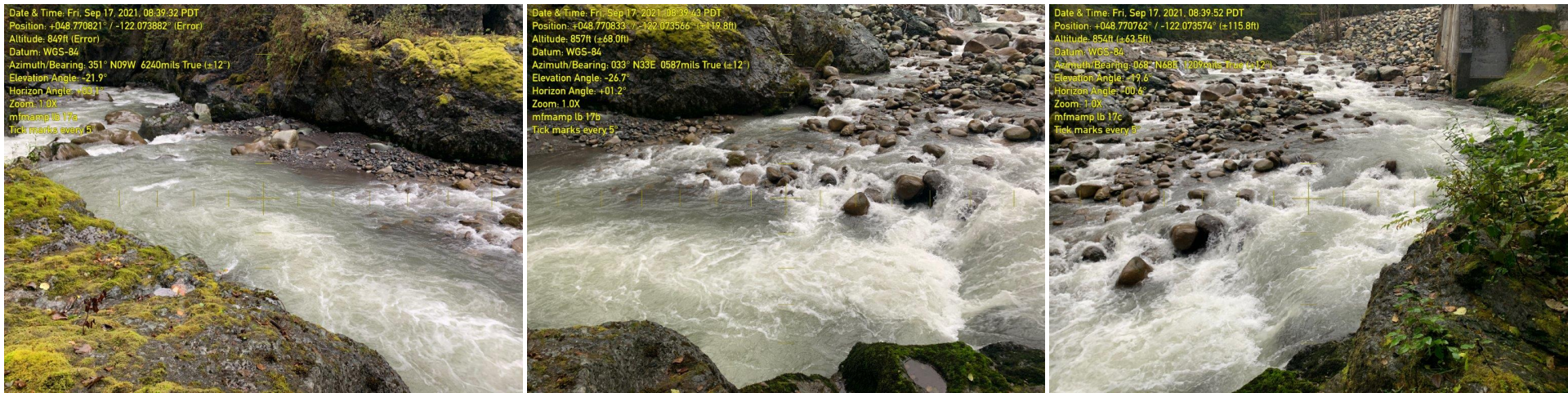


Transect 17

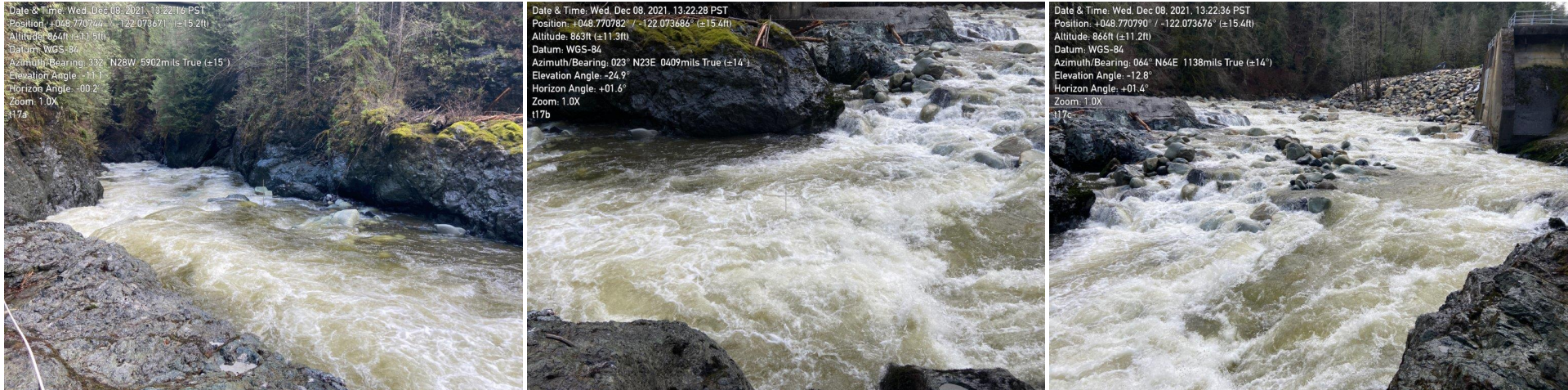
October 2020



September 2021



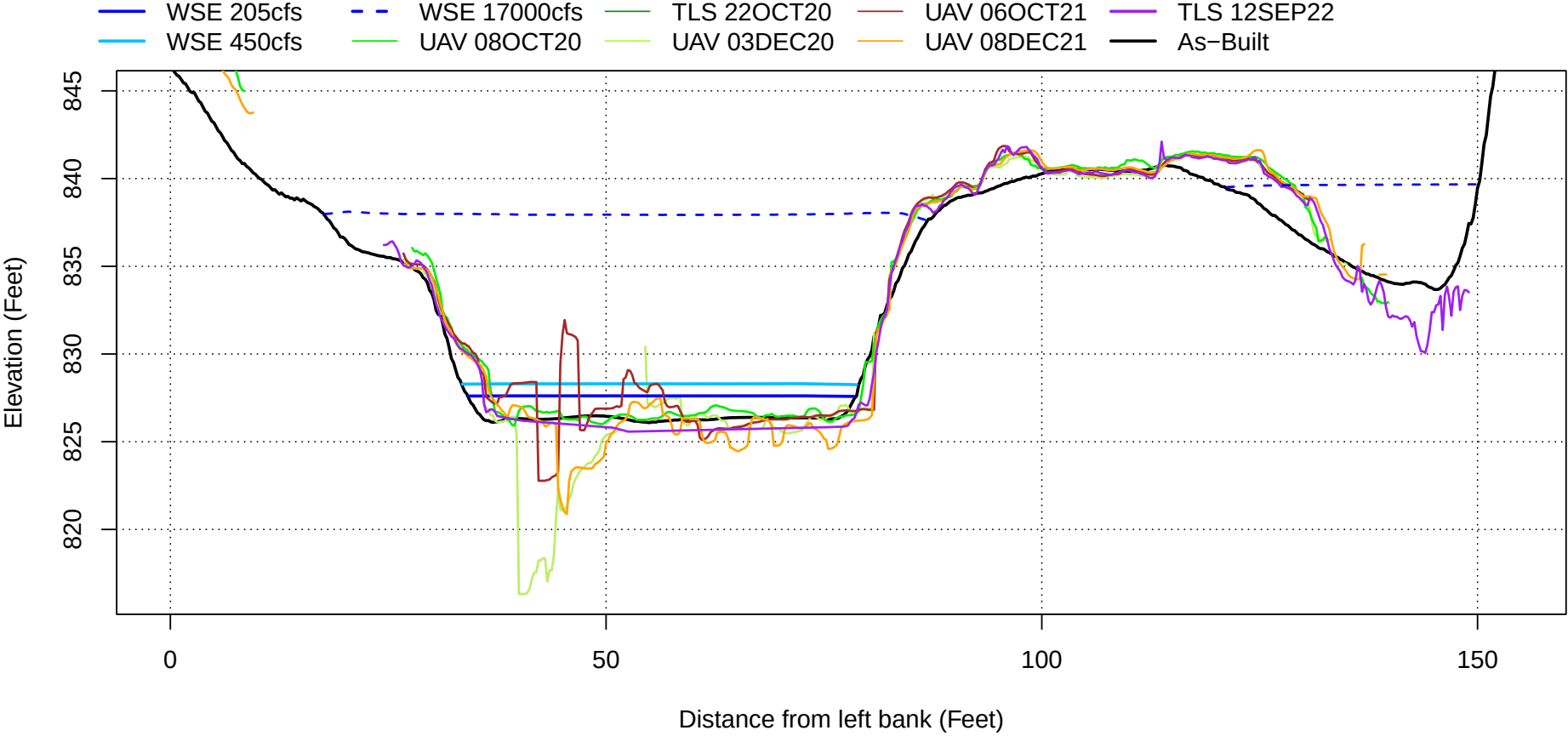
December 2021



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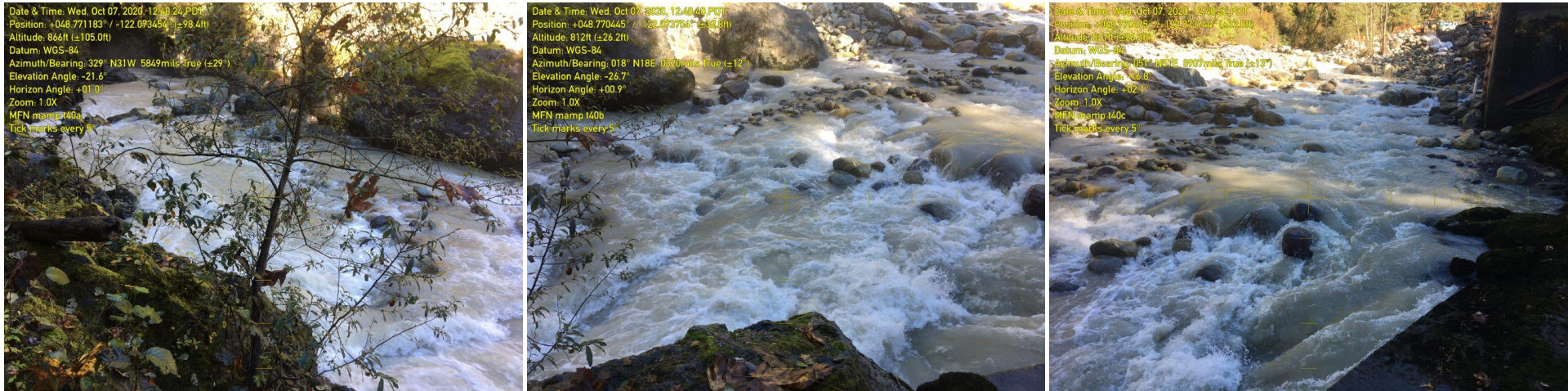


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 40

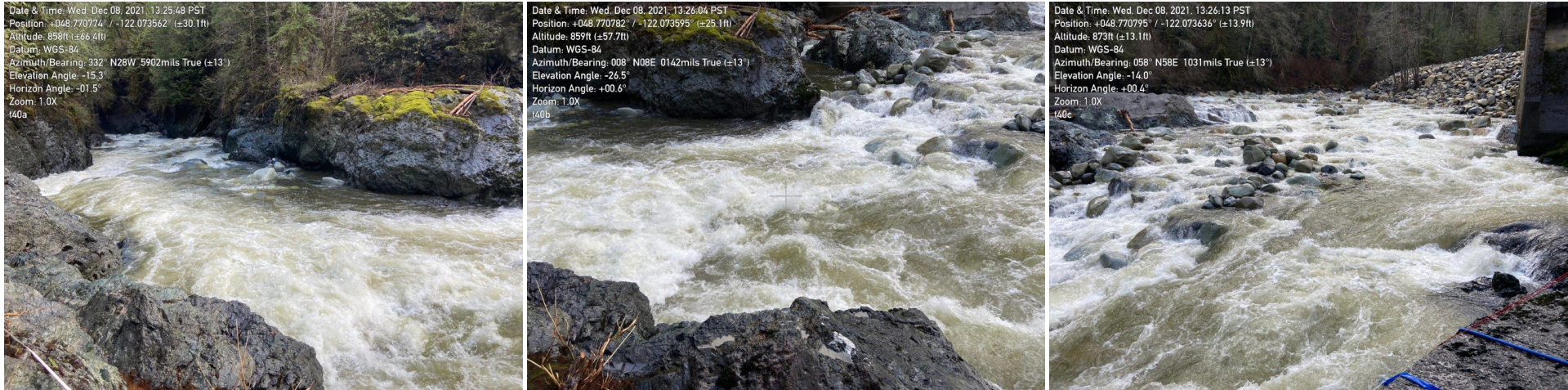
October 2020



September 2021



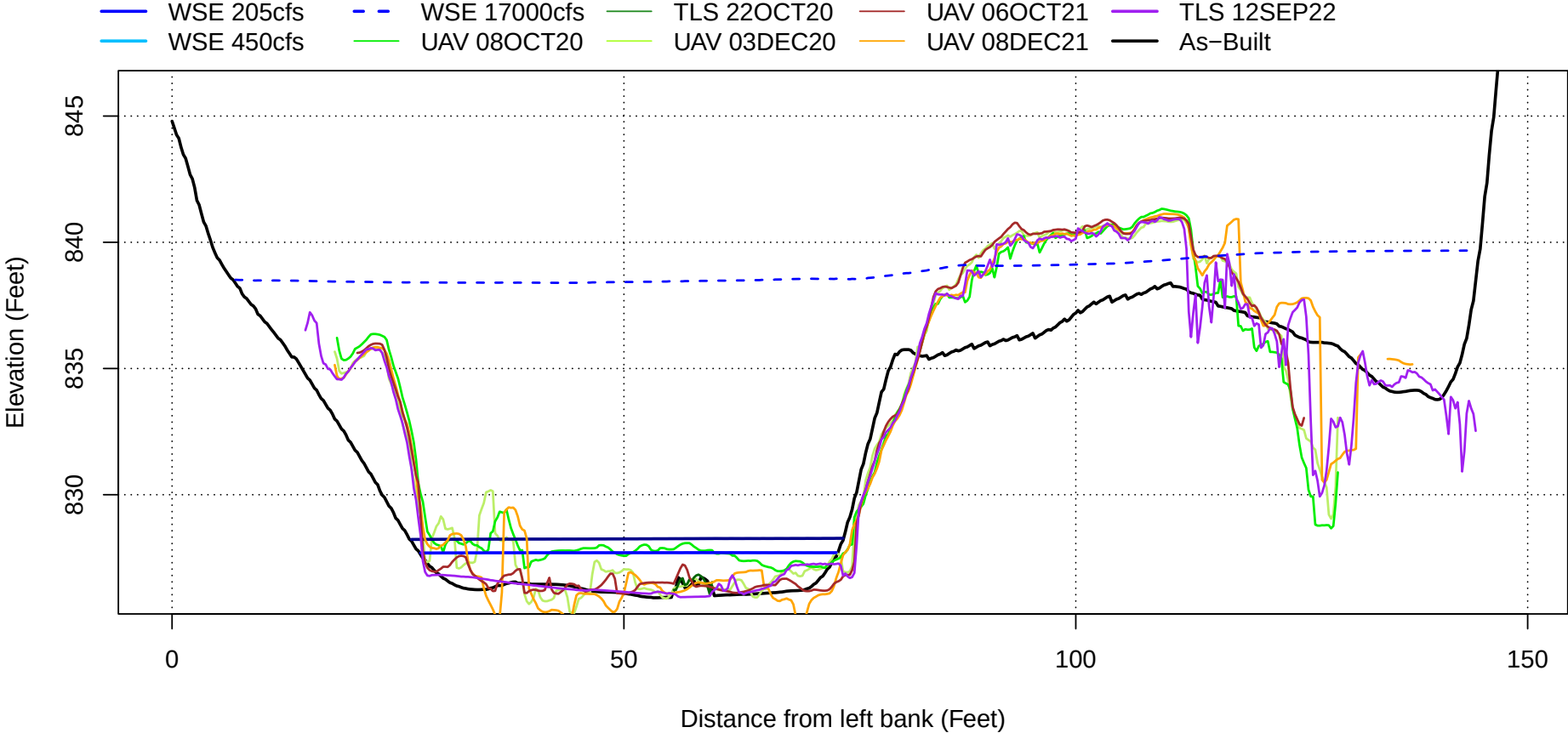
December 2021



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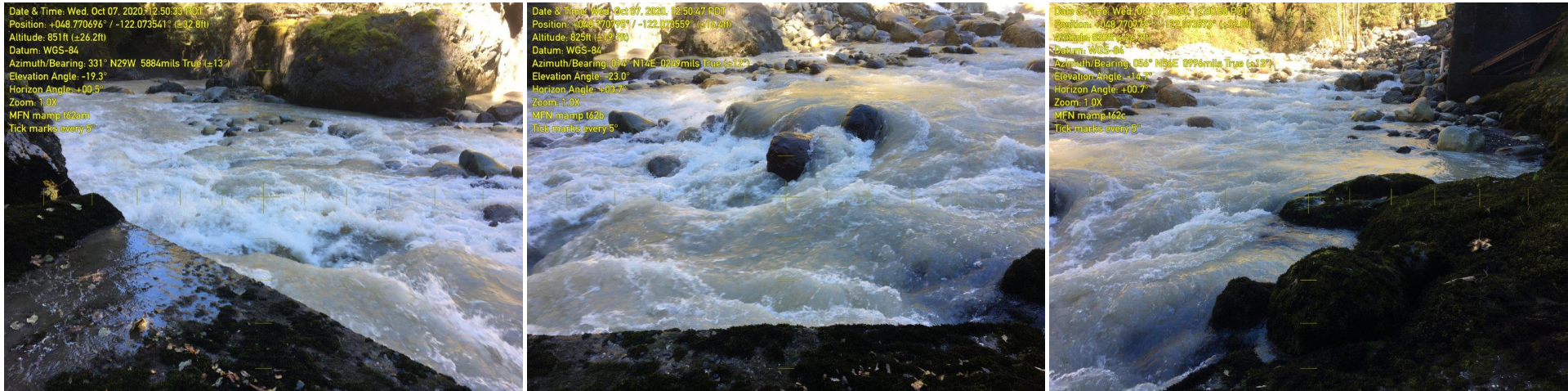


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 62

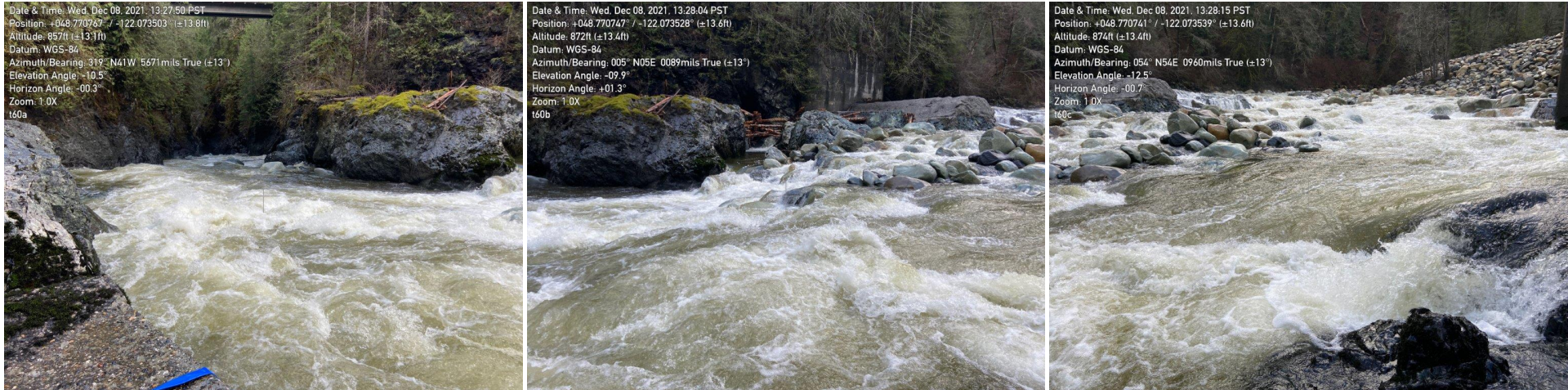
October 2020



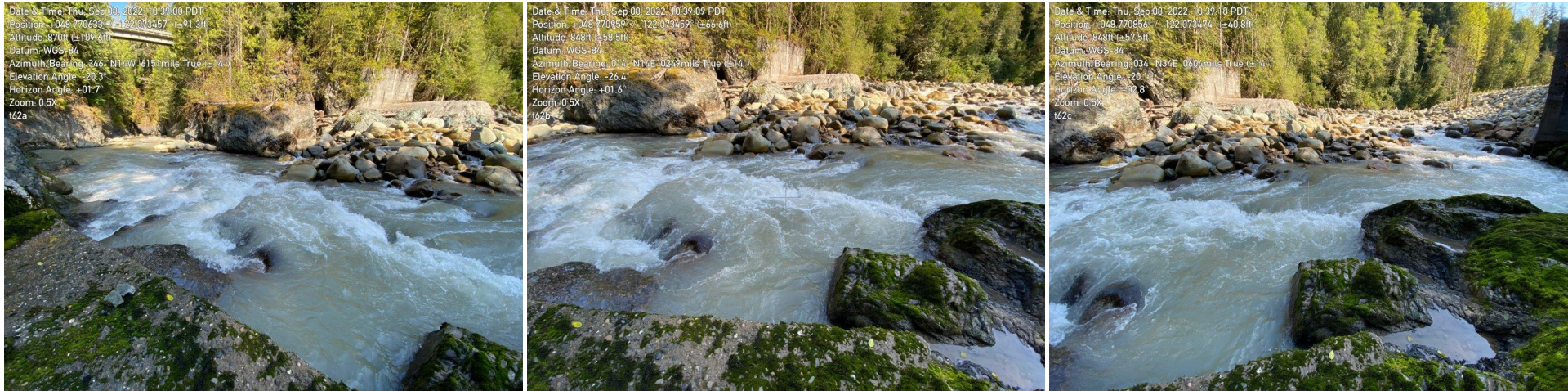
September 2021



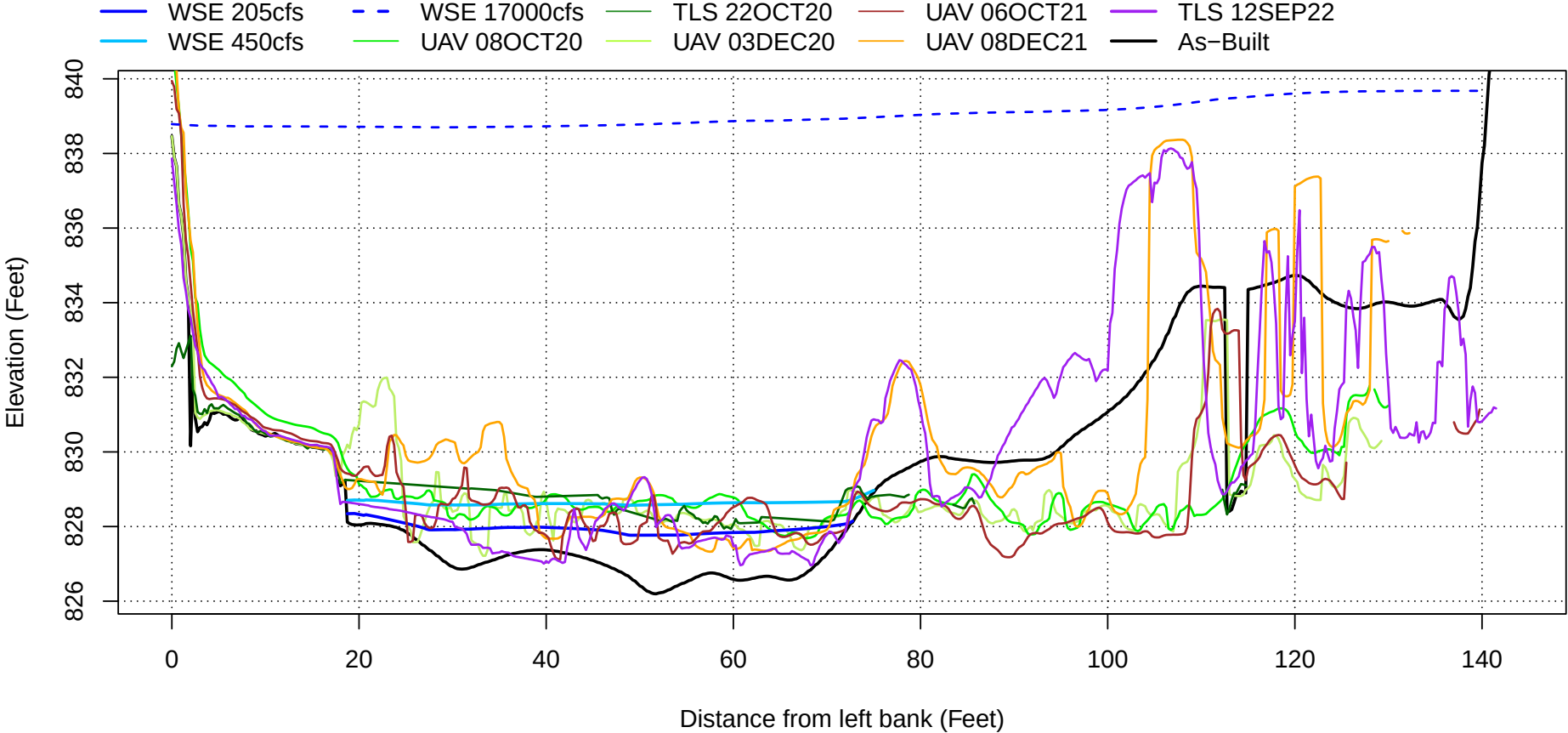
December 2021



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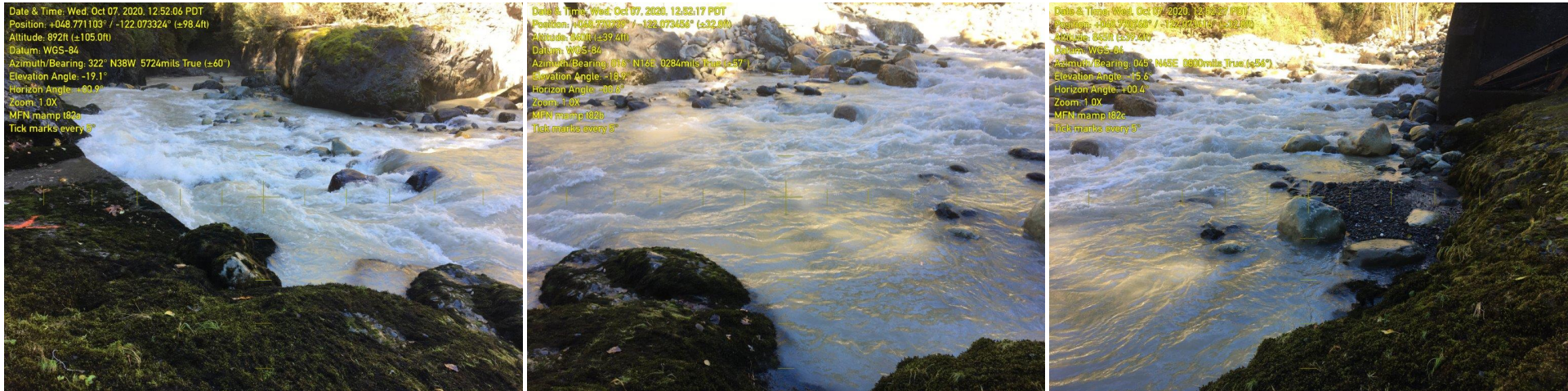


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

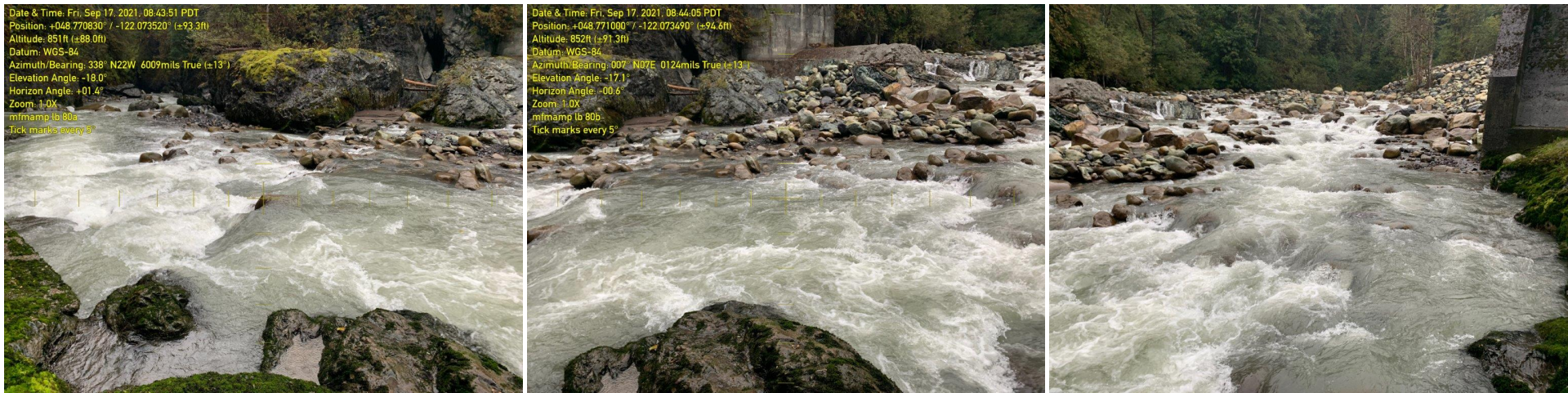


Transect 82

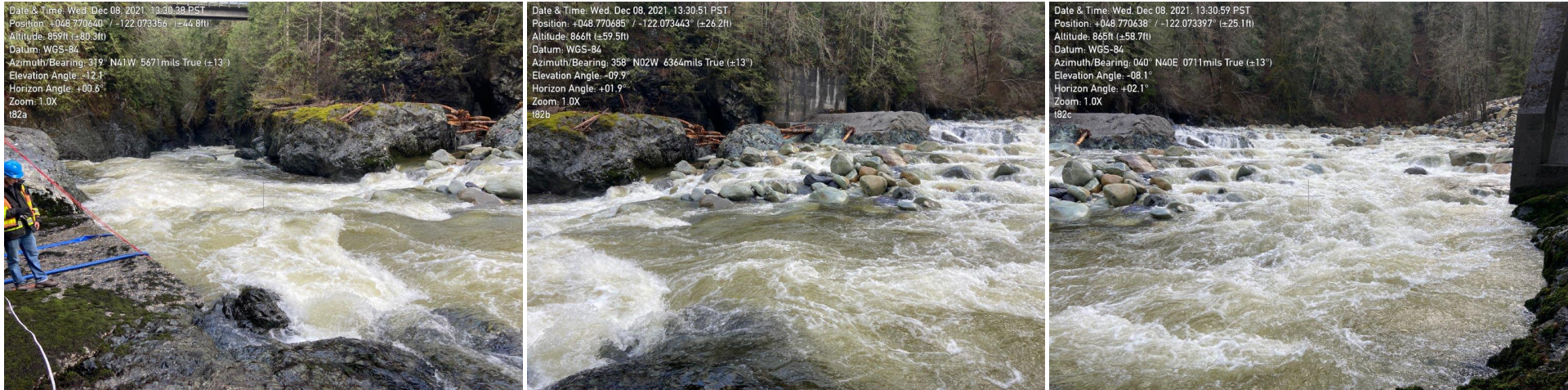
October 2020



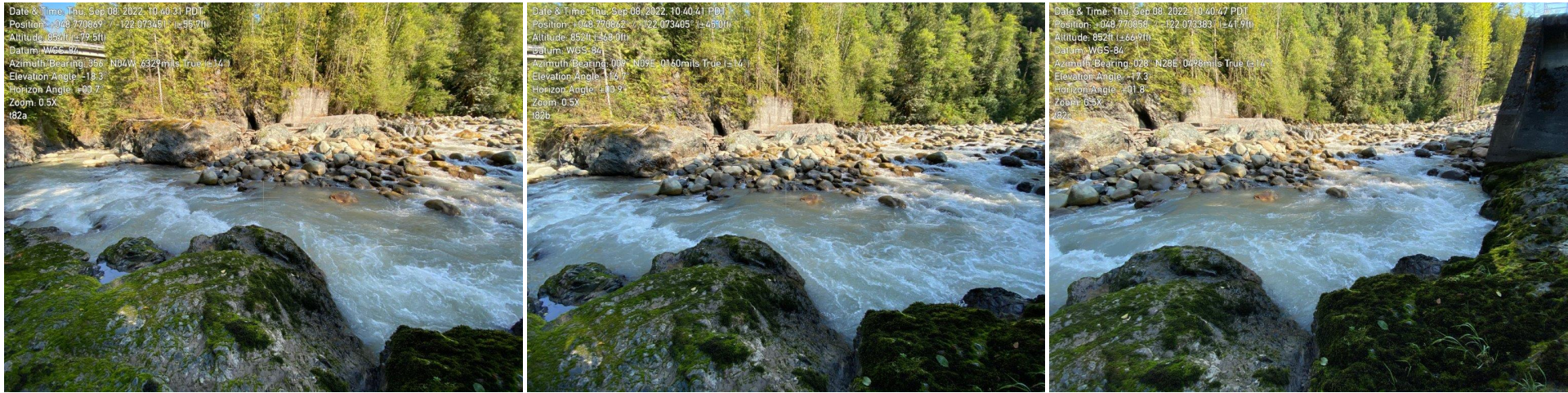
September 2021



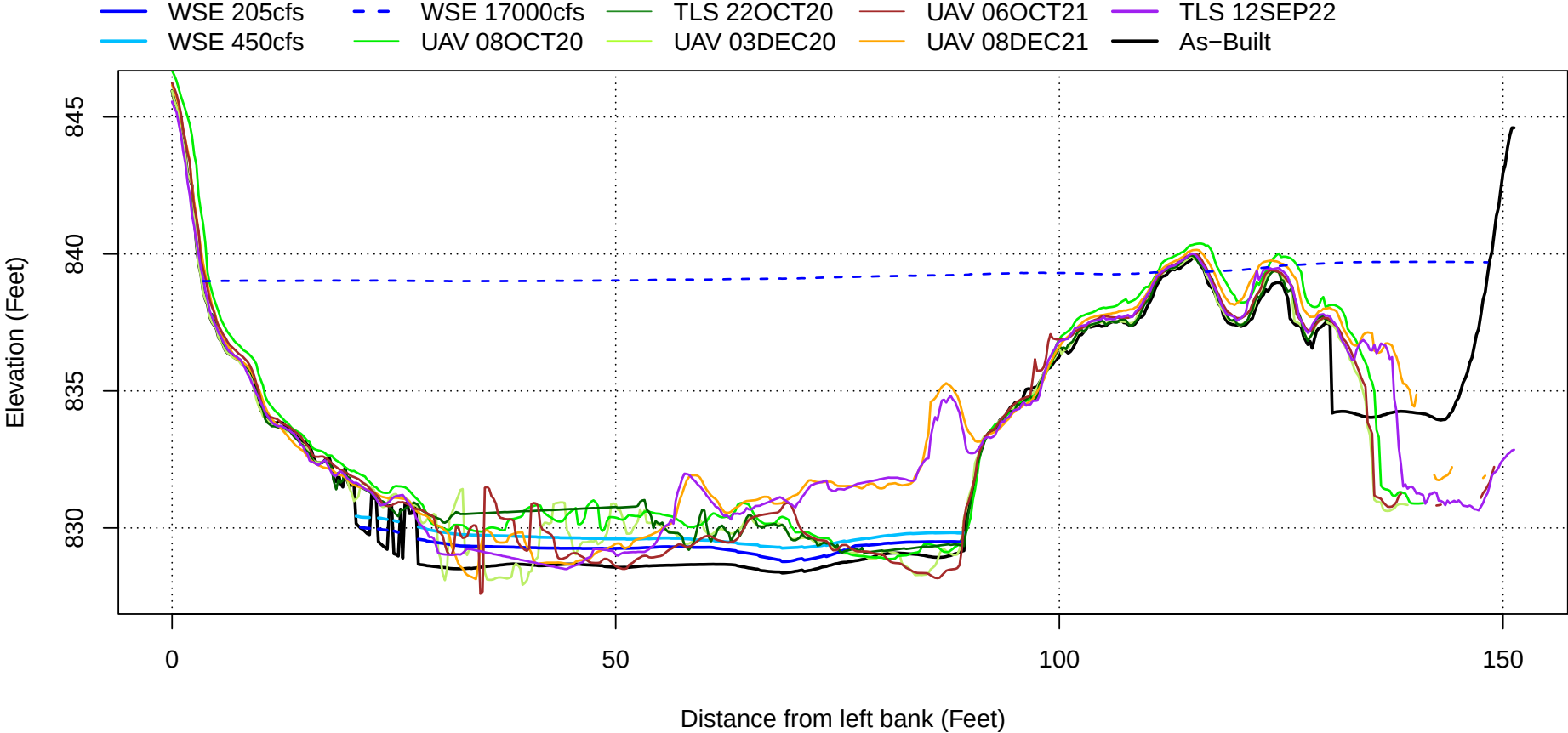
December 2021



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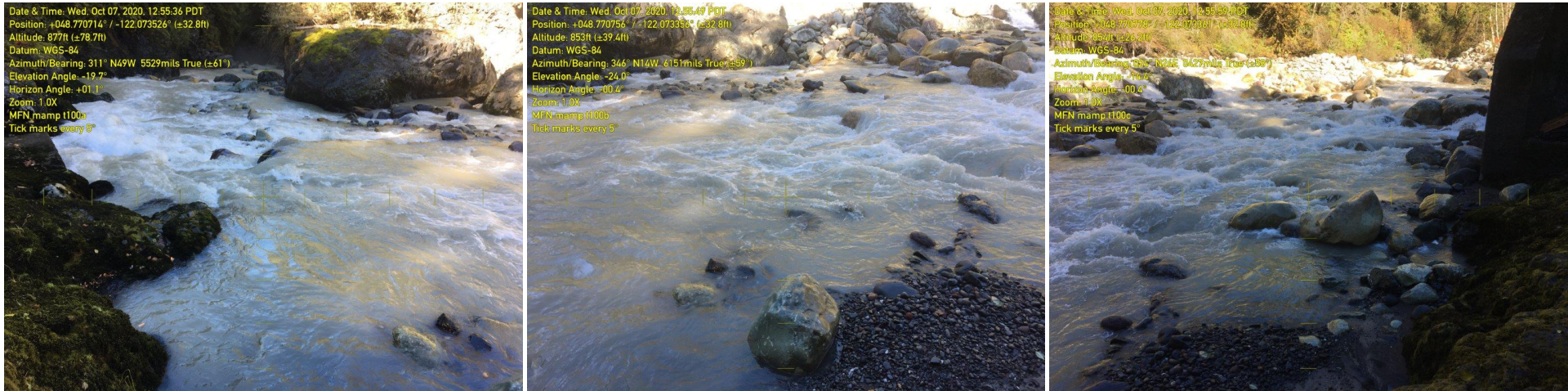


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 100

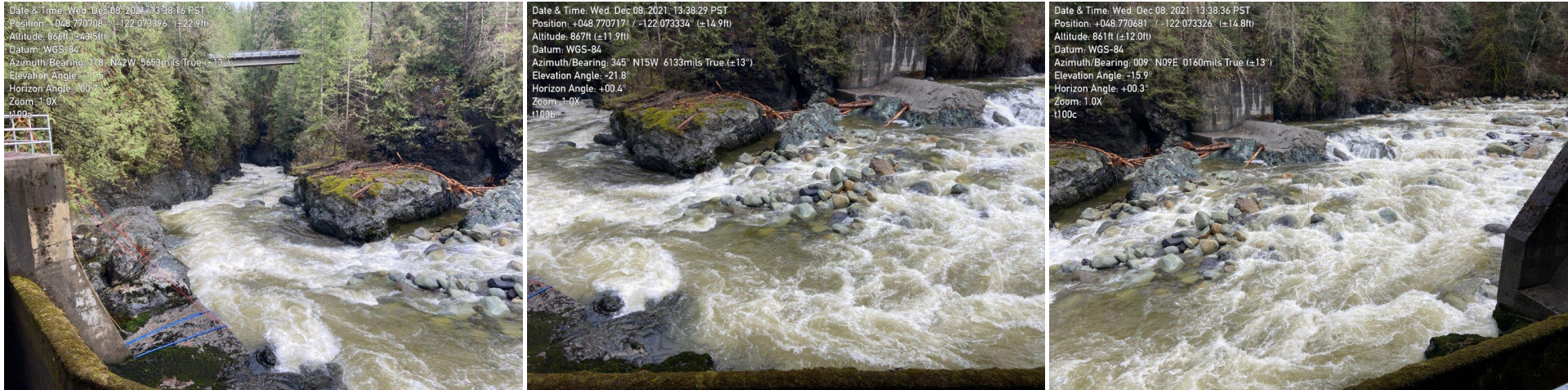
October 2020



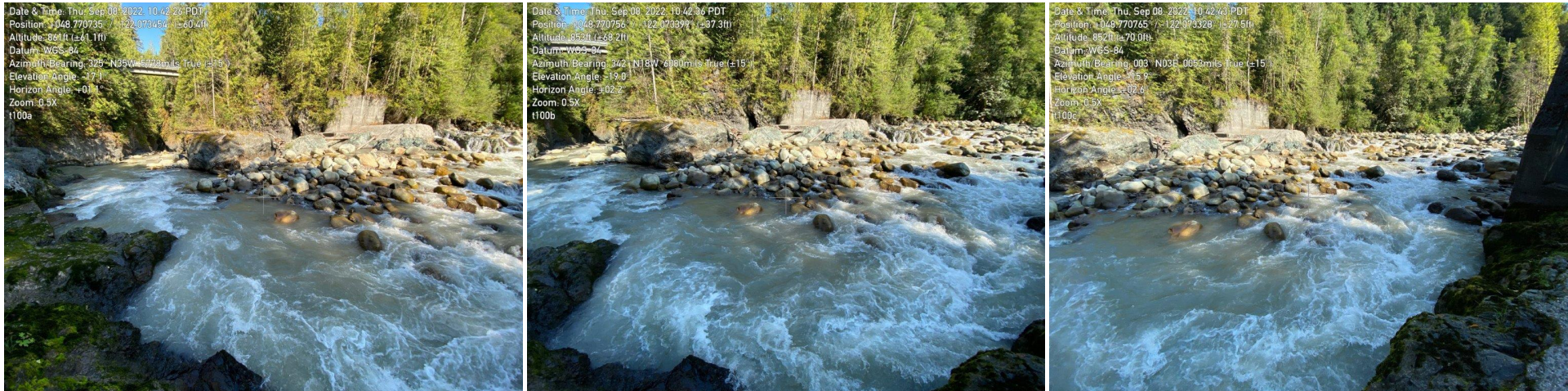
September 2021



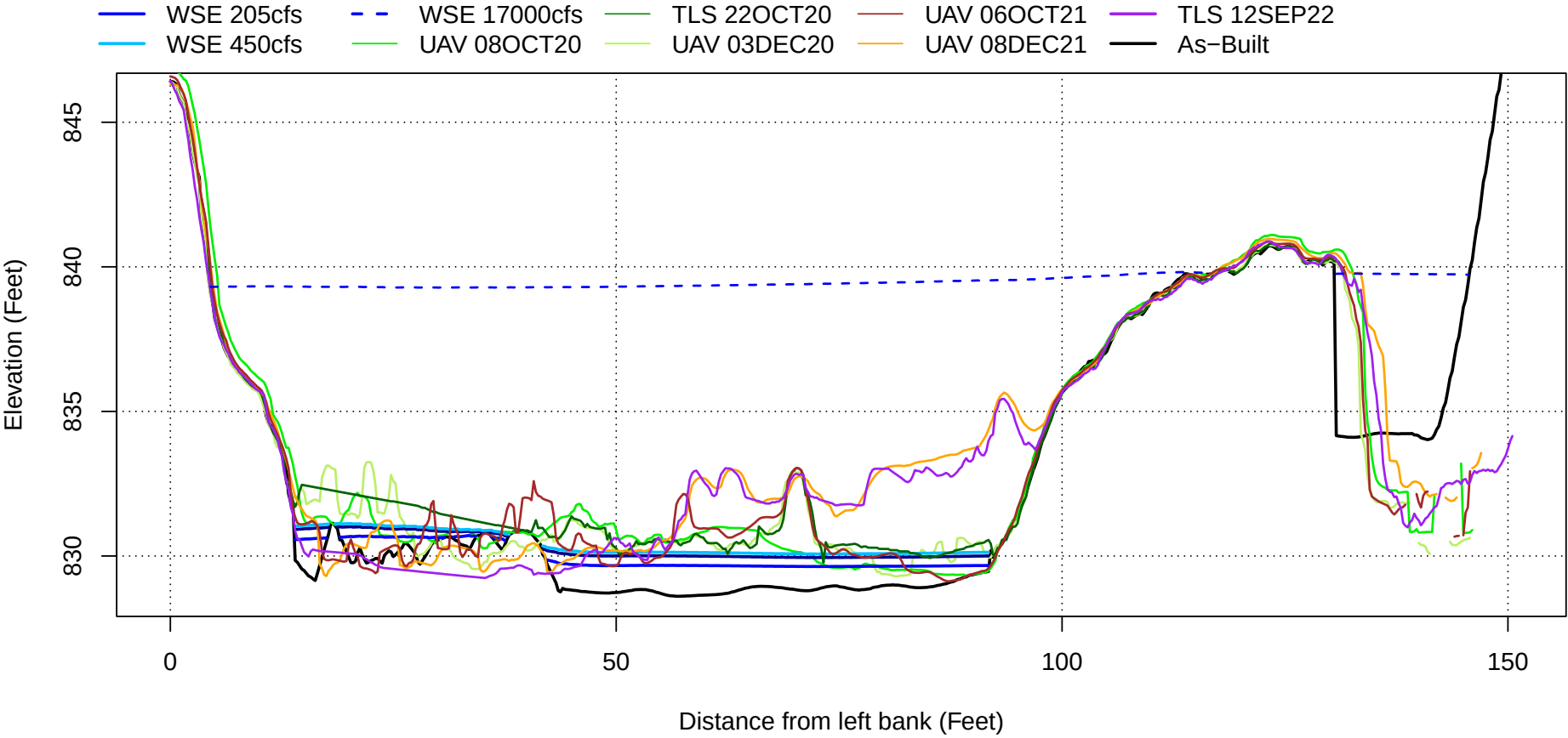
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

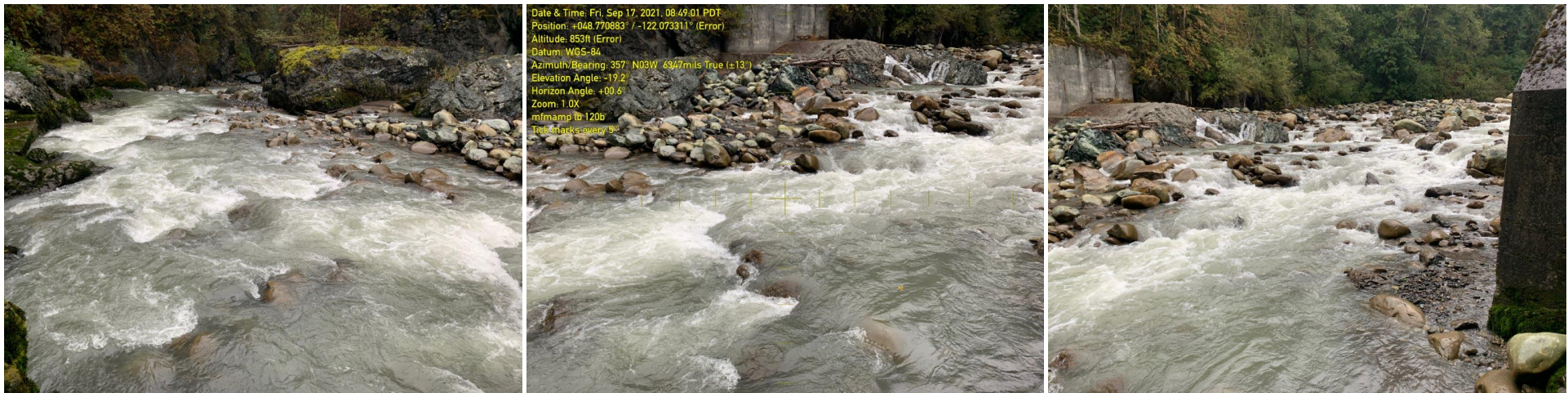


Transect 125

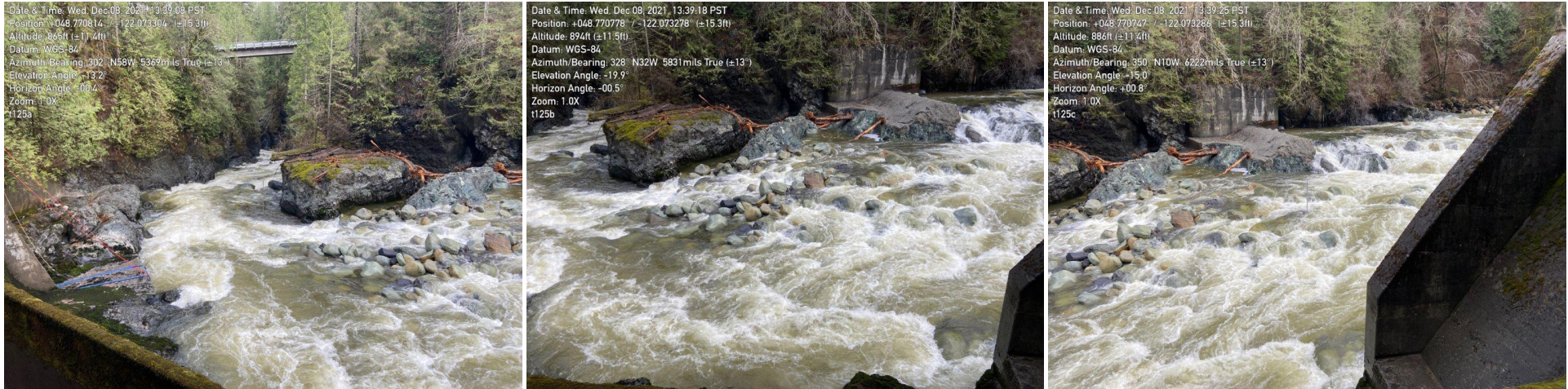
October 2020



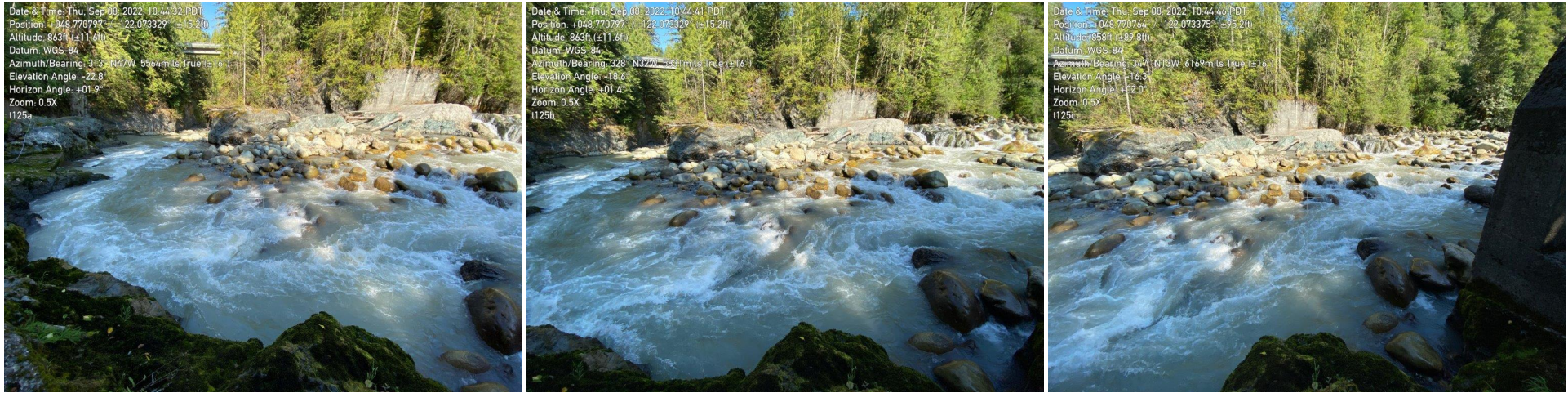
September 2021



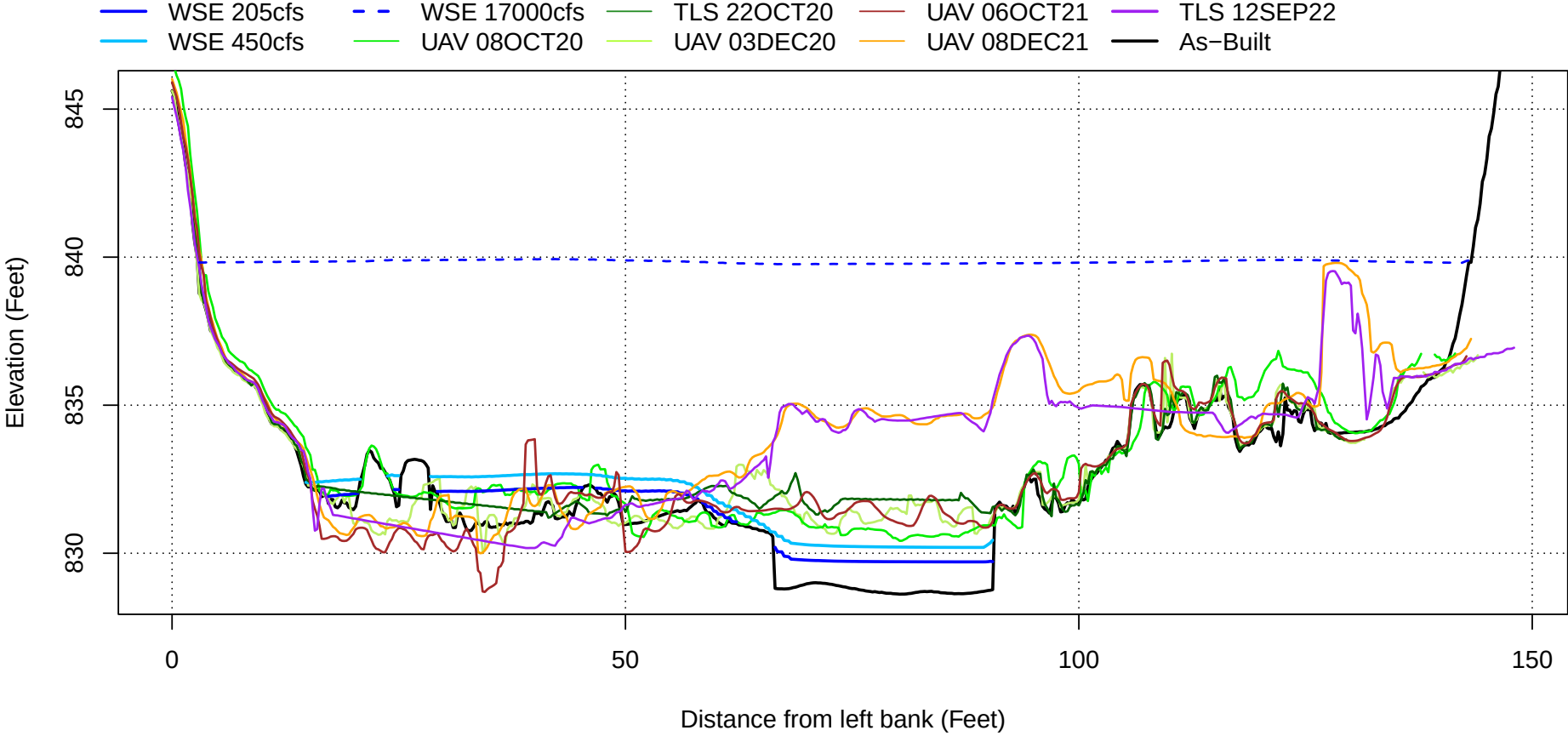
December 2021



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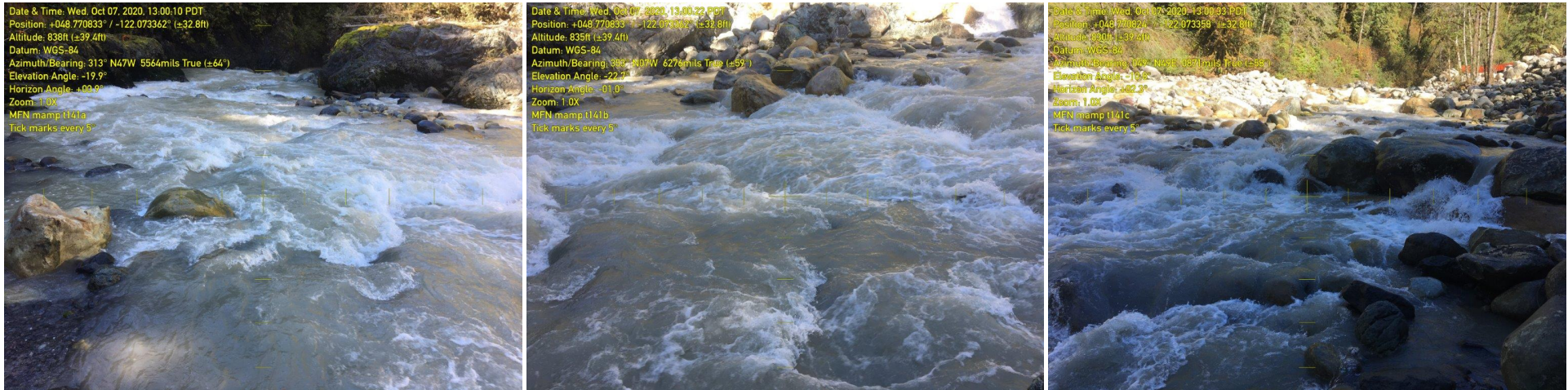


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 141

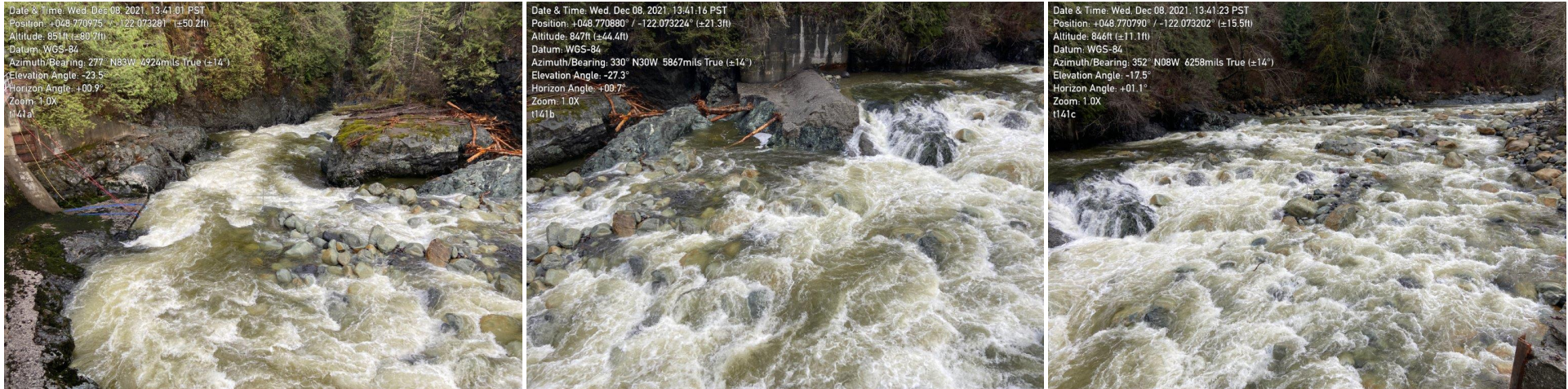
October 2020



September 2021



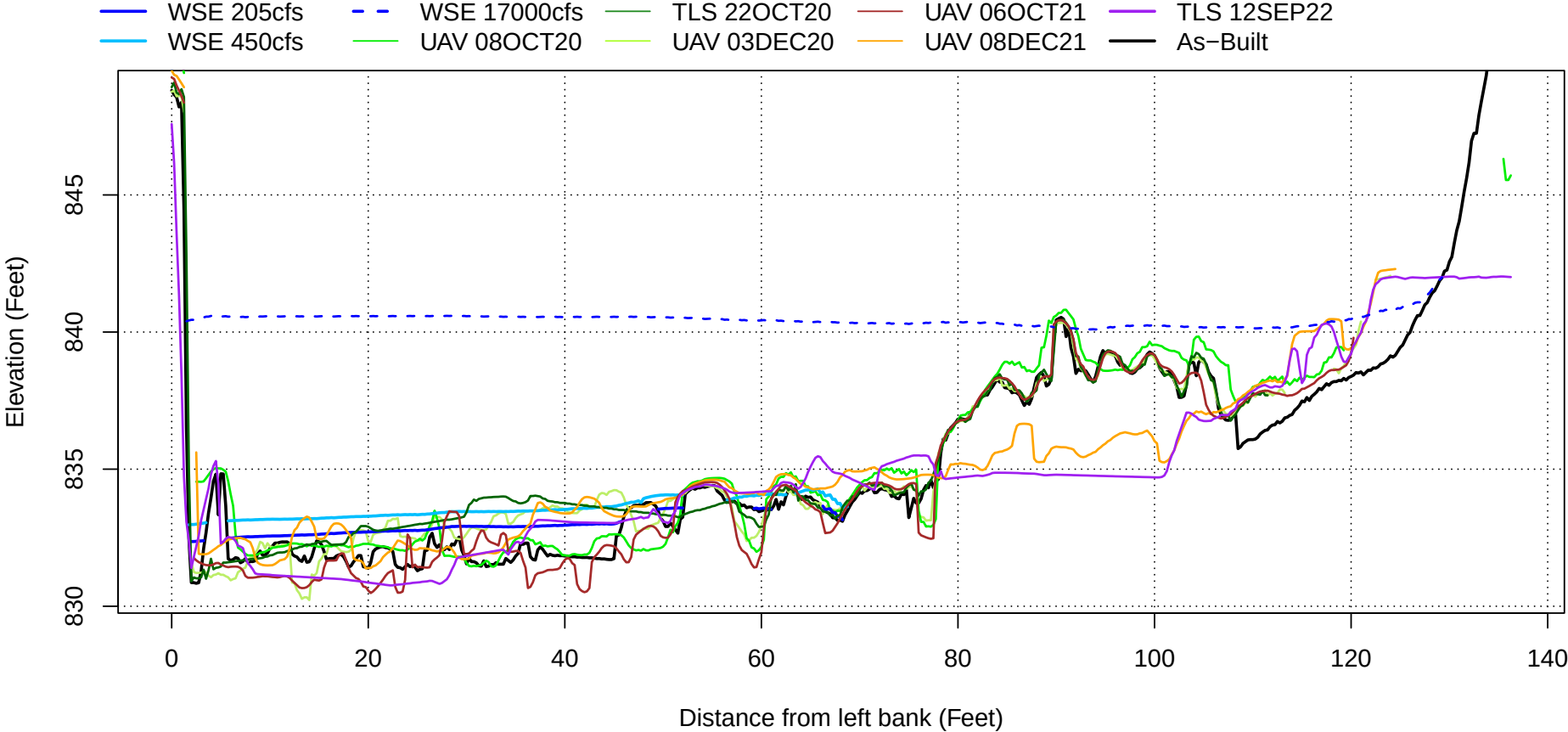
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 160

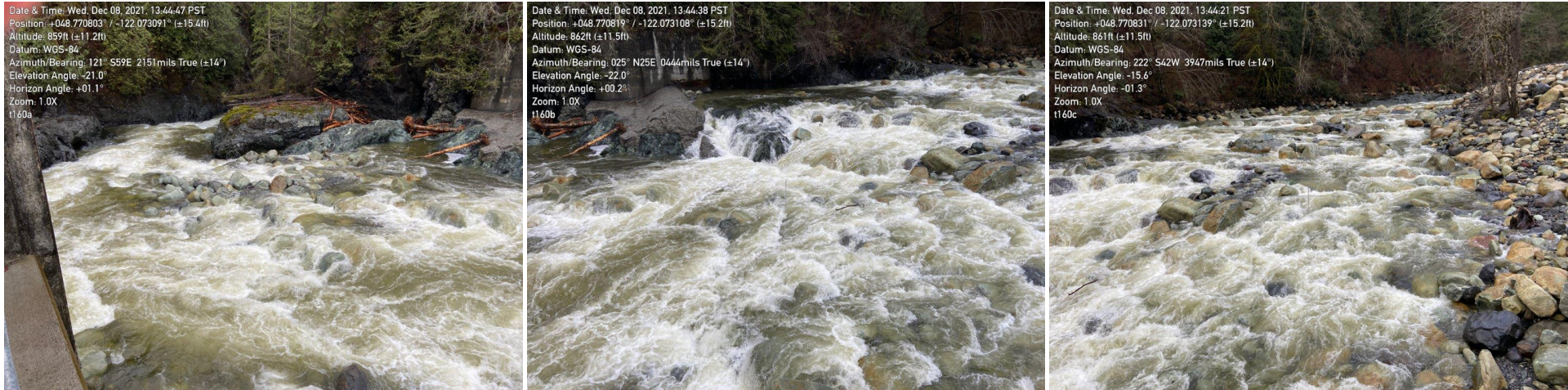
October 2020



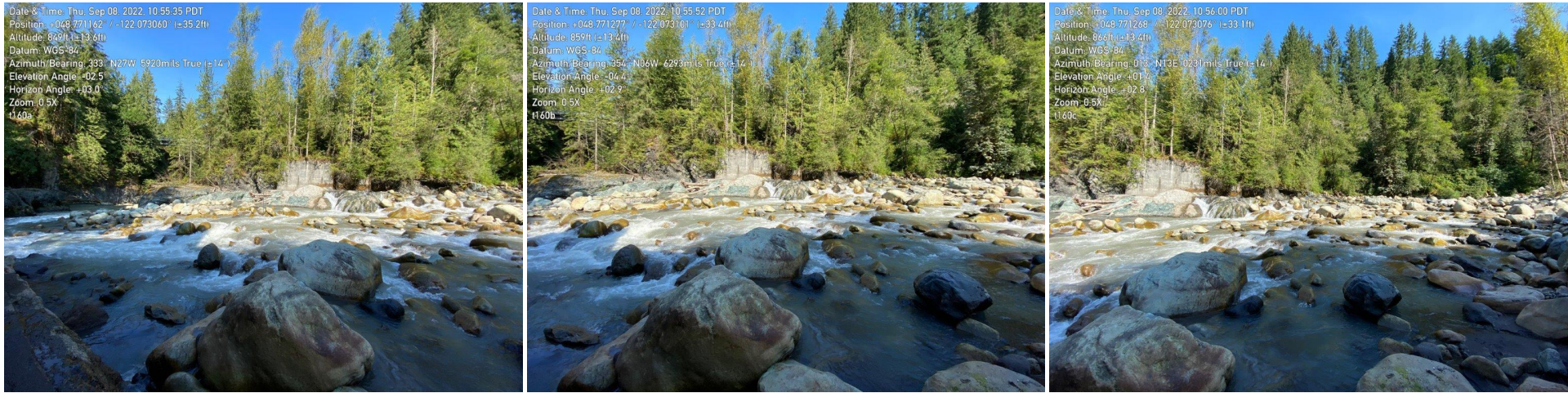
September 2021



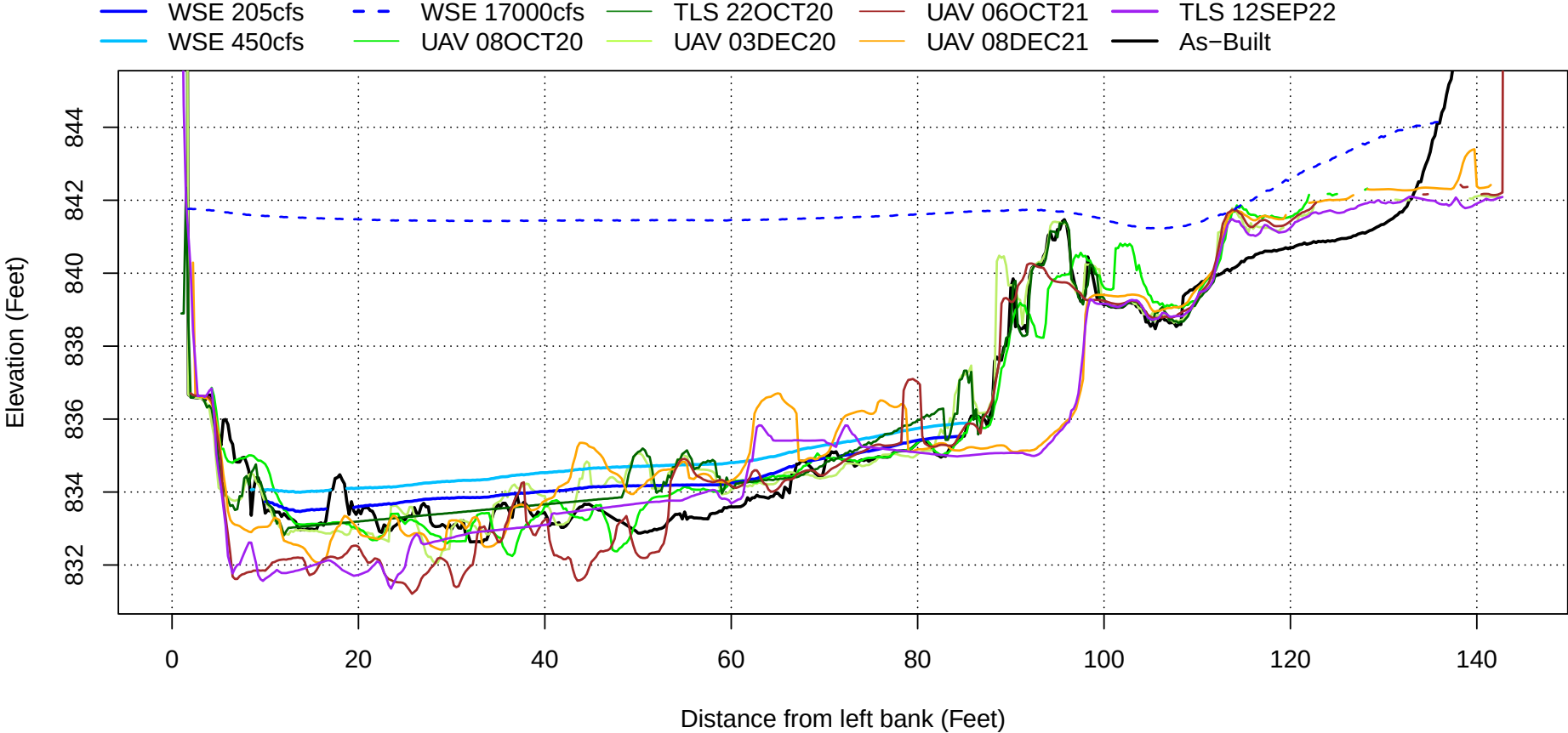
December 2021



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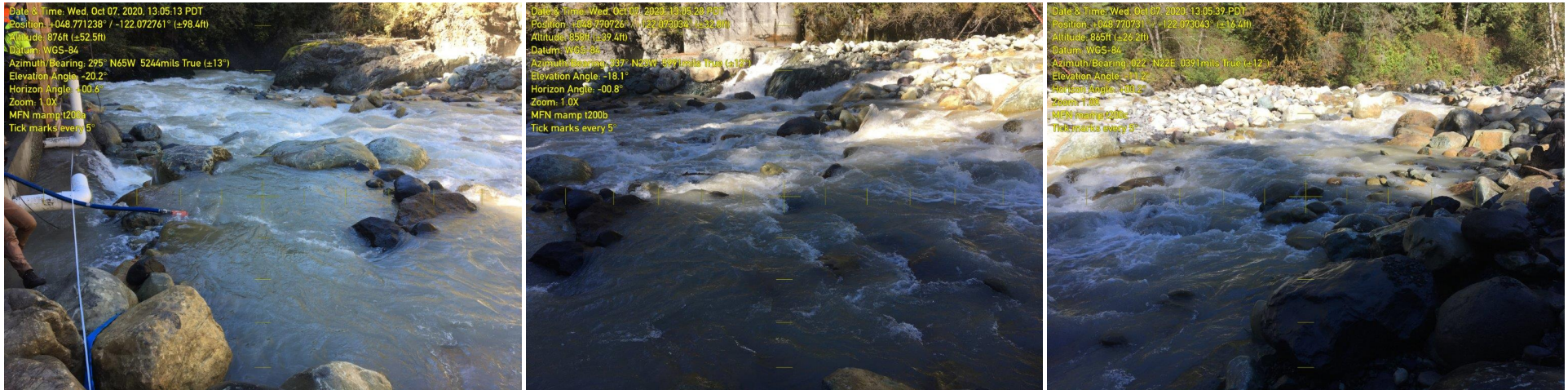


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

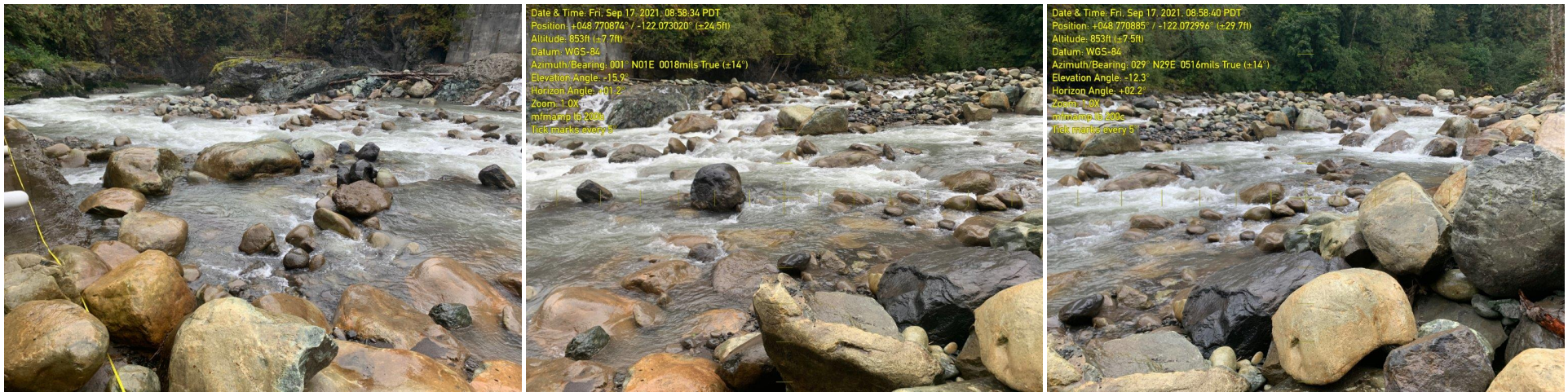


Transect 200

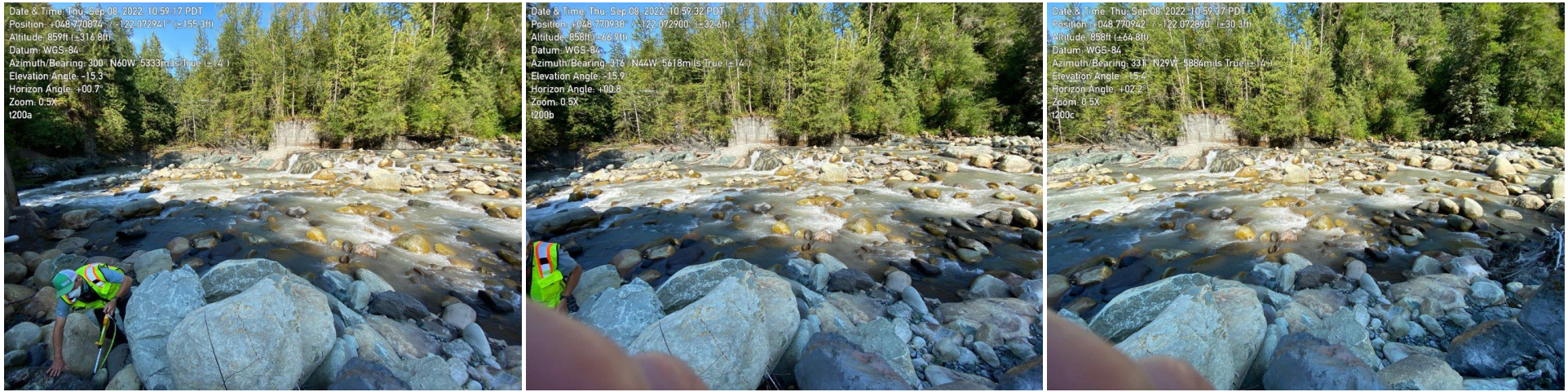
October 2020



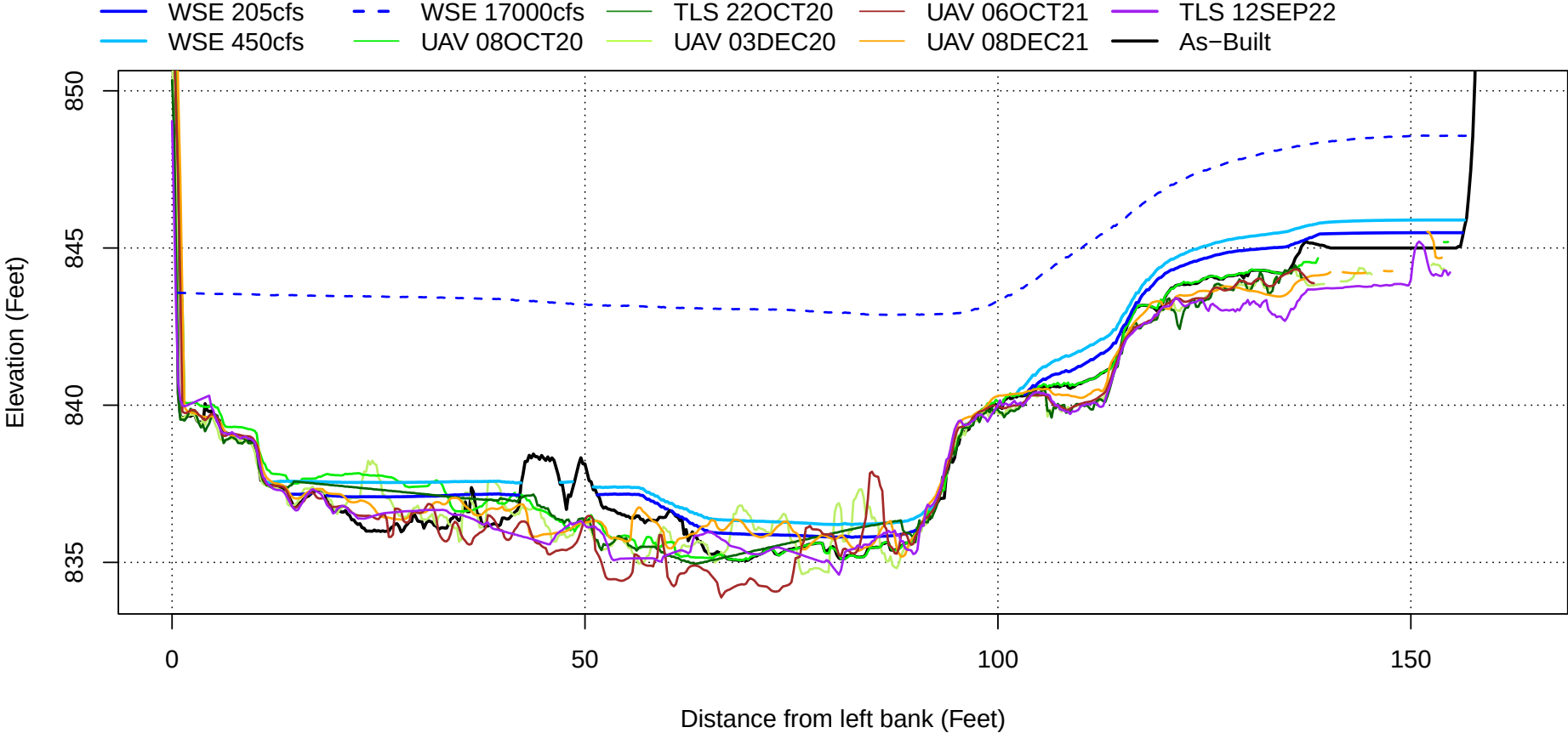
September 2021



September 2022



Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 220

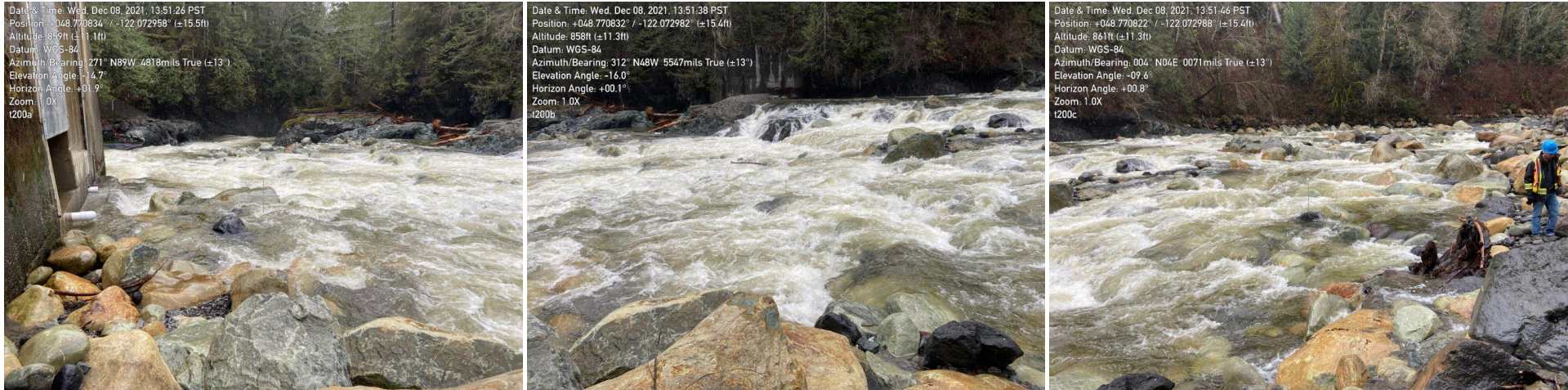
October 2020



September 2021



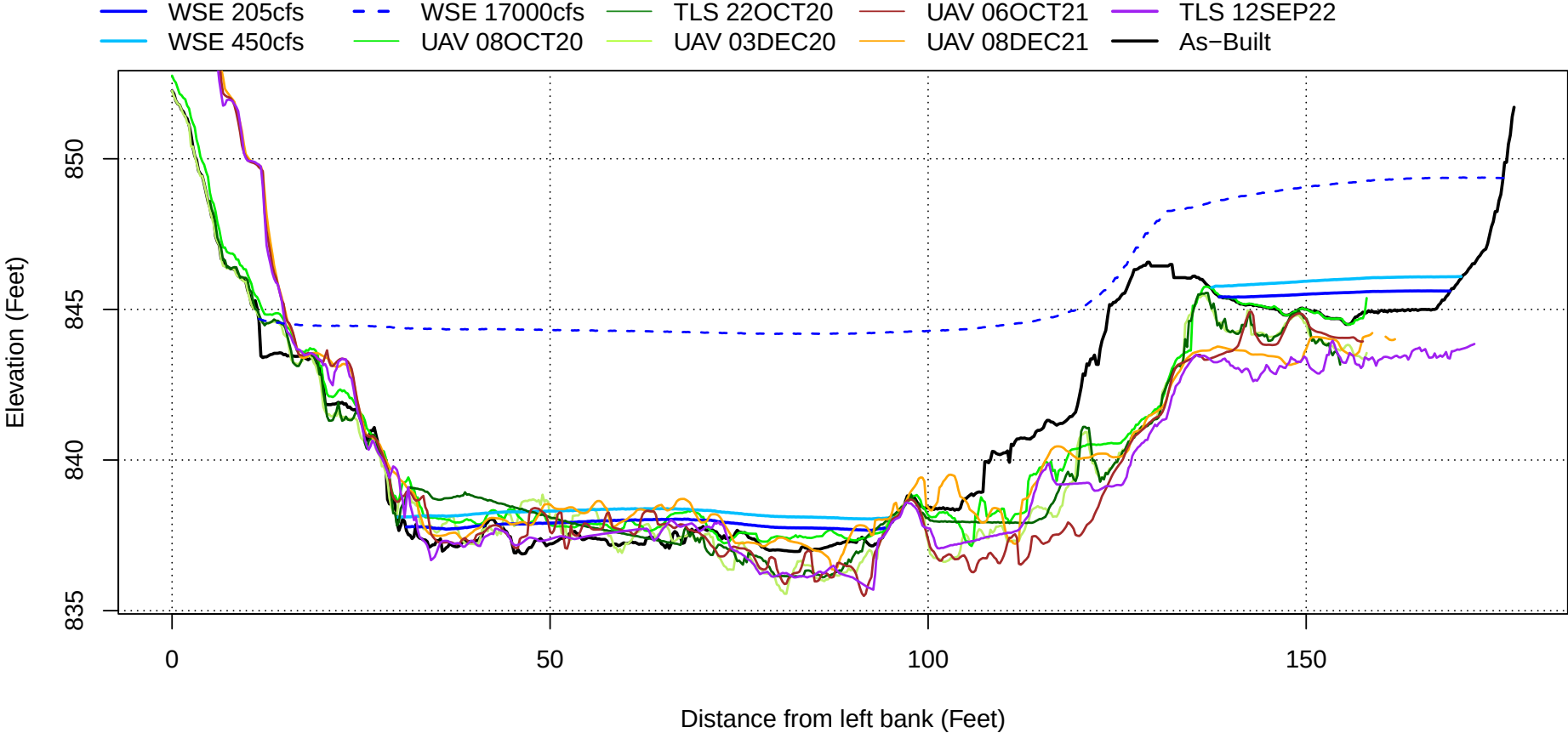
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 241

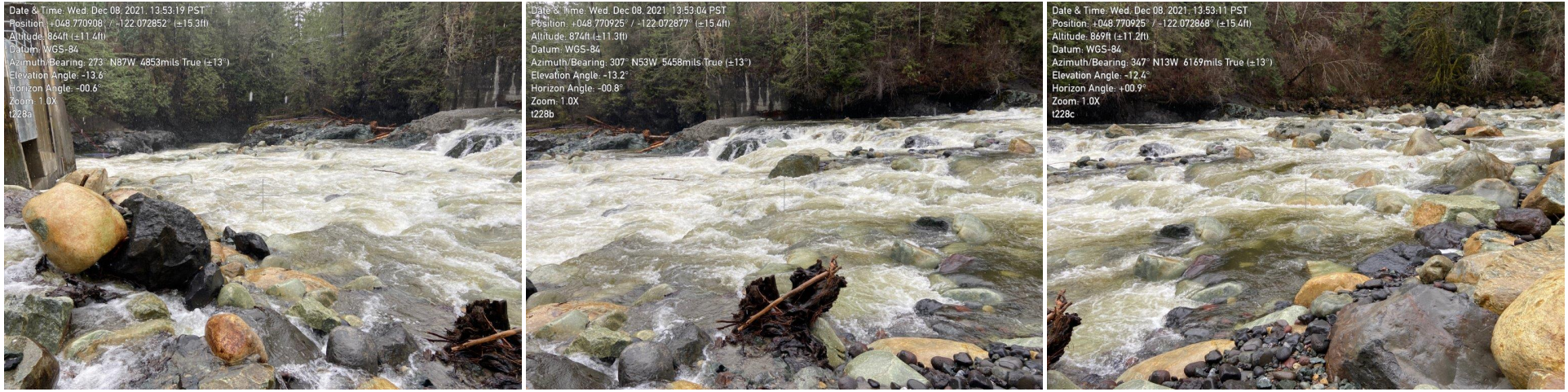
October 2020



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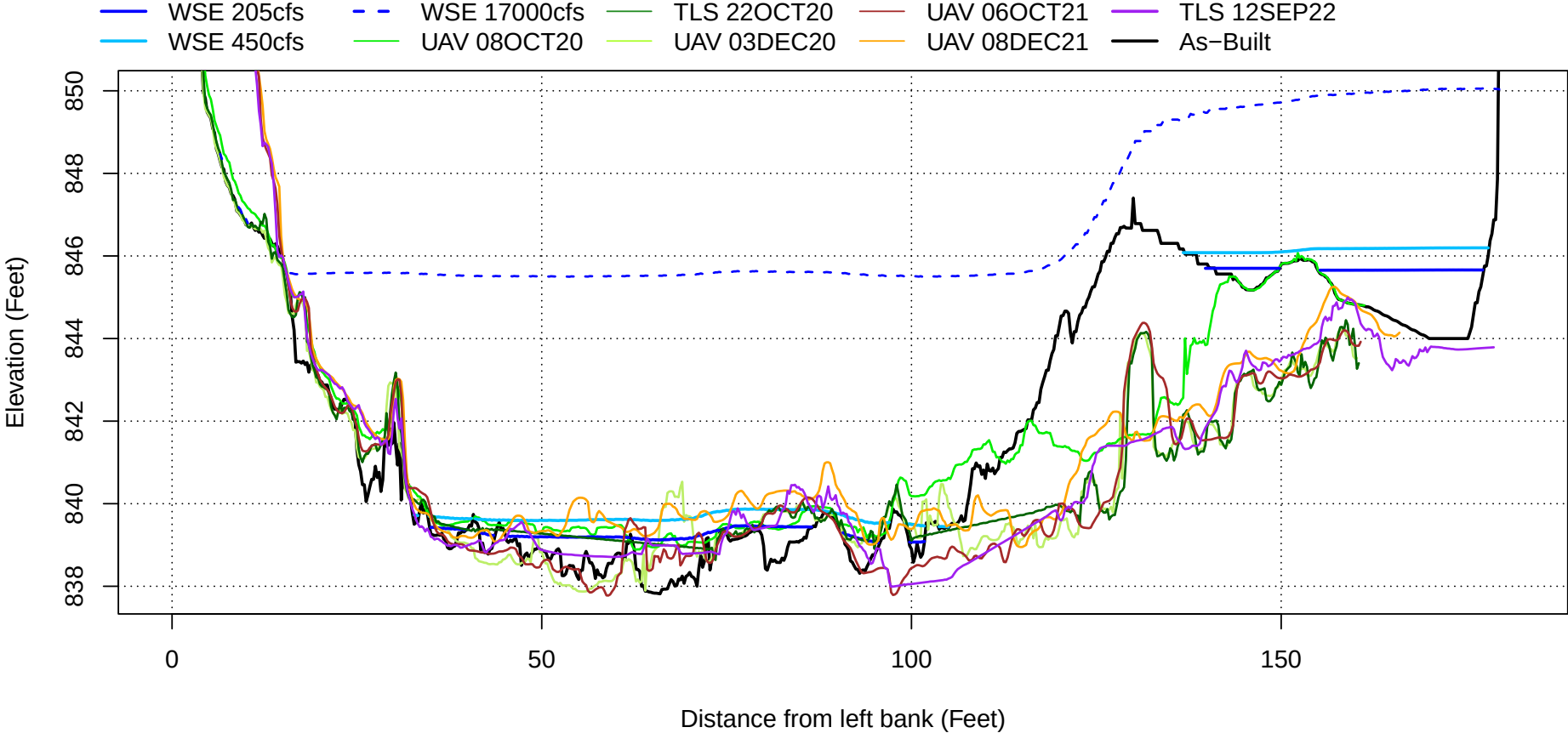
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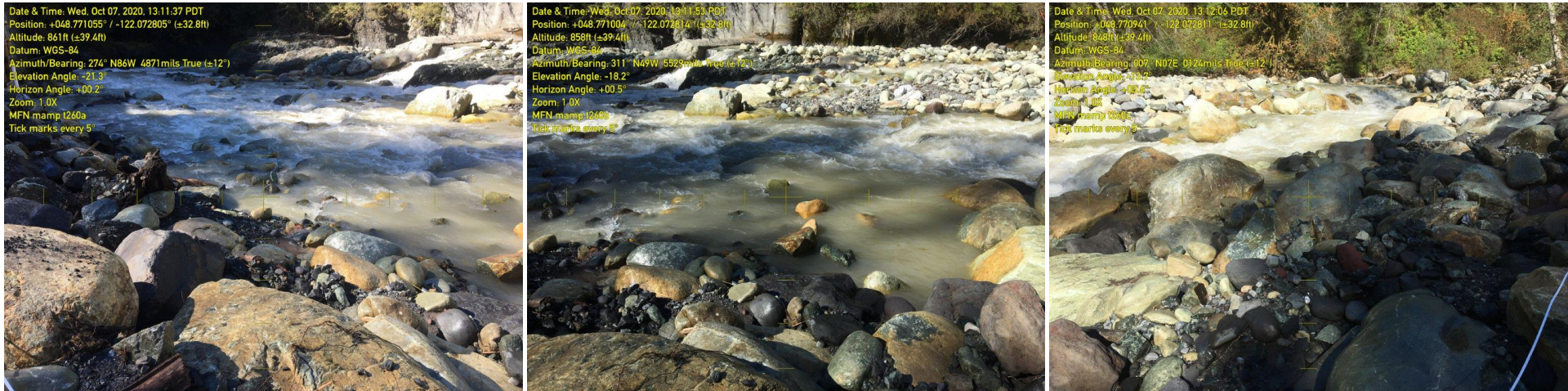


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

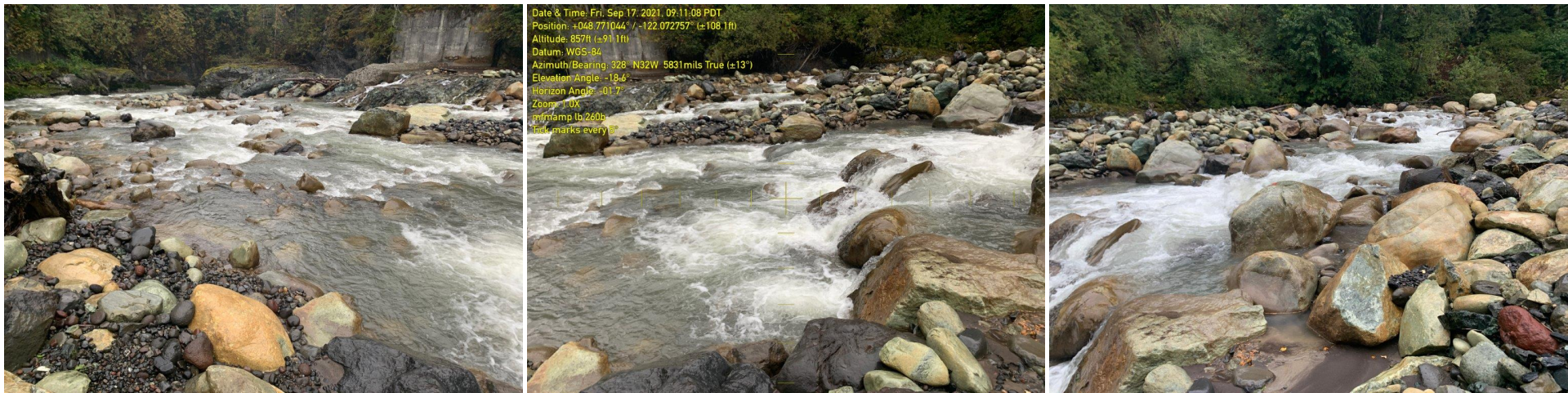


Transect 260

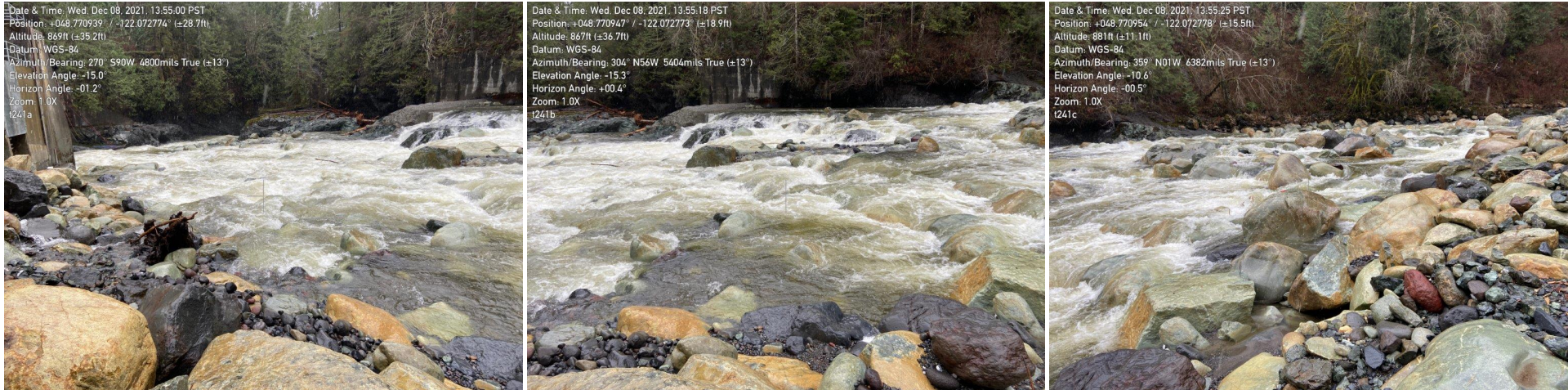
October 2020



September 2021



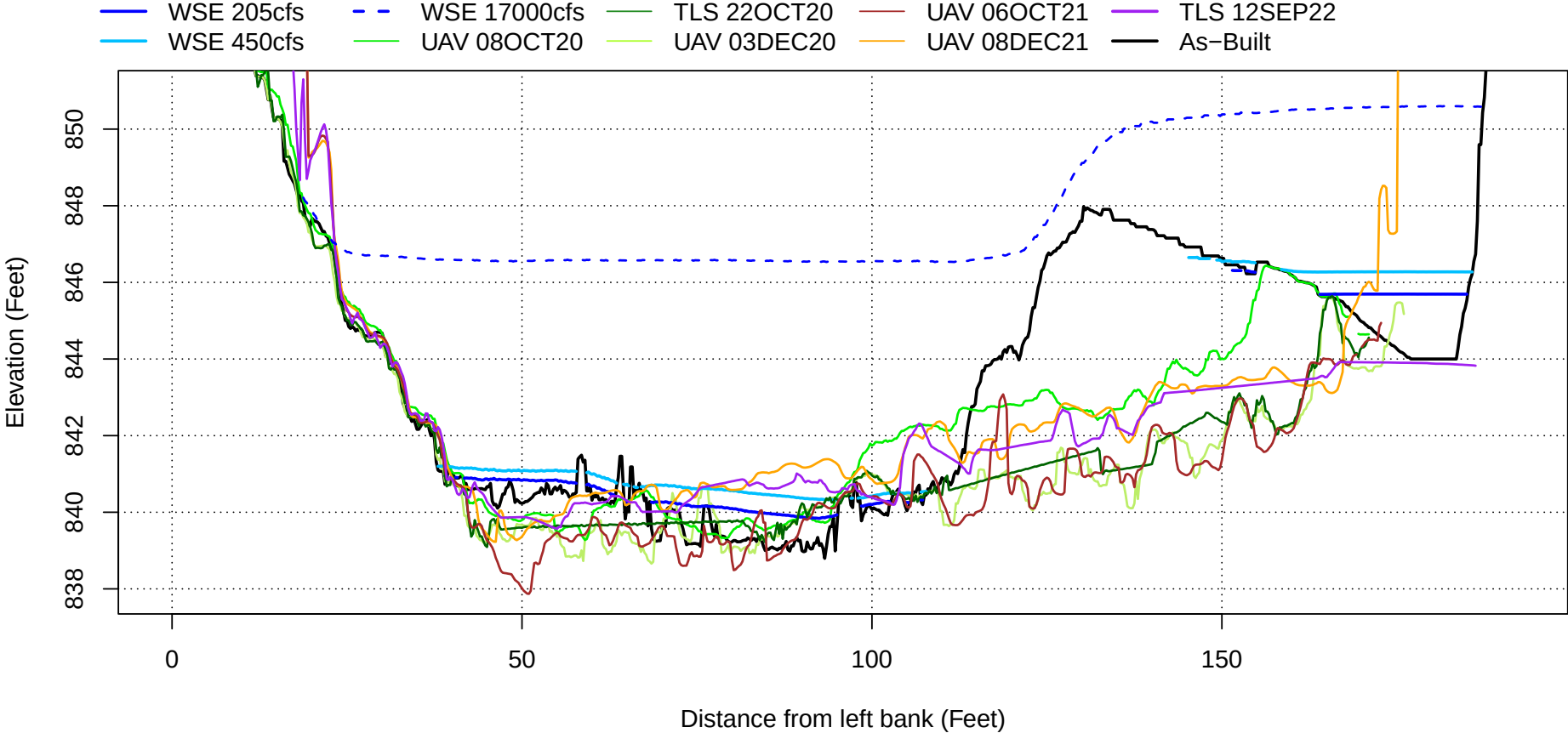
December 2021



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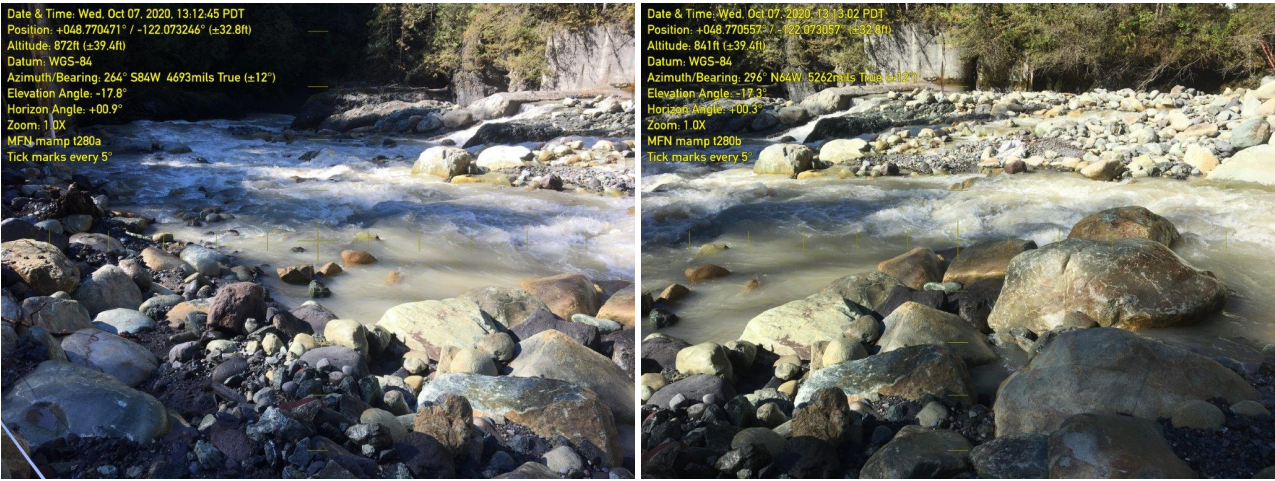


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

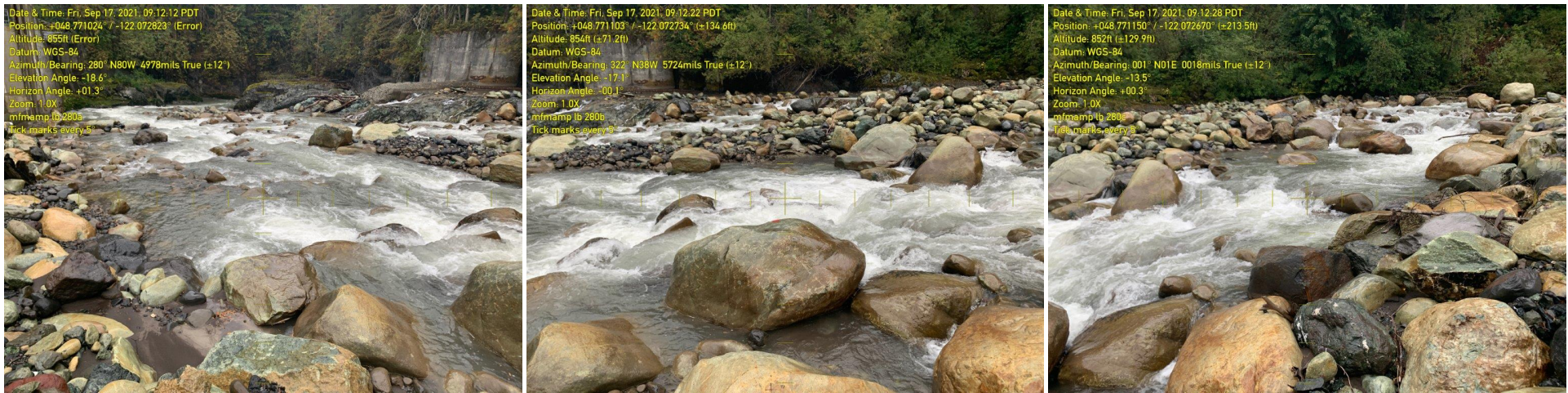


Transect 280

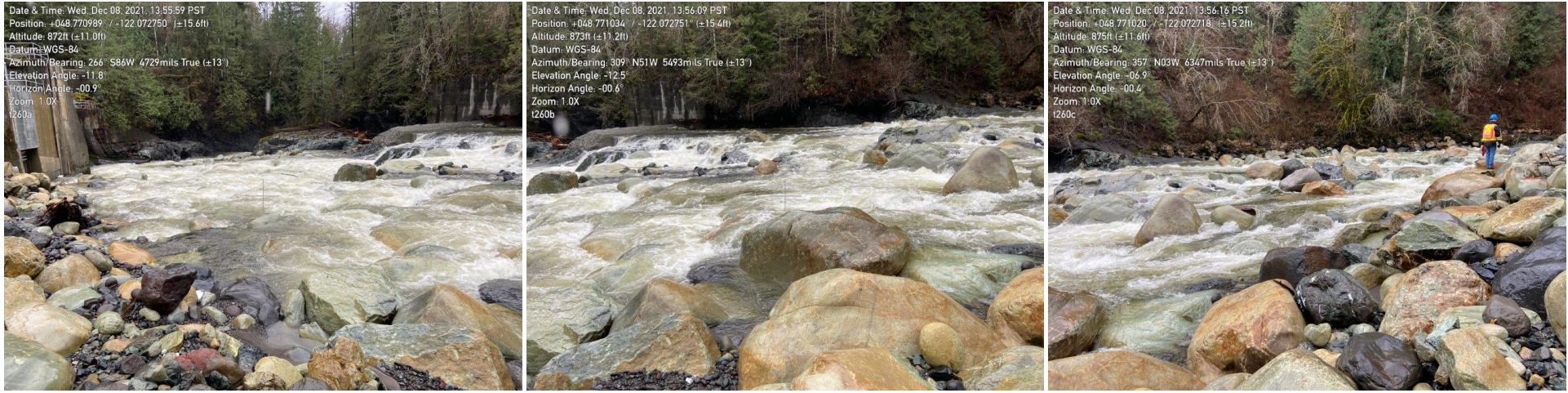
October 2020



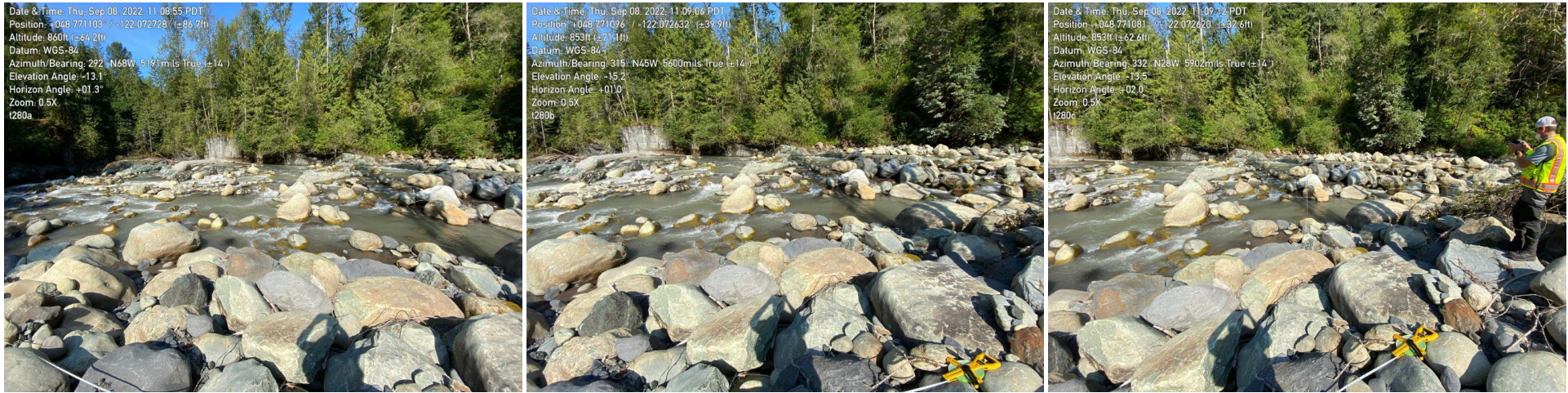
September 2021



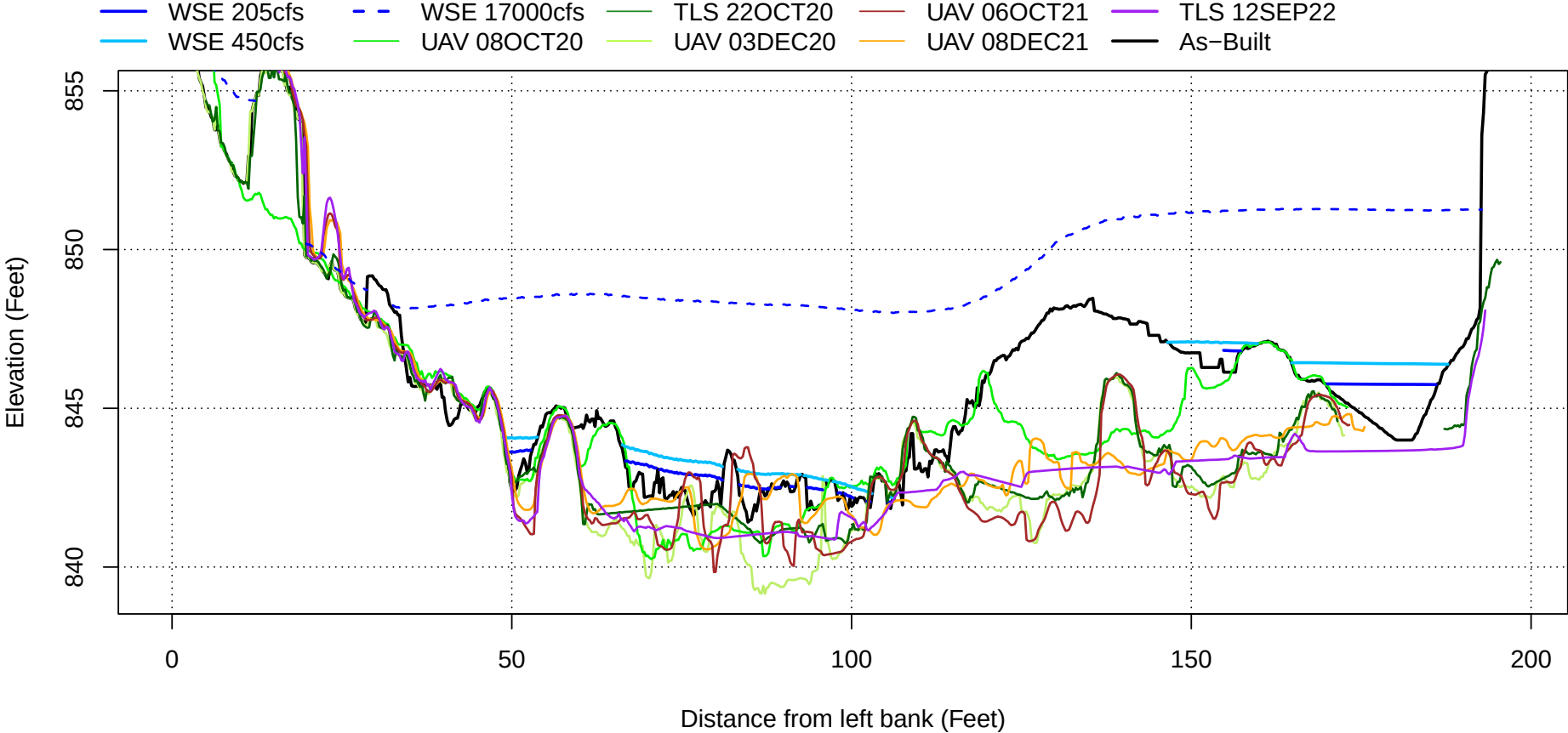
December 2021



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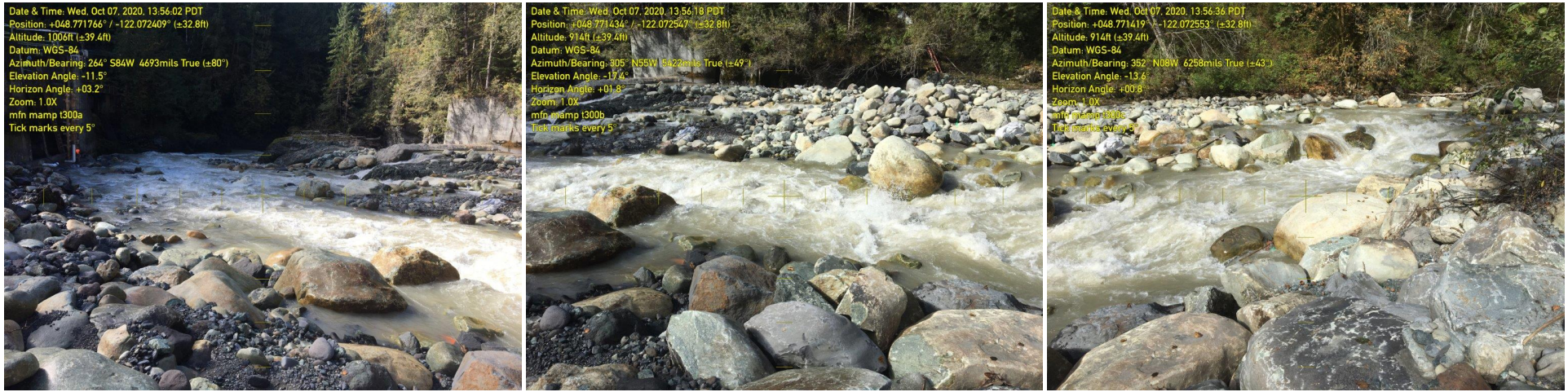


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

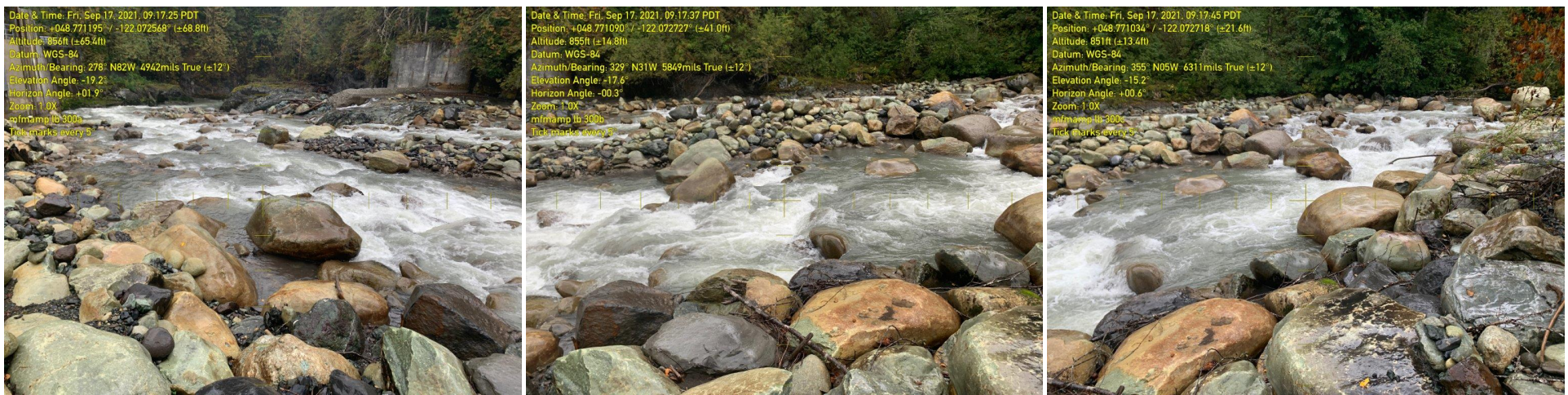


Transect 300

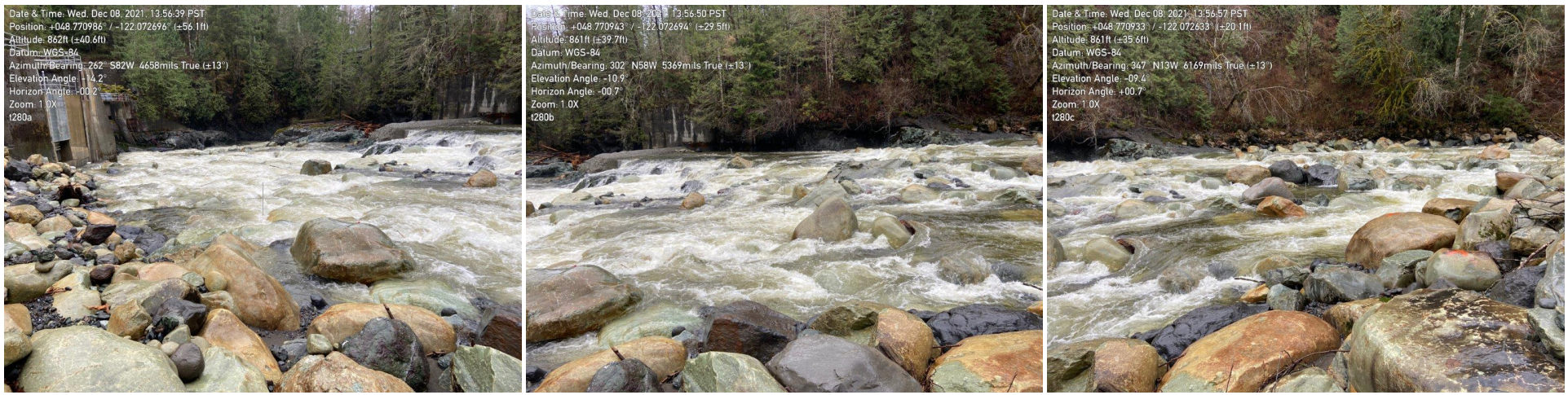
October 2020



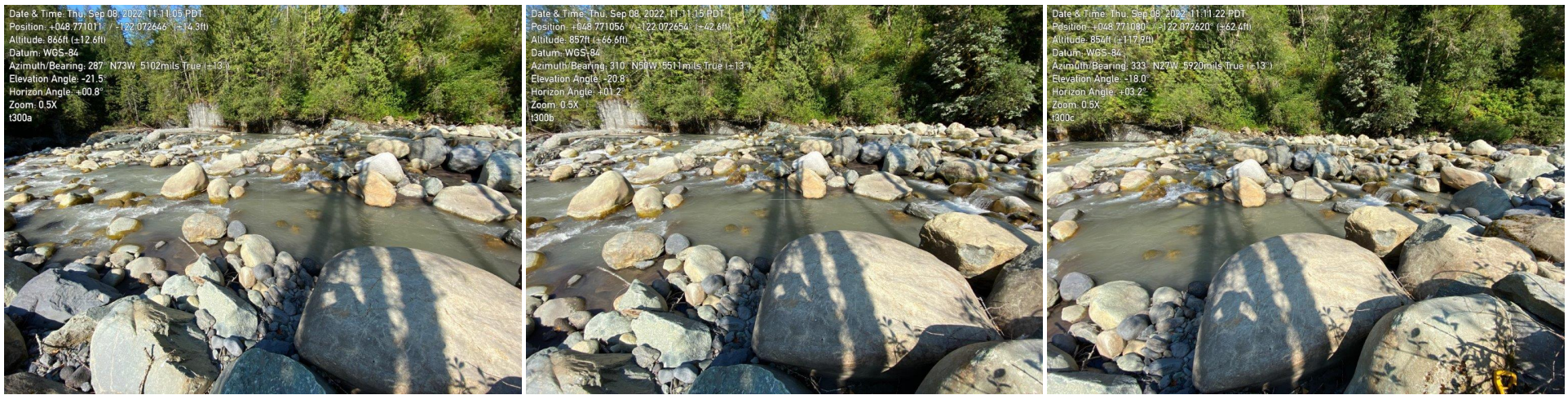
September 2021



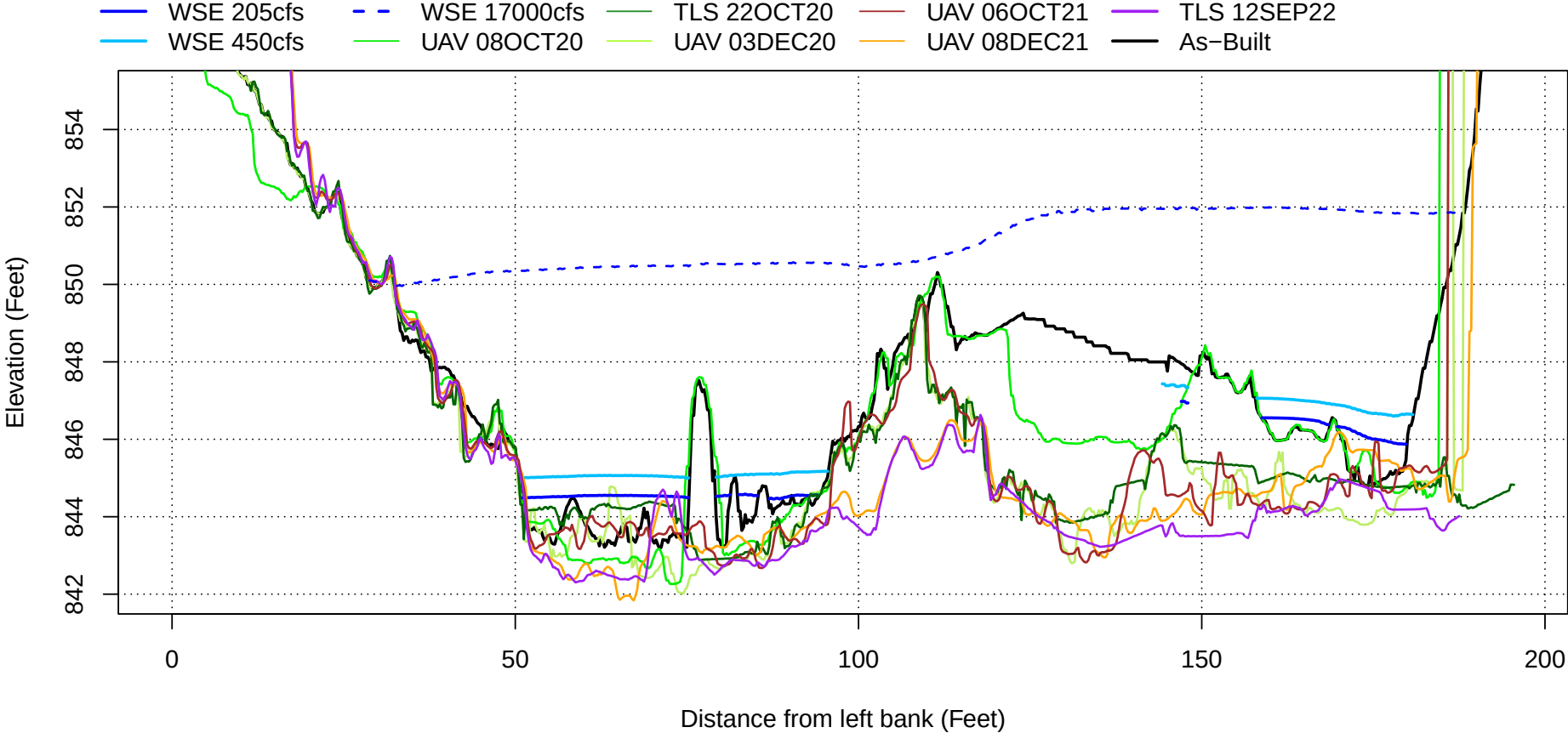
December 2021



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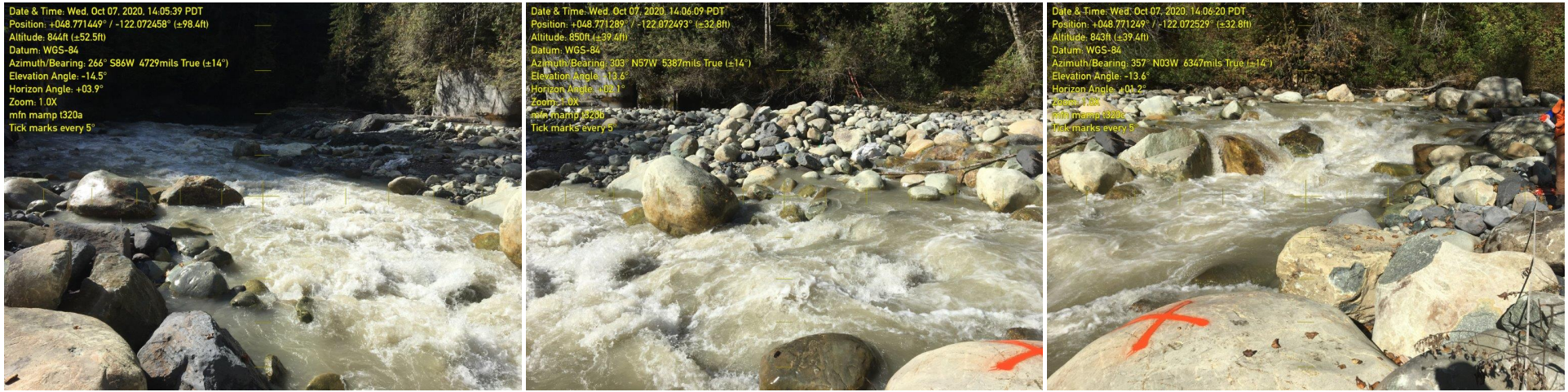


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

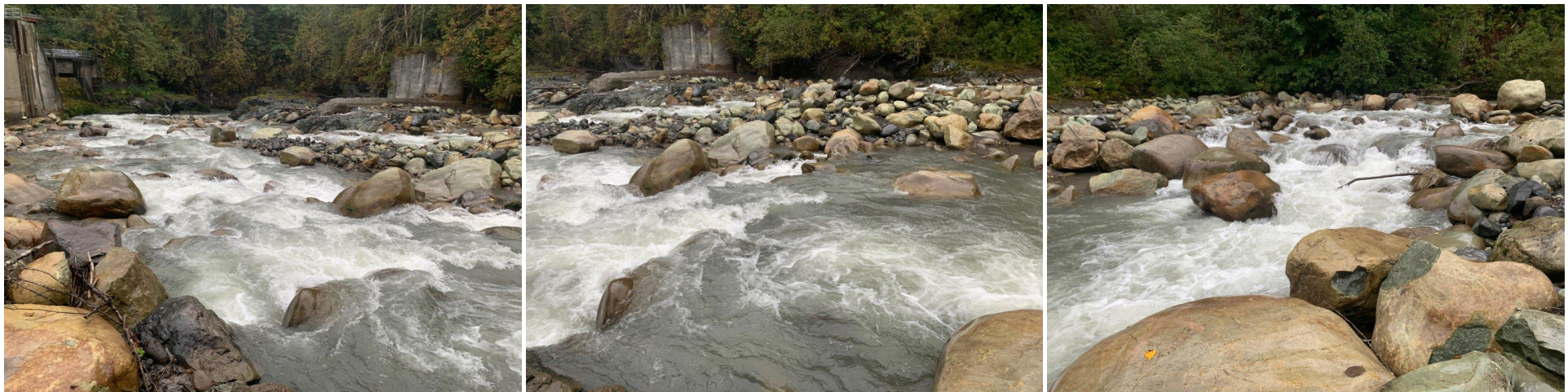


Transect 320

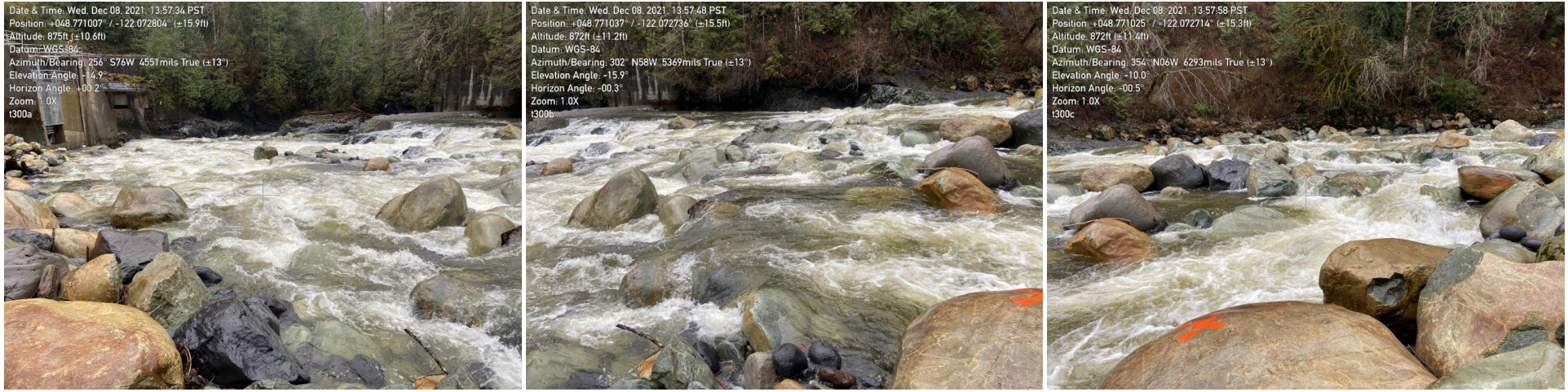
October 2020



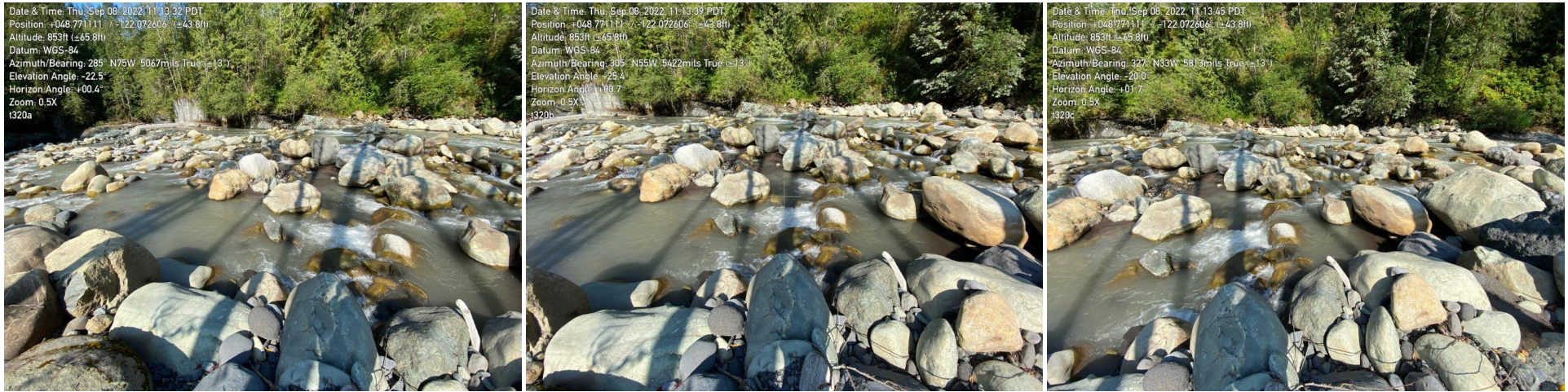
September 2021



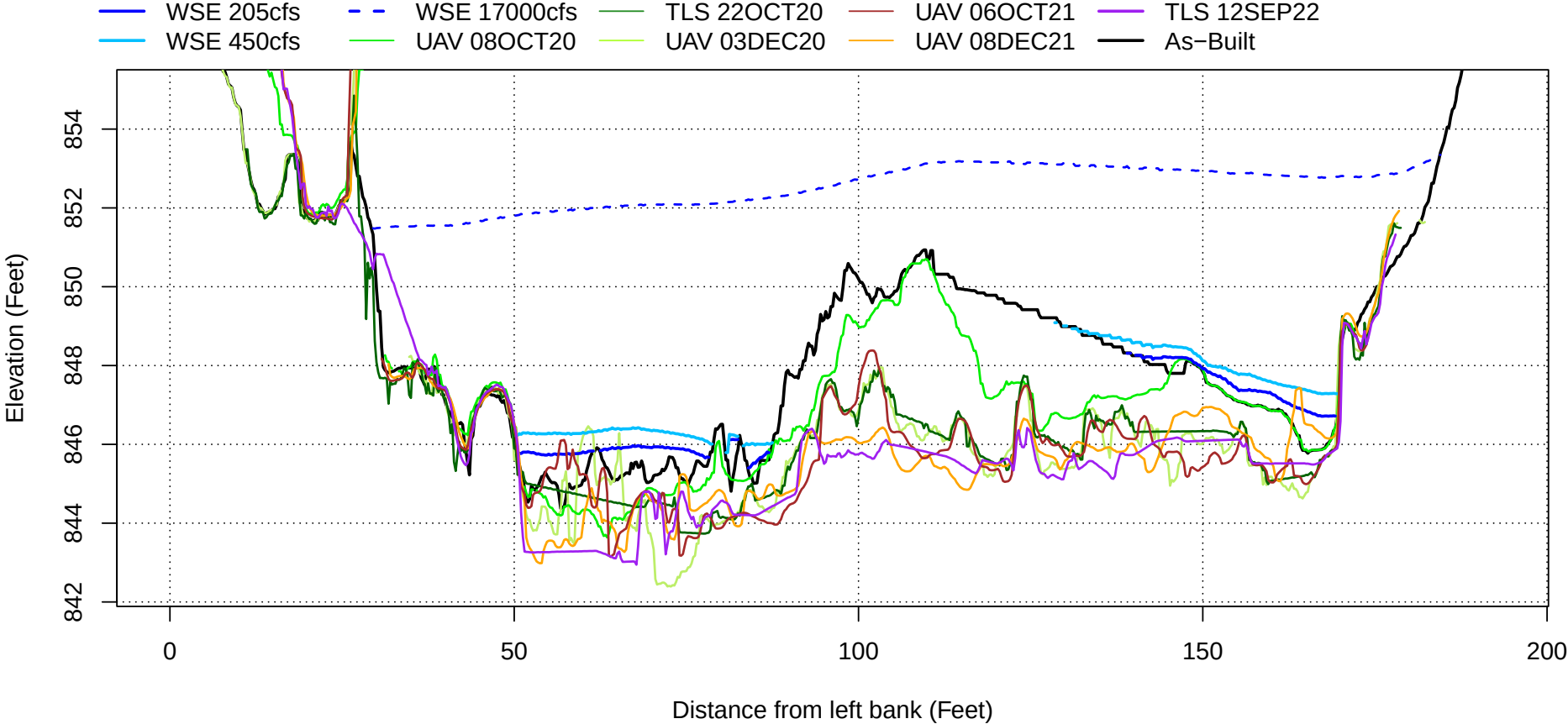
December 2021



September 2022

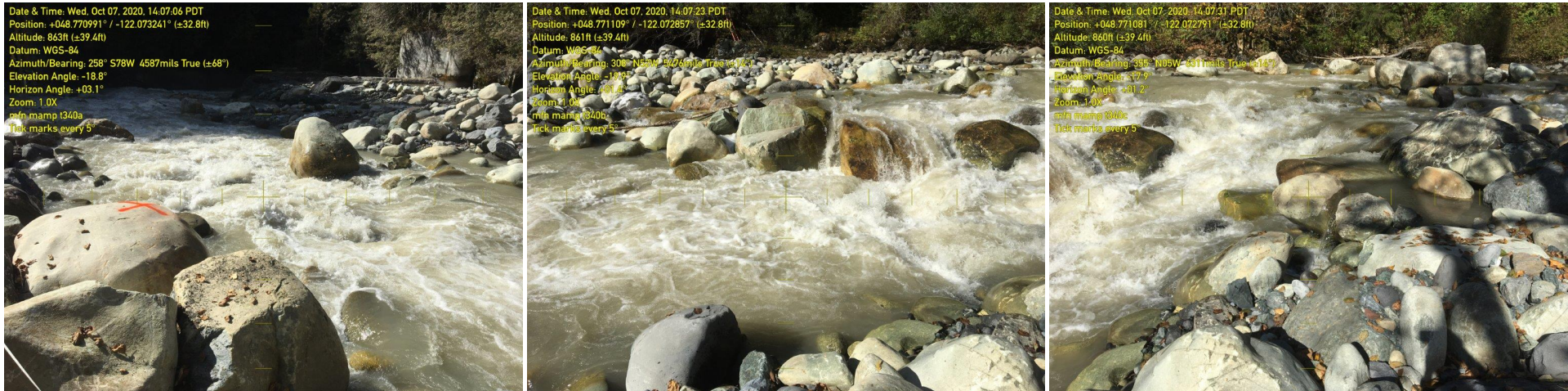


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

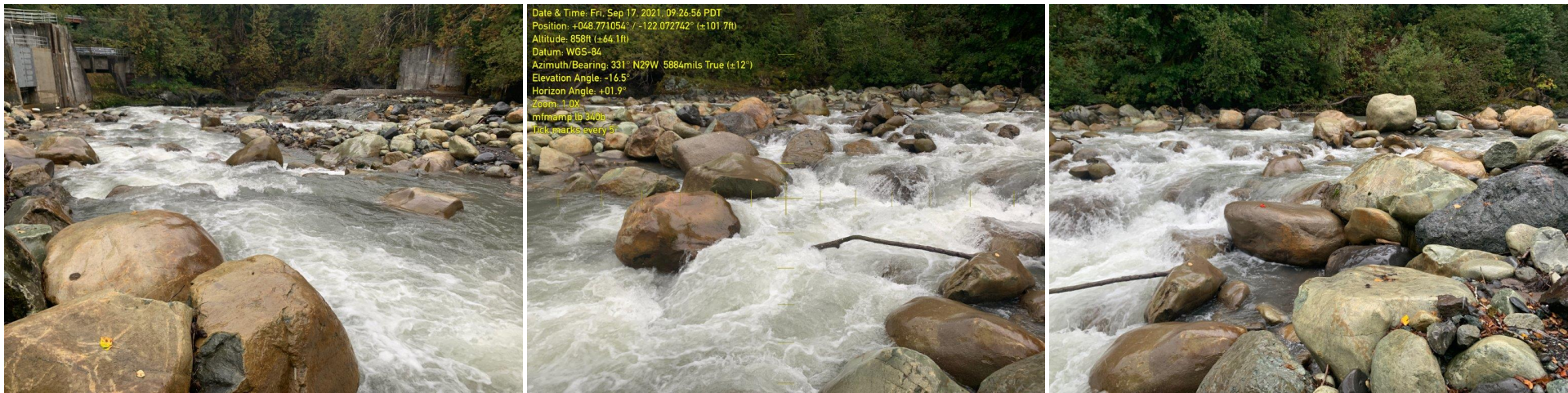


Transect 340

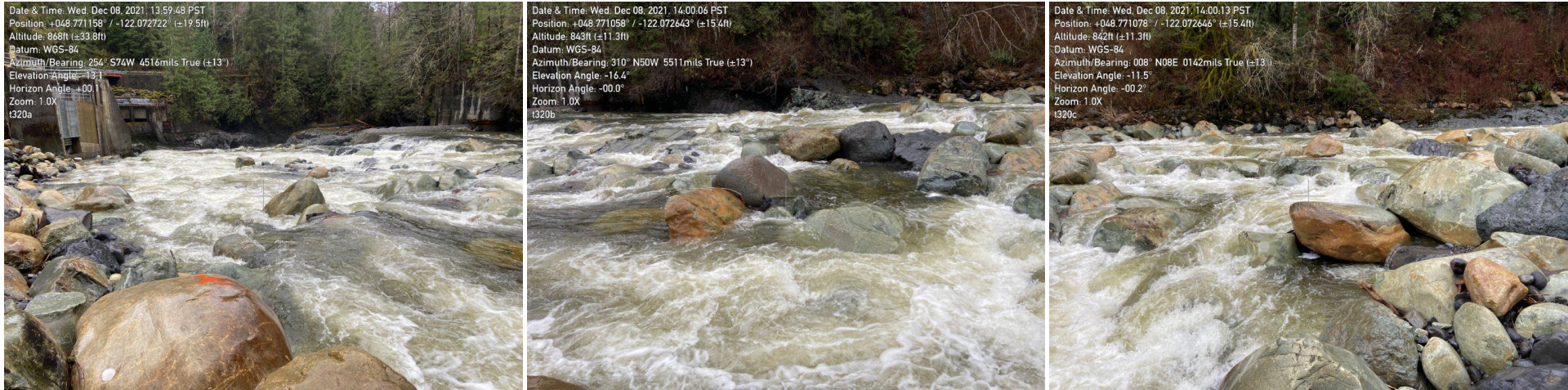
October 2020



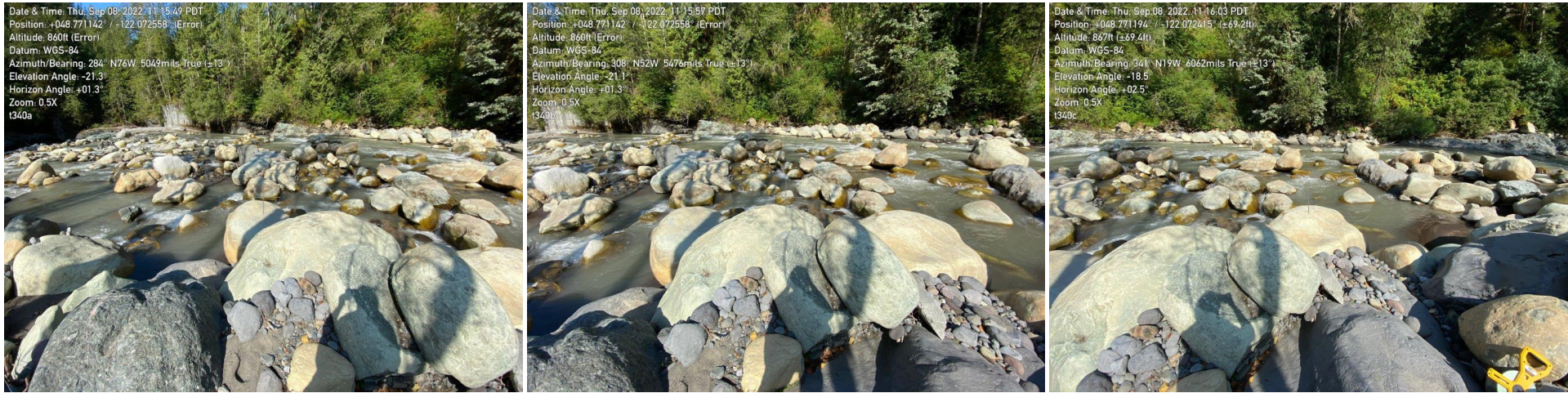
September 2021



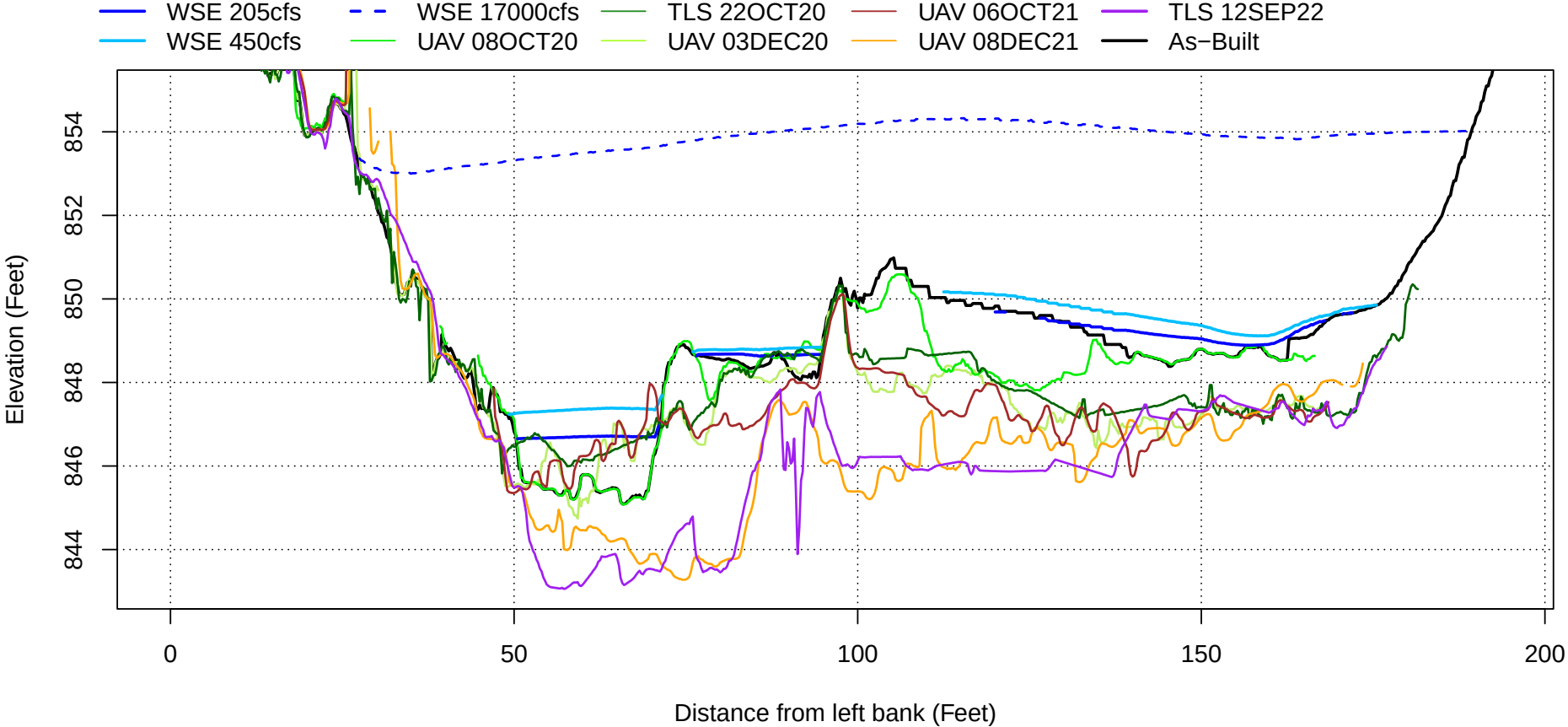
December 2021



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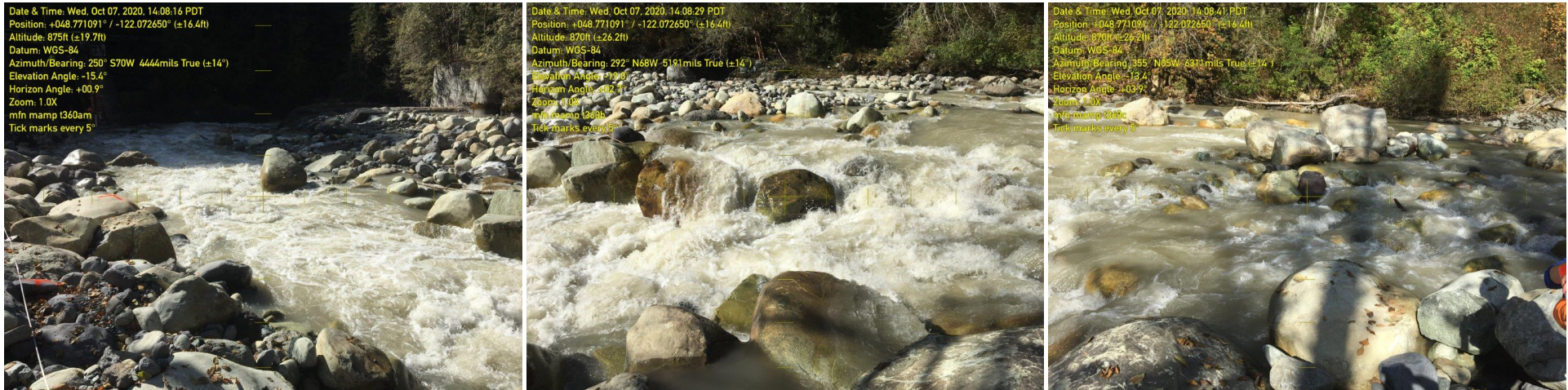


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

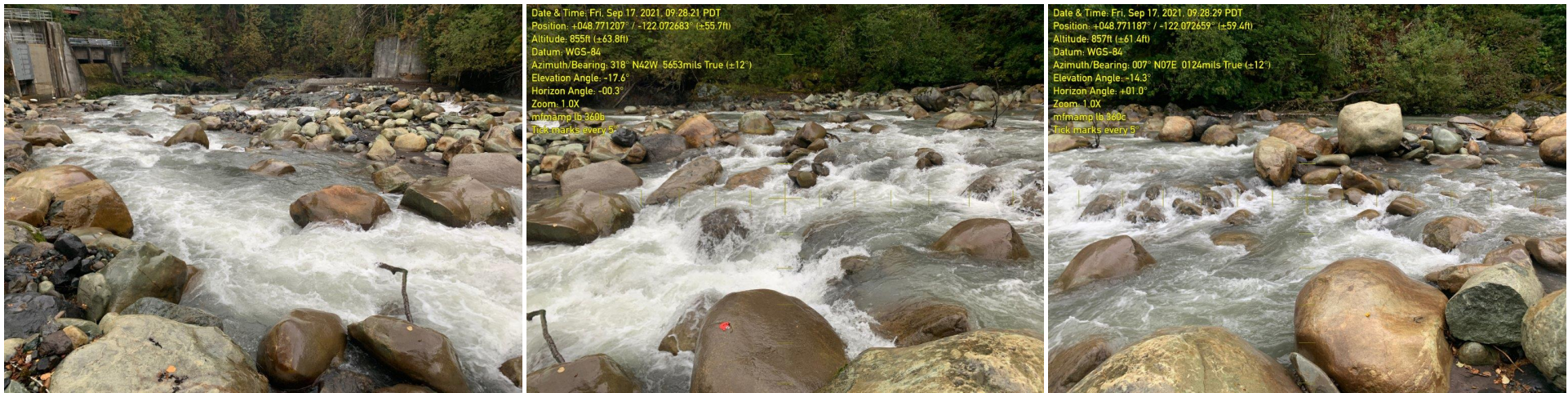


Transect 360

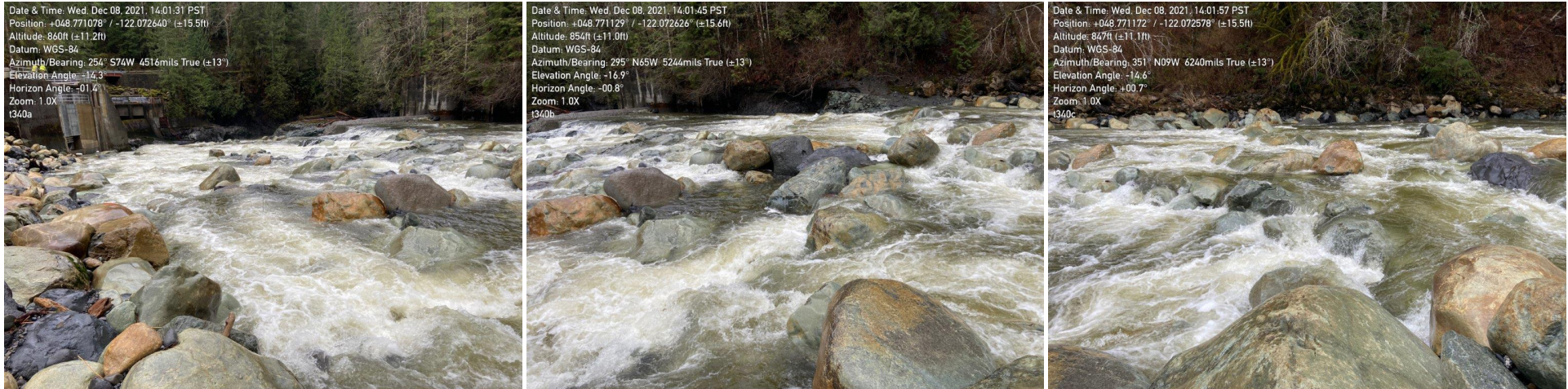
October 2020



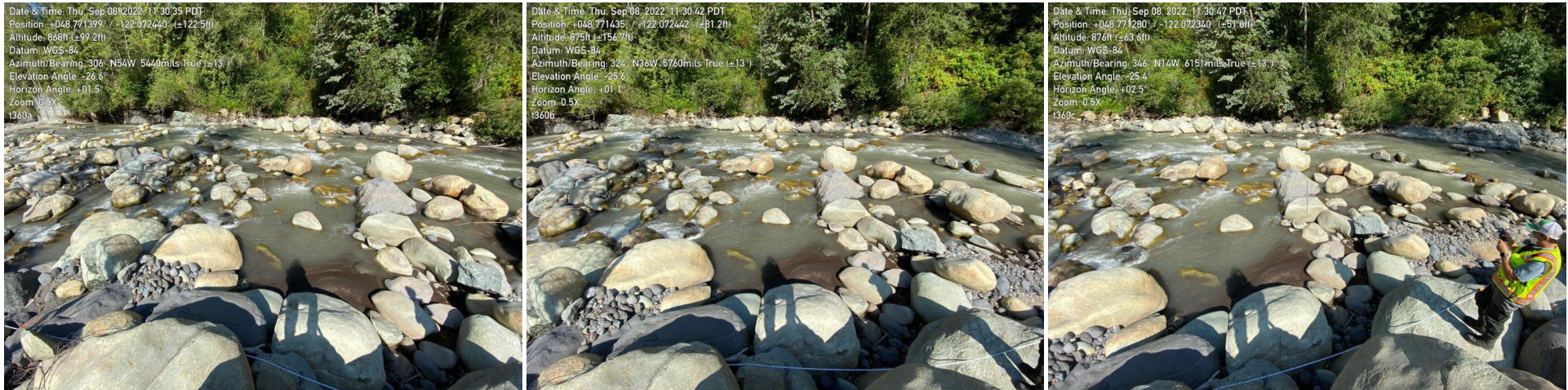
September 2021



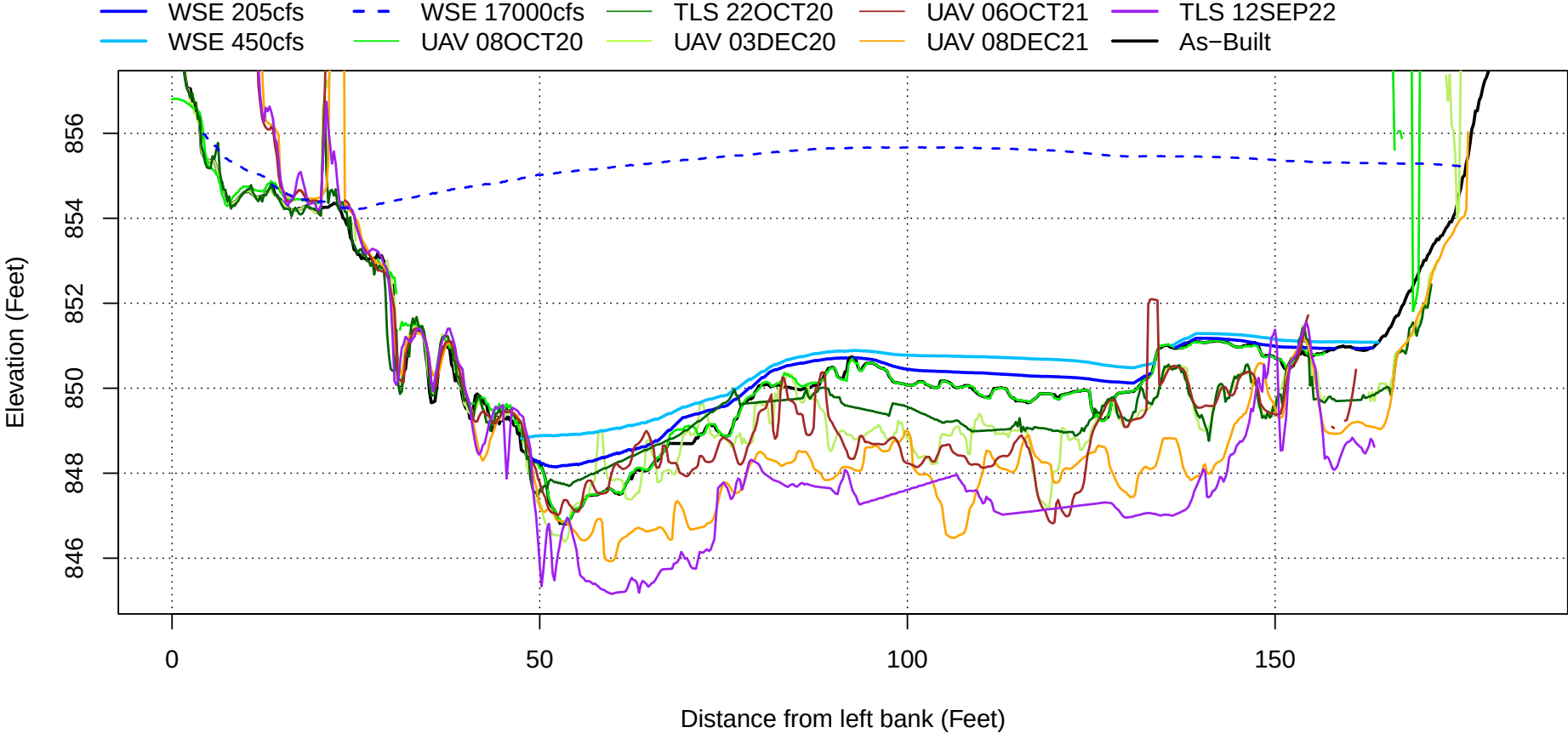
December 2021



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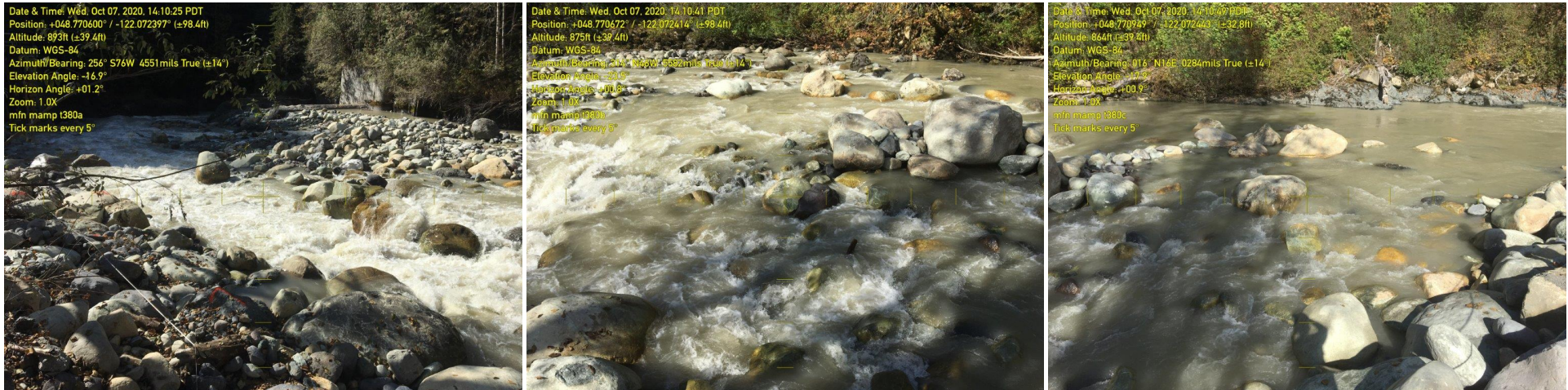


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 380

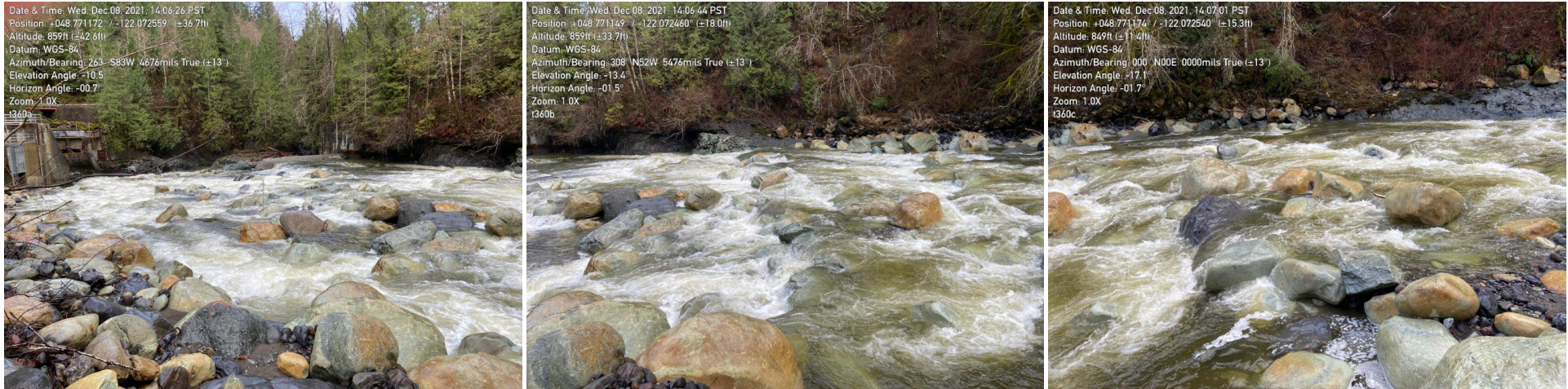
October 2020



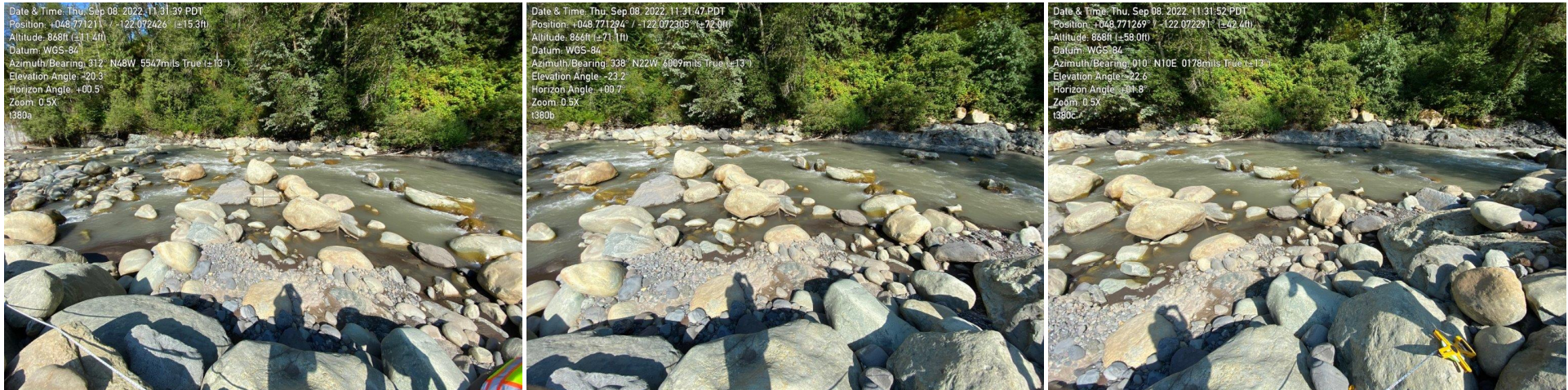
September 2021



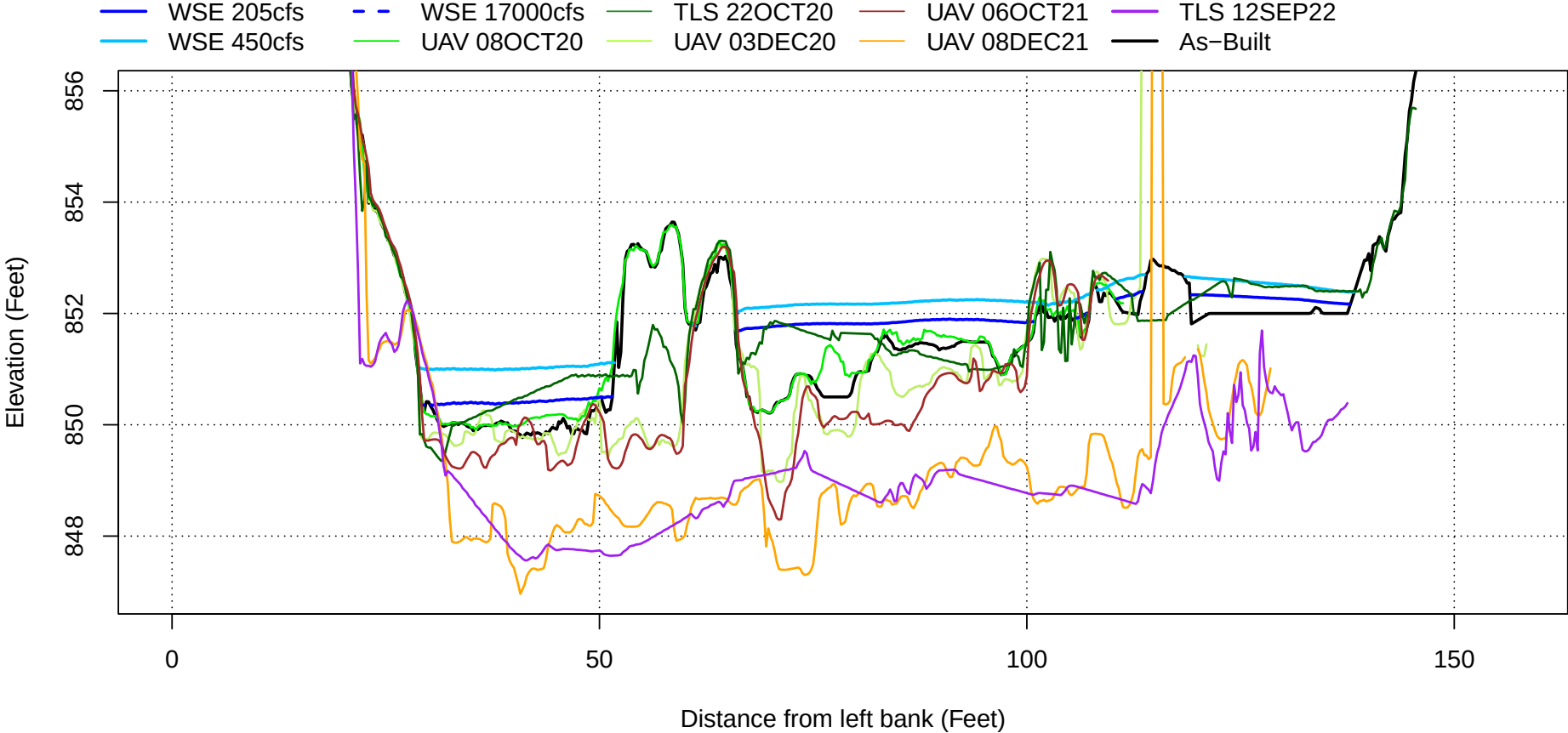
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

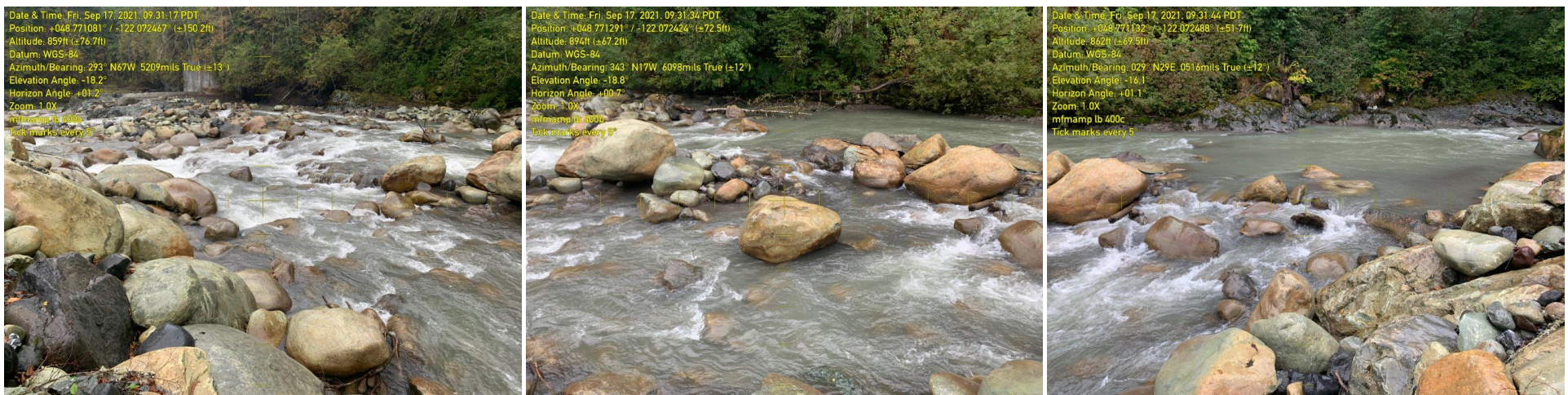


Transect 400

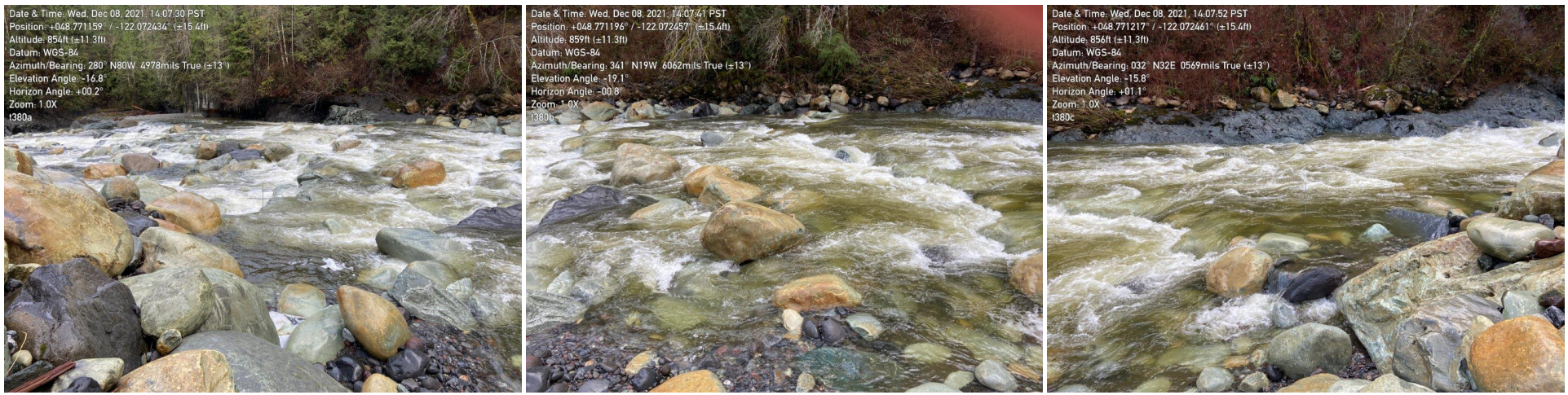
October 2020



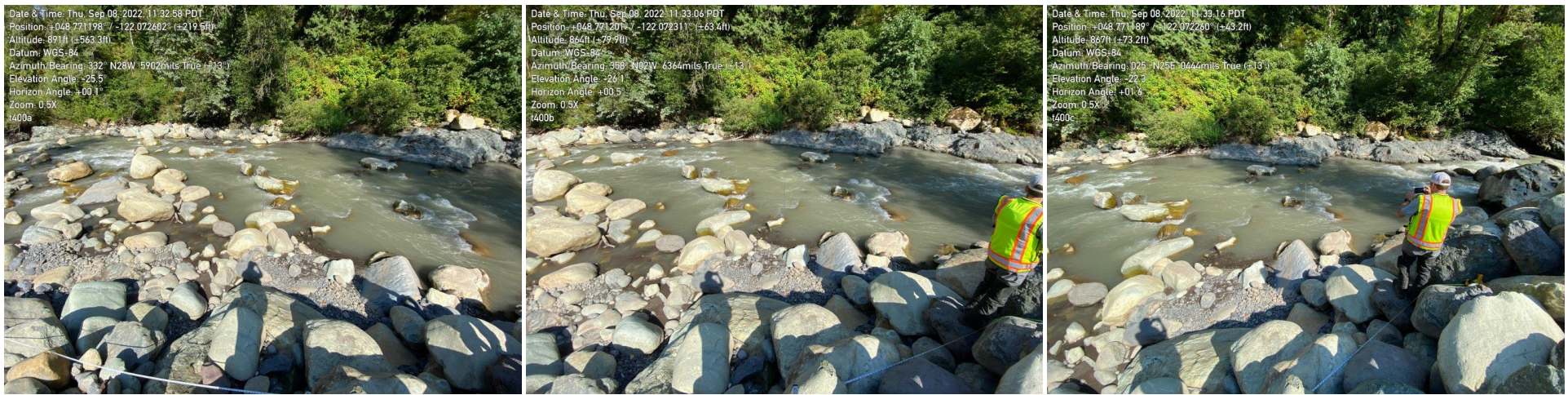
September 2021



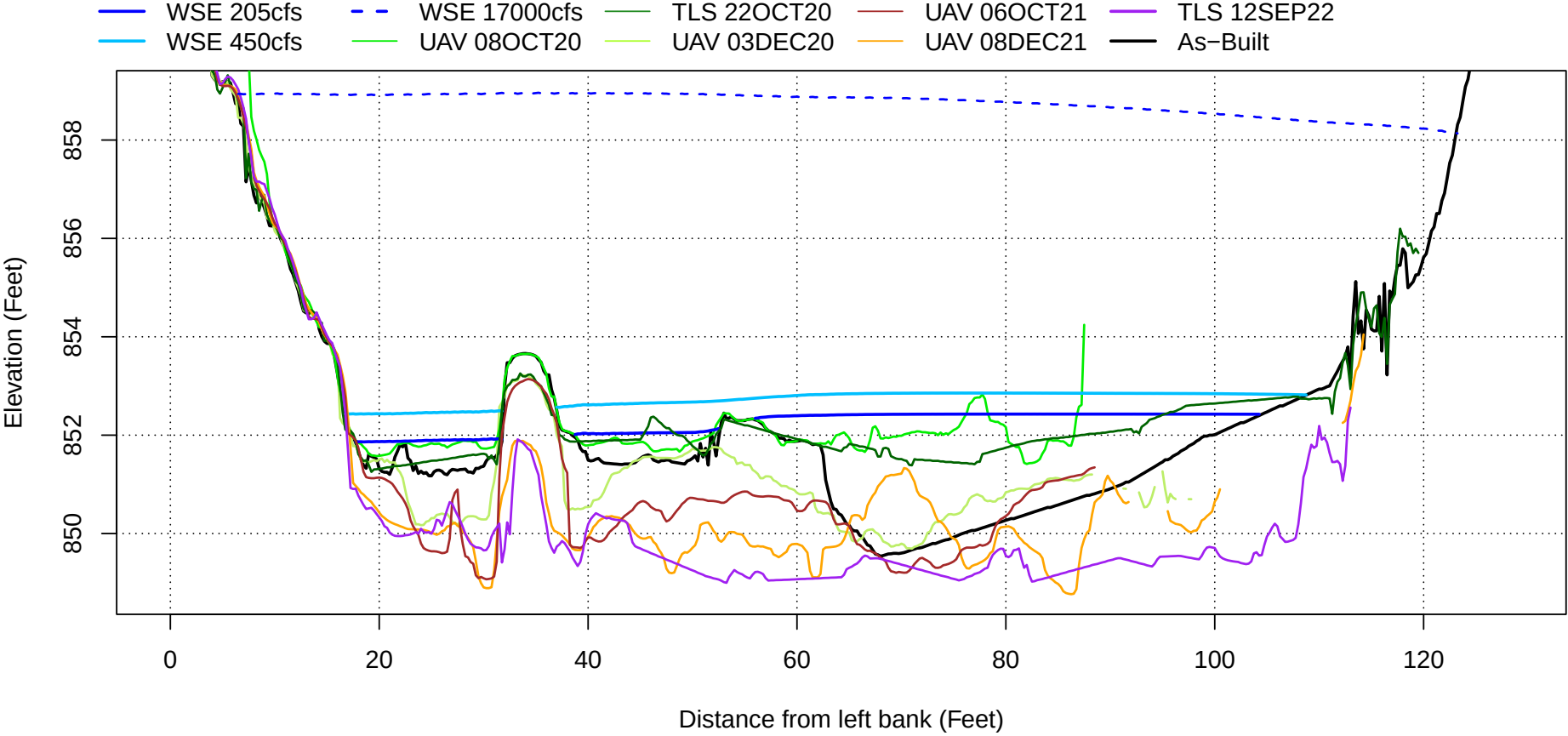
December 2021



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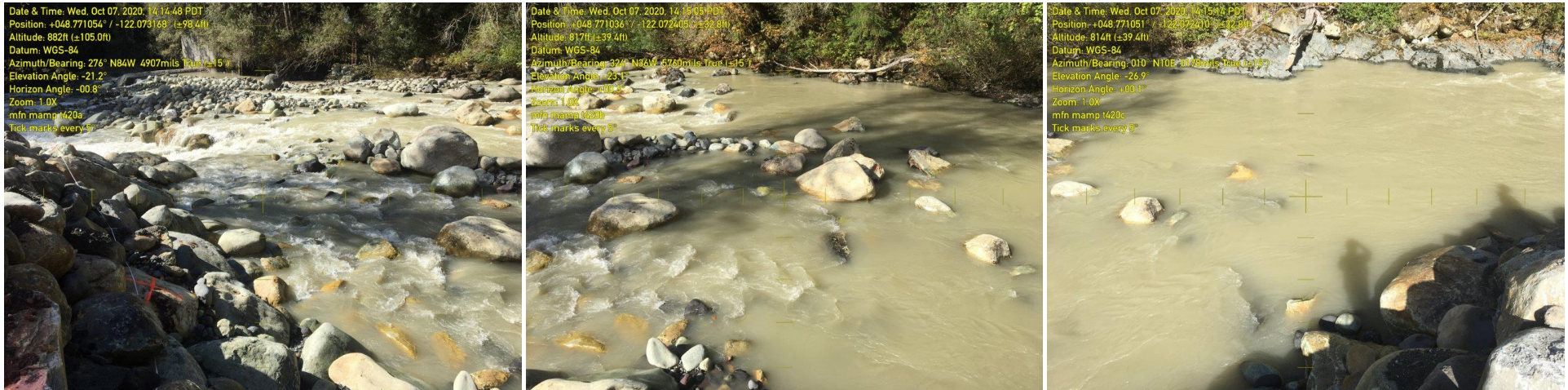


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

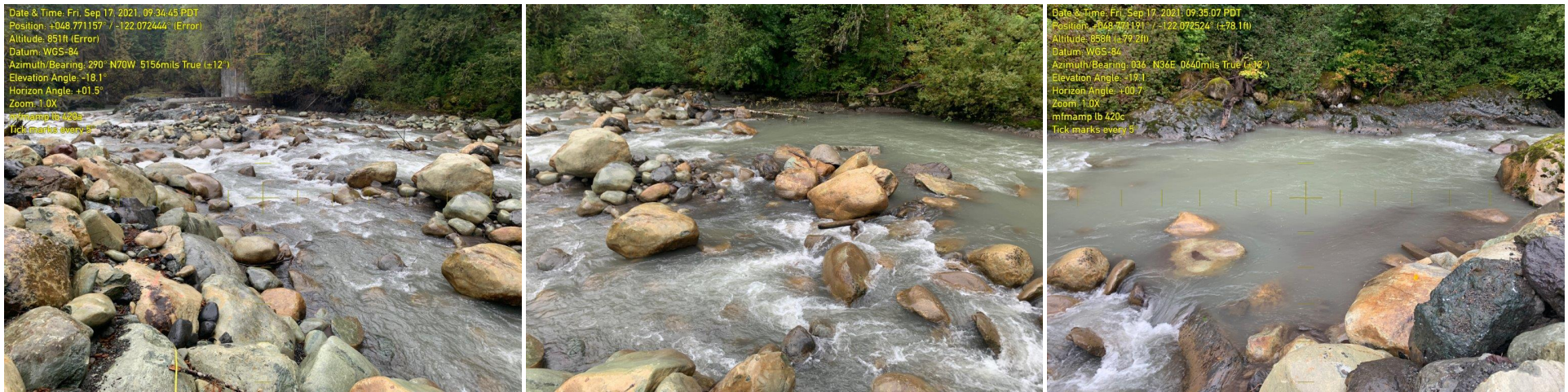


Transect 420

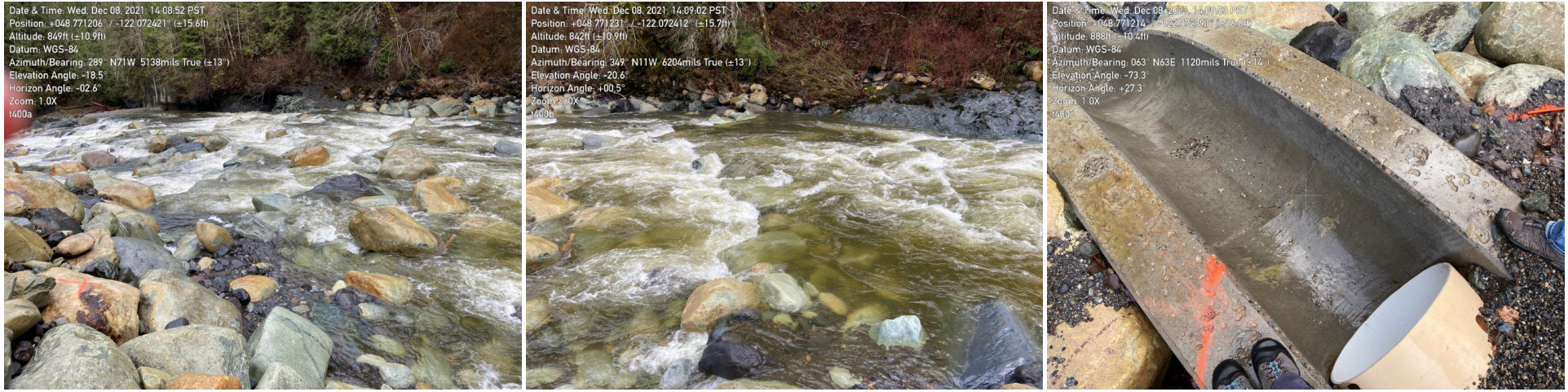
October 2020



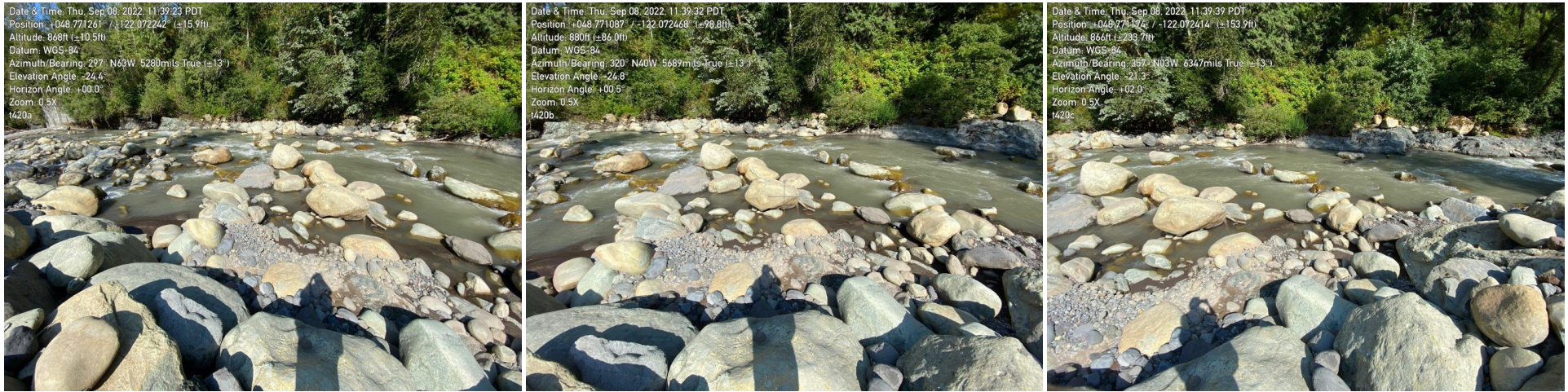
September 2021



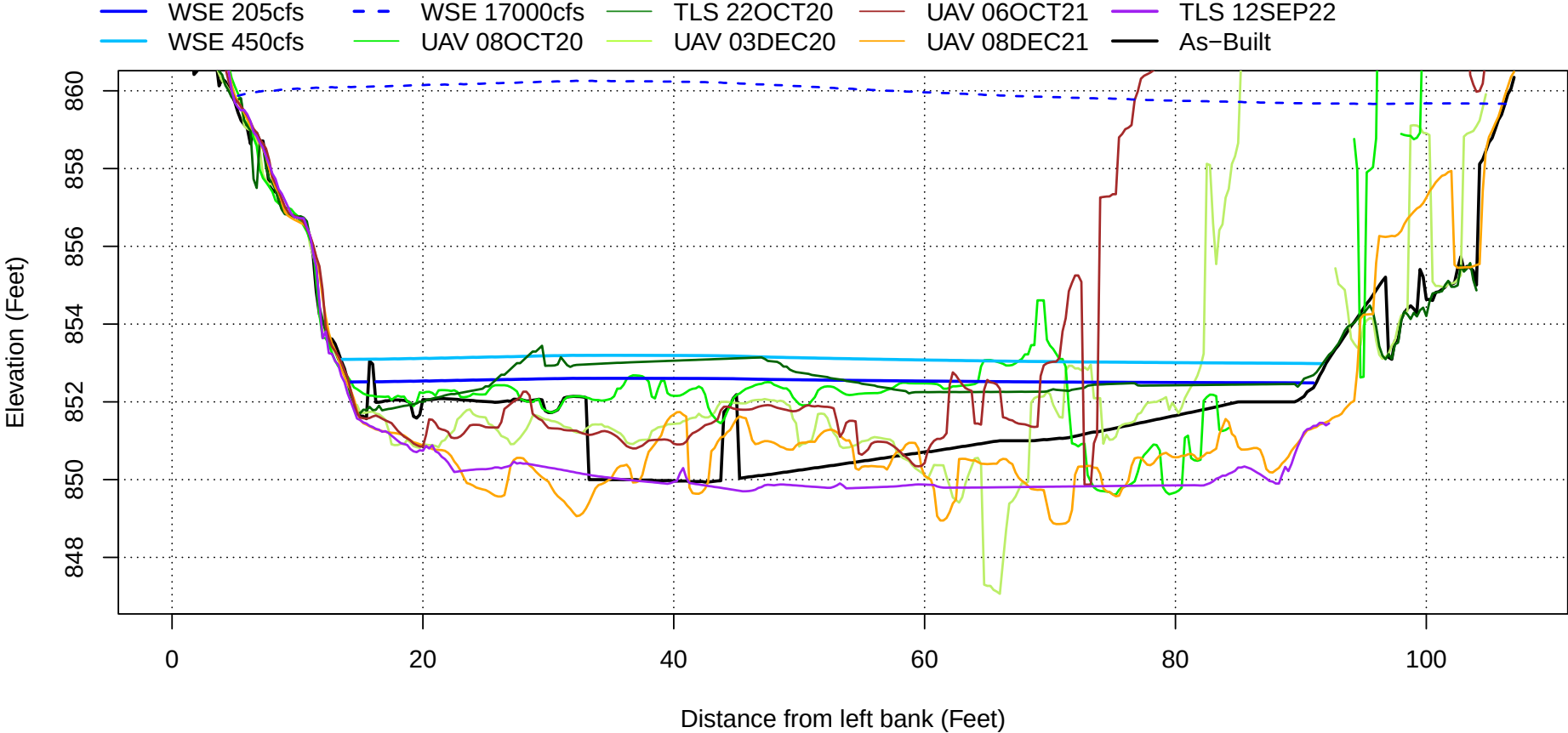
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 437

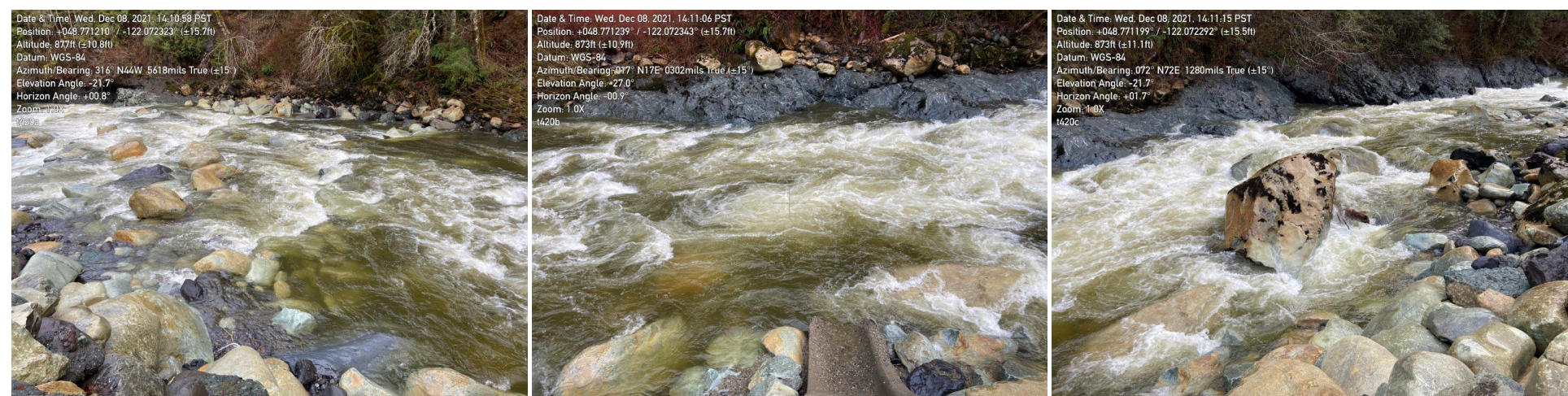
October 2020



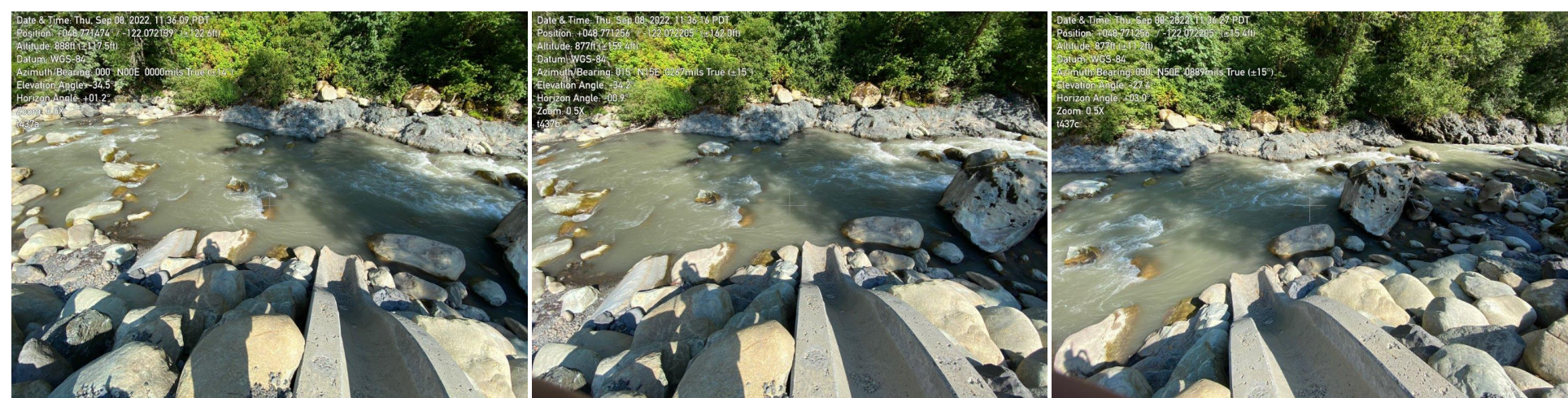
September 2021



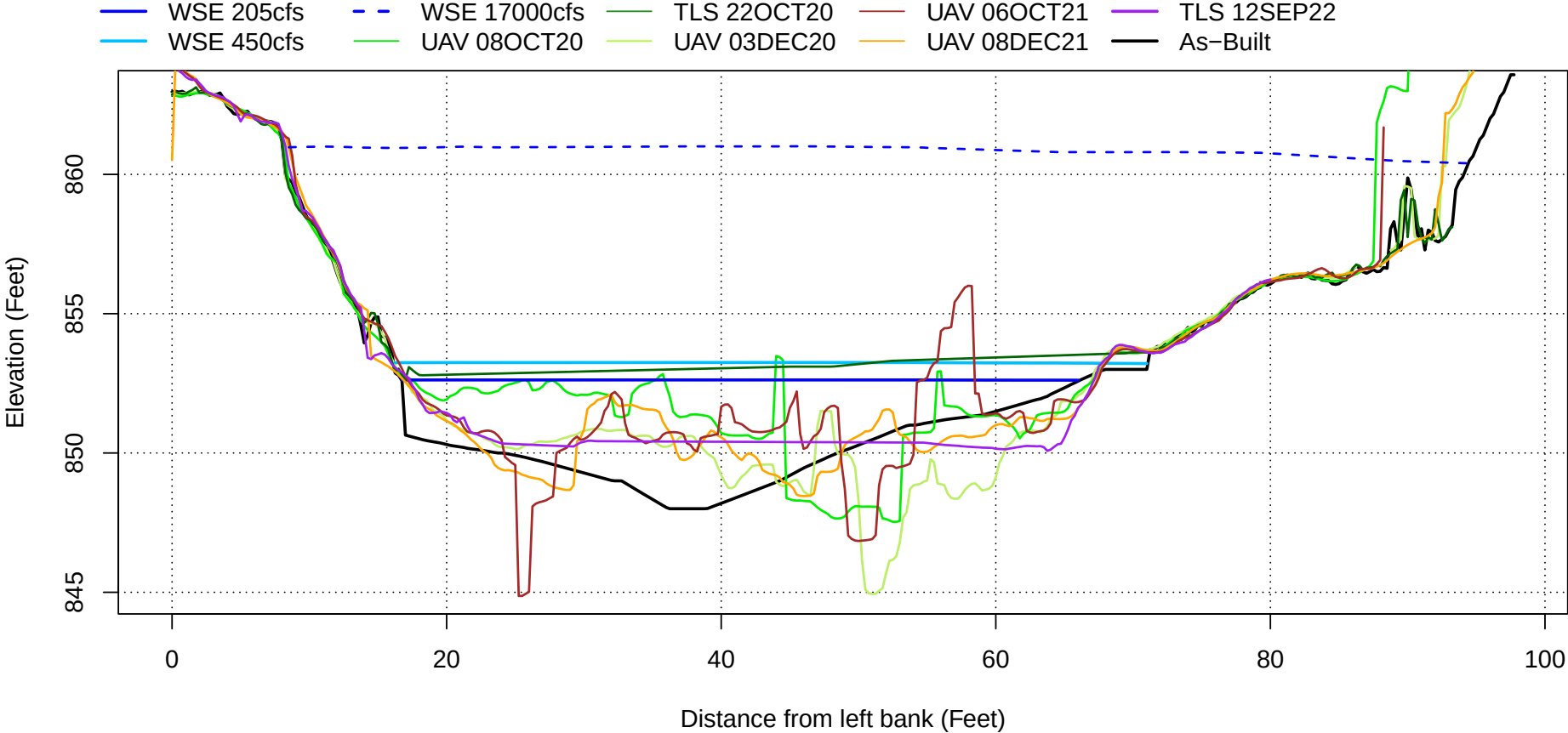
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 460

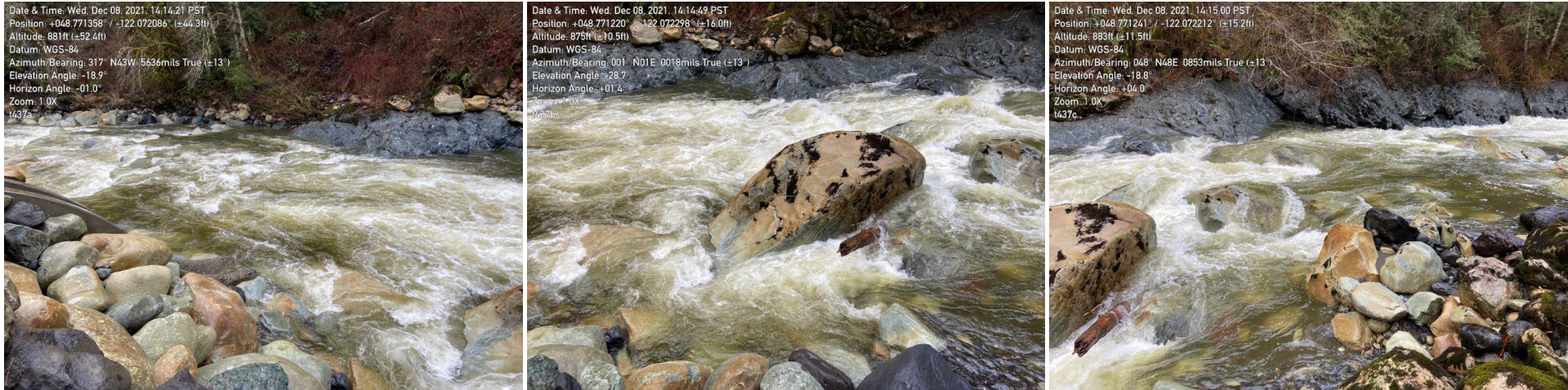
October 2020



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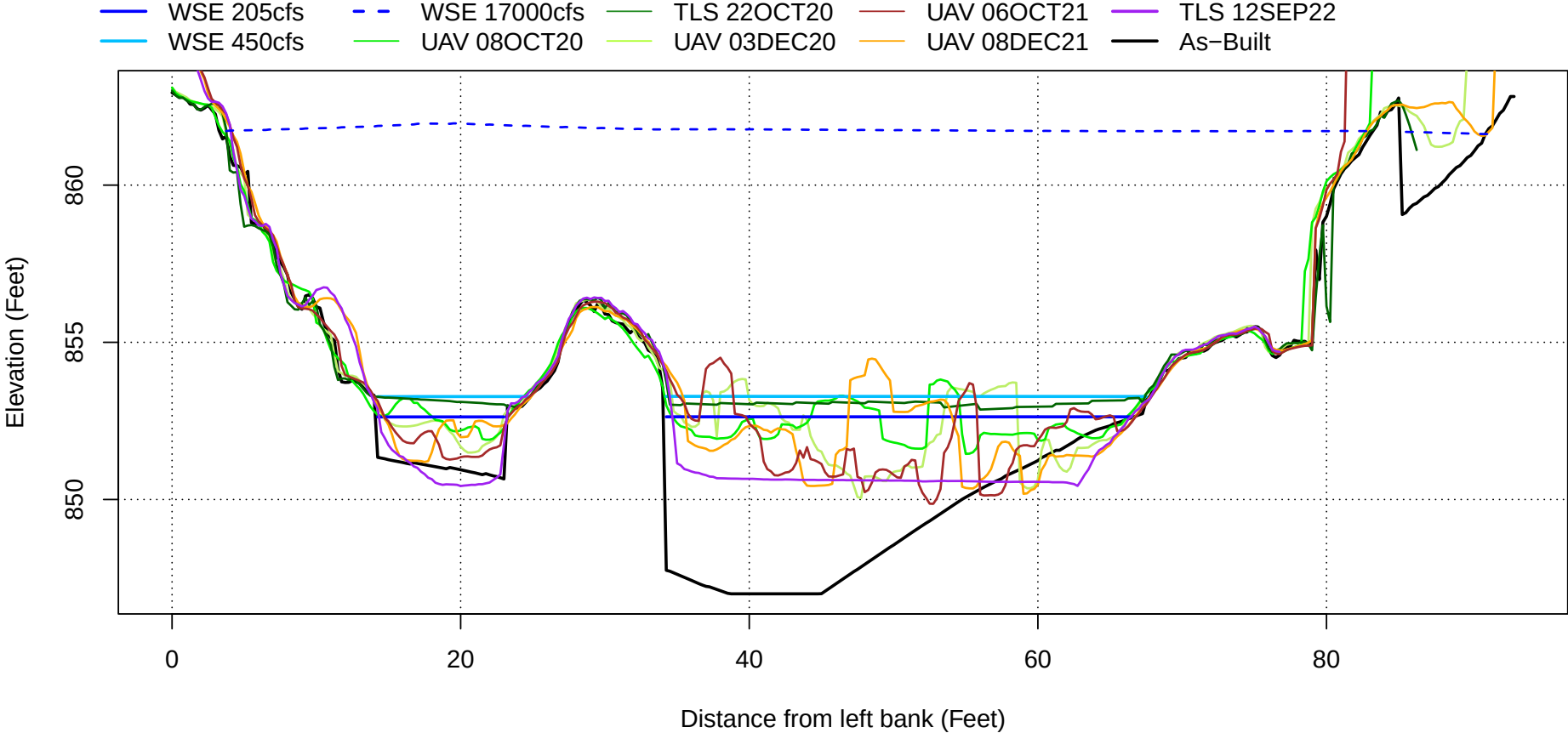
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

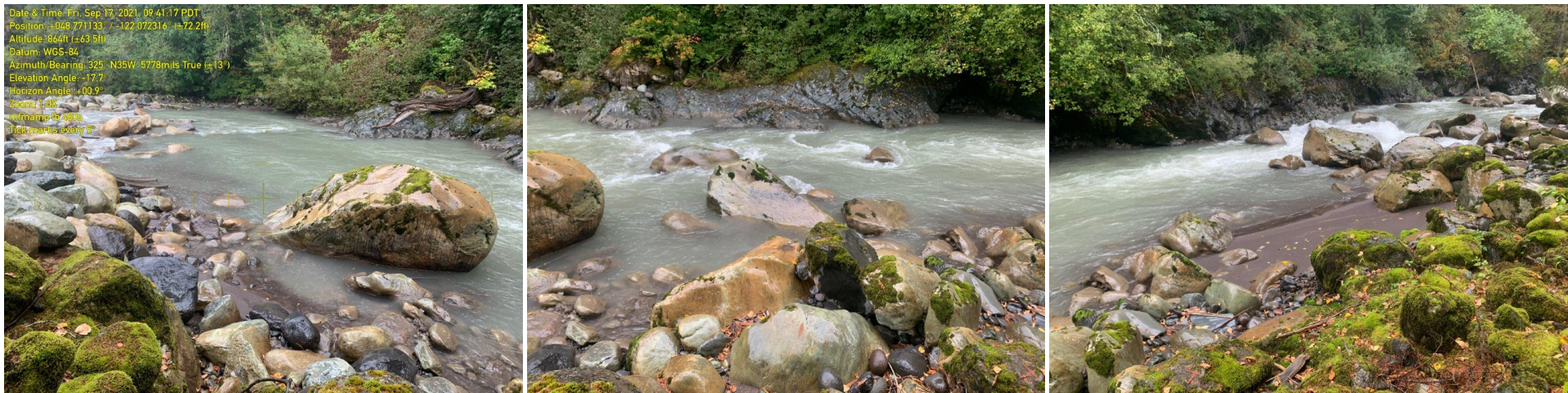


Transect 480

October 2020



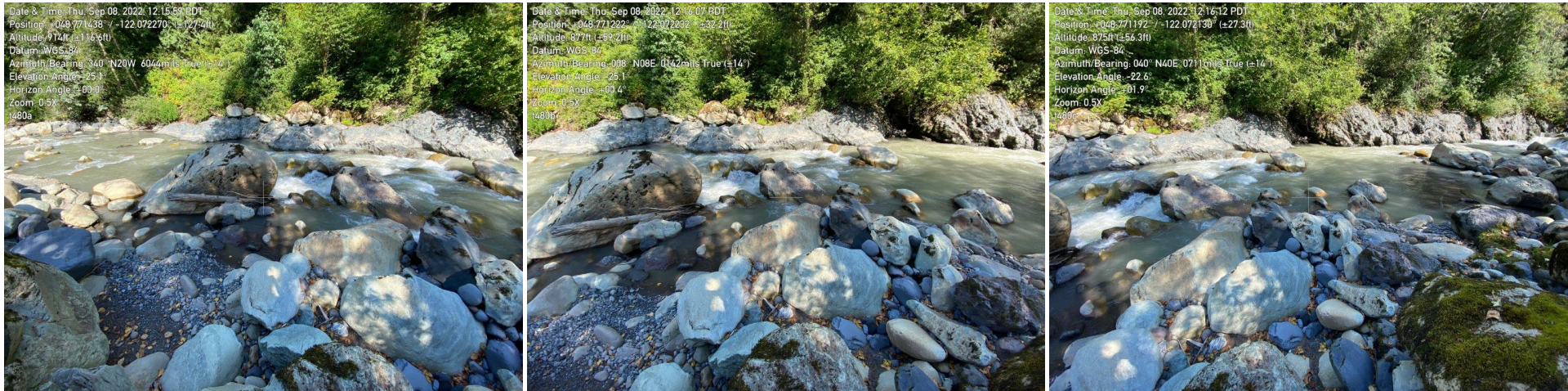
September 2021



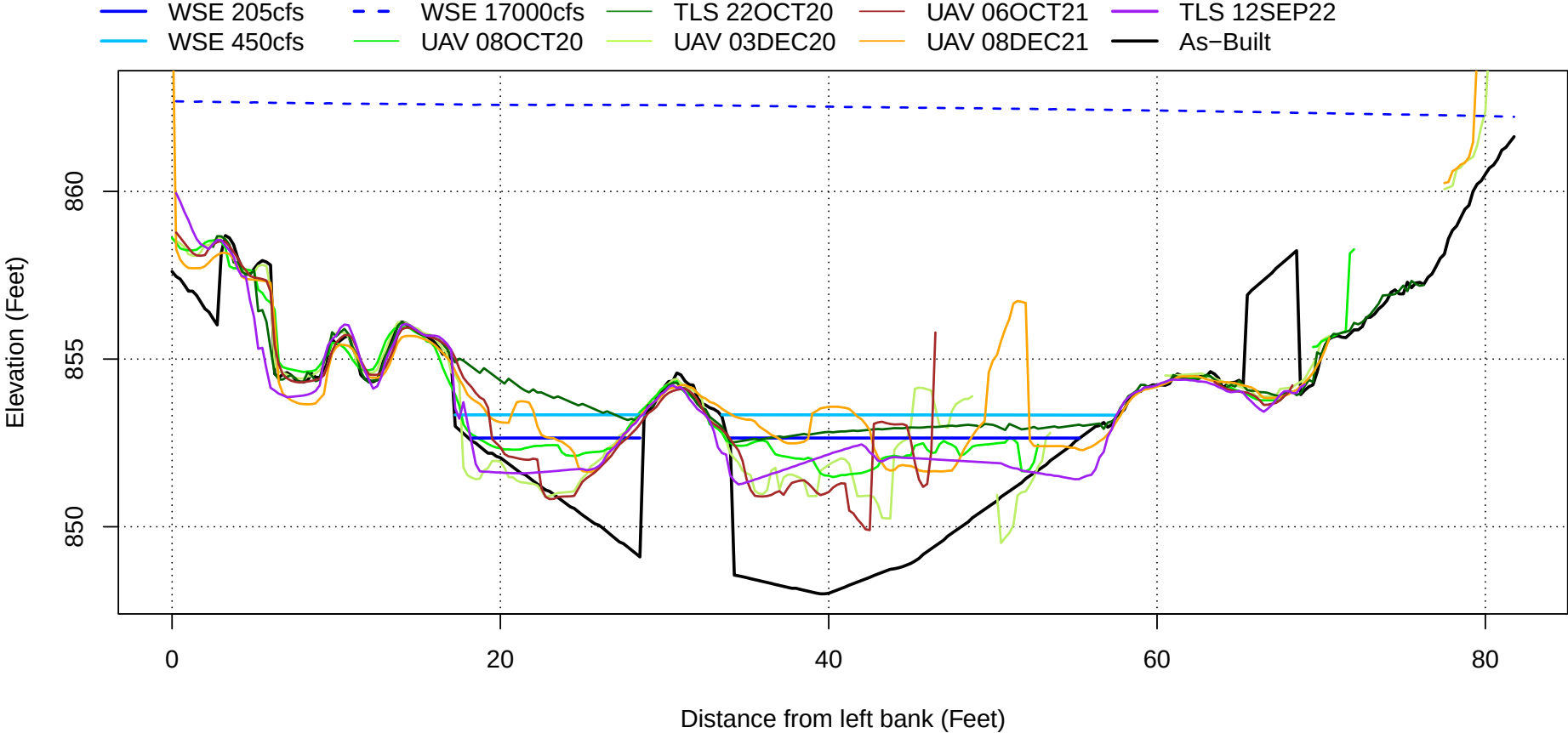
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

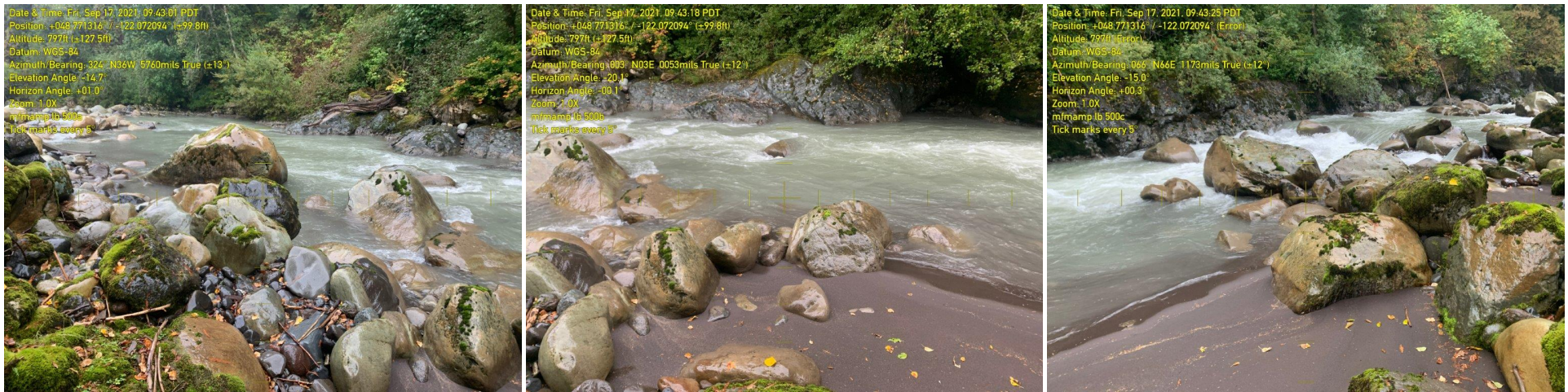


Transect 500

October 2020



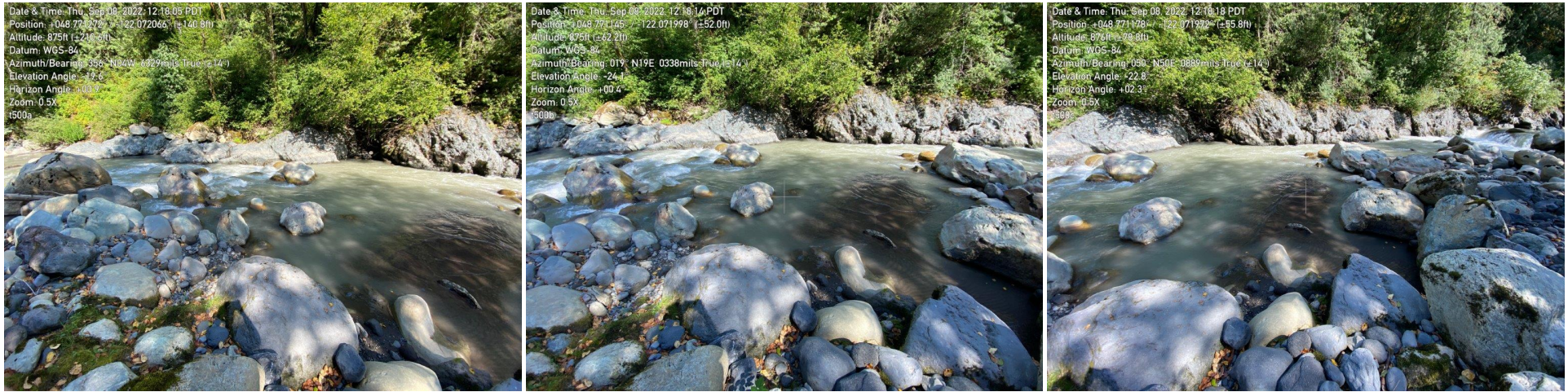
September 2021



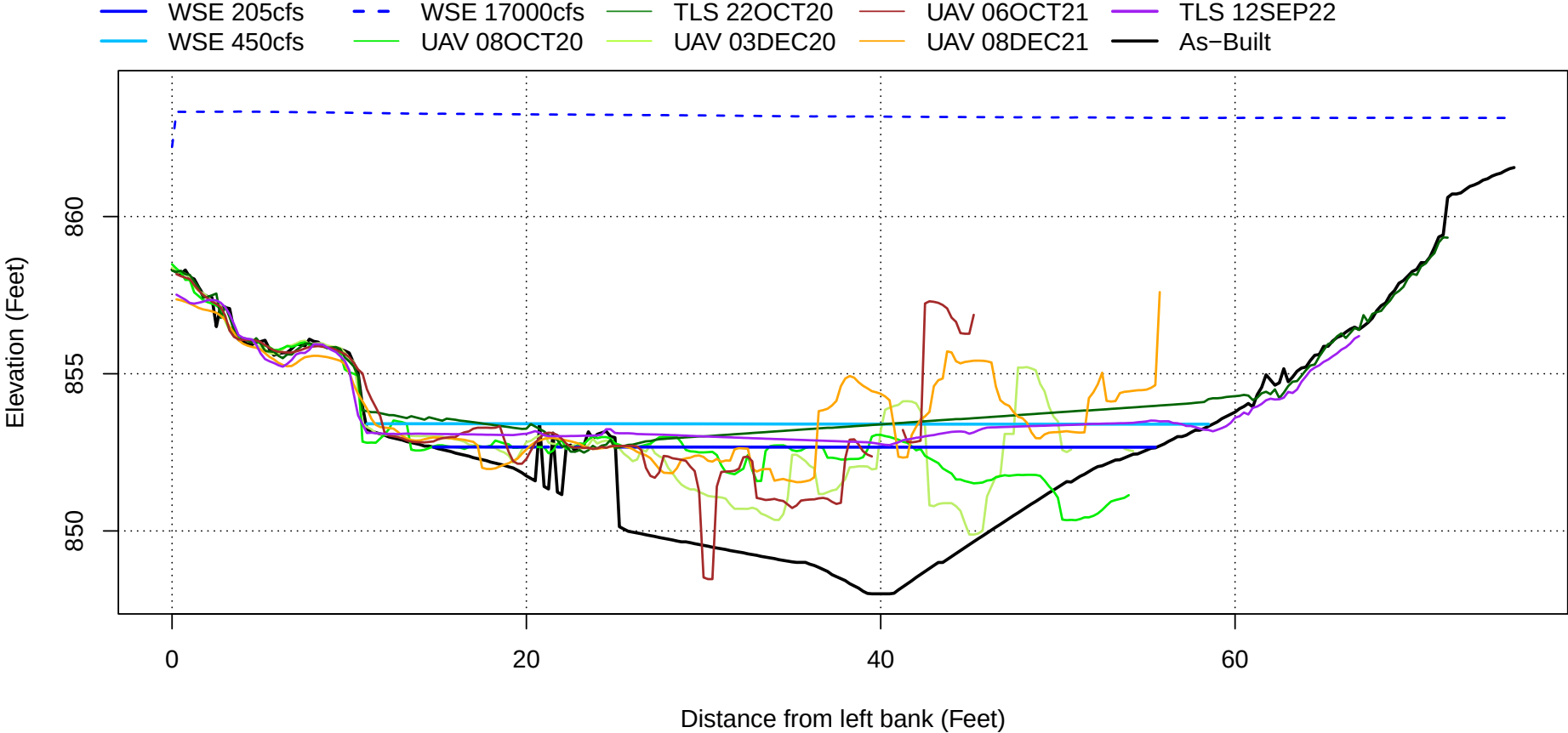
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

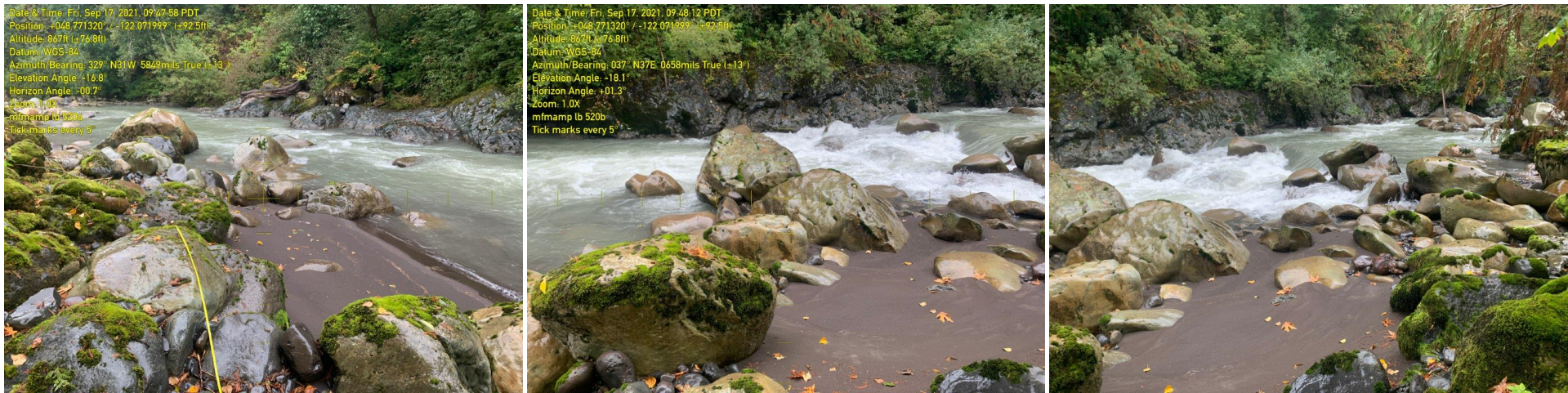


Transect 520

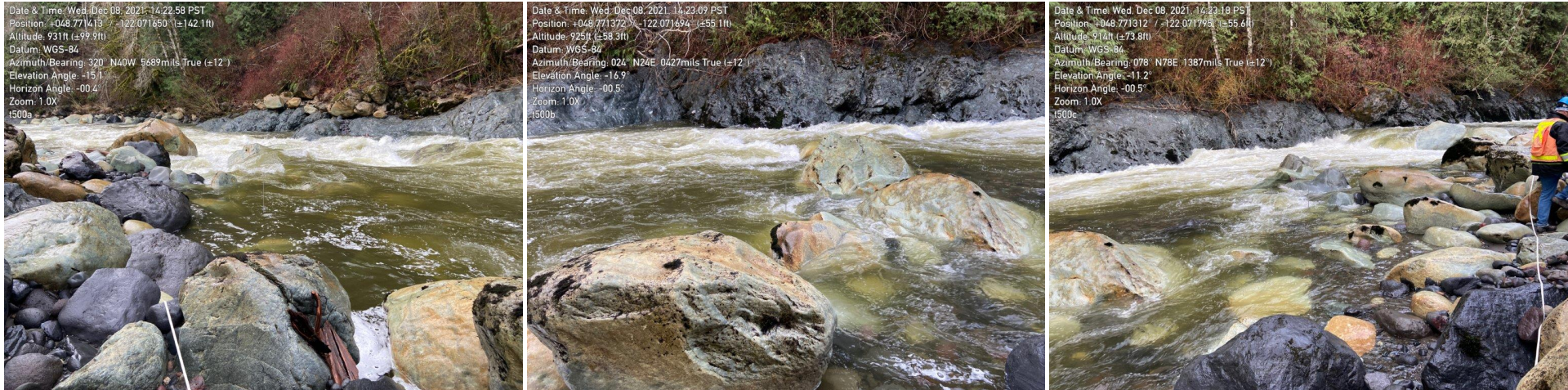
October 2020



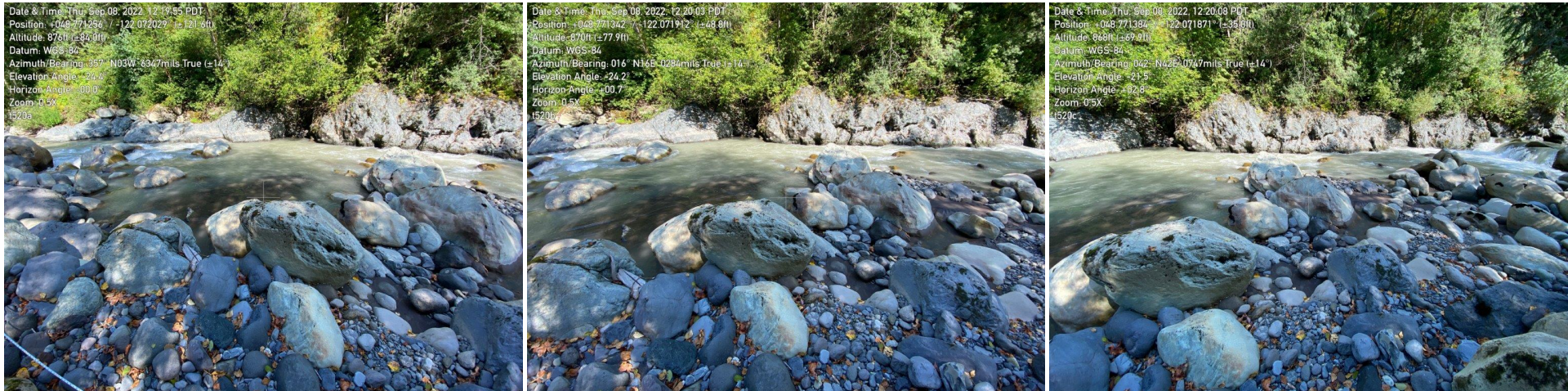
September 2021



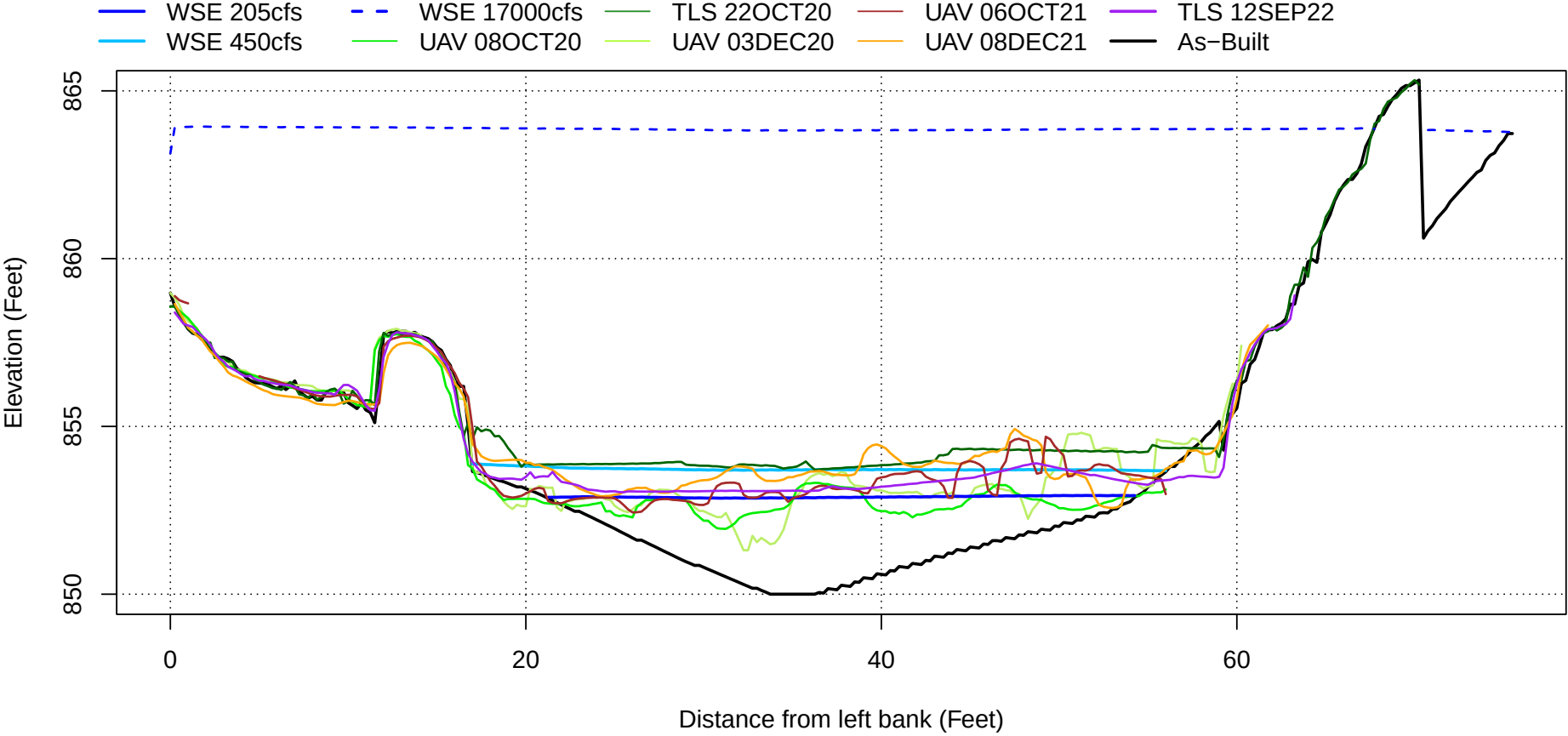
December 2021



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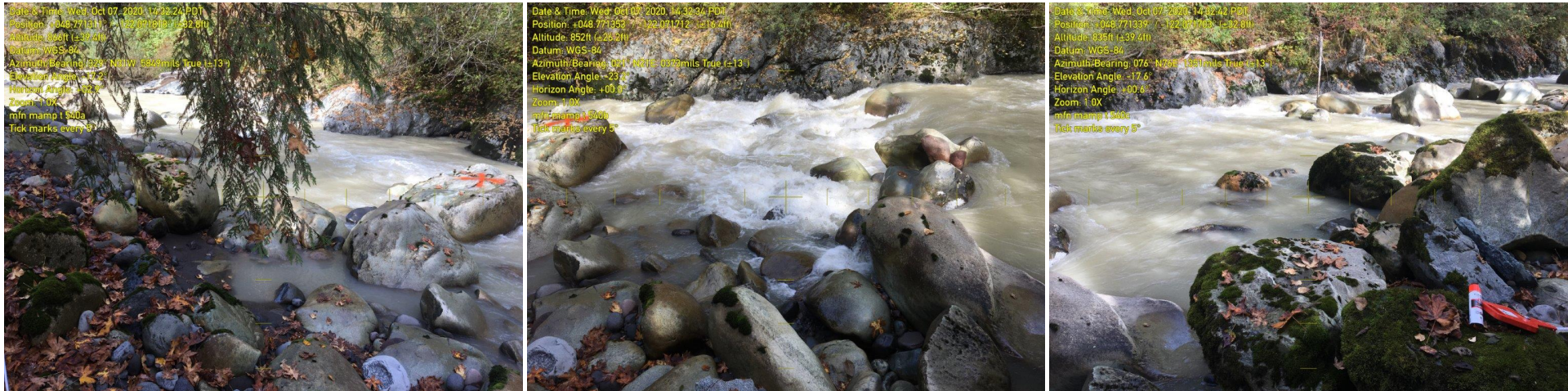


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 540

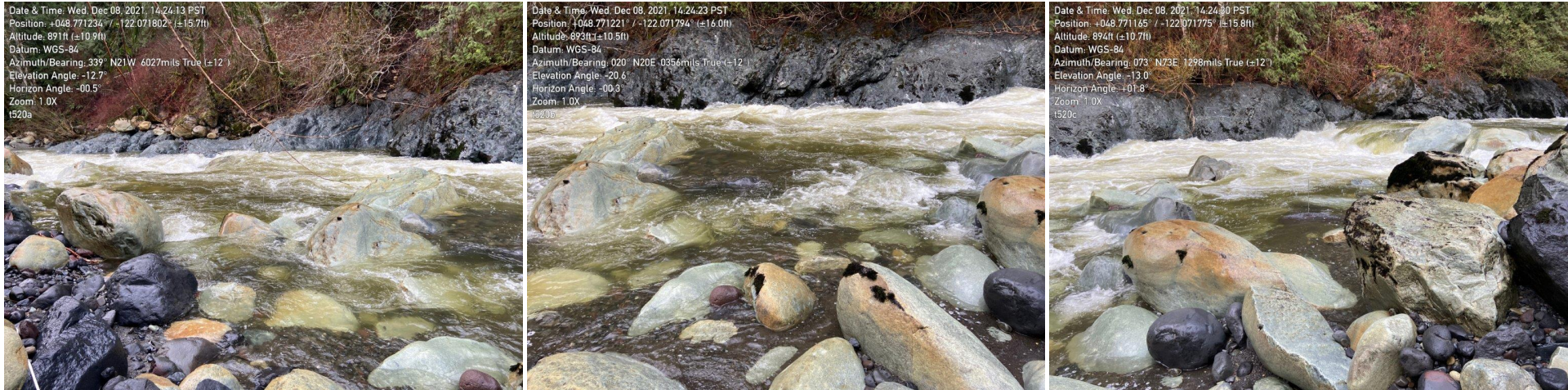
October 2020



September 2021



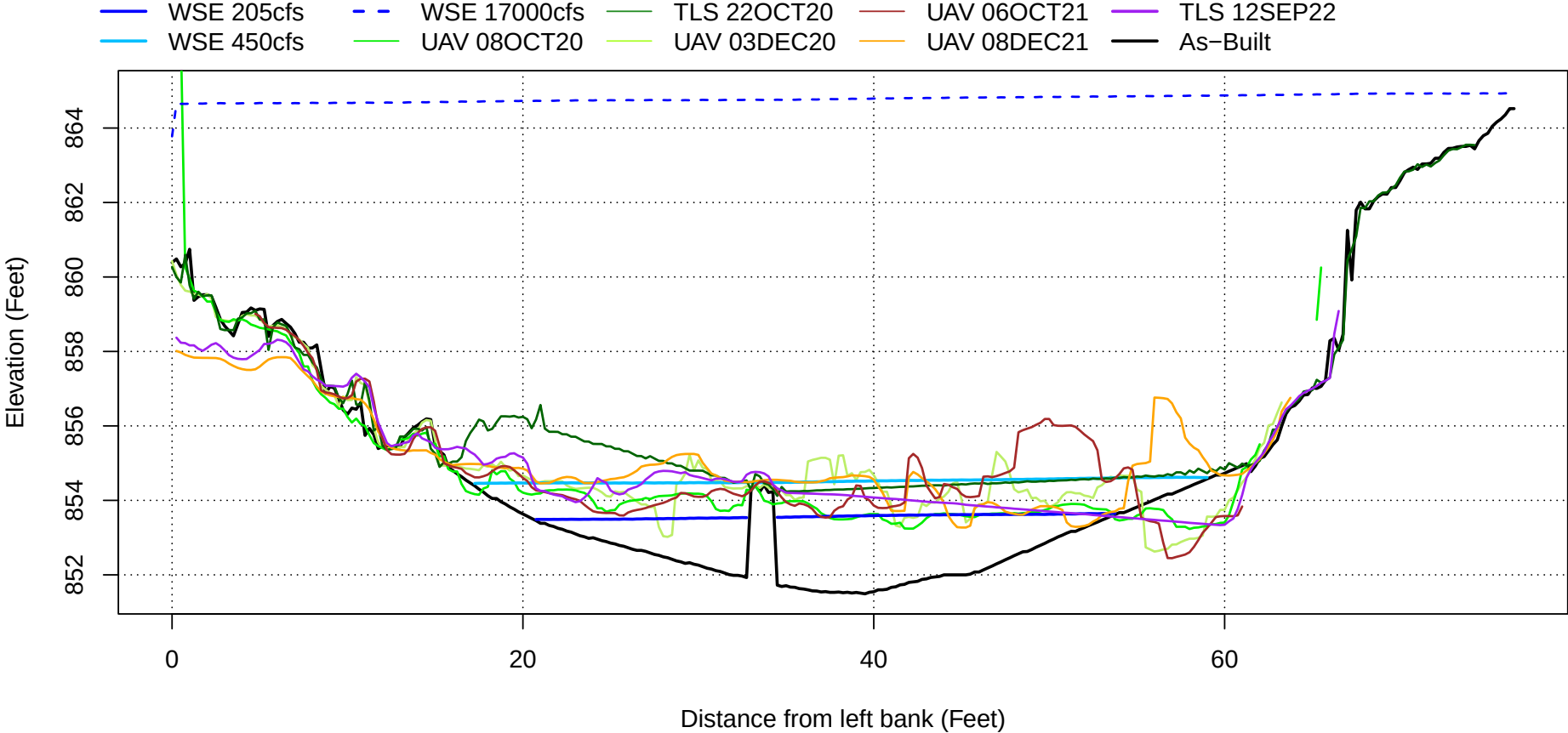
December 2021



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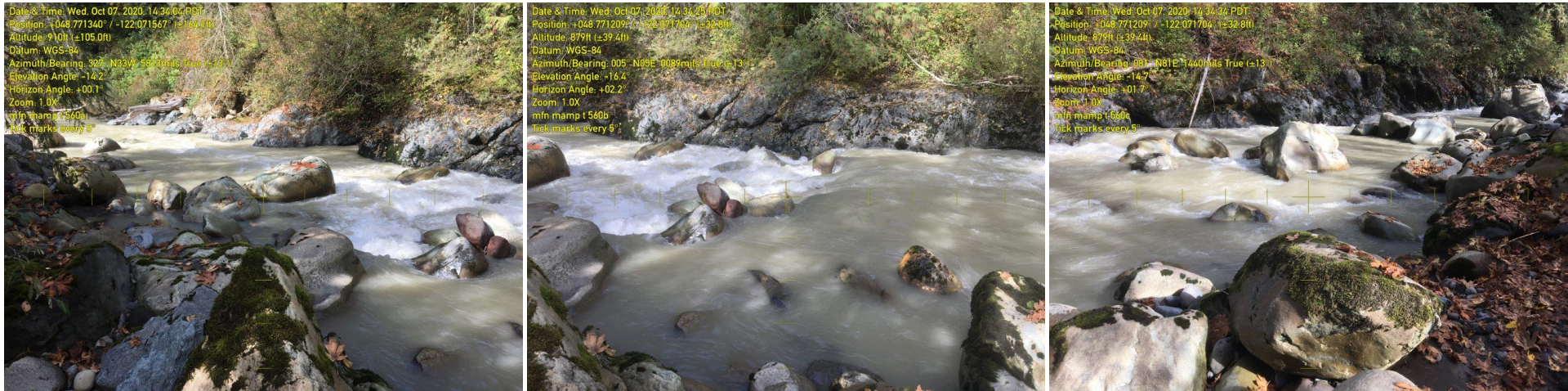


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 560

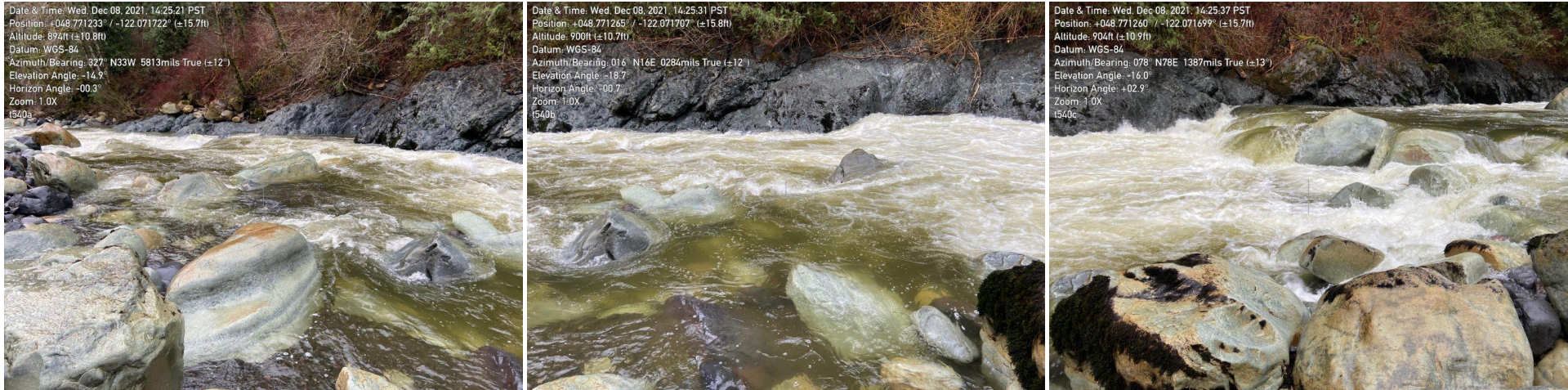
October 2020



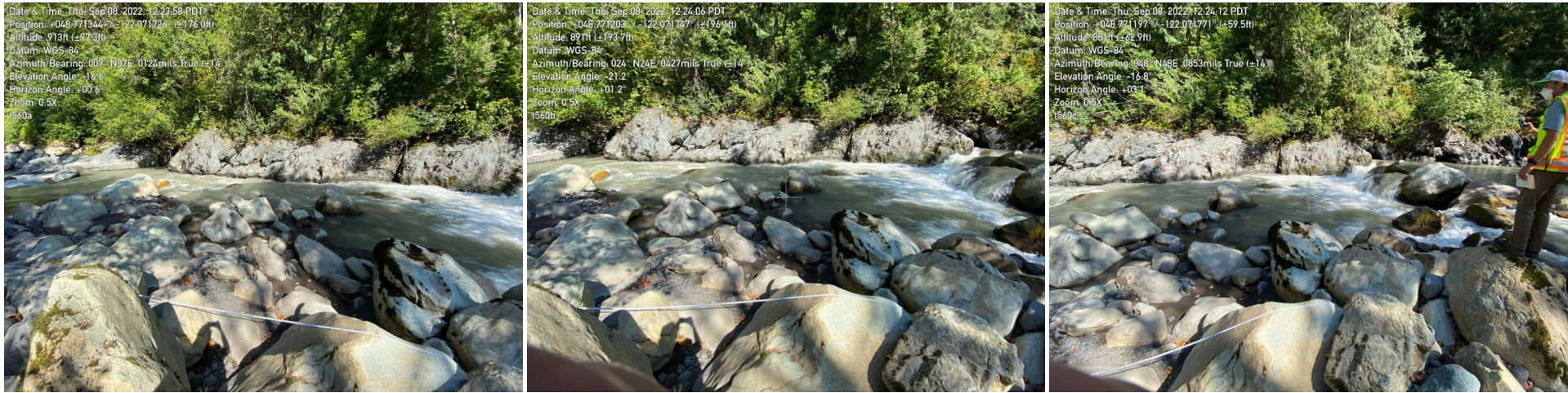
September 2021



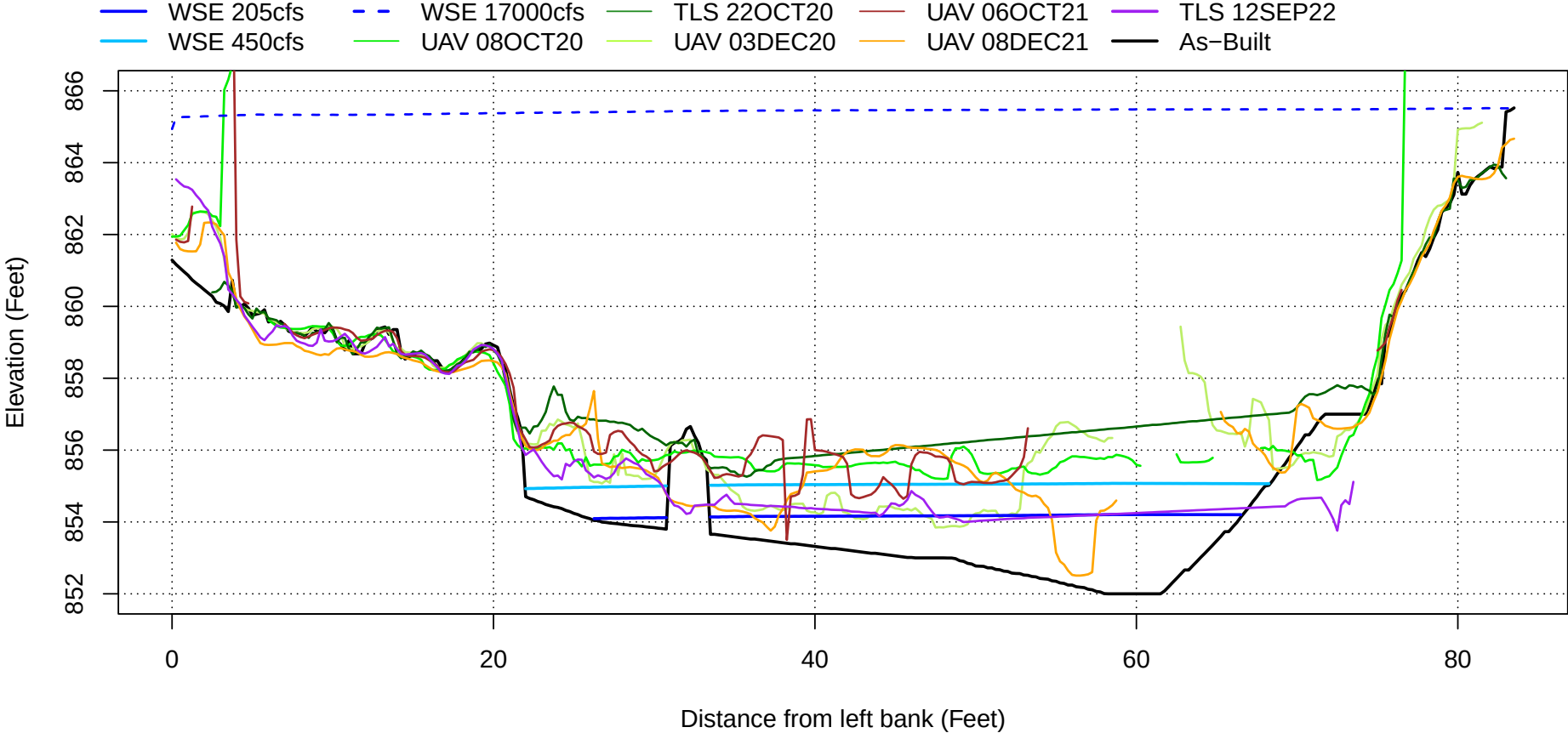
December 2021



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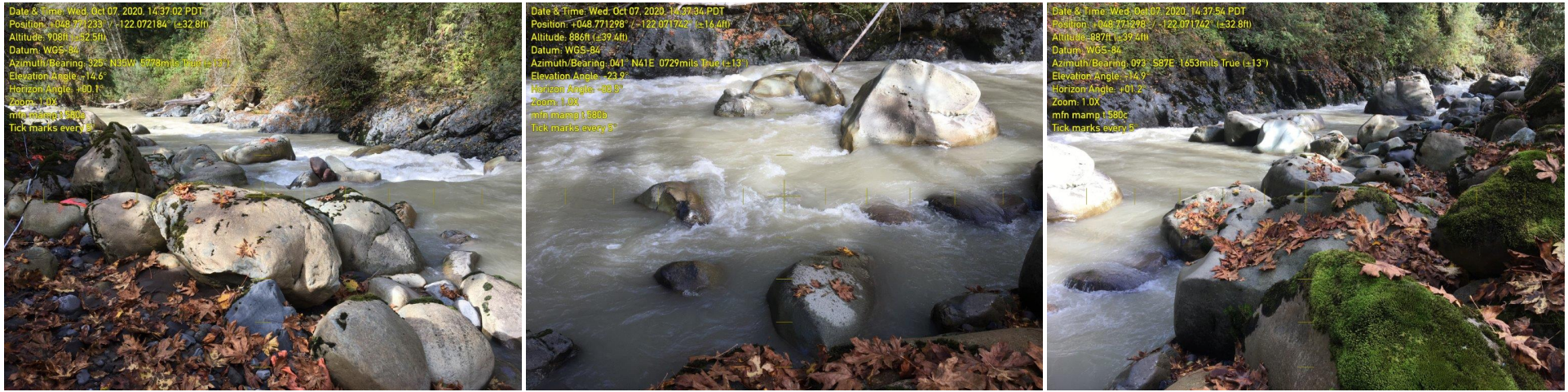


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 580

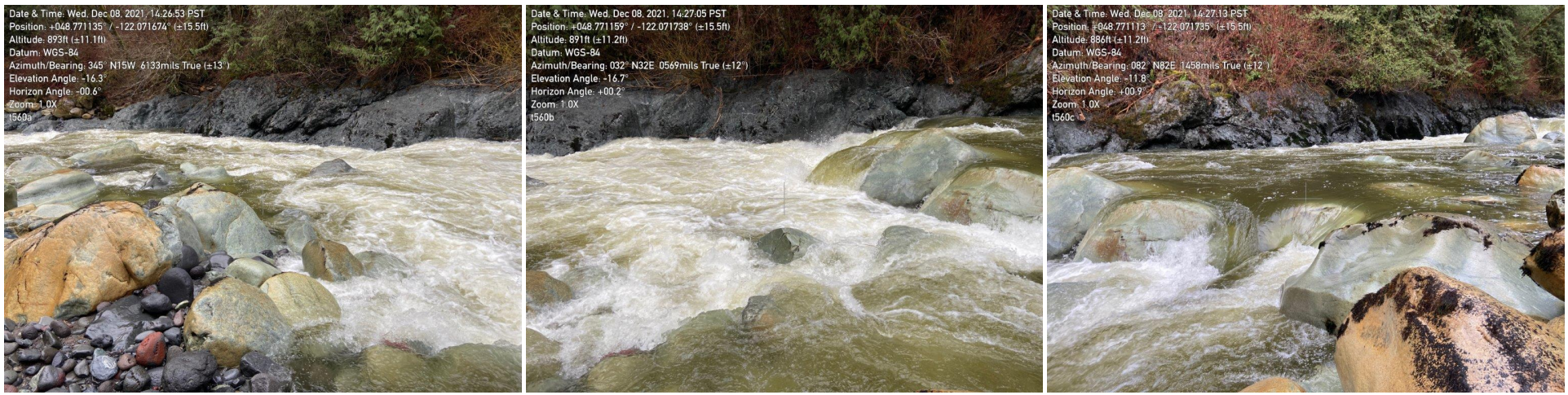
October 2020



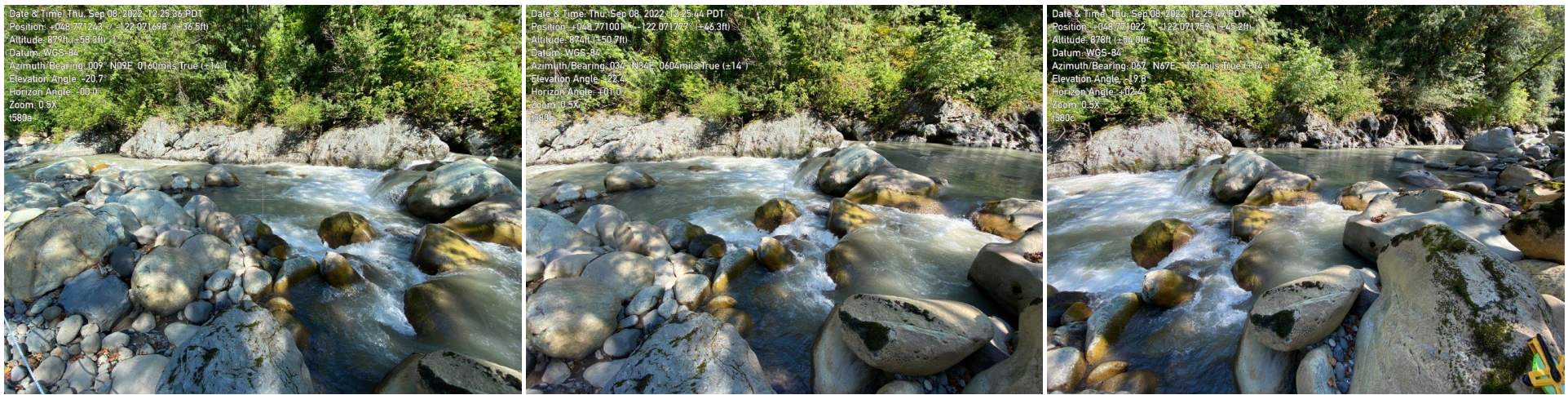
September 2021



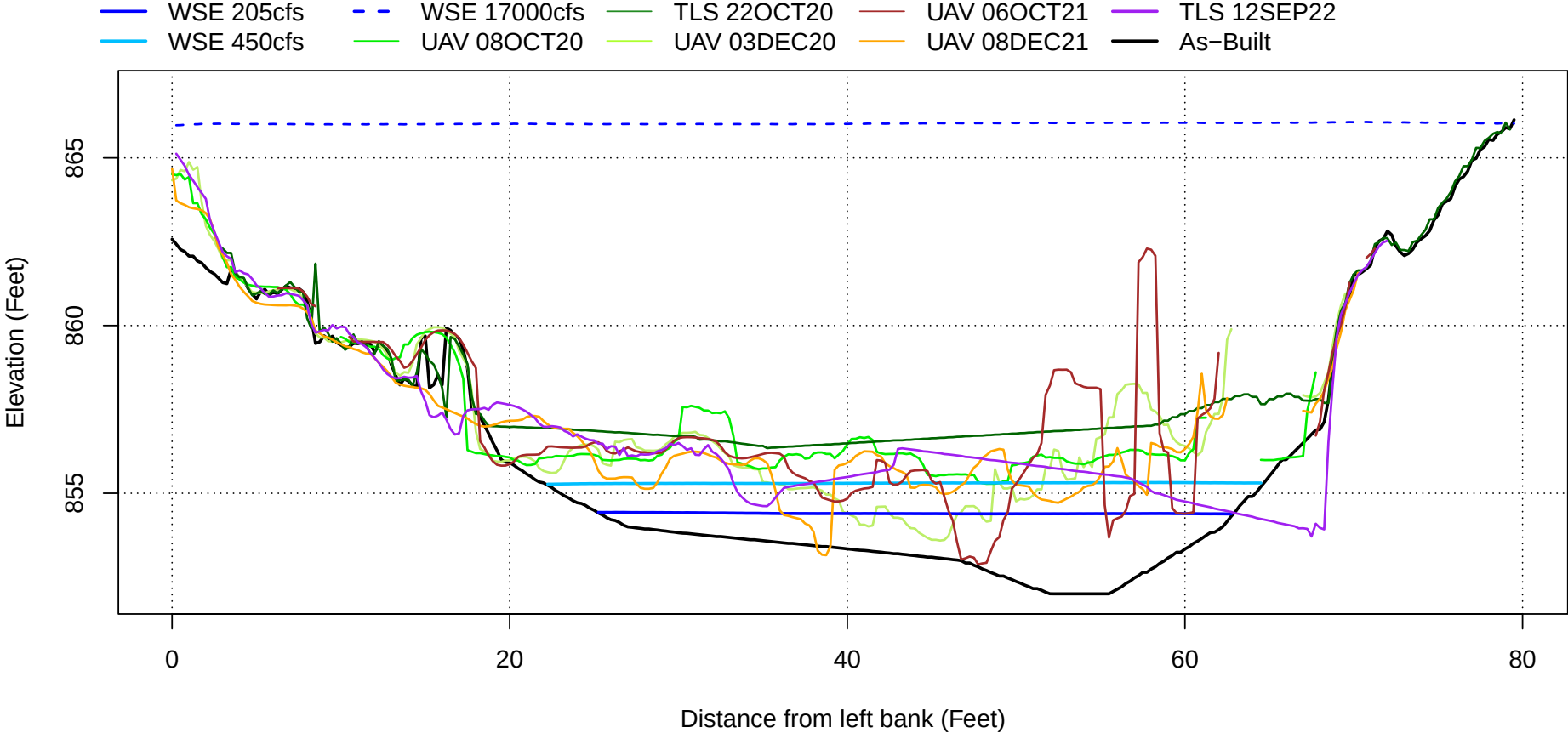
December 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

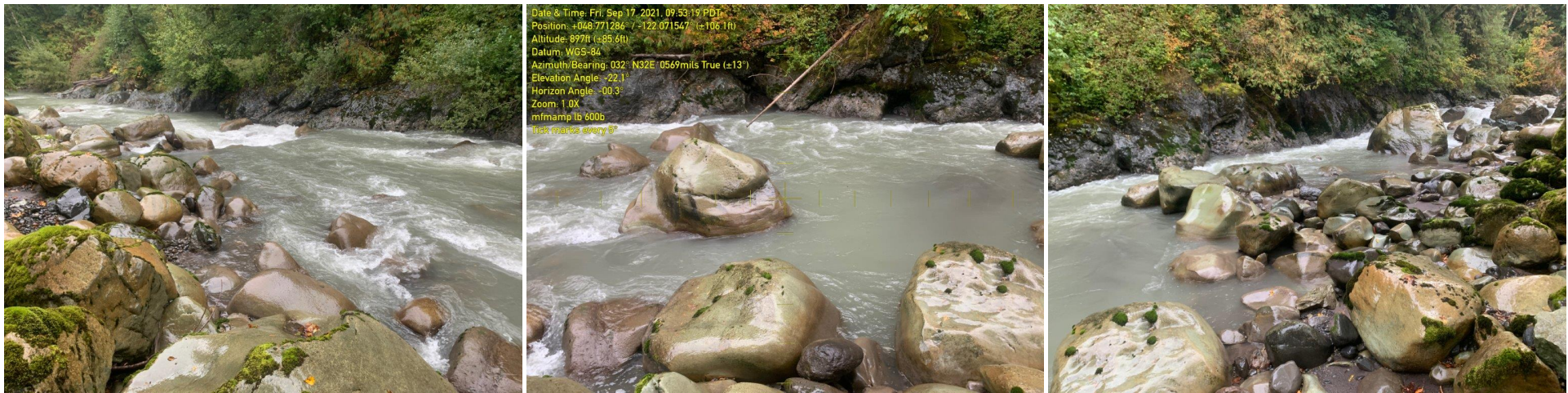


Transect 600

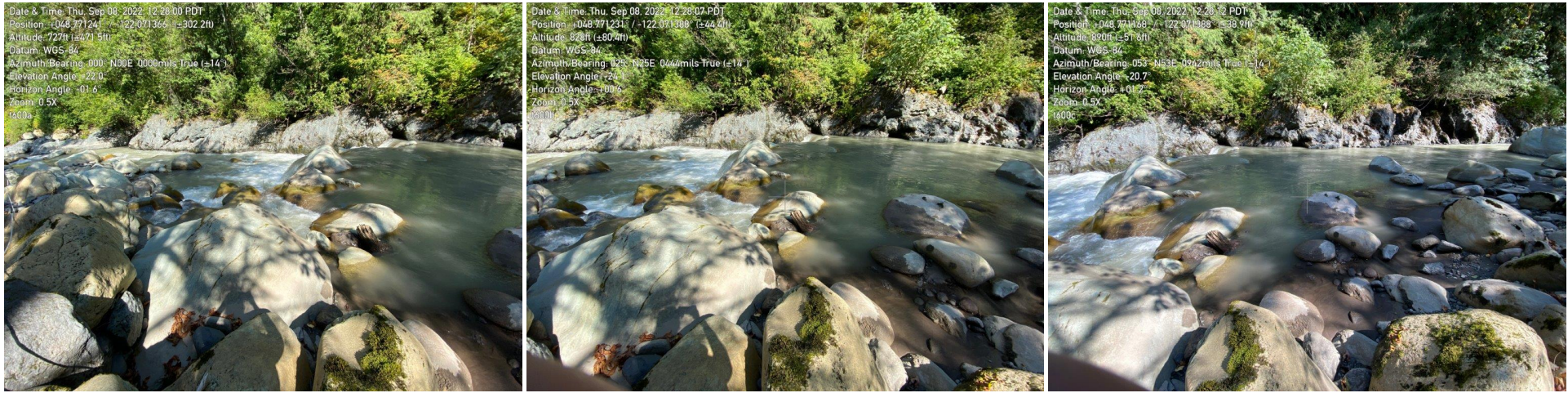
October 2020



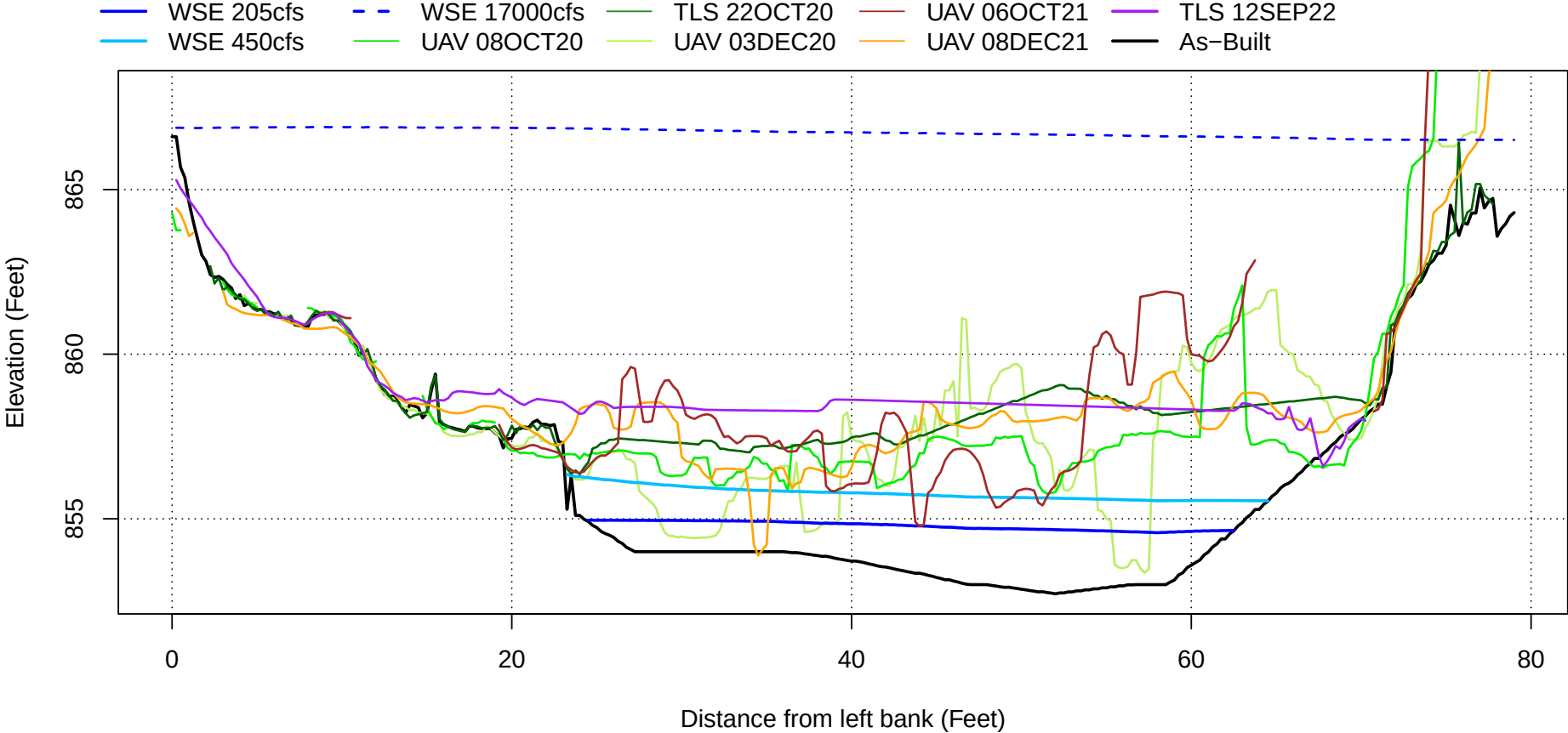
September 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

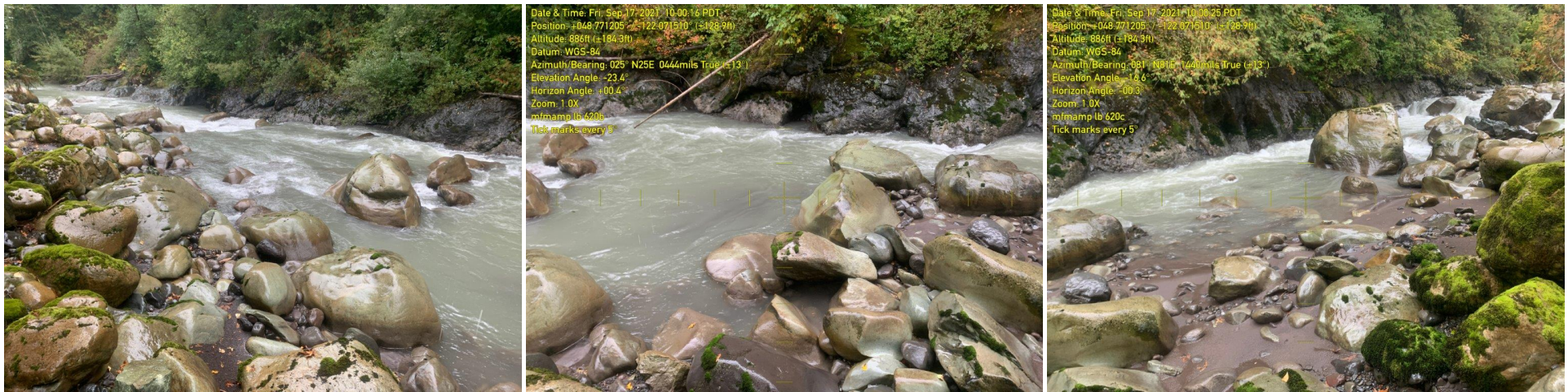


Transect 620

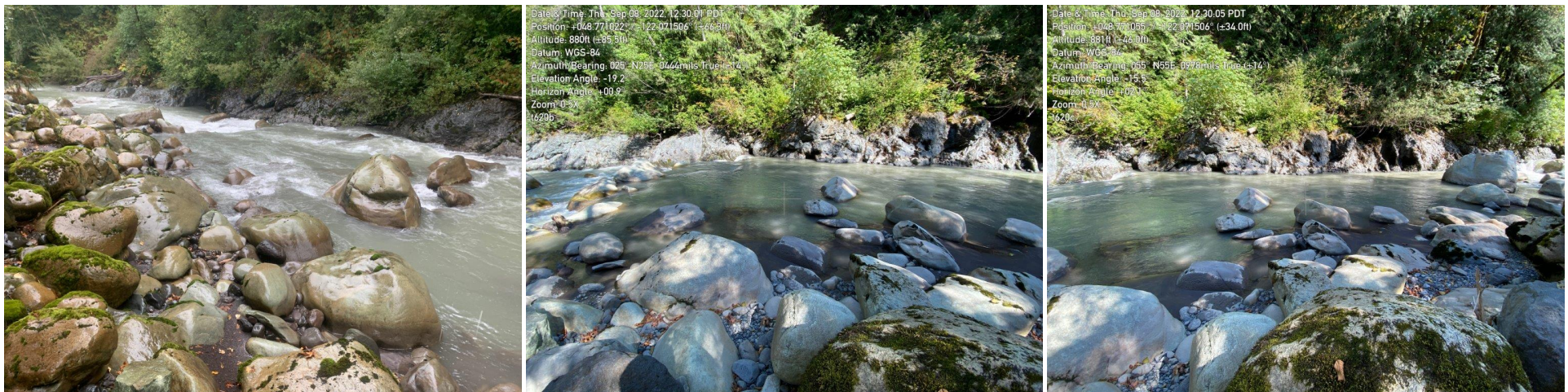
October 2020



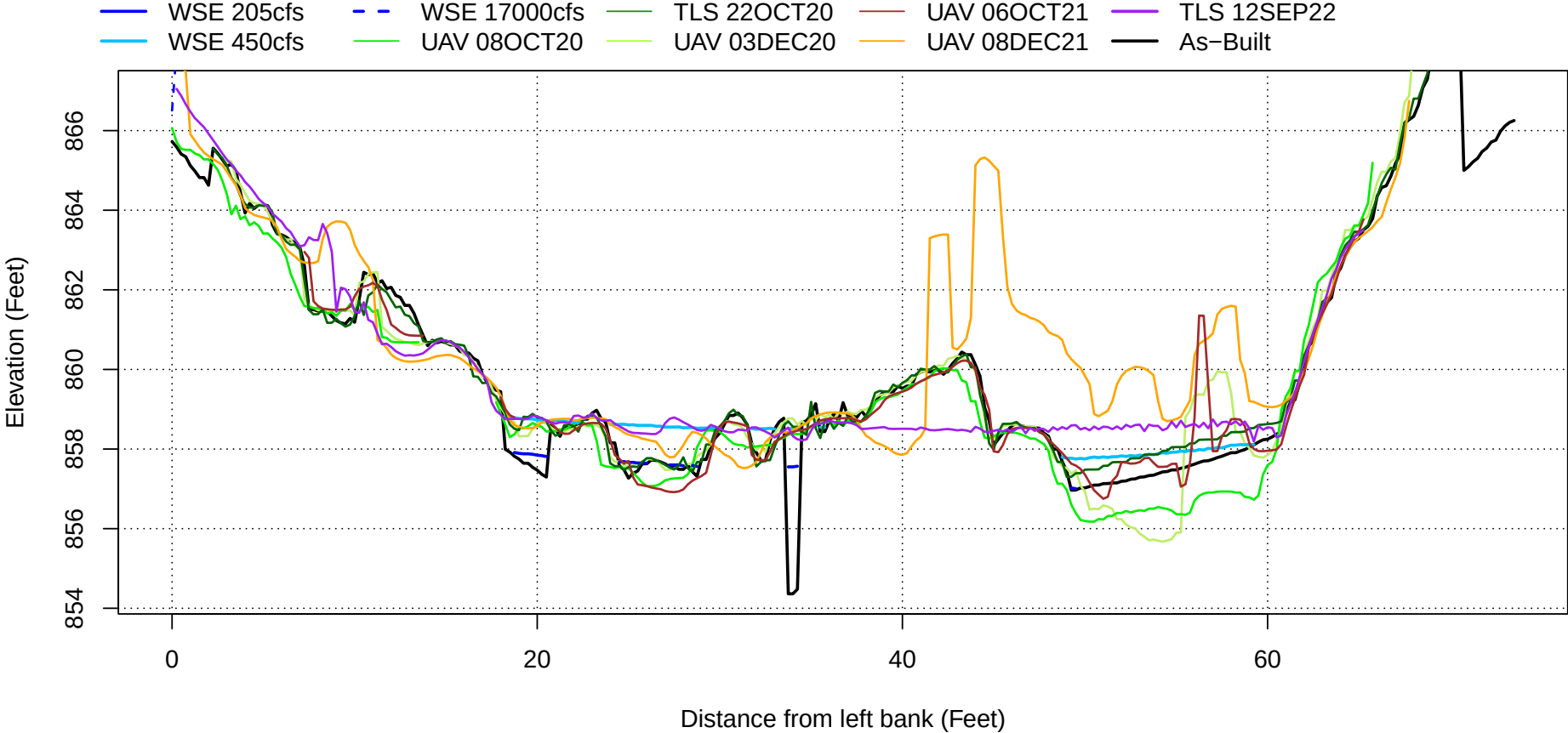
September 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 640

October 2020



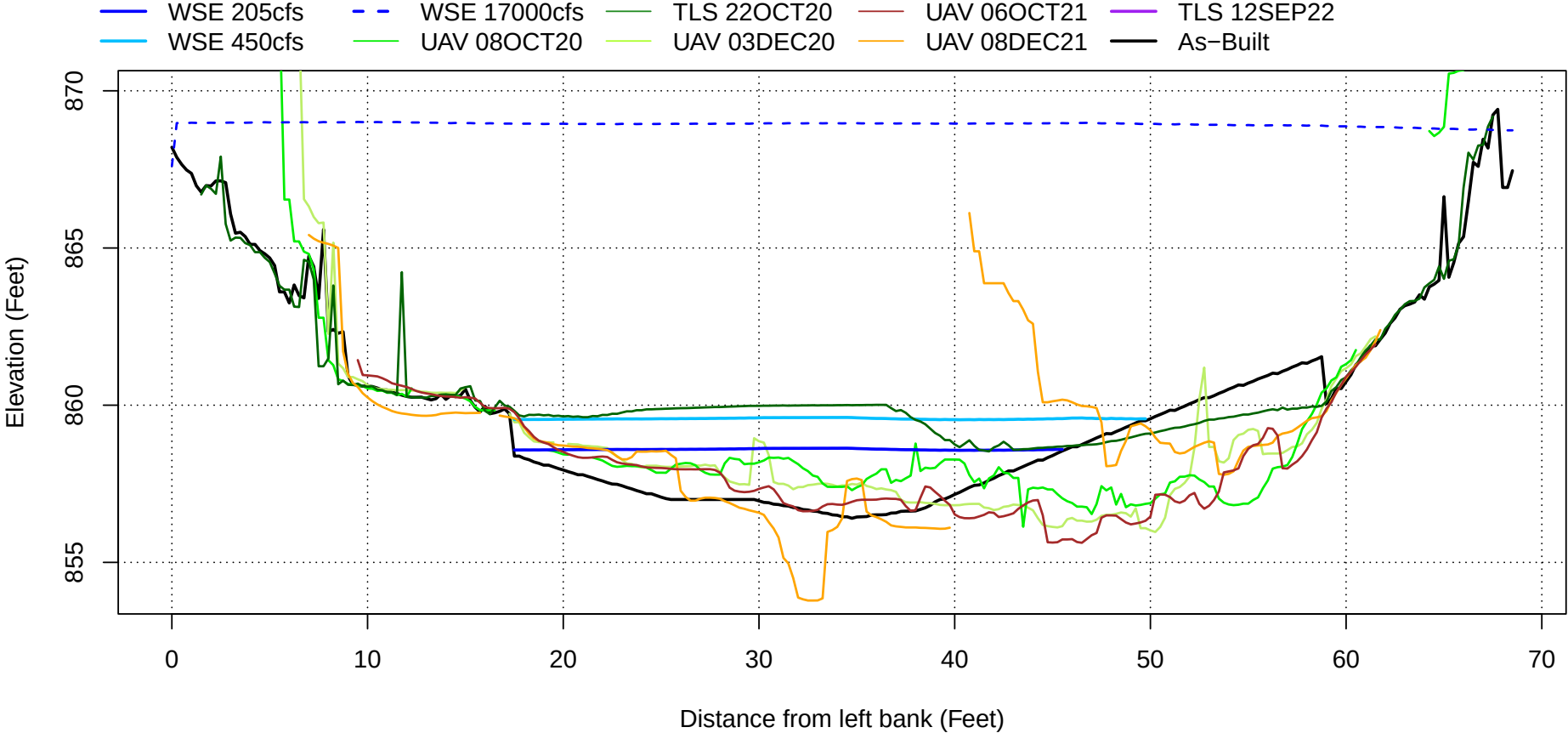
September 2021



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Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 663

October 2020



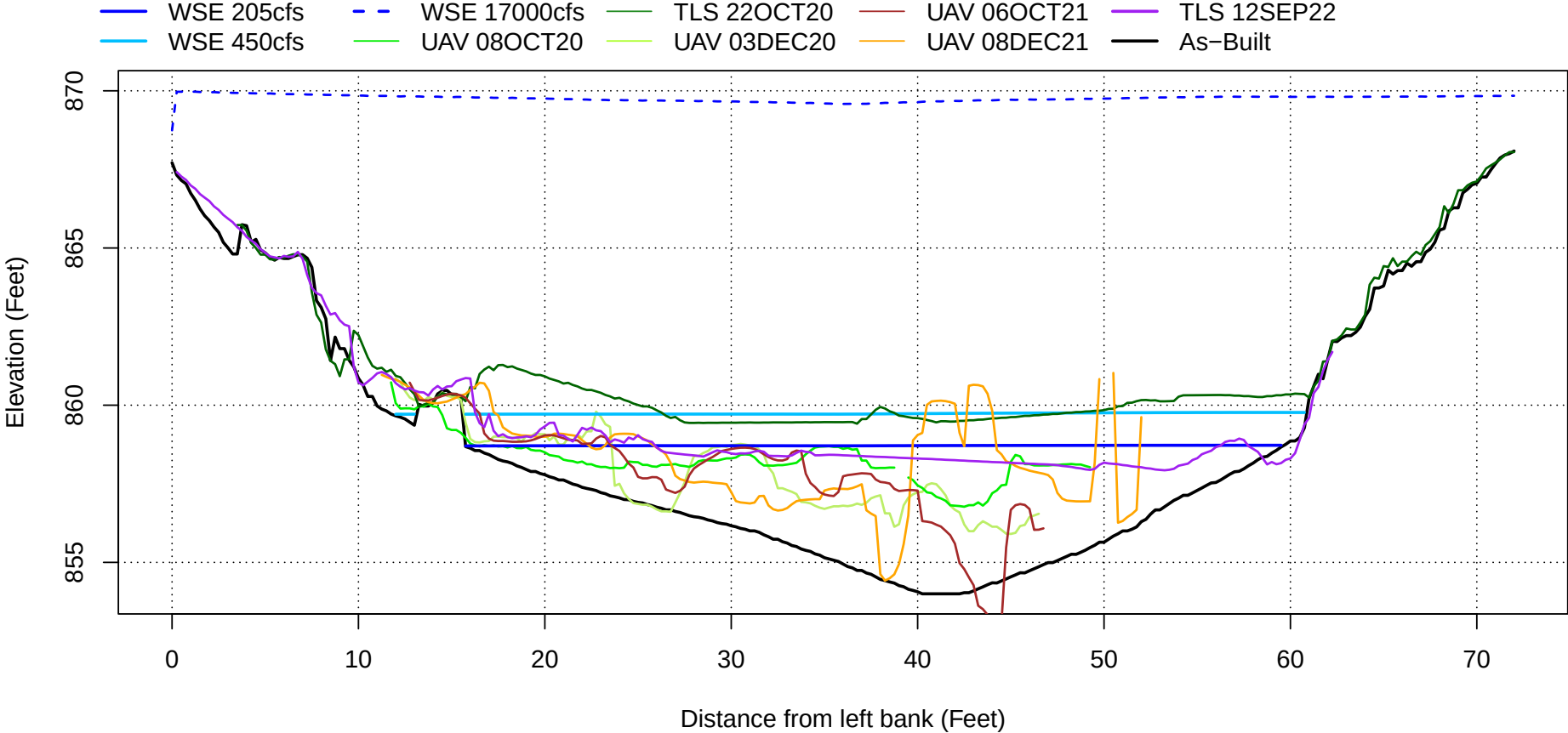
September 2021



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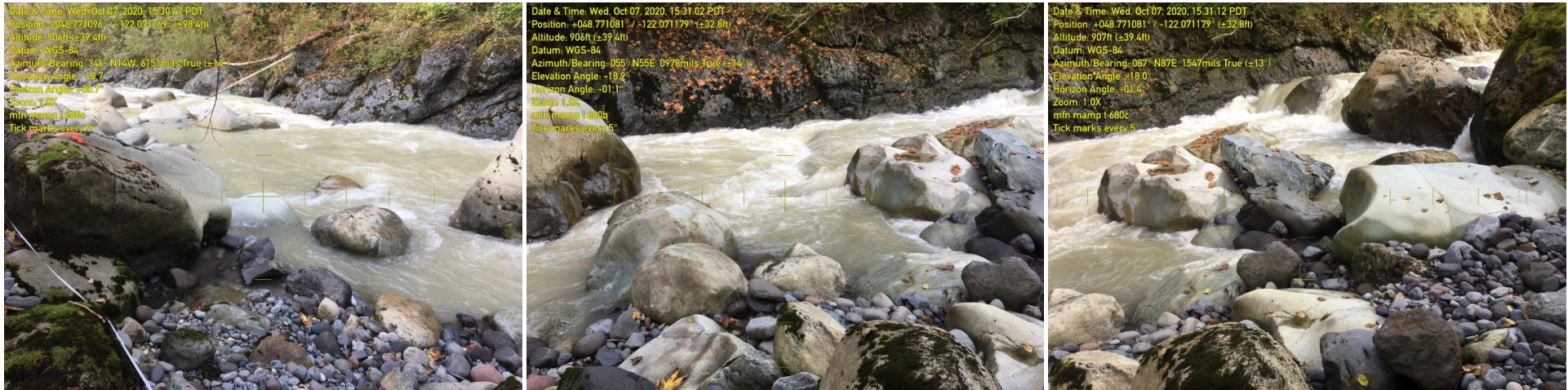


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 680

October 2020



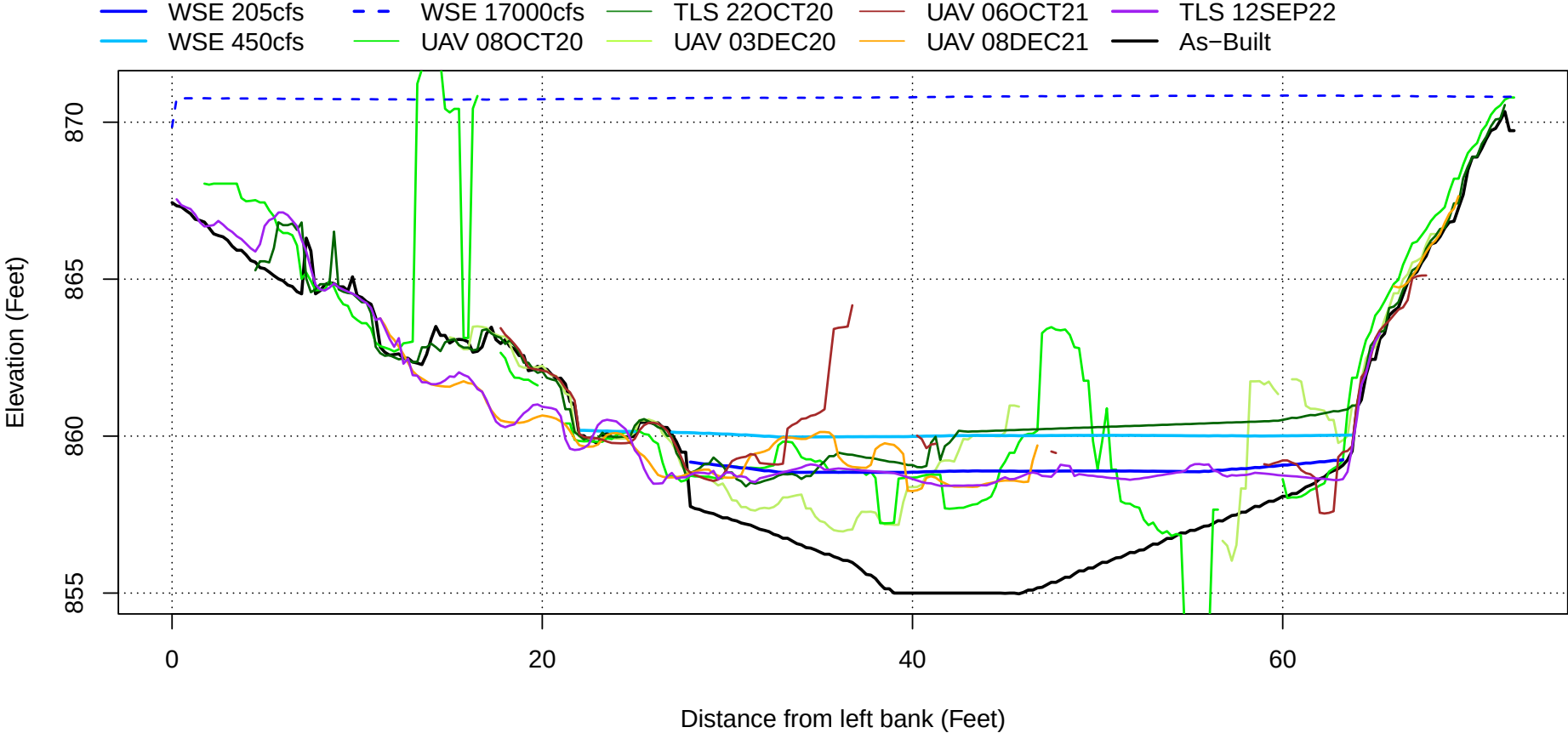
September 2021



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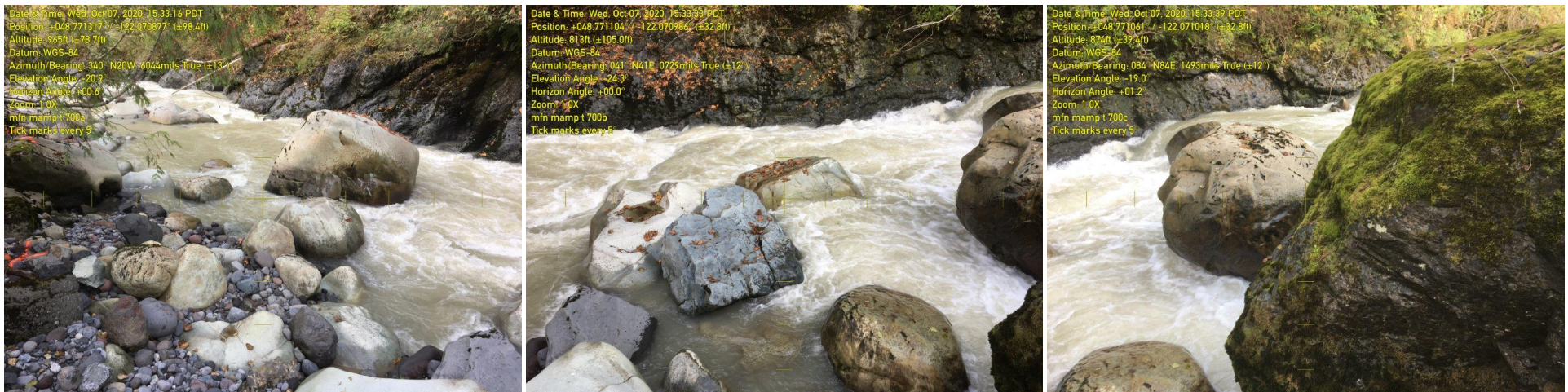


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

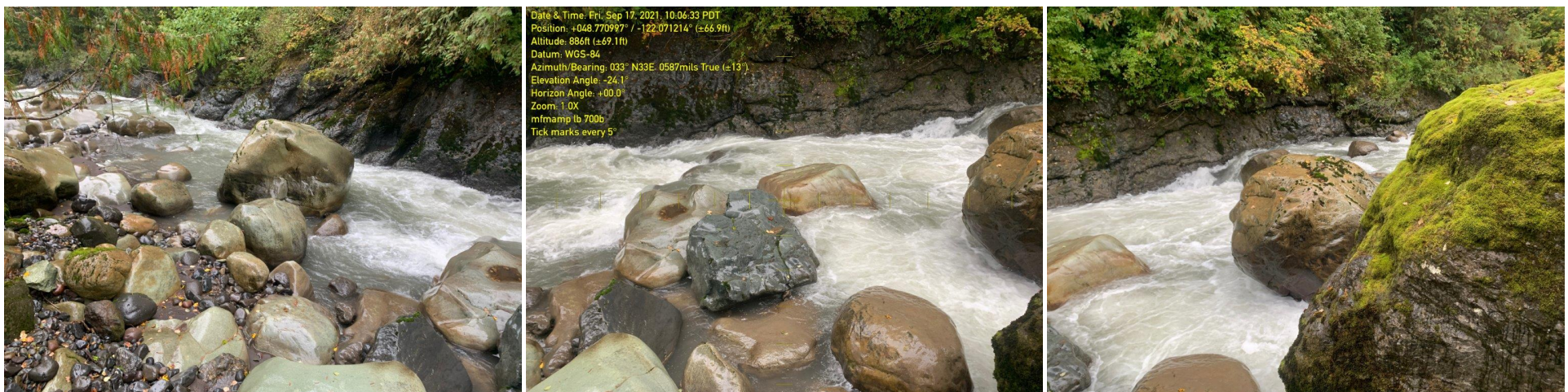


Transect 700

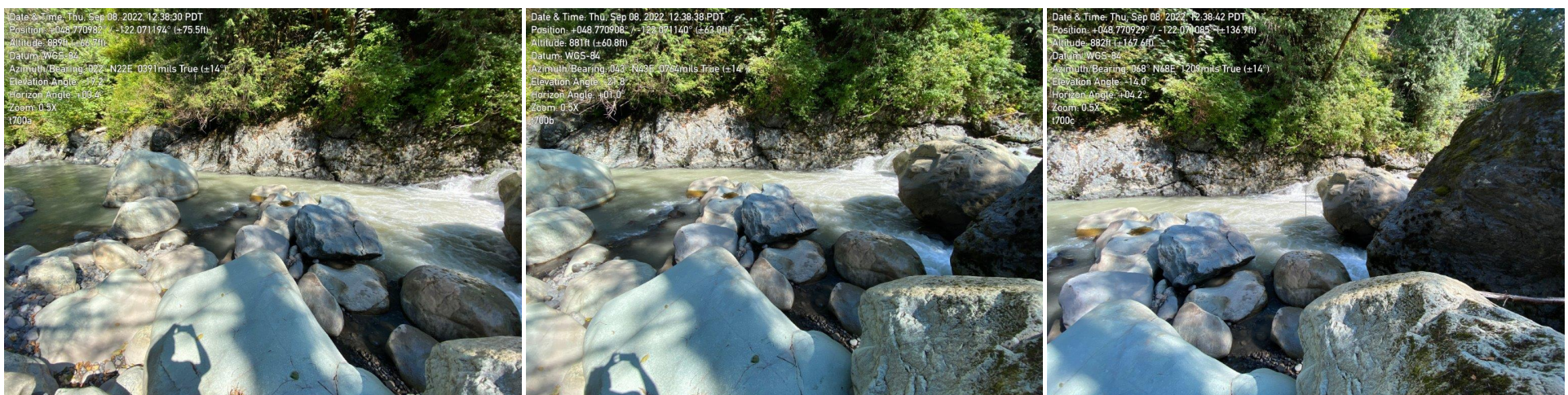
October 2020



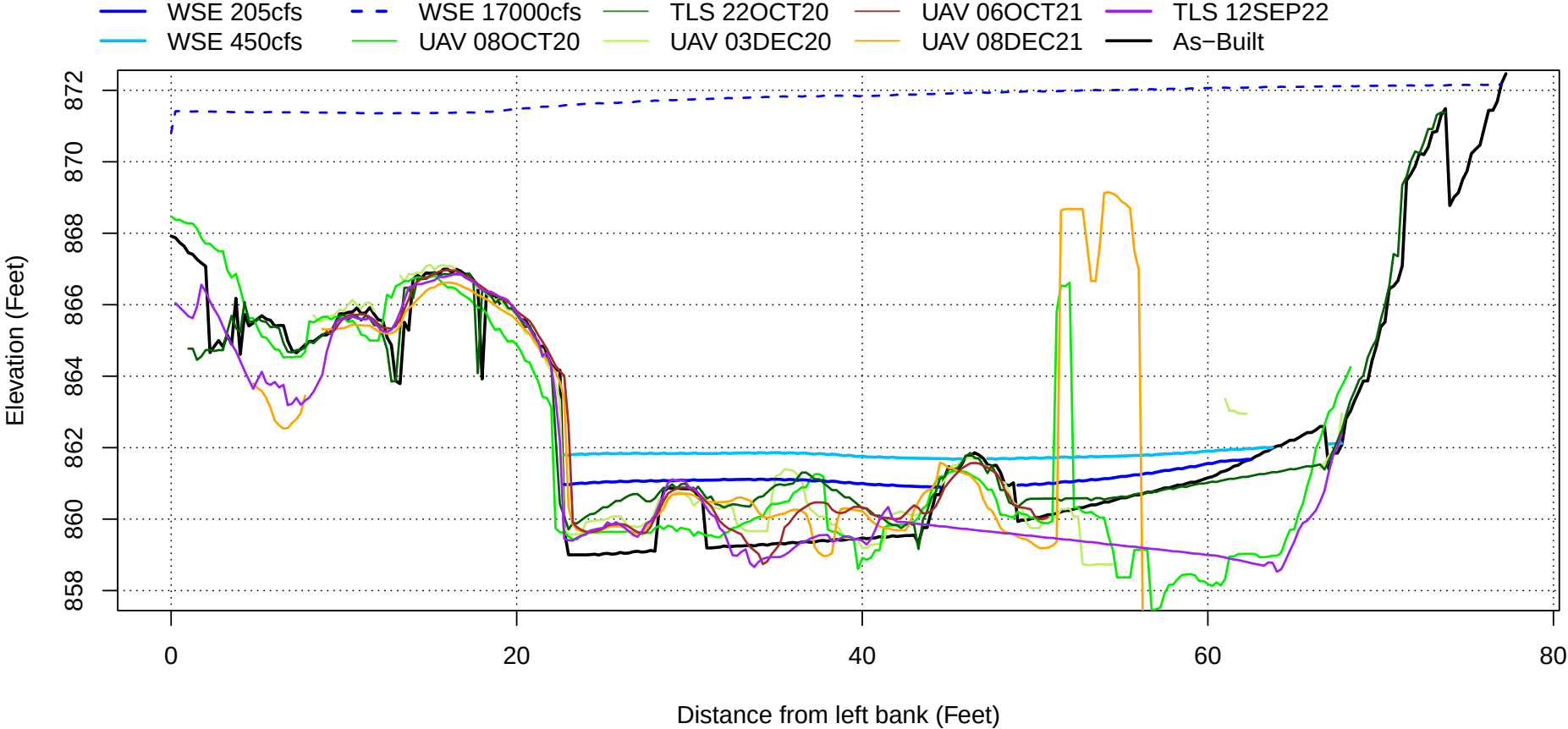
September 2021



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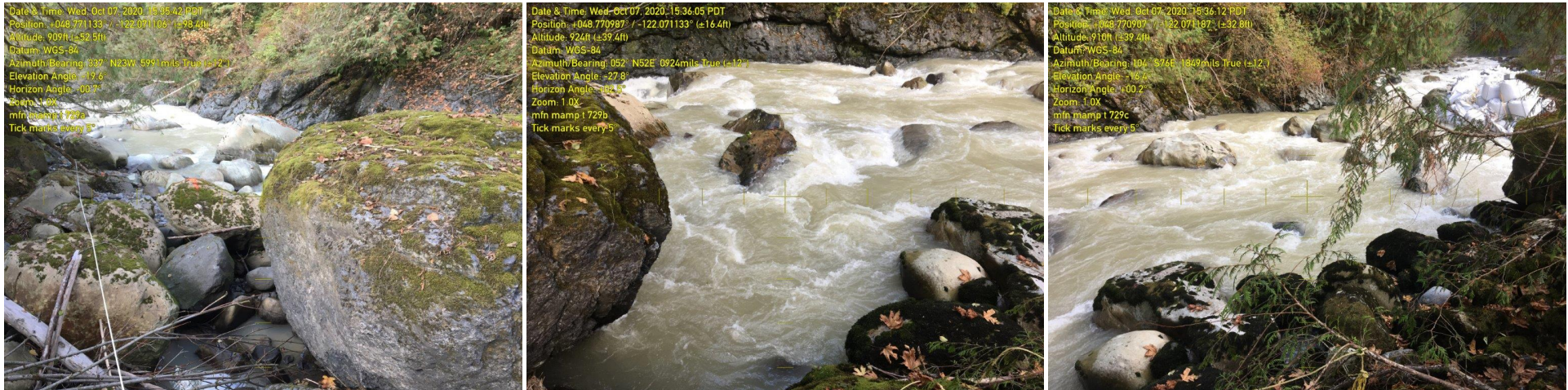


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 729

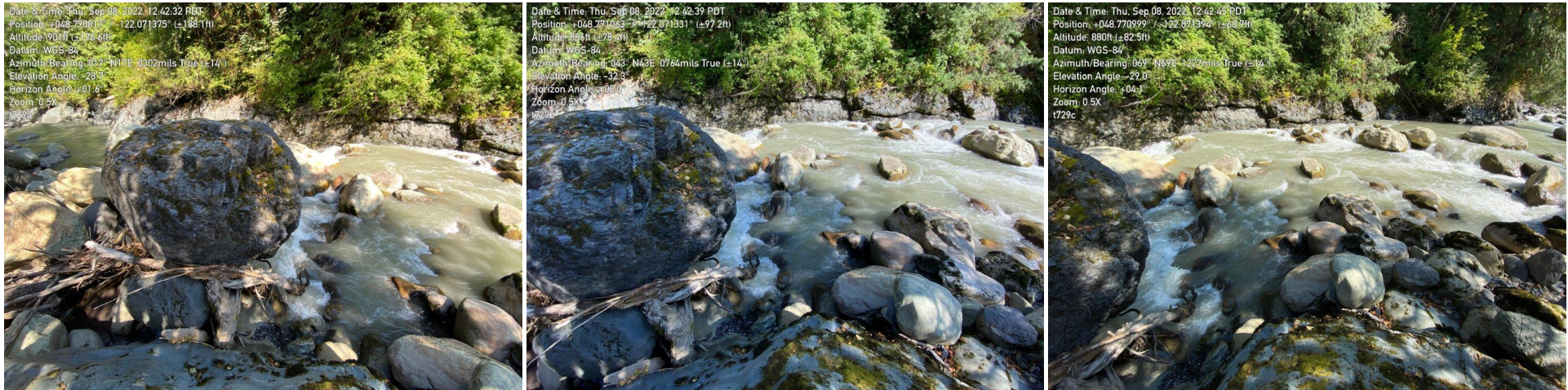
October 2020



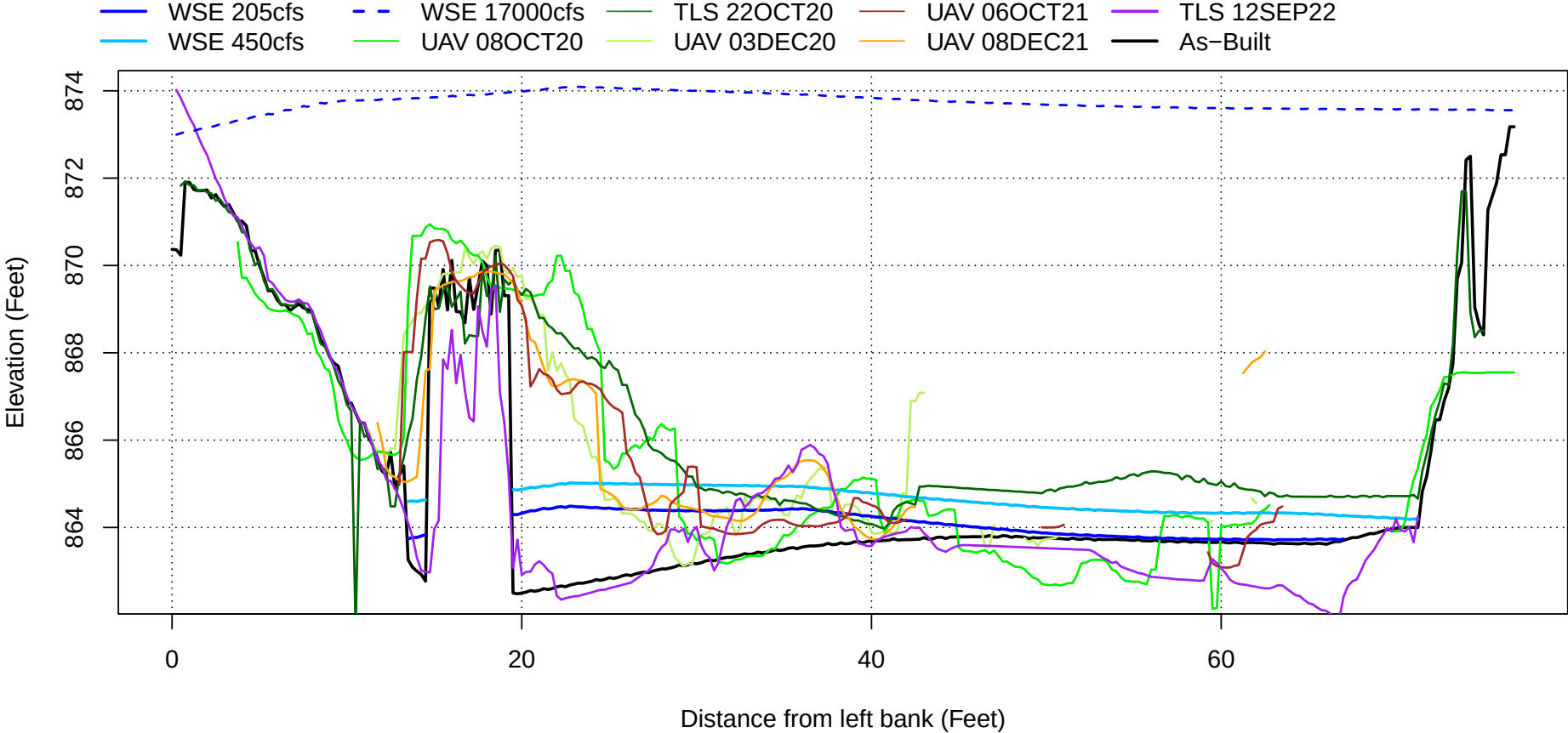
September 2021



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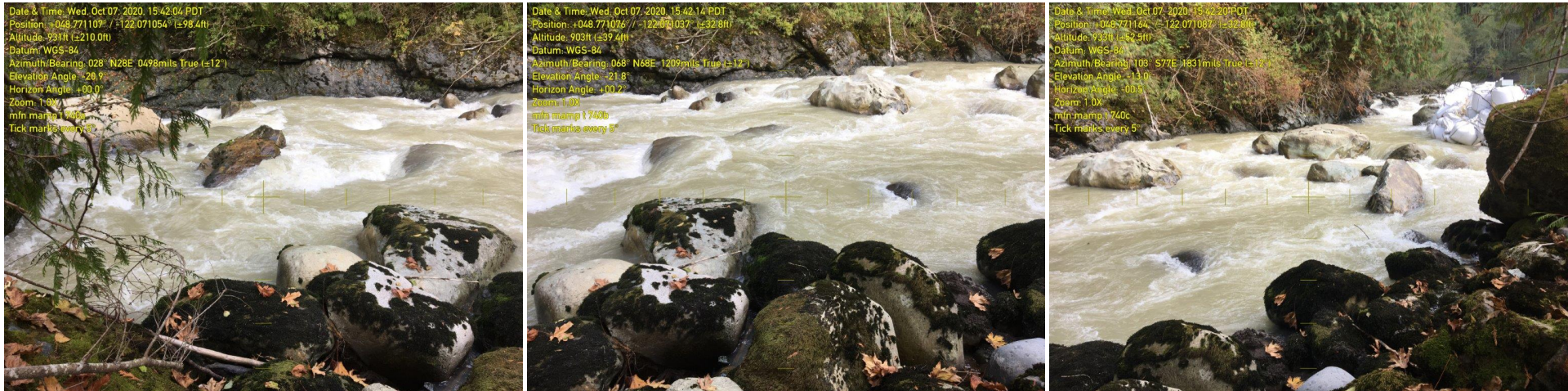


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker



Transect 740

October 2020



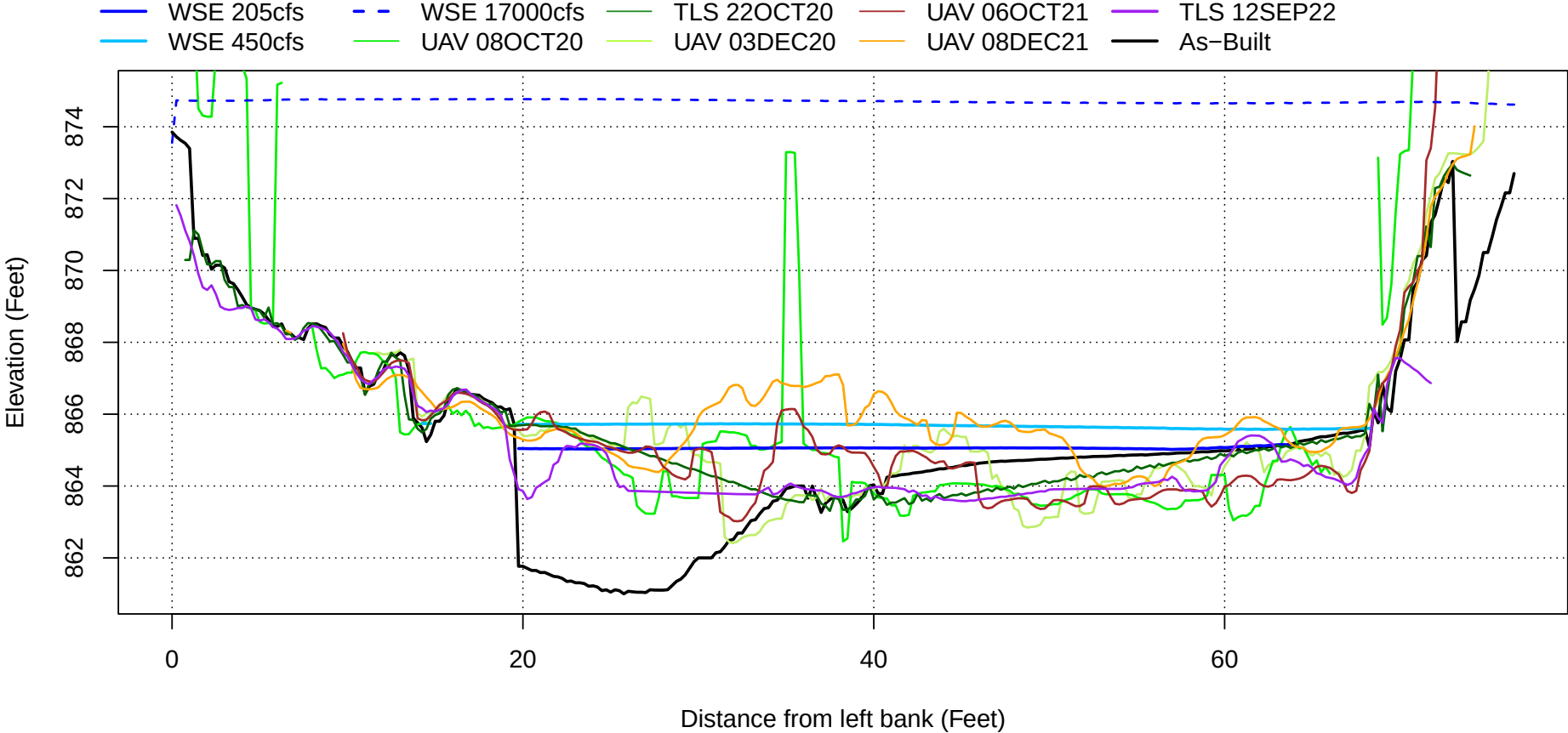
September 2021



September 2022

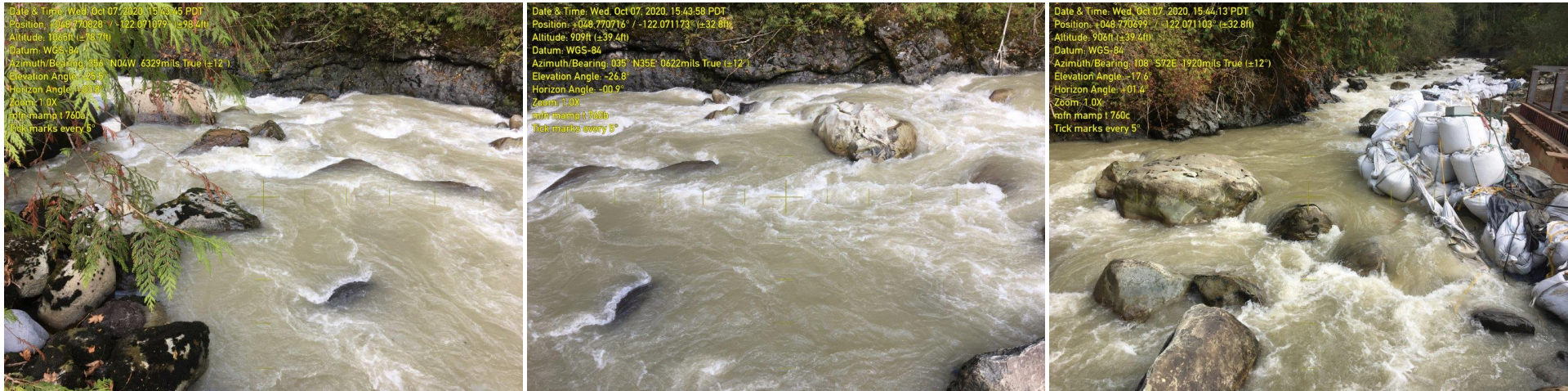


Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

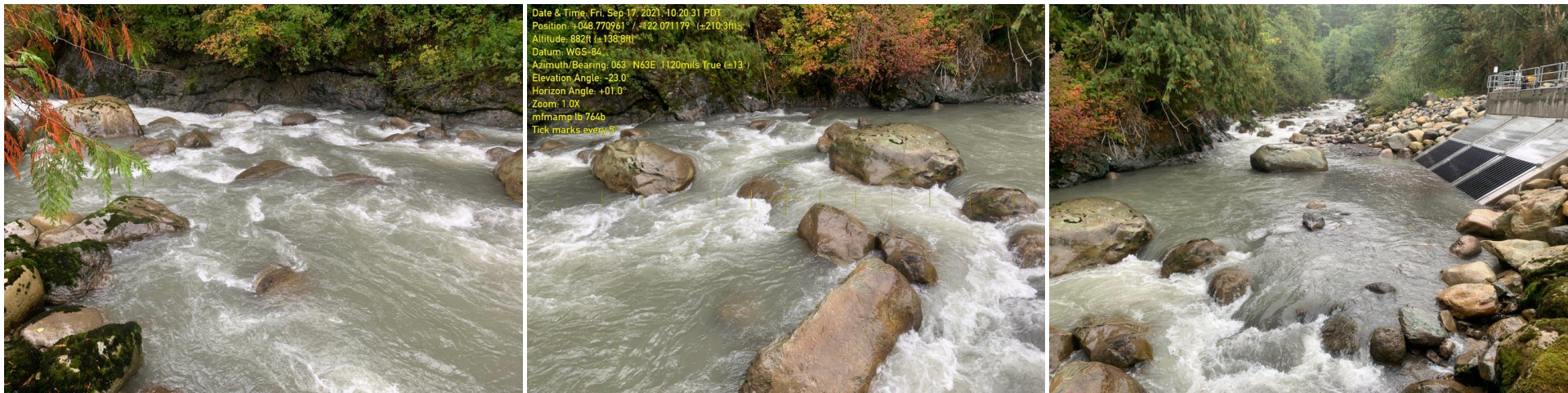


Transect 760

October 2020



September 2021



September 2022



Photographs taken looking downstream (left), perpendicular to flow (center) and upstream (right) at the transect location marker

