

Site Installation 1.2	
Project	SAM CEC
ID	540867
Survey Date	04/28/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	SEA_IND1
Staff	B. Berkompas E. Thomason K. Shirley
Autosampler Installation	true
Autosampler Installation	
Installation Date	05/16/2025
Installation Time (approximate)	02:46 PM
Weather Conditions	Sunny
Installation Notes	The monitoring location is located within a pipe and flow diversion structure vault. The flow sensor is installed in the 64-inch inlet pipe to the structure. The Isco automated sampler and Campbell datalogger/cellular modem are installed approximately 40 feet to the south of the structure, with equipment wiring and sampler tubing running through buried conduit. The sediment traps are installed inside the diversion structure with the pressure transducer.  Site Location: 47.50997, -122.28249





Arrow points to location of flow sensor inside the 64" pipe.

Sampler Intake Photo None
Flow Sensor in Pipe false

# General Equipment Photos



Autosampler and datalogger inside enclosure

Sediment Trap Install	ation
Installation Date	04/16/2025
Installation Time (approximate)	11:00 AM
Weather Conditions	Sunny
Installation Notes	Sediment traps installed to the right of the pipe. TROLL (pressure transducer) located inside stilling well tubing which is attached to the ladder. TROLL installed at 11:00AM. Pipe diameter = 64"



made with Wildnote Page 2 of 3



Sediment traps installed to the right of the pipe. TROLL located inside stilling well tubing attached to the ladder.





Site Installation 1.2	
Project	SAM CEC
ID	588958
Survey Date	03/31/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	SEA_IND2
Staff	Nicholas Harris Tim Coffey
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	03/31/2025
Installation Time (approximate)	12:59 PM
Weather Conditions	Cloudy
Installation Notes	21" pipe diameter. Pipe slope: 3" / 48". Sediment Traps and TROLL are bolted to the inside of the pipe. Site Location: 47.54807, -122.32729
Sodiment Tran Photos	





Two of three sediment sampler locations



Bird's eye view of all three traps and pressure transducer



Third sediment sampler location



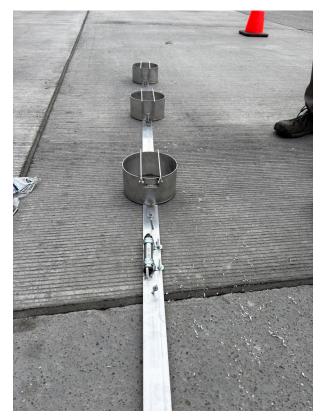
Close up of pressure transducer installation in pipe





Site Installation 1.2	
Project	SAM CEC
ID	529163
Survey Date	03/31/2025
User	Nick Harris
Site Installation 1	
Site ID	SEA_IND3
Staff	NH TC
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	03/31/2025
Installation Time (approximate)	11:02 AM
Weather Conditions	Light Rain
Installation Notes	Pipe diameter is 15". Slope: 1.5" / 48". Sediment traps and TROLL are installed inside the stormwater pipe using an 8' flat aluminum bar bolted to the bottom of the pipe. TROLL deployed @ 09:00 PST
	Site location: 47.56581, -122.34092





Sediment traps prior to installation



close-up of sediment trap inside pipe

Pressure Transducer Photos



Sediment traps inside pipe





Location of Pressure transducer in relation to sediment traps



Bird-eye view of pressure transducer inside pipe





Site Installation 1.2	
Project	SAM CEC
ID	536861
Survey Date	04/18/2025
User	Sam Nilsson
Site Installation 1	
Site ID	CLARK_LDR
Staff	SN/JGB
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	04/18/2025
Installation Time (approximate)	11:00 AM
Weather Conditions	Sunny
Installation Notes	Small base flow. Looks like flows are generally low at site. Immediate upstream of flume is a steep bank grown over with thicket. Slightly further (20') upstream is a more accessible spot. Some ponding during base flow due to large tree root, sediment traps installed just upstream of this. Top of bottles 0.2 to 0.4' above water
	Stream approx 1.5' across, about 0.5' deep at deepest point where sediment traps installed.
	Site Location: 45.75432, -122.68301



Width of channel where traps are installed. Shows that stream width is about 1.5ft



close-up view of sediment trap (side view)





Location of sediment traps inside channel



Pressure Transducer set up before installation in stream



close-up view of sediment trap (bird-eye view)



Location of pressure transducer inside stream





pointing to rebar that the TROLL logger is mounted to in relation to sediment traps





Site Installation 1.2	
Project	SAM CEC
ID	539469
Survey Date	03/10/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	KING_HDR
Staff	Nick Harris Ruth Thirkill
Autosampler Installation	true
Autosampler Installation	
Installation Date	03/05/2025
Installation Time (approximate)	03:00 PM
Weather Conditions	Sunny
Installation Notes	White equipment enclosure installed above ground. It contains the Campbell datalogger, Isco autosampler and a 12V battery which provides power to the system. A solar panel is bolted to the top of the enclosure for additional power supply. Intake tubing and sensor cable come out of the backend of the enclosure and enter the sump through the catch basin grate. Both the intake tubing and flow sensor are installed inside the pipe (diameter = 12") facing east. The sediment traps are installed inside the sump.  Site location: 47.565304, -121.894560





Close-up photo of flowmeter (facing East)

### Sampler Intake Photo



Close-up of sampler intake tubing in relation to flowmeter (facing east)

Flow Sensor in Pipe	true
Pipe Diameter (in.)	12



# General Equipment Photos



Front view of closed enclosure





Full view of open enclosure



Cable/tubing from equipment enclosure to CB

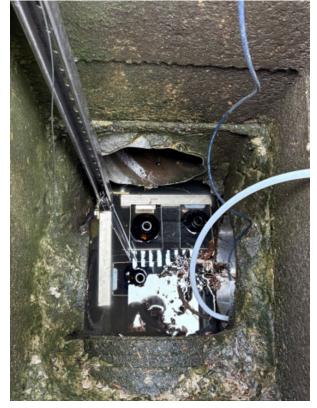


Sump photo showing birdeye of flow sensor cable and sample tubing

Sediment Trap Installation	
Installation Date	03/10/2025
Installation Time (approximate)	12:07 PM
Weather Conditions	Cloudy
Installation Notes	Installed sediment traps and TROLL. SS Unistrut is bolted to goldenized superstrut to be able to remove or adjust height



Full view of sediment trap equipment before install



Bird-eye view of sediment traps in the sump of catchbasin (CB)



made with Wildnote Page 4 of 5



Pressure Transducer location on trap mount before installation.



Pressure Transducer location inside CB





backend of the enclosure and connects to the catch basin and intake pipe through severa feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Site Installation 1.2	
Survey Date 03/10/2025  User Dylan Ahearn  Site Installation 1  Site ID KING_COM  Staff Nick Harris Ruth Thirkill Tim Coffey  Autosampler Installation  Installation Date 04/10/2025  Installation Time (approximate)  Weather Conditions Light Rain  United at equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through sever feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Project	SAM CEC
User       Dylan Ahearn         Site Installation 1         Staff       KING_COM         Staff       Nick Harris Ruth Thirkill Tim Coffey         Autosampler Installation       true         Autosampler Installation         Installation Date       04/10/2025         Installation Time (approximate)       12:20 PM         Weather Conditions       Light Rain         Installation Notes       White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through sever feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	ID	539490
Site ID KING_COM  Staff Nick Harris Ruth Thirkill Tim Coffey  Autosampler Installation true  Autosampler Installation Installation Date 04/10/2025 Installation Time (approximate)  Weather Conditions Light Rain  Installation Notes White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through severa feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Survey Date	03/10/2025
Site ID KING_COM  Staff Nick Harris Ruth Thirkill Tim Coffey  Autosampler Installation true  Autosampler Installation  Installation Date 04/10/2025  Installation Time (approximate)  Weather Conditions Light Rain  Installation Notes White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through severa feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	User	Dylan Ahearn
Staff Nick Harris Ruth Thirkill Tim Coffey  Autosampler Installation Installation Date 04/10/2025 Installation Time (approximate)  Weather Conditions Light Rain Installation Notes White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through severa feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Site Installation 1	
Autosampler Installation true  Autosampler Installation Installation Date 04/10/2025 Installation Time (approximate)  Weather Conditions Light Rain Installation Notes  White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Site ID	KING_COM
Installation Date 04/10/2025  Installation Time (approximate)  Weather Conditions Light Rain  Installation Notes White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through severate feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Staff	Ruth Thirkill
Installation Date  O4/10/2025  Installation Time (approximate)  Weather Conditions  Light Rain  White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through severated feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Autosampler Installation	true
Installation Time (approximate)  Weather Conditions  Light Rain  White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Autosampler Installation	
Weather Conditions  Light Rain  White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Installation Date	04/10/2025
Installation Notes  White equipment enclosure installed to the side of the bar. It contains a Campbell datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.		12:20 PM
datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch basin. The TROLL is secured to the catch basin ladder with a chain.	Weather Conditions	Light Rain
Site location = 47.56737, - 121.88840	Installation Notes	datalogger, Isco sampler, and 12V battery. Sample tubing and sensor cable comes out the backend of the enclosure and connects to the catch basin and intake pipe through several feet of conduit. The tubing and flow sensor are installed inside the intake pipe (diameter = 12"). The sediment traps are installed inside the catch basin and the TROLL transducer is hose-clamped to a brick for weight, located underwater at near the bottom of the catch
		Site location = 47.56737, - 121.88840





Close-up photo of flowmeter

# Sampler Intake Photo



Close-up of Sampler intake tubing in relation to flow sensor.

Flow Sensor in Pipe	true
Pipe Diameter (in.)	12

General Equipment Photos



made with Wildnote Page 2 of 5



Full view of enclosure (from behind)



Campbell datalogger inside its enclosure



Full view of open enclosure and equipment inside which includes the ISCO autosampler, battery, and campbell datalogger encloser



Intake tubing and flowmeter cable inside CB

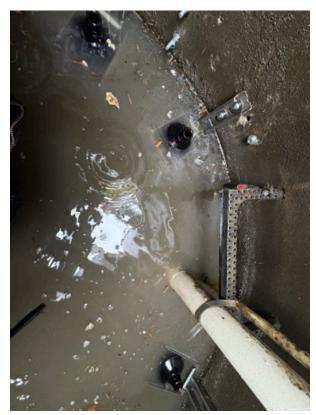




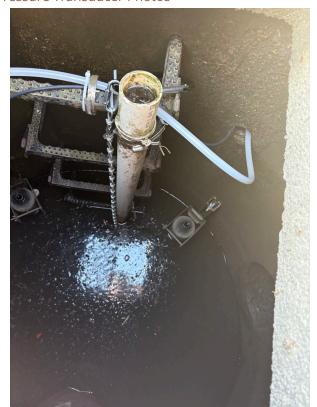
Close-up of tubing and cable connection to the intake and flowmeter inside pipe

Sediment Trap Installation	
Installation Date	04/01/2025
Installation Time (approximate)	12:01 PM
Weather Conditions	Heavy Rain
Installation Notes	Sediment traps installed and TROLL transducer is hose-clamped to a brick for weight, placed in the sump, and secured by chaining it to the ladder for stability.





Bird-eye view of all 3 sediment traps inside the sump



The pressure transducer is hose-clamped to a brick for weight, placed in the sump, and secured by chaining it to the ladder for stability. This photo shows the chain attachment



sediment trap position relative to flow meter





Site Installation 1.2	
Project	SAM CEC
ID	539790
Survey Date	04/14/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	KING_LDR
Staff	NH
Autosampler Installation	true
Autosampler Installation	
Installation Date	03/18/2025
Installation Time (approximate)	04:12 PM
Weather Conditions	Sunny
Installation Notes	Sediment traps and flow sensor are bolted to inside of sheet metal, which is expansion clamped to inside of pipe. The flowmeter is installed in downstream portion of pipe, just before outlet, N side of driveway. The sediment traps are installed at the inlet of the pipe. Intake tubing is installed inside the downstream channel at outlet of pipe. Isco autosampler and datalogger are installed within an enclosure just above the channel behind some bushes.
	Water was flowing through system during install. Site Location: 47.511083, -122.143241





Photo of intake tubing going into pipe.

#### Sampler Intake Photo



Flow sensor in sheet metal, expansion clamp set-up prior to installation in pipe. Flowmeter installed in downstream portion of pipe, just before outlet, N side of driveway

Flow Sensor in Pipe

true



# General Equipment Photos



Enclosure showing the ISCO autosampler, Campbell datalogger and power system.



View of tubing going into pipe system

Sediment Trap Installation	
Installation Date	04/04/2025
Installation Time (approximate)	01:14 PM
Weather Conditions	Sunny
Installation Notes	Bowls installed into shallow traps

### Sediment Trap Photos



View of sediment traps installed within pipe system





TROLL not installed until 4/23/25. The pressure transducer was installed inside a stilling which, hose clamped to a rebar pole that has been pounded into the channel on the downstream side of the pipe.



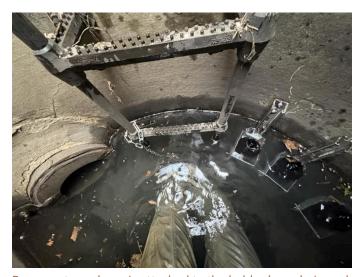


Site Installation 1.2	
Project	SAM CEC
ID	539792
Survey Date	04/24/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	PIER_COM
Staff	NH
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	04/03/2025
Installation Time (approximate)	09:00 AM
Weather Conditions	Sunny
Installation Notes	Sediment traps installed inside the sump to the right of ladder, downstream of the inlet. Pressure transducer is attached to a brick at the bottom of the sump and chained to ladder for security.
	Site Location: 47.15460, -122.35388



Sediment trap locations inside the CB





Pressure transducer is attached to the ladder by a chain and located below the water's surface

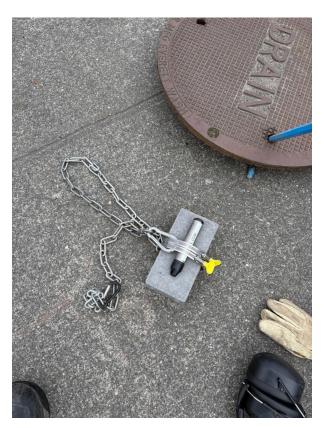


Photo of TROLL prior to installation. The TROLL is hose clamped to brick with a chain attachment.





Site Installation 1.2	
Project	SAM CEC
ID	539795
Survey Date	04/24/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	PIER_HDR
Staff	NH
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	04/03/2025
Installation Time (approximate)	11:00 AM
Weather Conditions	Sunny
Installation Notes	Three sediment traps installed inside open stream channel along the width of the stream channel. 2 pressure transducers (one water level and one barometer) installed at this site. Water level sensor at trap level and barometer ~2 ft above sediment traps.
	Site Location: 47.13805, -122.31954



Side view of entire monitoring location. Stream channel covered in rirap



Sediment traps (red markers) installed just downstream of weir structure along width of the channel





top view of the three sediment traps.



Pressure transducer hose clamped to one of the sediment traps.



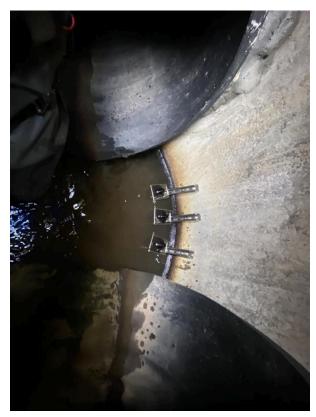
Barometric sensor hose clamped to rebar pipe which is pounded into the ground next to the concrete weir wall.





Site Installation 1.2		
Project	SAM CEC	
ID	539799	
Survey Date	04/24/2025	
User	Dylan Ahearn	
Site Installation 1		
Site ID	PIER_LDR	
Staff	NH	
Autosampler Installation	false	
Sediment Trap Installation		
Installation Date	04/03/2025	
Installation Time (approximate)	01:00 PM	
Weather Conditions	Sunny	
Installation Notes	Sediment traps are installed downstream of inlet inside the sump. Pressure transducer is resting inside the sump, clamped to a brick and chained to ladder for security.	
	Site Location: 47.32064, -122.64584	
Carling and Tuesa Disasters		





Bird-eye view of sediment trap location within pipe



Photo of pressure transducer setup before installation (hose clamped to a brick, which a chain for attachment).



Close-up view of sediment traps





Site Installation 1.2	
Project	SAM CEC
ID	539801
Survey Date	04/24/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	TAC_COM
Staff	NH
Autosampler Installation	true
Autosampler Installation	
Installation Date	04/24/2025
Installation Time (approximate)	
Weather Conditions	Sunny
Installation Notes	Entry point for sediment traps on curb of Dock St. Sampler intake further downstream in MH in parking lot. Equipment enclosure on SE corner of parking lot. Park in lot for access for grab samples.
	<ul><li>- Two Norton style sediment traps (1L Nalgene)</li><li>- ISCO 6712 (12 - 1L Discrete) w/ Telemetry capabilities</li><li>- ISCO 2150 AV Flow Sensor</li></ul>
	Pipe diameter = 42"
	Site Location: 47.24333, -122.43365





Location of flow sensor inside pipe

# Sampler Intake Photo



Sampler intake inside pipe relative to flow sensor

Flow Sensor in Pipe true

Pipe Diameter (in.) 42

### General Equipment Photos



Monitoring equipment enclosure with autosampler



made with Wildnote Page 2 of 3

Sediment Trap Installation	n		
Installation Date	10/11/2024		
Installation Time (approximate)	12:36 PM		
Weather Conditions	Cloudy		
Installation Notes			



close-up view of one sediment trap installed within the pipe



position of pressure transducer at the site (underwater).



A view of all three sediment traps and how they're positioned in relation to each other at the site



nade with Wildnote Page 3 of 3



Site Installation 1.2	
Project	SAM CEC
ID	539508
Survey Date	04/04/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	TAC_HDR
Staff	NH TC
Autosampler Installation	true
Autosampler Installation	
Installation Date	04/04/2025
Installation Time (approximate)	
Weather Conditions	
Installation Notes	**Key access required for site. Entry point for sediment traps and WQ sampling both in MH next to equipment enclosure
	<ul><li>- Two Norton style sediment traps (1L Nalgene)</li><li>- ISCO 6712 (12 - 1L Discrete) w/ Telemetry capabilities</li><li>- ISCO 2150 AV Flow Sensor</li></ul>
	Pipe diameter = 72"
	Site Location: 47.2408, -122.4315





Flow sensor installed at edge of pipe

### Sampler Intake Photo



Intake tube installed on opposite side from the flow sensor

Flow Sensor in Pipe	true
Pipe Diameter (in.)	72

General Equipment Photos



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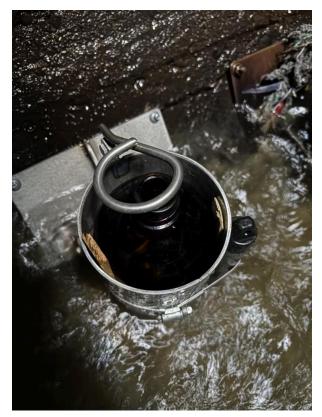
Monitoring equipment enclosure.

Sediment Trap Installation	
Installation Date	04/04/2025
Installation Time (approximate)	09:05 AM
Weather Conditions	Sunny
Installation Notes	Installed Sediment traps and pressure transducers. One of the latching mechanisms is not able to latch to secure bottle. Removed and used SS hose clamp. Need S&S to fix

# Sediment Trap Photos



location of sediment traps inside pipe



Close-up of latch issue



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Fix for latch issue

### Pressure Transducer Photos



Location of pressure transducer on sediment trap before installation



location of transducer inside the system. Hose clamped to the bottom sediment trap.



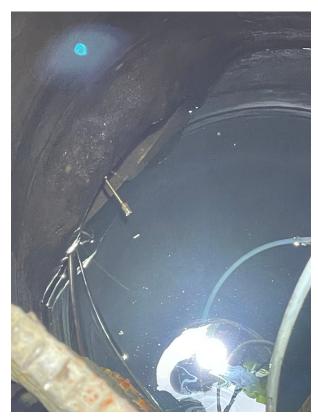
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Site Installation 1.2	
Project	SAM CEC
ID	584120
Survey Date	04/14/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	TAC_IND
Staff	NH
Autosampler Installation	true
Autosampler Installation	
Installation Date	06/10/2025
Installation Time (approximate)	
Weather Conditions	
Installation Notes	TAC_IND is tidally influenced so sediment traps were not installed. The plan is to do a grab sample annually in lieu of this.
	TROLL sensor was also not installed in the sump since it fills so much with sediment. There is an AV sensor installed into the pipe that we will use for flow and temperature measurements.
	6/10/2025 - Installed new ISCO pump head tubing and new sample tubing (from ISCO to in-pipe sample location).

Flow Sensor Location Photo





AV sensor located in pipe to the left of the sump.

## Sampler Intake Photo



Intake tubing for autosampler goes directly into the sump.

true

Flow Sensor in Pipe

Pipe Diameter (in.)

General Equipment Photos



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Enclosure for autosampler is located right next to the manhole access to AV sensor and intake tubing

Sediment Trap Installation	
Installation Date	06/10/2025
Installation Time (approximate)	
Weather Conditions	
Installation Notes	TAC_IND is tidally influenced so sediment traps were not installed. The plan is to do a grab sample annually in lieu of this.
Sediment Trap Photos	None
Pressure Transducer Photos	None



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Site Installation 1.2	
Project	SAM CEC
ID	540893
Survey Date	04/28/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	SNO_HDR
Staff	B. Berkompas E. Thomason
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	04/02/2025
Installation Time (approximate)	12:00 PM
Weather Conditions	Sunny
Installation Notes	The monitoring location is an outfall into a stormwater pond that receives flow from surrounding neighborhoods. It is located within the North Creek HUC 12 Watershed. The storm drain enters the pond through a 24-inch diameter corrugated plastic pipe and through a rubber "duckbill" backflow preventer. Sediment traps are installed in the
	spill zone of the outfall. The level TROLL is installed upstream inside the conduit which is connected to the outfall pipe. Pipe diameter = 24"
	Site Location: 47.84607, -122.19396
	Installation Notes: Level TROLL installed at 12:00PM. Tapedown reference for Level
	TROLL is 3.17 from top of conduit. Depth in pipe (ft)=3.17 – tapedown. Pipe was dry at time of tapedown establishment on 4/18/25. Baro TROLL for SNO sites installed at HDR
	location.
Sediment Trap Photos	

#### Sediment Trap Photos





close-up view of sediment trap installation

## Pressure Transducer Photos



Location of barro TROLL and level TROLL inside conduit pipe.



Bird-eye view of sediment trap installation





Site Installation 1.2	
Project	SAM CEC
ID	540896
Survey Date	04/28/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	SNO_LDR
Staff	B. Berkompas E. Thomason
Autosampler Installation	true
Autosampler Installation	
Installation Date	06/13/2025
Installation Time (approximate)	10:00 AM
Weather Conditions	Sunny
Installation Notes	The automated Isco sampler and Campbell datalogger are installed approximately 10 feet south of the outfall. The intake tubing and flow sensor are installed inside the outfall pipe (Pipe Diameter = 18"). Sediment traps are installed in the ditch just below the outfall.
	Barro TROLL is located inside a stilling well which is anchored to the ditch sediment next to the sediment traps.
	Site Location: 47.86894, -122.09929
Flave Canada I a antique Dhata	

Flow Sensor Location Photo





Intake tubing and flow sensor installed inside pipe

Sampler Intake Photo None

Flow Sensor in Pipe false

## General Equipment Photos



Top view of autosampler and datalogger inside knaack box structure.

Sediment Trap Installation	
Installation Date	04/18/2025
Installation Time (approximate)	10:00 AM
Weather Conditions	Sunny



made with Wildnote Page 2 of 4

TROLL installed at 10:00AM. Tapedown reference for Level TROLL is 0.54 from top of stilling well. Depth of water=0.54-tapedown. Tapedown measurement at time of install was 0.27 at 4/18/25 10:49 to water depth=0.27.

### Sediment Trap Photos



Sediment traps located at outflow

### **Pressure Transducer Photos**



TROLL location in relation to sediment traps



Close-up view of TROLL.



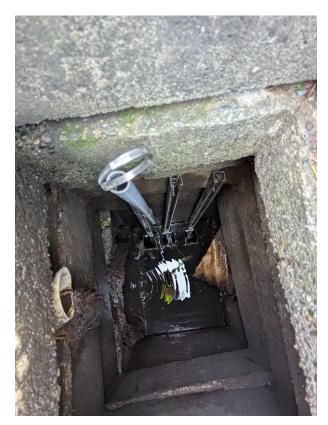
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Site Installation 1.2	
Project	SAM CEC
ID	540899
Survey Date	04/28/2025
User	Dylan Ahearn
Site Installation 1	
Site ID	SNO_COM
Staff	B. Berkompas E. Thomason
Autosampler Installation	false
Sediment Trap Installation	
Installation Date	04/10/2025
Installation Time (approximate)	11:00 AM
Weather Conditions	Sunny
Installation Notes	Sediment traps installed at the bottom of the catch basin. Level TROLL is located inside a stilling well which is also deployed inside the catch basin.
	Site Location: 47.88110, -122.23902

Sediment Trap Photos





Bird-eye view of sediment traps in CB. TROLL is located inside the small conduit connected to trap installation.

Pressure Transducer Photos None



Category	Site	Equipment Type	Manufacturer	Cost - no tax or shipping	Need to Order?	Donated?	Date Ordered	Date Received	Date Given to Aspec
	KC_COM KC_COM	Jumbo Base for 6712 Isco 6712 sampler	Teledyne/Isco Teledyne/Isco	\$ 1,197.00 \$ 5,000.00	No No	Yes, CoT	1/7/2025 N/A	1/15/2025 1/2/2025	
	KC_COM	12 VDC power cable	Teledyne/Isco	\$ 163.00	No	res, cor	1/7/2025	1/15/2025	
	кс_сом	20 liter bottle Glass		\$ 85.00	No		12/26/2025	1/8/2025	
	KC_COM KC_COM	20 liter bottle Glass 5 piece silicon pump tubing		\$ 85.00 \$ 200.00	No No		1/8/2025 1/7/2025	1/17/2025 1/15/2025	
	KC_HDR	Jumbo Base for 6712	Teledyne/Isco	\$ 1,197.00	No		1/7/2025	1/15/2025	
	KC_HDR KC_HDR	Isco 6712 sampler 12 VDC power cable	Teledyne/Isco Teledyne/Isco	\$ 5,000.00 \$ 163.00	No No	Yes, CoT	N/A 1/7/2025	1/2/2025 1/15/2025	
	KC_HDR	20 liter bottle Glass		\$ 85.00	No		1/8/2025	1/17/2025	
	KC_HDR	20 liter bottle Glass		\$ 85.00	No		1/8/2025	1/17/2025	
	KC_HDR KC_LDR	5 piece silicon pump tubing  Jumbo Base for 6712	Teledyne/Isco Teledyne/Isco	\$ 200.00 \$ 1,197.00	No No		1/7/2025 1/7/2025	1/15/2025 1/15/2025	
	KC_LDR	Isco 6712 sampler	Teledyne/Isco	\$ 5,000.00	No	Yes, CoT	N/A	1/2/2025	
ling	KC_LDR KC_LDR	12 VDC power cable 20 liter bottle Glass	Teledyne/Isco Northern Brewer	\$ 163.00 \$ 85.00	No No		1/7/2025 1/8/2025	1/15/2025 1/17/2025	
lutosampling	KC_LDR	20 liter bottle Glass		\$ 85.00	No		1/8/2025	1/17/2025	
Autos	KC_LDR	5 piece silicon pump tubing	Teledyne/Isco	\$ 200.00	No		1/7/2025	1/15/2025	
`	SEA_IND1 SEA_IND1	Jumbo Base for 6712 Isco 6712 sampler	Teledyne/Isco Teledyne/Isco	\$ 1,197.00 \$ 5,000.00	No No	Yes, CoT	1/7/2025 N/A	1/15/2025 1/2/2025	2/12/20
	SEA_IND1	12 VDC power cable	Teledyne/Isco	\$ 163.00	No		1/7/2025	1/15/2025	2/12/20
	SEA_IND1 SEA_IND1	20 liter bottle Glass 20 liter bottle Glass		\$ 85.00 \$ 85.00	No No		1/8/2025 1/8/2025	1/17/2025 1/17/2025	
	SEA_IND1	5 piece silicon pump tubing	Teledyne/Isco	\$ 200.00	No		1/7/2025	1/15/2025	2/12/20
	SEA_IND1	Sampler to Flow Meter Cable (only need 10 feet but 50 is default)	Teledyne/Isco	\$ 299.00	No		1/7/2025	1/15/2025	2/12/20
	SNO_LDR SNO_LDR	Jumbo Base for 6712 Isco 6712 sampler	Teledyne/Isco Teledyne/Isco	\$ 1,197.00 \$ 5,000.00	No No	Yes, CoT	1/7/2025 N/A	1/15/2025 1/2/2025	2/12/20
	SNO_LDR	12 VDC power cable	Teledyne/Isco	\$ 163.00	No		1/7/2025	1/15/2025	2/12/20
	SNO_LDR SNO_LDR	20 liter bottle Glass 20 liter bottle Glass		\$ 85.00 \$ 85.00	No No		1/8/2025 1/8/2025	1/17/2025 1/17/2025	
	SNO_LDR	5 piece silicon pump tubing	Teledyne/Isco	\$ 200.00	No		1/7/2025	1/15/2025	2/12/20
	SNO_LDR	Sampler to Flow Meter Cable (only need 10 feet but 50 is default)	Teledyne/Isco	\$ 299.00	No		1/7/2025	1/15/2025	2/12/20
	KC_COM	Isco 6712 sampler  Cellular 4G dipole whip antenna	Teledyne/Isco Campbell Scientific	\$ 5,000.00 \$ 26.00	No No	Yes, CoT	N/A 12/27/2024	1/2/2025	
	кс_сом	CR350 Datalogger with 3-year 250MB Verizon Plan	Campbell Scientific		No		12/27/2024	1/16/2025	
	кс_сом	Datalogger Enclosure 10" x 12"	Campbell Scientific	\$ 349.00	No		12/27/2024	1/16/2025	
	KC_HDR KC_HDR	Cellular 4G dipole whip antenna CR350 Datalogger with 3-year 250MB Verizon Plan	Campbell Scientific Campbell Scientific		No No		12/27/2024 12/27/2024	1/16/2025 1/16/2025	
	KC_HDR	Datalogger Enclosure 10" x 12"	Campbell Scientific	\$ 349.00	No		12/27/2024	1/16/2025	
rs.	KC_LDR KC_LDR	Cellular 4G dipole whip antenna	Campbell Scientific	\$ 26.00	No No		12/27/2024	1/16/2025 1/16/2025	
Dataloggers	KC_LDR	CR350 Datalogger with 3-year 250MB Verizon Plan Datalogger Enclosure 10" x 12"	Campbell Scientific Campbell Scientific		No No		12/27/2024 12/27/2024	1/16/2025	
Data	SNO_LDR	Cellular 4G Omin	Campbell Scientific	\$ 102.00	No		12/27/2024	1/16/2025	2/12/20
	SNO_LDR SNO_LDR	CR350 Datalogger with 3-year 250MB Verizon Plan Datalogger Enclosure 10" x 12"	Campbell Scientific Campbell Scientific		No No		12/27/2024 12/27/2024	1/16/2025 1/16/2025	2/12/20 2/12/20
	SNO_LDR	Antenna Cable	Campbell Scientific		No		12/27/2024	1/16/2025	2/12/20
	SEA_IND1	Cellular 4G Omin	Campbell Scientific		No		12/27/2024	1/16/2025	2/12/20
	SEA_IND1 SEA_IND1	CR350 Datalogger with 3-year 250MB Verizon Plan Datalogger Enclosure 10" x 12"	Campbell Scientific Campbell Scientific		No No		12/27/2024 12/27/2024	1/16/2025 1/16/2025	2/12/20 2/12/20
	SEA_IND1	Antenna Cable	Campbell Scientific	\$ 87.16	No		12/27/2024	1/16/2025	2/12/202
	KC_LDR KC_HDR	Pressure Transducer CS451 (50') [Flume Stillling Well] Starflow QSD Open Channel Flow Sensor (15-meter cable)	Campbell Scientific Unidata	\$ 986.00 \$ 2,485.00	No No		12/27/2024 1/1/2024	1/16/2025 2/1/2024	
	KC_HDR	Starflow QSD Barometric Dongle	Unidata	\$ 195.00	No		1/10/2025	1/20/2025	
	KC_HDR	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No		1/10/2025	1/20/2025	
	KC_COM KC_COM	Starflow QSD Open Channel Flow Sensor (30-meter cable) Starflow QSD Barometric Dongle	Unidata Unidata	\$ 2,485.00 \$ 195.00	No No		1/10/2025 1/10/2025	1/20/2025 1/20/2025	
	кс_сом	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No		1/10/2025	1/20/2025	
	KC_LDR KC_LDR	Starflow QSD Open Channel Flow Sensor (15-meter cable) Starflow QSD Barometric Dongle	Unidata Unidata	\$ 2,485.00 \$ 195.00	No No		1/10/2025 1/10/2025	1/20/2025 1/20/2025	
-lydrologic	KC_LDR	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No		1/10/2025	1/20/2025	
Чуdп	SNO_LDR	Isco 2150 module with AV sensor (default is 10m cable)	Teledyne/Isco	\$ 6,533.00	No		1/7/2025	1/15/2025	2/12/20
-	SNO_LDR SNO_LDR	Isco 2150 MODBUS download cable with pigtail Isco 2150 sensor	Teledyne/Isco Teledyne/Isco	\$ 390.00 \$ 2,200.00	No No		1/7/2025 1/7/2025	1/15/2025 1/15/2025	2/12/20 2/12/20
	SNO_LDR	Isco 18 in scissor band	Teledyne/Isco	\$ 1,001.00	No		1/7/2025	1/15/2025	2/12/20
	SNO_LDR SEA_IND1	Isco 2100 series external power cable Isco 2150 module with AV sensor (default is 10m cable)	Teledyne/Isco Teledyne/Isco	\$ 497.00 \$ 6,533.00	No No		1/7/2025 1/7/2025	1/15/2025 1/15/2025	2/12/20 2/12/20
	SEA_IND1	Isco 2150 MODBUS download cable with pigtail	Teledyne/Isco	\$ 390.00	No		1/7/2025	1/15/2025	2/12/20
	SEA_IND1	Isco 2150 sensor carrier Isco 18-80 in scissor band	Teledyne/Isco	\$ 2,200.00 \$ 2,332.00	No		1/7/2025 4/16/2025	1/15/2025	2/12/20
	SEA_IND1 SEA_IND1	Isco 2100 series external power cable	Teledyne/Isco Teledyne/Isco	\$ 2,332.00 \$ 497.00	No No		1/7/2025	1/15/2025	2/12/20
	KC_HDR	Sunsaver Charge Controller	SunSaver	\$ 132.00	No		2/13/2025	2/18/2025	
	KC_HDR KC_HDR	Deep Cycle Marine Battery Solar Panel	Duralast Renogy	\$ 200.00 \$ 150.00	No No		3/5/2025 2/13/2025	3/5/2025 2/18/2025	
	KC_LDR	Sunsaver Charge Controller	SunSaver	\$ 132.00	No		2/13/2025	2/18/2025	
	KC_LDR KC_LDR	Deep Cycle Marine Battery	Duralast	\$ 200.00 \$ 150.00	No No		3/12/2025	3/12/2025	
snoa	KC_LDR KC_HDR	Solar Panel Fiberglass Enclosure	Renogy Southland Water	\$ 150.00 \$ 3,170.00	No No		2/13/2025 1/2/2024	2/18/2025 2/17/2025	
Miscellaneous	кс_сом	Fiberglass Enclosure	Southland Water	\$ 3,170.00	No		1/2/2024	2/17/2025	
Misc	SNO_LDR SNO_LDR	Deep Cycle Marine Battery (would want 4 so that we can rotate a pair in at a time, solar would be Knaack Box	Duralast     Knaack	\$ 480.00 \$ 1,093.55	No No		3/12/2025 3/10/2025	3/12/2025 3/12/2025	3/12/20
	SNO_LDR	Master Lock No5	Master Lock	\$ 12.00	No		3/12/2025	3/12/2025	5, 11,720
	SEA_IND1	Sunsaver Charge Controller	SunSaver	\$ 145.00 \$ 120.00	No No		2/13/2025	2/18/2025	
	SEA_IND1 SEA_IND1	Deep Cycle Marine Battery Solar Panel	Duralast Renogy	\$ 120.00 \$ 100.00	No No		3/12/2025 2/13/2025	3/12/2025 2/18/2025	
	SEA_IND1	Enclosure is already on site	N/A	\$ -	No		N/A	N/A	
	KC_COM KC_COM	3 Traps mounted to wall with SS U bracket (sump as backup) - KC did sump grab 3x Boston Round	Fmhotu Qorpak	\$ 10.00 \$ 56.50	No No		1/6/2025 3/17/2025	1/10/2025 3/22/2025	
	KC_HDR	Unistrut bolted to top, 3 SS U bracket, sump grab as backup - KC did sump grab	Fmhotu	\$ 10.00	No		1/6/2025	1/10/2025	
	KC_HDR	3x Boston Round	Qorpak	\$ 56.50	No No		3/17/2025	3/22/2025	
	KC_LDR KC_LDR	3 modified shallow Norton Traps mounted inside 12" pipe Anyday Bowl 3x	S&S Metal Fab Anyday	\$ 1,146.00 \$ 120.00	No No		1/15/2025 1/15/2025	3/7/2025 1/17/2025	
	KC_LDR	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No		1/15/2025	1/17/2025	
	KC_LDR KC_LDR	Stainless Steel 4" to 6" Expanding Clamp Stainless Steel 4" to 6" Expanding Clamp	Unidata Unidata	\$ 140.00 \$ 140.00	No No		1/15/2025 1/15/2025	1/17/2025 1/17/2025	
	PIERCE_COM	3 Traps mounted to wall with SS U bracket (sump as backup)	Fmhotu	\$ 10.00	No		3/9/2025	3/10/2025	
	PIERCE_COM	3x Boston Round	Qorpak	\$ 56.50	No		3/17/2025	3/22/2025	
	PIERCE_HDR PIERCE_HDR	3 bottles in the channel (rebar hoseclamp) - Simplified Nortons 3 8.5" tall 1-L amber glass bottles - coated	S&S Metal Fab Qorpak	\$ 1,146.00 \$ 76.50	No No		1/15/2025 12/22/2024	3/7/2025 1/3/2025	
	PIERCE_LDR	3 Traps mounted to wall with SS U bracket (sump as backup)	Fmhotu	\$ 10.00	No		3/9/2025	3/10/2025	
	PIERCE_LDR	3x Boston Round	Amazon	\$ 56.50 \$ 10.00	No No		3/17/2025	3/22/2025	
	SNO_COM SNO_COM	3 Traps mounted to wall with SS U bracket (sump as backup) 3x Boston Round	Fmhotu Qorpak	\$ 10.00 \$ 56.50	No No		3/9/2025 3/17/2025	3/10/2025 3/22/2025	
sde.	SNO_HDR	3 bottles to rebar in channel - Simplified Nortons	S&S Metal Fab	\$ 1,146.00	No		1/15/2025	3/7/2025	
Sed. Traps	SNO_HDR SNO_LDR	3 8.5" tall 1-L amber glass bottles - coated	Qorpak	\$ 76.50 \$ 1.146.00	No No		12/22/2024	1/3/2025	
Š	SNO_LDR SNO_LDR	3 bottles to rebar in channel - Simplified Nortons 3 8.5" tall 1-L amber glass bottles - coated	S&S Metal Fab Qorpak	\$ 1,146.00 \$ 76.50	No No		1/15/2025 12/22/2024	3/7/2025 1/3/2025	
	TAC_COM	1 Norton Traps mount to pipe (check with steve on if they can install one more on their own)	S&S Metal Fab	\$ 382.00	No		1/15/2025	3/7/2025	
		1x Boston Round	TESL	\$ -	No		1/17/2025	1/17/2025	
	TAC_COM TAC_HDR	1 Norton Traps mount to pine (check with steve on if they can install one more on their own)	S&S Metal Fah	\$ 382.00				3/7/2025	
	TAC_HDR TAC_HDR	Norton Traps mount to pipe (check with steve on if they can install one more on their own)     1x Boston Round	S&S Metal Fab TESL	\$ 382.00 \$ -	No No		1/15/2025 1/17/2025	3/7/2025 1/17/2025	

	CLK_LDR	3 bottles in the channel (rebar hoseclamp) - Simplified Nortons	S&S Metal Fab	\$ 1,146.00	No	1/15/2025	3/7/2025	
	CLK_LDR	3x Boston Round	TESL	\$	No	1/17/2025	1/17/2025	
	SEA_IND1	3 Traps mounted to wall with SS U bracket (sump as backup)	Fmhotu	\$ 10.00	No	3/9/2025	3/10/2025	
	SEA_IND1	3x Boston Round	Qorpak	\$ 56.50	No	3/17/2025	3/22/2025	
	SEA_IND2	3 standard Norton Traps mounted inside 21" pipe	S&S Metal Fab	\$ 1,146.00	No	1/15/2025	3/7/2025	
	SEA_IND2	3x Boston Round	TESL	\$ -	No	1/17/2025	1/17/2025	
	SEA_IND3	3 modified shallow Norton Traps mounted inside 15" pipe	S&S Metal Fab	\$ 1,146.00	No	1/15/2025	3/7/2025	
	SEA_IND3	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No	2/21/2025	2/25/2025	
	SEA_IND3	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No	2/21/2025	2/25/2025	
	SEA_IND3	Stainless Steel 4" to 6" Expanding Clamp	Unidata	\$ 140.00	No	2/21/2025	2/25/2025	
	SEA_IND3	Anyday Bowl 3x	Anyday	\$ 120.00	No	1/17/2025	2/1/2025	
	SNO+IND1	PM6000RB Peristaltic Pump	Simply Pumps	\$ 1,299.00	No	12/6/2024	12/24/2024	2/12/2025
g Je	KC+IND2/3	PM6000RB Peristaltic Pump	Simply Pumps	\$ 1,299.00	No	12/6/2024	12/24/2024	
MP Grab Equipment	PIE	PM6000RB Peristaltic Pump	Simply Pumps	\$ 1,299.00	No	12/6/2024	12/24/2024	
포함	All	18 stainless steel jugs	Kaibrite	\$ 2,178.00	No	12/6/2024	12/18/2024	
	All	160 feet of silicone tubing	EES	\$ 640.00	No	1/17/2025	2/1/2025	
	KC_COM	Rugged BaroTROLL	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	KC_COM	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	KC_HDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	KC_LDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	PIERCE_COM	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
, po	PIERCE_HDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
Yiscellaneous Hydrologic Monitoring	PIERCE_LDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
호	SNO_COM	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
20	SNO_HDR	Rugged BaroTROLL	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
log o	SNO_HDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
호	SNO_LDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
T ST	TAC_COM	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
10 9	TAC_HDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
Ilar	TAC_IND	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
SCe	TAC_IND	Rugged BaroTROLL	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
Σ	SEA_IND1	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
	SEA_IND1	Rugged BaroTROLL	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	3/28/2025
	SEA_IND2	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	SEA_IND3	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	CLK_LDR	Rugged BaroTROLL	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	
	CLK_LDR	Rugged TROLL 100	In-Situ	\$ 445.00	No	2/19/2025	3/10/2025	