Automated Water Metering - DRAFT

Kellie Gillingham – Water Master

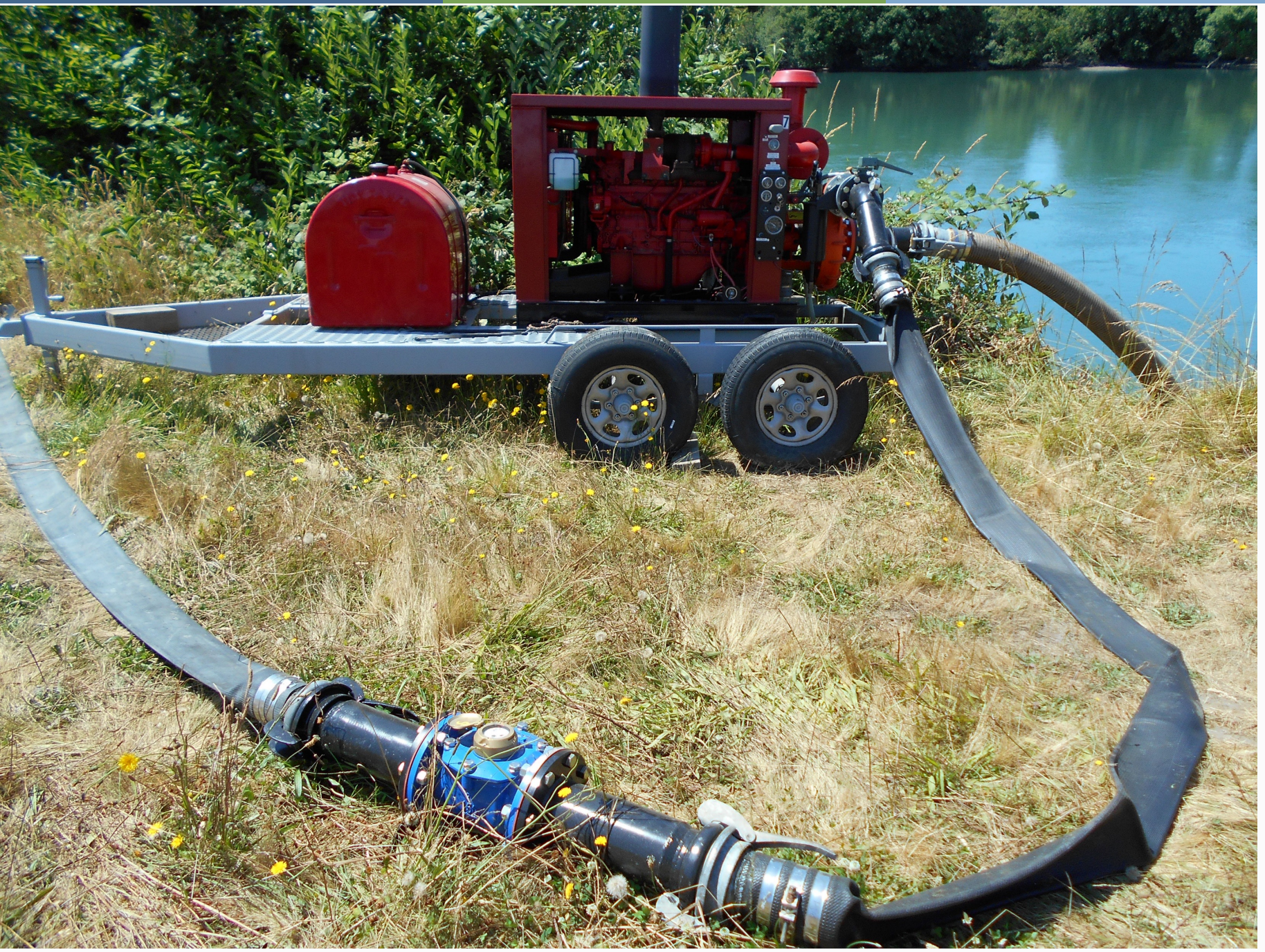
November 29, 2023

Important Definitions

- Metering – often a catch-all term for measuring, recording, and reporting water use
- Required metering – metering required by the Department of Ecology
- Automated metering is a sub-set of metering

Important Definitions Continued

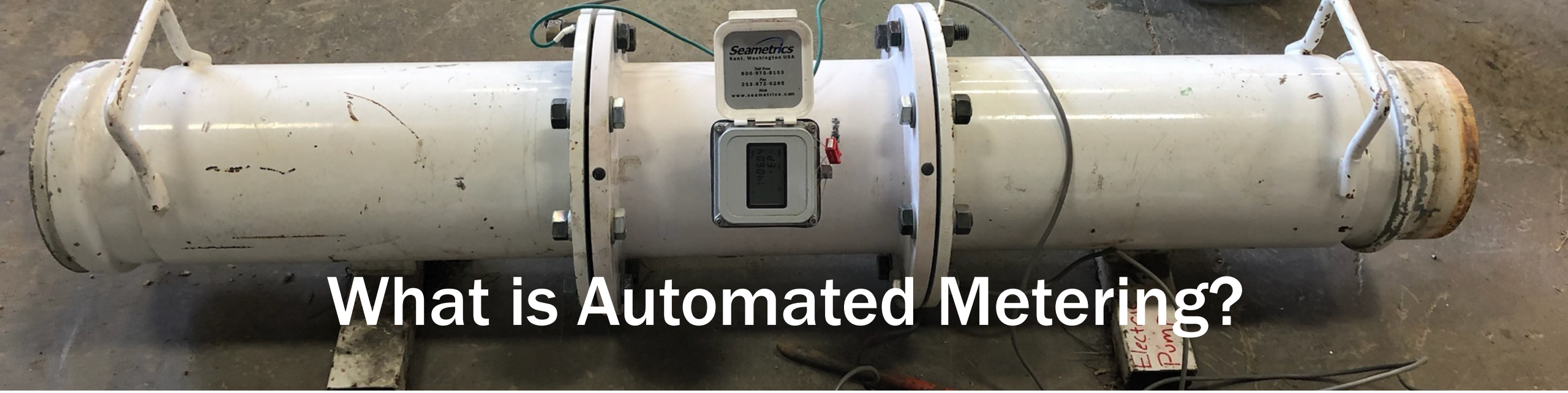
- Meter readings can be automatically logged with the right equipment
- Telemetry a catch-all term for networked data collection
- Telemetry can be real or near-real-time
- Cellular Telemetered Meters use a cellular network to transmit data automatically



DEPARTMENT OF ECOLOGY
State of Washington

Ecology's Authority to Require Metering

- RCW 90.03.360
- WAC 173-173
- Case Law



What is Automated Metering?

- Many water users measure their water use for multiple reasons
- Some water users are required to report to Ecology
- An automated metering system collects, records, and transmits water use data at a set schedule.
- Technologies can vary
- Ecology isn’t always the recipient of automated metering data

Does automated metering make sense for my situation?

Will I have Cell Service and Power?

What do Automated Meters Cost?

- Situation dependent
- Size of infrastructure and number of meters
- Fixed vs ongoing costs (manufacturer dependent)
- Talk to several manufacturers when deciding what is best
- Check in with Ecology

Examples of Automated Meters and the Interface

- Slide content
- Click on the icon in the image placeholder to insert an image

Questions and comments

Was there something else you were hoping to hear about?

Examples of Automated Meters and the Interface

Take a peek at the following screenshots of different web interfaces!

beaconama.net/admin/portfolio/at_a_glance

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BEACON®

Type your search

At a Glance

- At a Glance
- Monitor

What's New

- Unpin
- Collapse

120 Hours | orion cellular

100%

Percentage of meters with OK status

11
Status OK

0
Not Reporting

orion cellular

81.8%

Percentage of devices with OK status

9
Status OK

2
Reporting Issues

2 Endpoint Tamper

Flow Health

All Meters

Breakdown of flow anomalies. Click on arrows for details.

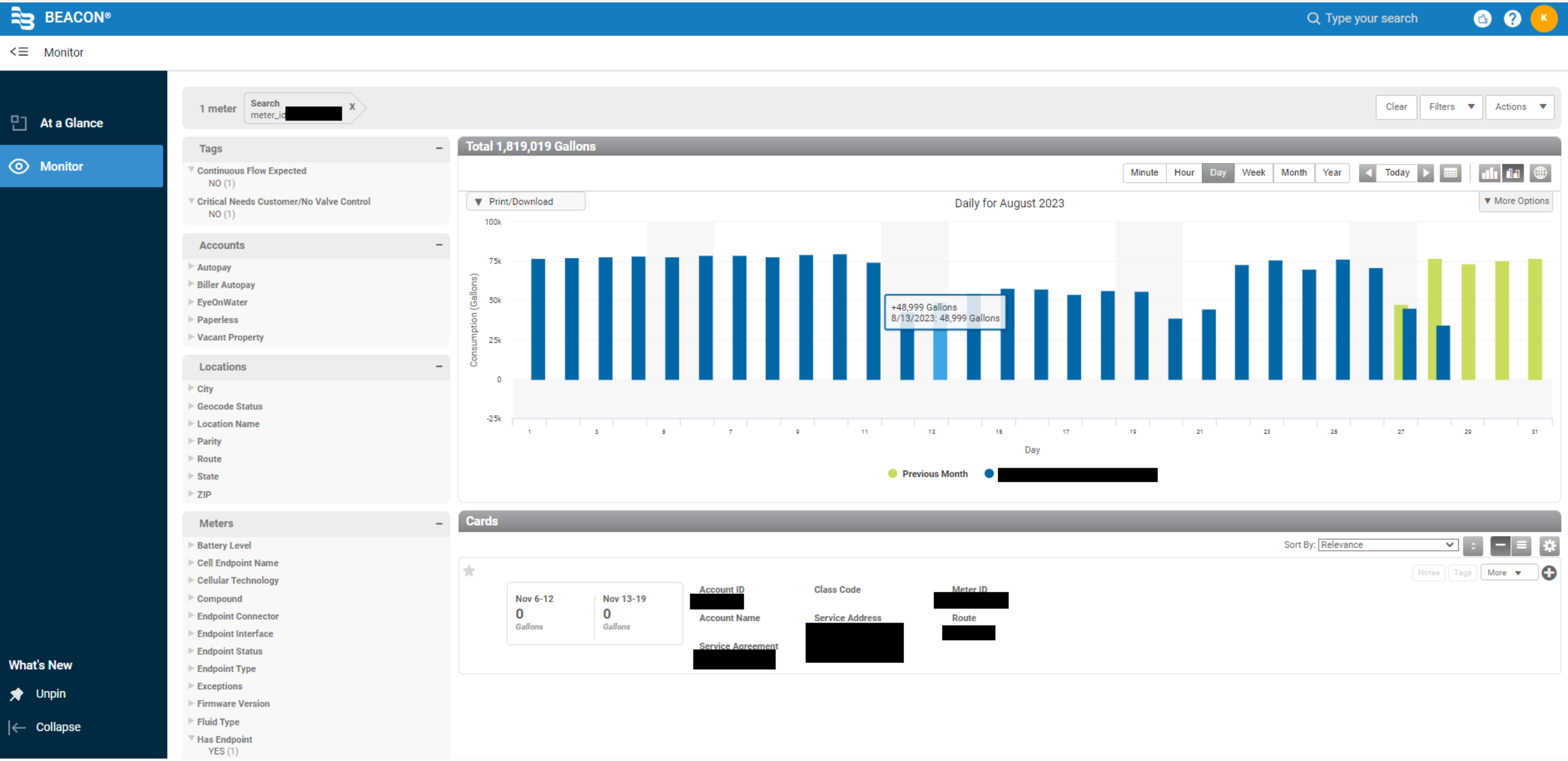
11
No Recent Flow

Gateway Health

There are no Gateway Health issues to display.

Favorites

System Water Usage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Type your search
Monitor
At a Glance
Monitor
What's New
Unpin
Collapse
1 meter
Search
meter_id
X
Clear
Filters
Actions
Tags
Continuous Flow Expected
NO (1)
Critical Needs Customer/No Valve Control
NO (1)
Accounts
Autopay
Biller Autopay
EyeOnWater
Paperless
Vacant Property
Locations
City
Geocode Status
Location Name
Parity
Route
State
ZIP
Meters
Battery Level
Cell Endpoint Name
Cellular Technology
Compound
Endpoint Connector
Endpoint Interface
Endpoint Status
Endpoint Type
Exceptions
Firmware Version
Fluid Type
Has Endpoint
YES (1)
Total 1,819,019 Gallons
Minute
Hour
Day
Week
Month
Year
Today
Print/Download
Daily for August 2023
More Options
100k
75k
50k
25k
0
-25k
Consumption (Gallons)
+48,999 Gallons
8/13/2023: 48,999 Gallons
Day
Previous Month
Cards
Sort By:
Relevance
Notes
Tags
More
Nov 6-12
0
Gallons
Nov 13-19
0
Gallons
Account ID
Account Name
Service Agreement
Class Code
Service Address
Meter ID
Route

app.myfieldnet.com/device

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FIELDNET BY LINDSAY

HOME | MAP | FIELDS | EQUIPMENT | ALERTS | REPORTS | SETTINGS

November 20, 2023
17:08, PST

Kellie Gillingham

Search

4 < >

Name	Status	Shared With	Alert	Group		Last Updated
[redacted]	Powered Off		⚠			2023-09-28 14:00:56
[redacted]	Stopped					2023-09-05 14:38:40
[redacted]	Stopped					2023-11-20 16:47:18
[redacted]	Powered Off					2023-10-28 21:02:15

4 < >

app.myfieldnet.com/alert/index/equipmentid/[redacted]

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November 20, 2023
17:10, PST

Kellie Gillingham

[redacted]

1-1 < >

Filter...

Alert	Source	Time
Powered Off	[redacted]	2023-09-21 14:00:47

1-1 < >

app.myfieldnet.com/report/index/accountDeviceId/[redacted]

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FIELDNET BY LINDSAY | HOME | MAP | FIELDS | EQUIPMENT | ALERTS | REPORTS | SETTINGS

November 20, 2023 17:13, PST | Kellie Gillingham

Reports

M2 Series

[redacted]

Volume

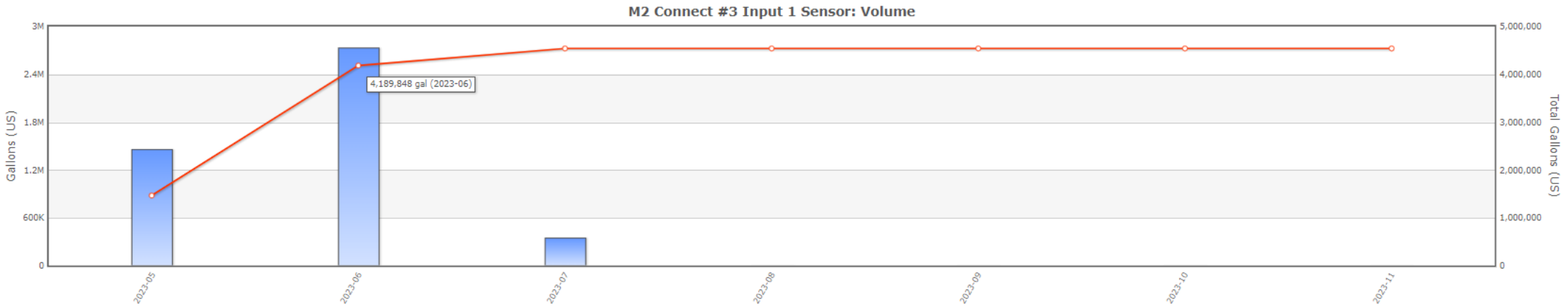
Start Date

2023-05-01

End Date

2023-11-20

Export



waterscope.us/Utility/Utility/Index#Overview?sessAuthKey=2d429e4d7e1b4d2c95984167c4cfc7c2

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Northwest Regional Office

DEPARTMENT OF ECOLOGY State of Washington

nwro@waterscope.us
Mon, Nov 20, 2023 5:16 PM

OVERVIEW
ACCOUNT LOOKUP
PRIORITY DASHBOARD
MAPS
ANALYTICS
WATER LOSS
BILLING & REPORTS
SYSTEM STATUS
PORTFOLIO
SETTINGS
SUPPORT

Utility Account: 1929 - Northwest Regional Office

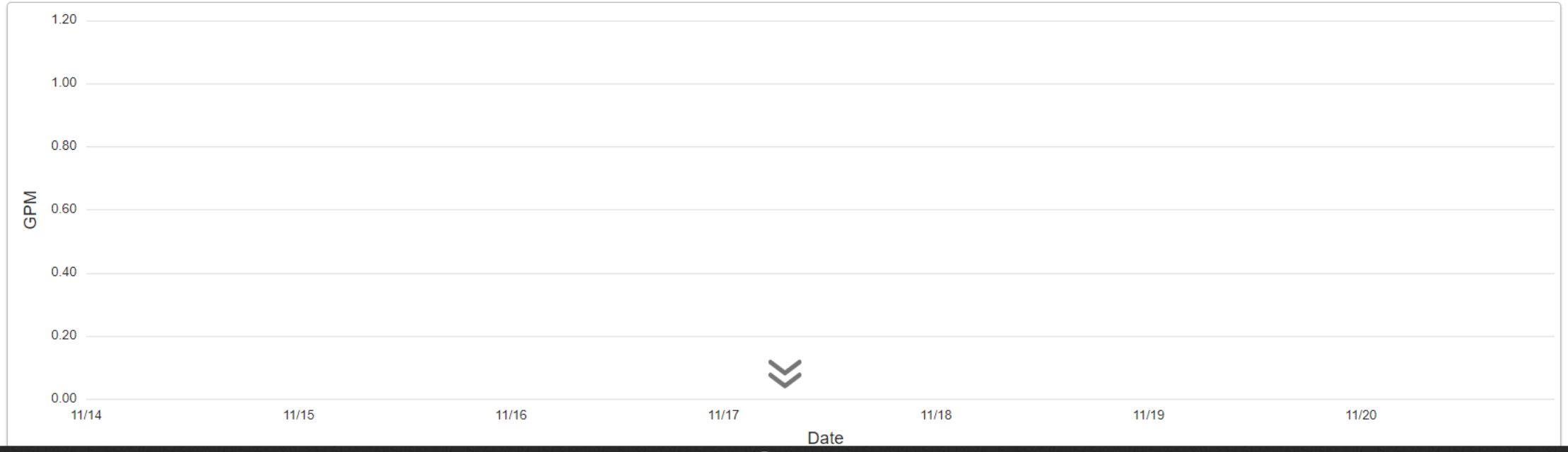
Water System Management Portal

Set as home page Last updated Mon Nov 20 2023 17:16:39

Select: All Installed Meters | Time: 1 WEEK | Date: 11/13/2023 | To: 11/19/2023 | Unit: GPM | Update | Report

All Installed Meters : 0

0 G



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waterscope.us/Utility/Utility/Index#AccountLookup?sessAuthKey[redacted]

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ACCOUNT LOOKUP
PRIORITY DASHBOARD
MAPS
ANALYTICS
WATER LOSS
BILLING & REPORTS
SYSTEM STATUS
PORTFOLIO
SETTINGS
SUPPORT

Utility Account: [redacted]

Consumer Account Information

Set as home page | Last updated Mon Nov 20 2023 17:22:04

Account Lookup | Manage Segments

~~Enable High Resolution Data~~

Table Style

Standard | Conservation

Select: All Accounts | Status: All | Condition: All | Size: All | Meter Usage: All Meters | Search | Search | Reset | Report | Total Meters 8 | Columns Hide/Show

1 50 items per page 1 - 8 of 8 items

☆	Id	Consumer Name	Address	Type	VN ID	Size (")	Billing Read	24Hr	Min Flow Rate (GPM)	Max Flow Rate (GPM)	Min Temp. (°F)	Read Date	Utility Defined	Conditions	
★	[redacted]			RES	[redacted]	R	520662	1344.56	0.85	0.98	33	11-20-2023			
☆				COMM		8	1369077	0	0	0	33	11-20-2023			
☆				COMM		8	675192	0	0	0	33	11-20-2023			
★				COMM		1.5	18100739	0	0	0	37	11-20-2023			
★				COMM		2	26245944	0	0	0	41	11-20-2023			
★				COMM		10	48854	0	0	0	37	11-20-2023			
☆				COMM		4	22321572	–	–	–	32	02-09-2023		–	
☆				COMM		2	99998894	–	–	–	39	07-03-2023			

1 50 items per page 1 - 8 of 8 items

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waterscope.us/Utility/Utility/Index#ConsumptionHistory?sessAuthKey=[redacted]

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DASHBOARD
CONSUMPTION HISTORY
SAGE OVERVIEW
WATER BUDGET
CONSUMPTION COMPARISON
WATERING
FLOWRATE ANALYSIS
ENVIRONMENTAL
NOTIFICATIONS

Selected Option: All Accounts | Sort Column: MinFlowrate | Sort Direction: Descending

Meter/Consumer: [redacted] Augmentation Pond | Reset Filters

Your Account Information | Account Number: [redacted] | Consumer Name: **Augmentation Pond** | Address: [redacted] | VN ID: [redacted] | Water Budget: **Inefficient** | Utility Defined Type: **Commercial**

LCD Read @11/20/2023 02:29 AM
26245944 G

Billing Read
26245944 Gx 1

Water Consumption - 11/19 to 11/20
0 G

Read Date
11/20/2023

So far this month
9812.78 G

Daily Average
516.46 G

Projected Water Budget Status
Inefficient

The following conditions have been detected
(hover on the icon for more info)

Meter
innov8-VN LTE
Metron 2"

Consumption History

Last updated Mon Nov 20 2023 17:25:11

Time Interval Custom

Date interval From Date 6/1/2023 To Date 8/31/2023 Go

Total Consumption: 6621840.68 G

Export | PDF

Displaying 01 Jun - 31 Aug Custom

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