

Photo: American River

SacPAS Data & Alerts

Susannah Iltis and Jennifer L. Gosselin

Outline

A. Data & Alerts – Landing Page

B. Data & Alerts – Queries
   1. Juvenile Monitoring & Sampling
   2. Juvenile Salvage & Loss
   3. Adult Salmonids & Redds
   4. Environmental Conditions
   5. Alerts
   6. Other Fishes

C. Data & Alerts – Mega Menu

D. On the horizon

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A. Data & Alerts – Landing Page

SacPAS
CENTRAL VALLEY PREDICTION AND ASSESSMENT OF SALMON

UNIVERSITY of WASHINGTON
Columbia Basin Research

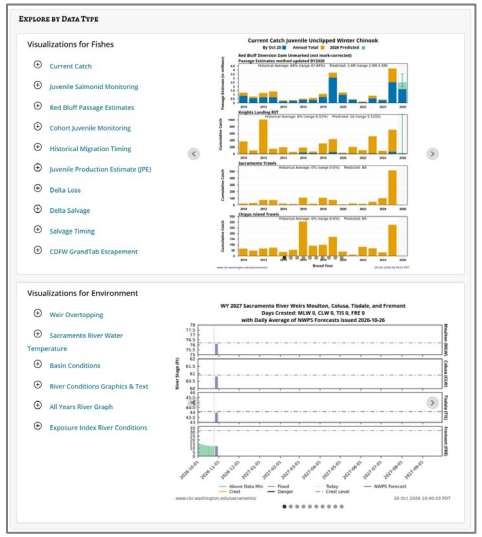
Search SacPAS...

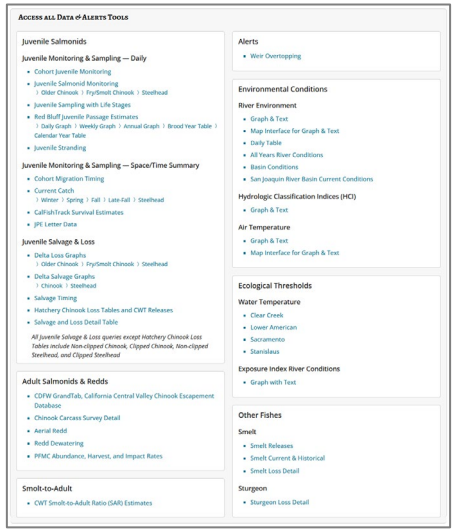
Data & Alerts | Workgroups & Teams | Tools & Models | Explore in Depth | About

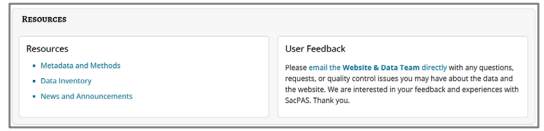
Data & Alerts

Explore by Topic | Explore by Data Type | Access all Data Tools | Resources

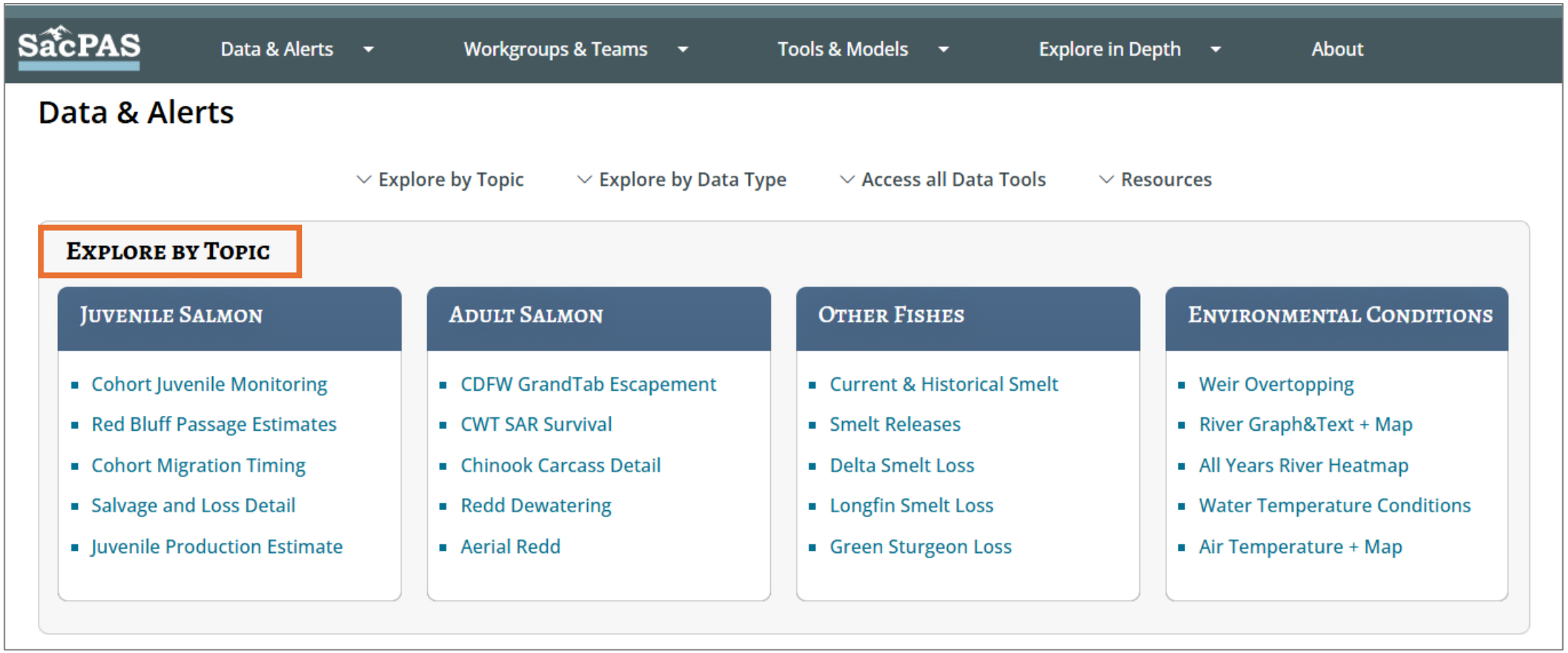


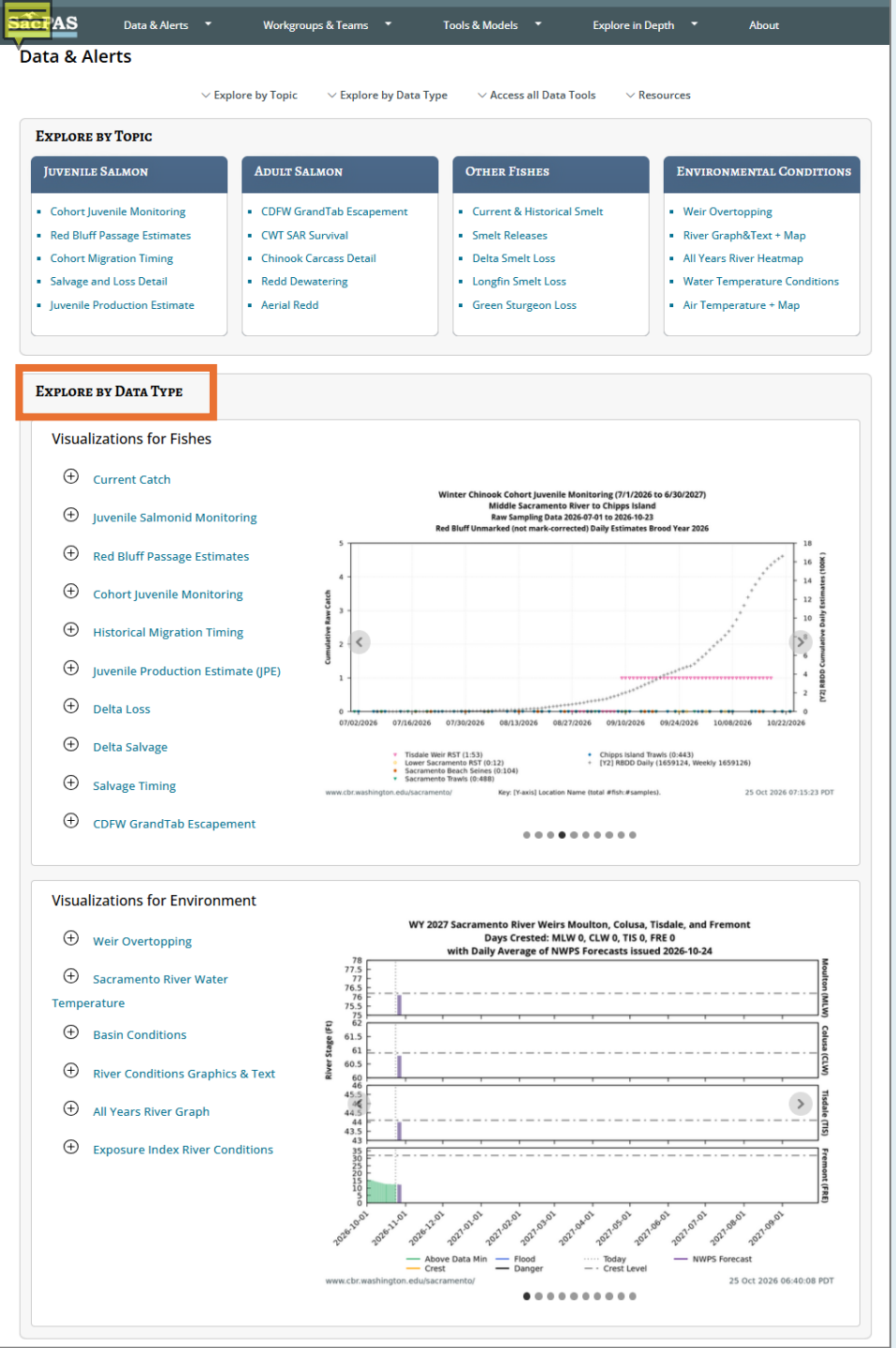






Data & Alerts – Explore by Topic





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Data & Alerts – Explore by Data Type

Visualizations for Fishes

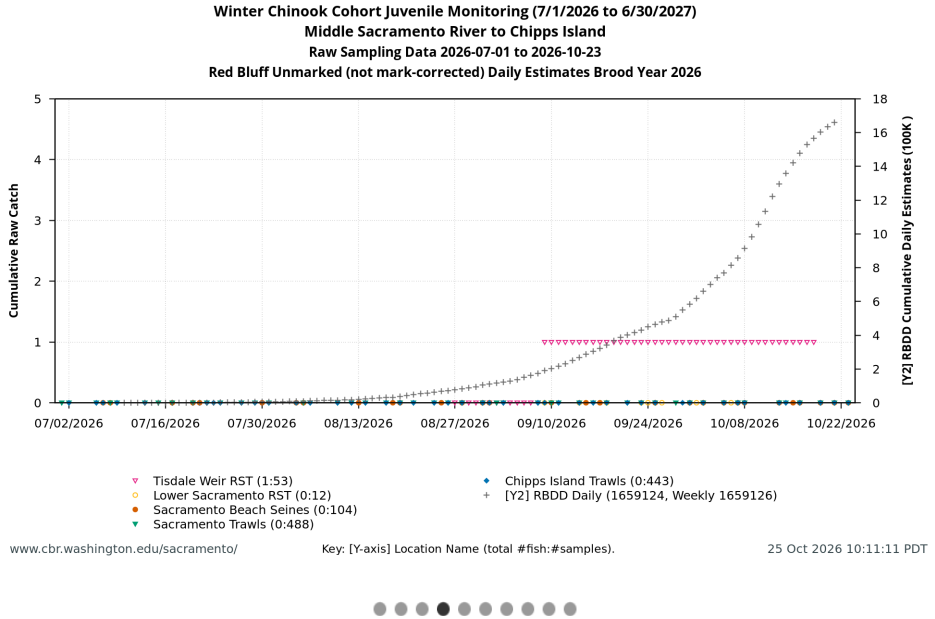


Visualizations for Fishes

- Current Catch
- Juvenile Salmonid Monitoring
- Red Bluff Passage Estimates
- Cohort Juvenile Monitoring

Presents brood year cohort monitoring for juvenile Chinook and steelhead at Sacramento River rotary screw traps, beach seines, and trawls with Red Bluff passage estimates. Updated daily. Carousel figure 4.

- Historical Migration Timing
- Juvenile Production Estimate (JPE)
- Delta Loss
- Delta Salvage
- Salvage Timing
- CDFW GrandTab Escapement



Visualizations for Environment

SacPAS | Data & Alerts | Workgroups & Teams | Tools & Models | Explore in Depth | About

Data & Alerts

Explore by Topic | Explore by Data Type | Access all Data Tools | Resources

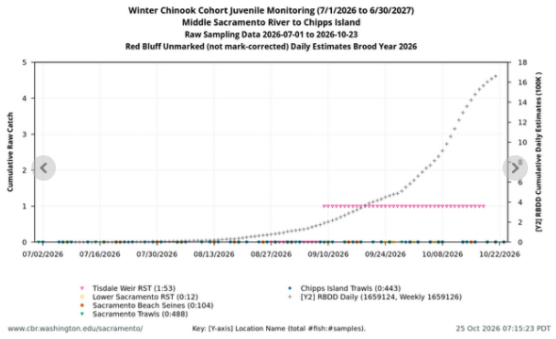
Explore by Topic

Juvenile Salmon	Adult Salmon	Other Fishes	Environmental Conditions
Cohort Juvenile Monitoring	CDFW GrandTab Escapement	Current & Historical Smelt	Weir Overtopping
Red Bluff Passage Estimates	CWT SAR Survival	Smelt Releases	River Graph&Text + Map
Cohort Migration Timing	Chinook Carcass Detail	Delta Smelt Loss	All Years River Heatmap
Salvage and Loss Detail	Redd Dewatering	Longfin Smelt Loss	Water Temperature Conditions
Juvenile Production Estimate	Aerial Redd	Green Sturgeon Loss	Air Temperature + Map

Explore by Data Type

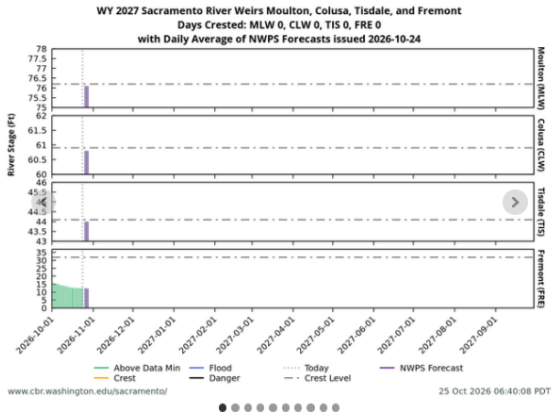
Visualizations for Fishes

- Current Catch
- Juvenile Salmonid Monitoring
- Red Bluff Passage Estimates
- Cohort Juvenile Monitoring
- Historical Migration Timing
- Juvenile Production Estimate (JPE)
- Delta Loss
- Delta Salvage
- Salvage Timing
- CDFW GrandTab Escapement



Visualizations for Environment

- Weir Overtopping
- Sacramento River Water Temperature
- Basin Conditions
- River Conditions Graphics & Text
- All Years River Graph
- Exposure Index River Conditions

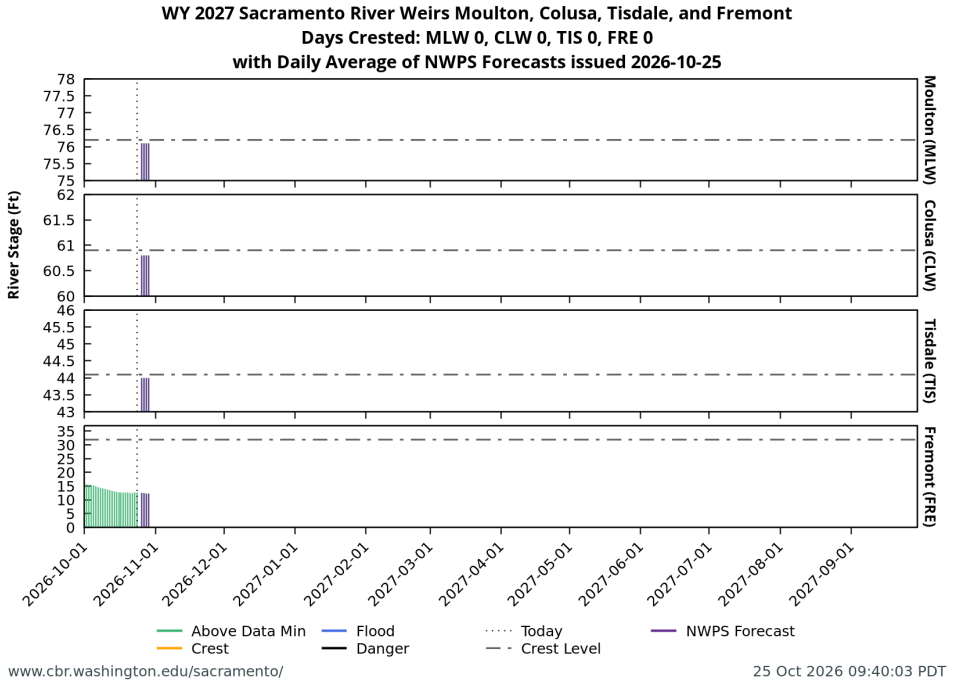


Visualizations for Environment

- Weir Overtopping

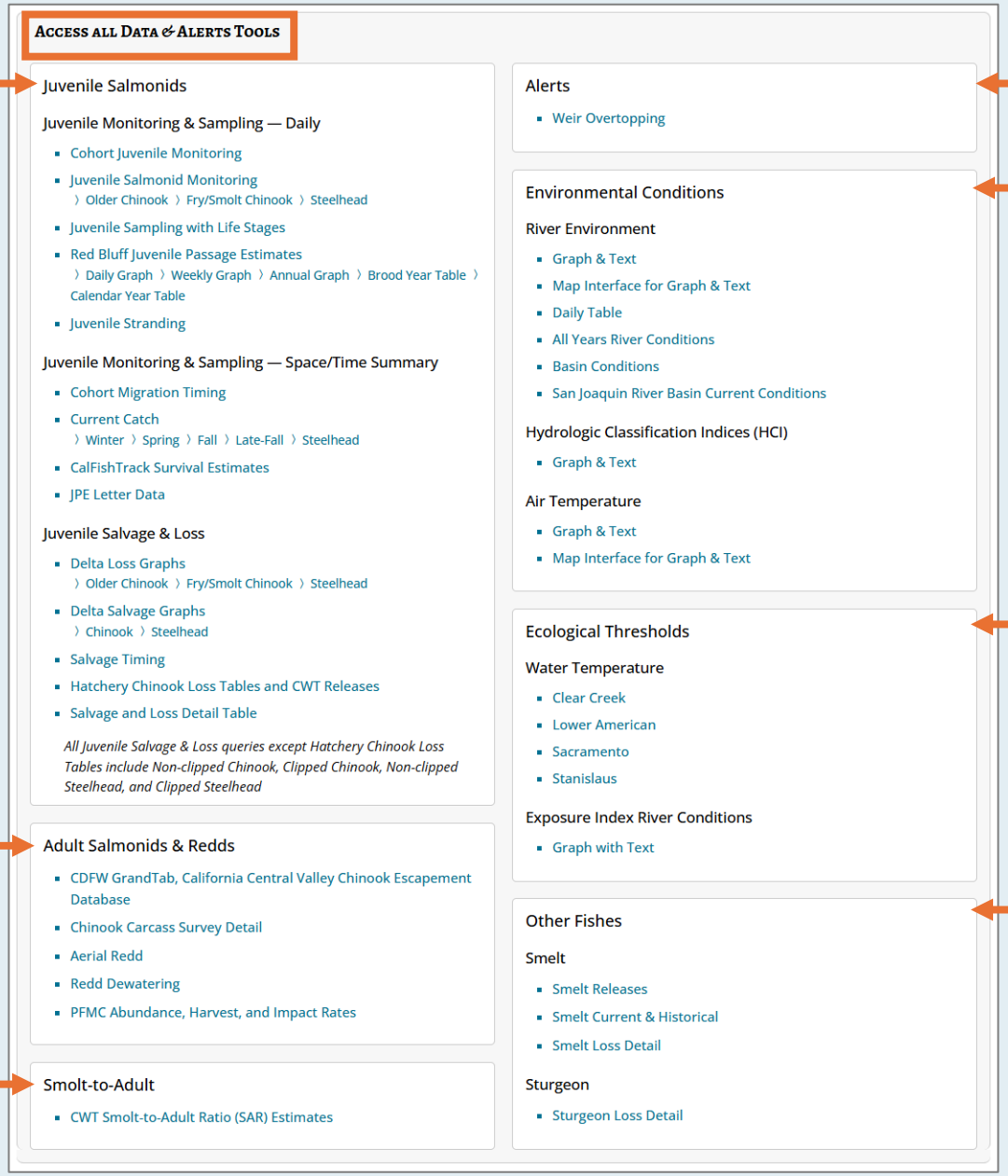
Presents River Stage (ft) above / below Weir Crest Level at 4 Sacramento River Weirs — Moulton, Colusa, Tisdale and Fremont — with NWPS forecasted levels. Updated daily. Carousel figure 1.

- Sacramento River Water Temperature
- Basin Conditions
- River Conditions Graphics & Text
- All Years River Graph
- Exposure Index River Conditions



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Data & Alerts – Access all Data & Alerts Tools



Access all Data & Alerts Tools

Juvenile Salmonids

Juvenile Salmonids

Juvenile Monitoring & Sampling — Daily

- Cohort Juvenile Monitoring
- Juvenile Salmonid Monitoring
  › Older Chinook › Fry/Smolt Chinook › Steelhead
- Juvenile Sampling with Life Stages
- Red Bluff Juvenile Passage Estimates
  › Daily Graph › Weekly Graph › Annual Graph › Brood Year Table › Calendar Year Table
- Juvenile Stranding

Juvenile Monitoring & Sampling — Space/Time Summary

- Cohort Migration Timing
- Current Catch
  › Winter › Spring › Fall › Late-Fall › Steelhead
- CalFishTrack Survival Estimates
- JPE Letter Data

Juvenile Salvage & Loss

- Delta Loss Graphs
  › Older Chinook › Fry/Smolt Chinook › Steelhead
- Delta Salvage Graphs
  › Chinook › Steelhead
- Salvage Timing
- Hatchery Chinook Loss Tables and CWT Releases
- Salvage and Loss Detail Table

All Juvenile Salvage & Loss queries except Hatchery Chinook Loss Tables include Non-clipped Chinook, Clipped Chinook, Non-clipped Steelhead, and Clipped Steelhead

Adult Salmonids & Redds

Adult Salmonids & Redds

- CDFW GrandTab, California Central Valley Chinook Escapement Database
- Chinook Carcass Survey Detail
- Aerial Redd
- Redd Dewatering
- PFMC Abundance, Harvest, and Impact Rates

Smolt-to-Adult

Smolt-to-Adult

- CWT Smolt-to-Adult Ratio (SAR) Estimates

Alerts

Alerts

- Weir Overtopping

Environmental Conditions

Environmental Conditions

River Environment

- Graph & Text
- Map Interface for Graph & Text
- Daily Table
- All Years River Conditions
- Basin Conditions
- San Joaquin River Basin Current Conditions

Hydrologic Classification Indices (HCI)

- Graph & Text

Air Temperature

- Graph & Text
- Map Interface for Graph & Text

Ecological Thresholds

Ecological Thresholds

Water Temperature

- Clear Creek
- Lower American
- Sacramento
- Stanislaus

Exposure Index River Conditions

- Graph with Text

Other Fishes

Other Fishes

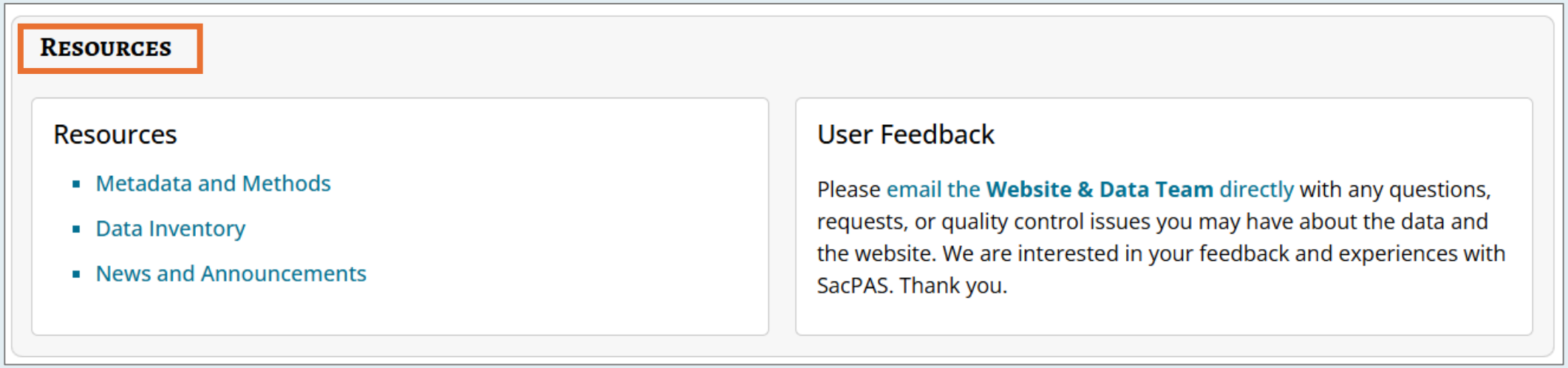
Smelt

- Smelt Releases
- Smelt Current & Historical
- Smelt Loss Detail

Sturgeon

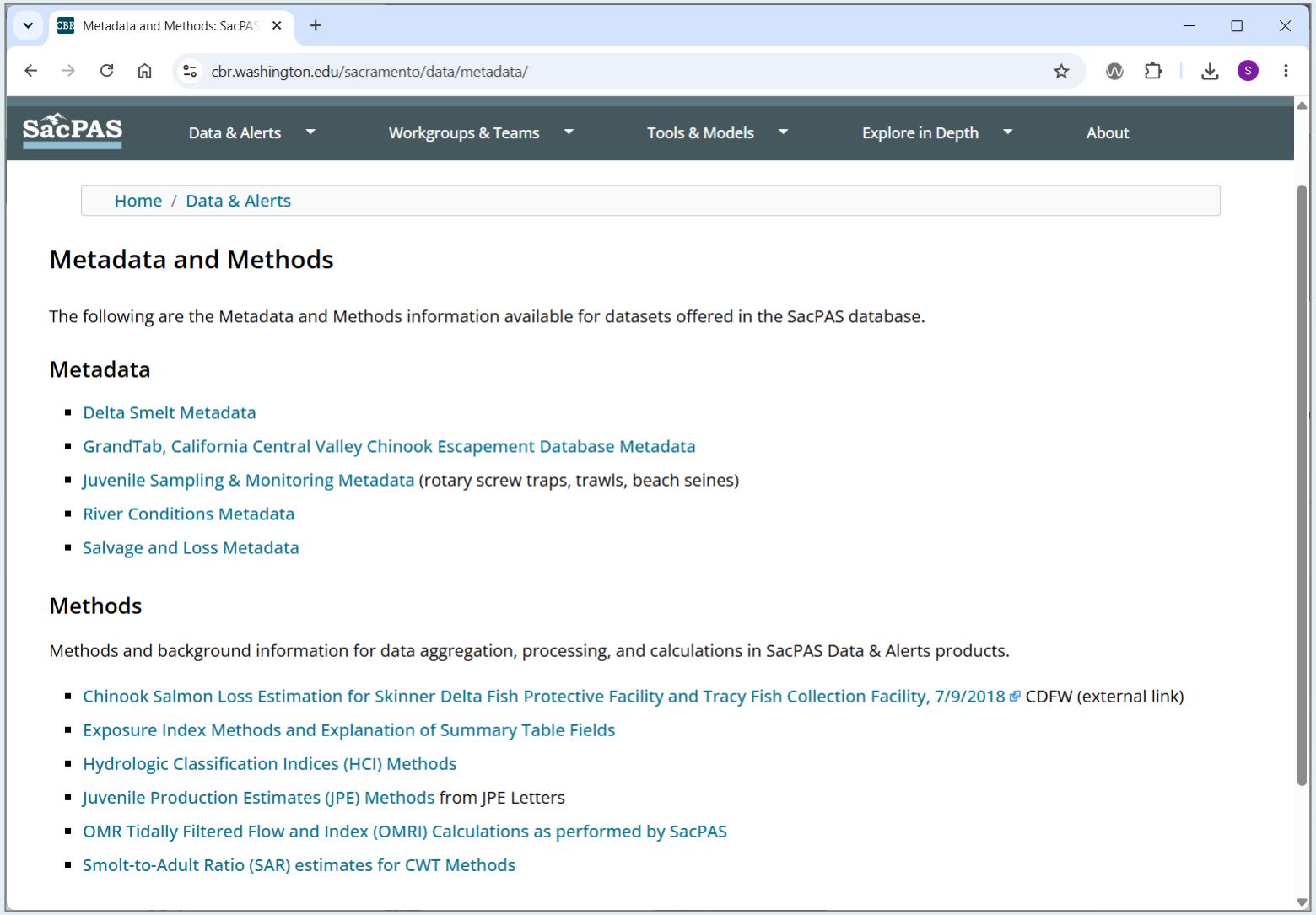
- Sturgeon Loss Detail

Data & Alerts – Resources



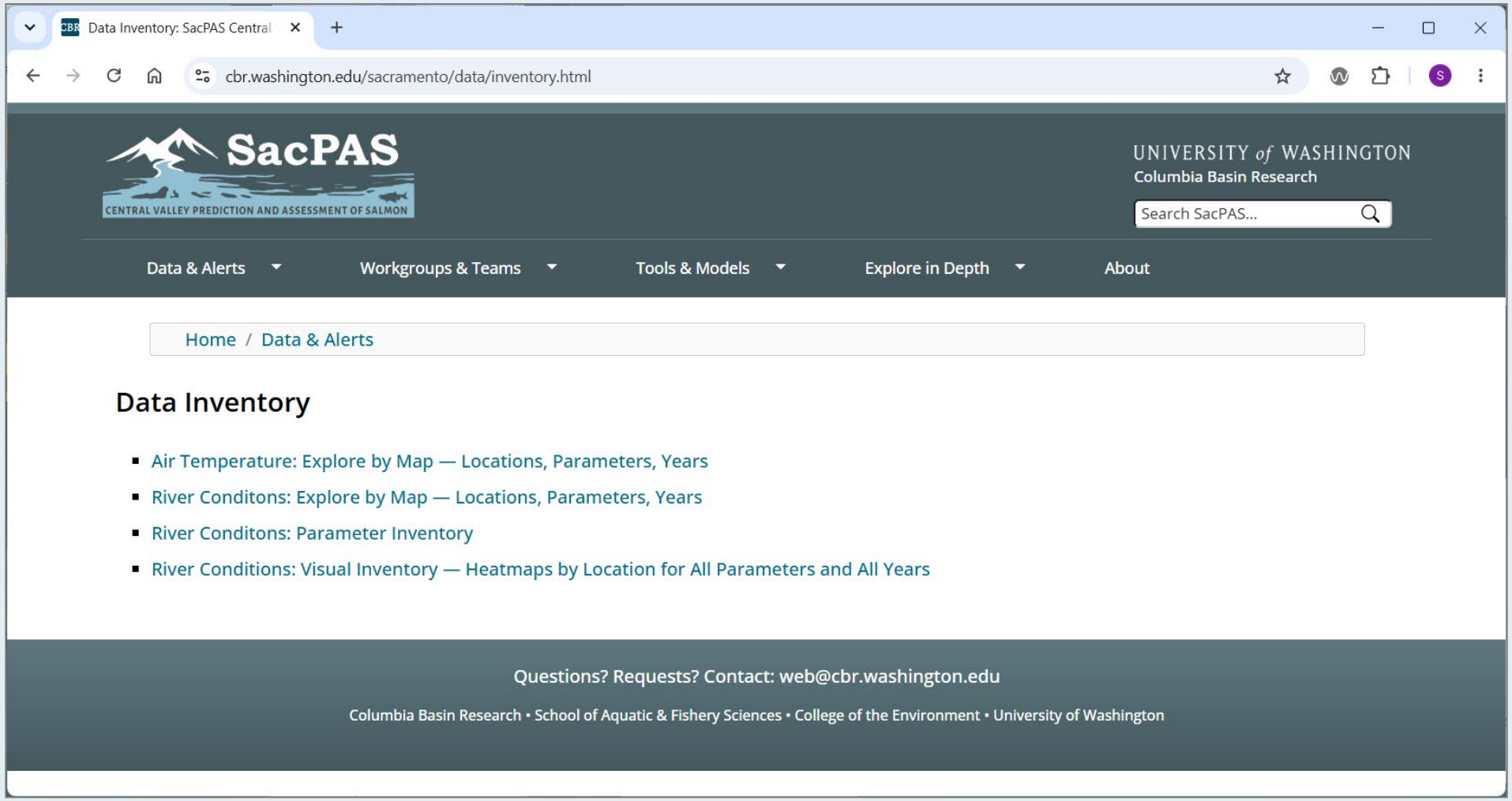
Data & Alerts – Resources

Metadata and Methods



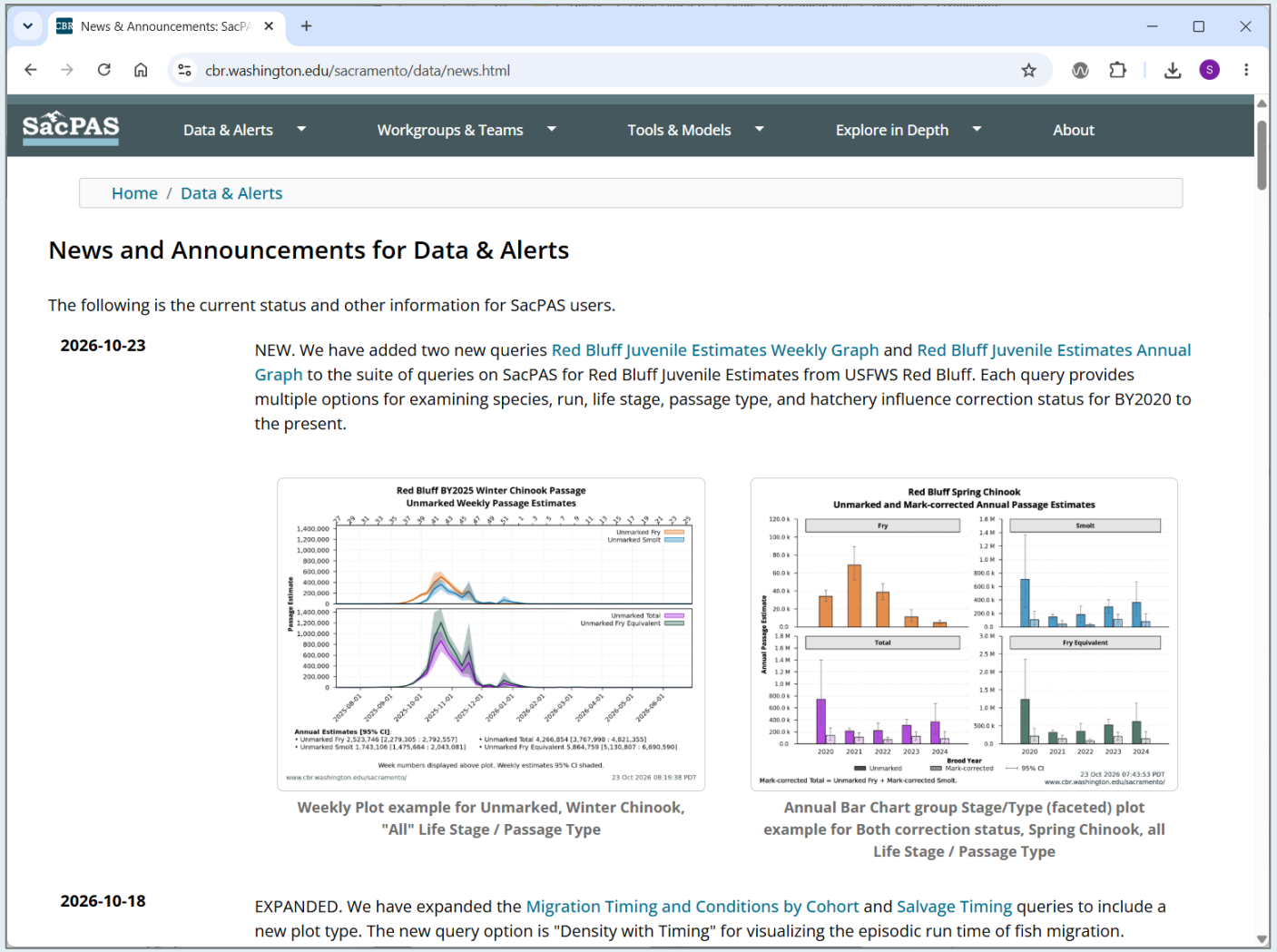
Data & Alerts – Resources

Data Inventory



Data & Alerts – Resources

News and Announcements



Weekly Plot example for Unmarked, Winter Chinook, "All" Life Stage / Passage Type

Annual Bar Chart group Stage/Type (faceted) plot example for Both correction status, Spring Chinook, all Life Stage / Passage Type

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B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes



SacPAS Data & Alerts Queries –

Purpose and Design

Purpose

SacPAS Queries Provide Users:

- Integrated and aggregated data from numerous primary sources
- Access to data and visualizations
- Data downloads
- Summaries of relevant metrics
- Customized query interfaces & user-centered tools

SacPAS Data & Alerts Queries – Purpose and Design

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Design

Guidelines We Follow:

- Attribution to data owners
- Transparency of methods
- Value-added services
- Human centered design
- Digital accessibility

Common Elements of SacPAS Query Interfaces

Query Title

Data Attribution

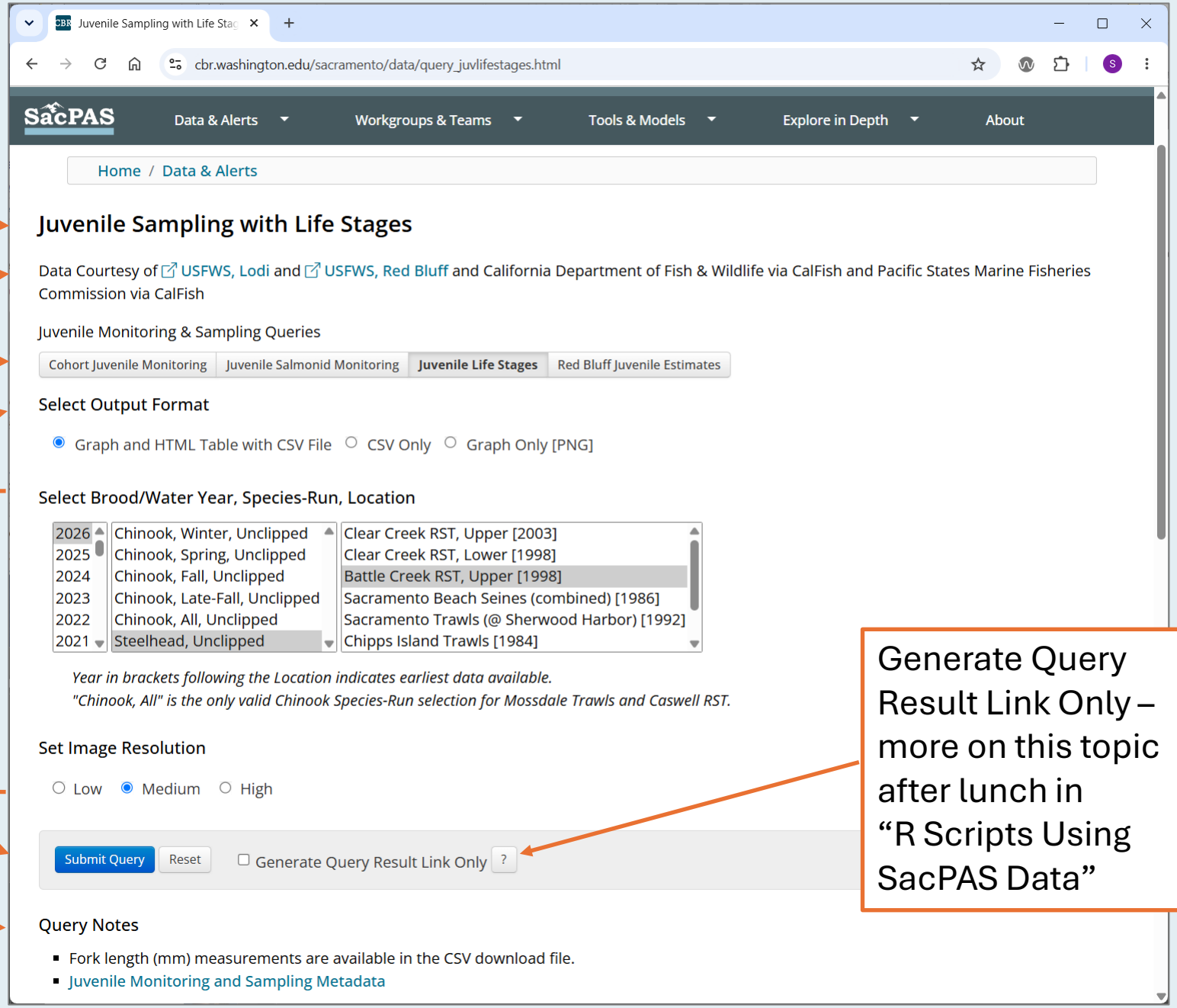
Topic Area Queries

Output Formats

Selections: customized to data and query

Submit Button

Query Notes, Resources, and Metadata



Generate Query Result Link Only – more on this topic after lunch in "R Scripts Using SacPAS Data"

B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes



Juvenile Monitoring & Sampling Queries

1. Juvenile Monitoring & Sampling



- Daily
  - Cohort Juvenile Monitoring
  - Juvenile Salmonid Monitoring
  - Juvenile Life Stages
  - Red Bluff Juvenile Passage Estimates
  - Juvenile Stranding

Juvenile Monitoring & Sampling Queries

1. Juvenile Monitoring & Sampling



- Daily
  - Cohort Juvenile Monitoring
  - Juvenile Salmonid Monitoring
  - Juvenile Life Stages
  - Red Bluff Juvenile Passage Estimates
  - Juvenile Stranding
- Space / Time Summary
  - Cohort Migration Timing
  - Current Catch
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Juvenile Monitoring & Sampling Queries

1. Juvenile Monitoring & Sampling



- Daily
  - **Cohort Juvenile Monitoring ❶**
  - Juvenile Salmonid Monitoring
  - **Juvenile Life Stages ❸**
  - Red Bluff Juvenile Passage Estimates
  - Juvenile Stranding
- Space / Time Summary
  - **Cohort Migration Timing ❷**
  - Current Catch
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  - JPE Letter Data

Juvenile Monitoring & Sampling Queries

1. Juvenile Monitoring & Sampling



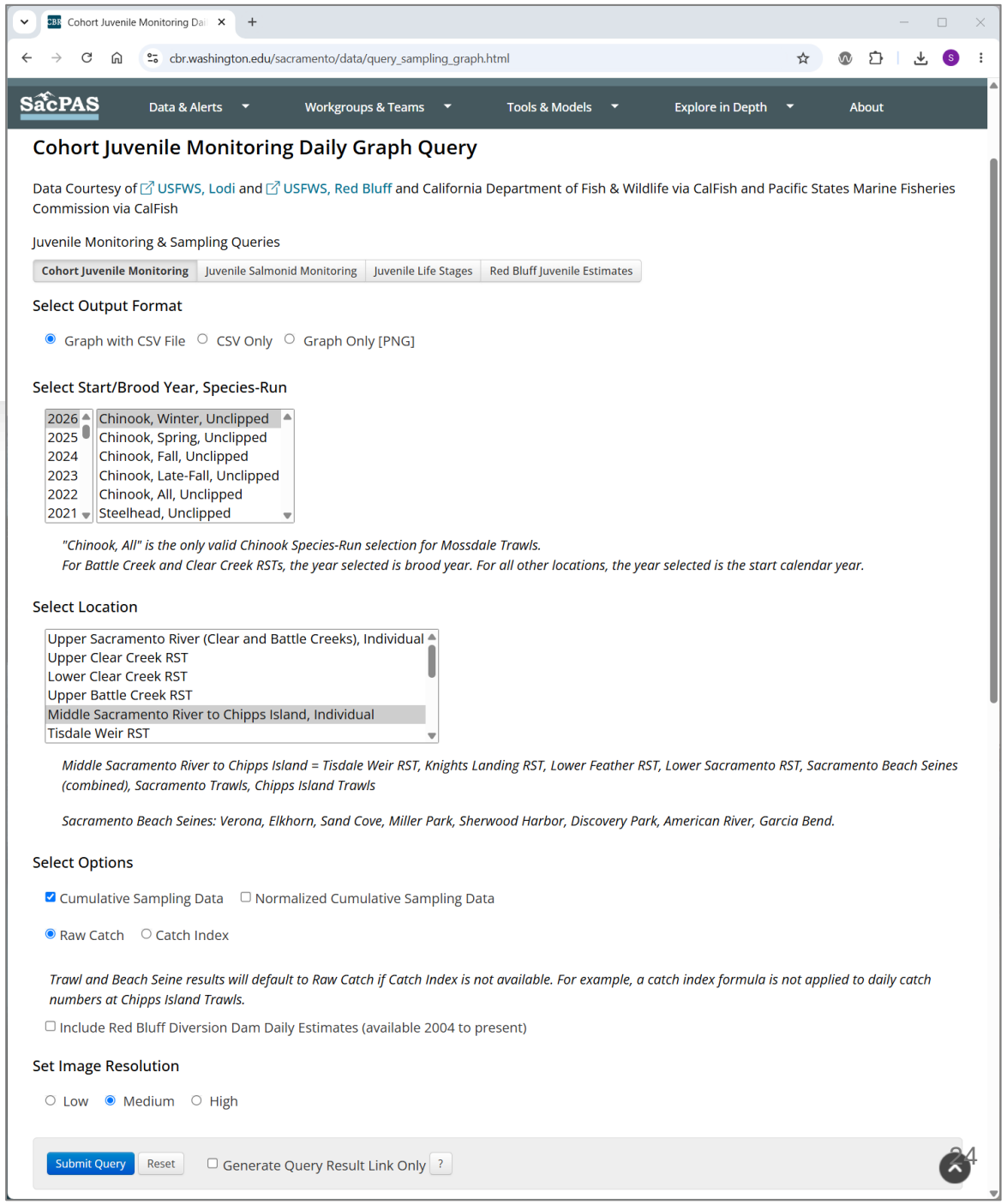
- Daily
  - **Cohort Juvenile Monitoring ❶**
  - Juvenile Salmonid Monitoring
  - **Juvenile Life Stages ❸**
  - Red Bluff Juvenile Passage Estimates
  - Juvenile Stranding

The Red Bluff queries will be covered later this morning in
"Red Bluff Diversion Dam Juvenile Fish Passage Estimates Query Tools"

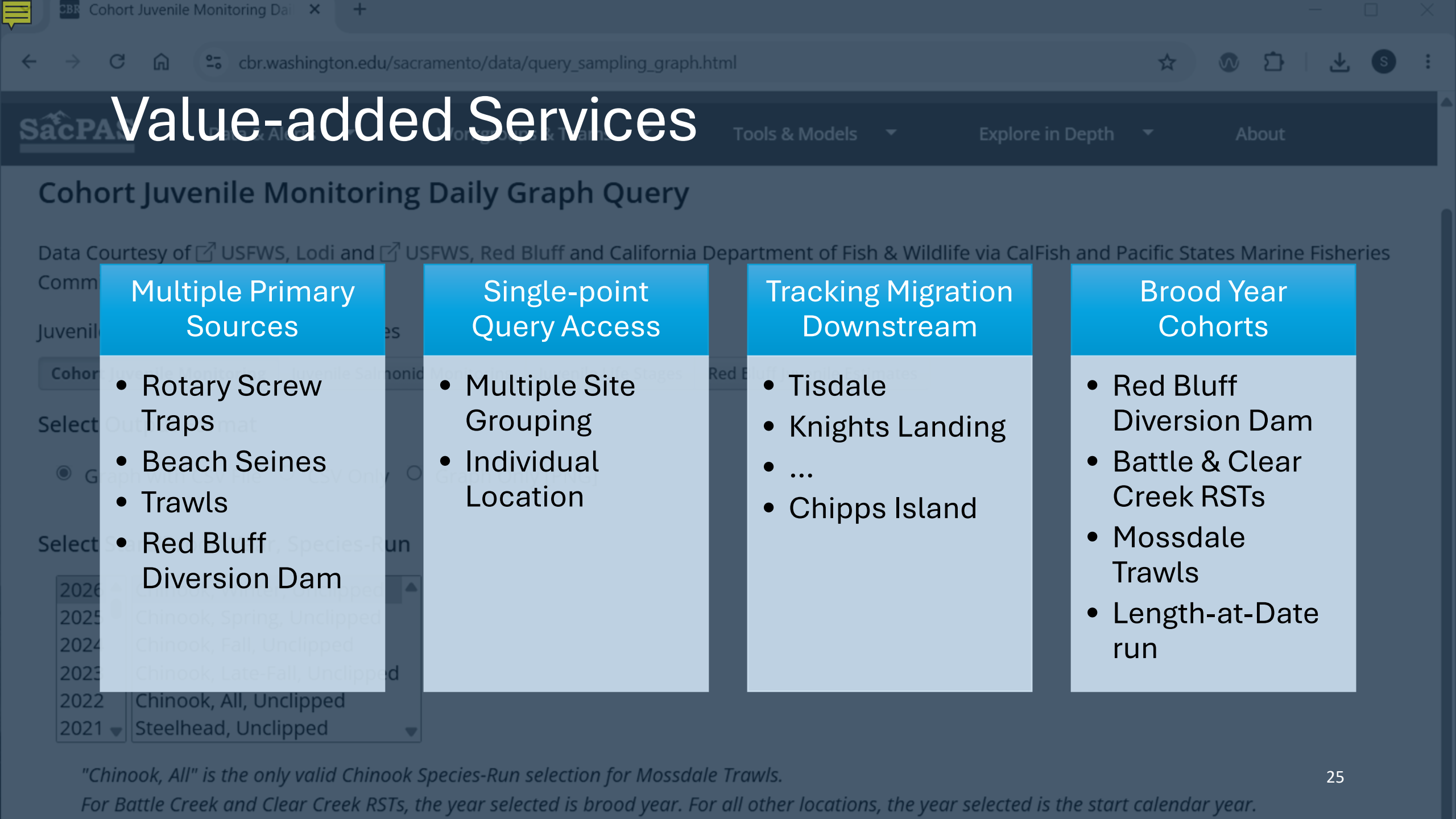
- Space / Time Summary
  - **Cohort Migration Timing ❷**
  - Current Catch
  - CalFish Track Survival Estimates
  - JPE Letter Data

1.1 Cohort Juvenile Monitoring

- [Cohort Juvenile Monitoring Daily Graph Query]



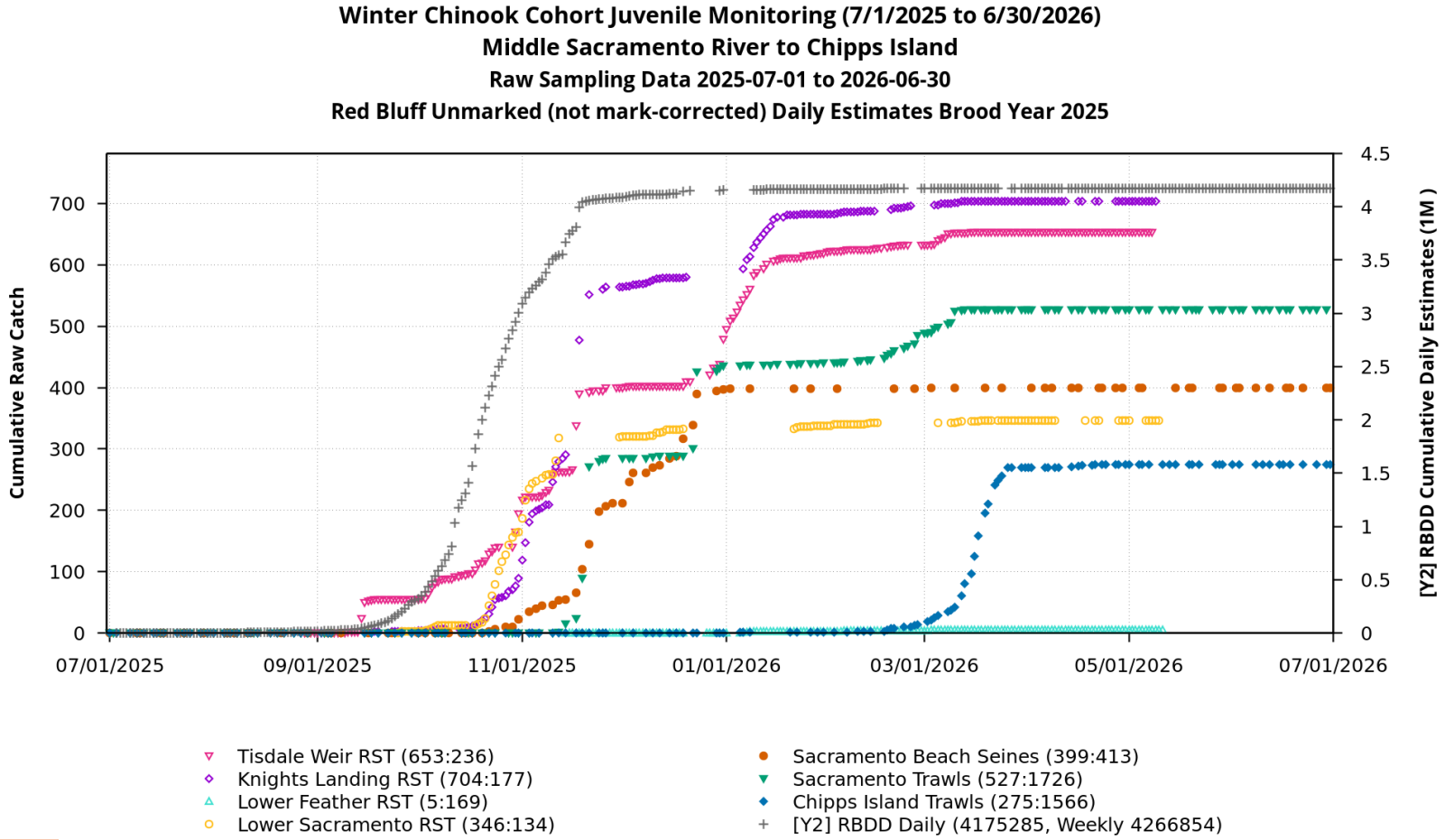
Value-added Services



Multiple Primary Sources	Single-point Query Access	Tracking Migration Downstream	Brood Year Cohorts
• Rotary Screw Traps • Beach Seines • Trawls • Red Bluff Diversion Dam	• Multiple Site Grouping • Individual Location	• Tisdale • Knights Landing • … • Chipps Island	• Red Bluff Diversion Dam • Battle & Clear Creek RSTs • Mossdale Trawls • Length-at-Date run

Results for Query Selections:

2025,
Unclipped Winter Chinook,
Middle Sacramento River to Chipps Island (group),
Cumulative,
Raw Catch,
Include RBDD



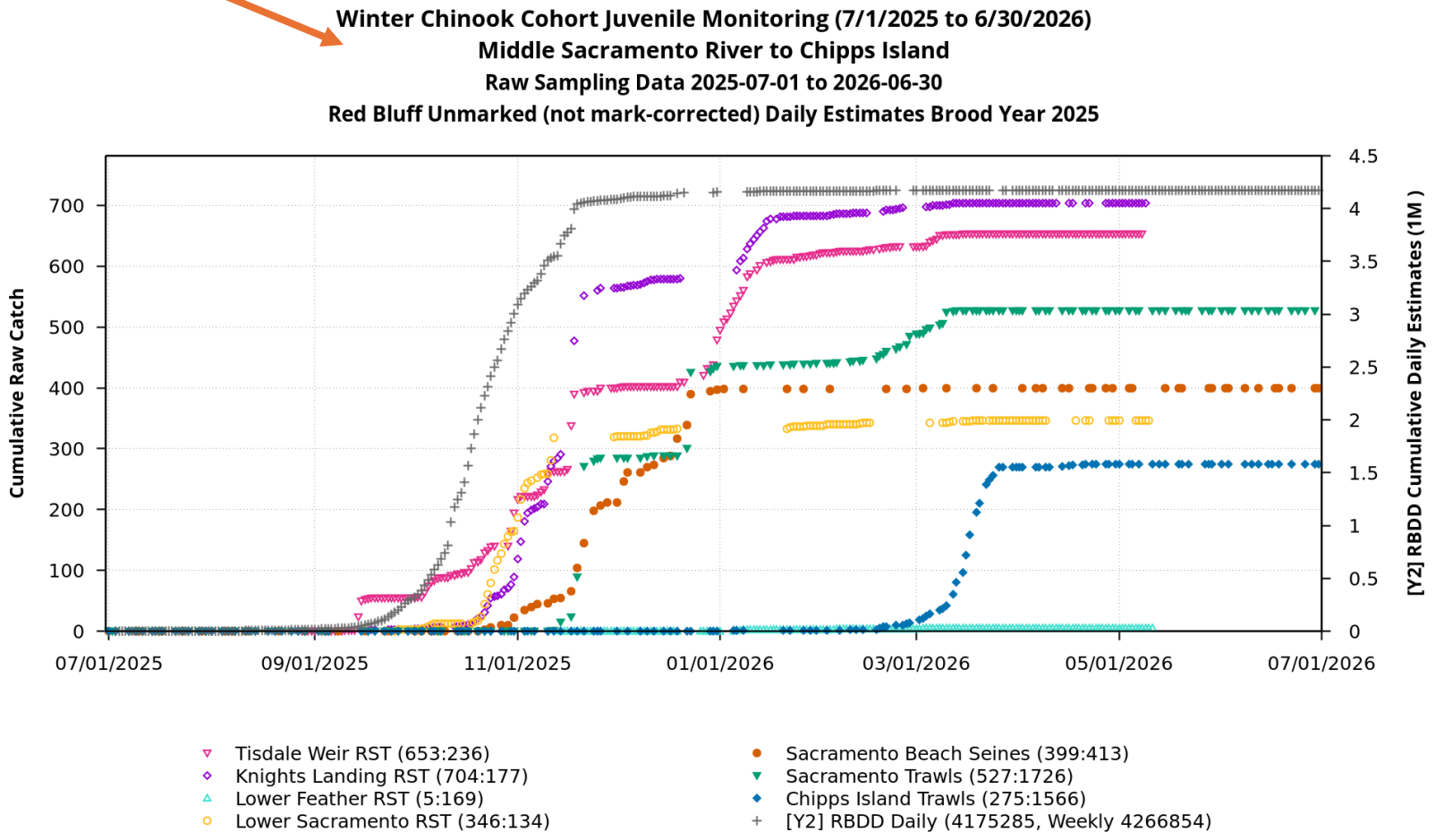
Select Options

- [x] Cumulative Sampling Data
- [ ] Normalized Cumulative Sampling Data
- (•) Raw Catch
- ( ) Catch Index
- [x] Include Red Bluff Diversion Dam Daily Estimates

Detailed Title

Results for Query Selections:

2025,
Unclipped Winter Chinook,
Middle Sacramento River to Chipps Island (group),
Cumulative,
Raw Catch,
Include RBDD



Source and Timestamp

*... scrolling further down the **results** webpage*

Results for Query Selections:

2025,
Unclipped Winter Chinook,
Middle Sacramento River to Chipps Island (group),
Cumulative,
Raw Catch,
Include RBDD

Cohort Juvenile Monitoring Winter Chinook (7/1/2025 to 6/30/2026)
Cumulative Sampling Data 2025-07-01 to 2026-06-30
with Red Bluff Daily Estimates Brood Year 2025

Date	Tisdale Weir RST	Knights Landing RST	Lower Feather RST	Lower Sacramento RST	Sacramento Beach Seines (SR080E SR071E SR062E SR057E SR055E SR060E AM001S SR049E)		Sacramento Trawls (SR055M SR055E SR055W SR055X)		Chipps Island Trawls (SB018M SB018N SB018S SB018X)		Red Bluff Diversion Dam Unmarked (not mark-corrected) Daily Estimates
	Raw	Raw	Raw	Raw	Raw	Samples	Raw	Samples	Raw	Samples	
2025-07-01					0	4	0	10	0	10	
2025-07-02							0	10			
2025-07-03							0	10	0	10	43
2025-07-04											
2025-07-05											
2025-07-06											
2025-07-07							0	10	0	10	
2025-07-08											
2025-07-09					0	2	0	10	0	10	174
2025-07-10					0	1					346
2025-07-11							0	10	0	10	495

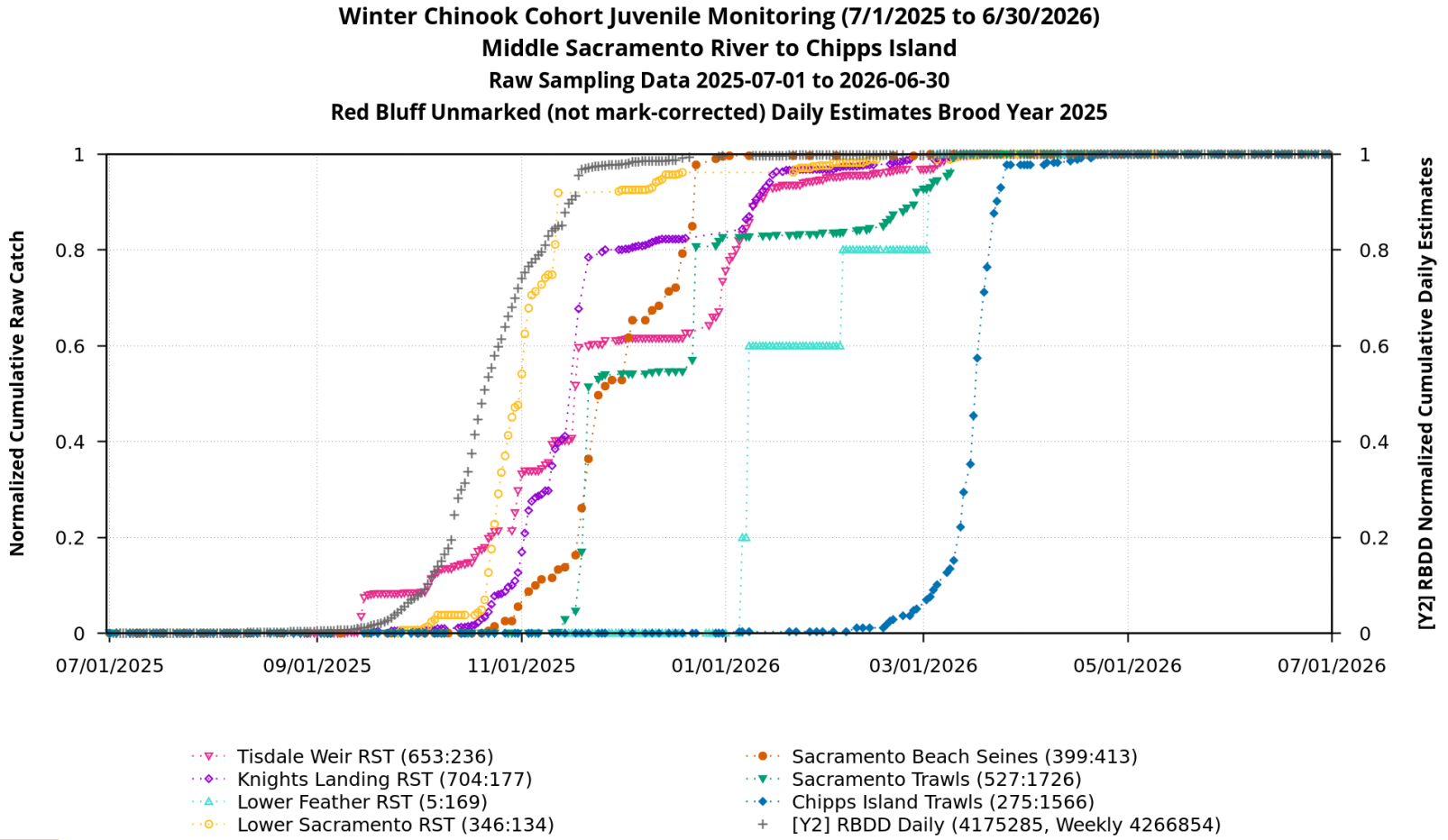
Select Options

- [x] Cumulative Sampling Data
- [ ] Normalized Cumulative Sampling Data
- (•) Raw Catch
- ( ) Catch Index
- [x] Include Red Bluff Diversion Dam Daily Estimates

... checking Normalized query option

Results for Query Selections:

2025,
Unclipped Winter Chinook,
Middle Sacramento River to Chipps Island (group),
Cumulative,
Normalized
Raw Catch,
Include RBDD

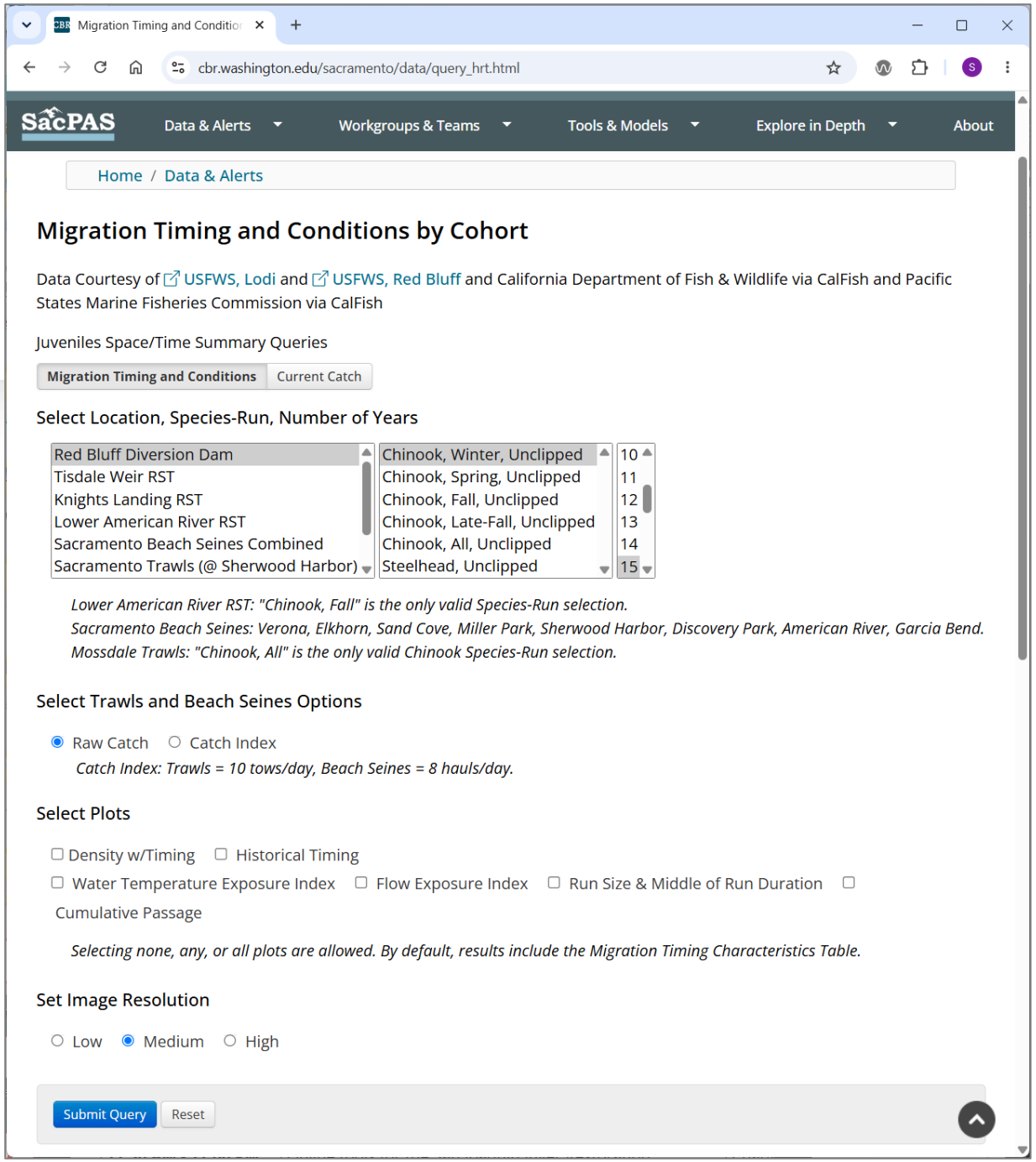


Select Options

- [x] Cumulative Sampling Data
- [x] Normalized Cumulative Sampling Data
- (•) Raw Catch
- ( ) Catch Index
- [x] Include Red Bluff Diversion Dam Daily Estimates

1.2 Cohort Migration Timing

- [Migration Timing and Conditions by Cohort]



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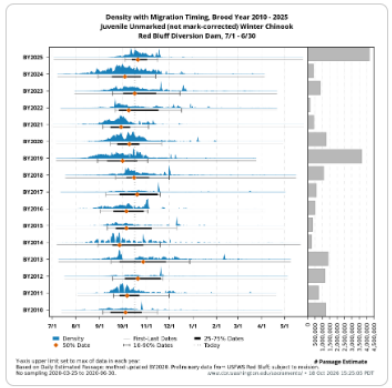
Migration Timing and Condition

cbr.washington.edu/sacramento/data/query_hrt.html

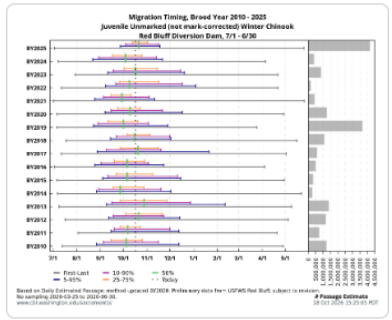
SacPAS | Data & Alerts | Workgroups & Teams | Tools & Models | Explore in Depth | About

Submit Query | Reset

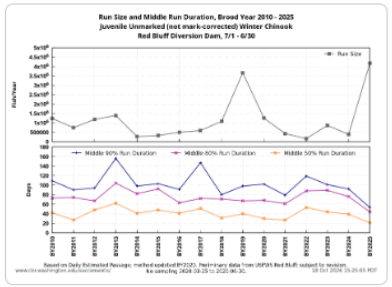
Example Output Plots



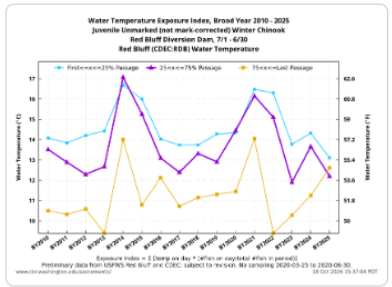
Density with Migration Timing: Red Bluff; Chinook, Winter, Unclipped; 15 years



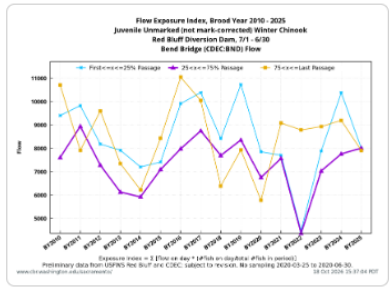
Historical Timing: Red Bluff; Chinook, Winter, Unclipped; 15 years



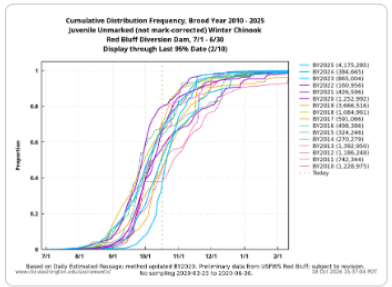
"Run" Size and Middle of Run Duration: Red Bluff; Chinook, Winter, Unclipped; 15 years



Water Temperature Exposure Index: Red Bluff; Chinook, Winter, Unclipped; 15 years



Flow Exposure Index: Red Bluff; Chinook, Winter, Unclipped; 15 years



Cumulative Passage: Red Bluff; Chinook, Winter, Unclipped; 15 years

Query Notes

Value-added Services

Migration Timing and Conditions by Cohort

Data Courtesy of USFWS, Lodi and USFWS, Red Bluff and California Department of Fish & Wildlife via CalFish and Pacific States Marine Fisheries Commission via CalFish

Multiple Primary Sources

- Rotary Screw Traps
- Beach Seines
- Trawls
- Red Bluff Diversion Dam

Brood Year Cohorts

- Red Bluff Diversion Dam
- Mossdale Trawls (calendar)
- Length-at-Date run

Compare Migration across Historical Years

- From 5 to 25 years
- First and Last Dates
- 5, 10,..,50,...95% Dates
- Today's Date Percent

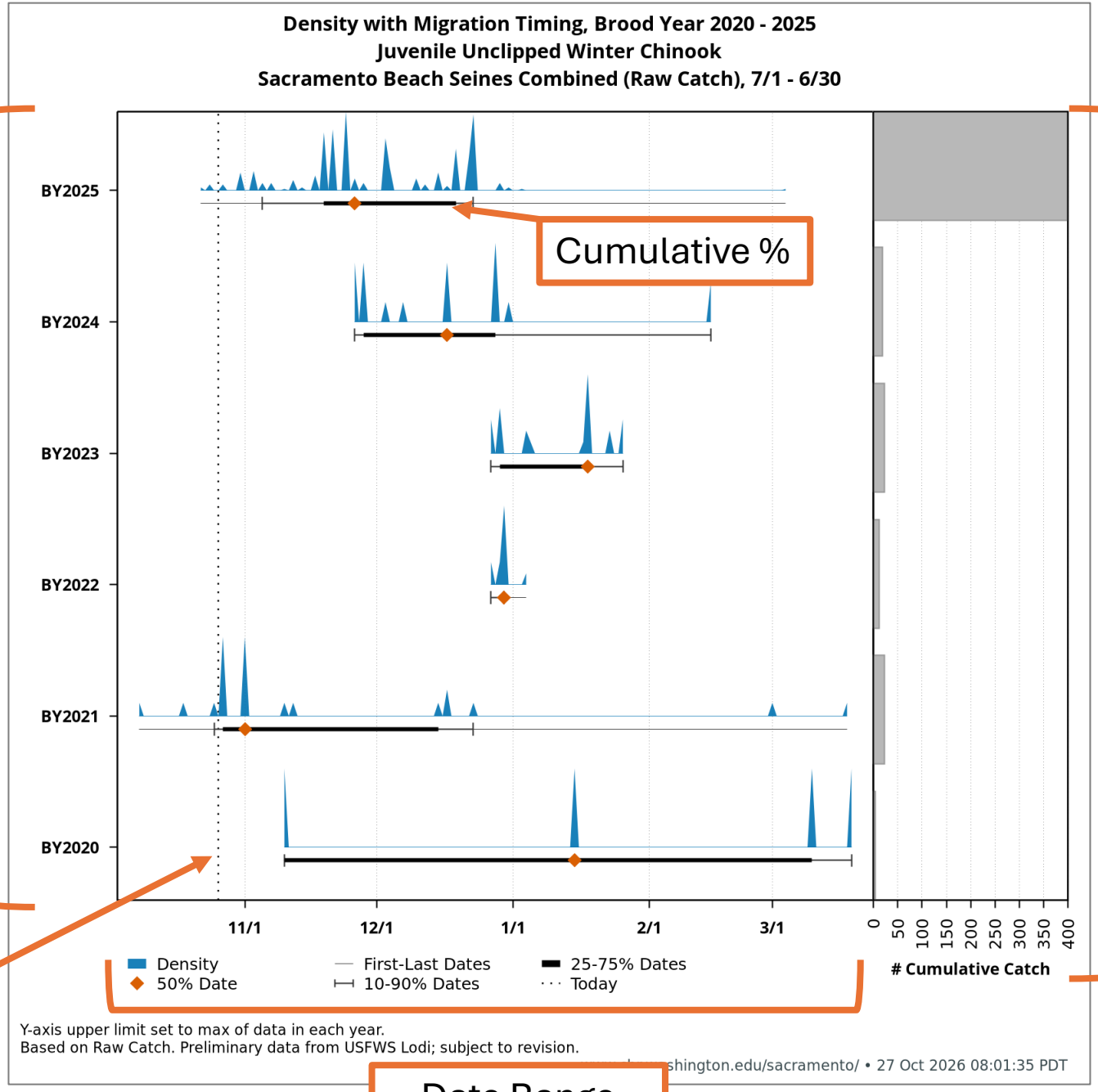
Multiple Plot Options

- Density with Timing – NEW
- Historical Timing
- Run Size and Duration
- Cumulative Passage

Results for Query Selections:

Sacramento Beach Seines Combined,
Unclipped Winter Chinook,
5 Historical Years,
Raw Catch,
Density w/Timing

Brood Years



Cumulative %

Total Passage Estimate or Catch per Year

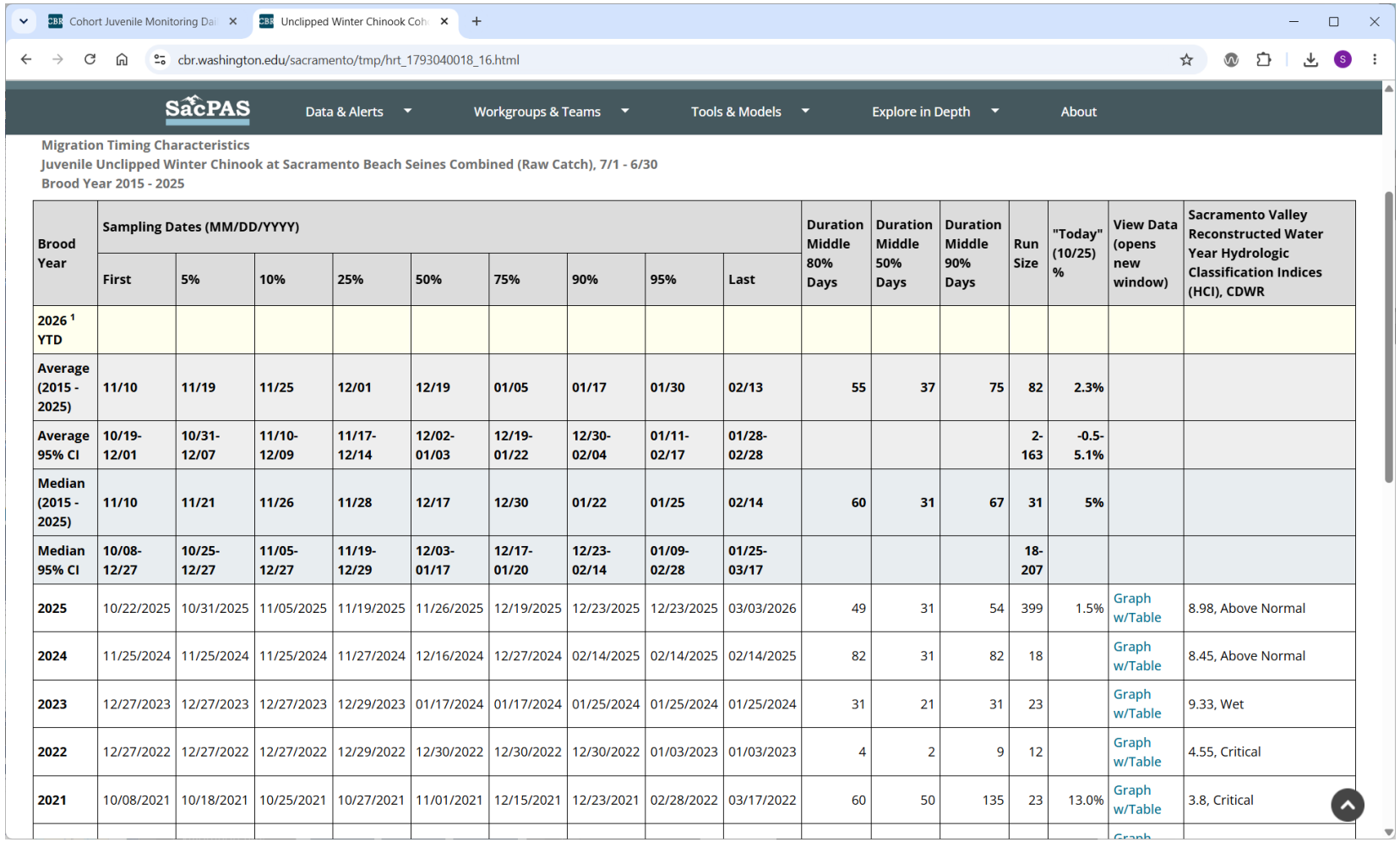
Line marking Today's MM/DD

Date Range

*... scrolling further down the **results** webpage*

Results for Query Selections:

Sacramento Beach Seines Combined,
Unclipped Winter Chinook,
10 Historical Years,
Raw Catch,
Density w/Timing



Cohort Juvenile Monitoring Da | Unclipped Winter Chinook Coh

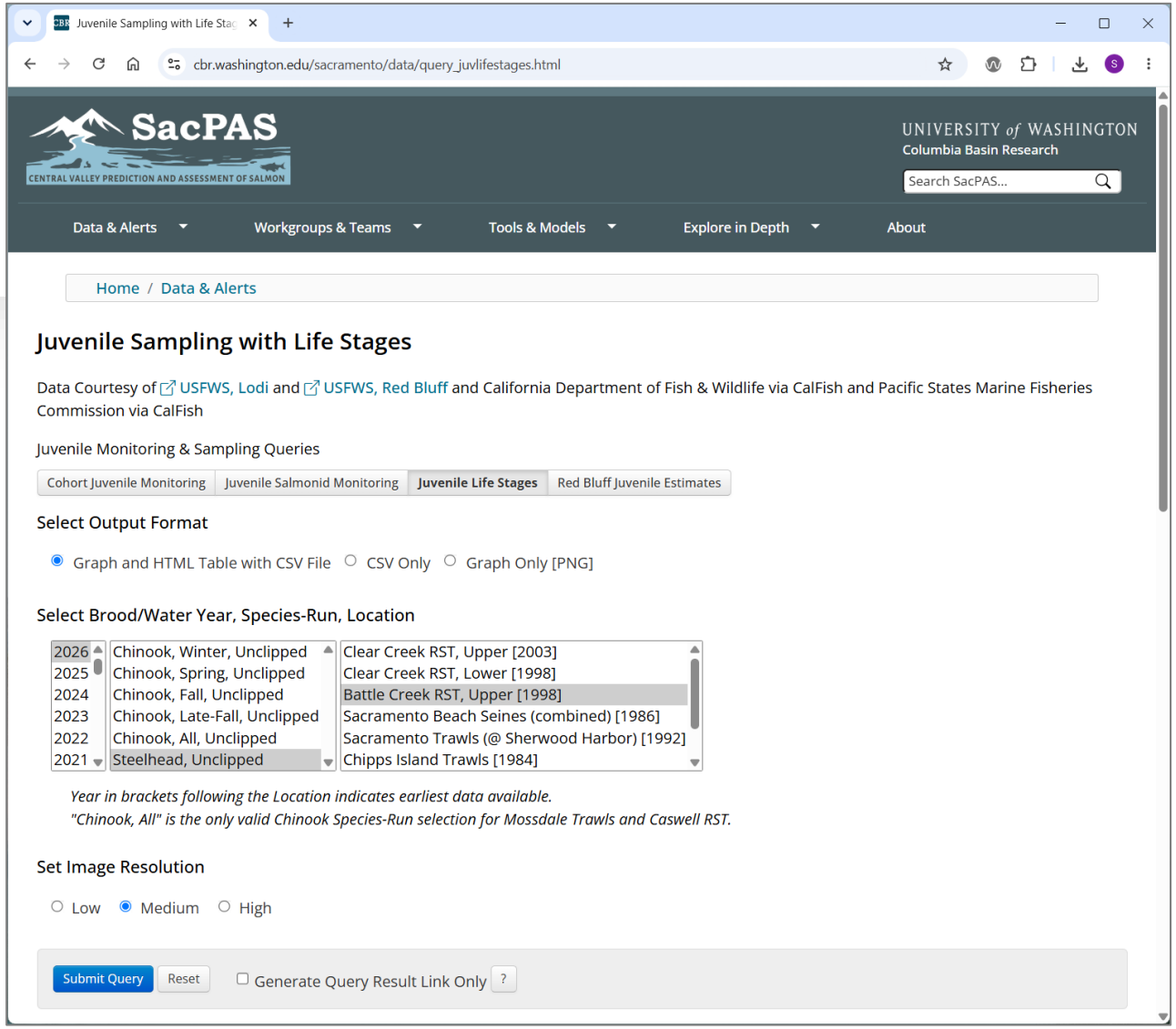
cbr.washington.edu/sacramento/tmp/hrt_1793040018_16.html

SacPAS | Data & Alerts | Workgroups & Teams | Tools & Models | Explore in Depth | About

Migration Timing Characteristics
Juvenile Unclipped Winter Chinook at Sacramento Beach Seines Combined (Raw Catch), 7/1 - 6/30
Brood Year 2015 - 2025

Brood Year	Sampling Dates (MM/DD/YYYY)									Duration Middle 80% Days	Duration Middle 50% Days	Duration Middle 90% Days	Run Size	"Today" (10/25) %	View Data (opens new window)	Sacramento Valley Reconstructed Water Year Hydrologic Classification Indices (HCI), CDWR
	First	5%	10%	25%	50%	75%	90%	95%	Last							
2026 [1] YTD																
Average (2015 - 2025)	11/10	11/19	11/25	12/01	12/19	01/05	01/17	01/30	02/13	55	37	75	82	2.3%		
Average 95% CI	10/19-12/01	10/31-12/07	11/10-12/09	11/17-12/14	12/02-01/03	12/19-01/22	12/30-02/04	01/11-02/17	01/28-02/28				2-163	-0.5-5.1%		
Median (2015 - 2025)	11/10	11/21	11/26	11/28	12/17	12/30	01/22	01/25	02/14	60	31	67	31	5%		
Median 95% CI	10/08-12/27	10/25-12/27	11/05-12/27	11/19-12/29	12/03-01/17	12/17-01/20	12/23-02/14	01/09-02/28	01/25-03/17				18-207			
2025	10/22/2025	10/31/2025	11/05/2025	11/19/2025	11/26/2025	12/19/2025	12/23/2025	12/23/2025	03/03/2026	49	31	54	399	1.5%	Graph w/Table	8.98, Above Normal
2024	11/25/2024	11/25/2024	11/25/2024	11/27/2024	12/16/2024	12/27/2024	02/14/2025	02/14/2025	02/14/2025	82	31	82	18		Graph w/Table	8.45, Above Normal
2023	12/27/2023	12/27/2023	12/27/2023	12/29/2023	01/17/2024	01/17/2024	01/25/2024	01/25/2024	01/25/2024	31	21	31	23		Graph w/Table	9.33, Wet
2022	12/27/2022	12/27/2022	12/27/2022	12/29/2022	12/30/2022	12/30/2022	12/30/2022	01/03/2023	01/03/2023	4	2	9	12		Graph w/Table	4.55, Critical
2021	10/08/2021	10/18/2021	10/25/2021	10/27/2021	11/01/2021	12/15/2021	12/23/2021	02/28/2022	03/17/2022	60	50	135	23	13.0%	Graph w/Table	3.8, Critical

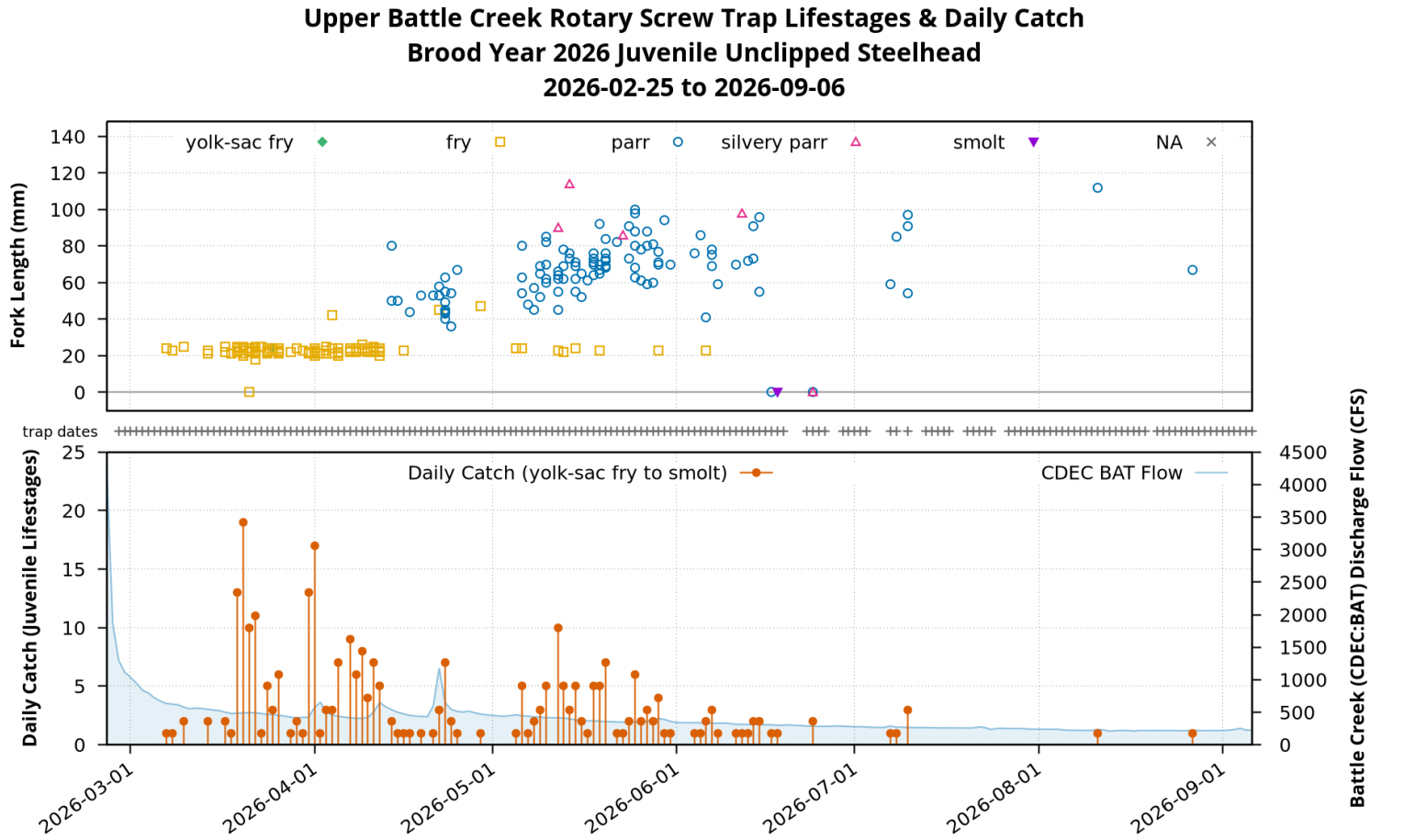
1.3 Juvenile Life Stages



- [Juvenile Sampling with Life Stages]

Results for Query Selections:

2026,
Unclipped Steelhead,
Upper Battle Creek RST

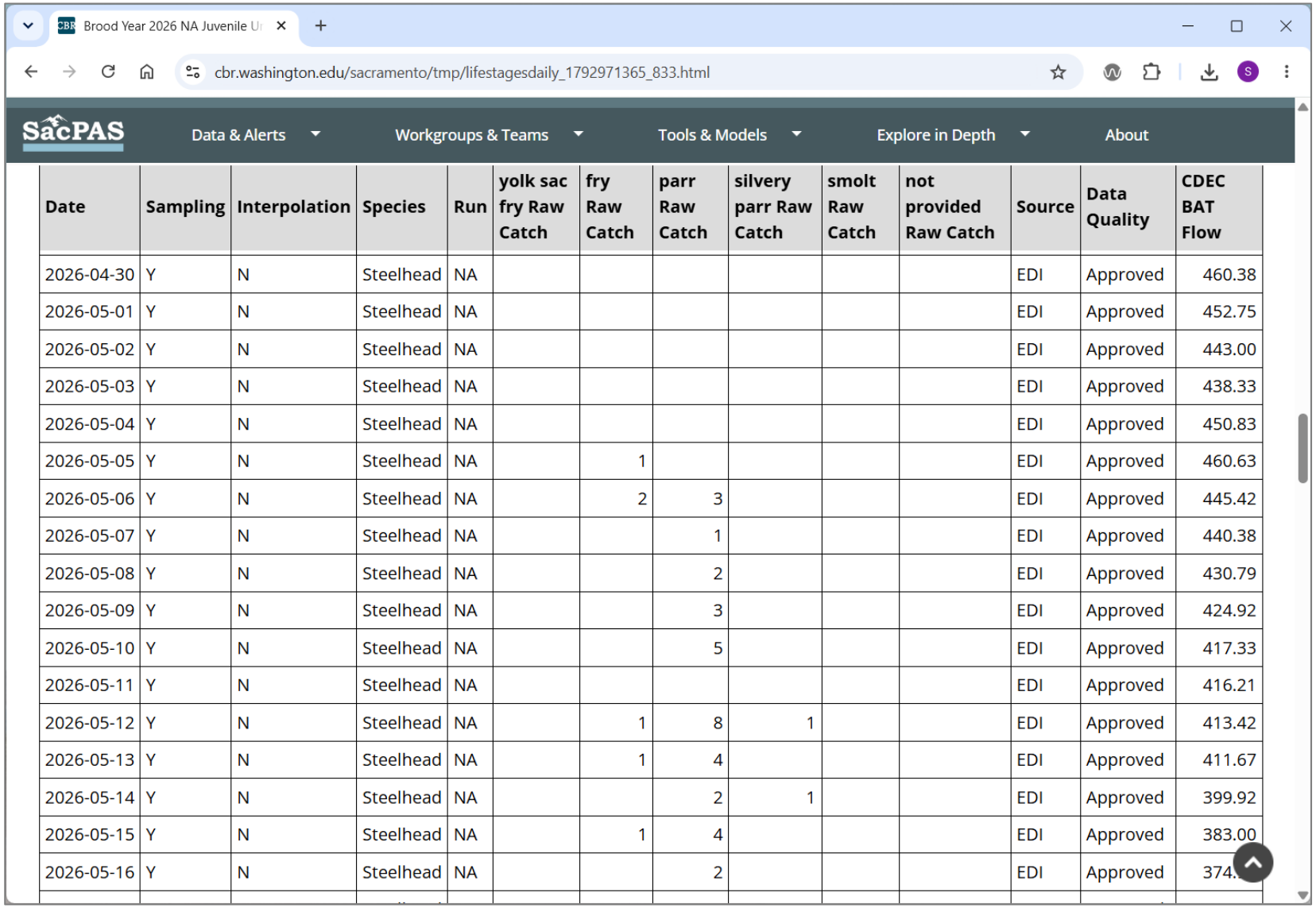


Data sources for transparency

*... scrolling further down the **results** webpage*

Results for Query Selections:

2026,
Unclipped Steelhead,
Upper Battle Creek RST



Date	Sampling	Interpolation	Species	Run	yolk sac fry Raw Catch	fry Raw Catch	parr Raw Catch	silvery parr Raw Catch	smolt Raw Catch	not provided Raw Catch	Source	Data Quality	CDEC BAT Flow
2026-04-30	Y	N	Steelhead	NA							EDI	Approved	460.38
2026-05-01	Y	N	Steelhead	NA							EDI	Approved	452.75
2026-05-02	Y	N	Steelhead	NA							EDI	Approved	443.00
2026-05-03	Y	N	Steelhead	NA							EDI	Approved	438.33
2026-05-04	Y	N	Steelhead	NA							EDI	Approved	450.83
2026-05-05	Y	N	Steelhead	NA		1					EDI	Approved	460.63
2026-05-06	Y	N	Steelhead	NA		2	3				EDI	Approved	445.42
2026-05-07	Y	N	Steelhead	NA			1				EDI	Approved	440.38
2026-05-08	Y	N	Steelhead	NA			2				EDI	Approved	430.79
2026-05-09	Y	N	Steelhead	NA			3				EDI	Approved	424.92
2026-05-10	Y	N	Steelhead	NA			5				EDI	Approved	417.33
2026-05-11	Y	N	Steelhead	NA							EDI	Approved	416.21
2026-05-12	Y	N	Steelhead	NA		1	8	1			EDI	Approved	413.42
2026-05-13	Y	N	Steelhead	NA		1	4				EDI	Approved	411.67
2026-05-14	Y	N	Steelhead	NA			2	1			EDI	Approved	399.92
2026-05-15	Y	N	Steelhead	NA		1	4				EDI	Approved	383.00
2026-05-16	Y	N	Steelhead	NA			2				EDI	Approved	374.

B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes





Juvenile Salvage & Loss Queries

- Delta Loss Graphs
- Delta Salvage Graphs
- Salvage Timing
- Hatchery Chinook Loss Table and CWT Releases
- Salvage and Loss Detail Table

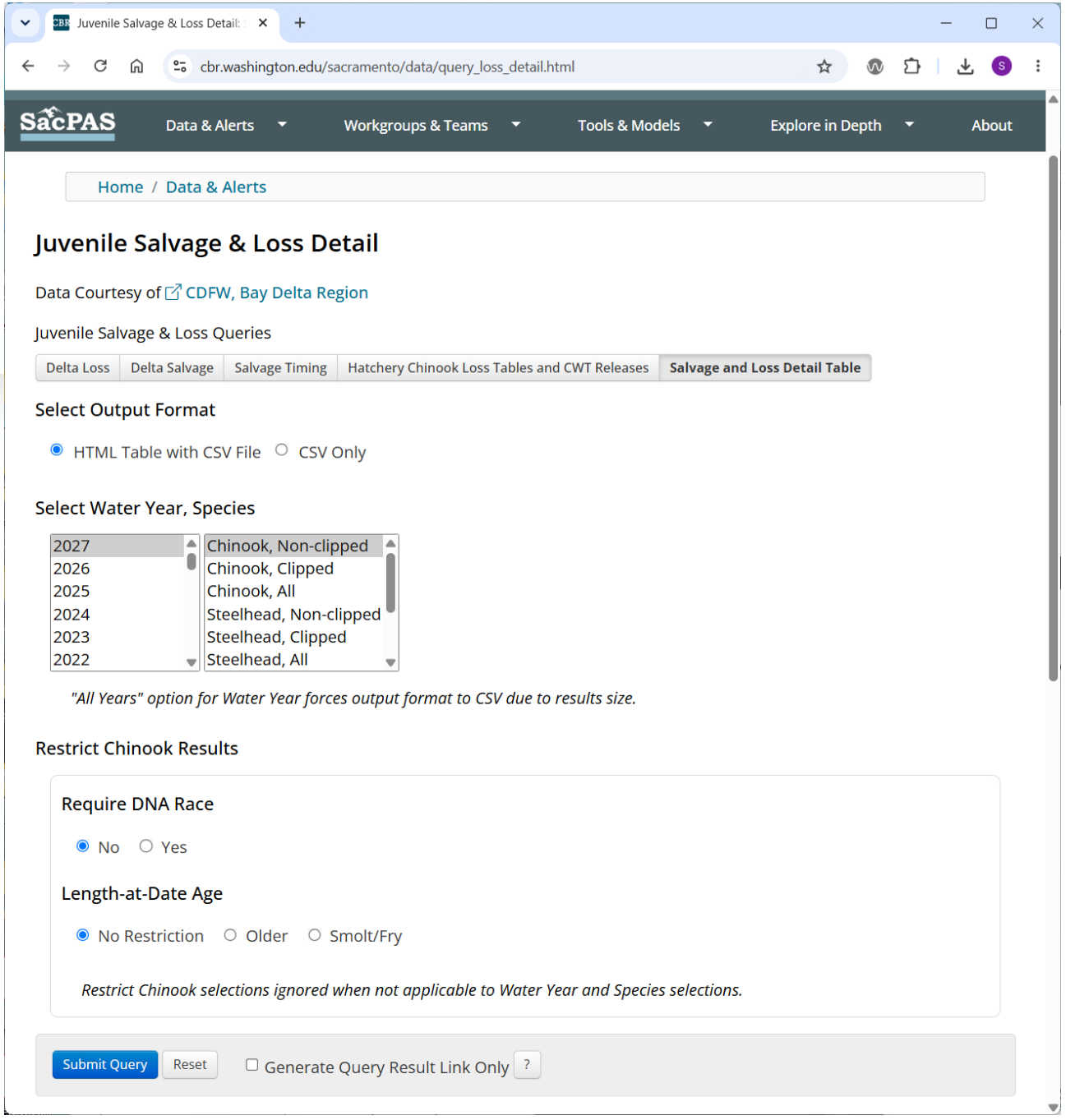


Juvenile Salvage & Loss Queries

- Delta Loss Graphs
- Delta Salvage Graphs
- Salvage Timing
- Hatchery Chinook Loss Table and CWT Releases
- **Salvage and Loss Detail Table**

2.1 Salvage & Loss Detail Table

- [Juvenile Salvage & Loss Detail]



Restrict Chinook Results

Require DNA Race

(•) No ( ) Yes

Length-at-Date Age

(•) No Restriction ( ) Older ( ) Smolt/Fry

Results for query selections: 2026, All Chinook, No, No

Loss and Salvage Details for All Chinook, 10/1/2025 to 9/30/2026

Sample Time	Facility	Species	Adipose Clip	LAD Race	DNA Race	CWT Race	CWT Tagcode	CWT Hatch	CWT Release Type	CWT Release Start	CWT Release End	CWT Release Span Days	CWT Release Location	CWT Release Information Source	Days from Release End to Sample Time	Count Duration (minutes)	Pumping Duration (minutes)	Sample Fraction	Study Type	Length	nfish	Expanded Salvage	Loss	DNA Sample ID	Genetic Probability	Length Row ID	14-day OMRI
2025-12-20 02:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	11	30	120	0.25	Normal count	171	1	4.00	3.19			1973564	-2859
2025-12-21 08:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	12	30	120	0.25	Normal count	165	1	4.00	2.88			1973684	-3278
2025-12-21 18:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	12	30	120	0.25	Normal count	181	1	4.00	2.88			1973685	-3278
2025-12-22 04:00:00	CVP	Chinook Salmon	Unclipped	Fall	Spring											30	120	0.25	Normal count	34	1	4.00	2.54	C251129CVP	0.98699999	1973929	-3587
2025-12-22 04:00:00	CVP	Chinook Salmon	Unclipped	Fall	Spring											30	120	0.25	Normal count	34	1	4.00	2.54	C251127CVP	0.98199999	1973929	-3587
2025-12-22	CVP	Chinook	Unclipped	Fall	Spring											30	120	0.25	Normal	34	1	4.00	2.54	C251125CVP	0.97500002	1973929	-3587

Total columns in the results may vary depending on water year, species, and clip status. With no restrictions, LAD Race, DNA Race, and CWT Race may be present and reported. Columns include all attributes for each.

Restrict Chinook Results

Require DNA Race

(•) No ( ) Yes

Length-at-Date Age

(•) No Restriction ( ) Older ( ) Smolt/Fry

Results for query selections : 2026, All Chinook, No, No

c

Loss and Salvage Details for All Chinook, 10/1/2025 to 9/30/2026

Sample Time	Facility	Species	Adipose Clip	LAD Race	DNA Race	CWT Race	CWT tagcode	CWT Hatch	CWT Release Type	CWT Release Start	CWT Release End	CWT Release Span Days	CWT Release Location	CWT Release Information Source	Days from Release End to Sample Time	Count Duration (minutes)	Pumping Duration (minutes)	Sample Fraction	Study Type	Length	nfish	Expanded Salvage	Loss	DNA Sample ID	Genetic Probability	Length Row ID	14-day OMRI
2025-12-20 02:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	11	30	120	0.25	Normal count	171	1	4.00	3.19			1973564	-2859
2025-12-21 08:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	12	30	120	0.25	Normal count	165	1	4.00	2.88			1973684	-3278
2025-12-21 18:00:00	CVP	Chinook Salmon	Clipped	LateFall		Spring	062199	SCARF	Production	2025-12-08	2025-12-09	2	SAN JOAQ R GRT VAL GR 140	RMIS	12	30	120	0.25	Normal count	181	1	4.00	2.88			1973685	-3278
2025-12-22 04:00:00	CVP	Chinook Salmon	Unclipped	Fall	Spring											30	120	0.25	Normal count	34	1	4.00	2.54	C251129CVP	0.98699999	1973929	-3587
2025-12-22 04:00:00	CVP	Chinook Salmon	Unclipped	Fall	Spring											30	120	0.25	Normal count	34	1	4.00	2.54	C251127CVP	0.98199999	1973929	-3587
2025-12-22	CVP	Chinook	Unclipped	Fall	Spring											30	120	0.25	Normal	34	1	4.00	2.54	C251125CVP	0.97500002	1973929	-3587

A row may represent more than 1 fish (nfish) except in the case of genetic sampling. Expanded Salvage and calculated Loss are reported for each row.

B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes



3. Adults & Redds



Adult Salmonids & Redds Queries

- CDFW GrandTab
- Chinook Carcass Survey Detail
- Aerial Redd
- Redd Dewatering
- PFMC Abundance, Harvest, and Impact Rates

3. Adults & Redds

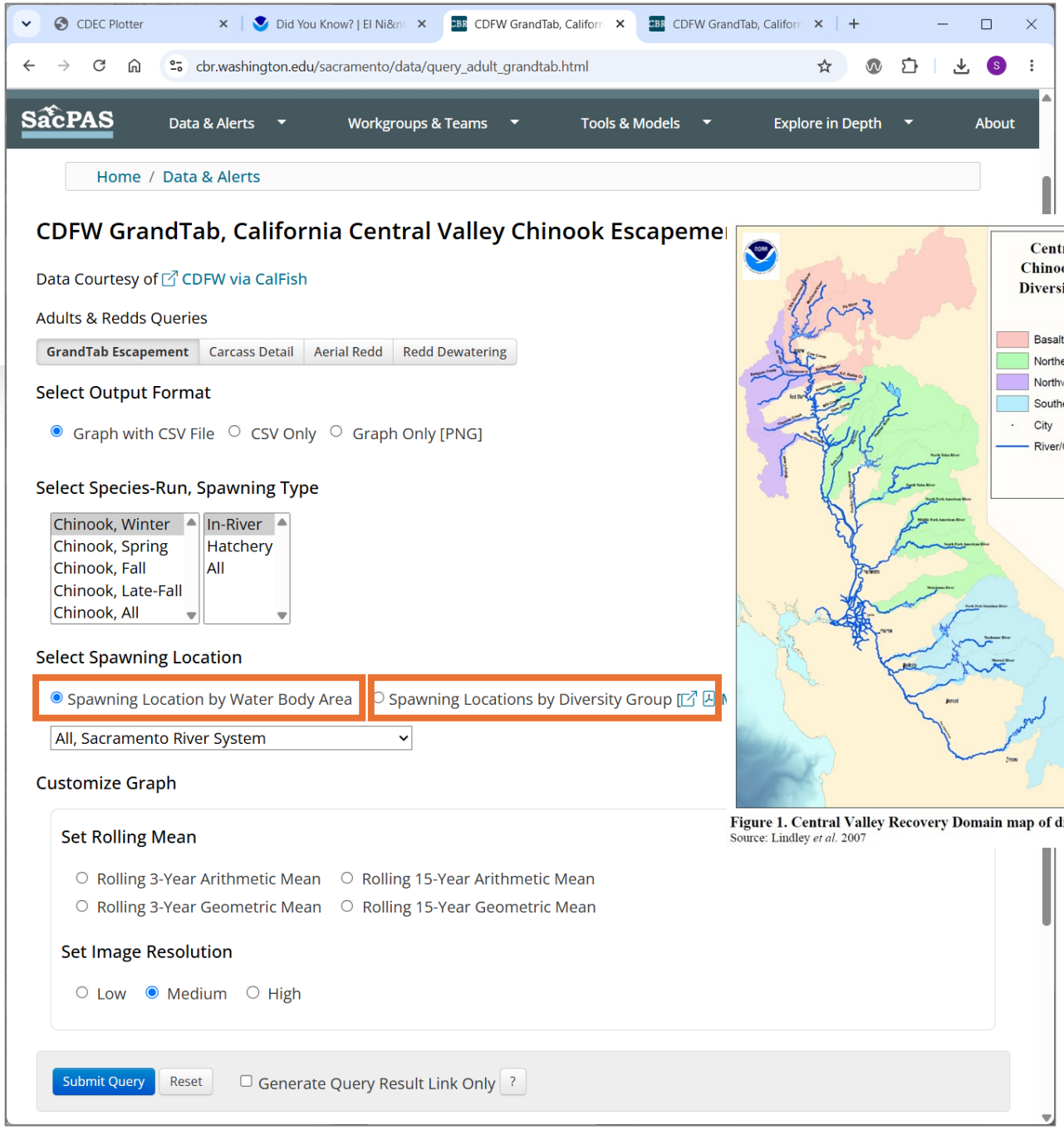


Adult Salmonids & Redds Queries

- **CDFW GrandTab**
- Chinook Carcass Survey Detail
- Aerial Redd
- Redd Dewatering
- PFMC Abundance, Harvest, and Impact Rates

3.1 CDFW GrandTab – Adult Escapement

- [CDFW GrandTab]



Select Spawning Location

○ Spawning Location by Water Body Area ◉ Spawning Locations by Diversity Group

Basalt and Porous Lava DG

Results for Query Selections:

Winter Chinook,
In-River,
Diversity Group,
Basalt and Porous Lava DG,
Rolling 3-Year Mean
(arithmetic)

California Central Valley Chinook Escapement Database Report CDFW GrandTab Adult Escapement

Basalt and Porous Lava Diversity Group

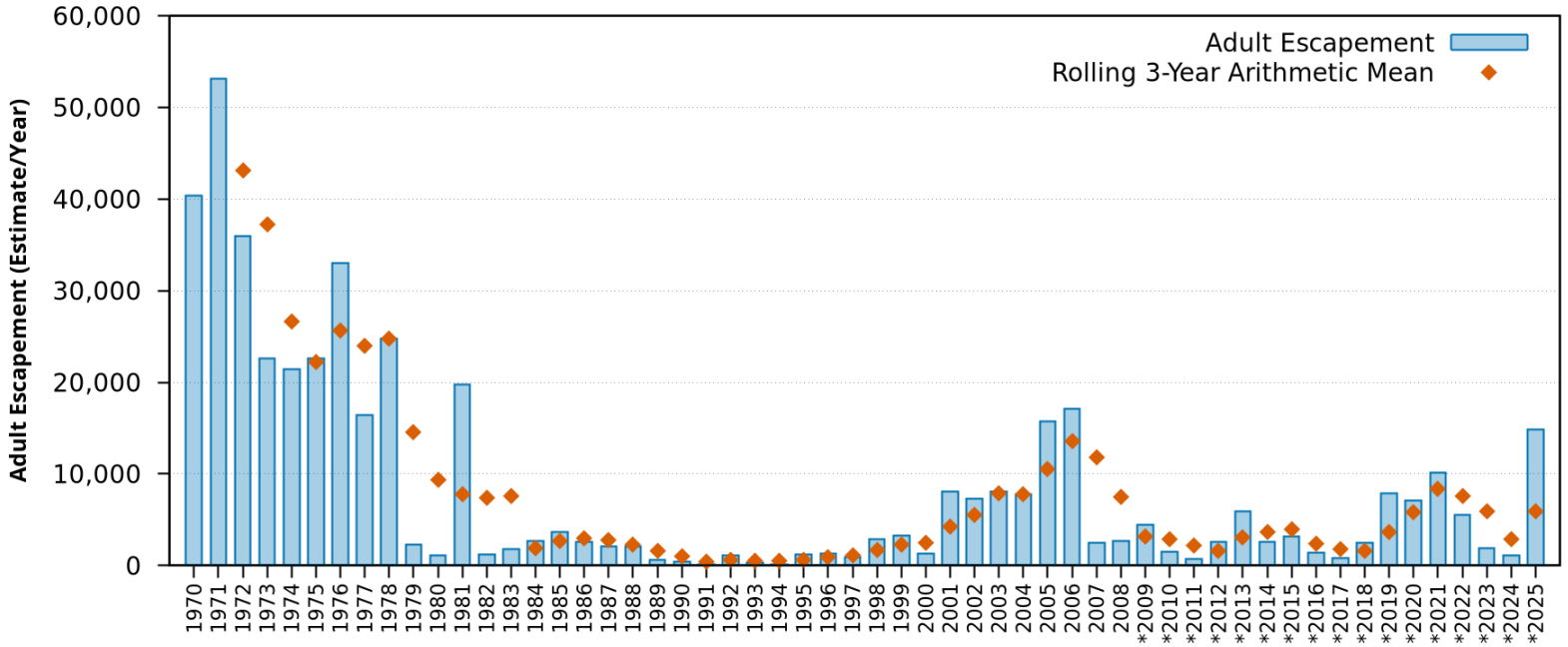
In-River Winter Chinook

Spawn Years 1970-2025

2 Sub Populations

Battle Creek - Upstream of CNFH, Mainstem - Upstream of RBDD

3 GrandTab Data Notes exist for dataset



Data Source:
Azat, J. CDFW GrandTab.
2026.06.22
https://www.calfish.org/ProgramsData/Species/CDFWAnadromousResourceAssessment.aspx

Monitoring period: December to August
* Preliminary Data
www.cbr.washington.edu/sacramento/
27 Oct 2026 15:13:35 PDT

*... scrolling further down the **results** webpage*

Results for Query Selections:

Winter Chinook,
In-River,
Diversity Group,
Basalt and Porous Lava DG,
Rolling 3-Year Mean
(arithmetic)

GrandTab Data and Query Notes

1. Winter In-River Battle Creek - Upstream of CNFH: Fish passed upstream of Coleman Weir.
2. Winter In-River Mainstem - Upstream of RBDD: Upstream mainstem in-river estimates prior to 2001 were based on RBDD counts. Subsequent estimates are based on carcass surveys. Numbers using RBDD data are adjusted for angler harvest.
3. An asterisk (*) indicates annual escapement and mean are not final, data is Preliminary status.
4. Rolling 3-Year Arithmetic Mean is calculated using the annual escapement for the specified Year and the 2 previous years.
5. To each population in the GrandTab report, CBR assigned a Diversity Group as outlined by NOAA Fisheries in California Central Valley Salmon & Steelhead Recovery Plan.

Rolling 3-Year Arithmetic Mean for California Central Valley Chinook Escapement Database Report
CDFW GrandTab Adult Escapement
Basalt and Porous Lava Diversity Group
In-River Winter Chinook
1970-2025 (December to August)
3 GrandTab Data Notes exist for dataset
2 Sub Populations: Battle Creek - Upstream of CNFH, Mainstem - Upstream of RBDD

End Year of Monitoring Period	Population Estimate	3-Year Rolling Arithmetic Mean	Sub Populations	
			Battle Creek - Upstream of CNFH	Mainstem - Upstream of RBDD
2025 *	14,827	5,945	182	14,645
2024 *	1,078	2,860	54	1,024
2023 *	1,931	5,889	11	1,920
2022 *	5,570	7,625	127	5,443
2021 *	10,165	8,393	167	9,998
2020 *	7,141	5,825	942	6,199
2019 *	7,874	3,710	21	7,853
2018 *	2,459	1,556	1	2,458
2017 *	797	1,797	0	797
2016 *	1,411	2,407	0	1,411

B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes



4. Environmental Conditions



Environmental Conditions Queries

- River Environment
  - Graph & Text
  - River Map Interface
  - Daily Table
  - All Years River Conditions
  - Basin Conditions
  - San Joaquin River Basin Current Conditions

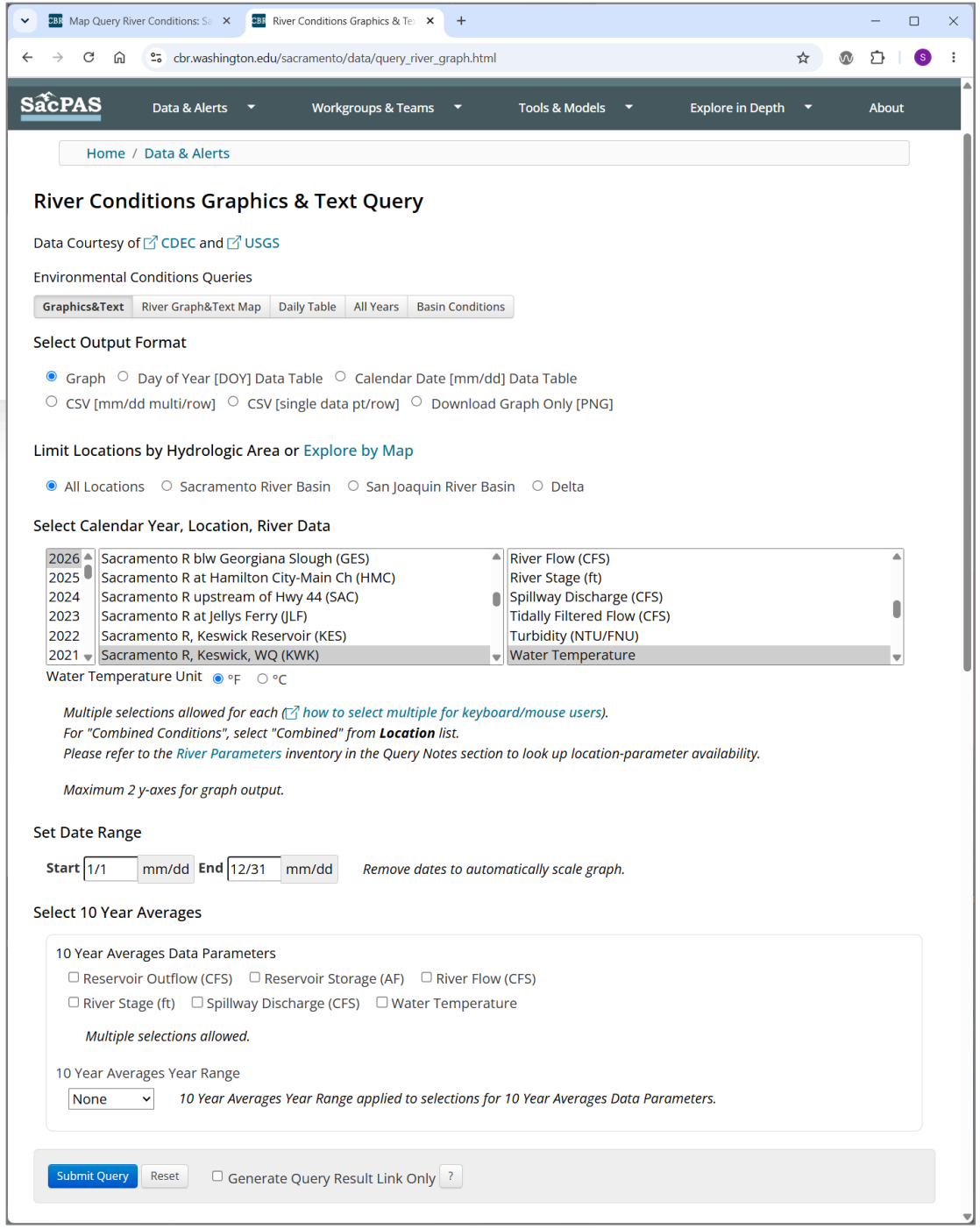
Environmental Conditions Queries

- River Environment
  - **Graph & Text ❶**
  - **River Map Interface ❷**
  - Daily Table
  - **All Years River Conditions ❸**
  - Basin Conditions
  - San Joaquin River Basin Current Conditions



4.1 River Conditions Graphics & Text

- River Conditions Graphics & Text Query



Select Output Format

Graph | Day of Year [DOY] Data Table | Calendar Date [mm/dd] Data Table
CSV [mm/dd multi/row] | CSV [single data pt/row] | Download Graph Only [PNG]

Limit Locations by Hydrologic Area or Explore by Map

All Locations | Sacramento River Basin | San Joaquin River Basin | Delta

Select Calendar Year, Location, River Data

2019
2018
2017
2016
2015
2014

American R, Folsom Lake (FOL)
American R at Hazel Ave Bridge (AHZ)
American R, Lake Natoma, Nimbus Dam (NAT)
American R blw Watt Ave Bridge (AWB)
American R at William B Pond Park (AWP)
Battle Creek (BAT)

Turbidity (NTU/FNU)
Water Temperature
Water Temperature 7DADM (7 day average daily maximum)
Water Temperature Daily Maximum
Water Velocity (ft/s)

Water Temperature Unit °F | °C

Multiple selections allowed for each (how to select multiple for keyboard/mouse users).
*For "Combined Conditions", select "Combined" from **Location** list.*
Please refer to the River Parameters inventory in the Query Notes section to look up location-parameter availability.

Maximum 2 y-axes for graph output.

Set Date Range

Start 1/1 mm/dd **End** 12/31 mm/dd *Remove dates to automatically scale graph.*

Select 10 Year Averages

10 Year Averages Data Parameters

Reservoir Outflow (CFS) | Reservoir Storage (AF) | River Flow (CFS)
River Stage (ft) | Spillway Discharge (CFS) | Water Temperature

Multiple selections allowed.

10 Year Averages Year Range

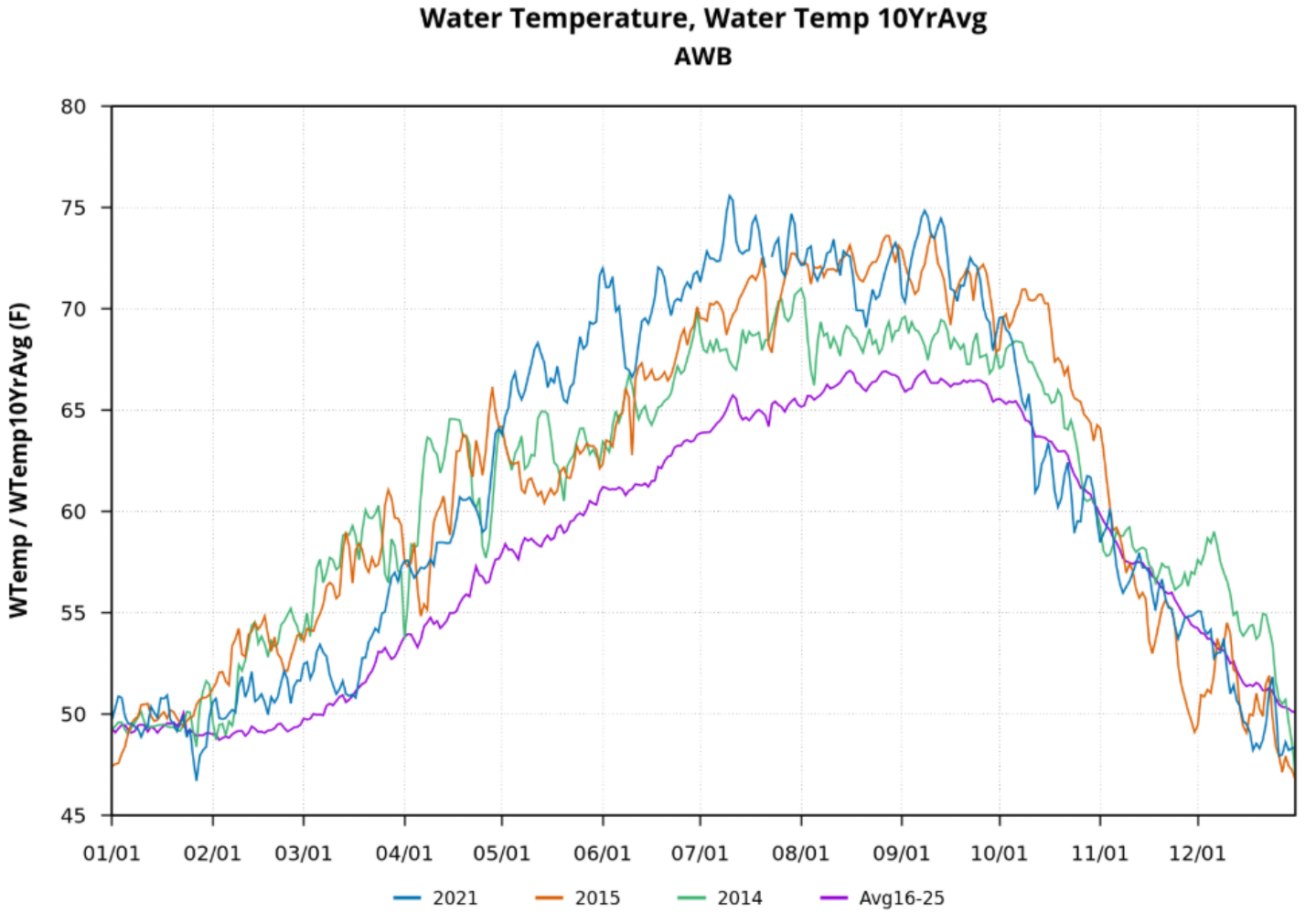
2025-2016

10 Year Averages Year Range applied to selections for 10 Year Averages Data Parameters.

Results for Query Selections:

2021, 2015, 2014,
American R Watt Ave Bridge (AWB),
Water Temperature,
1/1 – 12/31,
10 Year Averages Water Temp,
2025-2016 Avg Year Range

browser back | query page | download csv



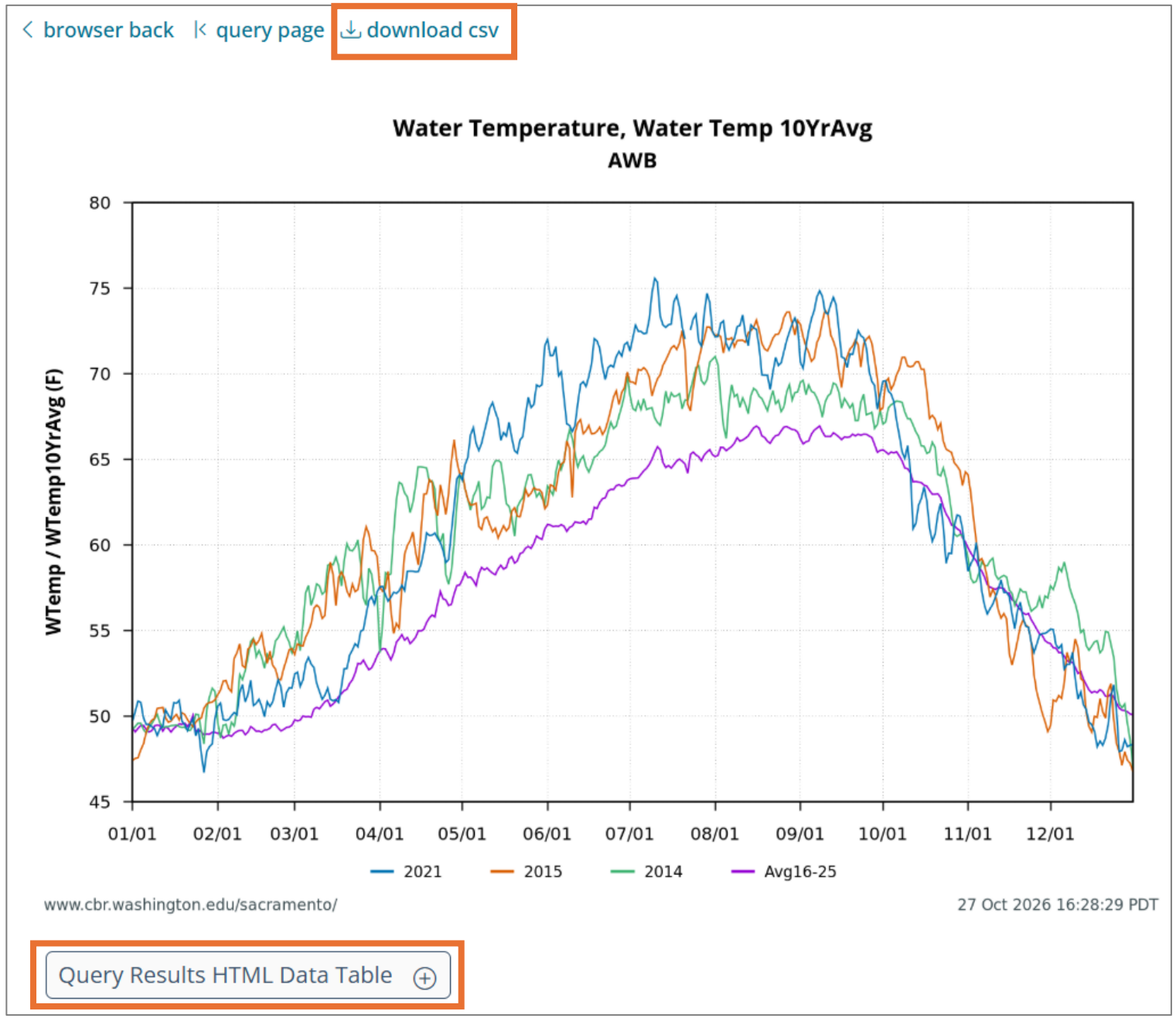
www.cbr.washington.edu/sacramento/

27 Oct 2026 16:28:29 PDT

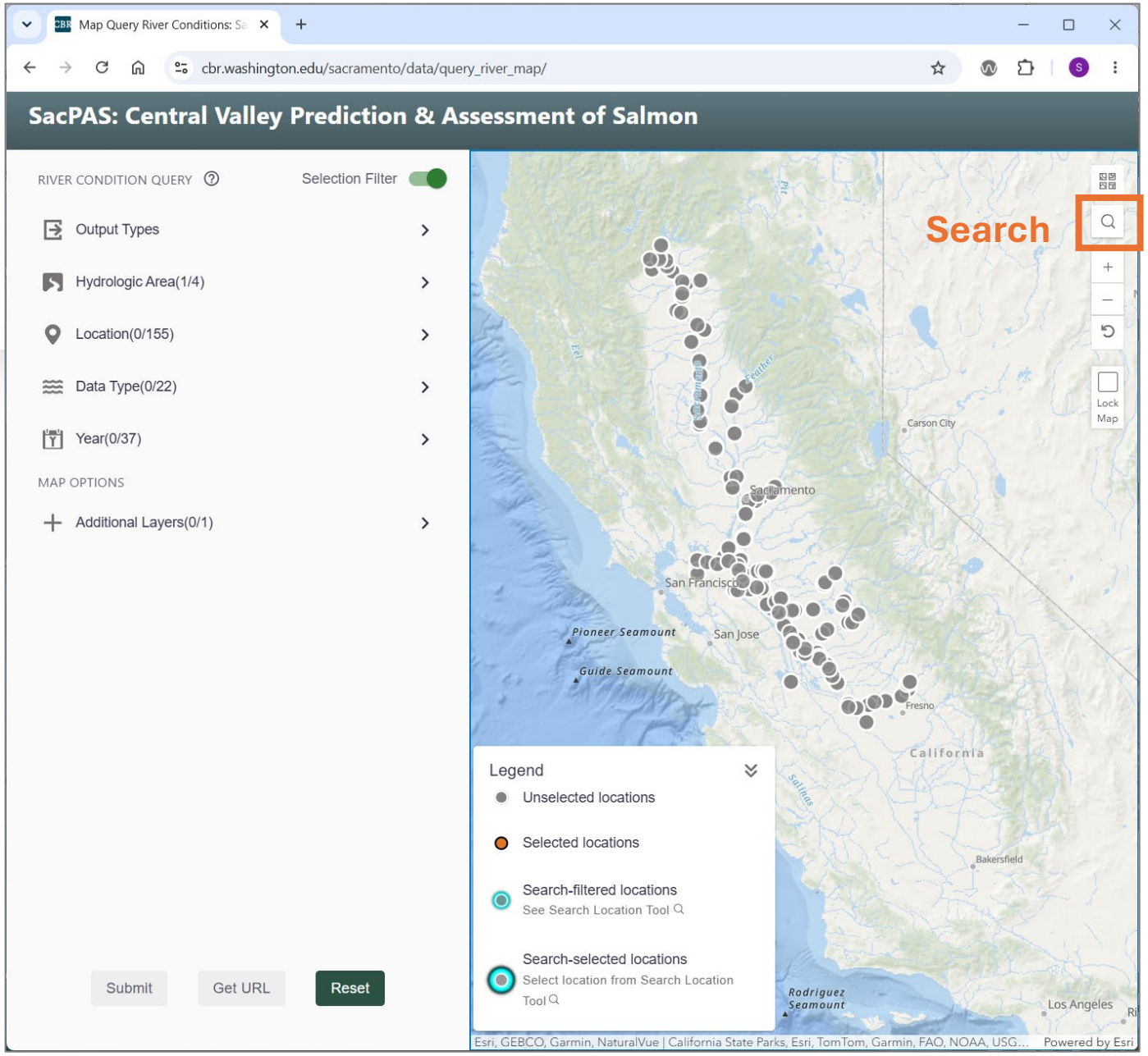
Query Results HTML Data Table ⊕

Results for Query Selections:

2021, 2015, 2014,
American R Watt Ave Bridge (AWB),
Water Temperature,
1/1 – 12/31,
10 Year Averages Water Temp,
2025-2016 Avg Year Range

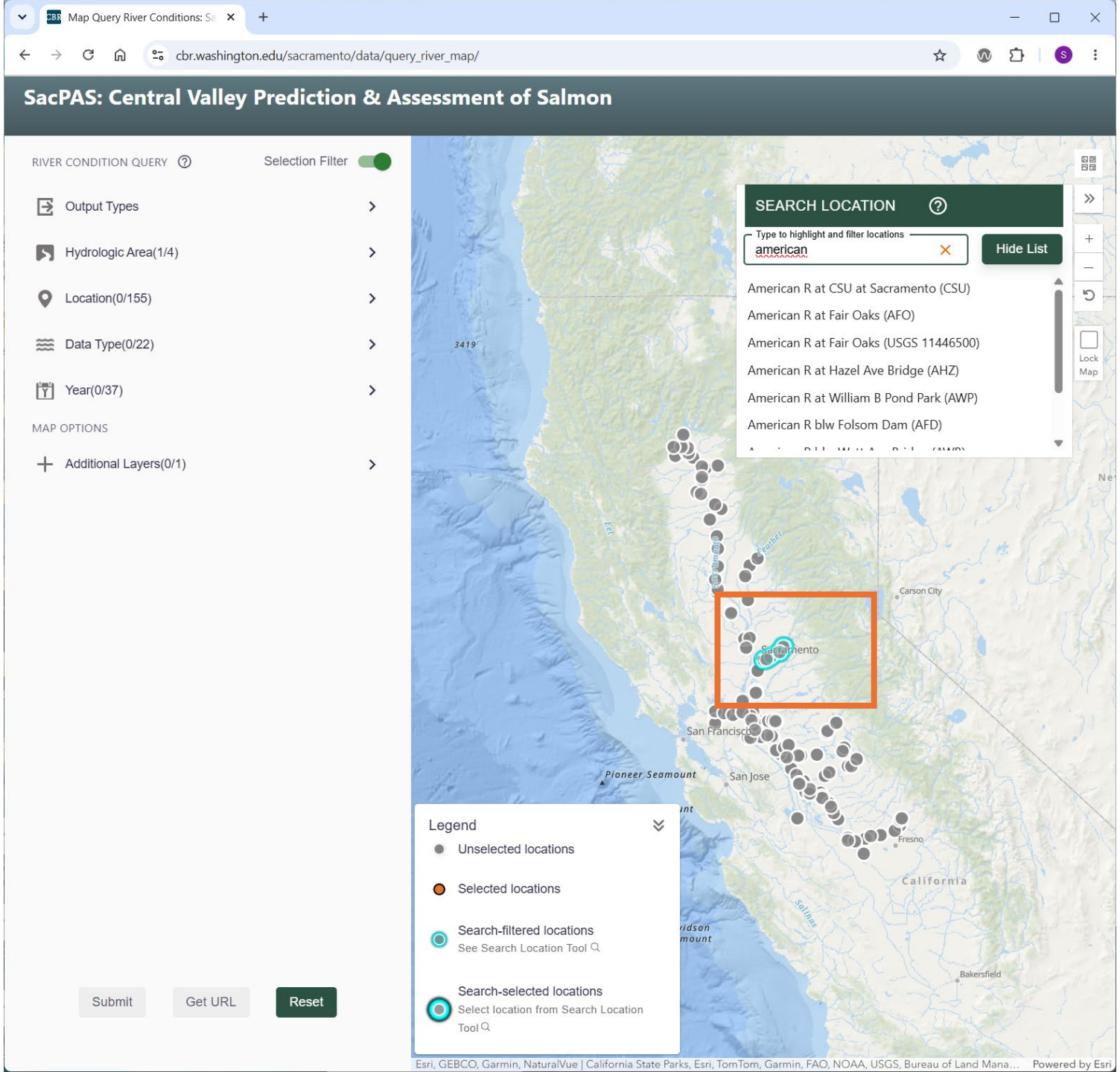


4.2 River Conditions Map Query



- [River Conditions Map Query]

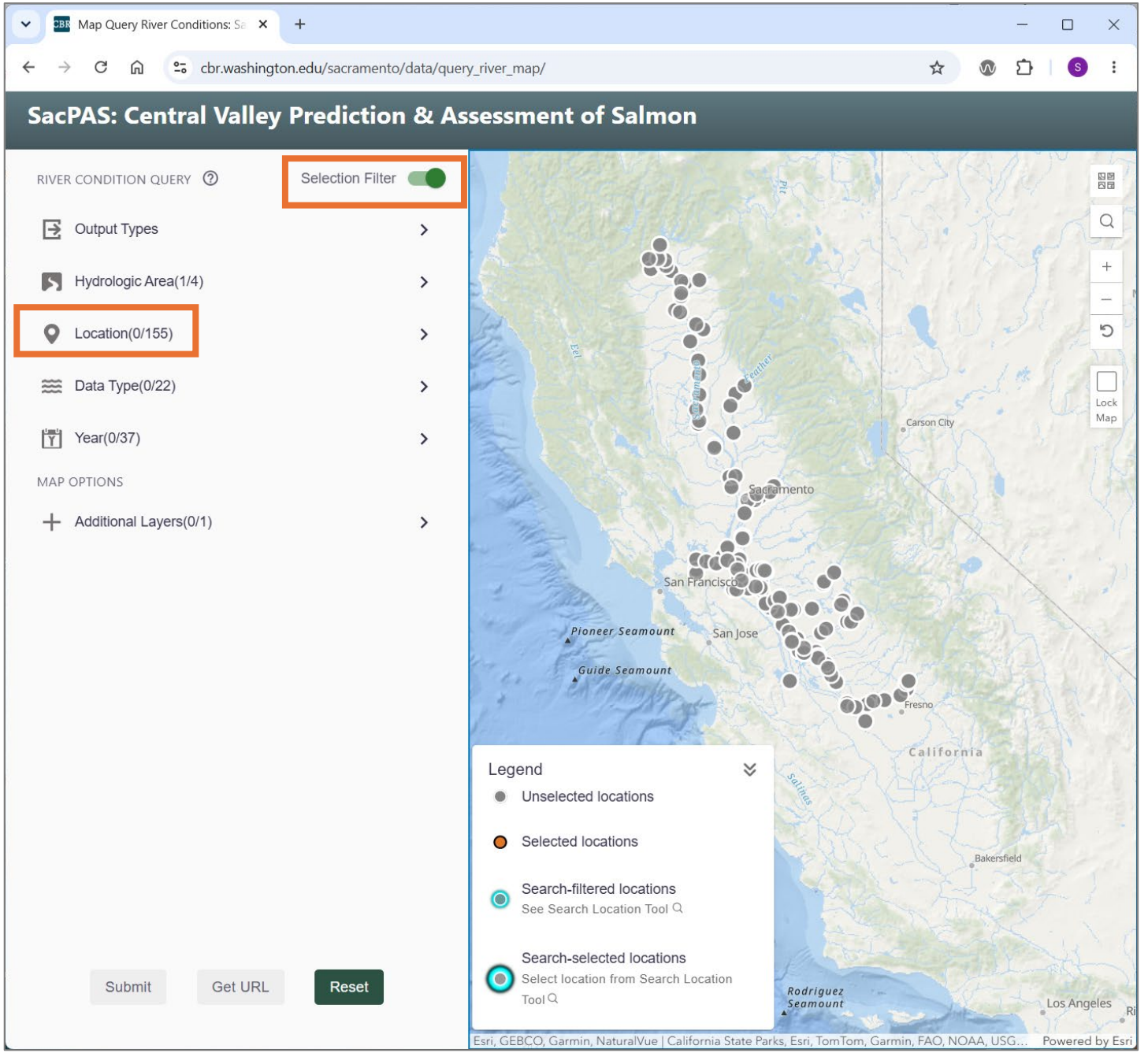
Search Function



Question:

What locations in the American River measure Water Temperature in 2026?

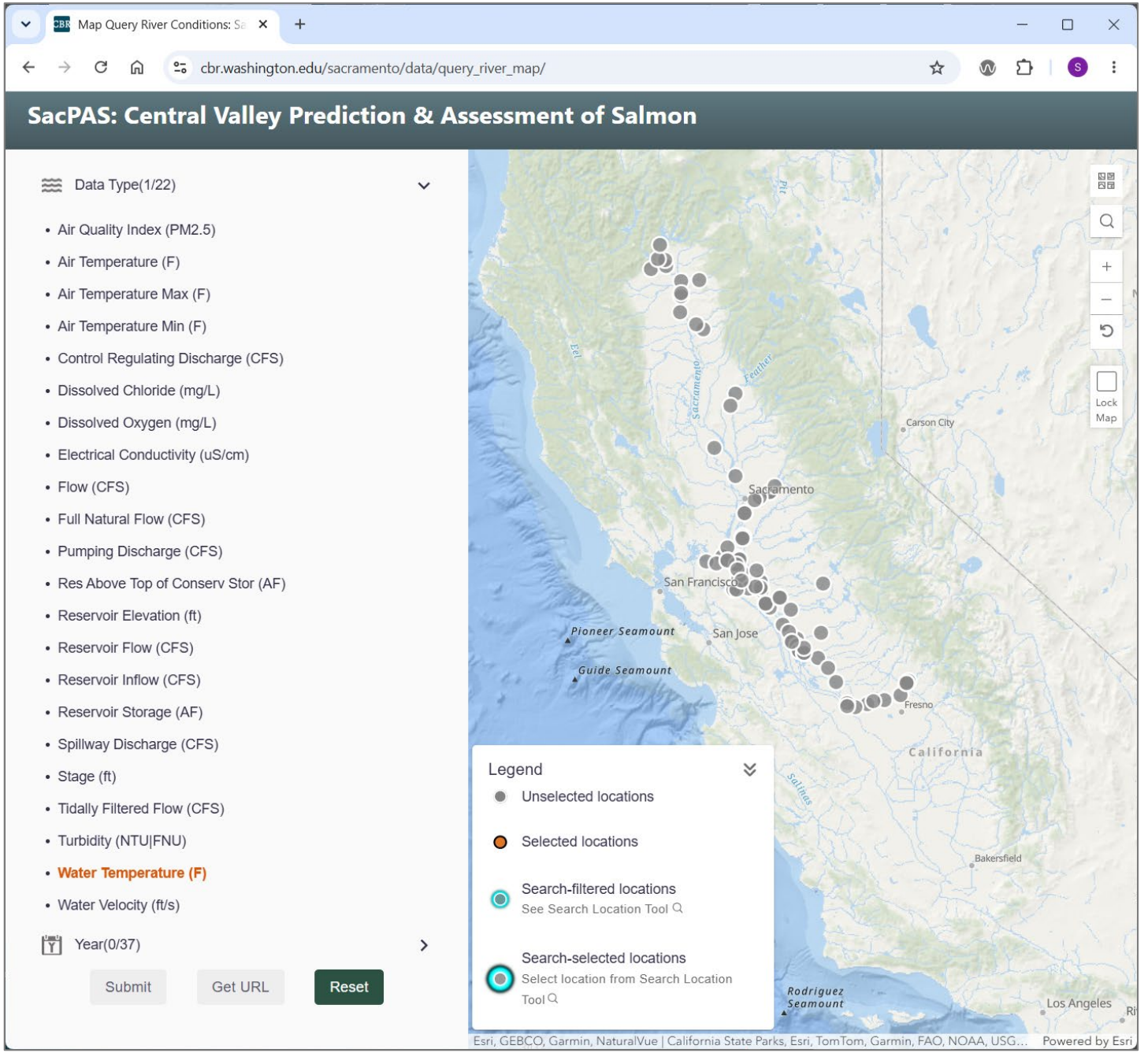
Locations: 155 with no selections



Question:

What locations in the American River measure Water Temperature in 2026?

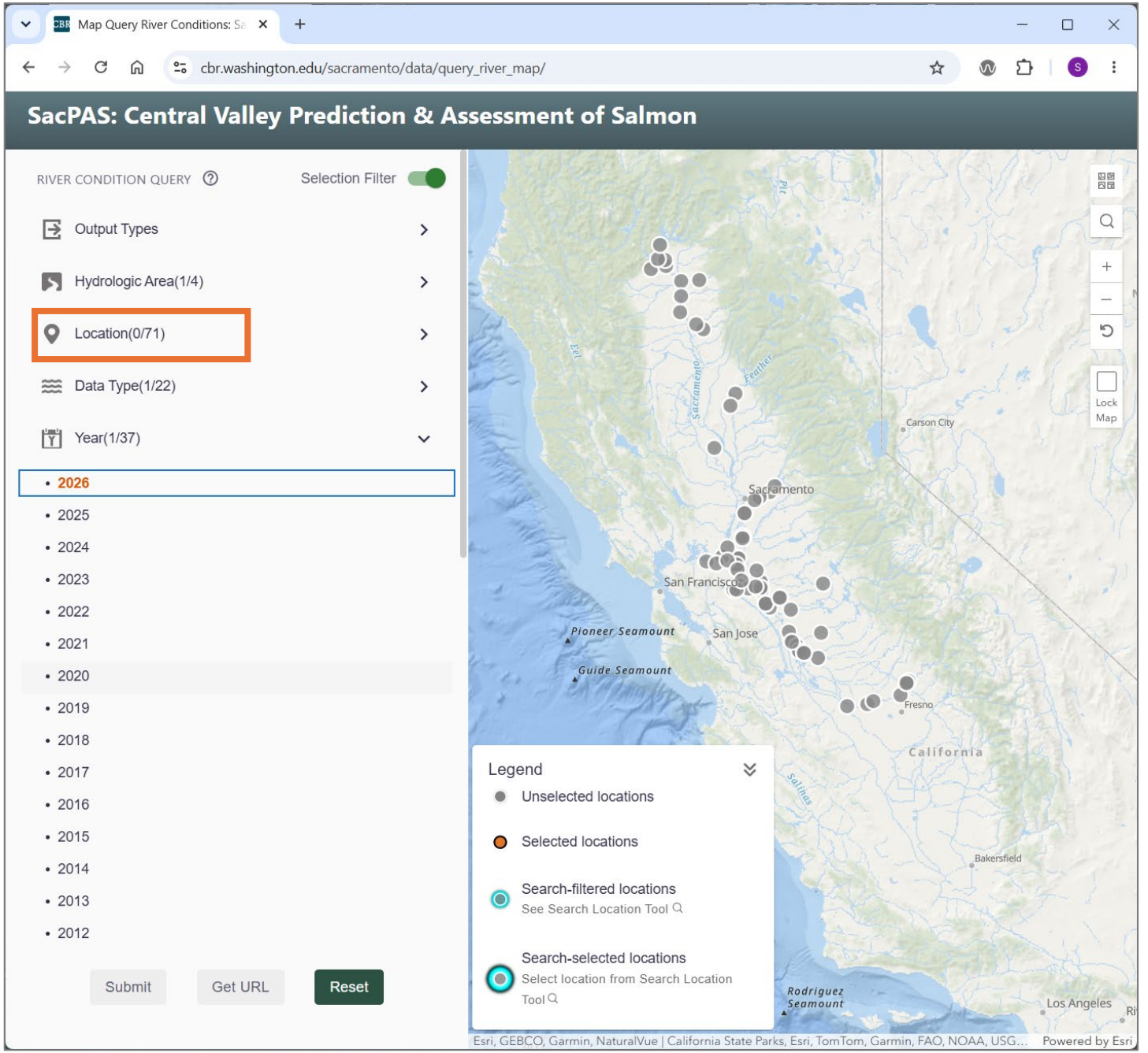
Data Type: Water Temperature



Question:

What locations in the American River measure Water Temperature in 2026?

Year: 2026
71 Locations possible

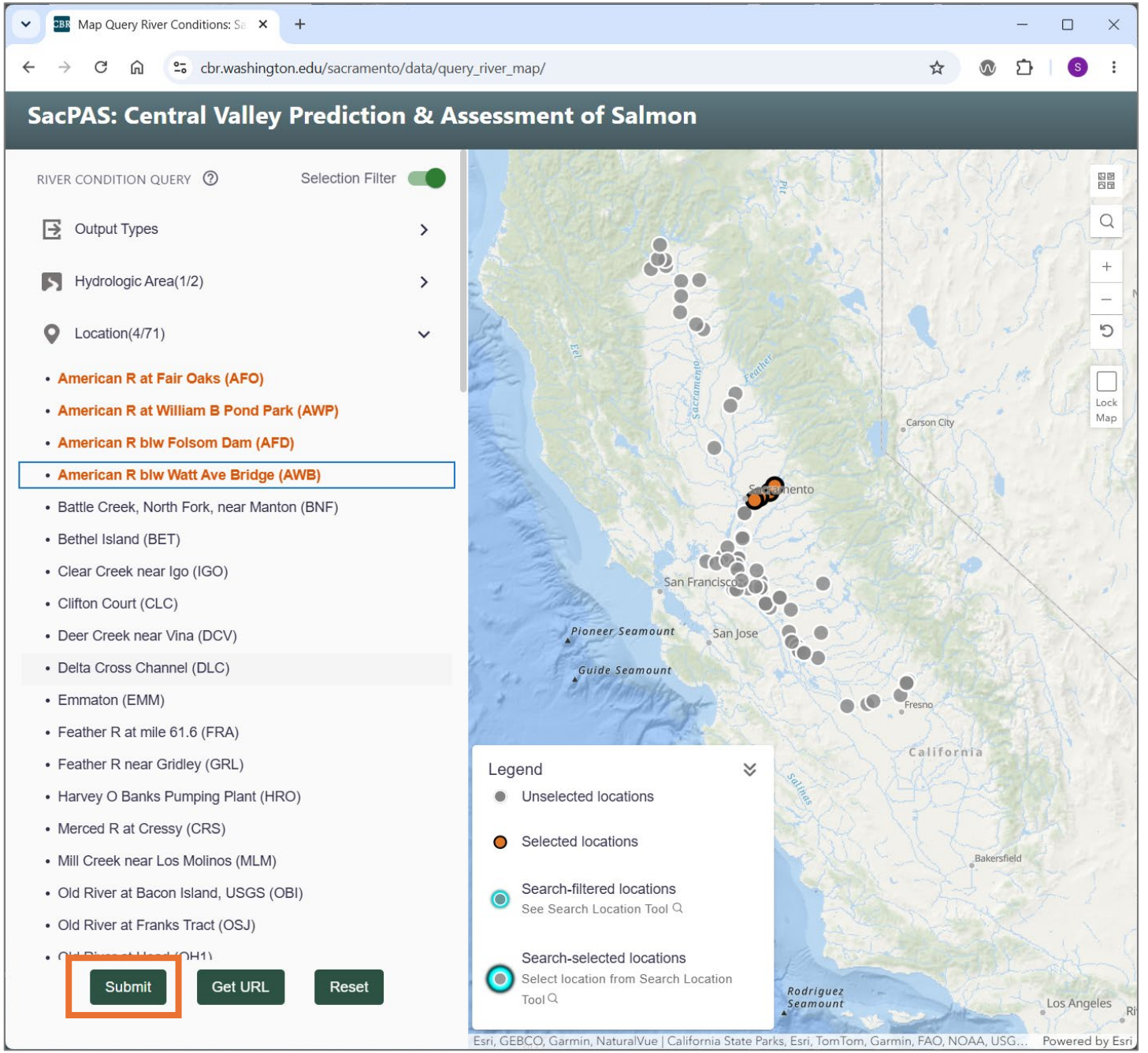


Question:

What locations in the American River measure Water Temperature in 2026?

Locations: American River (all)

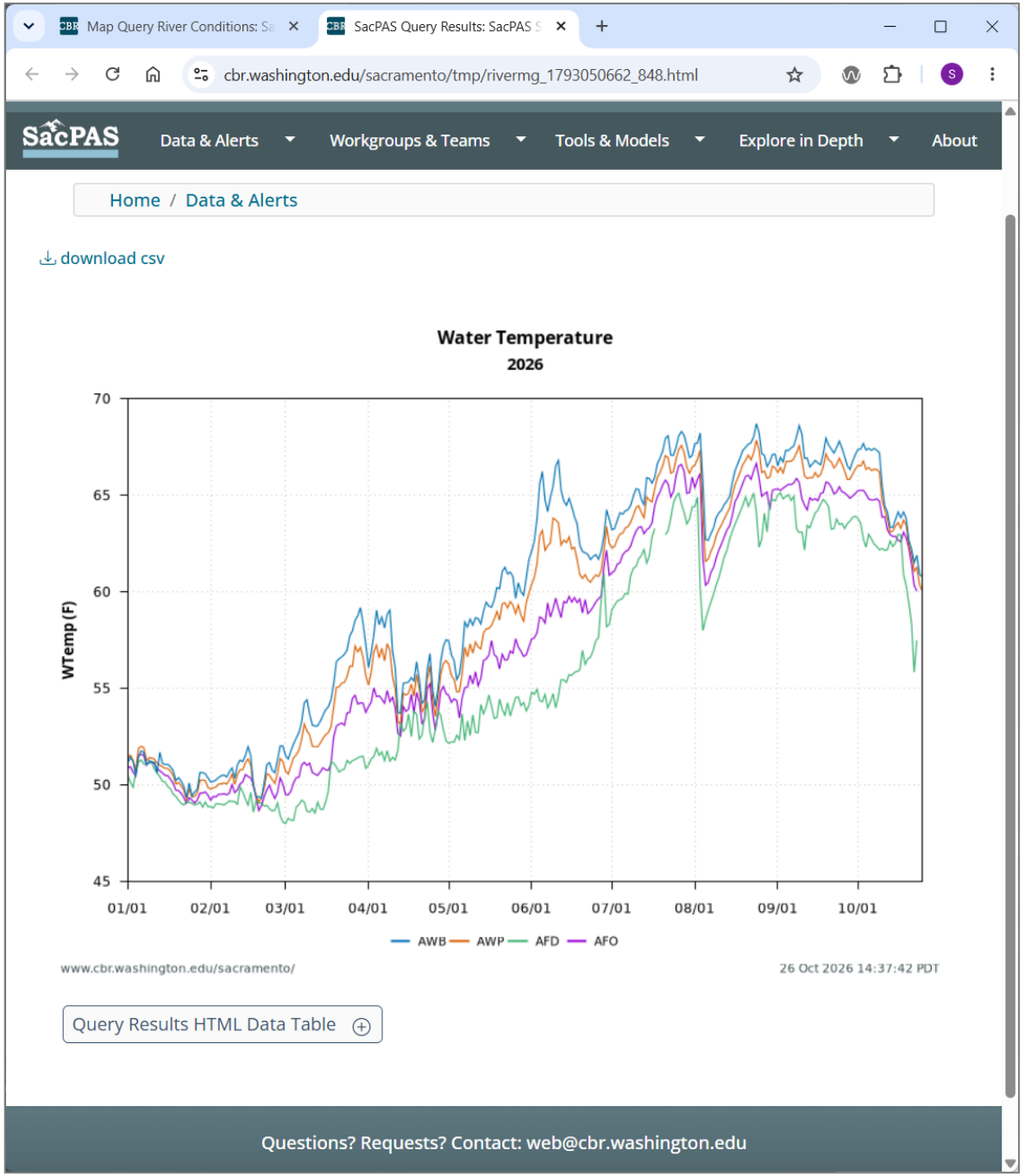
Submit button is enabled and a query is now possible



Question:

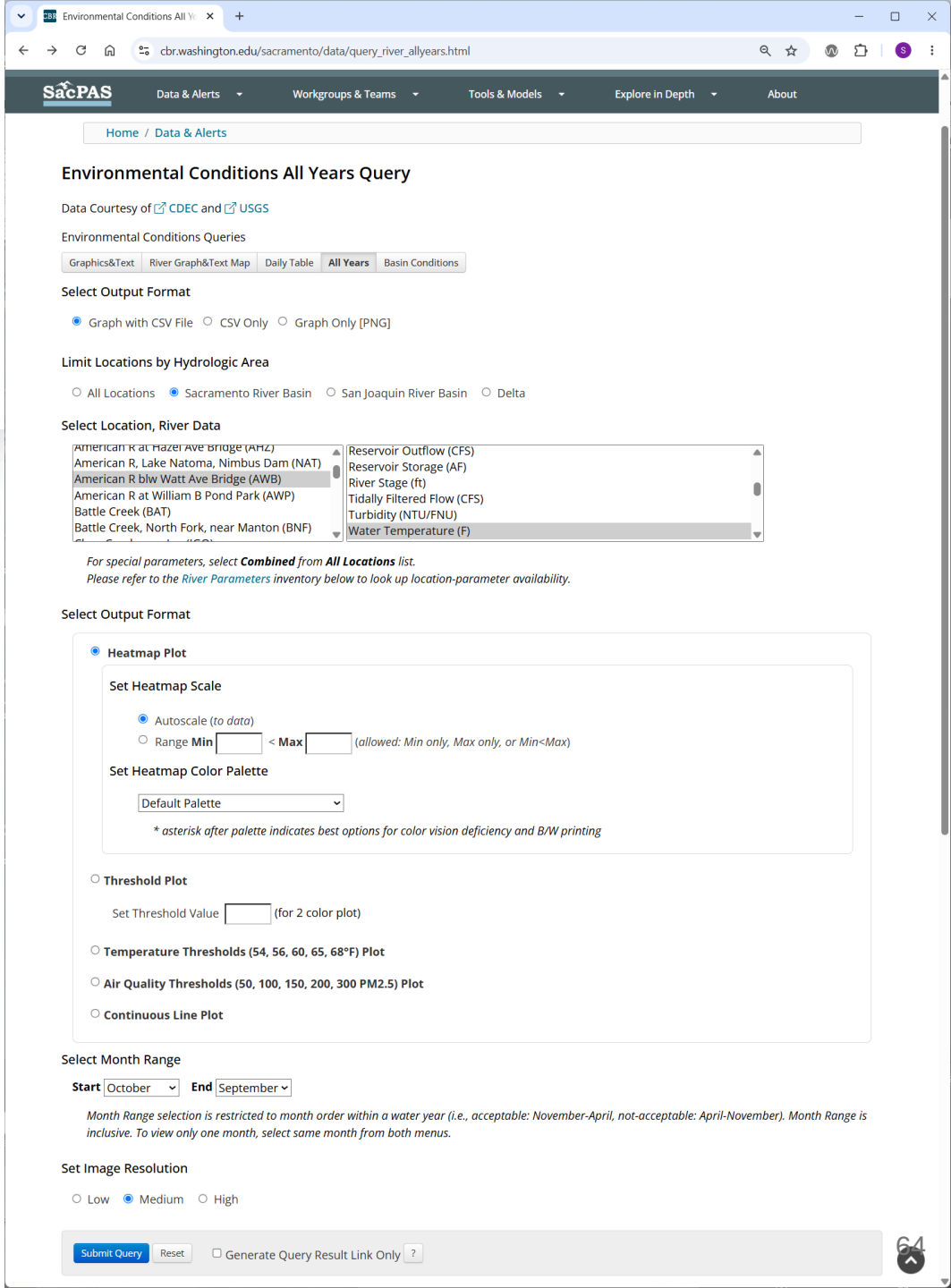
What locations in the American River measure Water Temperature in 2026?

Results from Map Tool selections “Submit Query”



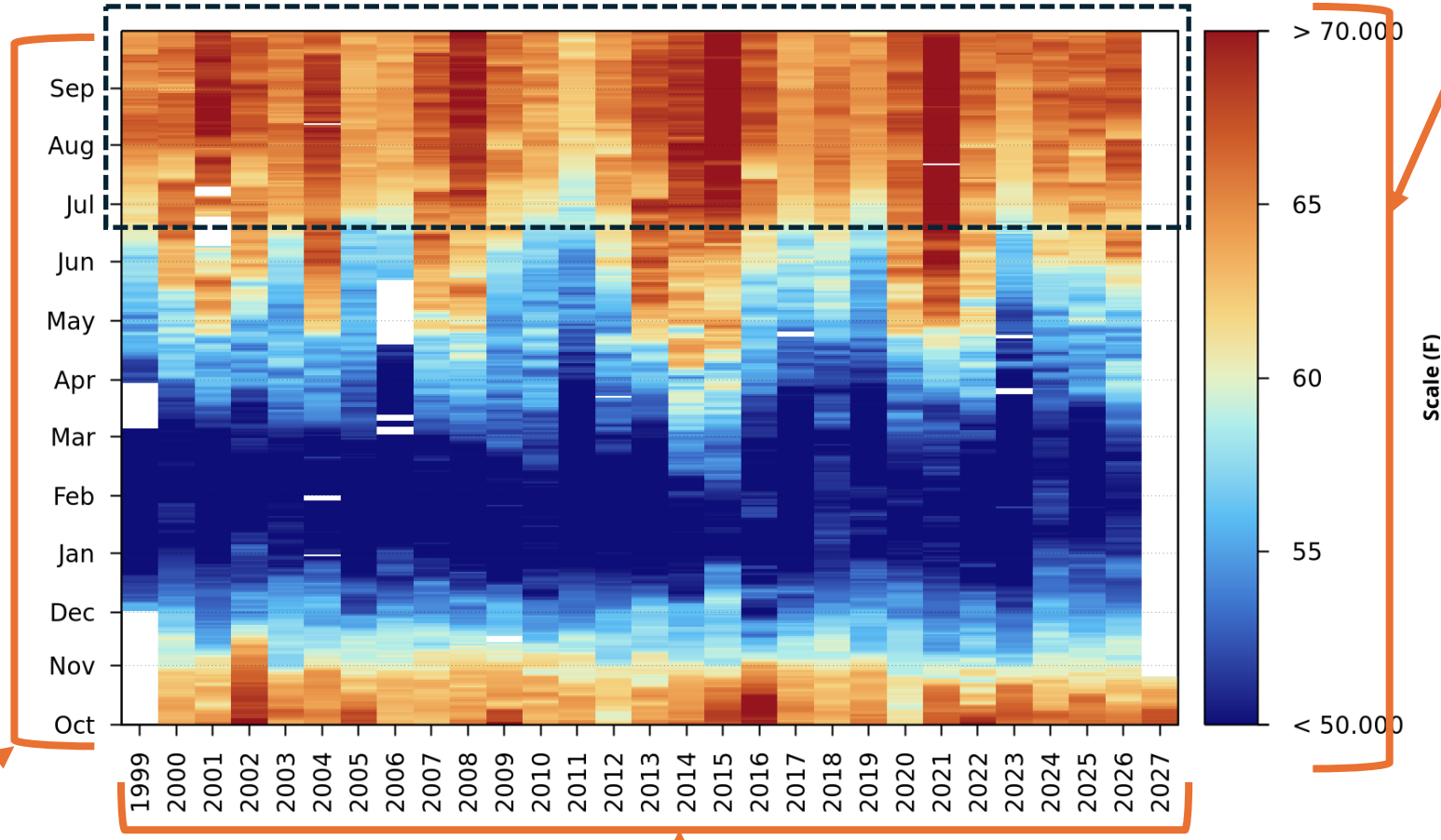
4.3 All Years River Conditions

- [Environmental Conditions All Years Query]



Results for Query Selections:

American blw Watt (AWB),
Water Temperature,
Heatmap,
Autoscale,
October-September



Color Legend & Scale

Months through the Water Year

Water Years 1999 to present

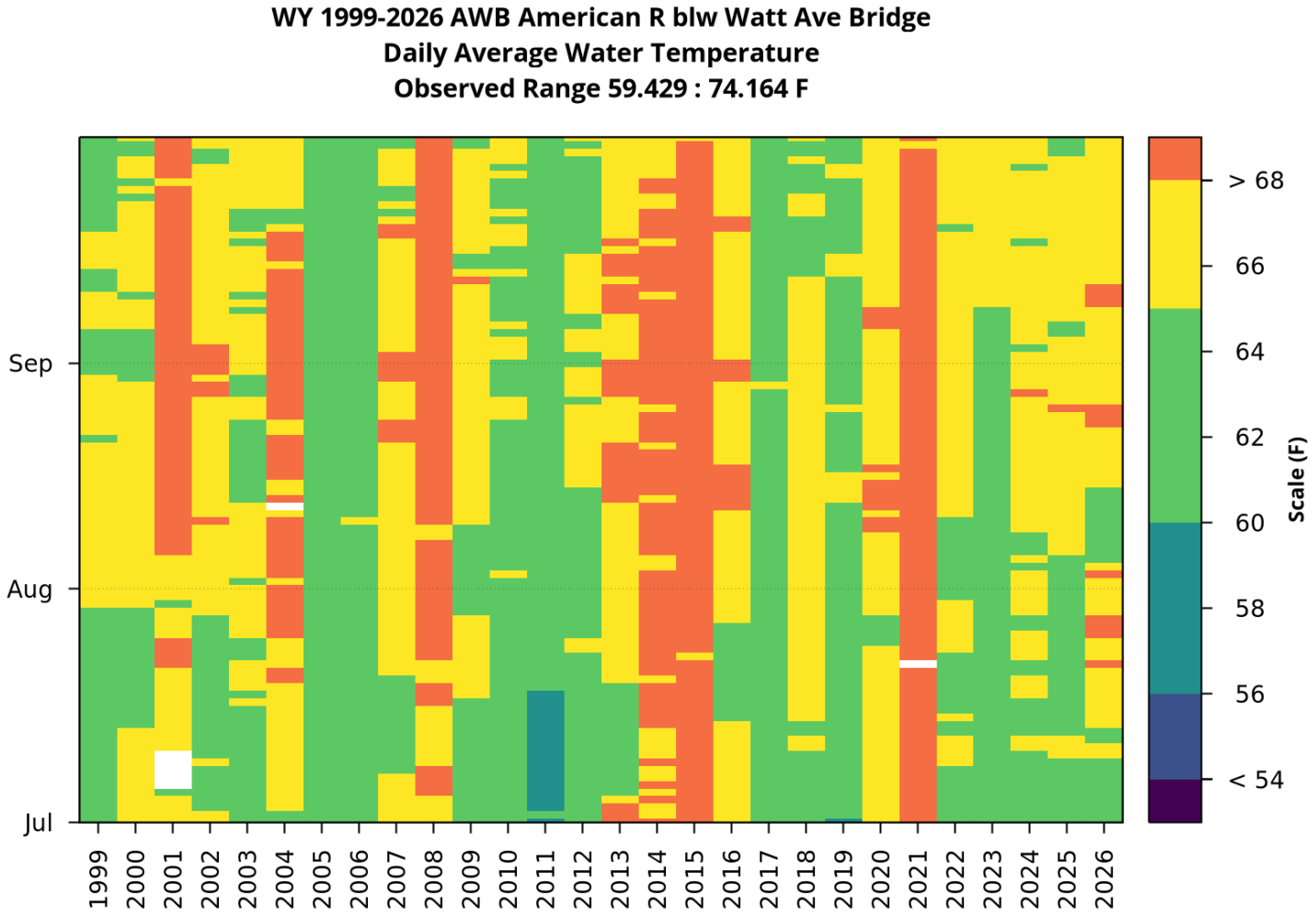
Temperature Thresholds (54, 56, 60, 65, 68°F) Plot

Select Month Range

Start July End September

Results for Query Selections:

American blw Watt (AWB),
Water Temperature,
Heatmap,
Temperature Thresholds,
July-September



Data Source: California Data Exchange Center

www.cbr.washington.edu/sacramento/
26 Oct 2026 15:33:31 PDT

B. Data & Alerts – Queries

1. Juvenile Monitoring & Sampling



2. Juvenile Salvage & Loss



3. Adults & Redds



4. Environmental Conditions



5. Alerts



6. Other Fishes



Alerts

- **Weir Overtopping**

5. Alerts



5.1 Weir Overtopping

- [Alert: Sacramento River Weirs Overtopping]

CDEC Plotter | Did You Know? | El Niño: | Alert: Sacramento River Weirs

cbr.washington.edu/sacramento/data/alert_weirs.html

SacPAS | Data & Alerts | Workgroups & Teams | Tools & Models | Explore in Depth | About

Home / Data & Alerts

Alert: Sacramento River Weirs Overtopping

Data Courtesy of CDEC; Forecast Data Courtesy of National Water Prediction Service (NWPS)

View: WY2027 Submit

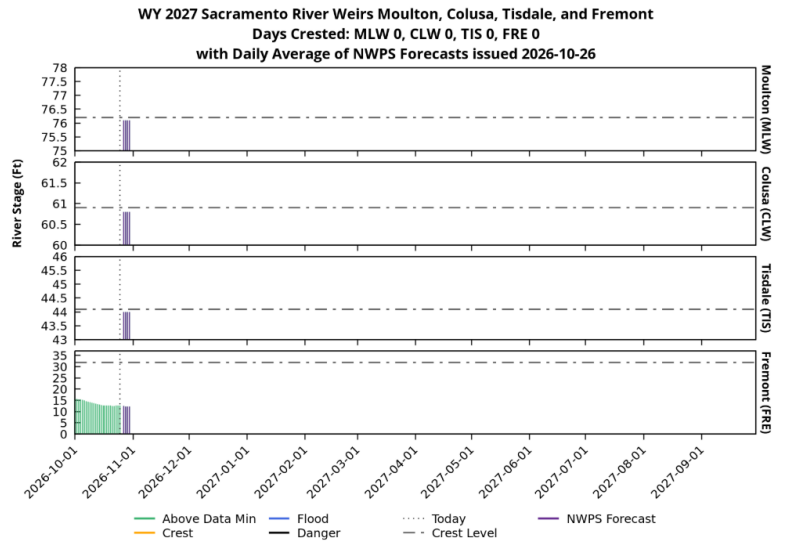
download CSV | Last 10 Days | WY2027 Graph | WY2027 Data Table | Overtopping History Graphs | Data Notes | Subscribe

River Stage (Feet) Above / Below Weir Crest Level, Today & Last 10 Days (10/16/2026 - 10/25/2026)
with Daily Average of NWPS Forecasts issued 2026-10-26

Weir	NWPS Forecast 10/30	NWPS Forecast 10/29	NWPS Forecast 10/28	NWPS Forecast 10/27	Today Peak	Today Hour	10/25	10/24	10/23	10/22	10/21	10/20	10/19	10/18	10/17	10/16
MLW	< -0.50	< -0.50	< -0.50	< -0.50			< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50
CLW	< -0.50	< -0.50	< -0.50	< -0.50		0900	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50
TIS	< -0.50	< -0.50	< -0.50	< -0.50			< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50	< -0.50
FRE	-19.71	-19.72	-19.69	-19.57	-19.32	0200	-19.29	-19.25	-19.29	-19.44	-19.51	-19.40	-19.31	-19.33	-19.34	-19.22

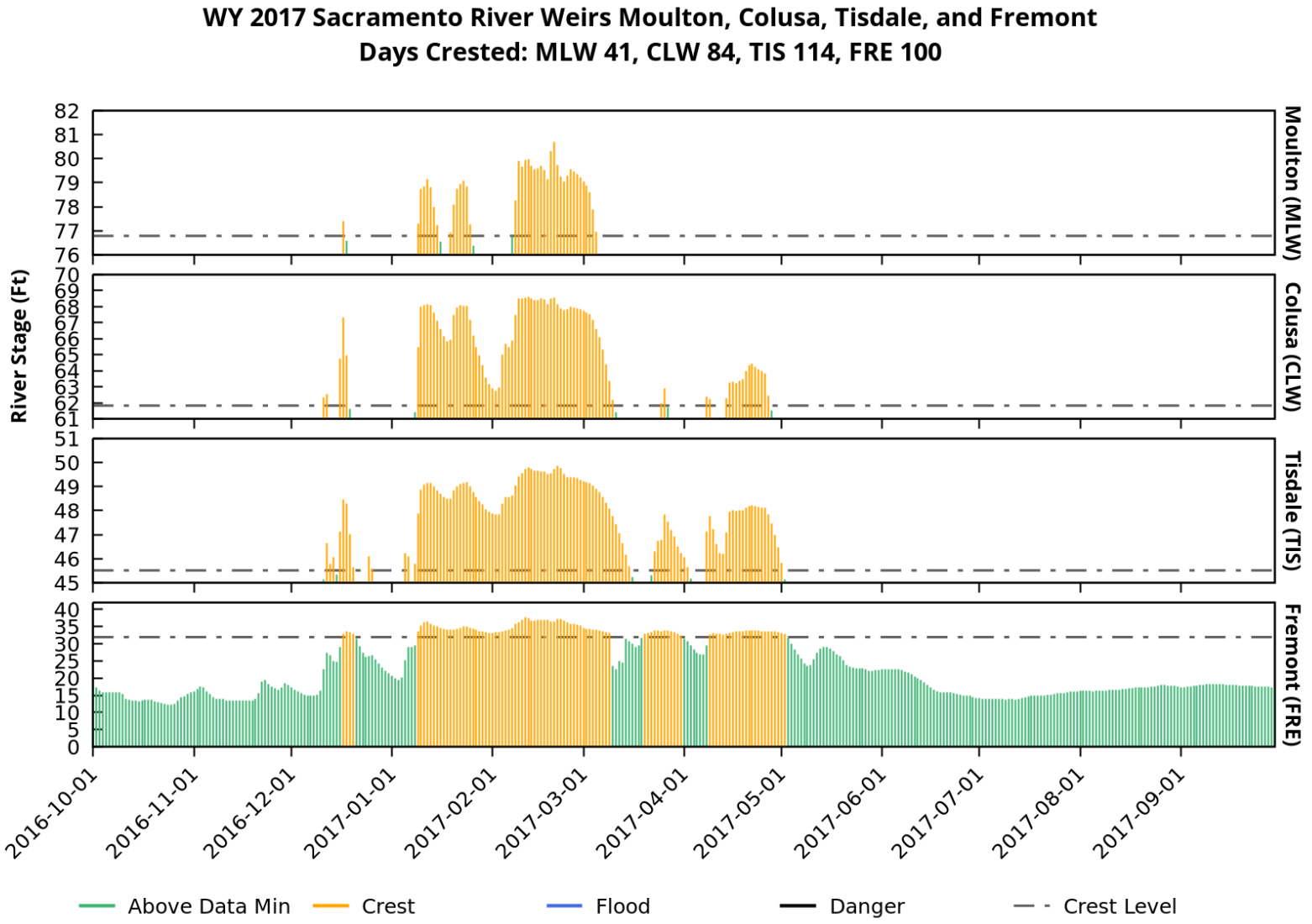
Below Crest | Crest | Flood | Danger | Peak Value in Period | Within 1 ft of Flood | Peak Value & Within 1 ft of Flood

Water Year 2027 Daily Average River Stage



Results for Query Selections:

Water Year 2017
(wettest since 1995,
Sacramento Valley HCI)



www.cbr.washington.edu/sacramento/

26 Oct 2026 17:03:26 PDT

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6. Other Fishes



6. Other Fishes



Other Fishes Queries

- Smelt
  - Smelt Releases
  - Smelt Current & Historical
  - Smelt Loss Detail
- Sturgeon Loss Detail

Other Fishes Queries

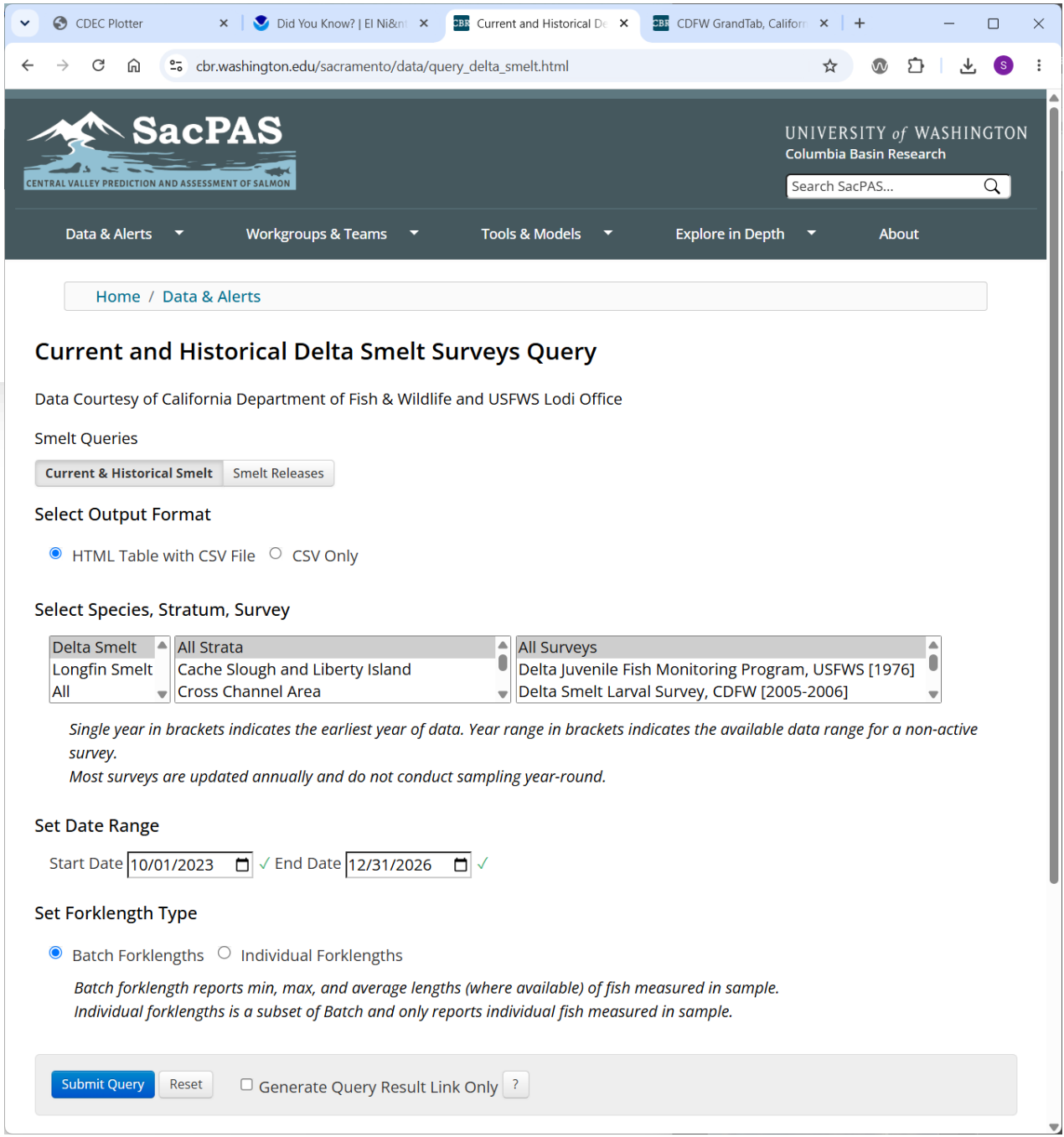
- Smelt
  - Smelt Releases
  - **Smelt Current & Historical**
  - Smelt Loss Detail
- Sturgeon Loss Detail

6. Other Fishes



6.1 Smelt Current & Historical

- [Current and Historical Delta Smelt Surveys Query]



*... scrolling further down the **query** webpage*

Submit Query | Reset | Generate Query Result Link Only ?

Query Notes

SacPAS presents historical and current smelt sampling aggregated across numerous surveys based on the current EDSM strata boundaries to illustrate distribution and abundance. SacPAS aggregates multiple sampling efforts with publicly available data and methods, combining their results into a single table for generating displays and analysis.

Smelt Current and Historical Sampling Dates in SacPAS Database

Survey	Min Date	Max Date
Enhanced Delta Smelt Monitoring, USFWS (preliminary)	2025-12-01	2026-09-14
Delta Juvenile Fish Monitoring Program, USFWS	1976-03-09	2026-07-09
Enhanced Delta Smelt Monitoring, USFWS (daily report, preliminary)	2026-03-30	2026-06-04
Salvage, CDFW	1993-01-03	2026-03-06
San Francisco Bay Study, CDFW	1980-01-23	2025-12-11
Fall Midwater Trawl Survey, CDFW	1967-09-12	2025-12-10
Enhanced Delta Smelt Monitoring, USFWS (EDI final)	2016-12-15	2025-11-20
20-mm Survey, CDFW	1995-04-27	2025-07-10
Townet Survey, CDFW	1959-06-16	2025-06-18
Spring Kodiak Trawl, CDFW (discontinued in 2023)	2002-01-07	2023-05-04
San Francisco Estuary Smelt Larva Survey, CDFW	2009-01-23	2023-03-15
Larval Salvage, CDFW (subset of Salvage)	2018-03-31	2022-04-12
Delta Smelt Larval Survey, CDFW	2005-02-02	2006-07-15
North Bay Aqueduct Survey, CDFW	1993-03-07	2004-06-30

- Delta Smelt Metadata

Set Fork Length Type

(•) Batch Fork Lengths ( ) Individual Fork Lengths

Results for Query Selections:

Longfin Smelt,
All Strata,
All Surveys,
03/01/2026,
07/31/2026
Batch Fork Lengths

Current and Historical Delta Smelt Surveys 2026-03-01 to 2026-07-31

Date	Species	Mark Code	Average Length	Percent Measured	Number Measured	Total in Catch	Min Length	Max Length	Stratum	Latitude	Longitude	Station	Source
2026-03-02	Longfin Smelt	None	92.0	100.0	1	1	92	92	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-03	Longfin Smelt	None	74.0	100.0	1	1	74	74	Suisun Bay	38.05994	-122.00962	SB04	Enhanced Delta Smelt Monitoring, USFWS (preliminary)
2026-03-03	Longfin Smelt	None	78.0	100.0	1	1	78	78	Suisun Bay	38.059825	-121.99791	SB02	Enhanced Delta Smelt Monitoring, USFWS (preliminary)
2026-03-03	Longfin Smelt	None	84.5	100.0	2	2	80	89	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-03	Longfin Smelt	None	86.0	100.0	1	1	86	86	Suisun Bay	38.046	-121.91	SB018M	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-04	Longfin Smelt	None	80.0	100.0	1	1	80	80	Suisun Bay	38.046	-121.91	SB018M	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-04	Longfin Smelt	None	88.7	100.0	3	3	85	91	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS

Set Fork Length Type

○ Batch Fork Lengths ◉ Individual Fork Lengths

Results for Query Selections:

Longfin Smelt,
All Strata,
All Surveys,
03/01/2026,
07/31/2026
Individual Fork Lengths

Current and Historical Delta Smelt Surveys 2026-03-01 to 2026-07-31

Date	Species	Mark Code	Length	Frequency	Stratum	Latitude	Longitude	Station	Source
2026-03-02	Longfin Smelt	None	92	1	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-03	Longfin Smelt	None	74	1	Suisun Bay	38.05994	-122.00962	SB04	Enhanced Delta Smelt Monitoring, USFWS (preliminary)
2026-03-03	Longfin Smelt	None	78	1	Suisun Bay	38.059825	-121.99791	SB02	Enhanced Delta Smelt Monitoring, USFWS (preliminary)
2026-03-03	Longfin Smelt	None	80	1	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-03	Longfin Smelt	None	86	1	Suisun Bay	38.046	-121.91	SB018M	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-03	Longfin Smelt	None	89	1	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-04	Longfin Smelt	None	80	1	Suisun Bay	38.046	-121.91	SB018M	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-04	Longfin Smelt	None	85	1	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program, USFWS
2026-03-	Longfin	None	90	1	Suisun Bay	38.048	-121.91	SB018N	Delta Juvenile Fish Monitoring Program,

Outline

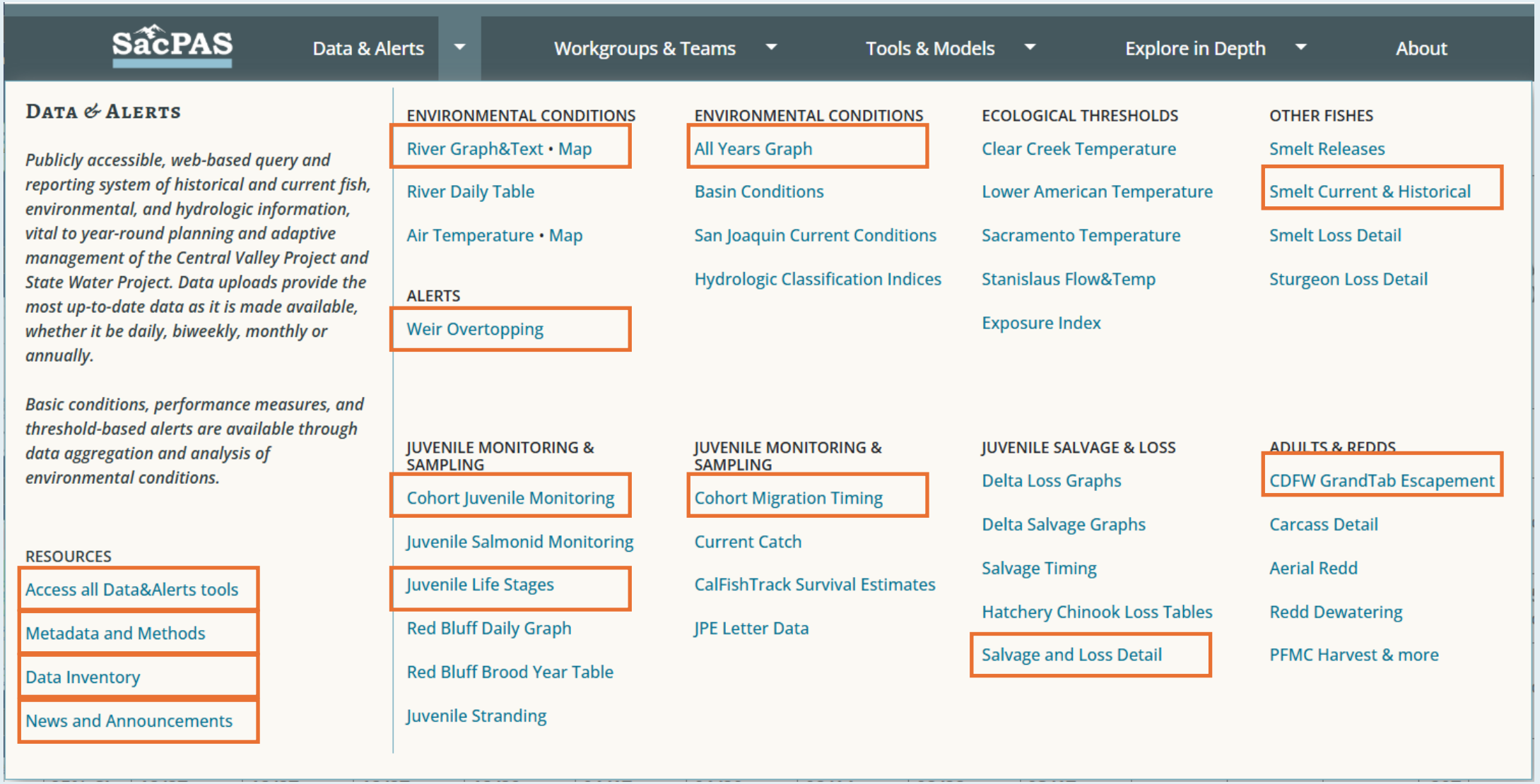
A. Data & Alerts – Landing Page

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C. Data & Alerts – Mega Menu

D. On the horizon

C. Data & Alerts – Mega Menu



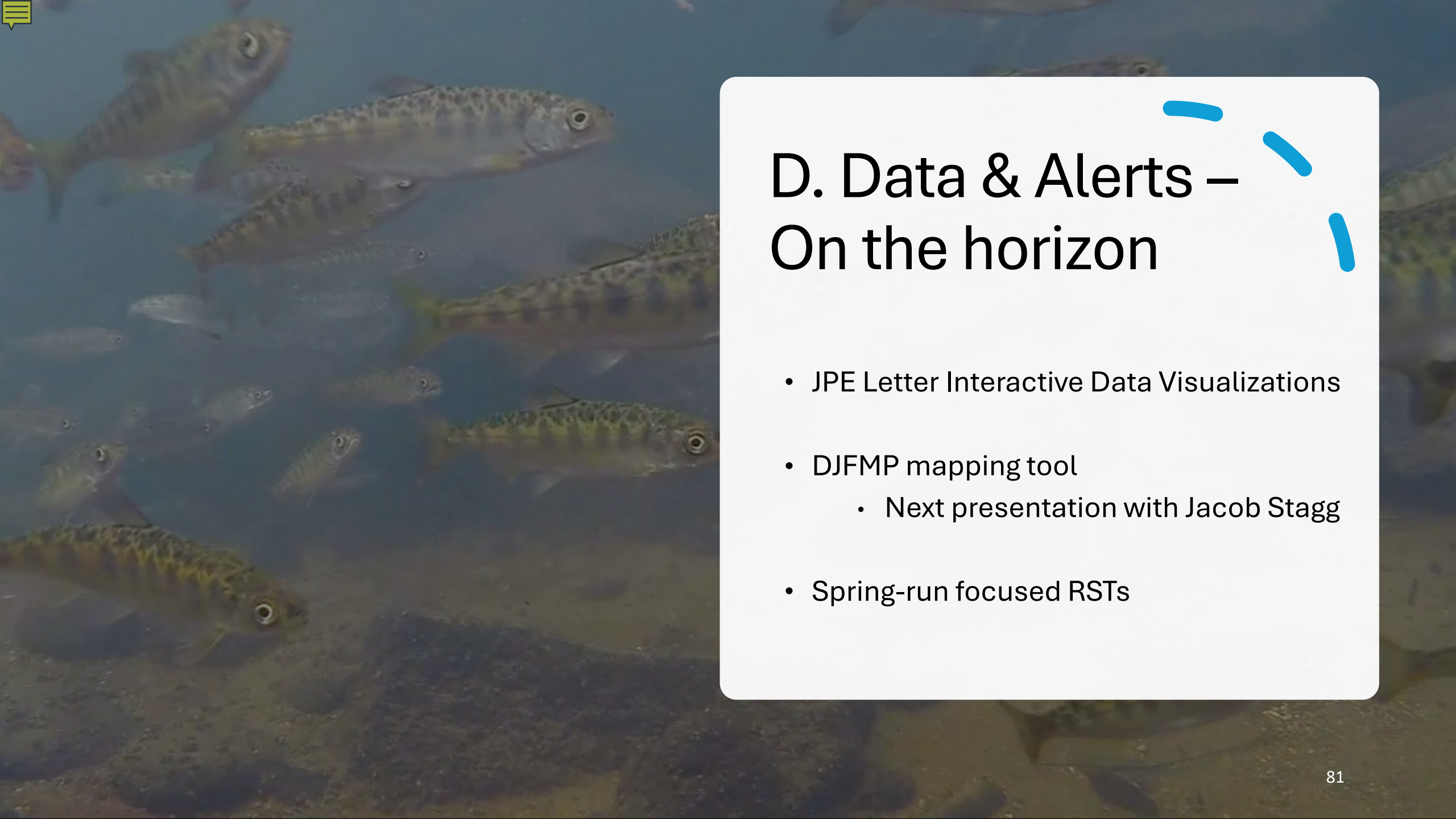
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C. Data & Alerts – Mega Menu

D. On the horizon



D. Data & Alerts – On the horizon

- JPE Letter Interactive Data Visualizations
- DJFMP mapping tool
  - Next presentation with Jacob Stagg
- Spring-run focused RSTs

Acknowledgments

We are grateful for the US Bureau of Reclamation funding our SacPAS work.

In particular, we thank Lisa Elliot (GOTR) and Josh Israel.

We are deeply grateful for all of the field biologists and practitioners who collect and share their data with the region. It is an honor to work and collaborate closely with many of these folks, and to be of service.



Feedback?
Questions?
New collaborations?

We want to hear from you!

web@cbr.washington.edu

