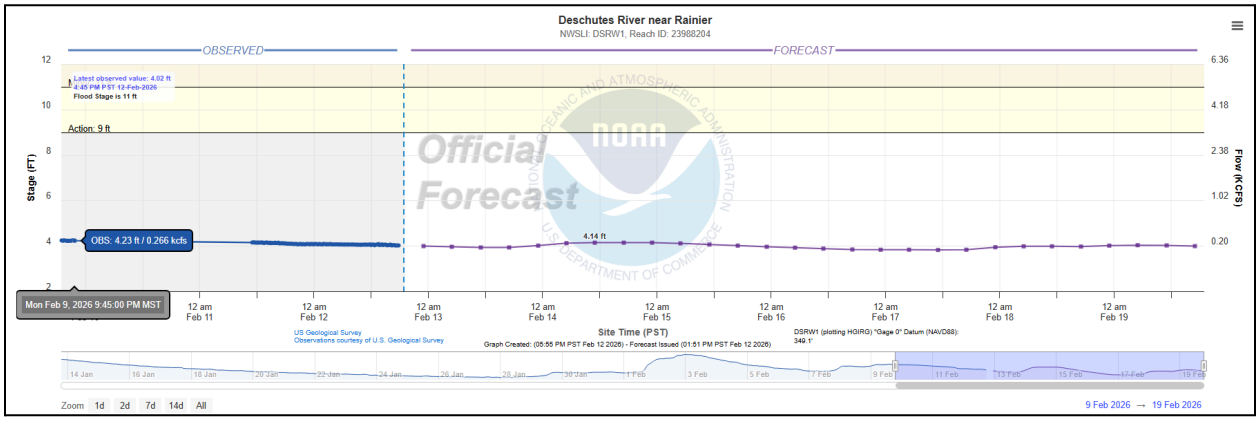
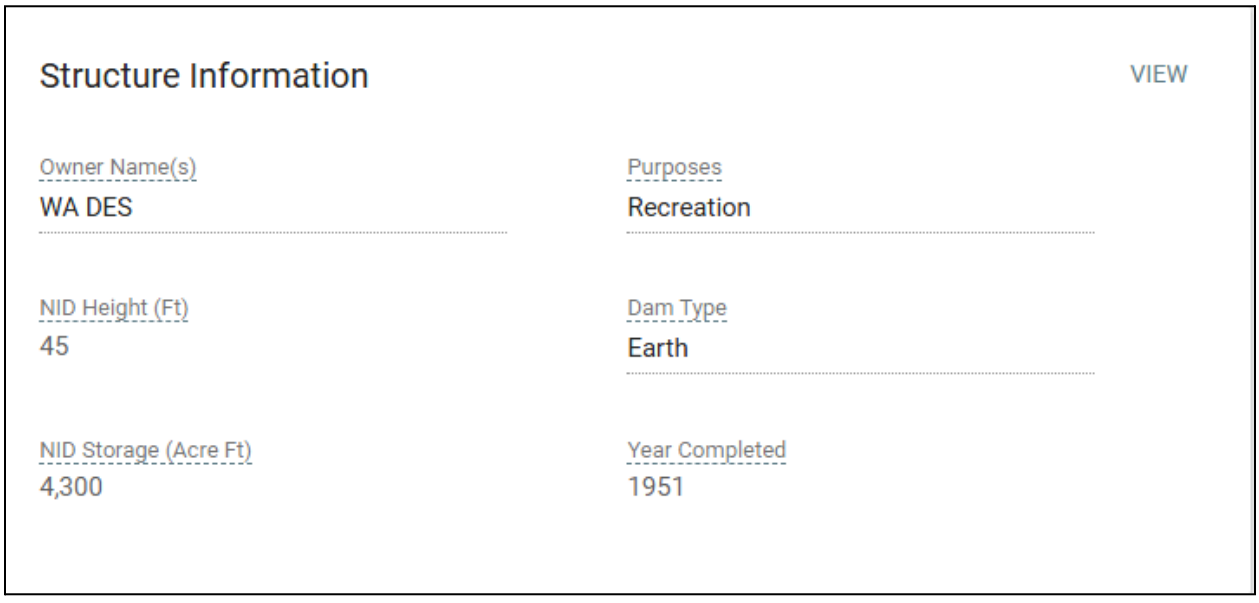
Overview list of 10 candidate sites, no particular order yet.

Deschutes Dam-Thurston, Wa.

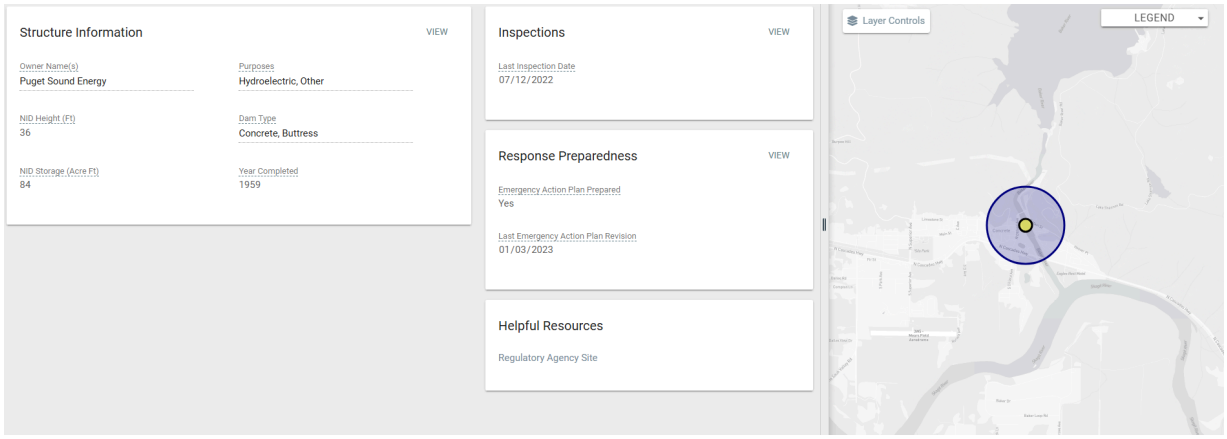




Somewhat unsteady flows and recently more flooding in the area, after doing this research i found they may demolish this project. Furthermore it isnt included in the MISO LCE nodal group, however, even if it was→


Smith Place
Kalaloch
Queets
101
WYNOOCHE_7_G71...
LMP $36.68
QUINAULT
RESERVATION
Neilton
Taholah

Fish Barrier Dam-Wa,Skagit



1 mile from the nearest city, already 3 main hydropowered dams in the area, wouldn't bring in much value compared to them but the area isn't bad. Not too much info on this on the top level so overall hesitant to advance this. Calculated about an average of 2.55MW bit unaware of the structures in the area if we can even take advantage of this.mostly blocks fish migration. Wasnt able to find a flow diagram but was able to find yearly data. Very low risk, structure looks absolutely pristine.

Hiram M. Chittenden Locks and Dam,Cenws, King,Wa

Dam Structure

Primary Dam Type
Gravity

Dam Types
Gravity

Core	Foundation
No Data Entered	No Data Entered

Dam Height (Ft)	Hydraulic Height (Ft)	Structural Height (Ft)
No Data Entered	25	63
NID Height (Ft)	**Dam Length (Ft)**	**Volume (Cubic Yards)**
63	240	No Data Entered
Year Completed	**NID Storage (Acre-Ft)**	**Max Storage (Acre-Ft)**
1916	458,000	458,000
Normal Storage (Acre-Ft)	**Surface Area (Acres)**	**Drainage Area (Sq Miles)**
458,000	25,000	607

Max Discharge (Cubic Ft / Second)
16,000

This looks pretty standard to a lot of lock dams we've already analyzed, very close to the fish barrier dam, not included in the iso but closest are will reveal the same LCE. Owned by

CENWS, it offers an average of about 5MW. Currently sitting at a moderate ris. As is with a I&d traditionally we've been turned away countless times, this may be similar but maybe worth a deeper dive.

Landsburg Diversion Dam, City of Seatle, King,Washington

Upon further research I'm taking it upon myself to remove this from the list, little nid data, has resources but is completely far off our targets. Mainly fish populations and redirection i dont really wanna mess with anything in this location

W. R. GRACE & CO.

Again taking it upon myself to remove this dam. Not even a dam anymore was decommissioned and abandoned with a waste facility right beside it. Rough on resources and area is not forgiving at all. Is within the TVA but not even worth mentioning because this site is a bust.

WA00555 Barrier Dam, Lewis, Wa

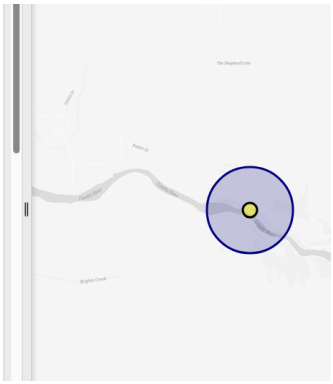
Primary Dam Type
Concrete

Dam Types
Concrete, Earth

Core	Foundation
Concrete	Rock

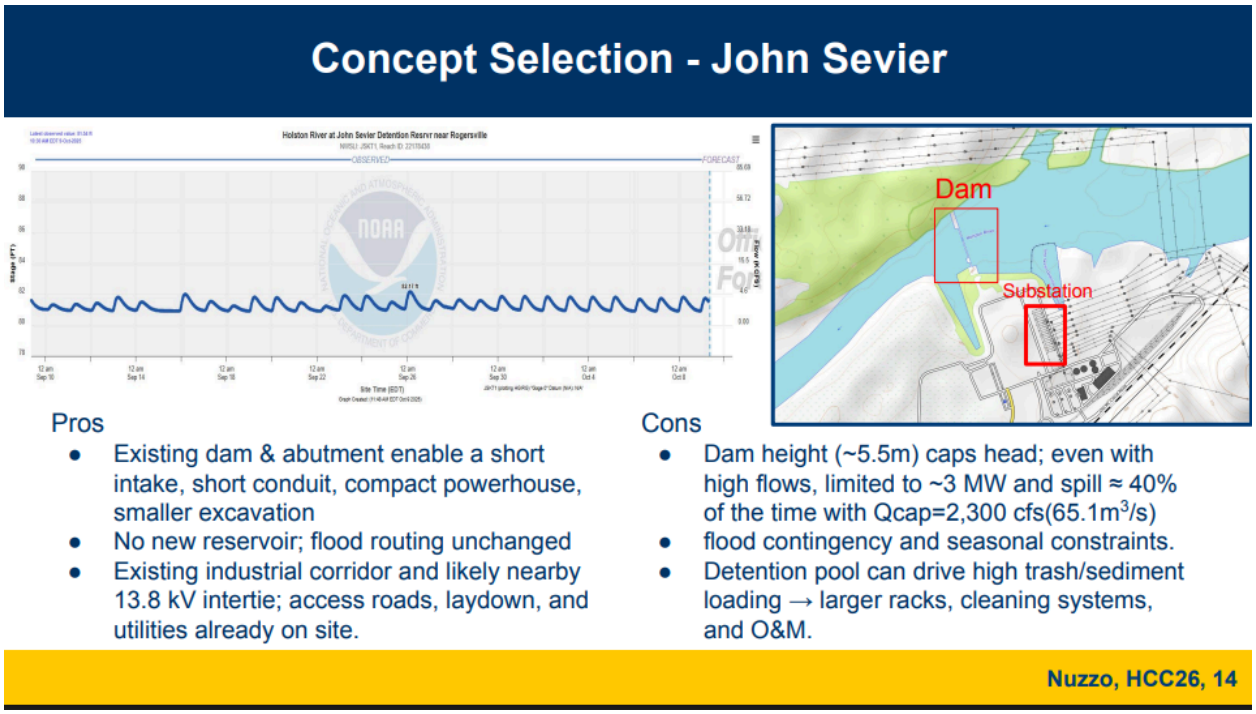
Dam Height (Ft)	Hydraulic Height (Ft)	Structural Height (Ft)
12	12	16
NID Height (Ft)	**Dam Length (Ft)**	**Volume (Cubic Yards)**
16	718	No Data Entered
Year Completed	**NID Storage (Acre-Ft)**	**Max Storage (Acre-Ft)**
1968	600	600
Normal Storage (Acre-Ft)	**Surface Area (Acres)**	**Drainage Area (Sq Miles)**
455	23	1,402

Max Discharge (Cubic Ft / Second)
68,350



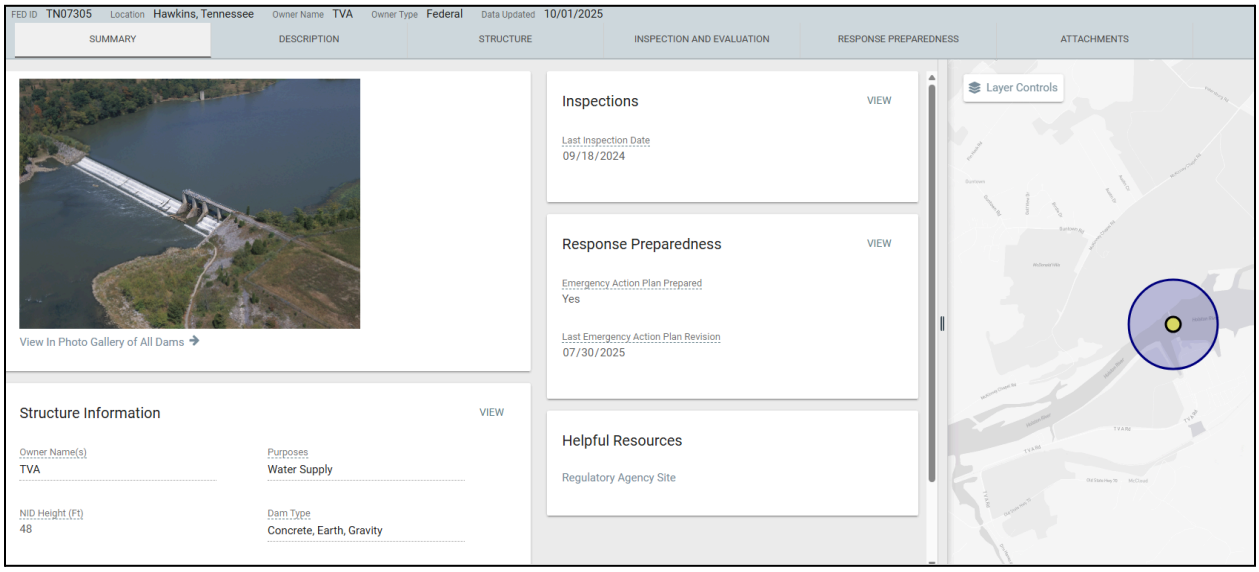
Basically the same region as the other Washington dams sharing the same LCE, this site has some positives and negatives. There is a salmon hatchery directly northeast and currently to my knowledge there are no existing structures to benefit us. This would be run of the river as per usual but building constraints and side effects of the competition make this somewhat difficult to select. Also not much data to back this up but expects about 2.66 MW.

John Sevier,TVA,Hawkins,Tn

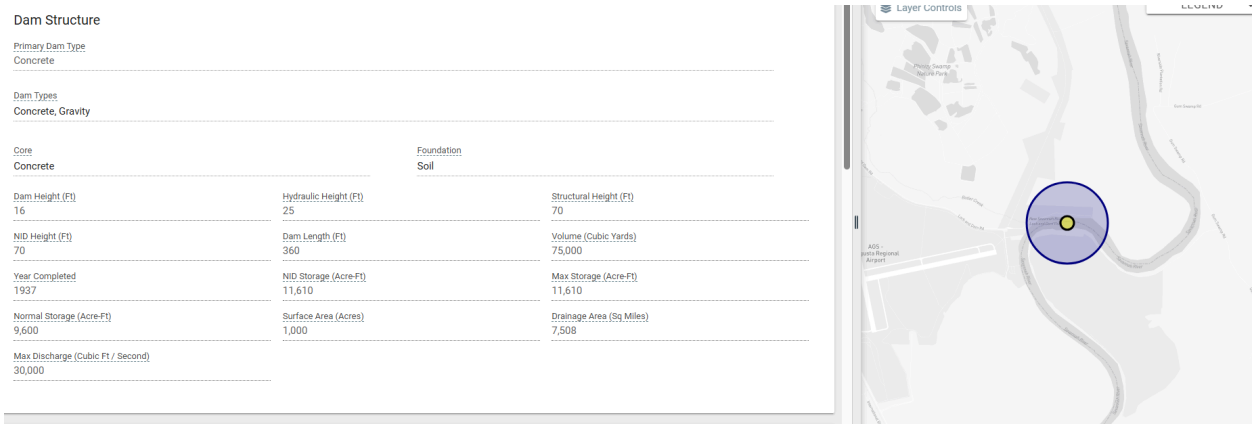


Mostly from what I remember we were somewhat turned away by flooding issues but recently nothing too crazy. There is another powerplant nearby but no hydro plans. Not really sure about the surrounding land ownership nearby. LCE in the area isn't bad but probably mostly attributed

to their power plant nearby.

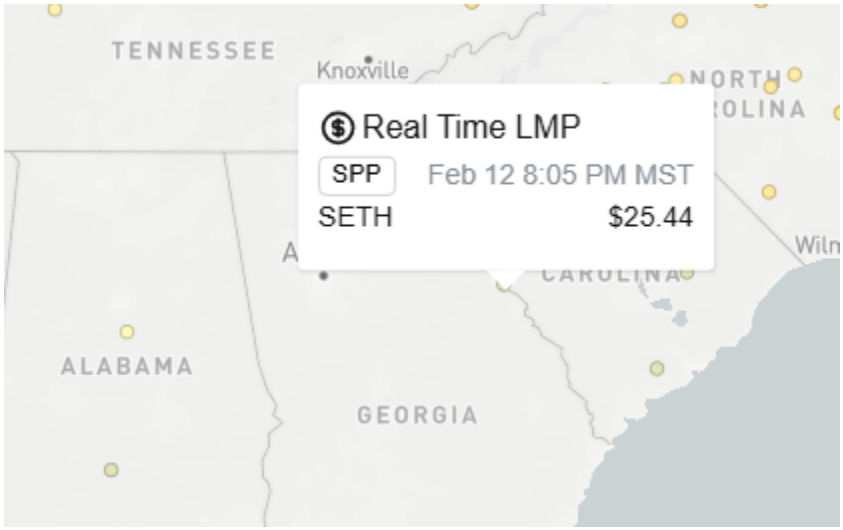


New Savannah Bluff Lock and Dam,Cesas,Richmond, GA



This site looks somewhat decent with options potentially available for solar. Another thing that caught my eye is that this dam is in both south carolina and georgia which could be a little

difficult for permitting and getting information. Money value isn't that great in the area.



There are some structures we can take advantage of from a top level but could require a deeper dive. Predicting around 6.3MW as an average over all 12 months. Not much else to say about that .

Hf Lee Cooling Lake Dam (Wayne County, NC)

Site specs looked decent but upon further research this site is unusable. There isnt really much available room for us as well as the constraints this site has is far too great.

Looking at this there are no other views of this dam; it looks to go almost underground and flow into a closed off lake. If we are able to get more info on this it appears to have room for copower opportunities. But at a top level and at this stage in the project, this may just be a dead end site.

Furthermore, online there is a good net head difference to generate power but other sources contradict this info, there looks to be a 0 net head hight and the water just flows through(contradicting all the previous information i had). Overall bad feeling on this site. Not even gonna pull up the cost for this.

Lake Decatur Dam,City of Decatur, Macon,Decatur

After further research and some more detailed looks ive noticed that this dam as well has inaccurate data from what was seen online. Irregular flow patterns and the fact this dam is used as a water supply throw our idea out the window. This site is not an option.

Some extra notes-Also please show the client the other database data. Specifically Coon rapids, or any other promising options. I'm sure there is one out there in Kentucky as well. Water level profiles are not visualized here, so if asked just have the website ready. The majority of what I looked at isn't nearly as good as some of our previous selections. Dawson, I'm gonna leave it to you to pull up those documents if needed.

Please please ask any questions, most of the Node ranges analyzed in this data set we excluded, take values with a grain of salt. When we select a site tomorrow hopefully… please relay the info immediately.

Read this left to right i just blocked it up to fit on screen

nid_id1	dmname	owname
WA00143	Deschutes Dam	STATE OF WA
WA83004	Fish Barrier Dam	Puget Sound Energy Inc.
WA00301	HIRAM M. CHITTENDEN LOCKS & DAM	CENWS
WA01543	Landsburg Diversion Dam	City of Seattle
TN06503	W. R. GRACE & CO.	DAVISON CHEMICAL CO.
WA00555	Barrier Dam	PAVCO FLIGHT CENTER
TN07305	John Sevier	TVA
GA01703	NEW SAVANNAH BLUFF LOCK AND DAM	CESAS
NC00944	H.F. Lee Power Station Cooling Lake Dam	Carolina Power & Light
IL00146	LAKE DECATUR DAM	CITY OF DECATUR

city	county	state	lat	lon
Olympia	THURSTON	WA	47.043384	-122.909081
Concrete	Skagit	WA	48.5403	-121.7428
SEATTLE	KING	WA	47.665204	-122.397208
Landsburg	KING	WA	47.37593	-121.9615
	HAMILTON	TN	35.08833	-85.24722
	LEWIS	WA	46.50983	-122.6312
McCloud	Hawkins	TN	36.38134	-82.965787
AUGUSTA	RICHMOND,GA/AIKEN,SC	GA	33.372483	-81.940453
	Wayne	NC	35.381	-78.085
DECATUR	MACON	IL	39.826178	-88.955988

head_gross_ft	head_net_ft	mw_calc_avg	mw_calc_min_month	mw_calc_max_month	mwh_calc_yr
20	19	1.149246908	0.536925947	1.551840094	10067.40291
25	23.75	2.555296347	1.193829544	3.450443327	22384.396
25	23.75	5.072131446	2.369690068	6.848952032	44431.87148
24	22.8	1.547246956	0.722870806	2.089263713	13553.88333
28	26.6	1.320473255	0.884447618	1.785516358	11567.34571
30	28.5	2.665694775	1.38198634	3.69279721	23351.48622
15	14.25	4.75199086	2.637141714	6.592668144	41627.43994
15	14.25	6.288965723	4.671504511	8.964788628	55091.33973
14	13.3	1.865735737	1.069133854	2.695626195	16343.84505
23	21.85	1.062029316	0.539973179	1.552581255	9303.376801