

SAWTOOTH FISH HATCHERY

Compliance and Expansion

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BACKGROUND

- Built in 1985 by USACE
- Production goal: 2.4m Spring Chinook smolts released annually
- Mitigation goal: 19,445 adult Spring Chinook salmon returns
- A-Run Steelhead are trapped and spawned here as well
- Outside Comp Plan, IDFG rears Rainbow Trout and acclimates Sockeye at SFH
- Intake provides water to the hatchery from the Salmon River
- Intake water is passively screened
- Weirs
 - There are two weirs, an upper weir and a lower weir
 - The upper weir acts as a dam structure for the intake
- This is a follow on project to the scour hole and is a NOAA Compliance project and an expansion study

LAYOUT



SCOUR HOLE PROJECT RECAP

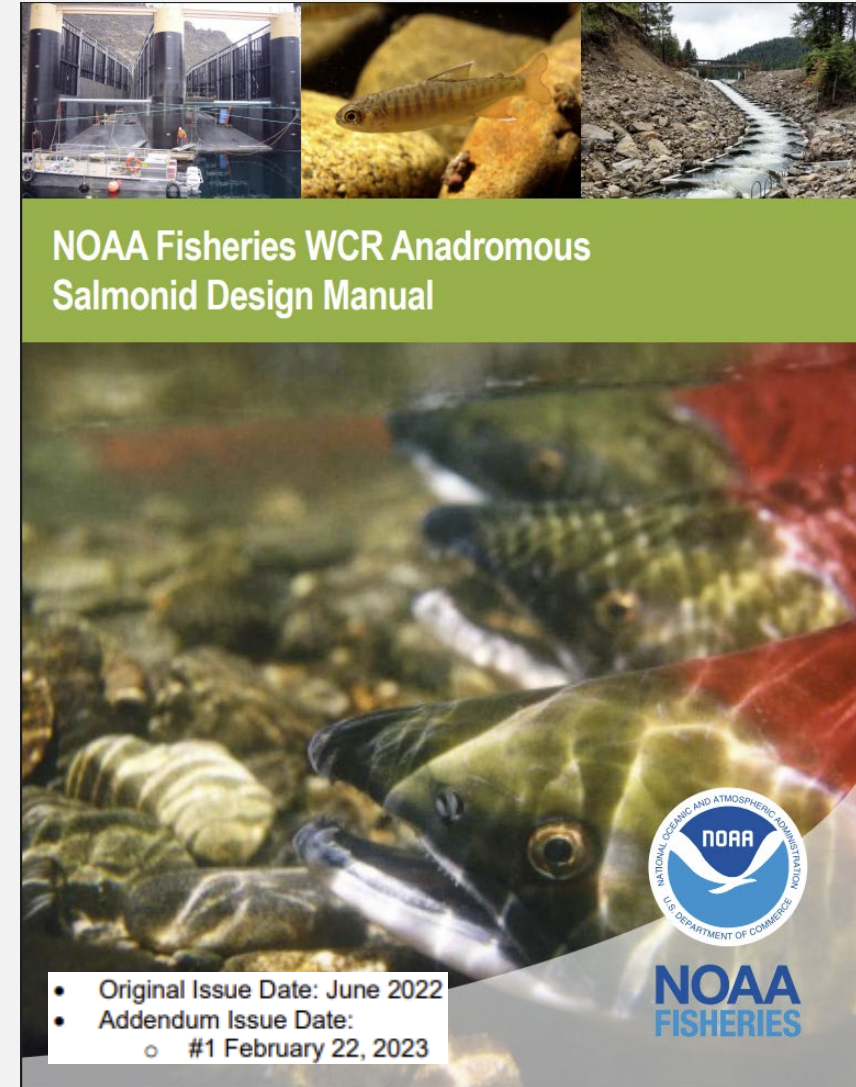


SCOUR HOLE PROJECT RECAP



NOAA COMPLIANCE – WHAT IS IT?

- Similar to last year's presentation about Lookingglass FH
- All LSRCP facilities were built before fish passage guidelines were available
- Primary purpose is to provide for safe passage of fish
- NOAA Fisheries West Coast Region Anadromous Salmonid Design Manual



PROJECT GOALS

- NOAA Compliance
 - Exclusion Barrier
 - Fishway
 - Intake screening
 - Upper weir passage
 - Lower weir passage
- River meandering
- Expansion

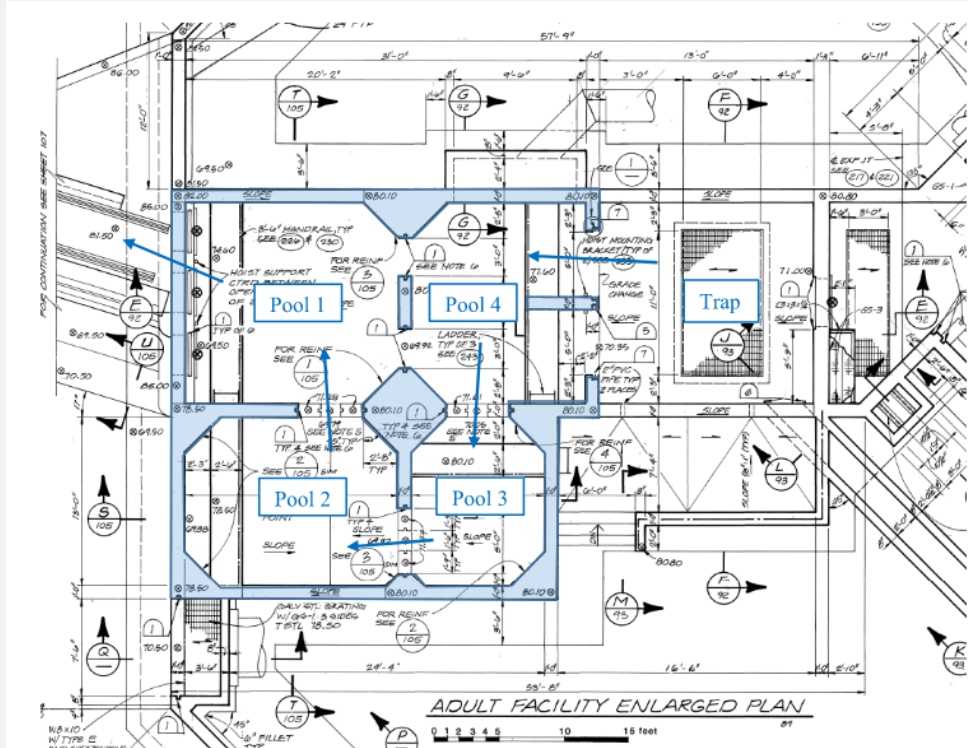
EXCLUSION BARRIER



Item	NOAA Criteria	5% Exceed	NOAA req met?	95% Exceed	NOAA req met?
Openings (between pickets)	1 inch	1.25 inch	no	1.25 inch	no

Item	NOAA Criteria	5% Exceed	NOAA req met?	95% Exceed	NOAA req met?
Openings (between pickets and abutments)	1 inch	1.5 inch	no	1.5 inch	no
Flow	n/a	1373.0 ft ³ /s	n/a	131.5 ft ³ /s	n/a
WSEL	n/a	6472.46 ft	n/a	6471.23 ft	n/a
Exist Velocity in the River	n/a	1.36 ft/s	n/a	0.25 ft/s	n/a
Velocity through pickets	1.0	6.93 ft/s	no	3.15 ft/s	no
% Open Area	40 (min)	54 %	yes	54 %	yes

FISHWAY



Item	NOAA Criteria	95% Flow Value	5% Flow Value	NOAA req met?
Minimum attraction flow	68.7 ft ³ /s	19 ft ³ /s	19 ft ³ /s	no
Head drop across entrance orifice	0.5 to 2.0 ft	2.3 ft	0.5 ft	no
Entrance velocity	-	7.42 ft/s	3.46 ft/s	n/a
Entrance width	4 ft	3 ft	3 ft	no
Entrance height	6 ft	0.9 ft	1.8 ft	no
Maximum hydraulic drop between pools	1 ft	1.1 ft	1.1 ft	no
Fish ladder flow	-	19 ft ³ /s	19 ft ³ /s	n/a
Fish ladder overflow weirs must provide minimum flow depth	1 ft	1.1 ft	1.1 ft	yes
Minimum pool length	8 ft	10.4 ft	10.4 ft	n/a
Minimum pool width	6 ft	5 ft	5 ft	n/a
Minimum pool depth	5 ft	2.3 ft	2.4 ft	no
Maximum Energy Dissipation Factor	4 ft-lbs/s	2.2 ft-lbs/s	2.2 ft-lbs/s	yes
Minimum freeboard	3 ft	4.9 ft	4.9 ft	yes
Minimum transport channel width	4 ft	5 ft	5 ft	Yes
Minimum transport channel depth	5 ft	3.5 ft	3.5 ft	no
Transport channel velocities	1.5 to 4.0 ft/s	0.36 to 1.1 ft/s	0.36 to 1.1 ft/s	no

INTAKE



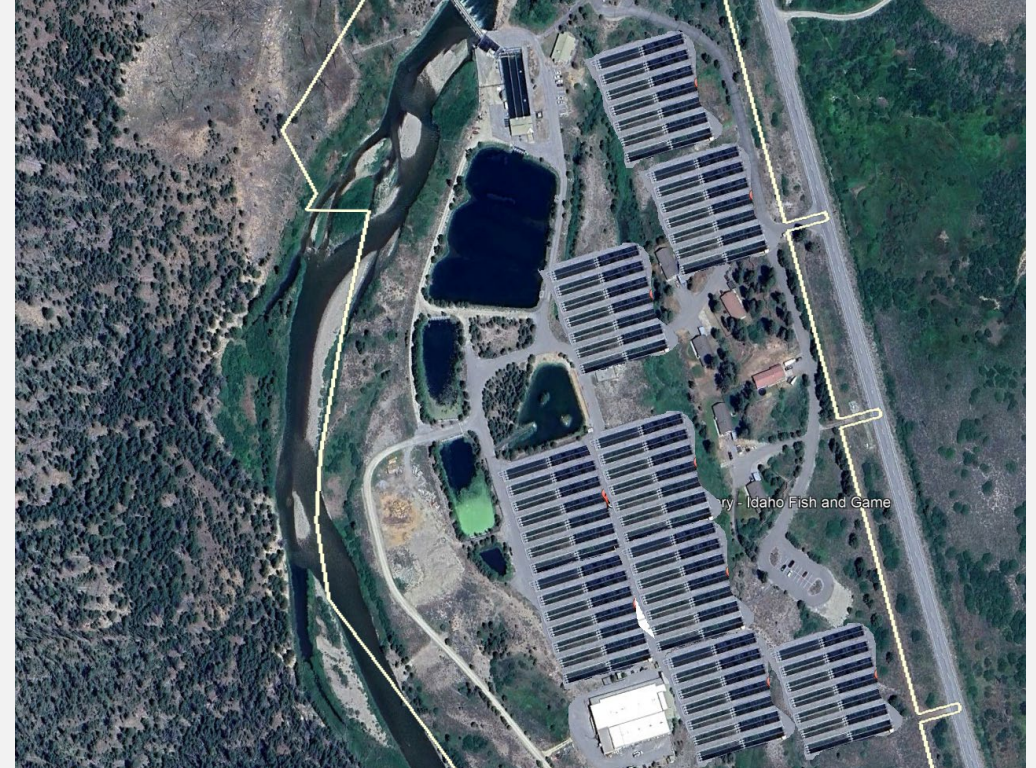
Criterion	NOAA Criteria	5% Exceed	NOAA Req Met?	95% Exceed	NOAA Req Met?
Max Screen Approach Velocity	0.2 ft/s (Passive Screens)	0.42 ft/s	No	0.73 ft/s	No
Sweeping Velocity	Greater than Screen Approach Velocity; ideally between 0.8 to 3.0 ft/s	0.0 ft/s	No	0.0 ft/s	No
Inclined Screen Face	45° Vertically	22°	Yes	22°	Yes
Max Screen Opening Size	1/16 inch	0.5 inch	No	0.5 inch	No
Screen Open Area	27% min	31.1 %	Yes	31.1 %	Yes
Screen Cleaning	Flow less than 3 cfs = Passive Flow greater than or equal to 3 cfs = Active	10-35 cfs, Passive	No	10-35 cfs, Passive	No

RIVER MEANDER



EXPANSION

- A-E contract to assess the possibilities of an expansion
- A-E will provide a document that defines any limitations associated with an expansion
- Very preliminary stage



TIMELINE

Planning

- A-E performs a detailed analysis of all issues – decision document
- Estimated completion around March 2026

Design

- A-E completes the design of chosen alternatives to 35% design
- Estimated completion around Summer 2027

Design-Build Design and Permitting

- D-B contractor's A-E takes 35% design documents to permitting agencies (USACE, NOAA, USFWS, States, etc.)
- A-E completes design
- Estimated completion to coincide with construction timeline, ~Summer 2028 or 2029

Design-Build Construction

- D-B contractor finishes design and receives approval to start construction
- Estimated completion Summer 2029 or Summer 2030

WHAT DOES THIS MEAN FOR YOU?

- I warned you last year!!!
- You get out of this what you put into it.
- Stay tuned!



Conclusion

- What does this mean for you?
- It is our shared responsibility to fix these deficiencies
- We have additional compliance projects coming soon
 - Each project is a three+ year effort
- Future challenges:
 - NMFS timing on the approval of the BO
 - Funding/schedule
 - Scope and scale of projects require a lot of time and oversight

QUESTIONS?