Telemetry Study Summary Framework

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Point of Contact:
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Study objective(s): Estimate survival of acoustically tagged Coleman National Fish Hatchery (CNFH) late-fall-run Chinook salmon juveniles to the USFWS trawl sampling stations at Sacramento and Chipps Island. These estimates will be used in the CWT-Acoustic Tag paired release hybrid design to determine trawl capture efficiency and abundance estimates for other runs of salmon. Tag life tests on a 5% sample of tags and tag retention trials in 50 fish will be done each year.

State hypothesis (if applicable):

Study Type:

☒ Reach-specific survival estimate

☐ Route selection

☐ Habitat use/preference

☐ Entrainment/fish passage evaluation

☐ Technology testing

☒ Other: Methodology development

Study Timing:

Study Duration (years): 3 Years

Release Dates (range; if applicable): November of 2018, 2019, and 2020

Study site(s): (If applicable)

Collection site(s): CNFH

Release location(s): CNFH Battle Ck

Fish/Species of Interest

Species-race: late-fall-run Chinook salmon
Length (range): 100-160mm FL
Life stage: Juvenile, yearling

Source/quantity: CNFH 600 fish
Status of fish request (if applicable): approved

Tagging Information (if applicable)

Transmitter Information

Type/model: JSATS ATS SS300

Weight (gm): 0.30 to 0.62

PRI/life of tag: 10 Second PRI. JSATS 60-80 day life.

Implant procedure

☒ Surgical ☐ Gastric ☐ Injected

Has staff completed a standard tagging training? (**Y/N**).
If yes, when? Yes. 2013, 2015.

Telemetry Receivers:

- Non-Core Receivers Deployed/Duration: November to July each year
- Identify mission critical Core receiver locations (general description): SacTrawl – dual array, 2 lines of 3 receivers, Chipps Island – dual array, 2 lines of 5 receivers
- Desired frequency of download (If Real-time data is required, indicate management directive): every 3 months

Environmental/operating conditions (if applicable)

- Relevant discharge indices: varying flow
- Temperature: 8-20 deg C
- TDG:
- Treatment(s): year and CWT group

Unique study characteristics: Use of acoustic telemetry survival estimates to improve abundance estimates derived from another sampling methods.