## **EATSM Release Summary Form**

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Primary Investigator:	
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<b>Study objective(s):</b> Estimate survival of acoustically tagged Livingston stone winter-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:	Study Timing:
⊠ Reach-specific survival estimate	Study Duration (years): 3 Years
☐ Route selection	Release Dates (range; if applicable): February or March of
☐ Habitat use/preference	2018, 2019, and 2020
☐ Entrainment/fish passage evaluation	Study site(s): (If applicable)
☐ Technology testing	Collection site(s): LSNFH
☐ Other: Methodology development	Release location(s): Caldwell Park on Sacramento R.
Fish/Species of Interest	
Species-race: Winter-run Chinook salmon Length (range): 87-110mm FL Life stage: Juvenile, pre-smolts	Source/quantity: LSNFH 600 fish Status of fish request (if applicable): approved
Tagging Information (if applicable)	
Transmitter Information Type/model: ATS SS300 (2018, 2019) and SS400 (2020) Weight (gm): 0.30/0.42 amd 0.22 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	• TDG:
• Temperature: 8-20 deg C	• Treatment(s): year and CWT group
<b>Unique study characteristics</b> : Use of acoustic telemetry survival estimates to improve abundance estimates derived from another sampling methods.	