

## EATSM Release Summary Form

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<b>Study objective(s):</b> 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.	
<b>State hypothesis (if applicable):</b>	
<b>Study Type:</b> <input checked="" type="checkbox"/> Reach-specific survival estimate <input type="checkbox"/> Route selection <input type="checkbox"/> Habitat use/preference <input type="checkbox"/> Entrainment/fish passage evaluation <input type="checkbox"/> Technology testing <input checked="" type="checkbox"/> Other: Methodology development	<b>Study Timing:</b> Study Duration (years): 3 Years Release Dates (range; if applicable): November of 2018, 2019, and 2020 <hr/> <b>Study site(s):</b> (If applicable) Collection site(s): CNFH Release location(s): CNFH Battle Ck
<b>Fish/Species of Interest</b>	
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
<b>Tagging Information (if applicable)</b>	
<b>Transmitter Information</b> Type/model: JSATS ATS SS300 Weight (gm): 0.30 to 0.62 PRI/life of tag: 10 Second PRI. JSATS 60-80 day life.	<b>Implant procedure</b> <input checked="" type="checkbox"/> Surgical <input type="checkbox"/> Gastric <input type="checkbox"/> Injected Has staff completed a standard tagging training? (Y/N). <b>If yes, when?</b> Yes. 2013, 2015.
<b>Telemetry Receivers:</b> <ul style="list-style-type: none"> <li>Non-Core Receivers Deployed/Duration: November to July each year</li> <li>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</li> <li>Desired frequency of download (If Real-time data is required, indicate management directive): every 3 months</li> </ul>	
<b>Environmental/operating conditions (if applicable)</b>	
<ul style="list-style-type: none"> <li>Relevant discharge indices: varying flow</li> <li>Temperature: 8-20 deg C</li> </ul>	<ul style="list-style-type: none"> <li>TDG:</li> <li>Treatment(s): year and CWT group</li> </ul>
<b>Unique study characteristics:</b> Use of acoustic telemetry survival estimates to improve abundance estimates derived from another sampling methods.	