

Telemetry Study Summary Framework

This summary sheet will facilitate coordination for telemetry studies that will be implemented within the geographic extent of the Core Array. The Core Array consists of key receiver locations for meeting salmon and sturgeon management objectives identified by the Interagency Ecological Program (IEP). Detection data collected by the Array will be available on an open database. Coordination of tag ID codes will ensure that each study uses unique ID codes and that study codes will not be identified as false positives and removed during the initial processing phase. ITAG plans to share completed summary sheets with IEP to identify opportunities for cooperation and collaboration.

Primary Investigator: Name: Arnold Ammann Email: arnold.ammann@noaa.gov Phone: 831-420-3968	
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: <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	Study Timing: Study Duration (years): 3 Years (WY 2019-2021) Release Dates (range; if applicable): sometime in Dec 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): ave: 149, range: 107-203 mm 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): 0.60 PRI/life of tag: 3 Second PRI. JSATS 80 day life.	Implant procedure <input checked="" type="checkbox"/> Surgical <input type="checkbox"/> Gastric <input type="checkbox"/> Injected Has staff completed a standard tagging training? (Y/N). If yes, when? Yes. 2013, 2015.
Telemetry Receivers: <ul style="list-style-type: none"> 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)	
<ul style="list-style-type: none"> Relevant discharge indices: 8000-20000 cfs Temperature: 46-53 deg F 	<ul style="list-style-type: none"> 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. Tag effects trial will be performed by dummy tagging 50 fish and keeping 50 untagged controls. Fish will be kept at CNFH for 60 days post surgery. A tag life trial will be done by randomly sampling 5% of the tag order and recording tag function for as long as the tags run.	