

# PERFORMANCE REPORT

**STATE:** Alaska

**GRANT NO.:** F-32-27

**GRANT TITLE:** Sport Fisheries Enhancement and Development in Alaska

**PERIOD COVERED:** July 1, 2017 – June 30, 2018

**STUDY NO. AND TITLE:** F-2-01 Fort Richardson Hatchery

## STUDY OBJECTIVES:

1. Maintain facilities and equipment in operational condition.
2. Provide support to the Sport Fish Hatchery Program.
  - Storage of stocking trucks and fish culture equipment
  - Provide housing for personnel responsible for after-hours emergency response to the William Jack Hernandez Sport Fish Hatchery.

## RESULTS/DISCUSSIONS:

See attached report.

## FINAL REPORT STATUS:

The attached report is the final report of objectives for this study.

**PREPARED BY:** Gary George

**DATE:** August 15, 2018

# Fort Richardson Hatchery

by

Gary George

August 2018

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Alaska Department of Fish and Game

Division of Sport Fish



## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used in Division of Sport Fish Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications without definition. All others must be defined in the text at first mention, as well as in the titles or footnotes of tables and in figures or figure captions.

Weights and measures (metric)		General		Mathematics, statistics, fisheries	
centimeter	cm	All commonly accepted abbreviations.	e.g., Mr., Mrs., a.m., p.m., etc.	alternate hypothesis	H <sub>A</sub>
deciliter	dL	All commonly accepted professional titles.	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
gram	g	And	&	catch per unit effort	CPUE
hectare	ha	At	@	coefficient of variation	CV
kilogram	kg	Compass directions:		common test statistics	F, t, $\chi^2$ , etc.
kilometer	km			confidence interval	C.I.
liter	L			correlation coefficient	R (multiple)
meter	m	east	E	correlation coefficient	r (simple)
metric ton	mt	north	N	covariance	cov
milliliter	ml	south	S	degree (angular or temperature)	°
millimeter	mm	west	W	degrees of freedom	df
<b>Weights and measures (English)</b>		Copyright	©	divided by	÷ or / (in equations)
cubic feet per second	ft <sup>3</sup> /s	Corporate suffixes:		equals	=
foot	ft	Company	Co.	expected value	E
gallon	gal	Corporation	Corp.	fork length	FL
inch	in	Incorporated	Inc.	greater than	>
mile	mi	Limited	Ltd.	greater than or equal to	≥
ounce	oz	et alii (and other people)	et al.	harvest per unit effort	HPUE
pound	lb	et cetera (and so forth)	etc.	less than	<
quart	qt	Exempli gratia (for example)	e.g.,	less than or equal to	≤
yard	yd	id est (that is)	i.e.,	logarithm (natural)	ln
Spell out acre and ton.		Latitude or longitude	lat. or long.	logarithm (base 10)	log
<b>Time and temperature</b>		Monetary symbols (U.S.)	\$, ¢	logarithm (specify base)	log <sub>2</sub> , etc.
day	d	Months (tables and figures): first three letters	Jan,...,Dec	mid-eye-to-fork	MEF
degrees Celsius	°C	Number (before a number)	# (e.g., #10)	minute (angular)	'
degrees Fahrenheit	°F	Pounds (after a number)	# (e.g., 10#)	multiplied by	x
hour (spell out for 24-hour clock)	h	Registered trademark	®	not significant	NS
minute	min	Trademark	™	null hypothesis	H <sub>0</sub>
second	s	United States (adjective)	U.S.	percent	%
Spell out year, month, and week.		United States of America (noun)	USA	probability	P
<b>Physics and chemistry</b>		U.S. state and District of Columbia abbreviations	use two-letter abbreviations (e.g., AK, DC)	probability of a type I error (rejection of the null hypothesis when true)	α
all atomic symbols				probability of a type II error (acceptance of the null hypothesis when false)	β
alternating current	AC			second (angular)	"
ampere	A			standard deviation	SD
calorie	cal			standard error	SE
direct current	DC			standard length	SL
hertz	Hz			total length	TL
horsepower	hp			variance	Var
hydrogen ion activity	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

# **FORT RICHARDSON HATCHERY**

by

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August 2018

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## **ABSTRACT**

The Fort Richardson Hatchery was maintained to support the Sport Fish Hatchery Program. Indoor winter storage was provided for four hatchery stocking trucks, and numerous ADF&G boats, trailers, and equipment were stored at this location. The residents of the three housing units provided emergency after-hours response to the WJHSFH.

**KEY WORDS:** Fort Richardson Hatchery, fish production, sport fish enhancement.

## INTRODUCTION

Fort Richardson Hatchery has produced fish that played a very important role in sport fishery enhancement programs in Southcentral and Interior Alaska. This large, complex facility has produced rainbow trout (*Oncorhynchus mykiss*), Chinook salmon (*O. tshawytscha*), coho salmon (*O. kisutch*), Arctic char (*Salvelinus alpinus Linnaeus*), and Arctic grayling (*Thymallus arcticus*). Fiscal year 2015 was the final year of a four year transition period of moving production from the Fort Richardson Hatchery into the William Jack Hernandez Sport Fish Hatchery (WJHSFH). Beginning in fiscal year 2016, the Fort Richardson Hatchery ceased fish production. The current primary role of the Fort Richardson Hatchery has changed to support the operation of the WJHSFH in its mission of producing fish to stock into numerous streams, lakes, and marine waters to create or enhance a wide variety of sport fisheries.

The Fort Richardson Hatchery is a state-owned facility, operated by the Alaska Department of Fish and Game (ADF&G), Sport Fish Division. The hatchery is located on Hatchery Drive near Ship Creek on the Fort Richardson Military Reservation, adjacent to the US Army's inactive Central Heat and Power Plant. It is accessible from Anchorage via the Glenn Highway.

The hatchery had been operated as a "central incubation facility" and was designed to use only well water for fish production. Heat was extracted from the US Army's power plant effluent to warm the well water to accelerate fish growth. This power plant ceased operation in March 2004, and a series of natural gas fired boilers were installed at the hatchery to provide heated water for rearing and incubation. All wells and boilers were not operated during the fiscal year 2018.

Hatchery web site:

<http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportStockingHatcheries.hatcheries>

## GOAL

The Fort Richardson Hatchery's primary goal is to support the William Jack Hernandez Sport Fish Hatchery in its mission to provide high quality, disease-free fish for enhancement projects throughout Alaska. Approved fish production objectives for FY18 are listed below.

## OBJECTIVES

1. Maintain facilities and equipment in operational condition.
2. Provide support to the Sport Fish Hatchery Program.



## **METHODS AND MATERIALS**

Fort Richardson Hatchery was maintained by hatchery staff as a functional support facility. The Sport Fish Hatchery Program was supported by providing space for storage of stocking trucks and associated stocking equipment, and by providing housing for personnel who respond to after-hours emergencies at the WJHSFH.

## **FINDINGS**

All coordination, administration and reporting functions were performed as expected.

The Fort Richardson Hatchery was also utilized by the ADF&G for off season storage of boats, trailers, weir panels, stocking trucks, and other equipment.

## **DISCUSSION**

### **OBJECTIVE 1:**

All facilities and equipment were maintained in operational condition or were properly decommissioned. Non-essential equipment was removed or organized, in addition to regular maintenance of the buildings and grounds.

### **OBJECTIVE 2:**

Four hatchery stocking trucks were stored at the Fort Richardson Hatchery during the winter months, protecting the tanks and life support equipment from the elements.

Three hatchery employees were housed at the Fort Richardson Hatchery site, and they each provided emergency response to the WJHSFH each fifth week.

### **FINAL REPORT STATUS:**

This constitutes the final report for this project.