



Agenda Item E.1.f
Supplemental Public Presentation 1 (Wolford)
April 2018

2018 Salmon Cost - Benefit Assessment for California Recreational Fishermen



2018 CA Economic Assessment

From 2018 Preseason Rpt. II Table 10, page 59

				Community Income Impacts			
		Angler Trips		(dollars)			
		Estimates Based on the Options	2017 Actual	2013-2017 Avg.	Estimates Based on the Options	2017 Actual	2013-2017 Avg.
Management Area	Alternative						
OR/CA border to Hor KMZ	I	11,100	-	13,700	\$ 10,802,000	\$ 1,610,000	\$ 3,774,000
	II	13,100			\$ 12,770,000		
	III	15,600			\$ 15,190,000		
Horse Mt. to Pt. Aren Ft Bragg	I	8,700	4,700	12,200	\$ 3,607,000	\$ 1,938,000	\$ 3,340,000
	II	12,100			\$ 5,001,000		
	III	7,300			\$ 3,010,000		
Pt. Arena to Pigeon P SF	I	50,600	53,800	53,500	\$ 11,438,000	\$ 14,204,000	\$ 17,424,000
	II	43,700			\$ 9,872,000		
	III	31,300			\$ 7,080,000		
South of Pigeon Pt. MO	I	31,100	15,100	19,200	\$ 7,035,000	\$ 1,361,000	\$ 5,633,000
	II	21,800			\$ 4,930,000		
	III	19,000			\$ 4,289,000		

Yields recreational angler cost of roughly \$225 - \$975 per trip



NOAA Technical Memorandum NMFS-
F/SPO-170 May 2017

NOAA Technical Memorandum NMFS-
F/SPO-134, September 2013

April 2018



2018 CA Economic Assessment

2018 Preseason Rpt. II Table 10 assuming \$300 per trip

Management Area	Alternative	Estimates Based on the Options	2017 Actual	2013-2017 Avg.	Estimates Based on the Options	2017 Actual	2013-2017 Avg.
OR/CA border to Hol KMZ	I	11,100	-	13,700	\$ 3,330,000	\$ -	\$ 4,110,000
	II	13,100			\$ 3,930,000		
	III	15,600			\$ 4,680,000		
Horse Mt. to Pt. Aren Ft Bragg	I	8,700	4,700	12,200	\$ 2,610,000	\$ 1,410,000	\$ 3,660,000
	II	12,100			\$ 3,630,000		
	III	7,300			\$ 2,190,000		
Pt. Arena to Pigeon P SF	I	50,600	53,800	53,500	\$15,180,000	\$16,140,000	\$16,050,000
	II	43,700			\$13,110,000		
	III	31,300			\$ 9,390,000		
South of Pigeon Pt. MO	I	31,100	15,100	19,200	\$ 9,330,000	\$ 4,530,000	\$ 5,760,000
	II	21,800			\$ 6,540,000		
	III	19,000			\$ 5,700,000		



2018 Impact to California Recreational Anglers

- Alternative I
 - 101,500 trips total, \$30.5 million
 - 3% above the 2013 – 2017 average
- Alternative II
 - 90,700 trips total, \$27.2 million
 - Loss of \$3.2 million (11%) from Alt I
 - 8% below the 2013 – 2017 average
- Alternative III
 - 73,200 trips total, \$22.0 million
 - Loss of \$8.5 million (28%) from Alt I
 - 26% below the 2013 – 2017 average

Based on \$300 per angler trip



2018 Impact to SF and MO Recreational Anglers

- Alternative I
 - 81,700 trips total, \$24.5 million
 - 12% above the 2013 – 2017 average
- Alternative II
 - 65,500 trips total, \$19.7 million
 - Loss of \$4.9 million (20% loss) from Alt I
 - 10% below the 2013 – 2017 average
- Alternative III
 - 50,300 trips total, \$15.1 million
 - Loss of \$9.4 million (38% loss) from Alt I
 - 31% below the 2013 – 2017 average

Based on \$300 per angler trip



Benefits are Difficult to Quantify

- Alternative I
 - 151,000 Escapees – Predicted time to recovery is unknown
- Alternative II
 - 165,000 Escapees – Predicted time to recovery is unknown
- Alternative III
 - 180,000 Escapees – Predicted time to recovery is unknown



Escapement History of prior years that have failed to meet minimum escapement of 122,000

year	escape(t-3)	escape(t)	escape(t+3)
1983	?	110.2	240.1
1990	195.1	105.1	165.6
1991	227.5	118.9	295.3
1992	152.6	81.5	301.6
2007	286.9	91.4	124.3
2008	396	65.4	119.3
2009	275	40.9	285.4
2015	285.4	112.9	?
2016	406.2	89.7	?
2017	212.5	44.6	?

Were they the result of a low parental year class – never

Did their spawning year class fail to meet escapement – only once (2008 +3 2011)

Mean spawner escapement from these “missed” years ~240K



Cost / Benefit Trade is Unknown

- Lost economic benefit from Alt I of \$5 to \$10 million in SF and MO regions is known and quantifiable
- Benefit to recovery is unknown and not quantifiable
- *Lack of quantifiable benefit does not support the loss of economic benefit*
- *No justification to support Alternatives II or III*



Escapement of 151,000 adults is Conservative

- 151,000 is in the upper half of the FMP escapement range
 - Meets the NMFS Guidance
- Provides an *expectation* of a higher than normal spawning class
 - Poor correlation between escapement numbers and returning adults in the spawning year class
 - River and delta habitat, and Ocean conditions dominate
 - Historic data suggest returns from this spawning year class will range between 40,000* and 770,000* adults
 - Average adult escapement is 240,000



2018 Salmon Assessment for California Recreational Fishermen

- Questions