Dan Roby - OSU 3-3-15

USGS employee [redacted] (b) (6)

DCCOs study since 1997

probs w/ COE's use of his sci.

COE & cooperators

- effort to address his concerns

- FEIS - partial read

monthly ea yr - he pushed

major cull - unprecedented for w. NA

how impact pop.

40% of w. breeding pop.

16K = 25% w. pop

11K = 15% " " now

2-27-15

Michelle McDowell, FWS
503/231-2024

Alt C-1: FWS dev'd Alt C-1 & recommended it to rec'd to COE - ~~to~~ impact to w. pop. of DCCOs

Ex: benefits - Appendices? Appp FEIS
see Don Lyons
attend to ESA steelhead

Kichie Graves - NOAA

NOAA/Corps holding to 2018 timeline -
Biop QS
- shoreline on her solicitors
- litigation -
re: Biop - will be more
yes - QS re: timeline, but 2018 in P&N.

• 2018: no analysis
- V ESI
oil eggs

for Alt D - ? w/ sooner
timescale -
terrain modif. 1st

503/231-6891

Richie Graves:
• timelines - 2018 report?
• RPAs vs.
RPMs

Pref Alt - happy w/
Adaptive
Ad. Mgt. strategy

montg COE - ann. fundg
- essential for - eval'g dep. permit
depredation

Ch. 5
Alt C-1 - montg is key

→ this is a really big project.

Re: non-target opps

- FEIS adequately adq. ↑ costs
- impact on regnl scale - low
- want to minimize impacts

eg, where there is a lic conc of brandt cormorants

— avoid those areas for ↑ culling.

most are

DCCOs @ LK wrt / SK 520 bridge area

blue pouch = Brandt's cormorant

Pelagic - away from P. Sd.

coast - more Brandts, Pelagic?

P. Sd → [illegible] [illegible] DCCOs

My Q

Re: Viable pop - DCCOs;

1990s level

FWS will use analysis for the depredation permit

What is a Sust. #? - its not just a #

relate to lg tm pop. trend

FEIS - what pop lk like in 20 years?

cum. effect

Salton Sea – ↓ w/ habitat due to drought

will this level of take –

⇒ ↓ trend?

or ↑ & stabilize?

see: effects analysis

App. E – wheel bd w/ corps

alot from FWS

to 1990's level

1990 – 2009: used data from this status assessment

how many colonies –

more now than in 1990 =

a 1st of stability.

↓s & ↑s – a redistribution

if exclude ESI – #s comparable

There are colonies
now fewer in BC

+

CR [illegible] coast

→ Ch. 3

FWS has a current
- dep. (radiator) permit app. from ODFW
- assuming same level of permit auth'd over past yrs
- avg of what's authorized.

Mgt strategy - dep. (radiator) permits
- some don't make sense
eg, - to suit the needs of a [illegible]
- just taking FWS
- says no to permit

but they (FWS) have regulations.
re: what dep. permits are for -
ESA = 1 of those things they are for

Depredation permits given for: • @ spillway of dams "take" @:
• hatcheries
net not arrived yet, while waiting,
∴ [illegible] ← they
• nests on structures
a few DCCOC × eg, ODOT bridge
killed allowed → but 1st [illegible]

FWS
eg ^ had issues, they're req'd to cut
them out w/ COE.

eg extended timeframe
^ longer - eg 2 yrs -
would ↓ need for shooting

w/ egg take alone -
takes a -lg time

yes, poss - but more
than
+ an egg-take-only
strategy -

would be good to lk
Recommendations @ in Adaptive Mgt. (1)

- but not more egg take
than proposed
- we don't want
DCCO disposal
= 1 of objs

other benefits to recommend?

ev. pop monitg

A: fund annual monitg.
* gaps on Pacific flyway
- just DCCOs
(they got it! the monitg commitment from COE)

FWS - evaluates the request @ yr.
- annual depredation permits

Michelle McDowell - MM - will do biol. review & Nanette Sets is mgr
↳ MM = main contact

Caspian terns

She just wears the scientist hat
she's lucky to not fill that role (ethics)

- Tribal treaty
- DCCOs - having more
- a hard thing: lethal take
- egg oilg

Caspian tern -

respond to (other wtr birds) OB
decoys,
sol systems,
created habitat

2 projects:
lg term
EIS 2006, FWS
lead

re: to ESI Caspian tern habitat
while COE created
hab. elsewhere —
finished new habitat creation last wk

- she saw it on Sunday
- good project
in SF Bay area

salt ponds -
turned bk to
estuary
created isl - but bad
substrate

she wkd w/ COE

>2 ac model suitable for
C. terns &
Pipg plover

Caspian
tern habitat on ESI ↓ to 1 acre this yr.

instead of 1.5 → 1 ac.

(Et: didn't the
Corps decide no actn on this?) ↗

2:1 reductn

SF Bay site - lots of marine
forage fish available

this yr:
↓ g Crescent Isl.
Goose Isl.
→ McNary NWR?
in
Col.
Plateau

→ potholes
Reservoir

take eggs
of Caspian
tern

503/231-6891

~~Ef~~ Qs for NMFS
Richie Graves:

- Is the plan to ↓ DCCOs essentially to save steelhd? (because other ESA salmonids are ↑g) yes
  ~~not really~~; steelhd most impacted cuz
- Swim higher in wtr column
  6% steelhd
  2-2½% chinook; 6% fall chinook
  1-2% sockeye
- To what extent are DCCOs resp. for steelhd ↓?
  Are there data to support this?

- Timelines - 2018 reqmt?
  Could this be extended for DCCO mgt?

- RPAs vs. RPMs
  discretionary? vs. req'd
  No Actn
  Alt is viable?

Richie Grove, NMFS Qs:

How much per capita benefit & to whom for removing DCCOs?

If removed RPA 46, or achieved it to a lower or slower degree, would ESA Bio Op goals still be achievable? Why or why not? What else could be tweaked to achieve goals?

other Alts: - ↓ habitat + egg oiling
- egg oiling only
- ↓ habitat only

} ± hazing
} + + monitoring

Corps: DCCO/RPA 46 - cheap, easy, quick to shoot — but not harmonious w/ people or environ.

Q: How is egg oiling done? Would it endanger the birds - is it sprayed? silly or oiled eggs? accidental spray w/ oil?

3-2-15
Richie Graves,
NMFS

steelhd:

tryg to achieve -
for ea spawner - emf
for replacemt - @ least
- better

lg baseline - preventg
- in part the bird colony
lg term data sets
- stood out

he went to all public mtgs
heard all arguments

① - DCCs - eat hatchery & wild fish.

② - pop have ~~1.5 - 1.9~~ range .95 - 1.05 for steelhd & alot of chinook
~~replacemt range~~

☆ if take 6% x .94
if 1.0 replacemt
= ↓ g
imp. concept
1.2 → take 6% - pop ↑g @ smaller rate
need replacemt

2008 - 2018 - BiOp covers
has slipped # of yrs

RPA - NMFS or FWS
determine actn = Jeopardy

RPA - addresses this

RODs - can protest if think
Agency (COE)
rent poss or outside
agency discretn
or
not the $ feasible
economically

RPA -
Incid take statement - Corps
∴ RPMs for ITP
when Sues alter the prop. actn
- can't
- they req. mon'tg or
minimizing of impacts

Corps could always do more
can't strong arm them

holds FWS ± resp. - led to find time,
no mgt plan for predacious birds
20 yrs ago - not there

C. terns easier to manage
can coax elsewhere

DCCOs = generalists
- can will nest on anything

if oilg only - full abandonment
- disperse elsewhere
+ cause probs

if too much egg oilg
+ to habitat -
if go inland

70s - low levels - DDT - only few 1000s left
~60K birds now

40-50 sea lions taken
of 300K @ Bonneville
Dam

- DCCOs - big project
then decelerate ← Take is most in 1st yr.
70% egg

attrition - some die naturally
lethal + eggs oilgs
↓ pop.

to level down —
then remove
habitat.

struck by pro-fish people
says - get birds are
part of environt
- prob = #s they're @

NOAA
wants get base level impact
avg 1980 - 2000
50% colony ↓
5300 pvs birds
will still be biggest w. coast
colony + will
still export birds

if ate only hatch. fish - ok;
but eatg wild fish

Q: how monitor?
wild fish.

wild fish won't rebound
in 10 yrs

to get to recovery
Q: need 20-30% ↑ A:
from all sources ? (from all HS)

Recovery plan = rd map

BOs - other actors & agencies
- piece meal

NPG - interbreeding of pops
ESU - level

His main staffer = avid bird watcher
top 10 in U.S @ yr
he's @ peace w/ this
thinks Sudeton is off base

hatch & wild - PIT tags - wtuk
trapping in basin
catch smolts & PIT tag

get survival estimates w/
pop fish
@ Bonn. Dam

can detect —

How many
wild vs. tagged

wild & hatchery fish
are pit tagged

Richey Graves, NMFS 3-4-15

Re: Gap Analysis — Fish Biol.

Gary Frederickson - @ RO

he did it, expert in predator

staff @ NW Science Ctr did peer review

Shared w/ Roley & Staff

to review methods

separate lines

used it rather than energetics - what proportion of diets are Salmon + steelhd

low flow yrs - more saltwtr fish come in

across a range of condns

predator is "X"

consumption

simple, straight forward bullet proof analysis

CCΔ?

SO - section on CCΔ

prob won't Δ alot in spring

not expecting big Δs in flows in
Spring - when nesting

Δs in flows are natl
dust bowl - low flows
lots of snow - hi "
low snow - low flows

forecasting
lots assumption in modelling
least clear in Col Basin

Jet stream drives our precipitation

& CCS models - inconclusive re: precipitation
a little wetter /
" " drier

in 80's modelled where data -
used 7yr wtr record
all flow records Col B.
1929-99 - based on modelling that range of variables

flow ranges in past.

avg'g across broader flows
or what will

6% = 1 dam of mortality

DCCO take pretty confident

neg Dan Roby's data

energetics - DCCO needs to feed birds

pit tags on island

call Tribal - not going far enough Tribes think
- kill all birds

- NMFS trg to be as resp. as possible -
oilg eggs + killg

timeline
decisns made @ highest level
- RA level
-

2-3 x briefgs

Mon Soscia - on fed caucus
= when commun coord issues in CR basin

BPA
FWS - deputy
NMFS - "

General + Civilian
corps side