



Deschutes Basin Habitat Conservation Plan

Stakeholder Group Meeting

December 13, 2018

Bend, Oregon

AGENDA

- Welcome and Introductions
- Purpose and Need for the DBHCP
- The DBHCP Proposal
- Status and Schedule for NEPA Compliance

Purpose and Need for the Deschutes Basin HCP

Bridget Moran
U. S. Fish and Wildlife Service

The lands and waters affected by irrigation activities in the Deschutes Basin are occupied by three species protected under the Federal Endangered Species Act (ESA):

- Steelhead trout
- Bull trout
- Oregon spotted frog

Activities that harm or otherwise “take” protected (*listed*) species are prohibited under section 9 of the ESA.

The take restrictions of ESA section 9 are enforced by:

- National Marine Fisheries Service (NMFS) - for anadromous fish and marine mammals
- U. S. Fish and Wildlife Service (USFWS) - for other fish and wildlife

Certain irrigation activities in the Deschutes Basin have the potential to cause take of listed species:

- Storage and release of water in reservoirs
- Diversion of water from rivers and creeks
- Return of water to rivers and creeks

Section 10 of the ESA has provisions for allowing “incidental take” of listed species for otherwise lawful activities like irrigation, subject to certain provisions.

An applicant for an incidental take permit must prepare a Habitat Conservation Plan (HCP) that describes:

- Impacts likely to result from the taking of the species
- Measures the applicants will take to minimize and mitigate impacts
- Adequate funding to implement those measures
- Alternative actions that would not result in take, and reasons those alternatives are not being used
- Additional measures as required by USFWS and NMFS

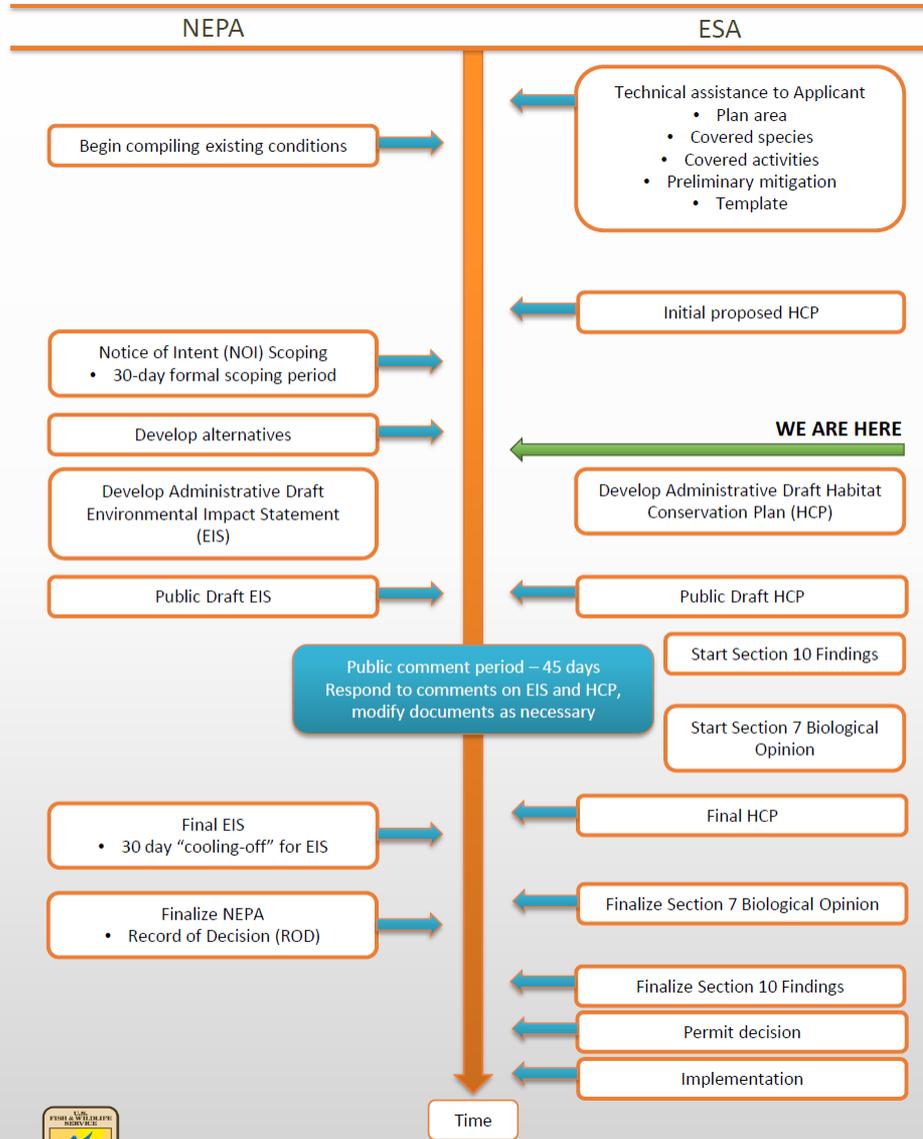
To approve an HCP and issue an incidental take permit, USFWS and NMFS must determine:

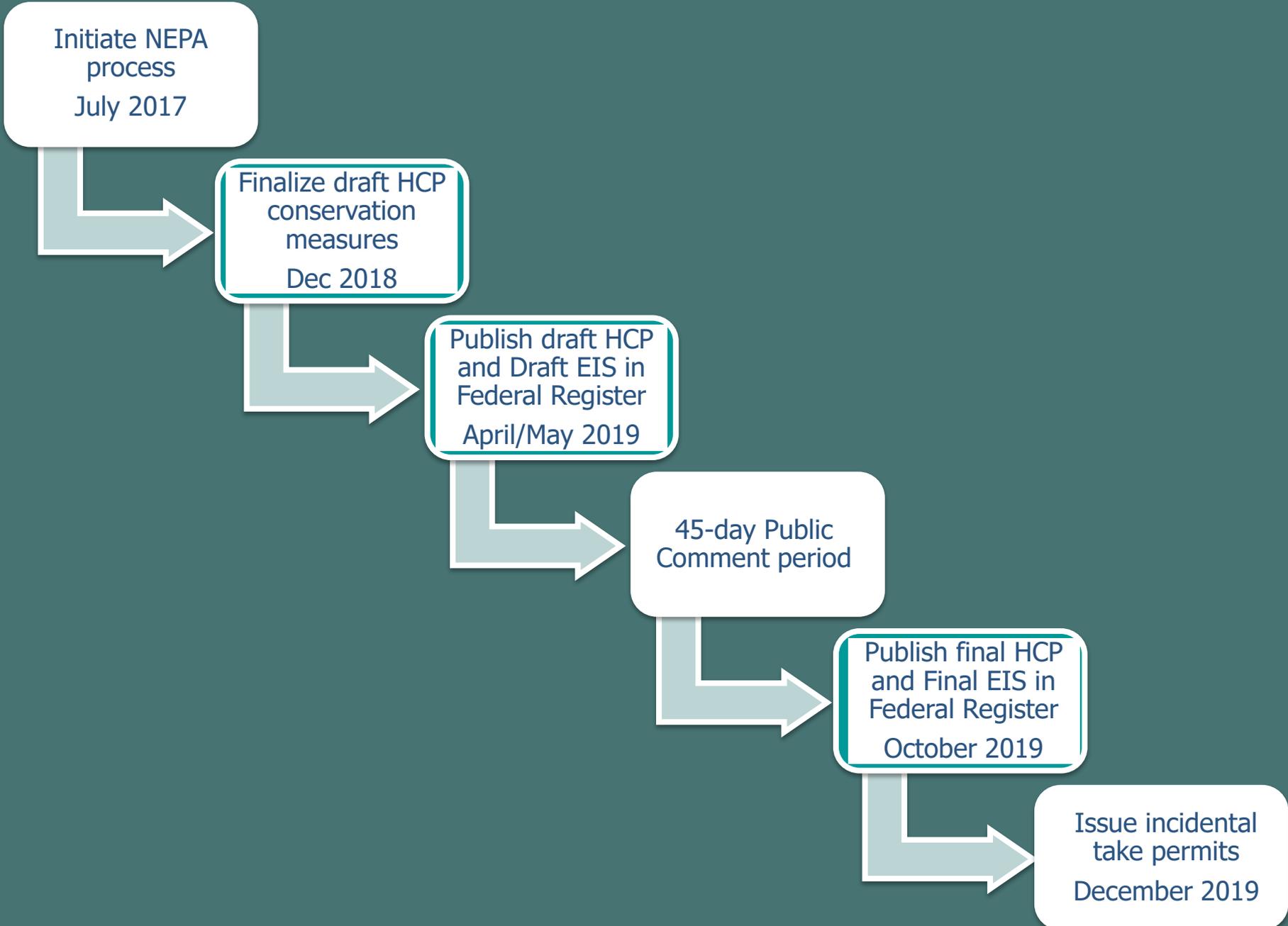
- The permitted taking is incidental to otherwise lawful activities
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of the taking
- The applicant ensure adequate funding for the plan
- The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild
- Additional measures required by USFWS and NMFS will be met

USFWS and NMFS must also comply with the National Environmental Policy Act (NEPA) and evaluate the potential impacts of permit issuance on the human environment.

- For large and complex actions like the DBHCP, NEPA requires the completion of an Environmental Impact Statement (EIS).
- The DBHCP EIS is being prepared by an independent third-party consultant under the direction of USFWS, concurrent with completion of the DBHCP.

NEPA and HCP Timeline





Initiate NEPA process
July 2017

Finalize draft HCP conservation measures
Dec 2018

Publish draft HCP and Draft EIS in Federal Register
April/May 2019

45-day Public Comment period

Publish final HCP and Final EIS in Federal Register
October 2019

Issue incidental take permits
December 2019

The DBHCP Proposal

Marty Vaughn
Biota Pacific

- Covered Species
 - Steelhead
 - Bull trout
 - Sockeye salmon
 - Chinook salmon
 - Oregon spotted frog

- Covered Activities
 - Storage of water in reservoirs
 - Release of water from reservoirs
 - Diversion of water into canals
 - Return of water from canals
 - Conservation measures

Multiple sets of conservation measures, each tailored to a specific subset of the covered lands:

- Crane Prairie Reservoir
- Wickiup Reservoir and Upper Deschutes River
- Middle Deschutes River
- Crescent Creek and Little Deschutes River
- Whychus Creek
- Crooked River, Ochoco Creek and McKay Creek

Crane Prairie Reservoir

- Optimize existing habitat for Oregon spotted frogs within the reservoir:
 - Reduce seasonal fluctuation in reservoir storage volume and water surface elevation.
 - Limit maximum and minimum volume/elevation.
 - Keep volume/elevation constant during egg deposition and incubation.
 - Limit the rate of seasonal drawdown in late summer.
 - Avoid extreme high and low flows downstream of reservoir.

Wickiup Reservoir and Upper Deschutes River

- Improve habitat for Oregon spotted frogs between Wickiup Dam and Bend:
 - Increase the minimum flow below Wickiup Dam during the winter in increments over 20 years.
 - Years 1-5: 100 cfs
 - Years 6-10: 200 cfs
 - Years 11-20: 300 cfs
 - After year 20: 400 cfs
 - Adaptively manage flows below Wickiup Dam during the winter to provide more than the required minimum whenever possible.
 - Increase and stabilize the flow below Wickiup Dam in April.

Middle Deschutes River

- Protect instream flows for fish during the winter:
 - Coordinate winter stock run diversions to maintain at least 250 cfs in the Deschutes River at Bend.

Crescent Creek and Little Deschutes River

- Protect and improve existing habitat for Oregon spotted frogs:
 - Increase minimum flow below Crescent Dam from historical levels during the winter.
 - Protect historical habitat benefits of summer irrigation releases from Crescent Lake Reservoir.
 - Limit rates of change in flow and water surface elevation during seasonal transitions.

Whychus Creek

- Improve habitat for fish in Whychus Creek:
 - Complete the transfer of conserved water to instream flow (for an instream total of 31.18 cfs).
 - Install equipment to enable hourly tracking/adjustment of diversions and instream flow.
 - Provide \$6,000/year for temporary instream leasing.
 - Maintain diversion and fish screens to ensure volitional passage.
 - Assist with piping of patron-owned canals.
 - Limit the rate of change in diversion during periods of low flow.

Crooked River, Ochoco Creek and McKay Creek

- Improve habitat for fish in the Crooked River subbasin:
 - Augment uncontracted water to maintain flows in the Crooked River during dry years.
 - Maintain specified minimum flows in lower Ochoco Creek.
 - Maintain specified minimum flows in lower McKay Creek.
 - Support McKay water switch.
 - Monitor instream flows at multiple new locations.
 - Provide \$8,000/year for habitat conservation.
 - Maintain and improve District fish screens as needed.
 - Assist with screening of patron diversions.



Status and Schedule for NEPA Compliance

**David Zippin and Deb Bartley
ICF**



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National Environmental Policy Act (NEPA)

- USFWS and NMFS issuance of ESA Section 10 permits is a **federal action** subject to NEPA
- NEPA compliance is required
- Consider effects on human environment of approving and implementing the HCP
- Identifies and assesses reasonable alternatives to the proposed HCP
- HCP belongs to applicants; NEPA document belongs to USFWS (NEPA Lead Agency)
- USFWS has determined an Environmental Impact Statement (EIS) is required



Elements of the EIS Process

- **Purpose and need**
- **Reasonable range of alternatives**
- **Environmental consequences**
- **Cooperating agency engagement**
- **Public outreach**
- **Public review and comment**



Alternatives Analysis

- **Considered 15 potential alternatives**
- **Variations on the HCP Elements**
 - Operational changes
 - Biological needs
 - Agricultural/socioeconomic effects
 - Non-operational conservation
 - Permit term
- **Screening**
- **Workshop**



Alternatives

- **No Action**
- **Proposed Action: Proposed HCP**
- **Alternative 3: Enhanced Variable Streamflows**
- **Alternative 4: Enhanced and Accelerated Variable Streamflows**

No Action

- **Water operations follow Oregon spotted frog Biological Opinion (Sep 2017)**
 - Crane Prairie Reservoir
 - Upper Deschutes River
 - Crescent Lake Reservoir and Crescent Creek
- **Climate change**
- **Crooked River Act**
- **Biological Opinion for steelhead (Feb 2005)**
- **Other recent projects and plans**



Proposed Action

- **HCP covered species**
- **HCP covered activities**
- **HCP conservation measures**
- **HCP adaptive management and monitoring**
- **30-year permit term**



Action Alternatives

- **Alternative 3. Enhanced Variable Streamflows**
 - Enhanced streamflows on Upper Deschutes
 - Fish and wildlife water on Crooked River is protected
 - Conservation fund for Deschutes River

- **Alternative 4. Enhanced and Accelerated Variable Streamflows**
 - Further enhanced and accelerated streamflows on Upper Deschutes
 - Fish and wildlife water on Crooked River is protected and enhanced streamflows
 - Conservation fund for Deschutes River
 - Reduced permit term (20 years)

Upper Deschutes Min. Winter Flows (Sept 16 – March 31)

Years	No Action	Proposed Action	Alternative 3	Alternative 4
0–5	100 cfs	100 cfs	200 cfs	300 cfs
6–10	100 cfs	200 cfs	300 cfs	400 cfs
11–15	100 cfs	300 cfs	400 cfs	400–500 cfs
16–20	100 cfs	300 cfs	400–500 cfs	500–600 cfs
21–30	100 cfs	400 cfs	400–500 cfs	



Secretarial Order 3355

- **Timeline requirement**
- **Document length requirement**
- **Public review period**



Resources Analyzed in EIS

- **Water Resources**
- **Biological Resources**
- **Water Quality**
- **Recreation**
- **Aesthetics**
- **Land Use/Agricultural Resources**
- **Socioeconomics**
- **Tribal Resources**
- **Environmental Justice**
- **Cultural Resources**

Resources Not Analyzed in EIS

- **Transportation**
- **Air Quality**
- **Noise and Vibration**

RiverWare

- **Daily water management model for Deschutes Basin**
- **Used to assess impacts of adjustments to river-reservoir operations**
- **Reflects input data and operational rules to reflect operations under the alternatives**
- **Used for Oregon spotted frog Biological Opinion and Basin Study**

Schedule

- NEPA Scoping – July 2017
- EIS contractor hired (ICF Team) – March 2018
- Alternatives analysis – spring/summer 2018
- Scope of EIS analyses – summer 2018
- Alternatives refinement – fall 2018
- RiverWare modeling – fall 2018
- Resource analyses and working draft chapters –
WE ARE HERE
- Administrative Draft EIS – early spring 2019
- Public Draft HCP and EIS – late spring/early summer 2019 (45-day comment period)
- Final EIS and Record of Decision – fall 2019