Oregon's Columbia River Water Rights

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Presentation

- Key developments that helped shape Oregon's current approach to the appropriation of water from the Columbia River.
- Oregon's Columbia River-Umatilla Solutions Taskforce.
- Oregon's perspective on the 2014-2024 Columbia River Treaty Review.

On October 17, 1805 William Clark of the Lewis and Clark expedition, canoed the Columbia River and later observed in his journal that, “this river is remarkably Clear and Crouded with Salmon in maney places...and in the Bottoms which can be seen at the debth of 20 feet.”

The scene depicted above is from a painting by Newman Myrah entitled “Bartering Blue Beads for Otter Robe”. (Fort Clatsop National Memorial Collection FOCL 000104 Cat. No. 698)

Key Developments

- In 1991 and 1992, four Snake River salmon runs were listed under the Endangered Species Act.
- In December 1993, the Governors of Idaho, Oregon, Montana, and Washington endorsed the Northwest Power Planning Council's (NPPC) Fish and Wildlife Program as the starting point for recovery.
- In response to these events, the Oregon Water Resources Commission directed the Oregon Water Resources Department to delay processing most new water use permit applications upstream of Bonneville Dam and in 1994 adopted additional public interest standards, known as the Division 33 rules, for reviewing appropriations in the Upper Columbia River Basin.

Division 33 Rules

The Division 33 Administrative Rules were developed to protect threatened and endangered fish in the Oregon portion of the mainstem Columbia and Snake Rivers and their tributaries.

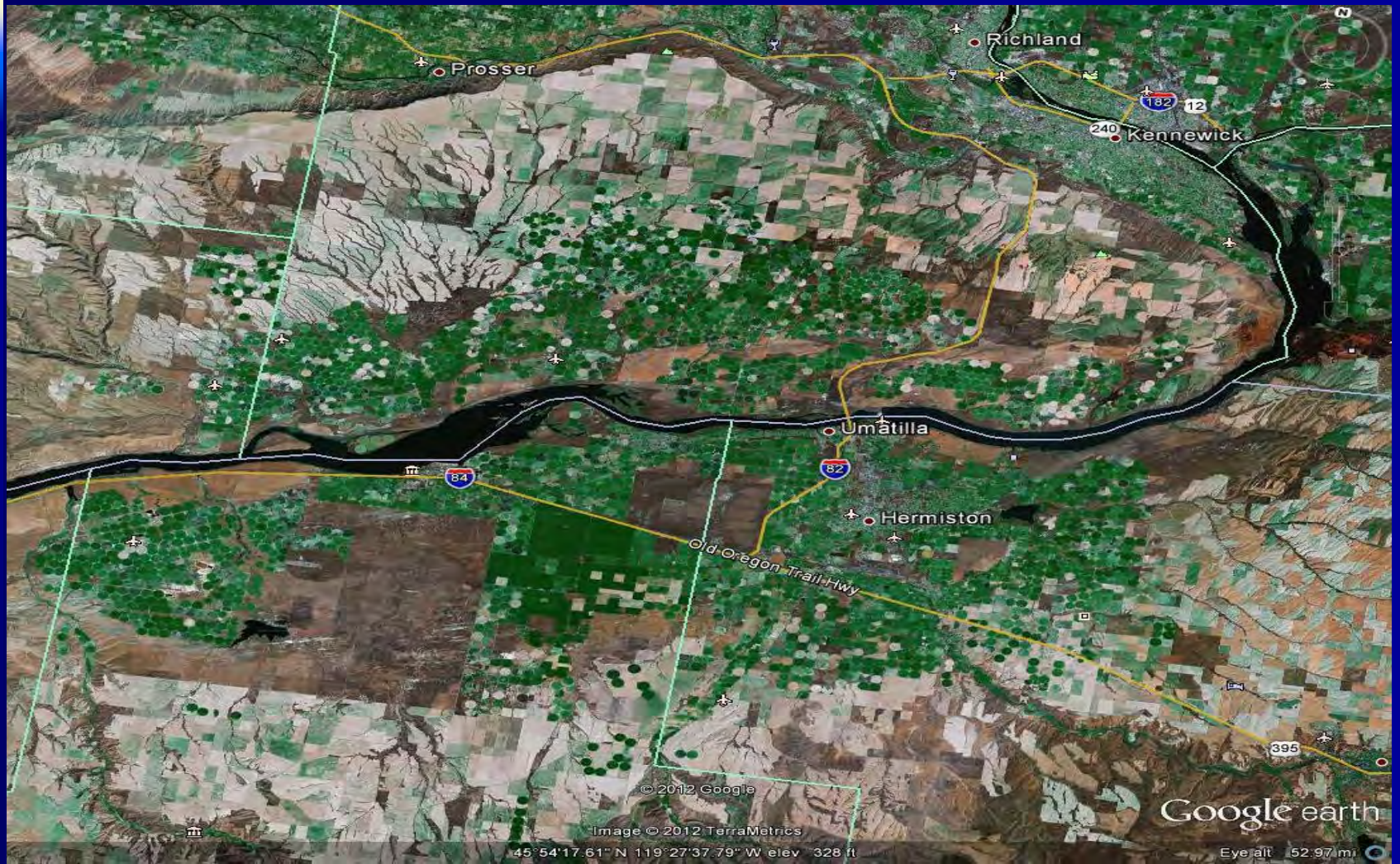
Specifically, Division 33 rules require consistency with the NPPC February 1994 Columbia River Basin Fish and Wildlife Program and precludes appropriation (from 1992 forward) of direct streamflow or hydraulically connected groundwater from April 15 to September 30 with some exceptions (domestic use, projects that benefit fish, emergency use, multipurpose storage projects).

Pre-Division 33: Water Rights authorized for irrigation season diversion (April 15 – September 30) from mainstem equal about 442,000 acre-feet (or 1,700 cfs).

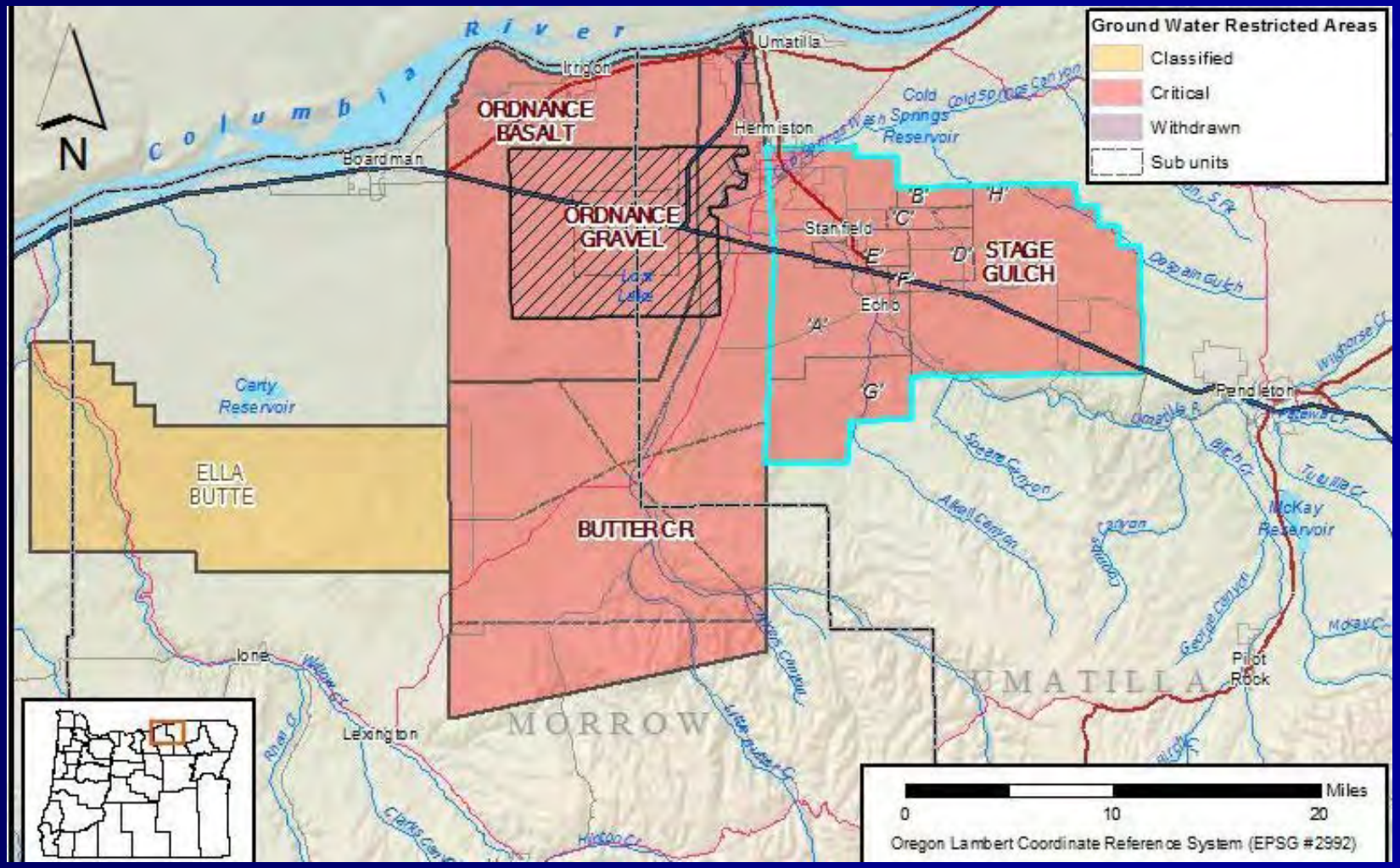
Post-Division 33: No authorizations of diversion from mainstem (April 15 – September 30) except for three minor diversions: one for irrigation of a yacht club's grounds, one for domestic use, and one for municipal use (with mitigation).


COLUMBIA RIVER BASIN
IN OREGON
Inside the basin.
Outside the basin.
Miles
COLUMBIA RIVER
Portland
Salem
Eugene
Bend
Pendleton
Baker City
La Grande
Ontario
Coos Bay
Roseburg
Grants Pass
Medford
Klamath Falls
Burns
The Dalles
Albany
Newport
Lincoln City
CLATSOP
TILLAMOOK
COLUMBIA
WASHINGTON
MULTNOMAH
HOOD RIVER
SHERMAN
GILLIAM
MORROW
UMATILLA
WALLOWA
UNION
BAKER
YAMHILL
CLACKAMAS
WASCO
POLK
MARION
WHEELER
GRANT
LINCOLN
BENTON
LINN
JEFFERSON
CROOK
DESCHUTES
LANE
COOS
DOUGLAS
CURRY
JOSEPHINE
JACKSON
KLAMATH
LAKE
HARNEY
MALHEUR

Oregon's Columbia River-Umatilla River Water Supply



Groundwater Restrictions in the Umatilla River Basin



Groundwater Restrictions in the Umatilla River Basin

Curtailed Groundwater Amounts

Groundwater Areas:	Irrigated Acreage
Ordinance Basalt and Gravel	9,934 acres
Butter Creek Basalt	26,919 acres
Stage Gulch Basalt	26,636 acres

Totals:	
Irrigated Acreage:	63,489 acres
Groundwater Rights:	190,000 acre-feet
Curtailment (acre-ft; %) :	127,000 acre-feet (67%)
Current restricted allowance:	63,428 acre-feet

Oregon's Columbia River-Umatilla Solutions Taskforce

On April 3, 2012 Oregon Governor Kitzhaber designated the Columbia River Water Supply Program as an Oregon Solutions Project and the Columbia River-Umatilla Solutions Taskforce was formed.

The Taskforce was formed to build upon:

- Recent efforts of Umatilla Basin irrigators, public agencies, Confederated Tribes of the Umatilla Indian Reservation, and conservation interests to build working relationships and implement the Umatilla Basin Aquifer Storage and Recovery Project,
- Lessons learned from the State of Washington Office of Columbia River, which has, over the last several years, developed or worked on more than 40 projects to develop new Columbia River water supplies for instream and out-of-stream uses, and
- The many studies and actions related to salmon recovery in the Umatilla Basin and mainstem of the Columbia River.

Umatilla Recharge Project

IRZ

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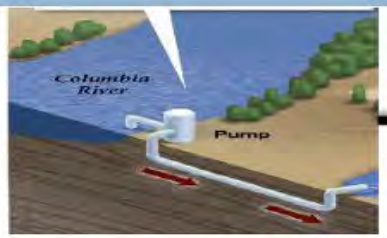
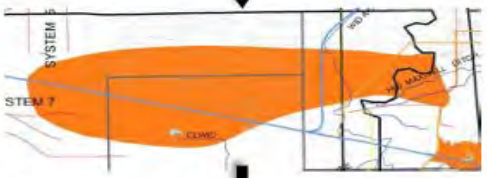
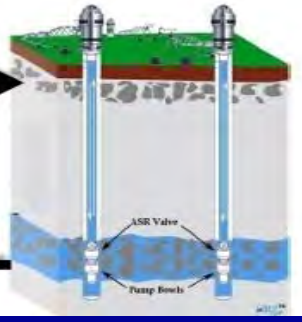




IR Season

Non-IR Season



ASR Lim Lic
ASR Permit

IR Season

Initial List of Interstate Options

Flow management options:

- Managing the Columbia River to increase flow in spring and summer (Treaty nexus)
- Operate the John Day Pool at minimum operating depths during the summer (involves the State of Washington)

Storage:

The State of Washington has expressed an interest in exploring a partnership with Oregon in the feasibility analysis, authorization, and financing for potential above-ground storage projects at the Crab Creek and Goose Lake sites and below-ground basalt and alluvial aquifer storage sites adjacent to the Columbia River.

Oregon Perspective – Treaty Review

- Protecting and improving environmental conditions for fish and wildlife within the Columbia River Basin is an essential Oregon interest.
- Hydroelectric power generated by the Federal Columbia River Power System is a vital component of Oregon long-term energy plan.
- Flood Risk Management is vital to protecting cities and industry in Oregon vulnerable to Columbia River flooding.
- Water supply to meet Oregon's current and future instream and out-of-stream needs is a priority interest for Treaty Review.

An Altered Columbia River Basin

[Substantial changes to patterns of water flow and water quality]

- Most dramatic is the fundamental alteration of the river's annual hydrograph.
  - hydrograph used to exhibit a great seasonality between low flow and high flow periods.
  - hydrograph has been "flattened" to stabilize flows used to generate hydroelectric power.
- Pattern of withdrawals (primarily for irrigation) has affected river flows in dry years, particularly during the primary irrigation months (April – September).
- Water temperatures in the mainstem Columbia increased steadily during the latter part of the 20th Century.
  - Most observers attribute the increase to the construction of dams and impoundments
  - Others attribute the increase to the impacts of global warming
- Return flows from agricultural activity and wastewater treatment processes are affecting water temperatures and levels of dissolved oxygen, nutrients, suspended sediments, pesticides, trace metals and pharmaceuticals.

Federal Columbia River Power System

- The U.S. Army Corps of Engineers (USACE) and Bureau of Reclamation (BOR) own and operate 31 dams in the FCRPS.
- The Bonneville Power Administration (BPA) markets wholesale power generated at these dams, primarily to the region's consumer-owned utilities.
- Federal and non-federal dams are operated as a single system under a coordinated agreement to meet the following six competing needs:

flood control	Irrigation	navigation
fish and wildlife	hydropower	recreation

- Operations resulted in "flattening" of the seasonal hydrograph (from 75% – 25% summer / winter to 50% - 50% summer / winter), a decrease in water velocities, a change in the size and orientation of the Columbia River plume, and major changes to limnology and nutritional pathways in the Columbia River estuary and its food web.

Flood Control Operations

Much has been mentioned about the Vanport flood of 1948....my turn.

- The flood extended from British Columbia to the Pacific Ocean.
- River communities, including Vanport, experienced over $100 million in property damage and lost 51 lives.
- Post-Vanport near misses included the 1964-65 Christmas floods, and in 1996, warm rains on snow, a “pineapple express,” brought the river to near flood stage in Portland/Vancouver and four months of high water

The STT is reviewing 450 kcfs and 600 kcfs at the Dalles for treaty continues and treaty terminates scenarios. 1964 Protocol to the Treaty notes the 600 kcfs as a condition of “called upon”. Oregon is very interested in risk levels above 600 kcfs.



Develop and Assess Water Supply Components To Be Incorporated into Post-2024 Treaty Alternatives.

The contractor shall provide assistance to the Government in developing and assessing water supply components or scenarios that are tiered to Canadian Reservoirs into post-2024 Treaty alternatives. The components or scenarios would be based on Iteration 3 modeling, and as such would be scenario(s) that combine multiple uses such as additional water in spring and summer for environmental and water supply purposes.

The contractor shall estimate the timing and suggested quantities of water that would be desired for water supply based on direction from the STT Water Supply Work Group. These requests are currently motivated by interests in Oregon and Washington State. The Contractor shall also provide an overview of the potential contractual/Treaty/commercial mechanisms and the river and storage operations needed to provide additional water.

Increases in water shall not be allocated to specific uses but could meet future needs or reduce shortages for multiple uses including irrigation, M&I, and instream uses.

Other Important Considerations

Navigation

Overview of import and export trade and economic benefit for Washington, Oregon, Idaho and other northwestern states is being developed as part of the Navigation Impact Assessment.

Recreation

Alternatives developed for Treaty Review consideration are being evaluated for their impact on recreation in Oregon, Washington, other Columbia River Basin states and tribal governments.

Columbia River Treaty 2014 – 2024 Review

A Bridge to the Future