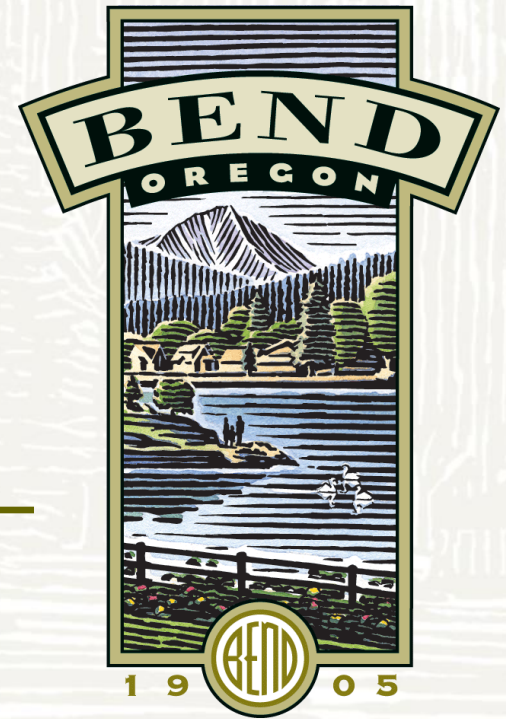


# Joint Meeting for the Proposed Small Hydroelectric Conduit Project

Federal Energy Regulatory Commission  
Surface Water Improvement Project  
August 10, 2011



# Meeting Objectives

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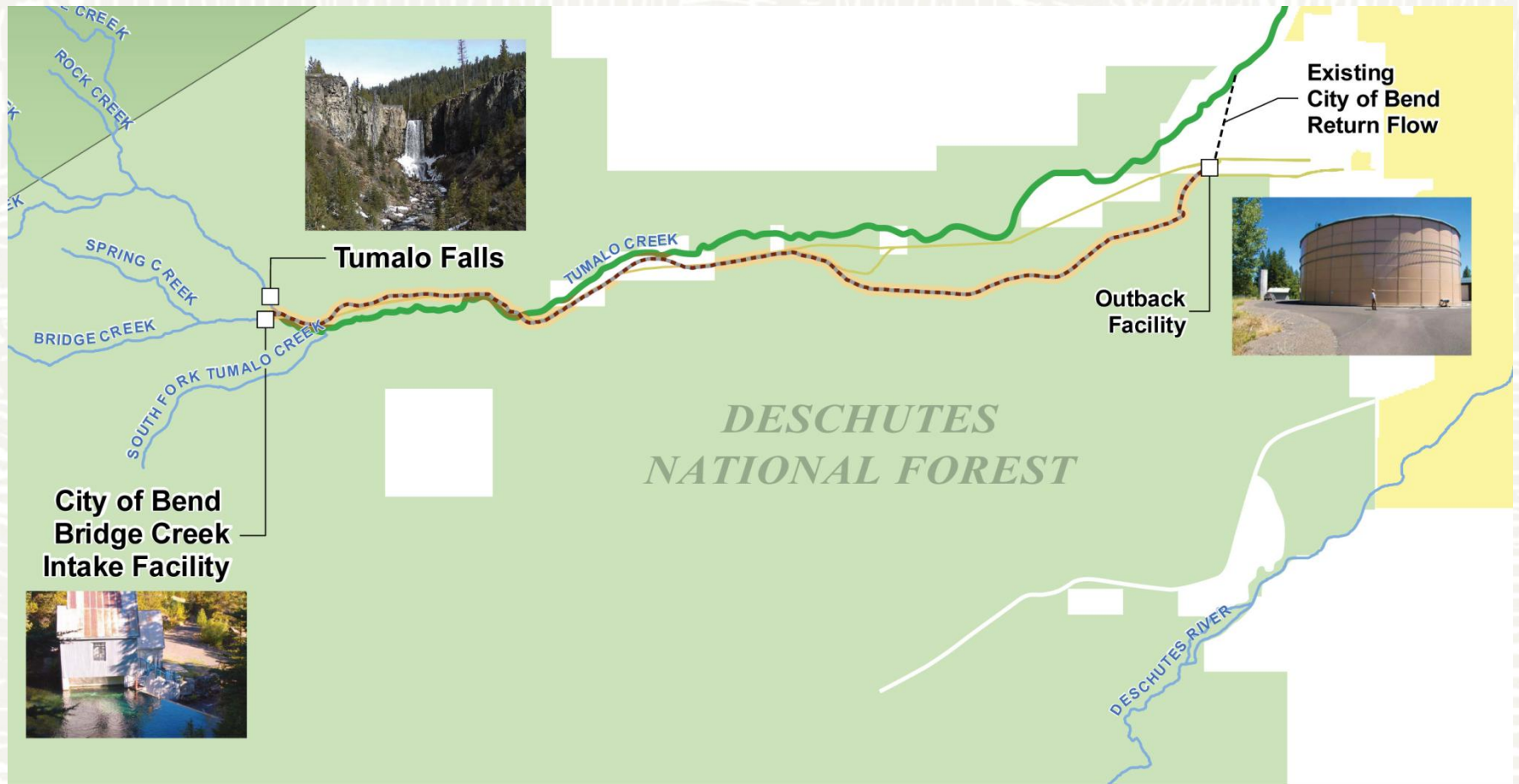


- Overview of City's Water Supply System
- Provide proposed hydropower plant overview
- FERC Conduit Exemption process
- Provide opportunity for questions, comments, and discussion on the proposed hydropower project

# City's Surface Water Supply System



- Intake Facility
- Raw Water Conduit
- Water Treatment Facility
- Hydropower Facility



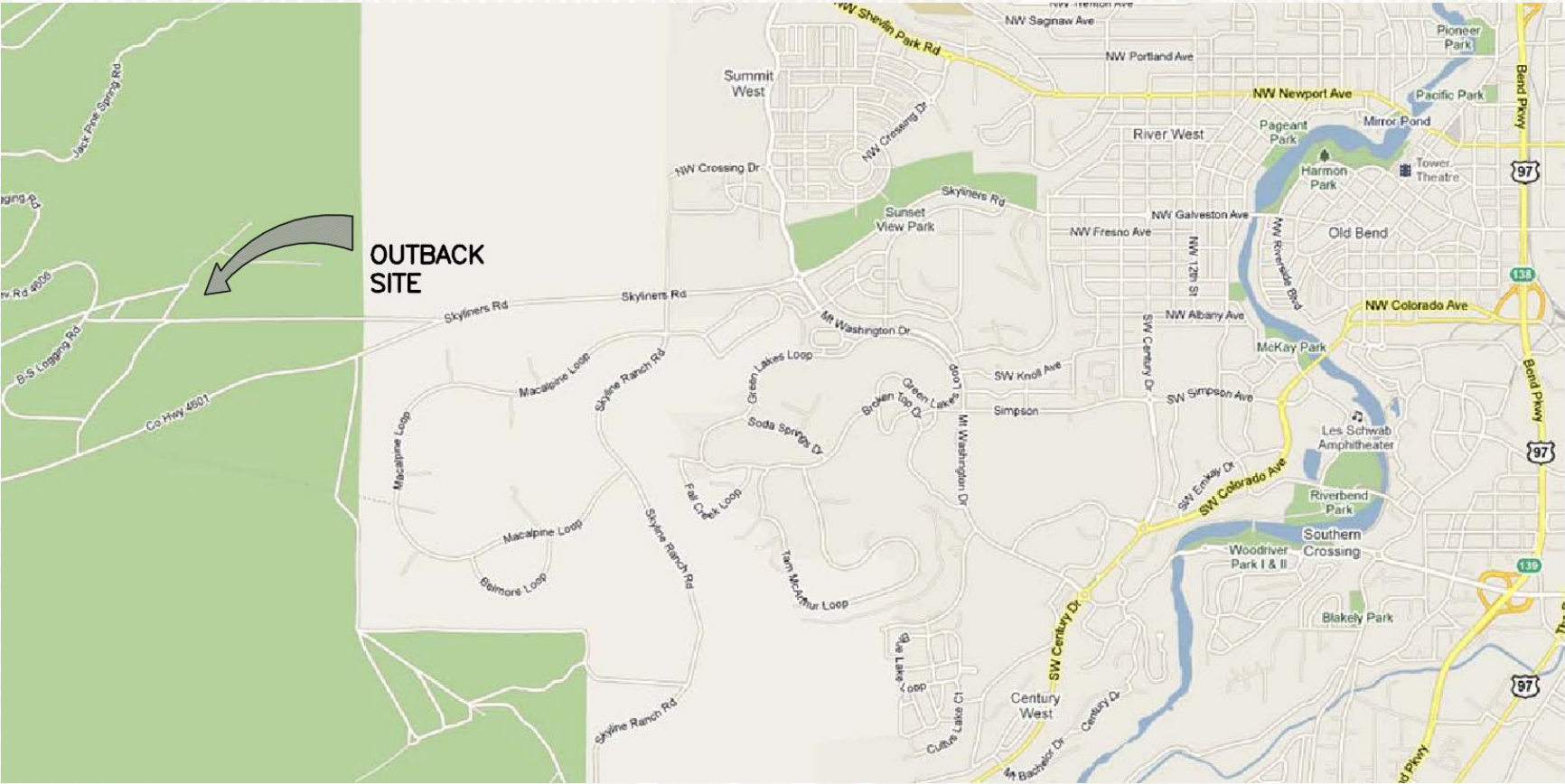
# Why Hydropower?

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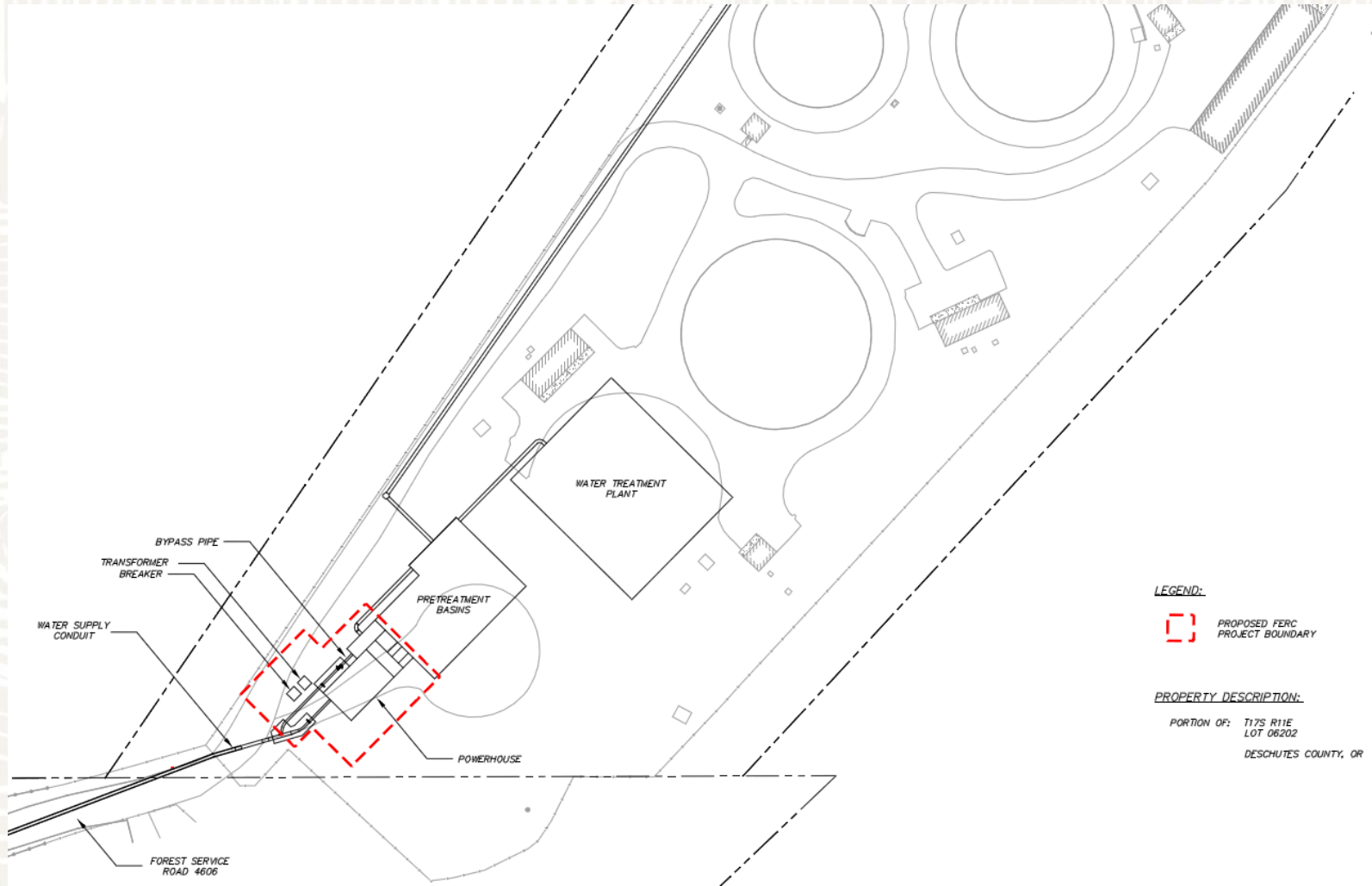


- **Gravity-fed system provides 1,000 feet of head**
- **Generate revenue to help off-set rate increases**
  - *Economic value expected to exceed investment (\$9M to \$12M NPV over 50-yrs)*
  - *Generate revenue in first years exceeding debt service and operating expenditures*
- **Clean, renewable energy**
  - *Offset greenhouse gas emissions*
  - *Electricity for approximately 1,000 households*
- **Can only generate power from water already being used by rate-payers**
- **Council voted to build hydropower now**

# FERC Project Location



# FERC Project Boundary- Outback Site Plan



**LEGEND:**

 PROPOSED FERC  
PROJECT BOUNDARY

**PROPERTY DESCRIPTION:**

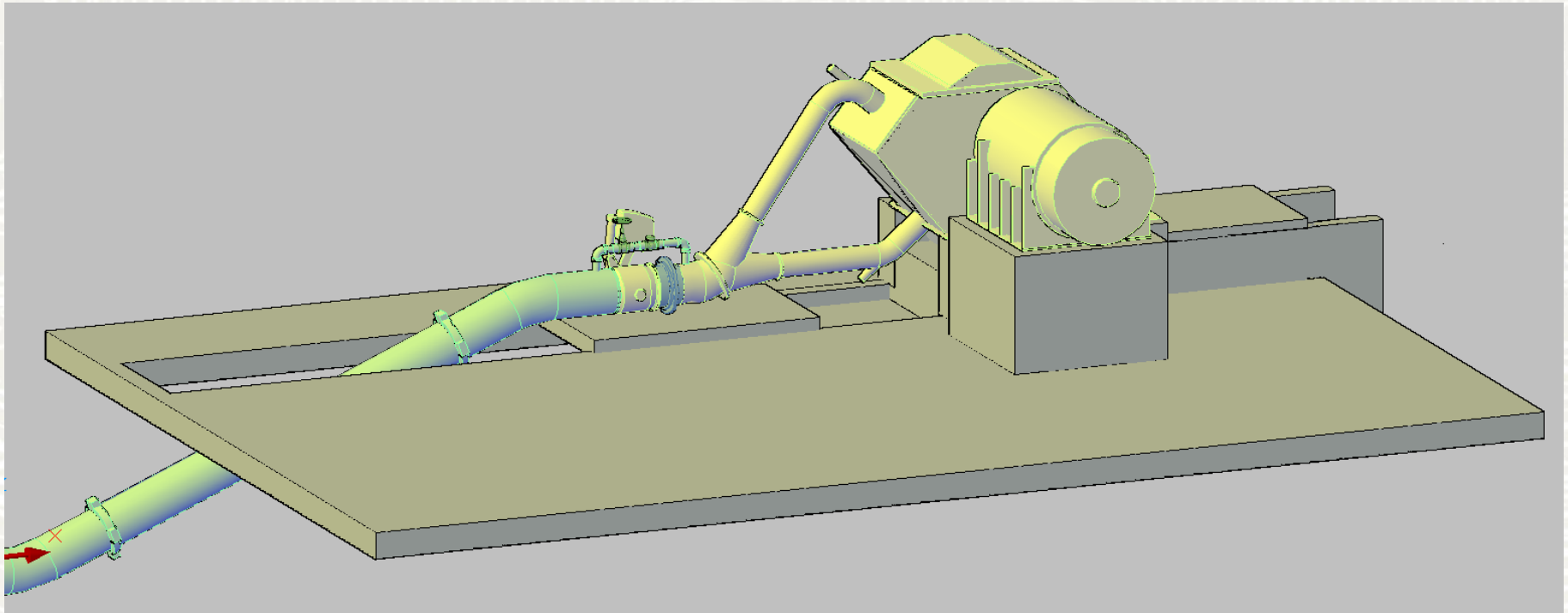
PORTION OF: T17S R11E  
LOT 08202  
DESCHUTES COUNTY, OR

# Similar Turbine



Courtesy Canyon Turbines

# Conceptual Turbine and Generator Arrangement



# Energy Production

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**About 10,000,000 kWhr/yr**

- Generator capacity about 1.6 megawatts (2,000 horsepower)
- Actual output varies according to water availability and user demand



## Integral with WTP Operations

- Controlled by WTP / City Demand to regulate flow into the pretreatment basins.
- Maintained by same personnel
- Minor annual maintenance, major overhauls on about 20-year intervals.

# Conduit Exemption

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## Definition:

- Utilizes the hydroelectric potential of a conduit
- Located entirely on non-Federal lands
- Installed generating capacity of 15 MW or less
- Is not an essential part of a dam

# Conduit Exemption

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## Definition:

- Discharges the water it uses for power generation either:
  - Into a conduit
  - Directly into a point of agricultural, municipal, or industrial consumption
  - Into a natural body of water

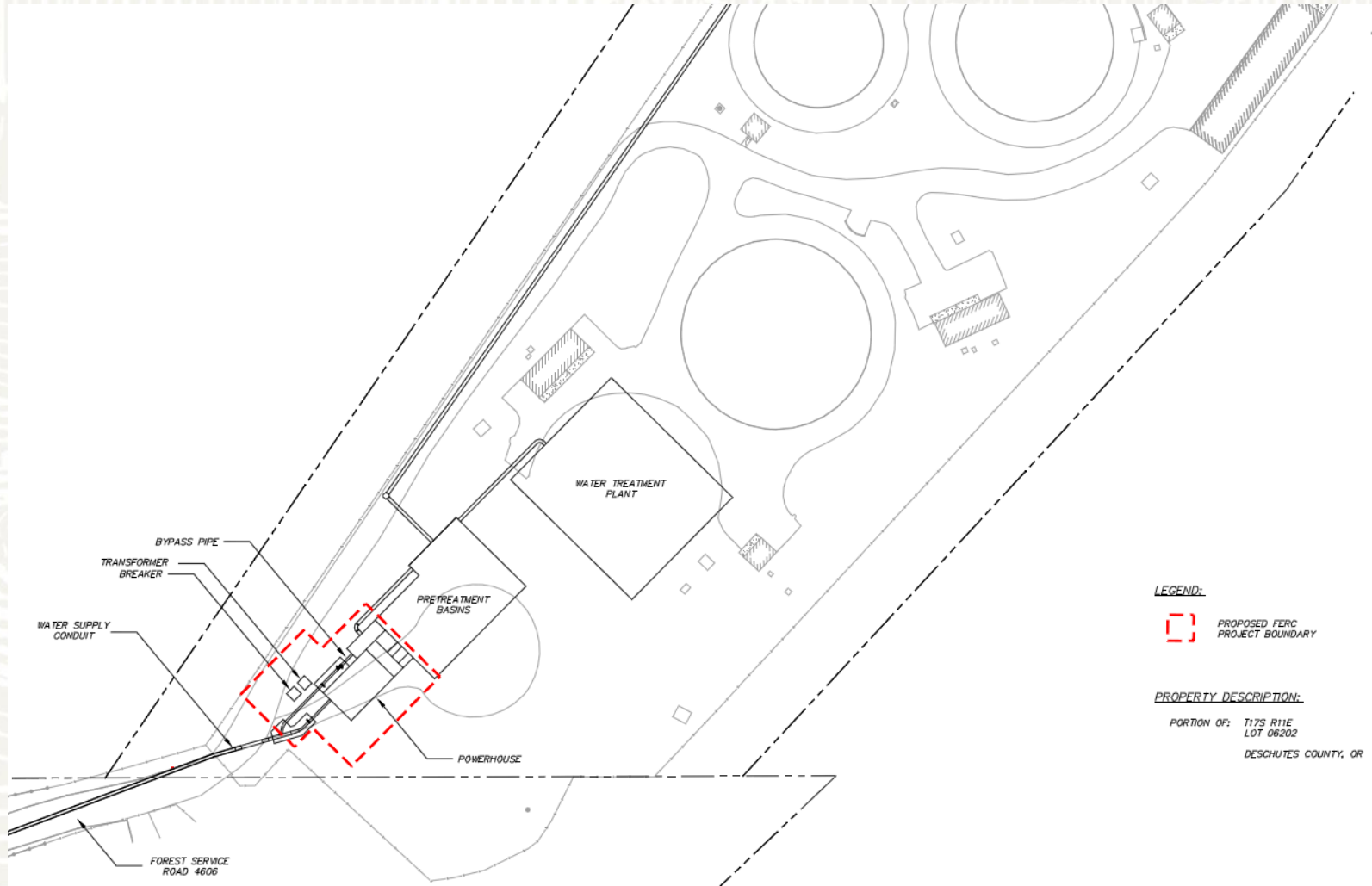
# FERC Review

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- Existing or proposed hydropower facility
- All of the structures, fixtures, equipment, and land used
- Excludes the conduit and transmission line

# FERC Project Boundary- Outback Site Plan



**LEGEND:**

 PROPOSED FERC PROJECT BOUNDARY

**PROPERTY DESCRIPTION:**

PORTION OF: T17S R11E  
LOT 08202  
DESCHUTES COUNTY, OR

# FERC 3 Stage Consultation Process



## Stage 1 Requirements

Provide the ICD (Project Information)

- Hold joint meeting with Agencies and Public
- Accept Comments and Study Requests on the Powerhouse facility
- Allow 60 days for Powerhouse Facility comments and review of any Study Requests (10/9/2011)

# Powerhouse Comment Contact Information

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Please submit your comments to:

- [sandra.siemens@hdrinc.com](mailto:sandra.siemens@hdrinc.com) with subject line FERC Powerhouse Comments  
or
- HDR Engineering, Inc., Attn: Sandra Siemens, 805 S.W. Industrial Way, Suite 4, Bend, OR 97702

# Proposed Powerhouse Site



# FERC 3 Stage Consultation Process



## Stage 2 Requirements

Provide Agencies:

- Copy of draft application for Powerhouse
- Results of any studies
- Written request for review and comment
- 90 days for review/comment on Draft Application

# FERC Comment

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eComments (does not require eRegistration)

- <http://www.ferc.gov/docs-filing/ecomment.asp>

or

eRegister

- <http://www.ferc.gov/docs-filing/eregistration.asp>

# FERC 3 Stage Consultation Process



## Stage 3 Requirements

- Provide Copy of Final Application to Agencies
- Document three stage consultation process

# Where we are today and Next Steps



<b>Milestone</b>	<b>Anticipated Date</b>
Distribute ICD	July 7, 2011
Public Notification	July 24, 25, 26 - 2011
<b>Joint Meeting (for ICD)</b>	<b>August 10, 2011</b>
Comments on ICD Due	October 9, 2011
Distribute Draft Application	November 7, 2011
Comments on Draft Application Due	February 5, 2012
File/Distribute Final Application	February 19, 2012

# Questions and Comments

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