Recreation Resources Study Summary

Packwood Lake Hydroelectric Project
Study Report Meeting
December 13, 2006
Lacey, Washington
Recreation Resources Study
Preliminary Results

- Recreation Inventory
- USFS Wilderness Permit Data
- On-Site Surveys
- Observations (Packwood Lake/Lake Creek)
- Energy Northwest and Contractor Visits
- Traffic Counts
Recreation Study Area

Source: USDA Forest Service, Ojibwe Pinhiib National Forest 2004
Recreation Inventory

- Dispersed Overnight Camping Areas
- Dispersed Day-use Only Areas
- Trails
- Wilderness Stations
- Buildings
- Facilities
Dispersed Sites

• Non-Wilderness Dispersed Sites
  • 18 Campsites
  • 2 day-use (no camping sign and space constraints)

• Wilderness Sites
  • 17 Campsites
  • 6 Disturbed areas (stock damage, rocky, flooding, fallen trees)
Inventory Map
Dispersed Sites
Dispersed Sites
Facilities

- US Forest Service Guard Station
- Historic Log Ranger Station
- Outhouses
USFS Wilderness Permit System

- 2005 (complete)
  - Day Use/Overnight
  - Peak-Season/Off-Seasons
  - Weekday, Weekend Day and Holiday
  - Visitor Demographics

- 2006 (need from Forest Service)
FS Wilderness Permits (2005)
FS Wilderness Permits (2005)
On-Site Surveys

- Completed Surveys at Packwood Lake Trailhead Parking Lot (2006)
  - April 29 to November 30
  - Surveys from 8:00 am to 3:00 pm
  - Noon vehicle counts at parking lot

- Obtained USFS Survey data at Packwood Lake Old Ranger Station (2005)
  - August 9 to September 5
2006 Surveys at Packwood Lake Trailhead

- Surveyors surveyed and/or documented all groups at Trailhead Parking Lot
  - Many drive-through (documented group size)
  - Some refused survey (documented group size and access method)
  - Detailed questions to groups visiting Packwood Lake

- Peak-Season 2006
  - 19 days/290 groups documented/surveyed between Memorial Day Weekend and Labor Day

- Off-Season
  - 4 days/20 groups documented/surveyed in Spring (April 29 – May 26)
  - 9 days documented/surveyed in Fall (Sept. 9 – Nov.) + 5 days additional vehicle counts. (Data input and analysis in process)
2006 Surveys
Peak - Travel Routes/Methods

Peak-Season Travel Methods

Peak-Season Travel Routes

Trail #74/Pipeline
Trail #78
Parking Lot/Drive thru

ATV
Motorcycle
Bike
Hike
Horse/Pack
2006 Surveys
Peak - Travel Routes/Methods

Peak-Season Travel Routes and Methods

- ATV
- Motorcycle
- Bike
- Hike
- Horse/Pack

Legend:
- Overnight (PWL)
- Day Use (PWL)
- Other/Unknown

Route Options:
- Trail #74/Pipeline
- Trail #78
- Parking Lot/Drive thru
2006 Surveys – Spring - Travel Routes/Methods

Spring-Season Travel Routes and Methods

- ATV
- Motorcycle
- Bike
- Hike
- Trail #74/Pipeline
- ATV
- Motorcycle
- Bike
- Hike
- Trail #78
- Parking Lot/Drive thru

Legend:
- Overnight (PWL)
- Day Use (PWL)
- Other/Unknown
2006 Surveys
Packwood Lake Visits

<table>
<thead>
<tr>
<th></th>
<th>Peak-Season</th>
<th>Spring-Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg # Nights</td>
<td>4.7</td>
<td>6</td>
</tr>
<tr>
<td>Avg # Hours</td>
<td>3.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Avg Party Size</td>
<td>2.12</td>
<td>1</td>
</tr>
</tbody>
</table>

Day Use | Overnight | Day Use | Overnight

Avg # Nights | Avg # Hours | Avg Party Size
2006 Surveys
Packwood Lake Visits

Packwood Lake - Average Daily Visits

Packwood Lake - Seasonal Visits
2006 Surveys
Packwood Lake Visits

Average # of People/Day

Average Visitor Day

Weekday: 27.00 (5.00), Weekend: 40.00 (3.00), Holiday: 40.00 (0.00)

Peak-Season: 54.08, Spring-Seasons: 80.52, Holiday: 70.23

Average # People (Peak-Season) and Average # People (Spring-Seasons)
2006 Surveys
Packwood Lake Visitor Destinations

Packwood Lake - Peak-Season
Visitor Days/Destination

- Non-Wilderness: 547 (9%)
- Wilderness: 2140 (34%)
- Both: 3616 (57%)

Packwood Lake - Spring-Season
Visitor Days/Destination

- Non-Wilderness: 65 (30%)
- Wilderness: 94 (70%)
- Both: 40 (30%)

Legend:
- Non-Wilderness
- Wilderness
- Both
2006 Surveys

Packwood Lake Activity

What activities did you participate in at Packwood Lake during your visit?

- Camping
- Picnicking
- Boat Fishing
- Shore Fishing
- Other Boating
- Visiting Beach
- Wading/Swimming
- Hiking
- Hunting
- Pictures

- Peak-Season
- Spring-Season
2006 Surveys
Packwood Lake Visits

What seasons of the year do you visit Packwood Lake?

Frequency of Visits to Packwood Lake

- First Visit
- Summer
- Fall
- Winter
- Spring

- How many years have you been coming to Packwood Lake?
- How many times a year do you visit Packwood Lake?
2006 Surveys
Packwood Lake Visitor Opinions

Opinions Regarding Moving Camping Areas Away From Packwood Lake Shoreline

Opinions Regarding Eliminating ATV/Motorized Vehicles at Packwood Lake

- Peak-Season
- Spring-Season
2006 Surveys
Packwood Lake Visitor Ratings

Rating Packwood Lake (5 is best)

Scale of 1-5, how do you rate Packwood Lake area?

Peak-Season: 4.25
Spring-Season: 4.67

Scale of 1-5, how rate recreation experience at Packwood Lake?

Peak-Season: 4.46
Spring-Season: 5
2006 Surveys
Packwood Lake Crowding/Comments

Visitor Survey Comments Regarding Improvements/Amenities/Wants

- Better/Cleaner/More Outhouses (37%)
- Trash cans/remove trash (12%)
- Boat rentals (8%)
- Horses off trails/less horses/manure clean-up (5%)
- Improve #74 road & gate for ATV access (5%)
- Trail maintenance/improvements (5%)
- Separate ATV’s – Trail #74 ATV only (3%)
- Upgrade Trail 78 for ATV/more ATV trails (3%)
- Concession stand/expresso (3%)
- More campsites (3%)
- Water supply (2%)
- Trail around Lake (2%)
- No commercialism (2%)
- Open fishing using bait (2%)
- Picnic tables (2%)
- Cleared livestock areas (2%)
- Horse camp (2%)
- Lodge (2%)
- Disability access (2%)

Crowding (1 is not crowded and 5 is overcrowded)

Peak-Season
Spring-Season

Scale of 1-5, how would you rate crowding at Packwood Lake?

2.3 2.3
2006 Surveys
PWL Parking Lot Vehicle Counts

Weather vs # of Vehicles in Packwood Lake Parking Lot (noon counts)

Average # Vehicles

- Terrible
- Decent
- Excellent

Peak-Season

Spring-Season
2006 Surveys
Packwood Lake Visitor Demographics

Preliminary Results for Spring/Peak-Seasons

• Majority of visitors from Pierce and Lewis counties
  • Next highest number of visitors from King and Thurston Counties
  • Updated with all visitors for Peak, and Spring/Fall in Report
USFS Surveys at Packwood Lake
Old Ranger Station (2005)

• 25 days/171 Groups Surveyed between August 9 and September 5, 2005
  • Travel Routes/Methods
  • Group Size, Destination and Length of Stay
  • Activities
  • Packwood Lake visits - Frequency and Season
  • Comments regarding improvements/amenities @ Packwood Lake
  • Demographics

• Same time as observations

• Results included in Report
USFS Surveys
Packwood Lake Old Ranger Station (2005)

Weekday  Weekend  Holiday
Avg # People/Day  5.2  26.88
Avg Party Size  2.59  3.98
Avg Hours  2.67

Day Use
Avg # People/Day  3.98
Avg Party Size  2.64
Avg Hours  3.16

Holiday
Avg # People/Day  22
Avg Party Size  2.33
Avg Hours  2.67

Weekday
Avg # People/Day  7.13
Avg Party Size  3.25
Avg Hours  2.64

Weekend Overnight
Avg # People/Day  19.63
Avg Party Size  2.49
Avg Hours  1.85

Holiday
Avg # People/Day  8
Avg Party Size  3.93
Avg Hours  2.67
Observations

- **EN and Contractor Observations**
  - 2006 at Packwood Lake
    - During routine visits
    - During field work

- **FS Observations at Packwood Lake**
  - 2005 at Old Log Ranger Station
  - Route/Method, # People Observed
    - Same time as surveys
    - Result included in report

- **Observations at Lake Creek (2006)**
  - No people were observed at Lake Creek (June – October)
Observational Data (2006)
Energy Northwest and Contractors

**EN and Contractor Observations (Weekdays)**
(Average Number of People Observed/Day)

- **ATV-Observed**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **Motorcycle**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **Bicycle**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **Horse**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **Horse/Pack Stock**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **People on Trail**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **People at Lake**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0

- **Vehicles in Parking Lot**: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0
Energy Northwest Route and Method
Spring Off-Season 2006 (10 Trips)

- Pipeline Rd/Trail #74
- Latch Rd/Trail #74
- Trail #78

<table>
<thead>
<tr>
<th>Date Range</th>
<th>ATV</th>
<th>Walk</th>
<th>Snowmobile</th>
<th>Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 26 - May 8</td>
<td>10%</td>
<td>10%</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>May 9 - May 25</td>
<td>50%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
EN & Contractor Visit Records

Energy Northwest Route and Method
Peak-Season 2006 (19 Trips)

Contractor Route and Method
Peak-Season 2006 (10 Trips)
Traffic Counters (2006)

- Two on Trail #74
  - Near Diversion, approx. 200 feet apart
- One on Forest Service Road 1260
  - Near FS Boundary
Traffic Counter Data (2006)

Average Traffic Counts/Day
Off-Season (Spring)

Average Traffic Counts/Day (Peak-Season)

- Early Spring 4/26 - 5/9
- Late Spring 5/9 - 5/25

Average Counts/Day (USFS Rd 1260) Average Counts/Day (Trail #74)
Schedule

- Draft Report
  - February 1, 2007
- 30-Day Review
- Final Report
  - March/April 2007
- Needs Analysis
  - 2007