Introduction

- IDFG work past and future in Bedrock, Pine, and Catholic Creeks
- Focal species steelhead/rainbow trout (*O. mykiss*)
- Presence/absence and density estimates are main objectives of surveys
- Surveys will be used by NPSWCD for restoration planning and watershed management plans
What has been done?

- Snorkel Surveys
- Exploratory Surveys
- Electro-fishing Surveys
- Habitat Assessment Surveys
Snorkeling

- Limited historic data
- 4 Surveys
- Majority of observations were fry

<table>
<thead>
<tr>
<th>Date</th>
<th>Transect Length</th>
<th>Total # O. mykiss Observed</th>
<th>Fish/100m²</th>
<th>&lt; 2&quot; (Fry)</th>
<th>&lt;3&quot;</th>
<th>&lt;4&quot;</th>
<th>&gt;4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/7/1991</td>
<td>94.4</td>
<td>8</td>
<td>2.11</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>7/1/1993</td>
<td>101.8</td>
<td>70</td>
<td>12.17</td>
<td>70</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6/20/1994</td>
<td>33.4</td>
<td>17</td>
<td>22.92</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>6/22/2005</td>
<td>82</td>
<td>97</td>
<td>15.2</td>
<td>50</td>
<td>41</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>
Locate access points and make landowner contacts
Determine habitat condition and types
Determine fish presence
Locate and identify potential migrational barriers
  • Bedrock Creek
  • Louse Creek Falls
Potential Barriers

Site #1

Site #2

Site #3 – Louse Creek Falls
Site #1

- Surveyed May 11th, 2009
- Small series of cascades
- Fish observed directly above and below
- Not a fish barrier
Site #2

- Surveyed May 24th, 2010
- Moderate gradient change over solid substrate
- Seasonal fish barrier
Surveyed on May 21\textsuperscript{st}, 2010

2 falls located ~ 25m apart
- Upper falls ~ 10m high
- Lower falls (pictured) ~ 30m high

Confirmed fish barrier
Electro-fishing Surveys

- Surveyed mainstem Bedrock Creek and Louse Creek
- Focused on presence/absence of juvenile *O. mykiss*
- Recorded size class of all *O. mykiss* encountered
- Recorded presence of non-target species
Captured *O. mykiss* of age class 1 and 2, as well as a potential smolt (silvered)

Fish were well distributed and in good densities throughout the creek
No fish were observed during these surveys.
Habitat Surveys

- Surveyed Pine and Bedrock Creeks in 2010

- 4 EMAP Sites for each tributary
  - 2 upper
  - 2 lower
  - 500m transect length

- Low Water Habitat Availability Protocol (LWHAP)
  - Measures length and width of wetted and/or dry channel
  - Records pool presence, length, width and depth
  - Records fish presence and salmonid presence
  - Generates % wetted and pool densities for each transect
O. mykiss were observed in 6 of 8 transects
Bedrock Creek was 100% wetted in 3 out of 4 transects
The lowest transects in each creek were severely de-watered

<table>
<thead>
<tr>
<th>Creek</th>
<th>Strata</th>
<th>Total Wetted Length(m)</th>
<th>% Wetted</th>
<th>Total # Pools</th>
<th>Pools/100m</th>
<th>Salmonids Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine Creek (Clearwater)</td>
<td>U</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Pine Creek (Clearwater)</td>
<td>U</td>
<td>165.00</td>
<td>0.33</td>
<td>9.00</td>
<td>1.80</td>
<td>NA</td>
</tr>
<tr>
<td>Pine Creek (Clearwater)</td>
<td>L</td>
<td>155.00</td>
<td>0.31</td>
<td>1.00</td>
<td>0.20</td>
<td>Y</td>
</tr>
<tr>
<td>Pine Creek (Clearwater)</td>
<td>L</td>
<td>361.50</td>
<td>0.72</td>
<td>7.00</td>
<td>1.40</td>
<td>Y</td>
</tr>
<tr>
<td>Pine Creek (Clearwater) Average</td>
<td></td>
<td>170.38</td>
<td>0.45</td>
<td>4.25</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>Bedrock Creek</td>
<td>U</td>
<td>500.00</td>
<td>1.00</td>
<td>15.00</td>
<td>3.00</td>
<td>Y</td>
</tr>
<tr>
<td>Bedrock Creek (Louse Cr)</td>
<td>U</td>
<td>500.00</td>
<td>1.00</td>
<td>10.00</td>
<td>2.00</td>
<td>Y</td>
</tr>
<tr>
<td>Bedrock Creek</td>
<td>L</td>
<td>74.00</td>
<td>0.15</td>
<td>3.00</td>
<td>0.60</td>
<td>Y</td>
</tr>
<tr>
<td>Bedrock Creek</td>
<td>L</td>
<td>500.00</td>
<td>1.00</td>
<td>6.00</td>
<td>1.20</td>
<td>Y</td>
</tr>
<tr>
<td>Bedrock Creek Average</td>
<td></td>
<td>393.50</td>
<td>0.79</td>
<td>8.50</td>
<td>1.70</td>
<td></td>
</tr>
</tbody>
</table>
Future Plans

- Snorkel Surveys Pine and Bedrock Creeks
  - 10-15 surveys / creek
  - # estimated by power analysis on snorkel data from Potlatch River tribs
- Snorkel and/or E-fishing surveys on Catholic Creek
- Repeat LWHAP surveys on Pine and Bedrock Creeks in 2011
- Coordinate w/ SWCD on data exchange and watershed management plans
Questions?