SHaRP in the South Fork Eel River: The next step for Recovery Implementation
► A process to identify effective restoration within priority areas of salmon strongholds

► Opportunistic versus focused site selection

► Focus on certain creeks within a stronghold so resources will do the most good
Existing Recovery Plans

- Recovery Plans for the area were released in 2014 and 2016.
- Different scale – watershed scale vs. tributary level
- Both short- and long-term actions vs. actions that will benefit immediately
- Single-species focus vs. all three species
- This effort builds on existing recovery plans.
Why the South Fork Eel River?

► Highest numbers of salmon in Eel River
► Most intact salmon and steelhead populations
Why SHaRP in the South Fork Eel?

- Active restoration community
- Large area
- Show results
Steering Committee

- NOAA Fisheries and CDFW

- Develop tool to assess merits of 19 tributary groups based on available data and the experience of resource agencies

- Determine set of tributary groups with the highest chance for successful salmonid and habitat recovery
Framework used for assessment of tributary groups

► Bradbury 1995: Handbook for prioritizing watershed protection and restoration to aid recovery of native salmon

► Oregon state senator Bill Bradbury

► Used in ESA recovery plans for salmonids

► Originally three categories of considerations – we added one (Habitat Conditions)
Task: Assess Tributary Groups

- Score tributary groups
  - biological importance
  - habitat condition
  - optimism and potential
  - integrity and risk

- 18 month effort to find data relevant to these factors
South Fork Eel River Tributary Groups
Biological Importance
Information Considered

► Salmonid species distribution from observation data - BIOS

► Salmonid spawning abundance from redd density.
Habitat Condition
Information Considered

► CDFW/Reach-scale habitat suitability index
  ■ Canopy, Pool Depth and Shelter, Embeddedness

► CDFW/Refugia

► CDFW/Large Wood Survey

► Professional Judgement
Optimism and Potential
Information Considered

► Species-specific Intrinsic Potential
► Geology
► Land ownership
  ■ Public/ Private
  ■ Average parcel size
► Professional judgement – previous support for restoration
Integrity and Risk Information Considered

► Water Temperature
  ■ Eel River Recovery Project Temperature Compilation
  ■ NorWeST modeled mean August stream temps

► Road Density

► Population Density

► Diversions - PJ
Tributary Group Scores

![Bar chart showing scores for various tributaries. Each tributary is represented by a column divided into four segments:
- Integrity and Risk
- Optimism and Potential
- Habitat Condition
- Biological Importance.

The chart compares the scores across different tributaries, including Upper Tenmile Creek, Lower Tenmile Creek, Rattlesnake Creek, Cedar Creek, Upper East Branch, Lower East Branch, Hollow Tree Creek, Red Mountain Creek, Indian Creek, Standley Creek, Creek, Fish Creek, Sprout Creek, Redwood Creek, Ohman Creek, Salmon Creek, Butte Creek, Bull Creek, and Canoe Creek.]
## Results

Green Tributary Groups are Phase I: First priority for identifying issues and actions and implementing Actions

<table>
<thead>
<tr>
<th>Phase</th>
<th>Tributary Group</th>
<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Hollow Tree Creek</td>
<td>136.5</td>
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<tr>
<td></td>
<td>Elder Creek</td>
<td>126.3</td>
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<td></td>
<td>Indian Creek</td>
<td>122.8</td>
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<td></td>
<td>Sproul Creek</td>
<td>120.6</td>
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<td></td>
<td>Bull Creek</td>
<td>113.2</td>
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<td>Redwood Creek</td>
<td>113.1</td>
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<td></td>
<td>Standley Creek</td>
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<td>Canoe Creek</td>
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<td>Red Mountain Creek</td>
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<td>Upper Tenmile Creek</td>
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<td></td>
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<td>Salmon Creek</td>
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<td>52.0</td>
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<tr>
<td></td>
<td>Upper East Branch</td>
<td>49.5</td>
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Next Steps

► Gather input on draft tributary groups

► Finalize tributary group scores

► Identify types of restoration needed, actions, and locations for each Phase 1 tributary group

► Bring back to community for input
Future Task—Implement

► Seek resources for Phase 1 tributary groups

► Implement identified actions
Future Task – Expand to Other Strongholds

► Learn from pilot effort

► Consistent methodology, purpose

► Use to describe needs of broader region (e.g., Eel River watershed) once other SHaRPs are completed.