



# **COLUMBIA BASIN FISH AND WILDLIFE AUTHORITY**

## **Development of Fish and Wildlife Program Amendments**

*Joint Technical Committees and Members Advisory Group  
Amendment Strategy Workshop*

**September 17-18, 2007**



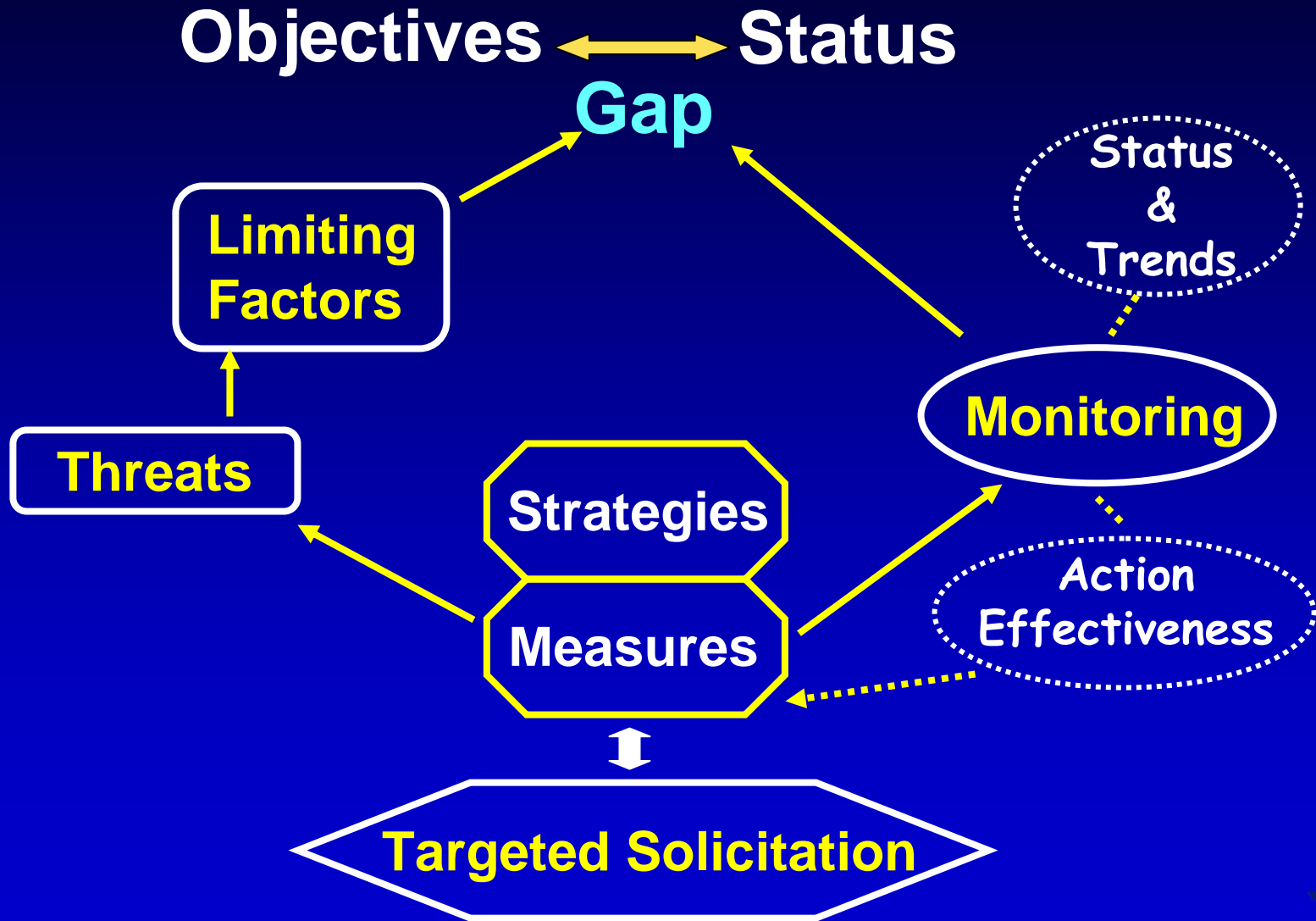
# Member Directives to Technical Committees

---

- Define/clarify terms (i.e., focal populations, biological objectives, strategies, limiting factors, and causative factors)
- Confirm population level biological objectives
- Ensure priorities of all F&W plans are captured
- Validate current limiting factors including out-of-basin effects
- **Review and build on strategies and actions necessary to reduce the limiting factors**

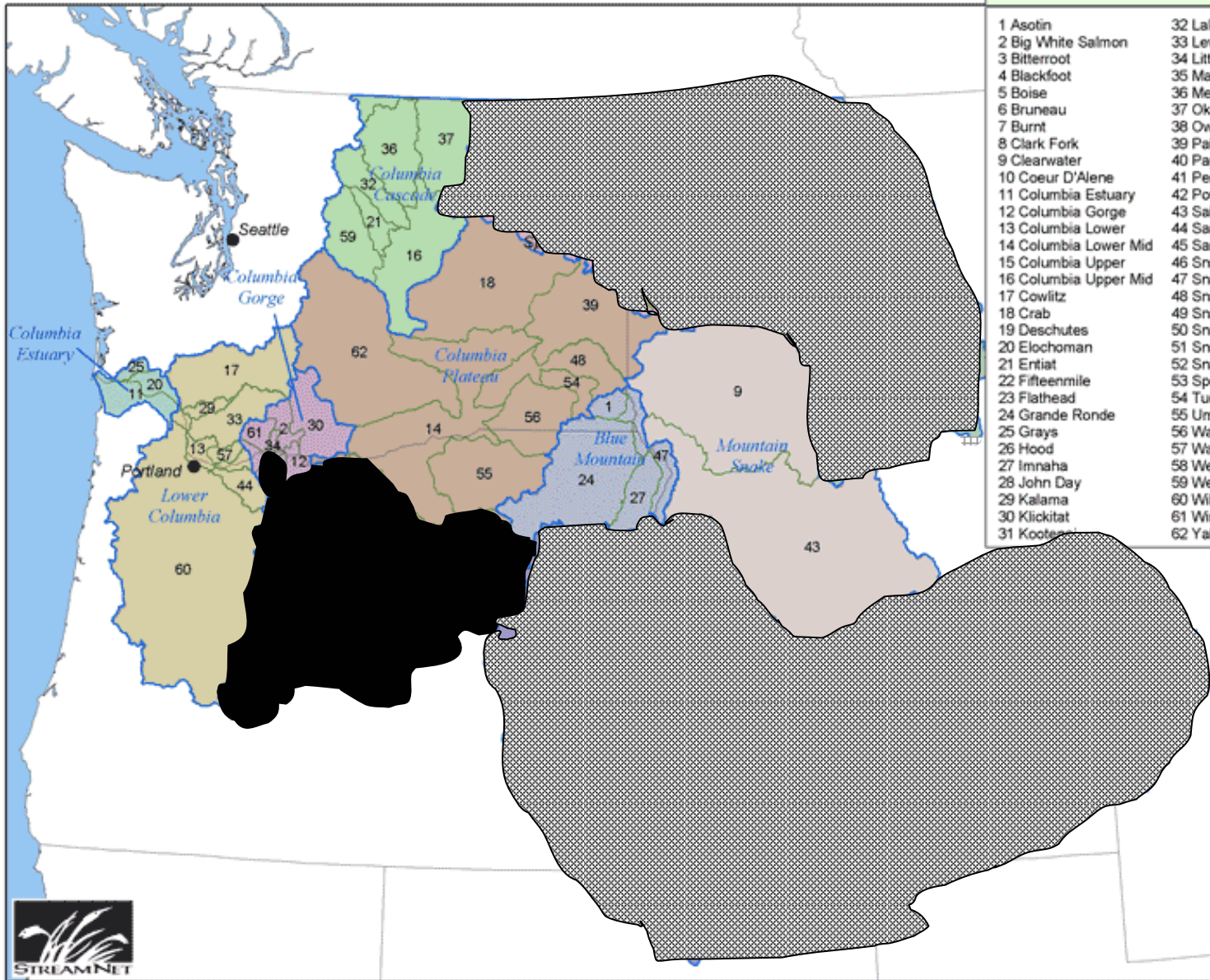


# From Objectives to Solicitation



# Columbia River Basin Subbasins

Print in landscape (sideways) orientation

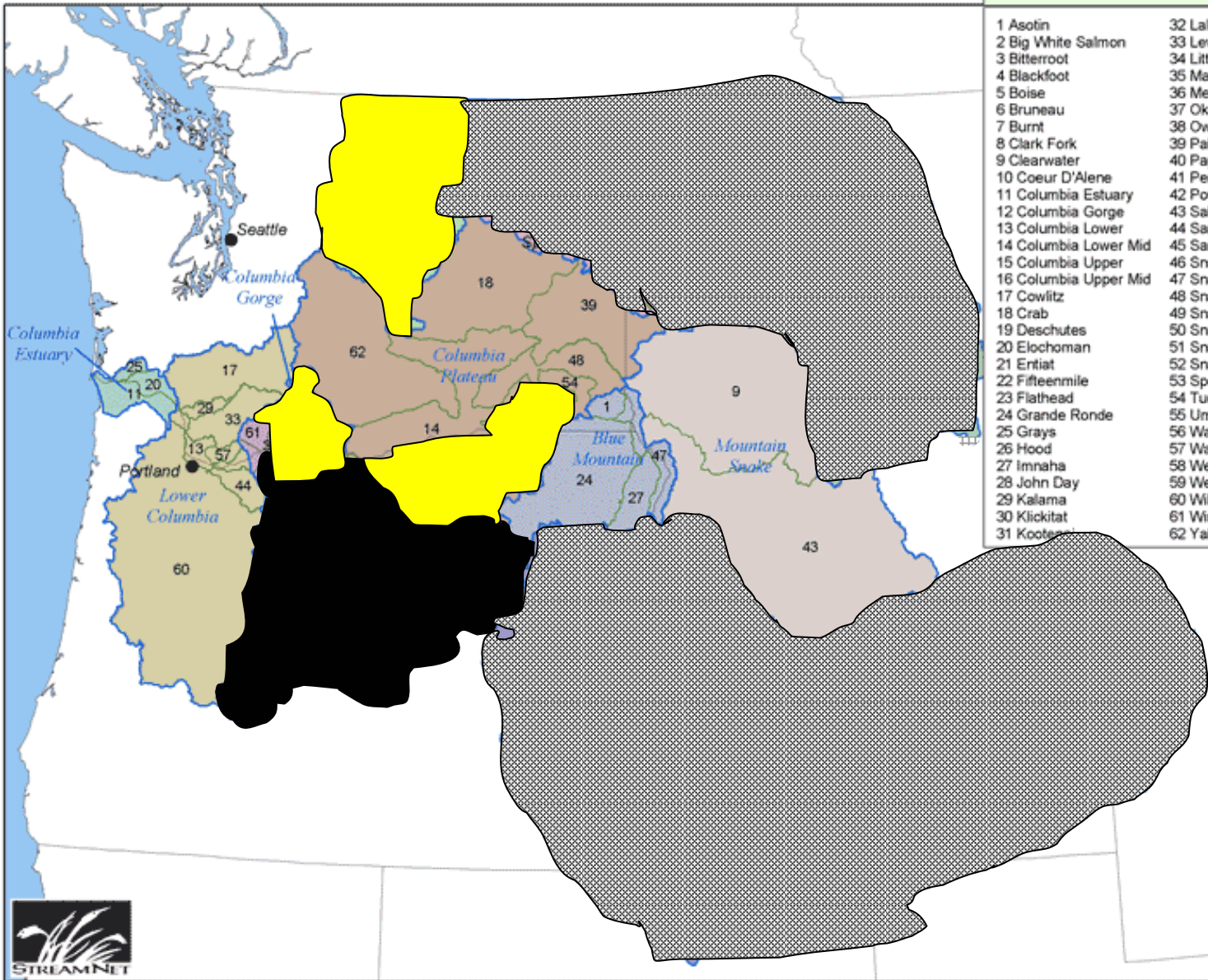


1 Asotin	32 Lake Chelan
2 Big White Salmon	33 Lewis
3 Bitterroot	34 Little White Salmon
4 Blackfoot	35 Malheur
5 Boise	36 Methow
6 Bruneau	37 Okanogan
7 Burnt	38 Owyhee
8 Clark Fork	39 Palouse
9 Clearwater	40 Payette
10 Coeur D'Alene	41 Pend Oreille
11 Columbia Estuary	42 Powder
12 Columbia Gorge	43 Salmon
13 Columbia Lower	44 Sandy
14 Columbia Lower Mid	45 Sanpoil
15 Columbia Upper	46 Snake Headwaters
16 Columbia Upper Mid	47 Snake Hells Canyon
17 Cowlitz	48 Snake Lower
18 Crab	49 Snake Lower Middle
19 Deschutes	50 Snake Upper
20 Elochoman	51 Snake Upper Closed
21 Ertiat	52 Snake Upper Middle
22 Fifteenmile	53 Spokane
23 Flathead	54 Tucannon
24 Grande Ronde	55 Umatilla
25 Grays	56 Walla Walla
26 Hood	57 Washougal
27 Imnaha	58 Weiser
28 John Day	59 Wenatchee
29 Kalama	60 Willamette
30 Klickitat	61 Wind
31 Kootenai	62 Yakima



# Columbia River Basin Subbasins

Print in landscape (sideways) orientation



- |                       |                        |
|-----------------------|------------------------|
| 1 Asotin              | 32 Lake Chelan         |
| 2 Big White Salmon    | 33 Lewis               |
| 3 Bitterroot          | 34 Little White Salmon |
| 4 Blackfoot           | 35 Malheur             |
| 5 Boise               | 36 Methow              |
| 6 Bruneau             | 37 Okanogan            |
| 7 Burnt               | 38 Owyhee              |
| 8 Clark Fork          | 39 Palouse             |
| 9 Clearwater          | 40 Payette             |
| 10 Coeur D'Alene      | 41 Pend Oreille        |
| 11 Columbia Estuary   | 42 Powder              |
| 12 Columbia Gorge     | 43 Salmon              |
| 13 Columbia Lower     | 44 Sandy               |
| 14 Columbia Lower Mid | 45 Sanpoil             |
| 15 Columbia Upper     | 46 Snake Headwaters    |
| 16 Columbia Upper Mid | 47 Snake Hells Canyon  |
| 17 Cowlitz            | 48 Snake Lower         |
| 18 Crab               | 49 Snake Lower Middle  |
| 19 Deschutes          | 50 Snake Upper         |
| 20 Elochoman          | 51 Snake Upper Closed  |
| 21 Ertiat             | 52 Snake Upper Middle  |
| 22 Fifteenmile        | 53 Spokane             |
| 23 Flathead           | 54 Tucannon            |
| 24 Grande Ronde       | 55 Umatilla            |
| 25 Grays              | 56 Walla Walla         |
| 26 Hood               | 57 Washougal           |
| 27 Imnaha             | 58 Weiser              |
| 28 John Day           | 59 Wenatchee           |
| 29 Kalama             | 60 Willamette          |
| 30 Klickitat          | 61 Wind                |
| 31 Kootenai           | 62 Yakima              |



# Example:

## Walla Walla River Steelhead

---

### Biological Objectives:

- Minimum abundance threshold of 1,000 naturally produced adults (*TRT*)
- Improve population status to viable (*draft recovery plan*)
- 3,000 naturally produced adults (*subbasin plan – but to where and by when?*)



# Example:

## Walla Walla River Steelhead

---

### Status:

- Part of Middle Columbia River Steelhead DPS listed as Threatened
- Population status (**viable**):  
“Maintained” (moderate risk of extinction)
- Returns (**1,000-3,000**):  
10 year range = 374-2,417  
10 year mean = 1,042



# Example:

## Walla Walla River Steelhead

---

### Limiting Factors:

- **Habitat access**
  - mainstem Columbia dams
  - within subbasin barriers
- **Physical habitat quality/quantity**
  - habitat diversity and large woody debris
- **Water quantity**
  - altered flows
- **Water quality**
  - high temperatures and sediment





# To Do:

- **Template framework for remaining populations**
  - NOAA information
- **Populate templates**
  - F&W manager input
  - NOAA information
- **Prioritize measures**
  - AHA?
- **BPA obligation**
  - AHA?



# Member Directive to MAG

---

- Link subbasin population objectives to regional Program goals
  - Identify BPA's obligations

**MAG asked technical committees to explore**



# Objectives

Not Listed

## Steelhead

### Subbasin (MPG):

John Day



### Populations:

Lower



Middle Fork



North Fork



South Fork



Upper



### Province/DPS:

Columbia Plateau/Mid  
Columbia



### MPGs:

Yakima

Walla Walla/Umatilla

John Day

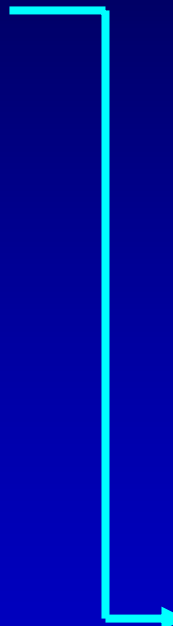
Cascades Eastern Slope

Deschutes

Rock Creek

Fifteenmile

Klickitat



# Directives from July Workshop: Resident Fish Advisory Committee

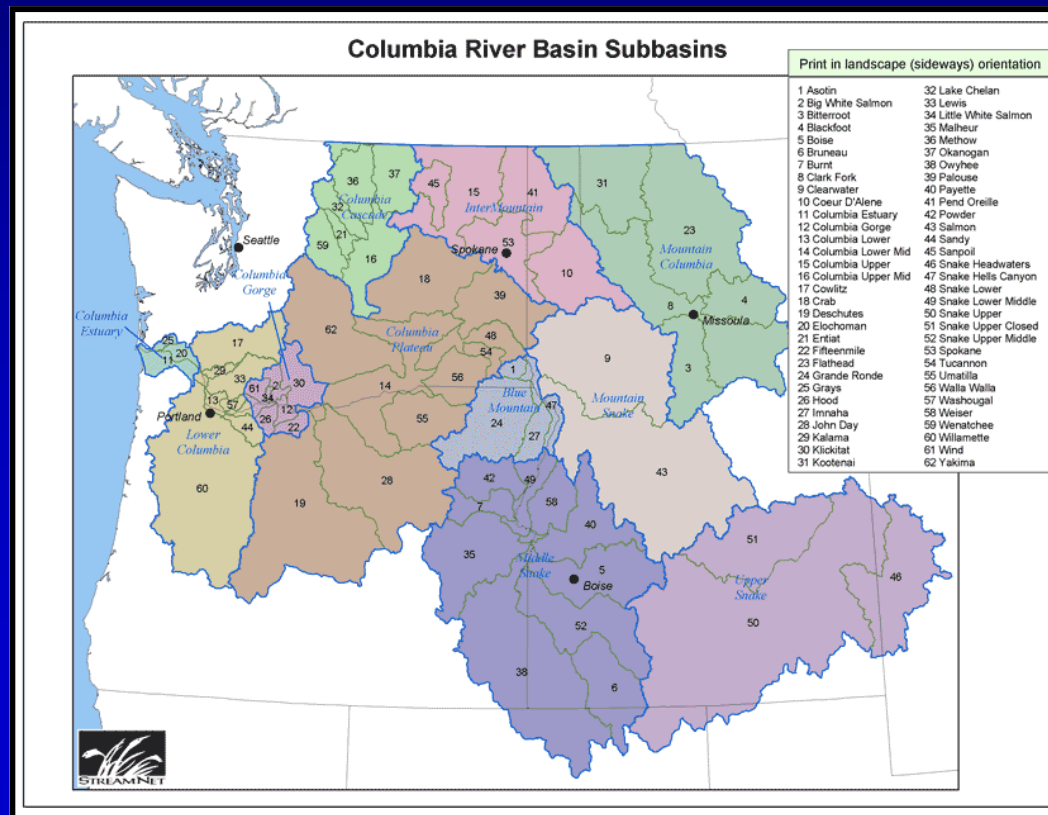
---

- Develop a strategy to determine resident fish losses throughout the basin
- Develop a formula to convert resident fish to losses of anadromous fish
- Develop measures and strategies for focal species/populations



# Directives from July Workshop: Resident Fish Advisory Committee

*Develop measures and strategies for focal species/populations*



# Directives from July Workshop: Resident Fish Advisory Committee

---

## *Develop a strategy to determine resident fish losses throughout the basin*

- Components of resident fish assessment
  - Operational losses (annual losses of fish)
  - Inundation losses (mainstem and Tributary habitat lost due to inundation)
- Use MFWP procedures as foundation



# **Directives from July Workshop:** **Resident Fish Advisory Committee**

---

***Develop a formula to convert resident fish to losses of anadromous fish***

- Lost cultural opportunities: Inability to assign a value limits ability to equate substitution to losses of anadromous fish



# Member Directives to Technical Committees

---

- Define/clarify terms (i.e., focal populations, biological objectives, strategies, limiting factors, and causative factors)
- Confirm population level biological objectives
- Ensure priorities of all F&W plans are captured
- Validate current limiting factors including out-of-basin effects
- **Review and build on strategies and actions necessary to reduce the limiting factors**





# Example:

## Bull Trout: Lake Pend Oreille Core Area

---

### Biological Objectives:

- 2,500 adults among at least 6 local populations with > 100 adults (*USFWS Bull Trout Recovery Plan, Pend Oreille Subbasin Plan*)

# Example:

## Bull Trout: Lake Pend Oreille Core Area

---

### Status:

- Listed as Threatened
- Redd counts
  - 2006 = 1,256 redds
  - 5 year average = 781 – 1,256 redds
  - 5 year mean = 940 redds

# Example:

## Bull Trout: Lake Pend Oreille Core Area

---

### Limiting Factors:

- Physical habitat quality/quantity
  - spawning and rearing habitat
- Competition
  - introduced species

# To Do:

## Resident Fish Advisory Committee

---

- Populate measure/strategy templates (***need a due date***)
- Develop resident fish loss assessment procedure (***need a due date***)



# Member Directive to MAG

---

- Link subbasin population objectives to regional Program goals
  - Identify BPA's obligations

**MAG asked technical committees to explore**



# Objectives

## Bull Trout

**Subbasin (RU, RSU):**

Clark Fork (RU)



Upper Clark  
Fork (RSU)



**Populations (CA):**

Lake Pend  
Oreille



**Province:**

Intermountain



**Recovery Unit:**

Northeast Washington  
River Basins



Clark Fork

Coeur d'Alene Lake

