

Interior Columbia River Salmon Recovery

Salmon Recovery Habitat Actions & Analysis

Identification, Prioritization
of Habitat Actions
and
Evaluation of
Viable Salmon Population
Objectives

Anadromous Fish Committee
February 25, 2005

Draft - For Discussion Only

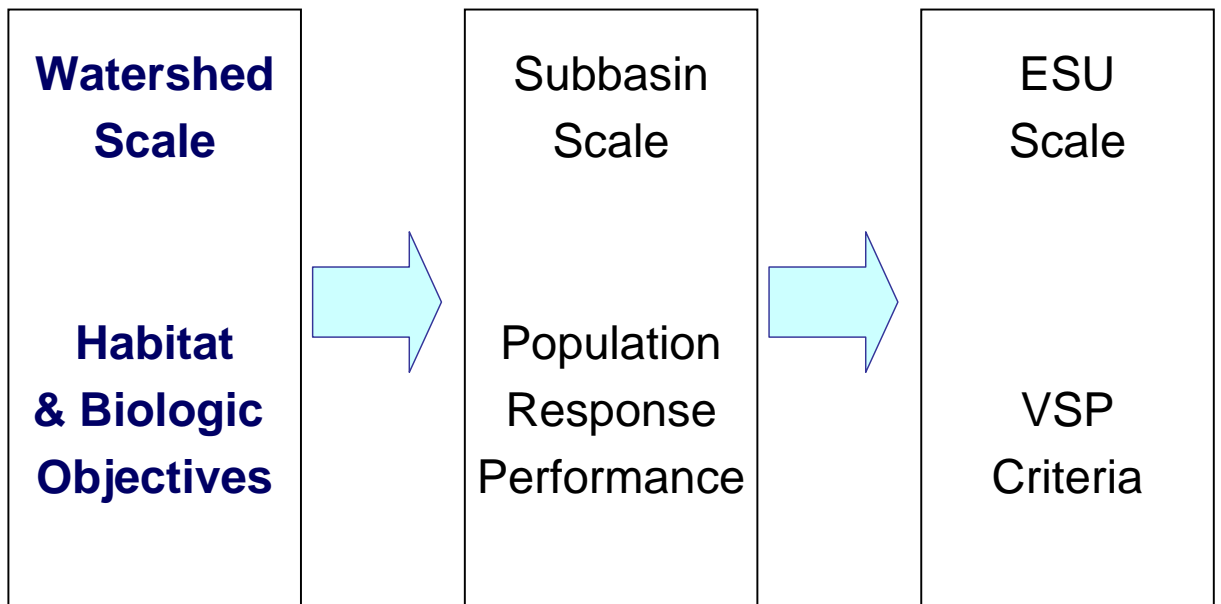
Disclaimer

- This is not a Yakama Nation perspective nor Upper Columbia consensus approach.
- This is a Bob Rose view intended to:
 - Consolidate lingering questions
 - Suggest an approach as a place to start
 - **Provoke the conversation.**
- With (and only with) good coordination all of these ***initial*** products can be developed within a couple weeks, ready for public review and roll-up-able for TRT – VSP evaluation.

Agenda

- **Assumptions and Background**
- **Basic Products**
- **Definitions**
- **Habitat Actions Analysis (the spreadsheet)**
- **Basic Procedure for Development**
- **Basic Procedure for Analysis**
- **Relationship of Spreadsheet to Basic Products**
- **Concluding Remarks and Questions**

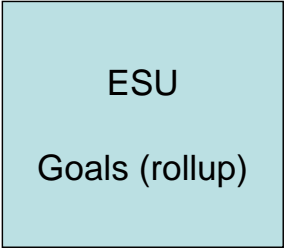
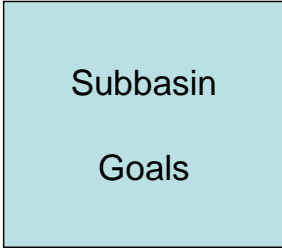
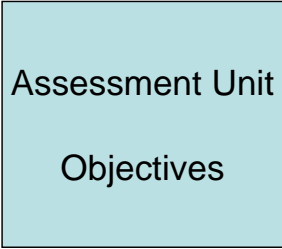
Assumptions and Background



All-H Analyzer



Habitat/Hatchery Action Plan



Habitat actions



Hatchery actions
Habitat condition
Harvest rates
OOSE

VSP parameters

Assumptions and Background

Existing Situation

- Lack of time / money
- Lack of coordinated approach
- Large uncertainty in:
 - Many scientific foundations (hab/pop relationship)
 - Location / extent of appropriate actions
 - Future implementation funding
- **Recovery planning will happen with or without Co-managers.**

Assumptions and Background

Future Situation

- NOAA will be convening a Public Forum.
- Plenty of process after Dec. 2005.
- Probably plenty of time for needed Habitat refinements.
- Co-Managers are key in initiating ID and prioritization habitat actions and will be key in final evaluation at all three scales.
- Consistent approach likely to be more successful than piecemeal.

Basic Products

1) Prioritized list of “site-specific” actions

- Preservation and restoration,
- Studies,
- Monitoring.

2) General sequence of needed actions

3) Cost estimates (3, 6 and 10 year framework)

4) Objectives and expected outcomes.

- **Watershed**
- Population
- ESU

Basic Products

Do we really have the scientific background to provide these products?

Yes – Suite of *Reasonable Actions* formulate the basics for:

- hypothesis development,
- Reasonable Actions that can be implemented,
- Appropriate monitoring of objectives.

Through annual monitoring, review and adaptive management, what else do we have?

Basic Products

Rose sayeth this thing:

If the Co-managers do not develop the basic elements of information for inclusion into a recovery plan, who can – or will?

As members of the general public with substantial knowledge of what is needed and what is realistic to accomplish, who is better to initiate the process and evaluate the final product?

Co-managers have the basic information needed to develop a defensible Plan without a lot more assessment.

Definitions

Assessment Unit: Major watershed within subbasin. Usually a HUC 5+/- . May / may not be a Major Spawning Area.

Reasonable Actions: Actions likely to be implemented at a level providing measurable benefits to Population Objectives defined for each AU. (Tier 1 Actions) These actions will be evaluated – rolled up with respect to subbasin/population goals.

Tier 2 – 3 Actions: Actions not likely to occur due to technical and/or social limitations as understood today.

Population Objectives: Parameters allowing planners to evaluate actions at the AU scale. PO's will be developed (*and evolve*) for the Plan and provide the basis for measurement / accountability over time. Intended to be rolled into VSP criteria when OOSE are available.

Definitions

Population Objectives (AU Scale)

Adult

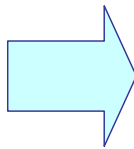
1) Spawning
& Holding

2) Significant change
Spatial Structure

Juvenile

3) Rearing

4) Significant change
Spatial Structure



VSP Analog

1) Abundance
Productivity

2) Spatial Structure

3) Productivity

4) Genetic

Elements of Habitat Action Table

Location - etc	Action Attributes	Action Costs	PO/VSP Benefits	Additional Benefits
<p>Assess Unit - X Watershed Condition Water Quality Water Quantity Riparian/Floodplain In-Channel Ecological Passage</p>	<p>Action Type Readiness Development Public Support Limiting Factor Life Stage Carry Capacity Risk</p>	<p>Development Permitting Implementation Bio-Monitoring O/M</p>	<p>Adult (15-40 yr) Hold – Spawn Spatial</p> <p>Juvenile (15-40 yr) Rearing Spatial</p>	<p>Not yet developed</p>
<p>Assess Unit - Y Watershed Condition Water Quality Water Quantity Riparian/Floodplain In-Channel Ecological Passage</p>				

Habitat Actions Analysis

(Basic Procedure for Development)

Timely completion and success depends upon coordination with appropriate people at key steps.

Identify *Conceptual Foundation* of existing / desired population structure within the Subbasin. (focus your actions)

Identify primary protection and restoration areas.

Identify key causal and limiting factors for restoration areas.

Develop AU Population Objectives (relative scale, understood to evolve)

Use Subbasin Management Plan elements to identify “General Management Strategies”.

Habitat Actions Analysis

(Basic Procedure for Development)

Technical staff / knowledgeable public identify site-specific Reasonable Actions consistent with General Management Strategies.

- Describe general location / reach.
- Describe attributes affected and degree.

Senior/technical staff estimate costs.

Senior Staff estimate affect to Population Objectives

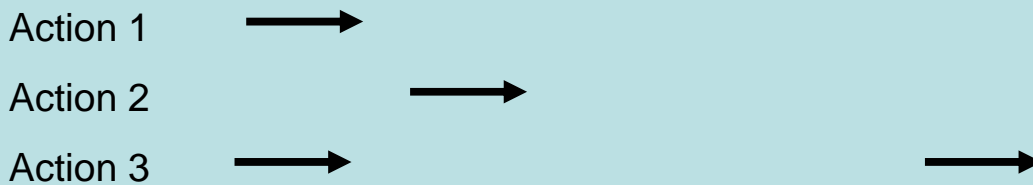
Relationship of Spreadsheet to Basic Products Population Objectives

AU	Adult Spawning / Holding			Adult Spatial			Juv. Etc.
	Existing	15-year	40-year	Existing	15-year	40-year	etc
X	0	15	30	0	15	15	etc
Y	30	35	50	30	30	30	etc
Z	70	70	70	70	70	70	etc
Total <small>(Relative)</small>	100	120	150	100	115	115	etc

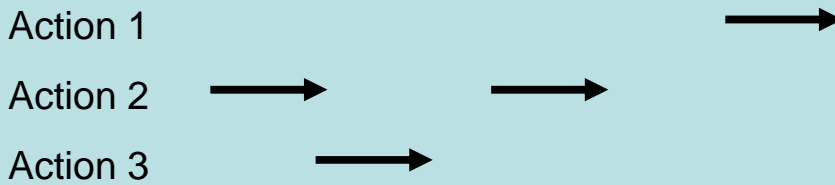
Relationship of Spreadsheet to Basic Products

Sequence of Actions

AU X



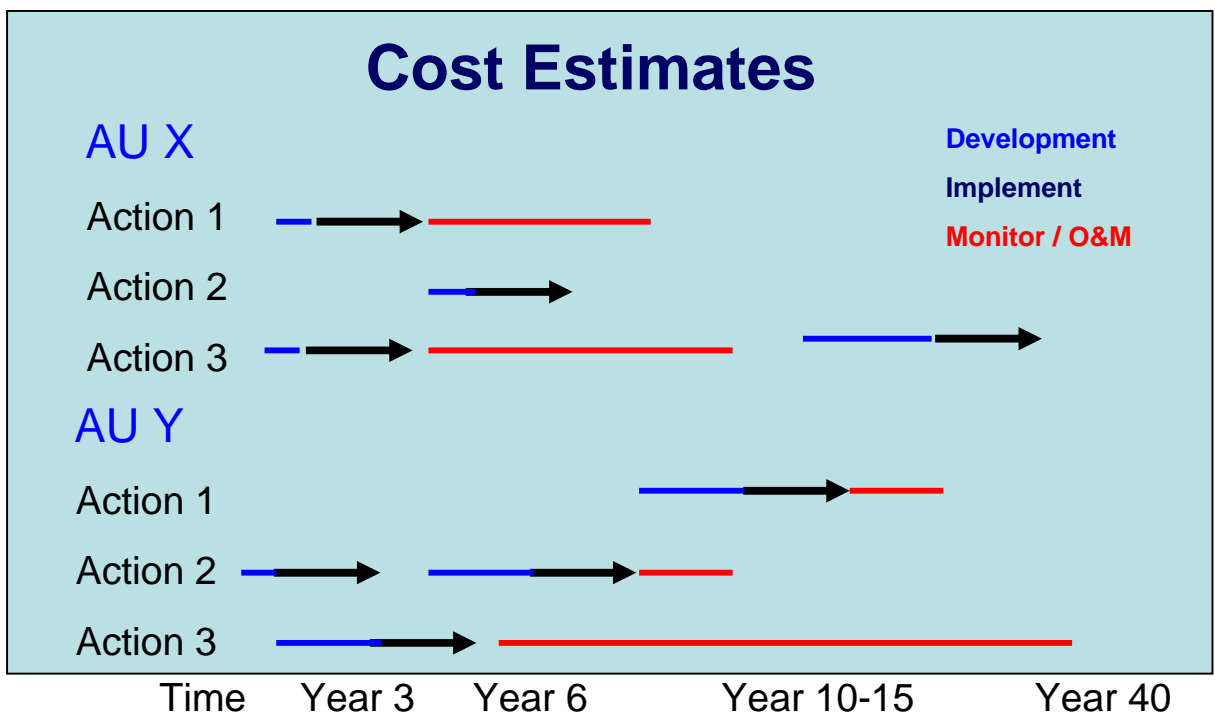
AU Y



Time Year 3 Year 6 Year 10-15 Year 40

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Relationship of Spreadsheet to Basic Products



Summary: Relationship of Actions to Population Objectives

Narrative Form

Describe contribution of AU Actions to each Population Objective.

Describe relationship of Habitat / Population to other AU's / Subbasin.

Concluding Remarks and Questions

Basic Premise is you need to start somewhere – rough out a finished product to begin with then refine as time goes on.

Do not get hung up with details enveloped in uncertainty when you can move forward with much of what you already know.

Basic Assumption is that Co-Managers and knowledgeable stakeholders do know enough to complete this work in a defensible manner – it is not arbitrary.