



May 2nd, 10:30 AM - 12:00 PM

## How Are the Fish Doing? Development and implementation of sixteen watershed monitoring and adaptive management programs for recovery of Puget Sound Chinook

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Vynne, Stacy; Dorner, Jeanette; Fore, Leska S.; Stiles, Kari A. (Kari Ann); White, Jacques; Hook, Abby; and Blackmore, Laura, "How Are the Fish Doing? Development and implementation of sixteen watershed monitoring and adaptive management programs for recovery of Puget Sound Chinook" (2014). *Salish Sea Ecosystem Conference*. 71.

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**Speaker**

Stacy Vynne, Jeanette Dorner, Leska S. Fore, Kari A. (Kari Ann) Stiles, Jacques White, Abby Hook, and Laura Blackmore

# How are the Fish Doing?

## Development and Implementation of 16 Monitoring and Adaptive Management Programs for Recovery of Puget Sound Chinook

Jacques White, Jeanette Dorner,  
Stacy Vynne and Laura Blackmore  
Salish Sea Ecosystem Conference  
Seattle, WA  
May 2, 2014



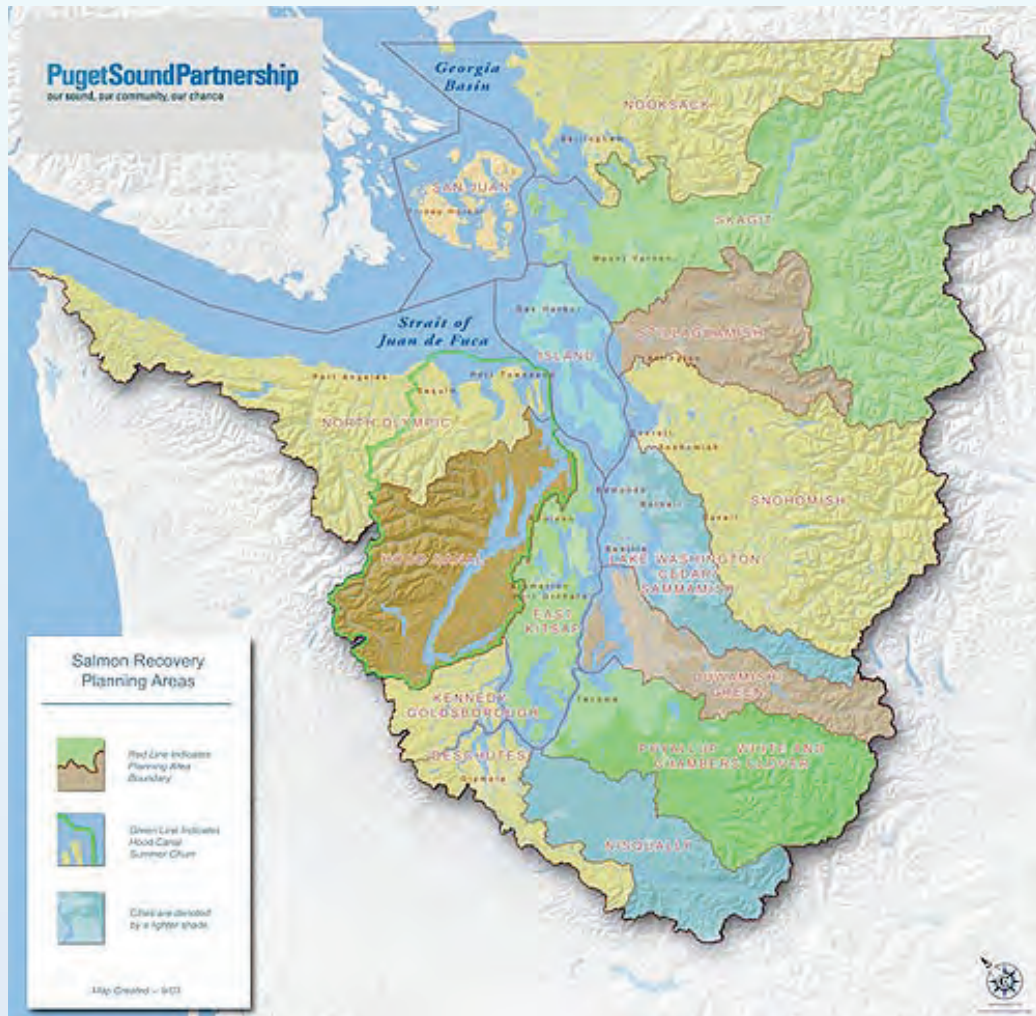
# Presentation Outline

- Review the big picture
- Explain what we've learned
- So What? – why what we've learned matters

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# **THE BIG PICTURE**

# Monitoring & Adaptive Management (M&AM) Project Goal



Overall Purpose:  
Create and maintain an adaptive management system for Chinook recovery by organizing local, watershed-scale monitoring and adaptive management plans to be consistent and integrated across the Puget Sound region.

# Overall M&AM Program Goals

*Phase 1: April 2013 – June 2014*

*Translate high priority aspects of existing watershed recovery chapters, not make new policy*

*Phase 2: July 2014 and Beyond*

*Fill gaps, refine priorities, and use new framework to adaptively manage Chinook salmon recovery*



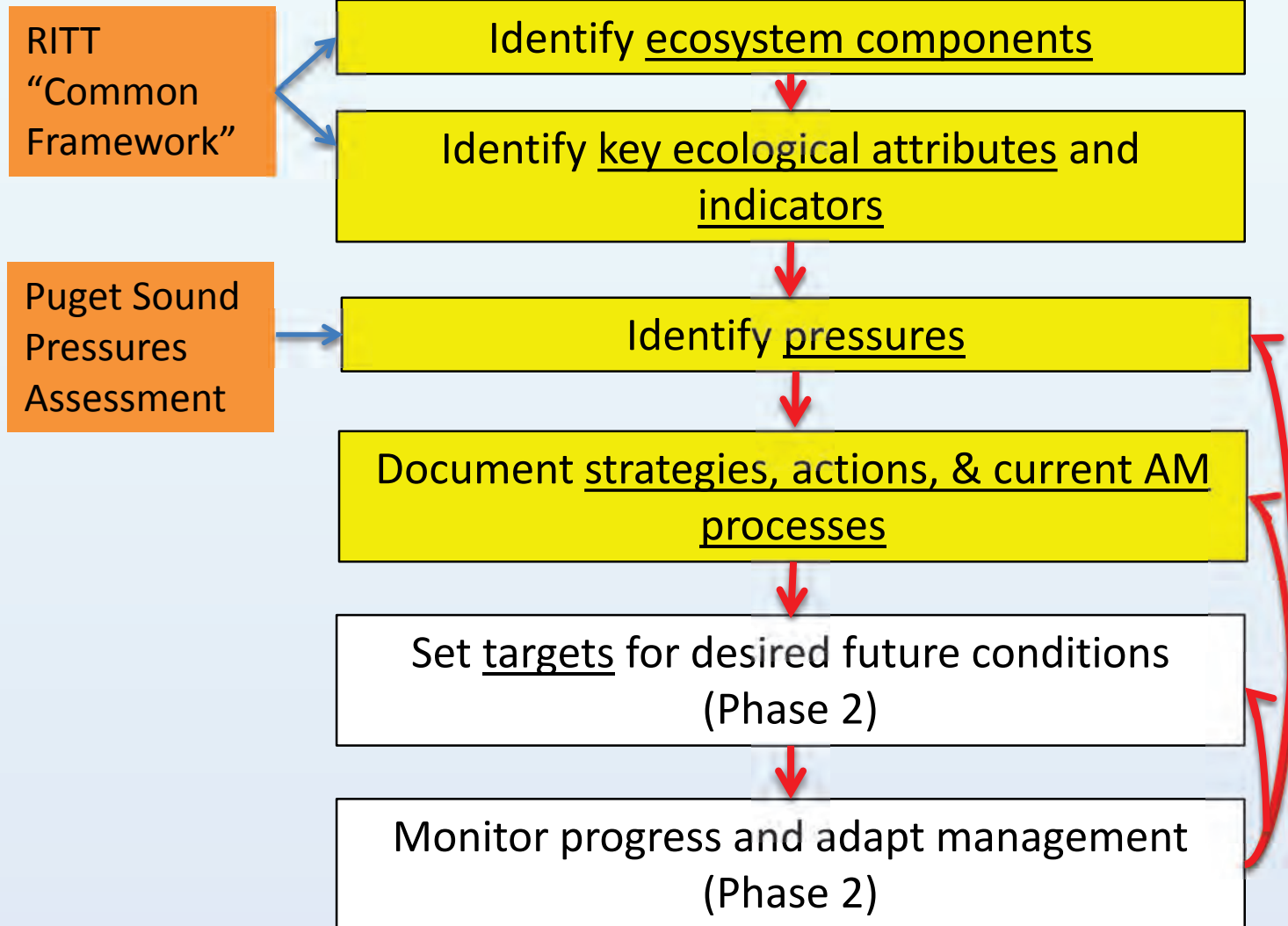
# Approach

- Watershed Core Teams
  - >60 people trained and leading
  - 100 additional people creating products
- Supporting Efforts
  - Recovery Implementation Technical Team (RITT)
  - PSP Staff – ERCs, Scientists, Managers
  - Long Live the Kings Coaching Team
- EPA Funded



# Regional Monitoring & Adaptive Management Approach

Consistent with  
“Open Standards for the Practice of Conservation”



# Phase 1 Products: Viability

- Viability Assessment (all watersheds):
  - Habitats & stocks present in watershed
  - Important characteristics of habitats & stocks (KEAs)
  - Prioritized status & trends indicators
  - Baseline & current data for indicators
  - Identify goals & desired future status
- Viability Assessment (desired):
  - Condition bins: poor, fair, good, very good

# Examples

- Channels >50m Bankfull Width
  - KEA: Sediment delivery
  - Indicator: Substrate composition
- Chinook
  - KEA: Abundance
  - Indicator: Natural origin adult spawner abundance

# Phase 1 Product: Pressures

- Pressures identification (=threats)
  - Using Puget Sound Pressures Assessment taxonomy
  - Pressures adversely affecting habitats and species

# Regional Product: Pressure ID

<b>PRESSURE</b>	<b>% Watersheds*</b>
Agricultural & Forestry Effluents	80%
Marine shoreline infrastructure	80%
Marine Levees & Floodgates	70%
Commercial & Industrial	70%
Freshwater shoreline infrastructure	60%

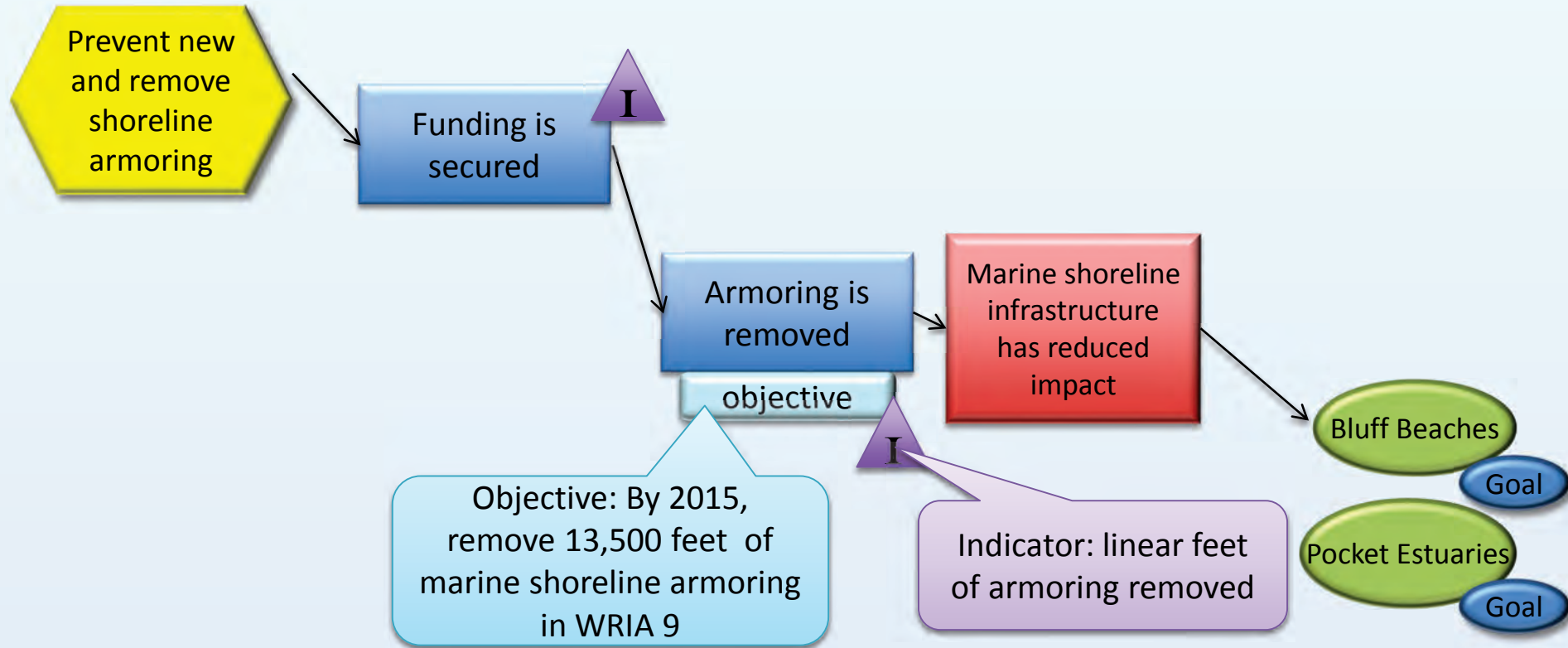
# Phase 1 Product: Results Chains

- Document strategies and objectives
- Prioritize implementation and effectiveness indicators
- Identify gaps in logic and strategies

# Results Chains Articulate Theory of Change

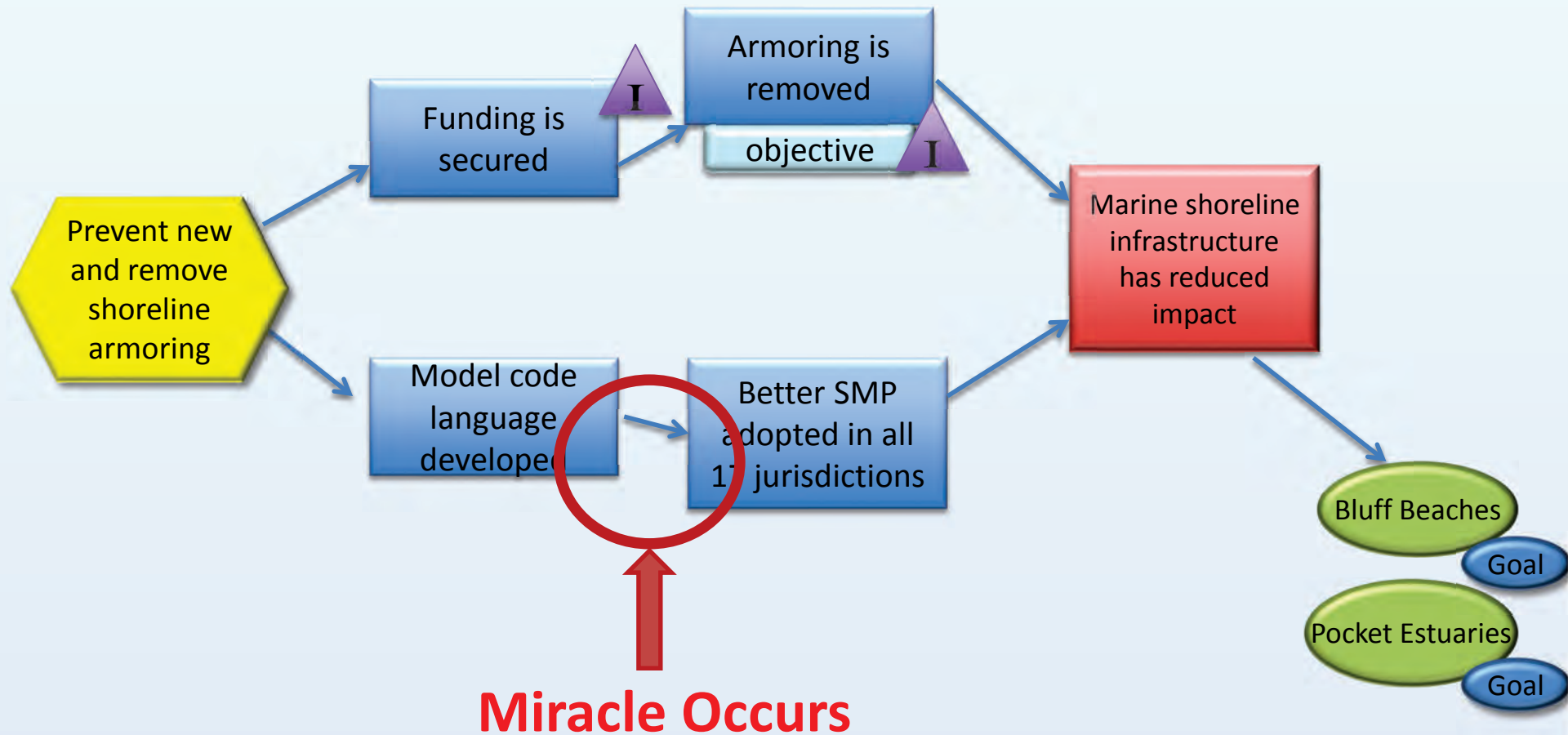
Determine **Intermediate Outcomes** (to connect strategy to goals)

Develop Measureable **Objectives and Indicators**





# Results Chains: Identify Gaps



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# **WHAT WE'VE LEARNED**

# What We Have Learned: Ecosystem Components

- Most plans comprehensively cover the ecosystem
- Menu – Common Framework– helps with self-examination
  - Lake Washington/Cedar/Sammamish – no nearshore components

# What We Have Learned: Goals

- All watersheds have fish goals
- Some have habitat goals & desired future status
  - Nisqually & Green/Duwamish
- Many have few/no quantitative habitat goals or desired future status
  - Lake Washington/Cedar/Sammamish

# What We Have Learned: Viability

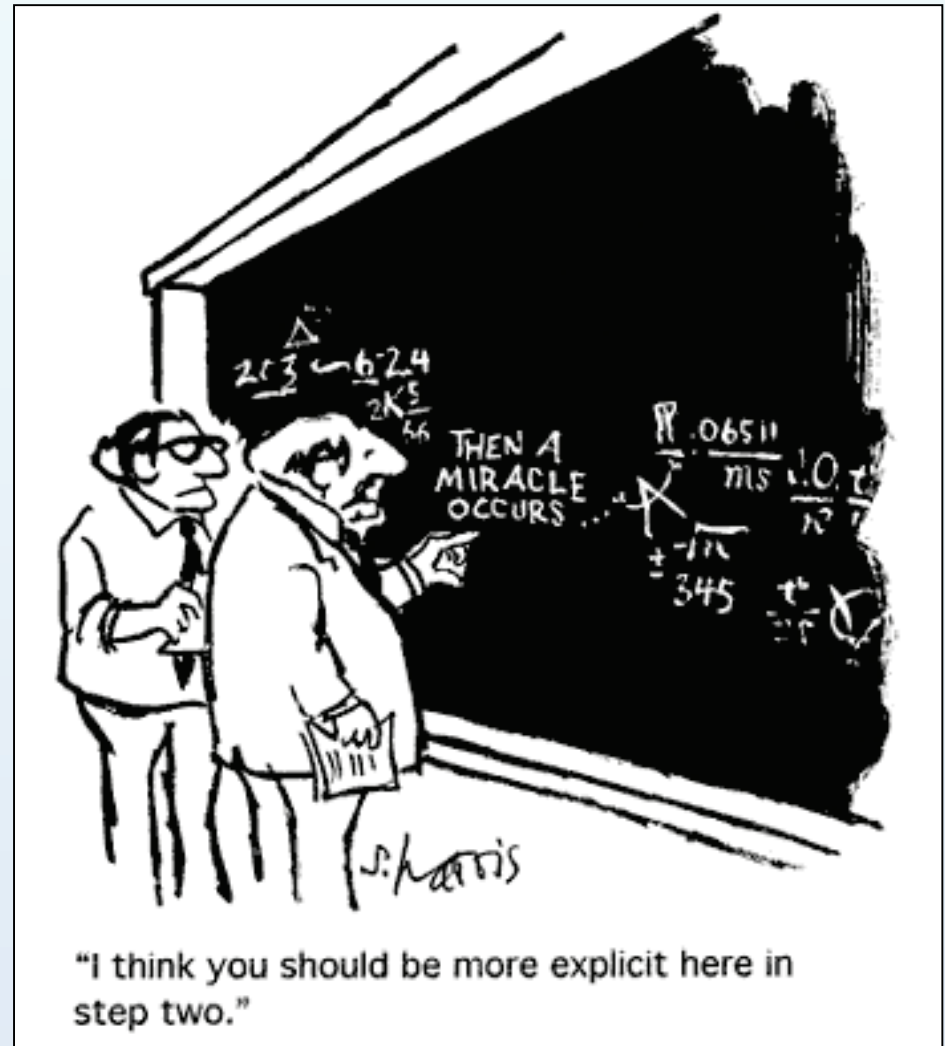
- Core Teams understand their systems
- Technical folks in most watersheds can articulate status & trend indicators
- Needs:
  - Subset of indicators monitored consistently across the region
  - Guidance on defining desired future conditions and goals
  - Funding

# What We Have Learned: Pressures/Stressors

- Most plans comprehensively identify pressures and stressors
  - Limiting factors, etc.
- PSPA provides opportunity to ID gaps.  
Green/Duwamish examples:
  - Climate change and sea level rise
  - Recreational land use
- Few plans, if any, prioritize pressures

# What We've Learned: Results Chains

- Gaps in logic
- Gaps in strategies





# What We've Learned: Results Chains

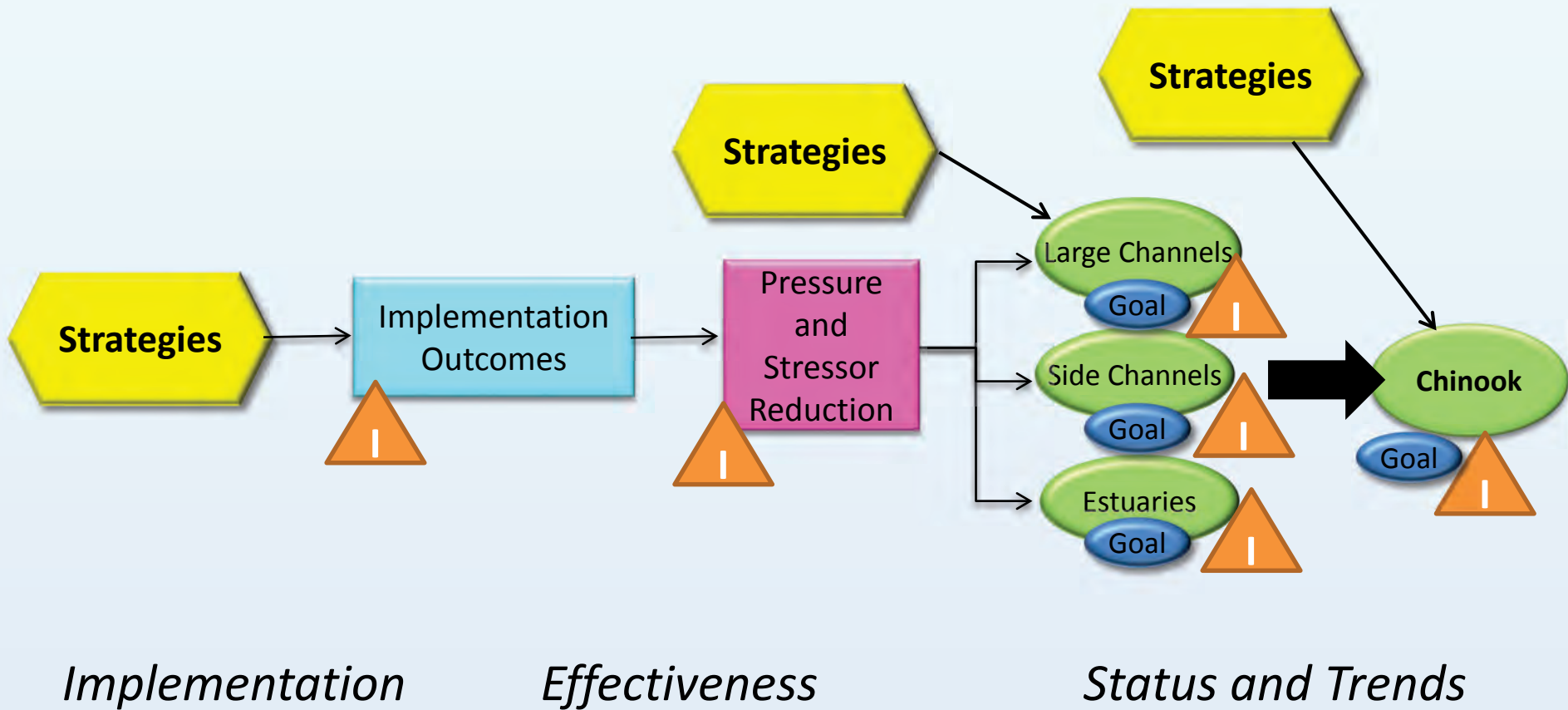
- Gaps in logic
- Gaps in strategies
- Implementation tracking already in place
- Creating system to track effectiveness
  - Green/Duwamish example



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**SO WHAT?**

# Framework Builds Monitoring Plans



# Summary: Phase 1 Results

- Framework in each watershed creates a system that:
  - Ties monitoring results clearly to actions and goals
  - Highlights gaps in current plans and structures
  - Allows for consistent reporting and evaluation of progress
- Description of existing adaptive management system

# Phase 2 Desired Results

- Complete translation, especially viability work and pressures assessment
- Develop and implement new adaptive management systems in each watershed
- Develop and implement monitoring plans

# THANKS TO OUR COACHING TEAM!

Laura Blackmore, Cascadia Consulting Group

Abby Hook, Hook-Knauer

Kara Nelson, Kara Nelson Consulting

Susan O'Neil, Long Live the Kings

Robert Warren, Bonneville Environmental Foundation

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# **QUESTIONS AND DISCUSSION**