

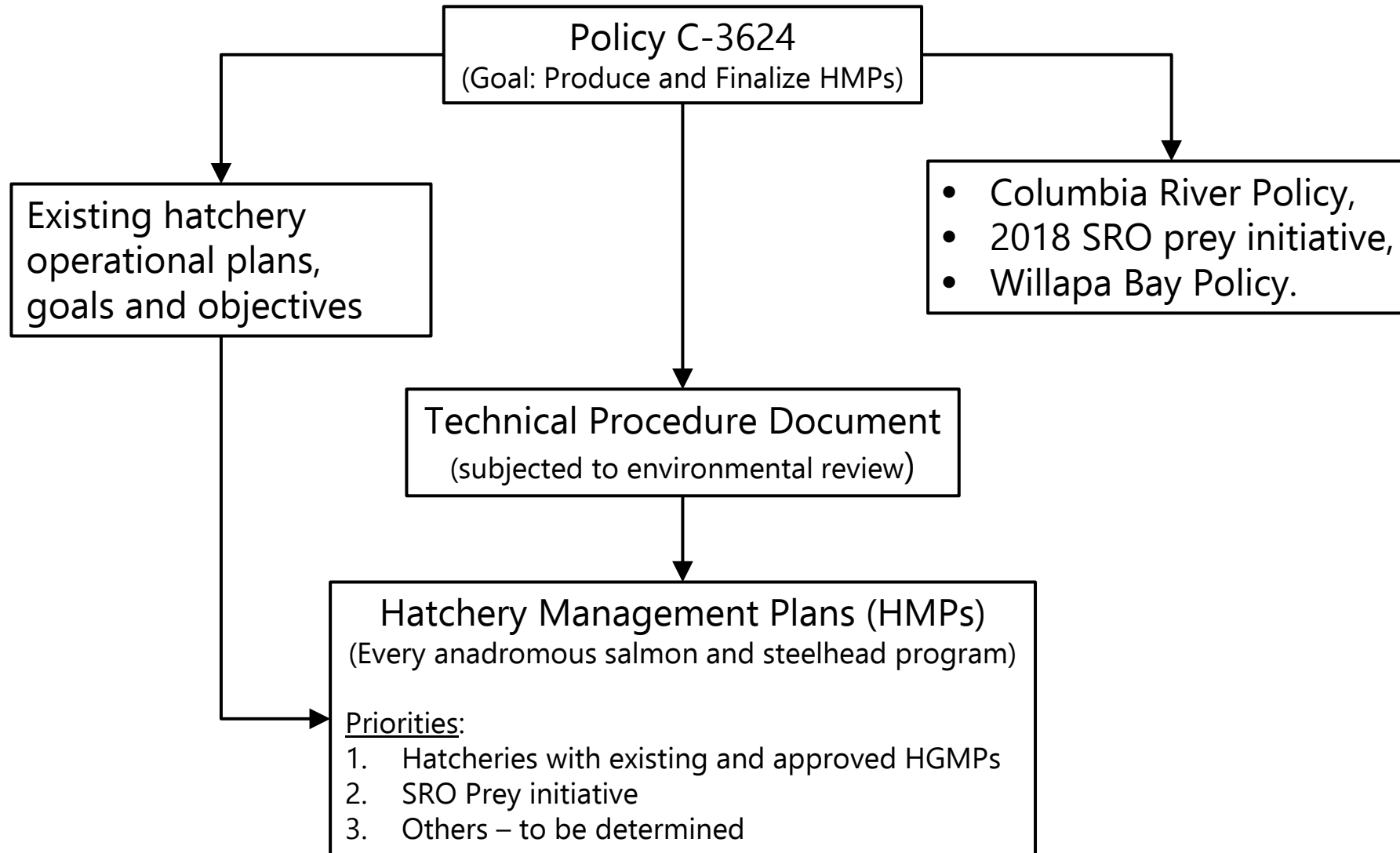
# C-3624 Implementation Update

October 21, 2021

Ken Warheit, Laurie Peterson, and Eric Kinne  
Fish Program



# Implementation Workflow



# Columbia River Policy

## 2. Hatchery and Natural Production Goals

b. “Hatchery production is to be conducted in a manner consistent with the recovery of ESA-listed wild populations, the sustainability of healthy wild populations, and in accordance with the Commission policy on hatchery operations.”

# Southern Resident Orca (SRO) Prey Initiative

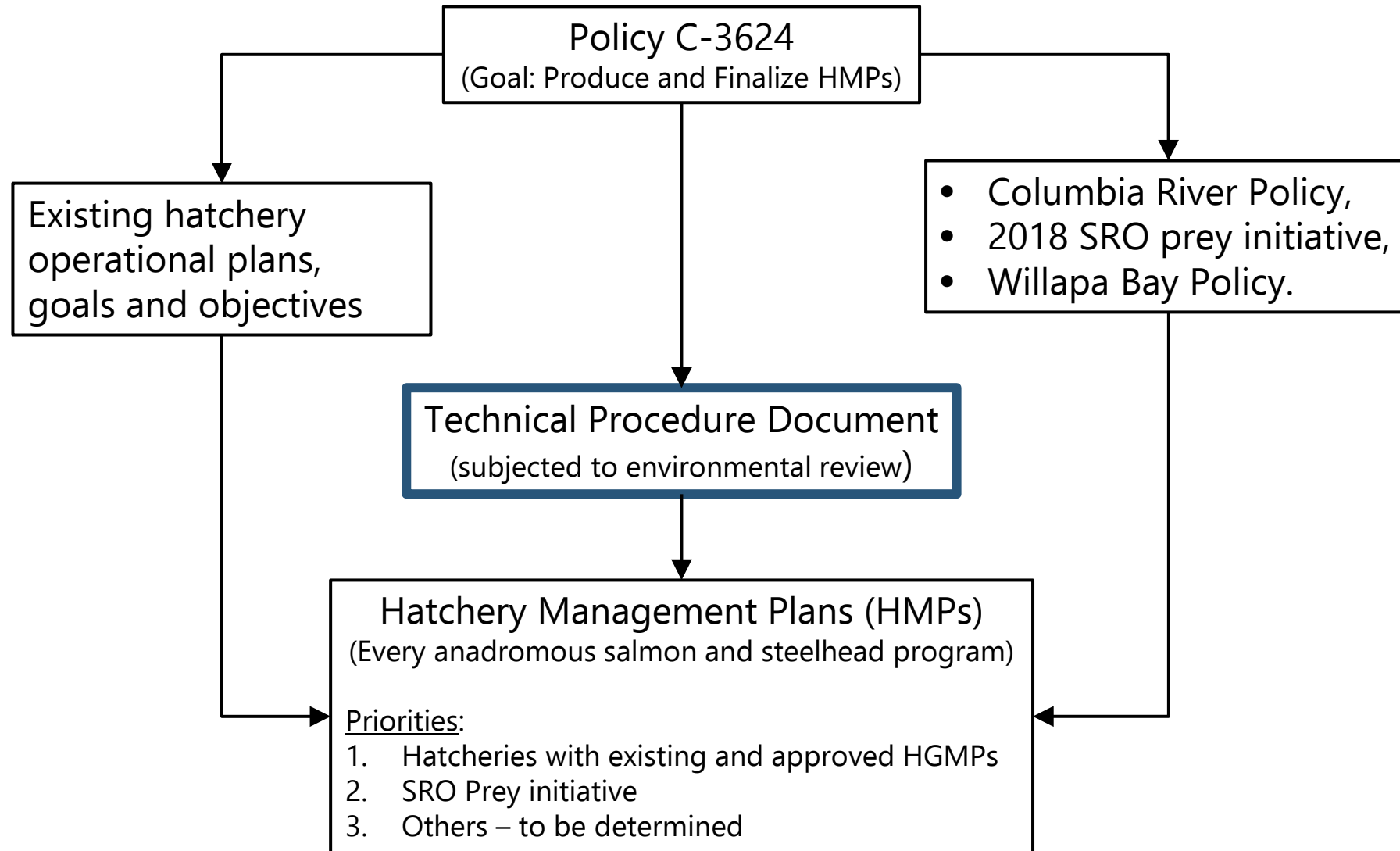
- The highest priority to be completed are HMPs associated with the Southern Resident Orca (SRO) prey initiative

# Willapa Bay Policy

- Include as a high priority HMP after the development of the TPD



# Implementation Workflow



# Other Components to Hatchery Policy

- External marking procedure
- Funding
- Identify wild populations with high-level of protection
- Expand methods to separate adult hatchery- and natural-origin
- Adaptive management



# Technical Procedures Document

- Balance risks and benefits
- Science-based risk management framework
- Incorporates uncertainty in the estimates of the risks and benefits
- Structure decision-making process (SDM)
- \*Developed in consultation with Tribal co-managers

\*Different process than the development of joint policy between WDFW and Tribal co-managers



# Risk Management

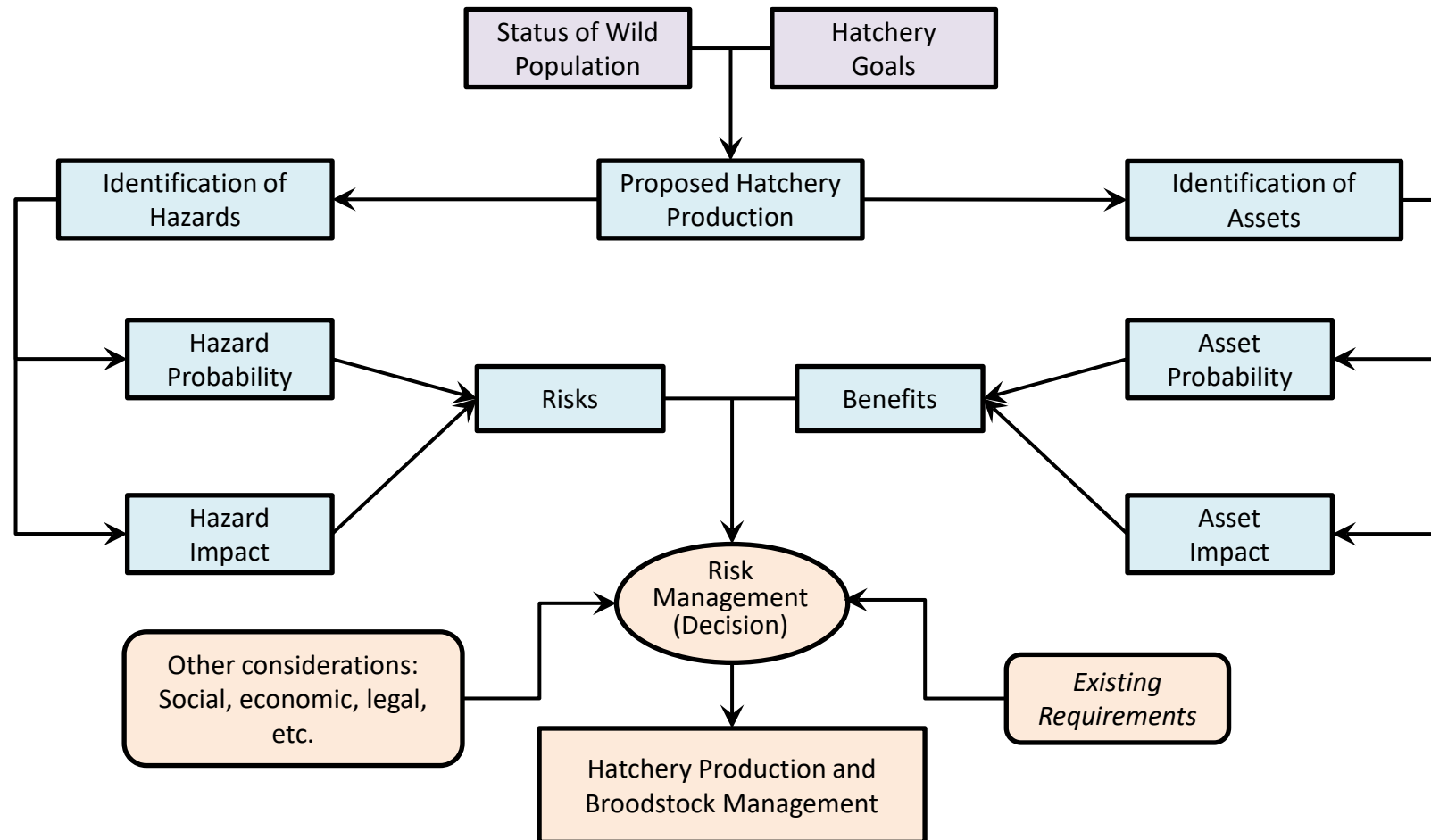
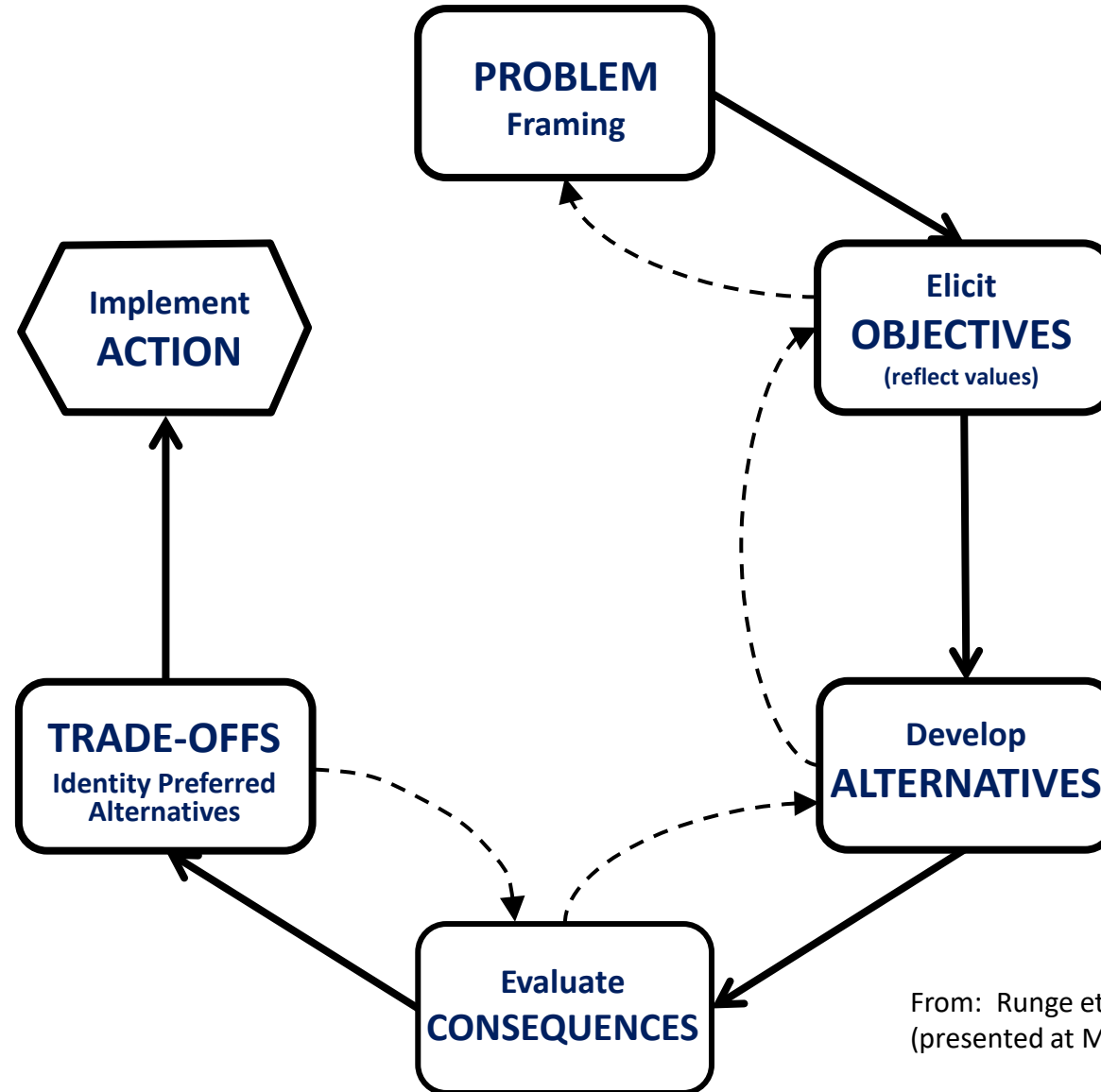


Figure 1 from Policy



# Structure Decision Making (PrOAct example)

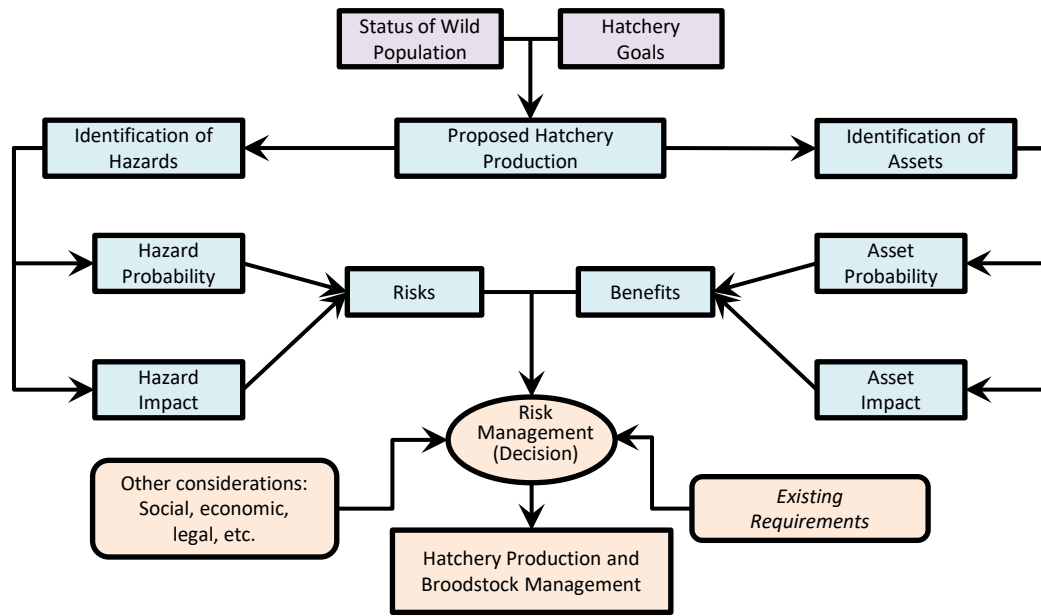


From: Runge et al. 2013. in Krausman and Cain (eds)  
(presented at March 2021 meeting with Tribal co-managers)



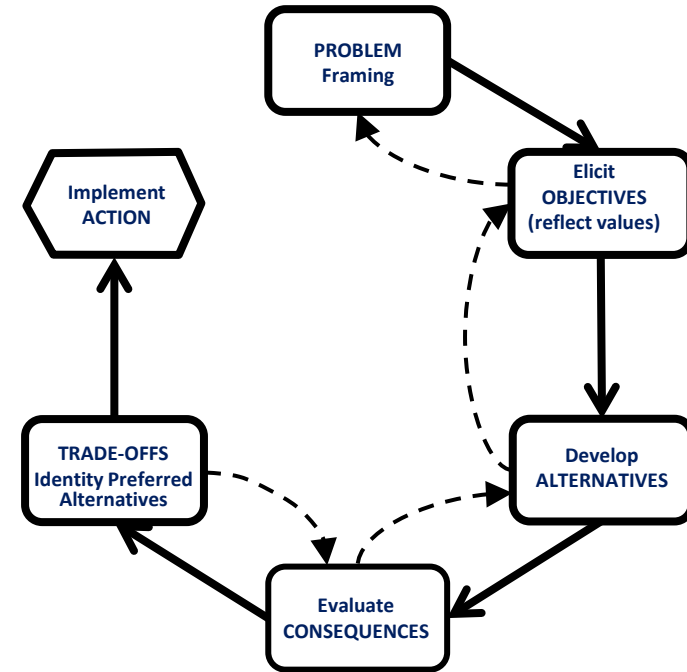


# Fitting a risk management framework into a deliberative decision-making process



Risk Management

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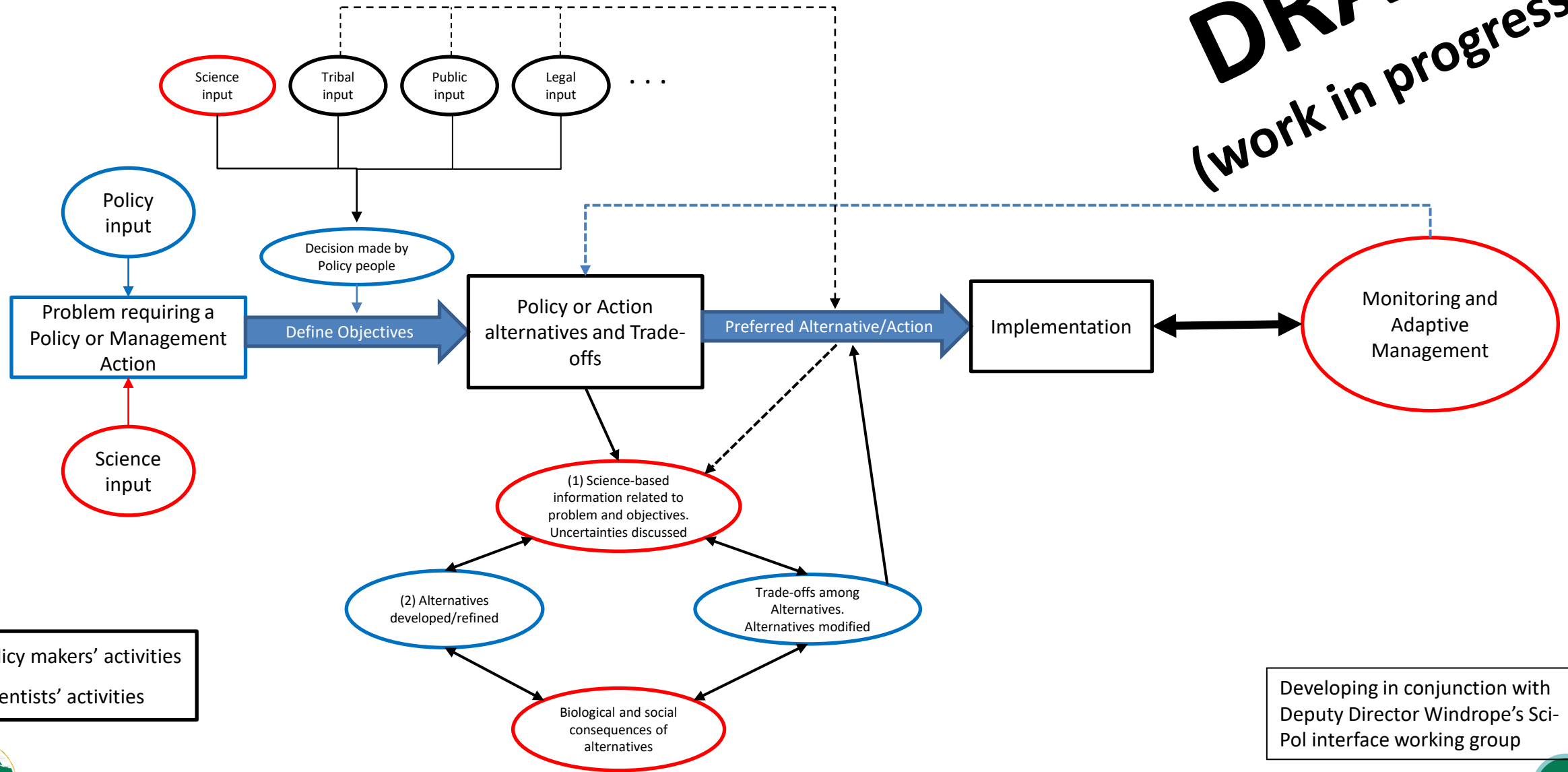


Structured Decision Process



# Fitting a risk management framework into a deliberative decision-making process

**DRAFT**  
(work in progress)

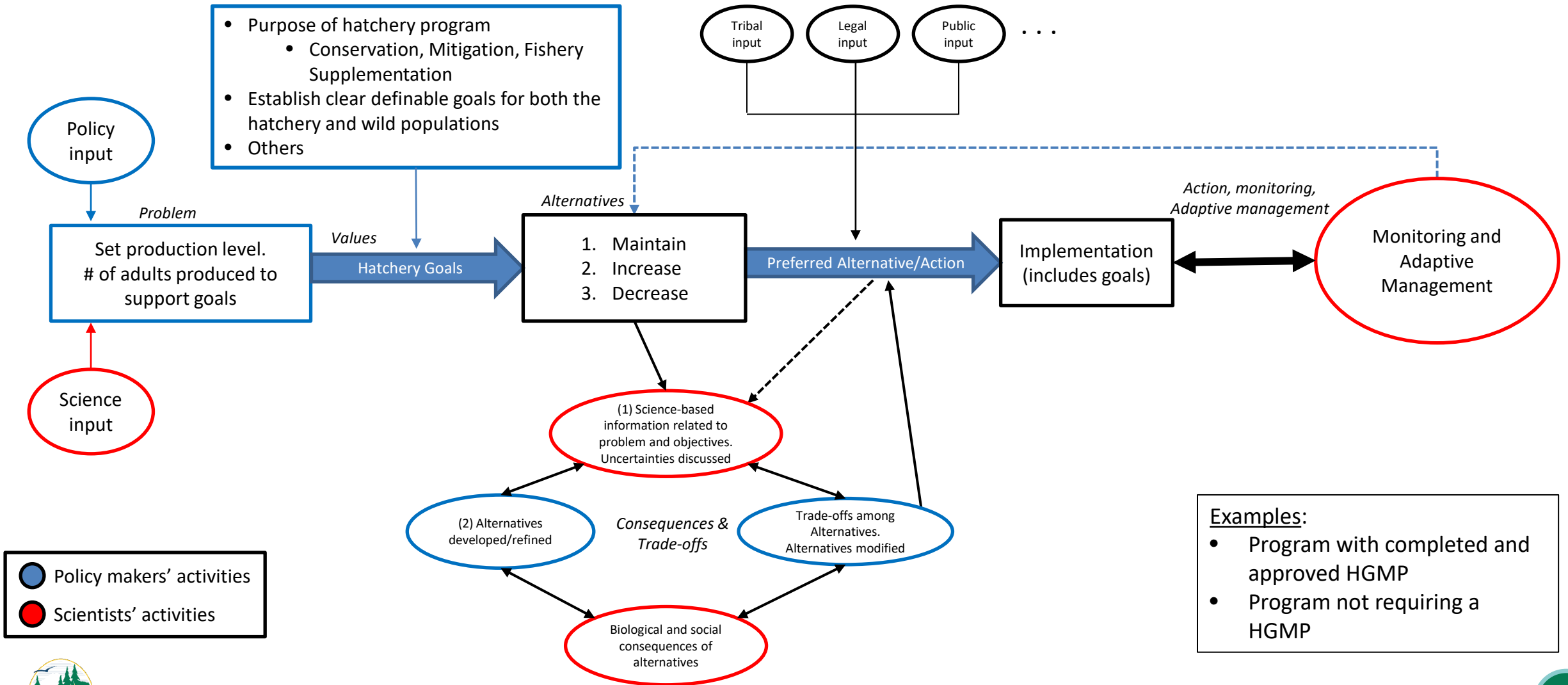


● Policy makers' activities  
● Scientists' activities

Developing in conjunction with Deputy Director Windrope's Sci-Pol interface working group



# Fitting a risk management framework into a deliberative decision-making process



# Fitting a risk management framework into a deliberative decision-making process

## Next Steps:

1. Assessment. Adopt, modify, or develop model to determine consequences of alternatives. Model to include uncertainty.
2. Consider science-based genetic and ecological information at specific special scales to inform Assessment.
  - Type of data needed
  - Aggregate data
3. Monitoring and evaluation, and adaptive management processes
4. Environmental review – SEPA
5. Funding (develop DEC packs: 23-25 biennium)

