

Representative Species and Population Goals

What Is a Representative Species?

- ...a species that is sensitive to habitat characteristics, ecosystem function, or management responses similar to a group of other species
 - conserving or managing habitat for a representative species can “bring along” the needs of a larger group of species with similar habitat requirements.
- Won't take care of everything...also will need to plan for some species that have unique habitat requirements or ecosystem functions

Northeast Conservation Framework

GOAL-SETTING

*Which species to conserve?
At what levels?
Who decides?*

BIOLOGICAL ASSESSMENT

*What do we know about the
status of priority wildlife?*

CONSERVATION DESIGN

*What should landscapes look
like to conserve all species at
levels that society wants?*

PRIORITIES

*Which species demand
immediate attention?*

INFORMATION MANAGEMENT

*How will we manage the
demand for and creation
of data?*

SCIENCE TRANSLATION TOOLS

*How do we make science
solutions useful?*

MONITORING, EVALUATION, RESEARCH

*What new information will we
gather to support
conservation?*

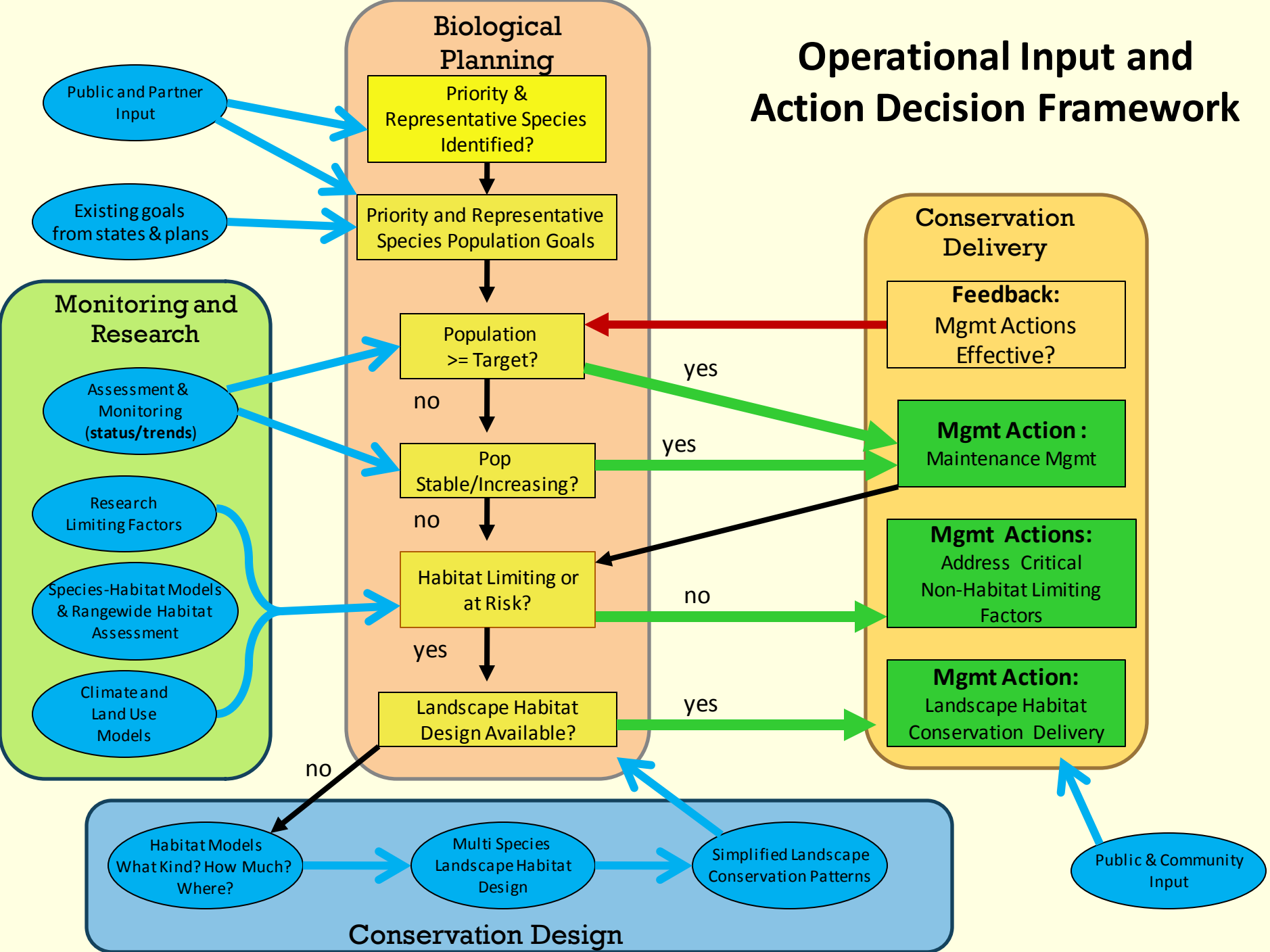
CONSERVATION ADOPTION

*How do we get communities and
landowners engaged in
conservation?*

CONSERVATION DELIVERY

*How will we most efficiently put
conservation on the ground?*

Operational Input and Action Decision Framework



Next Step in Designing Landscapes

We cannot define landscapes necessary to sustain fish and wildlife populations that we are responsible for – to define how much and what kind of habitats and where they need to be without population objectives.

The scientific foundation begins with relationships between populations and habitats providing the basis for efforts to:

(1) characterize the ecological capacity of a landscape to support/sustain species at desired levels

(2) devise conservation actions through predicted biological response to changes in habitat conditions,

(3) define parameters important to monitor, and

(4) prioritize research to address critical uncertainties.

Next Steps

- Finalize list of representative species
- Develop/compile species-habitat models for species
- Compile/develop population objectives from existing plans with partner input informed by modeling
- Model current landscape capability to support species at population objective levels
- Model the increment and kind of habitat conservation necessary to support species at pop objective levels

Setting Population Goals

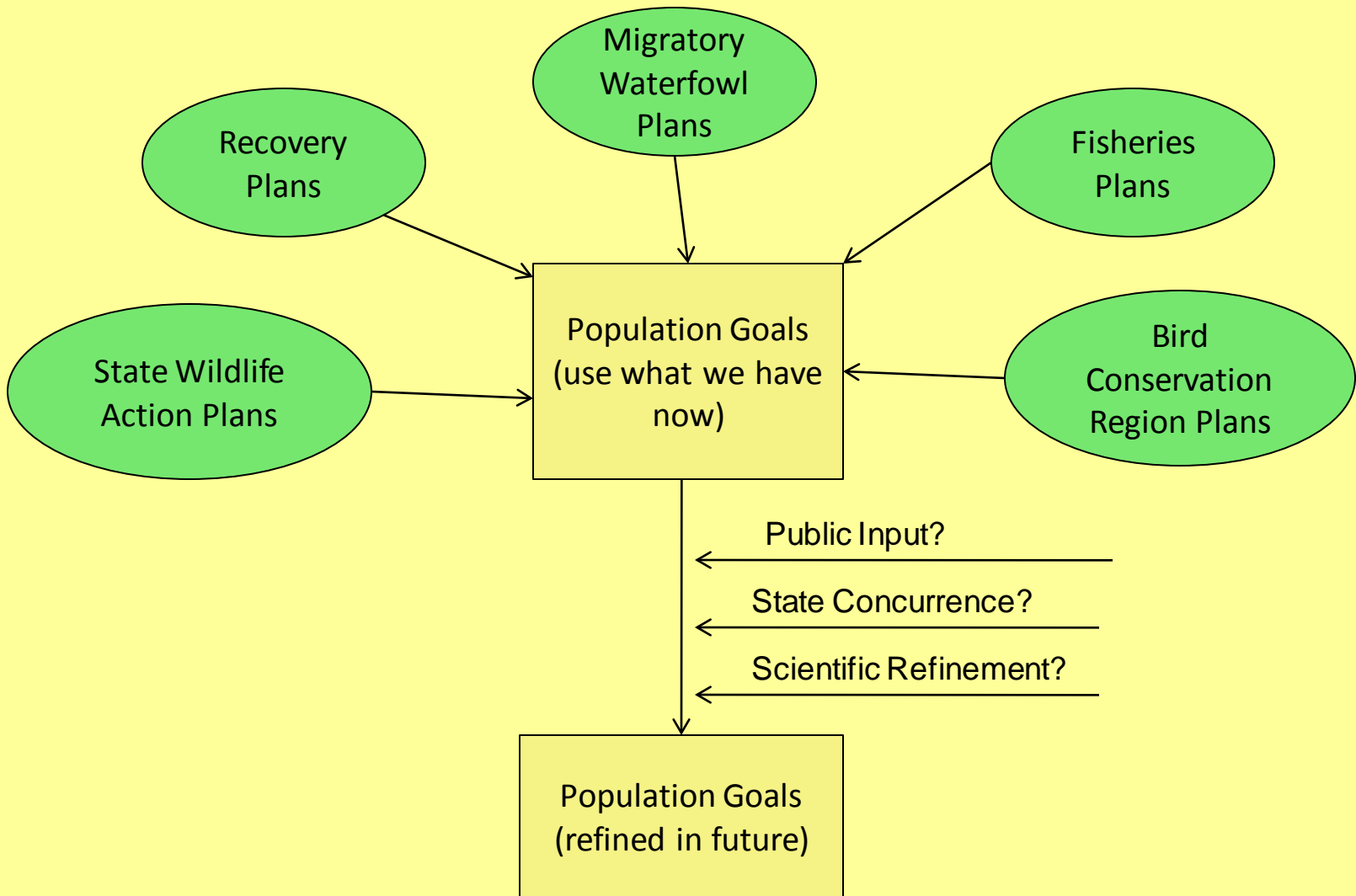
- How do they reflect public values?
- Do they consider competing interests?
- Aspirational or realistic?
- How do they link to population & habitat?
- Do they add up to balanced equation?

- Population objectives are science-based - they should reflect the ability of the current or future habitat base to provide support.
- Population objectives are public-based - should reflect the public's desire to support the conservation needed, the benefits derived, or the impacts sustained by populations of different species.
- We have a responsibility to ensure the future of fish and wildlife populations, but...
beyond the assurance of minimally viable populations, it is a social, as well as biological decision to support the conservation of certain population levels

Implications

Population objectives should be derived from & linked to regional indices

Validation includes “rolling up” subregional numbers in comparison to “stepped down” continental ones



Population objectives describe the desired state of a population and are:

- expressed as abundance, trend, vital rates, or other **measurable** indices of population status, based on the best biological information
- used to compare the current state of the population against future conditions.
- a metric to assess and re-assess the performance of our management actions
- any indices that can relate back to an estimate of current population versus habitat base and estimates of habitat needed to support future desired abundance

Estimate vs. Index

- Only an index is needed to measure success
- Adaptive management guides “local” actions, test assumptions & inform larger model
- Any references to ‘estimates’ are dangerous
- How we frame & communicate this is critical to avoid misuse

Representative Species and Population Objectives

Coming soon...