# Goals and Objectives in Recovery Planning

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### **Outline**

- The importance of planning
- Goals and objectives in recovery planning
- Using COSEWIC criteria
- Defining goals advice and examples
- Defining objectives advice and examples
- Approaches

## The importance of planning





Sharp-tailed Snake Recovery Team

## The importance of planning

- Strategy = the art of employing plans towards achieving a goal
- Build understanding and consensus on what you are trying to achieve and how you will achieve it
- Summarize complex information in a logical manner for communication
- To provide clear direction for actions to increase probability of success

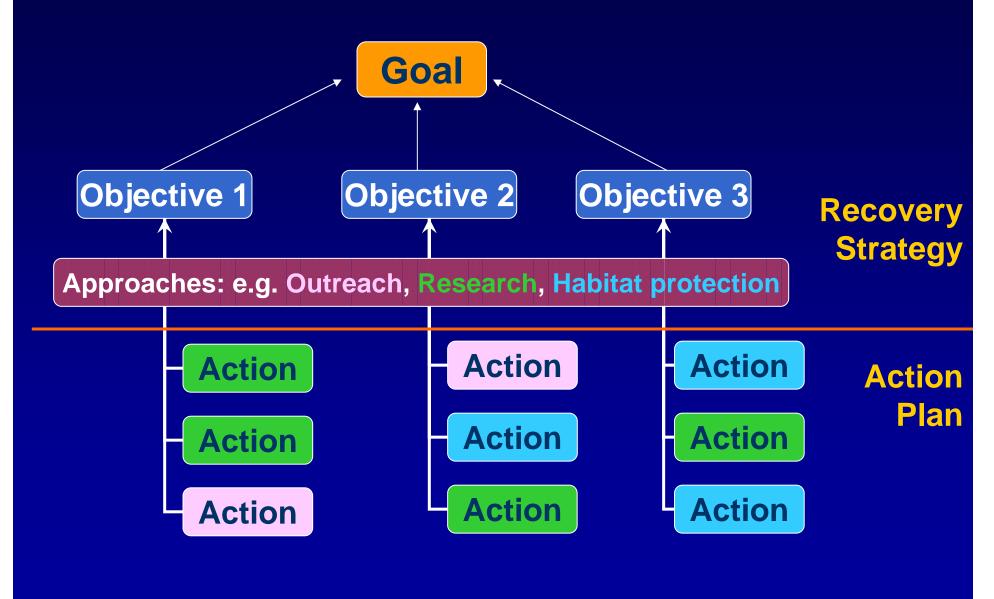
## The importance of planning

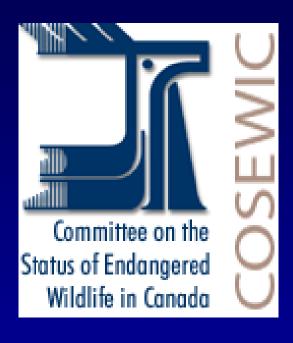
- Framework for adaptive management
- Adaptive management:
  - working toward a defined goal in a systematic manner that allows us to learn what works or does not work and why

# Goals and Objectives in Recovery Planning

- What do you know about the species?
- What are the knowledge gaps?
- What does recovery mean for the species? (goal)
- What needs to be done to achieve recovery? (objectives)
- What tools will be used? (approaches)

### Goals and Objectives in Recovery Planning





- Understanding the problems (extinction risks)
- Guide questions re: what we know / need to know
- Indicate where we need to be to achieve success (goal) (especially for full recovery)

- A. Declining total population
- B. Small distribution, and decline or fluctuation
- C. Small total population size and decline
- D. Very small population or restricted distribution
- E. Quantitative analysis

- What do we know about the species' demography?
  - Generation time (average age of breeding individuals)
  - Number of mature individuals (overall and in each population)
  - Distribution (# of populations / locations)
  - Population declines or fluctuations

- What do we know about the species' habitat?
  - Extent of occurrence / area of occupancy
  - Declines or fluctuations in area of occupancy, extent of occurrence and/or quality of habitat
- What level of protection exists? (for the habitat and individuals)

- What do we know about threats to the species?
  - Causes of declines
  - Actual or potential levels of exploitation
  - Effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites

### Defining Goals: What is Recovery?

- Involves maintaining or attaining a certain biological state and reducing both current and future threats (extinction risk)
- A continuum from survival to full recovery:
  - survival = maintaining current population size and distribution
  - full recovery = restoring a species to a viable, selfsustaining population able to withstand stochastic events and other environmental variables

### **Defining Goals**

- Briefly describe a desired future state (where you want to be)
- Are worded generally to establish broad aims and encompass the entire planning area
- Usually do not have a time frame specified for their achievement
- Are measurable (need to know when you have arrived)

### Defining Goals: Useful Questions

- Are there biological or environmental factors that will limit recovery?
- Will recovery involve increasing the number of individual occurrences and filling in distribution gaps?
- Will recovery involve expanding the current range of the species, and to what extent?
- How serious and numerous are threats to the species and can they be reversed?

- 1. To down-list species X from endangered to special concern
- 2. To improve the status of species X to a level where it is self-sustaining and no longer considered endangered or threatened
- 3. To halt the decline in species *X* and achieve a population of *N* breeding individuals distributed throughout *y* and *z* valleys

1. To down-list species X from endangered to special concern

- The end point (down-listing) is not very specific, and we cannot anticipate COSEWIC assessments (should be biologically based)
- Doesn't provide information about the risks to the species (not related to COSEWIC criteria)
- Does not define what recovery means for the species (maintaining or self-sustaining?)

2. To improve the status of species X to a level where it is self-sustaining and no longer considered endangered or threatened

- Doesn't provide information about the risks to the species (not related to COSEWIC criteria)
- Defines recovery (self-sustaining)
- However, not specific enough to indicate when it has been achieved (what population level?)

3. To halt the decline in species X and achieve a population of N breeding individuals distributed throughout y and z valleys.

- Indicates what the risks are (linked to COSEWIC criteria)
- Defines recovery in a specific, measurable way
- Note: if quantitative targets are set, it must be both possible and practical to determine when that target has been achieved

### Defining Objectives

- Describe what needs to be done to achieve the goal
- Are more specific than a goal
- Work together to achieve the goal
- Generally address:
  - population and/or distribution, habitat protection and/or identification, threat identification and/or mitigation
- Should also address key knowledge gaps

### Defining SMART Objectives

- Specific describe what will be done in concrete terms, using action verbs
- Measurable quantify the amount of change to be achieved
- Achievable realistic given existing biological and technical parameters
- Relevant and Results-focused relates to the goals, and measures outcomes not activities
- Time-bound specifies a time by which the objective will be achieved

## Defining Objectives: Other Tips

- Use active voice
- Use present tense where applicable/possible
- Use good sentence structure and be consistent

- Improve the public's understanding of the conservation needs of the species
- Develop and implement a communications plan for engaging the cooperation of implicated landowners within 3 years
- 3. 70% of targeted ranchers have used appropriate fencing techniques to protect suitable habitat in riparian areas by 2008

1. Improve the public's understanding of the conservation needs of the species

- Specifies an outcome
- Not specific in terms of a conservation target (who is the "public" and what is "understanding")
- Not time-bound

 Develop and implement a communications plan for engaging the cooperation of implicated landowners within 3 years

- Not results-focused (identifies an action rather than an outcome)
- Specific and time-bound but not measurable

3. 70% of targeted ranchers have used appropriate fencing techniques to protect suitable habitat in riparian areas by 2008

#### Comments:

SMART – specific, measurable, achievable (although ambitious), results focused and time-bound

# Defining Objectives: Performance Measures

- Indicators must be measurable, precise, consistent, and sensitive to phenomenon being tracked
- Must measure the outcome not the activity
- Methods to collect data on indicators must be feasible, cost-effective and appropriate
- Monitoring plan should outline assumptions behind tools and detail data needed to collect and test those assumptions

### Approaches

- Describe how to achieve the recovery objectives (a set of tools)
- Broad categories of approaches:
  - Monitoring
  - Habitat protection / management
  - Habitat restoration
  - Research
  - Stewardship
  - Communication / Outreach / Education

### Approaches

- Broad categories in themselves do not communicate how the objective will be achieved
- Must provide a general description of the activities needed to meet the objectives
- However, the Recovery Strategy should not be prescriptive
- Should provide direction to action plan where specific steps will be outlined

### Resources

- The BP Conservation Programme planning manual: <u>conservation.bp.com/advice/project.asp</u>
- Salafsky et al. 2002. Conservation Biology 16: 1469-1479
  - a preliminary taxonomy of threats
  - a preliminary taxonomy of approaches and strategies for conservation
- Species at Risk 2004: Setting Recovery Goals and Objectives 1 – Friday morning in Salon A