Habitat GIT Fall Meeting
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Brook Trout

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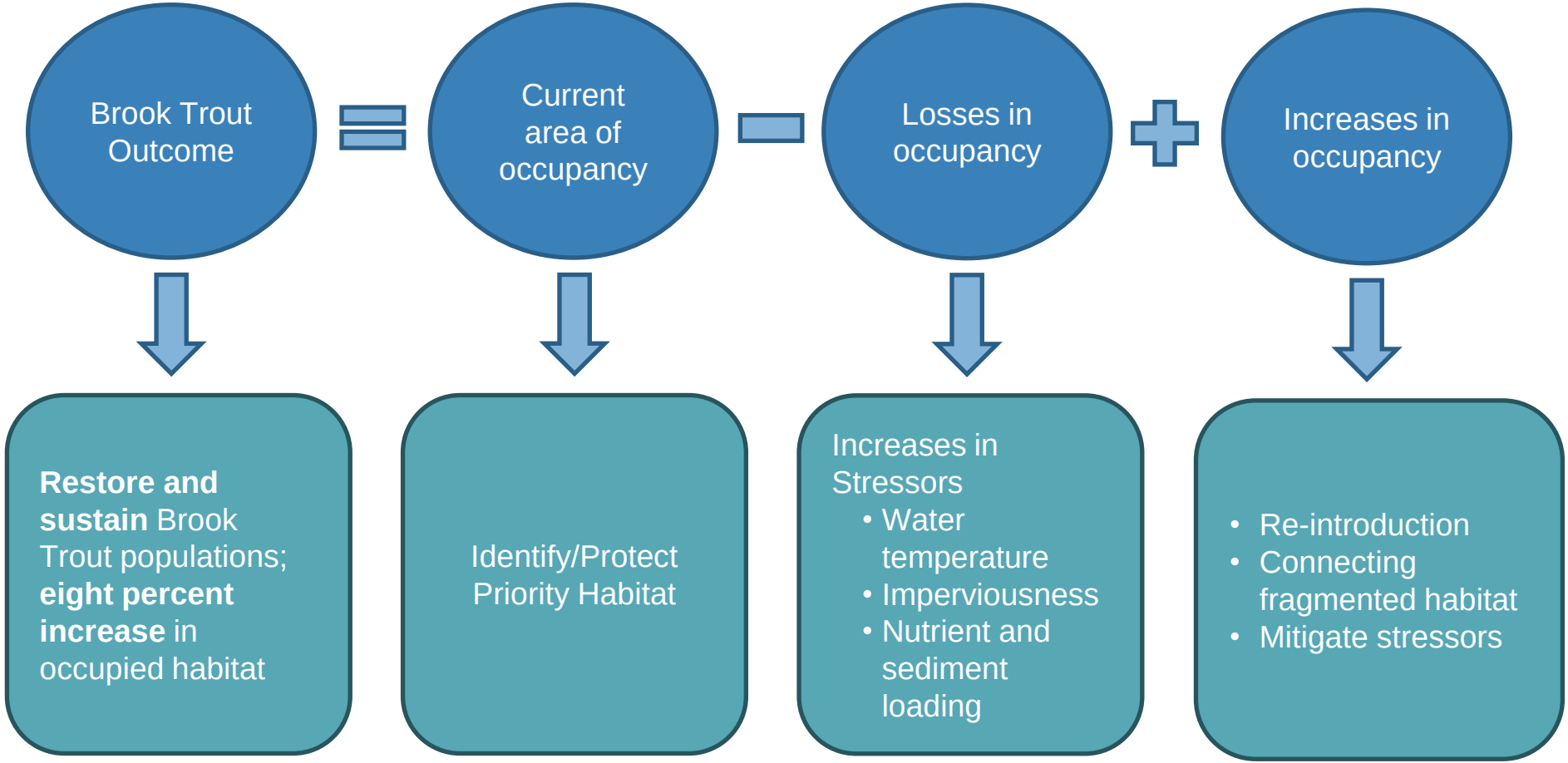
Brook Trout

Summary:

- Not on the track to achieve outcome
- Many successes, but significant challenges remain
- Focus is on primary barriers and compiling conservation/restoration actions


Brook Trout Outcome
=
Current area of occupancy
−
Losses in occupancy
+
Increases in occupancy
Restore and sustain Brook Trout populations; **eight percent increase** in occupied habitat
Identify/Protect Priority Habitat
Increases in Stressors
• Water temperature
• Imperviousness
• Nutrient and sediment loading
• Re-introduction
• Connecting fragmented habitat
• Mitigate stressors

Successes!

- Accomplished 22 of 28 Action Items
- Brook trout genetics – publications, STAC workshop
- Groundwater, stream temperatures – publications, new tools, collaborative projects

Science

- Stream water temperature remains the best direct predictor of brook trout occurrence (multiple models)
- Can’t measure everywhere, so model temperature, evaluate drivers: % Forest/riparian cover, % imperviousness/agriculture, groundwater influence
- Managers need precise information at the appropriate scale to inform decisions - generally highest resolution possible

Challenges

Primary Challenge

- Changes in land use and climate continue to have significant detrimental impacts on brook trout habitat
- Resources available to the BTWG and associated stakeholders to mitigate these impacts are insufficient to adequately sustain and restore brook trout populations at the scale necessary to achieve the outcome

Challenges

Secondary Challenge

We need a more accurate and comprehensive system for documenting gains and losses in brook trout habitat as current data are incomplete

Action Plan

Secondary Challenge

- Developing a new tracking tool, relevant metrics to collate data from multiple stakeholders
- Working with CBP IT Team to create web application
- Submitted GIT Proposal for contractor support

Action Plan

Primary Challenge

- Focus on large-scale priority action items with greatest impact
  - 75% Riparian Forest Cover in all brook trout watersheds
  - Fencing livestock out of brook trout streams
  - Better private landowner engagement/incentives
  - Promote land stewardship

Action Plan

- Understand management implications of new research findings:
  - Brown trout-stream temperature interactions, brown trout removal
  - Outcomes from STAC Genetics and Temperature workshops
  - Effects of climate change, groundwater, BMPs

Action Plan

Large-scale actions necessary to achieve the Brook Trout outcome are connected to numerous other GITs (Healthy Watersheds, Fish Passage, Climate Resiliency, Forest Buffers, and Protected Lands) through common hydrological and ecological processes


Questions?