Transforming to Open Science workflows

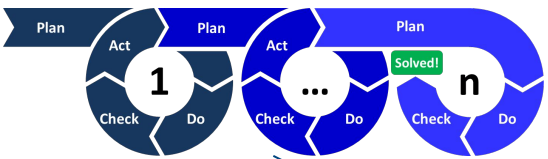
Example from protected species management at NOAA Fisheries

NW Fisheries Science Ctr: Eli Holmes, Mari Williams, Katie Barnas, Chris Jordan

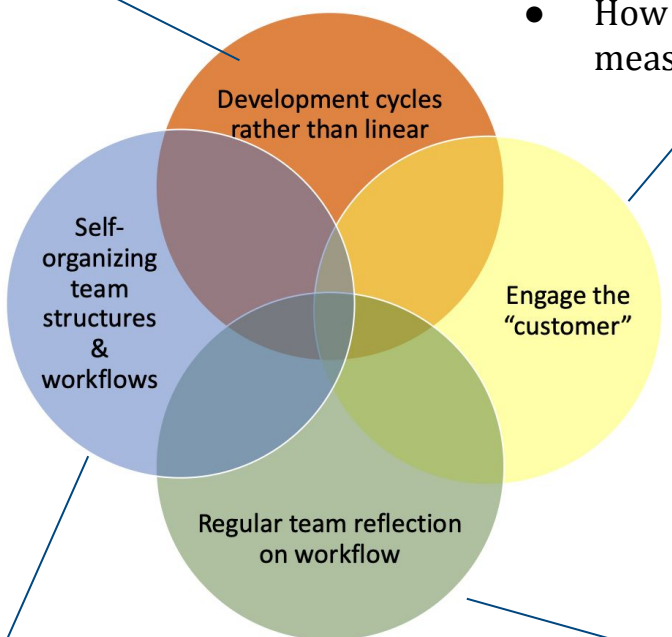
West Coast Regional Office: Diana Dishman

Open Science is not just about open tools and open data; it's also teams of people and how they work together

Introduce teams to the 4 piers of "agile" Open Science workflows



- Show regular minimal working product to end user
- Change if product is not meeting the end user needs
- How do you measure success?



This talk's topic

- **Team awareness**
- Regular face-to-face interactions
- Team member agency
- Psychological safety in the team

- Biweekly reviews
- What can we do better?
- Are we meeting our goals?
- Do we need to change our goals?

Appendix: food for thought!

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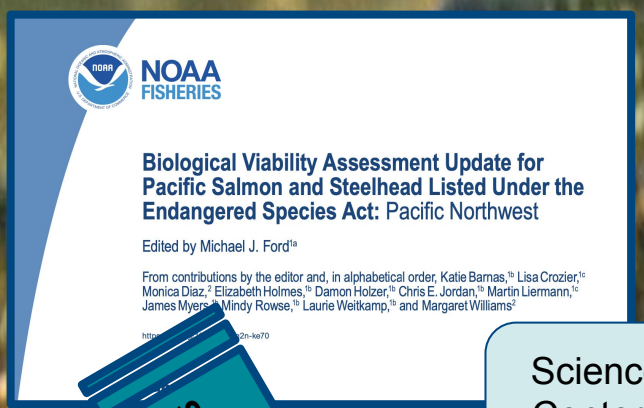
5-year Status Reviews for Endangered and Threatened Salmonids



Section 4(c)(2) of the Endangered Species Act requires 5 year reviews of a listed species.

Supports

Science Centers (science)

Regional Office (policy & management)

Background

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How does a dispersed group of staff working on a large complex report change to a Open Science “workflow”?

Current workflow: Waterfall
Each step in process is done solo and low team awareness

Desired workflow Agile: The work is done collaboratively with high team awareness

10 Openscapes cohorts
2020-22: ca 400 NMFS staff

Common themes have emerged across the agency

- Work is very siloed
- Lack of team awareness.
- Lack of reproducibility
- Inefficiency. Too much duplication of effort across team and across the agency
- Retirements lead to loss of knowledge

Art by DALL-E (OpenAI)

The goal

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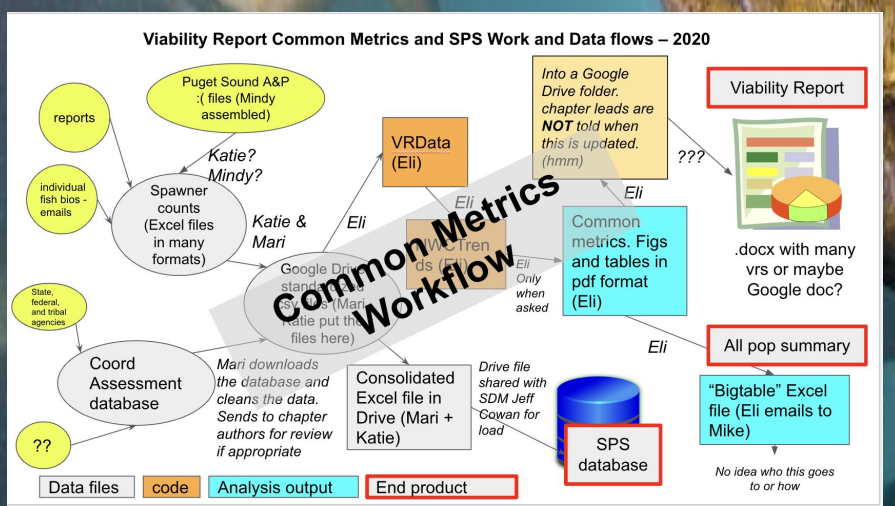
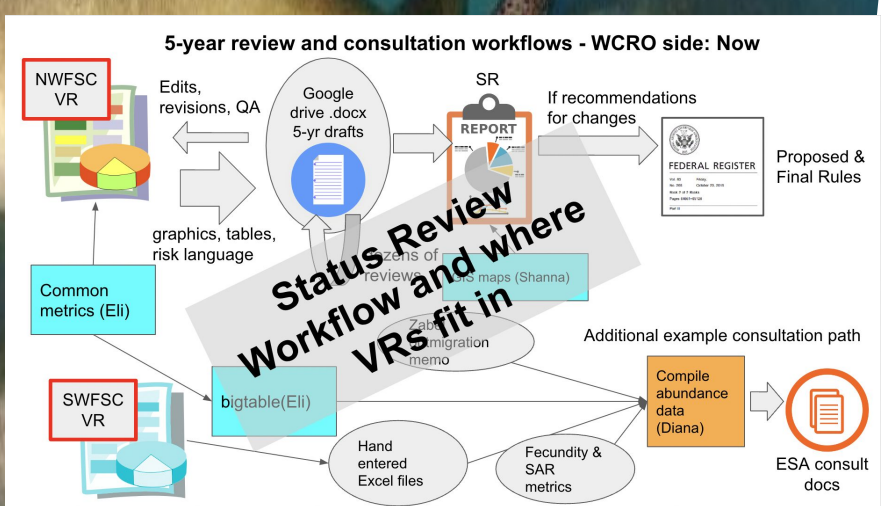
Pathway diagrams to develop team awareness: 4-5 one-hour meetings plus interviews with staff

6-8 of these types of diagrams





Workflow analysis 1

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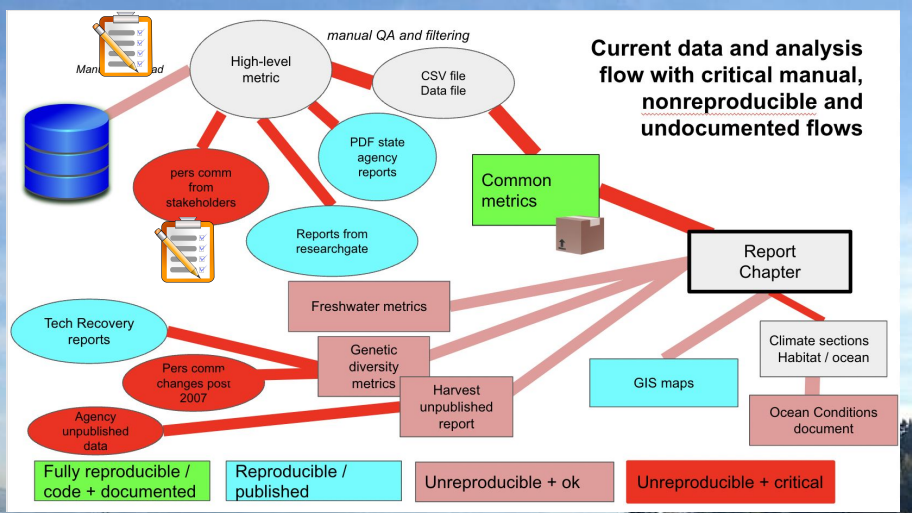
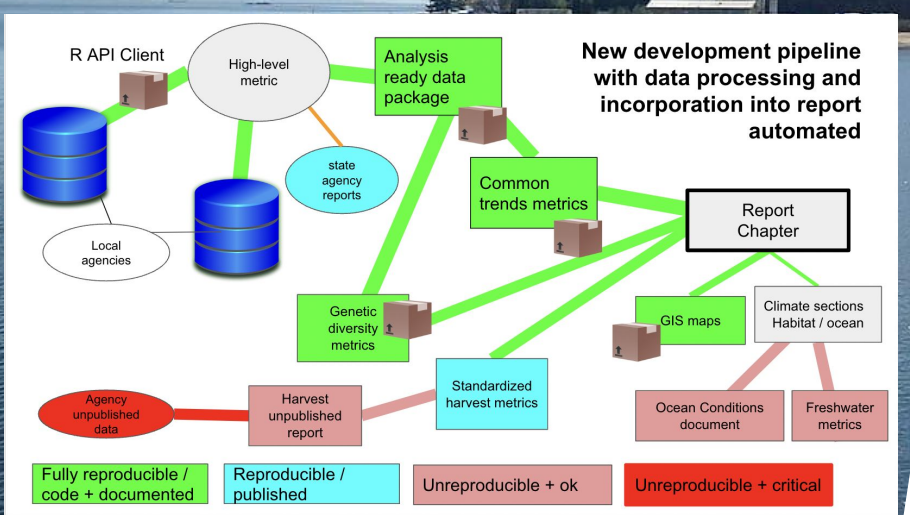
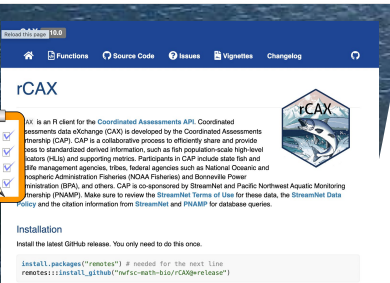
Pathway analysis to identify our **problematic** pathways and **actions we can take** to improve





Set up single email address for pers comms re data requests



Workflow analysis 2

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This was just a small piece of the 10-week “transform to Open Science” Openscapes Champions Program

Learn about Openscapes at the “Better science for future us: Openscapes stories and approaches for the Year of Open Science” ESIP session: Thursday, January 26 • 1:30pm - 3:00pm

NMFS Open Science
https://nmfs-opensci.github.io

NMFS Openscapes
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More info