CALIFORNIA DEPARTMENT OF WATER RESOURCES

Aligning Climate Change Analytics at CA DWR

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Today's Presentation

- Aligning Climate Change Activities @ DWR
- Climate Action Plan: Phase II
  - Two Steps Procedure
  - Technical Work QA/QC Principles

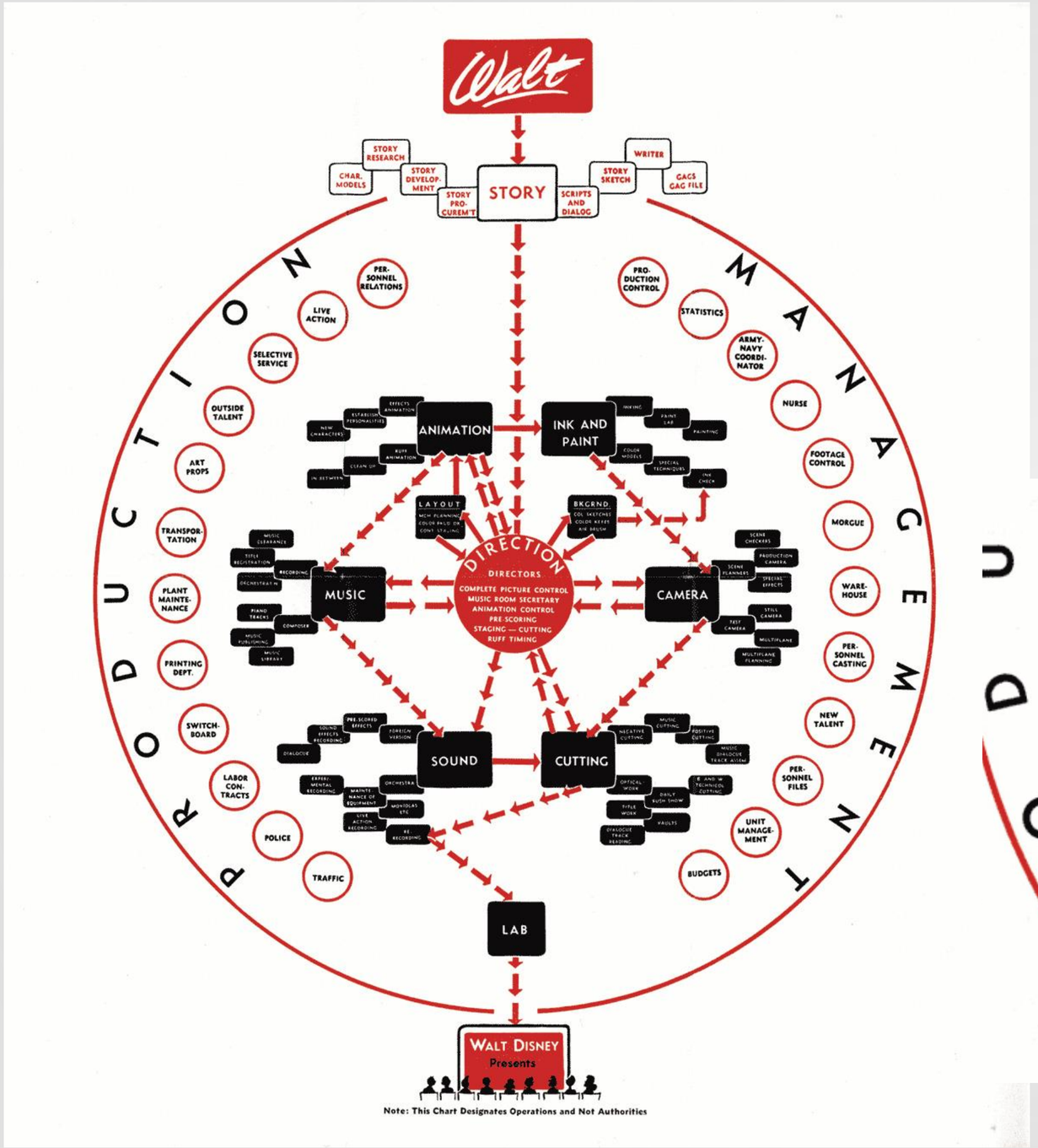
Aligning Climate Change Activities

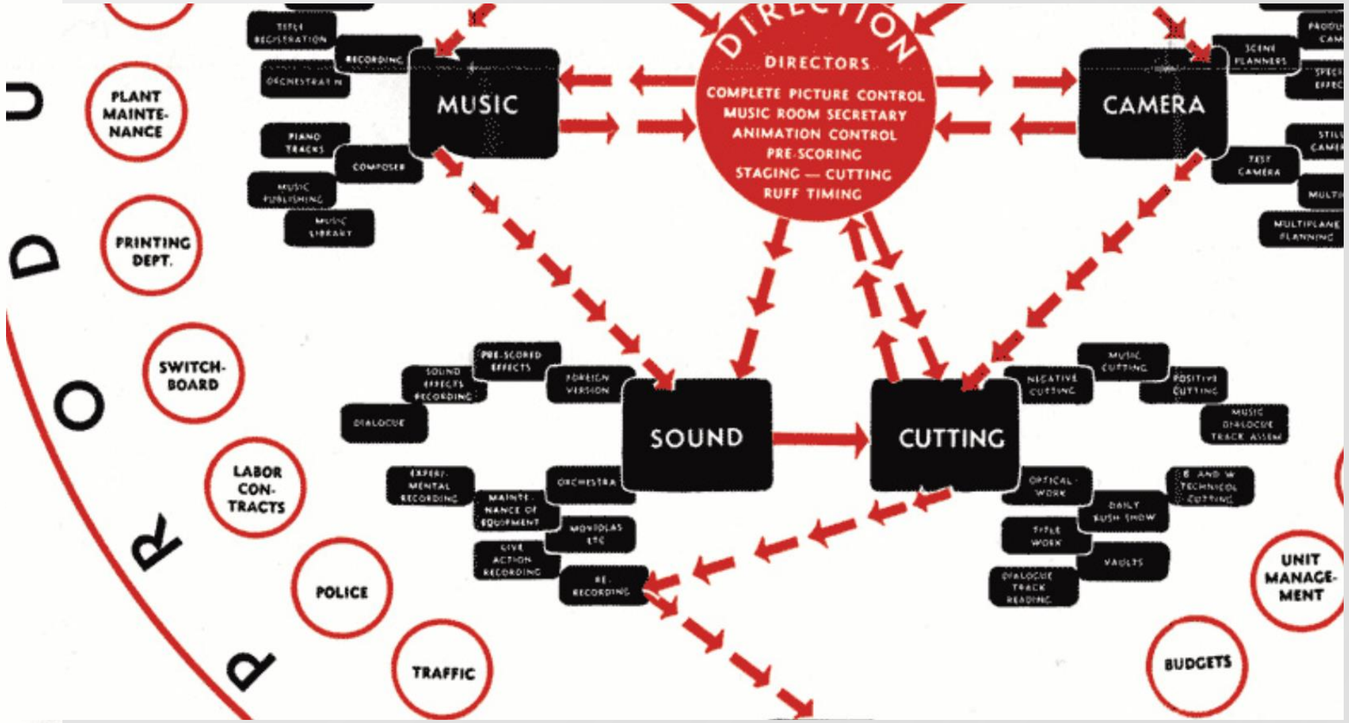
A few principles…

- Climate change can provide alignment among planning efforts.
- Frameworks and methods exist to create alignment.
- The aim: Confidently advance resilience from planning to implementation under climate change uncertainty.

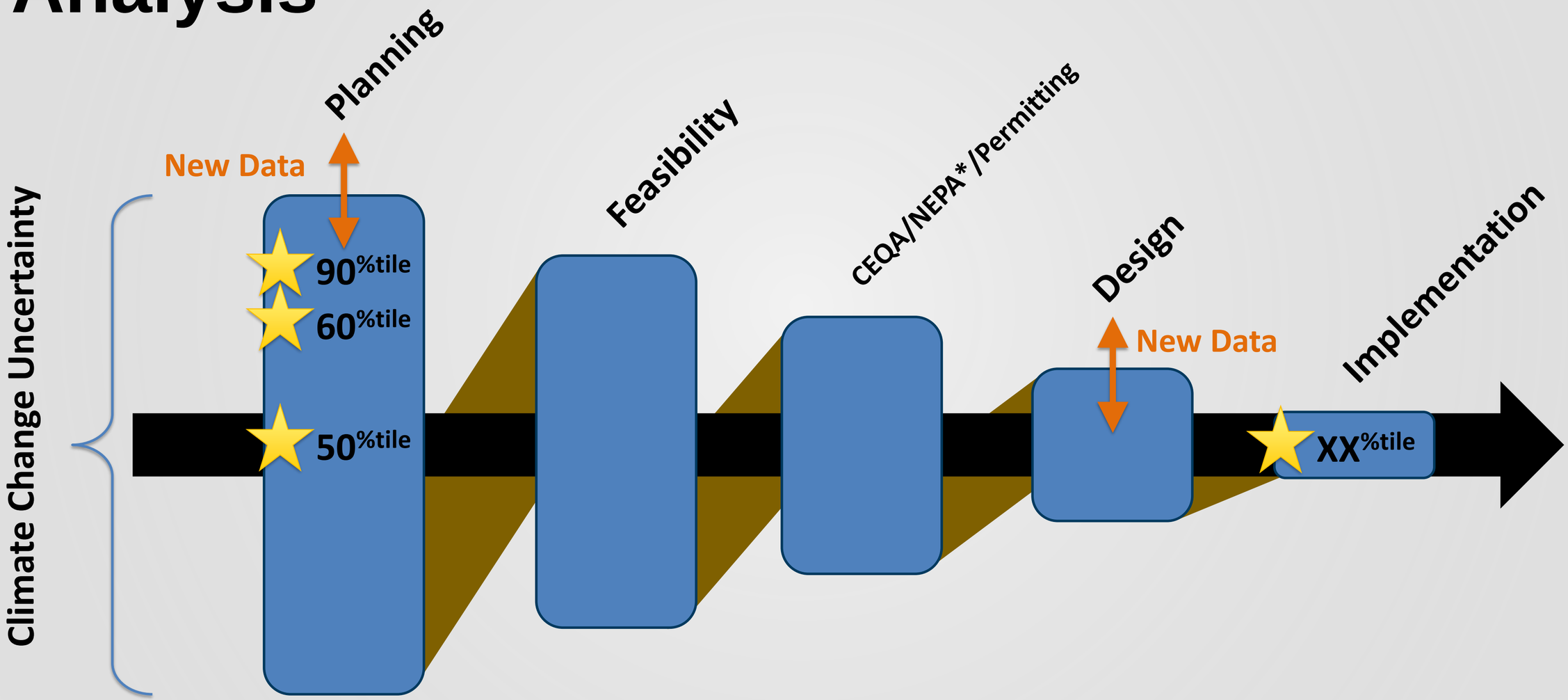
Walt Disney Organizational Chart:

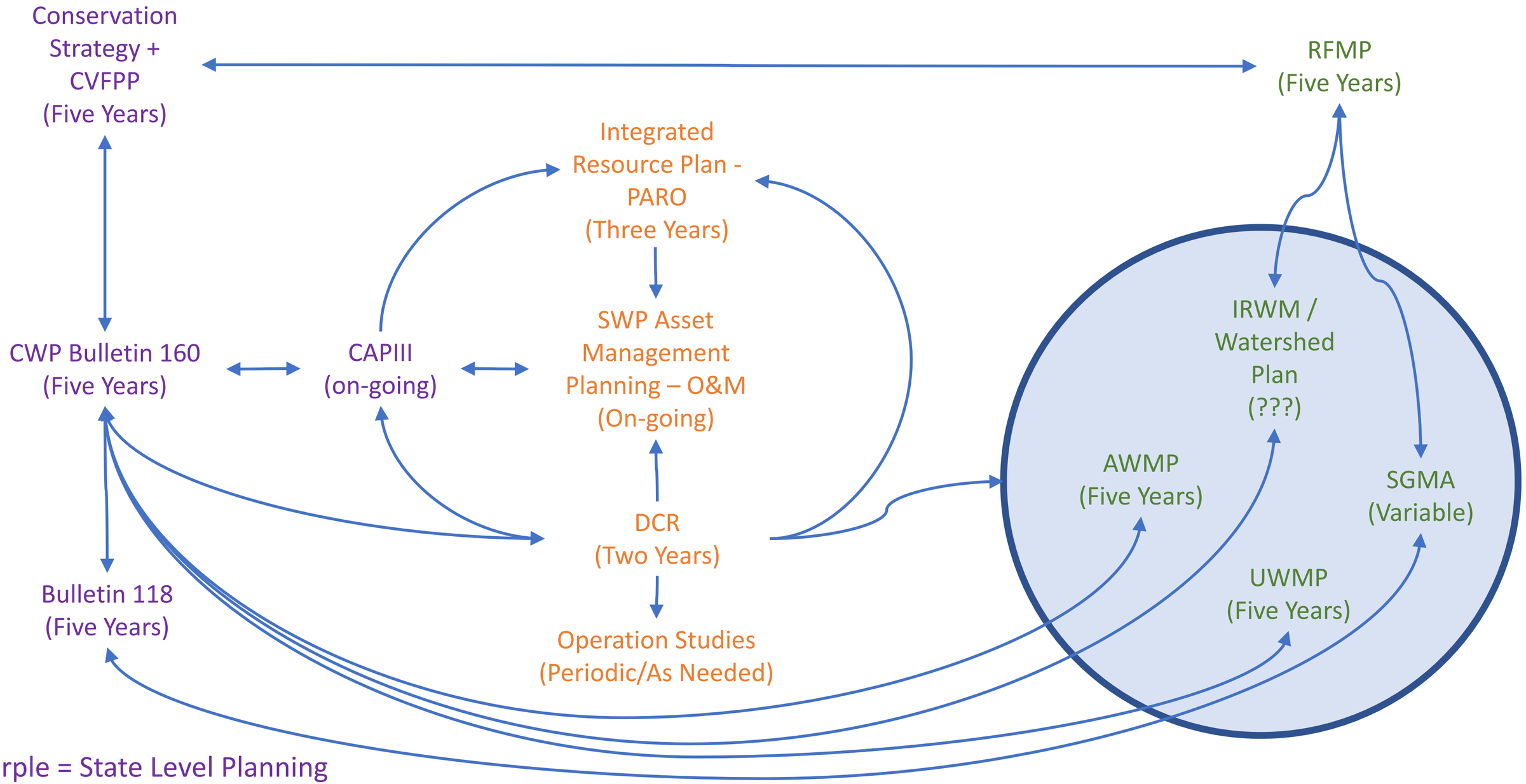
Animation Production in 1943





From Planning to Implementation: Technical Analysis





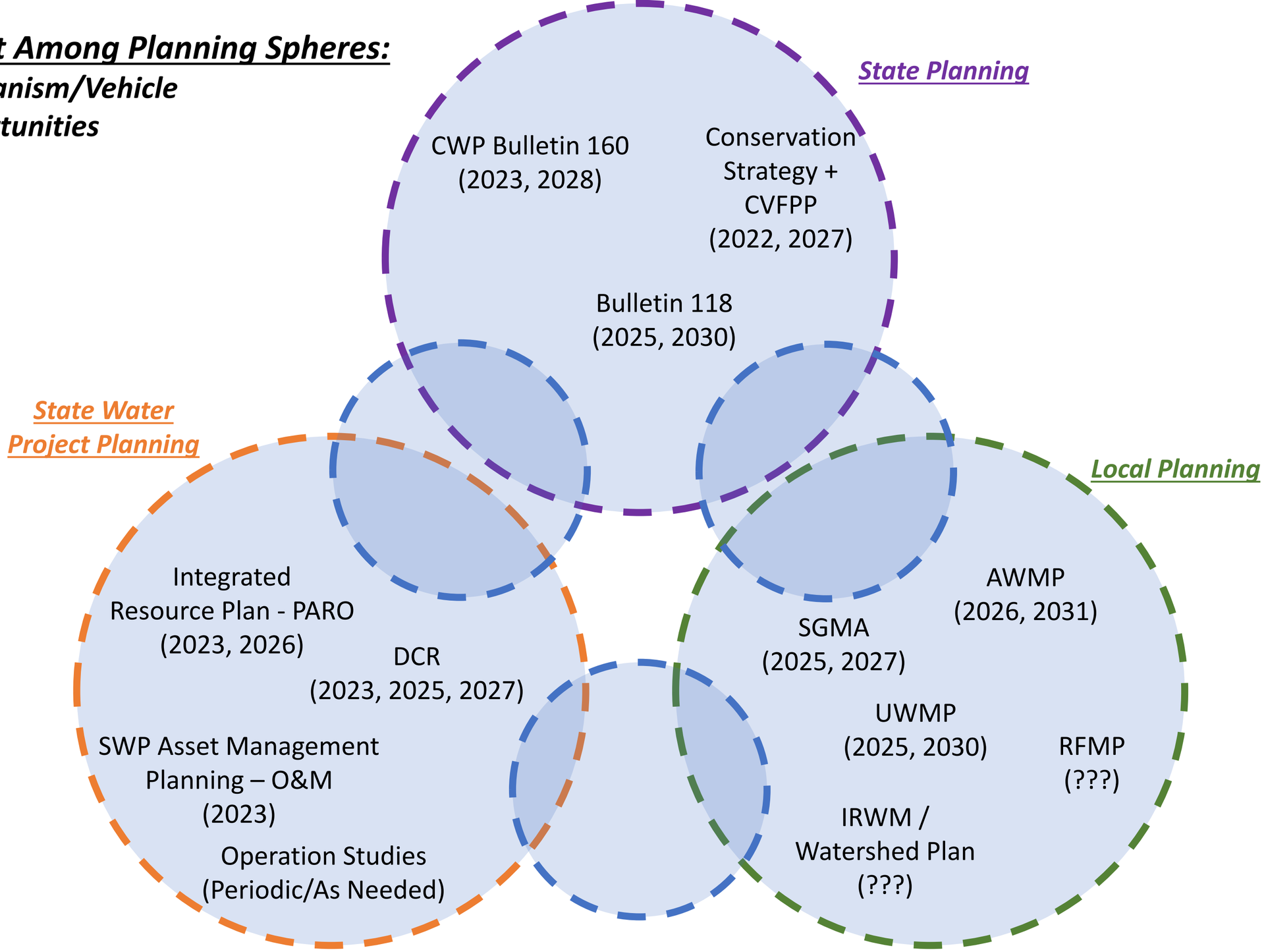
Purple = State Level Planning

Orange= State Water Project Planning

Green= Local Level Planning

Alignment Among Planning Spheres:

- ***Mechanism/Vehicle***
- ***Opportunities***



Aligning Planning Efforts:

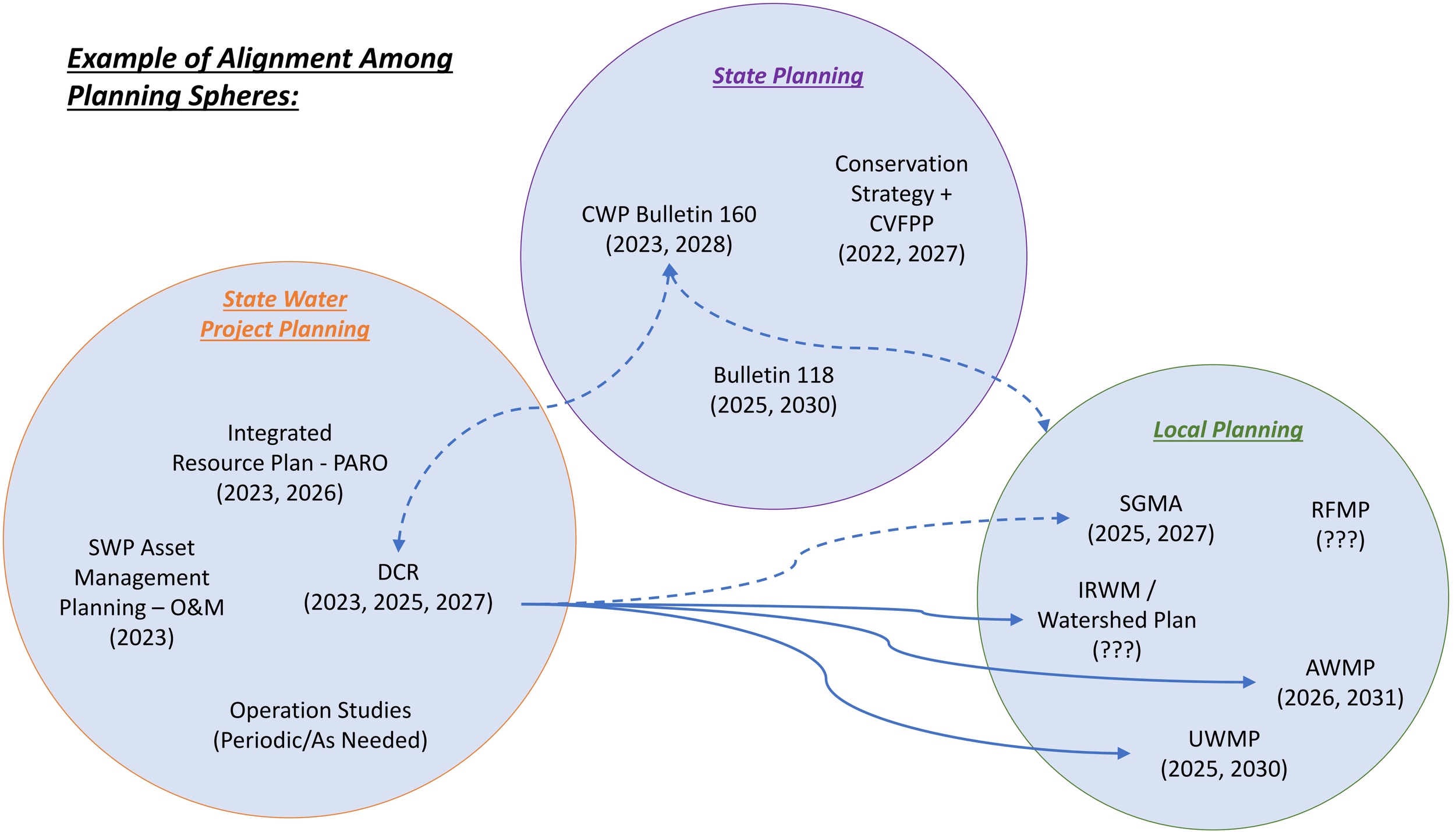
Leverage connections, information, and resources to build shared language, data foundations, and processes across multiple planning efforts at any scale.

→ **It is based on Collaboration**

The overarching goal:

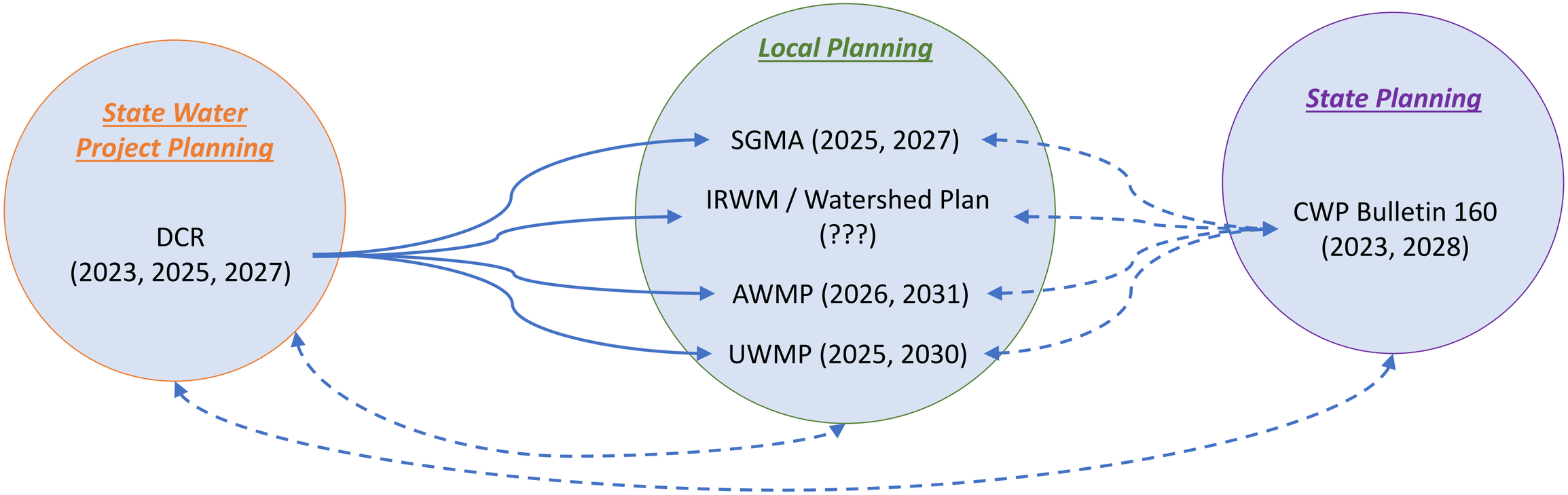
1. Planning efforts should share the same data, similar underlying assumptions, aligned vision, and complementary goals, strategies, and actions.
2. Sharing understanding, process, and structure for multiple programs in our community to continue collaborating and aligning efforts over the long term.

Example of Alignment Among Planning Spheres:



More about the DCR: CWEMF, Session 35, Wed, Apr19th, 1:15 pm

Alignment Among Planning Spheres:



Current Actions/Elements Promoting this Alignment:

- Meeting on the 2023 DCR with UWMP, SGMA, and CWP staff
- Weather generator development to inform many technical activities
- Climate Action Plan: Phase II

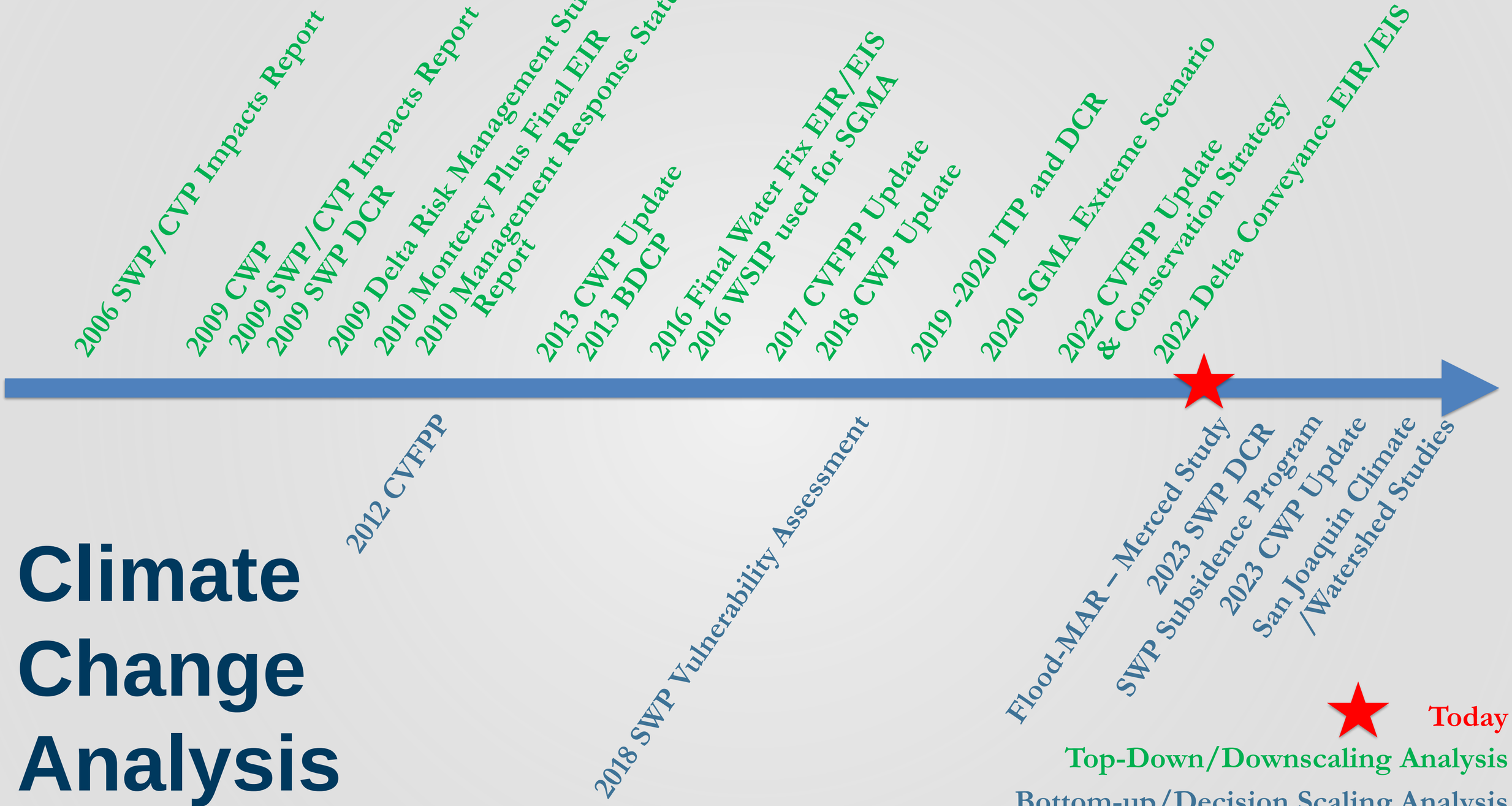
DWR Climate Change Alignment Centered around:

1. Climate Change Data (E.g. Weather Generator)
2. Climate Change Analysis (E.g. CAPII & Decision-Scaling)
3. Climate Change Guidance (E.g. CAPII)
4. Vision (Funding Request, Grant Program, Adaptation Strategies, Business Operation, etc.)

Climate Action Plan: Phase II

Two Steps Procedure

Climate Change Analysis



Climate Action Plan: Phase II (CAP II)

Address the following state directives:

EO B-30-15, AB 1482 and AB 2800, Support the Governor's Water Resilience Portfolio and Facilitation of inter-agency coordination

Goal: Improve the consistency and scientific rigor of DWR's approaches for analyzing the potential impacts of climate change while preserving both flexibility and efficiency.

At its core:

Two-step process to determine appropriate level of climate analysis for an activity or project.

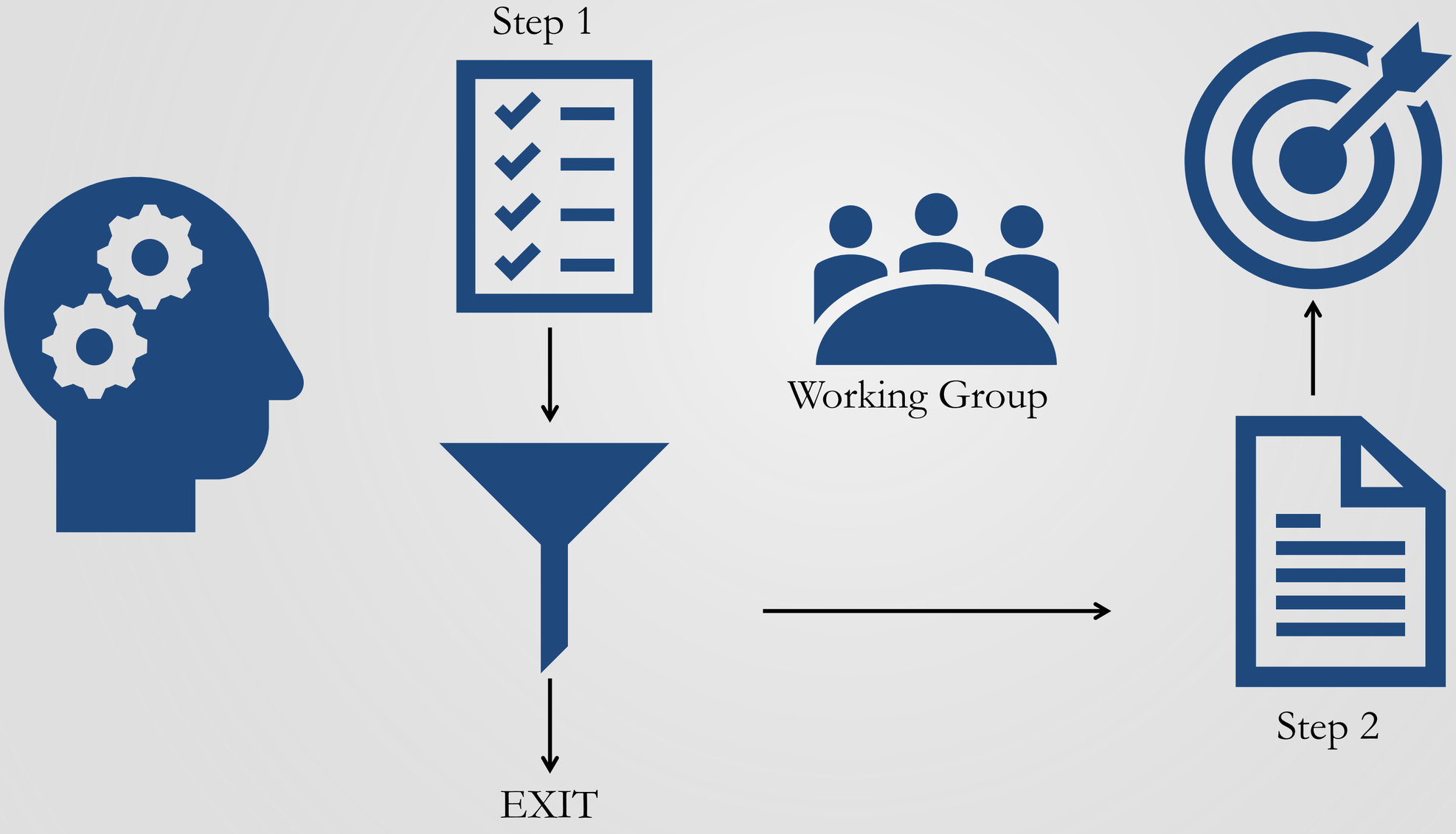
WATER RESOURCES MEMORANDUM NO.75 (WRM-75)

Establishes CAP II as a framework and process for project managers to incorporate climate change impact analysis into DWR activities.

What qualifies as an ”activity”? Everything. However, from an efficiency standpoint, there can be an “umbrella” screening (e.g. for O&M activities)**.

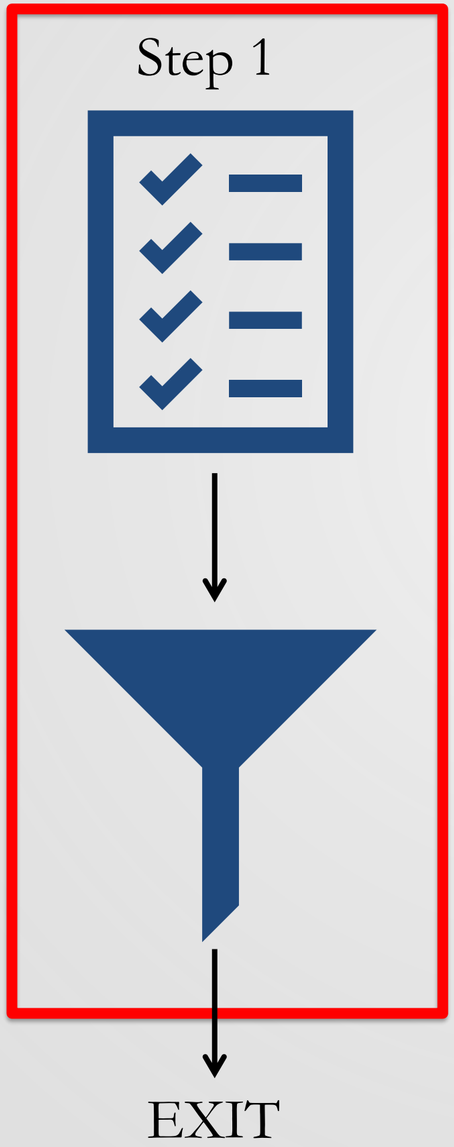
In general, activities include *strategic planning documents, investment decisions, risk assessments, and infrastructure development.*

Climate Action Plan, Phase II:



Climate Action Plan, Phase II:

DWR Form 9785d



State of California DEPARTMENT OF WATER RESOURCES California Natural Resources Agency

Screening Criteria *(Instructions for completing this section can be found on pg. 7)*		Explanation
Q1. Project/Operation Lifetime or Plan Implementation Horizon	☐ Less than 20 years ☐ More than 20 years	
Q2. Historical Observational Data Used for Analysis or Design	☐ Yes ☐ No	
Q3. Climate Change Vulnerability Checklist for DWR Activities *(see page 3)*	☐ None ☐ Water Supply and Demand ☐ Water Quality ☐ Sea Level Rise ☐ Flooding ☐ Wildfire ☐ Ecosystem and Habitat ☐ Hydropower ☐ Other	
Q4. Climate Consequences	☐ Low ☐ Medium ☐ High	

Based on an assessment of the above referenced project and having considered the screening criteria listed above, and explained in the DWR Climate Change Analysis Guidance, a determination has been made that this project ☐ **DOES** / ☐ **DOES NOT** (*select one*) require an additional analysis of climate change impacts.

Project Manager Signature: _____ Date:

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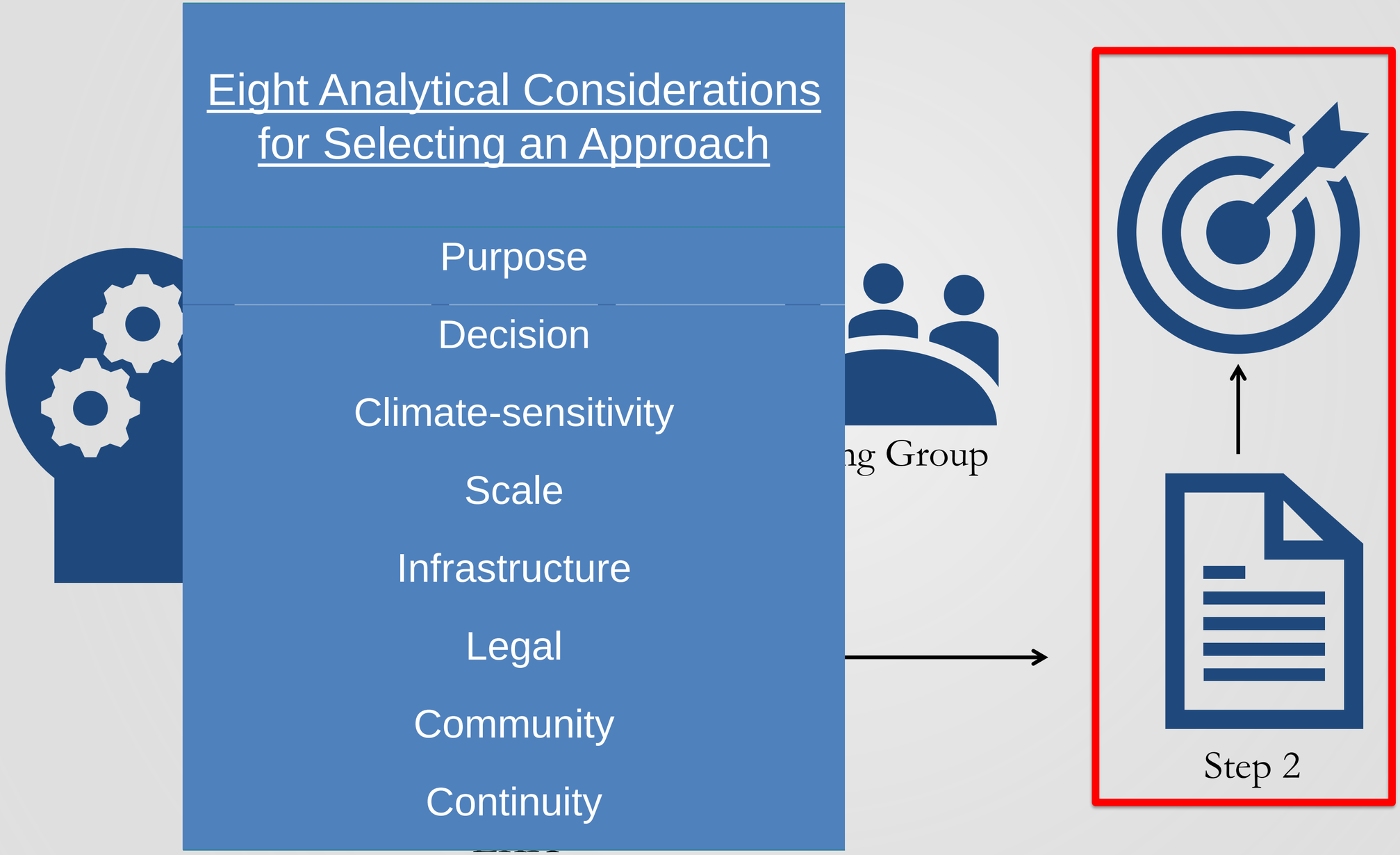
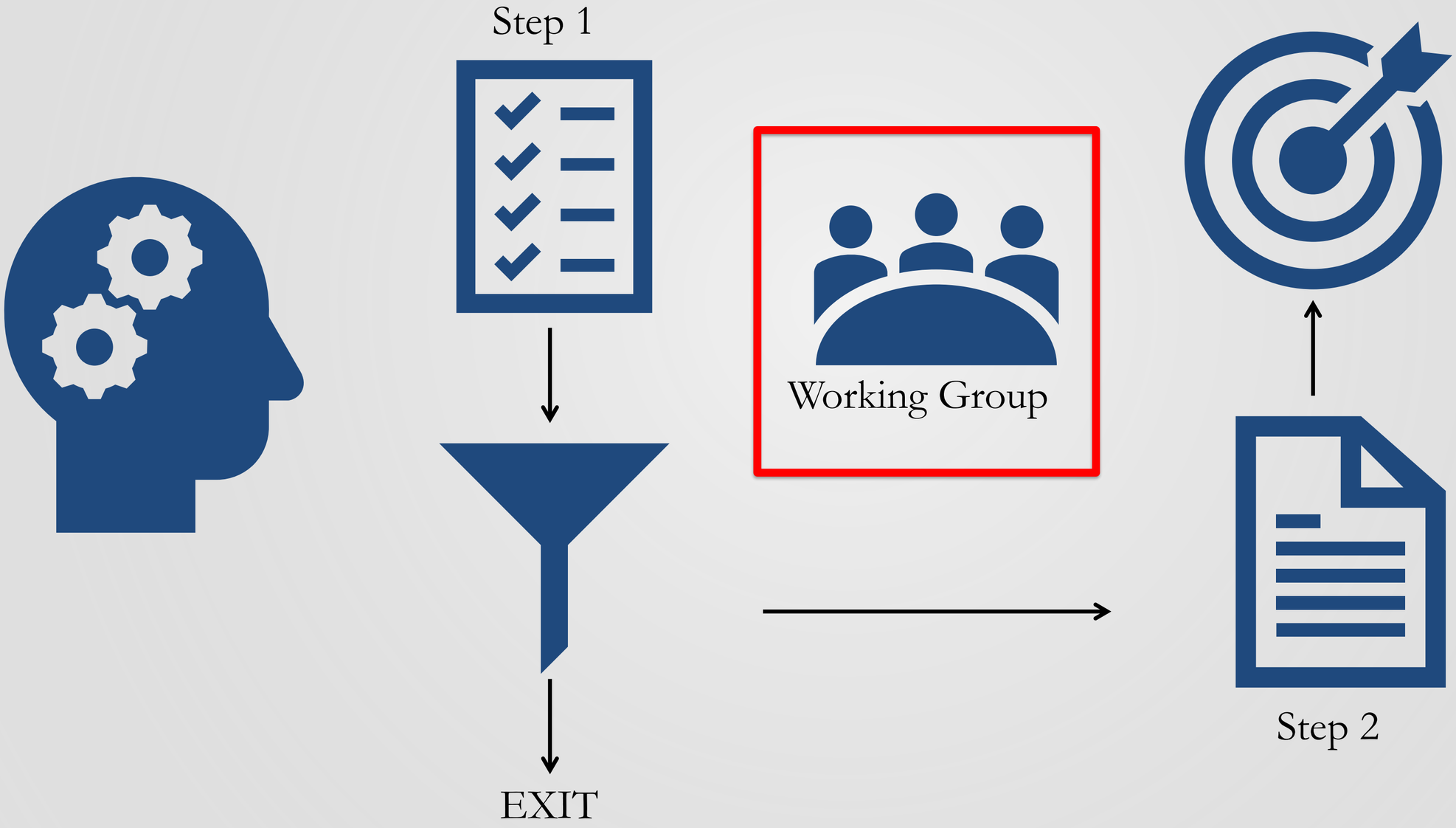
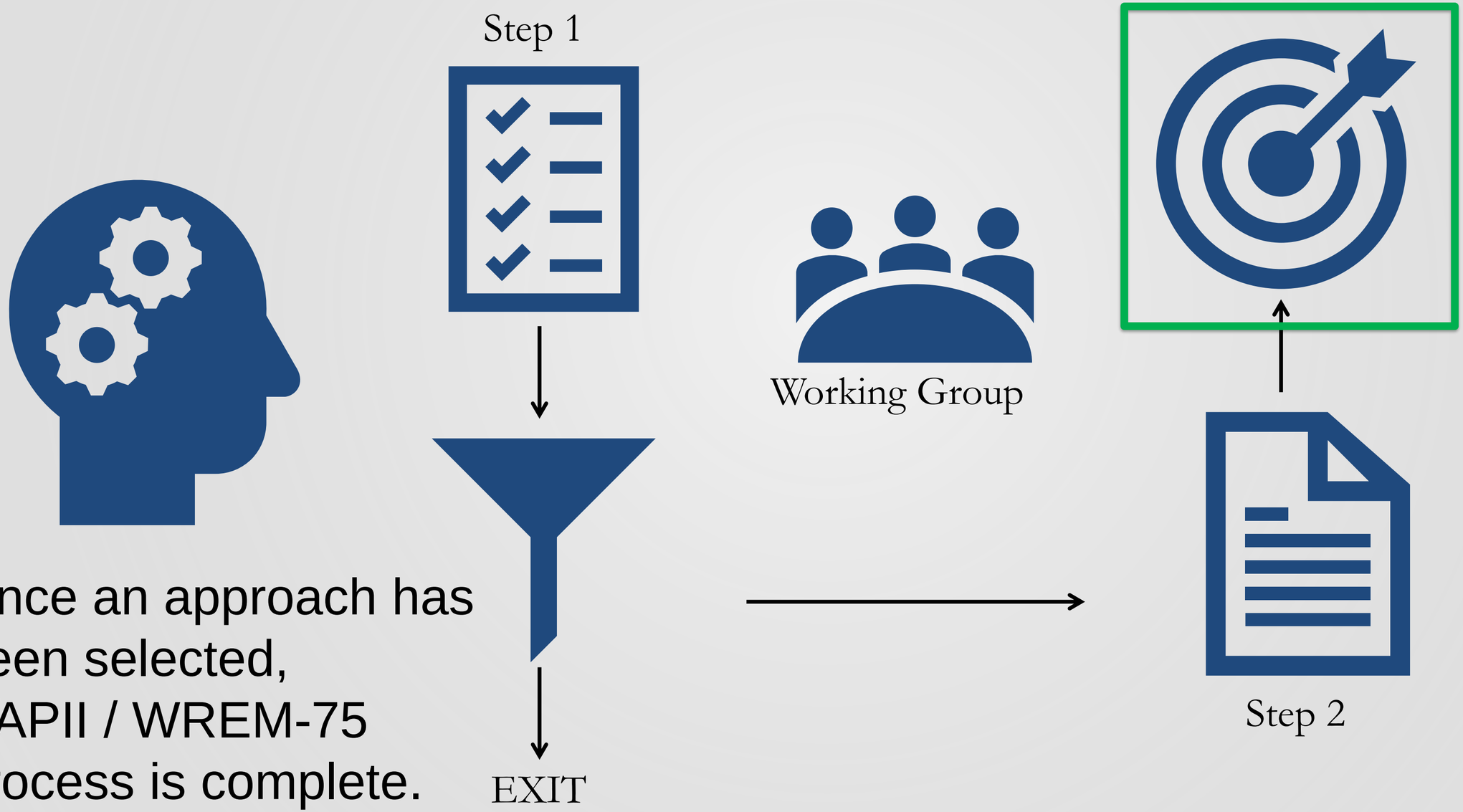
Climate Action Plan, Phase II:



Climate Action Plan, Phase II:



Climate Action Plan, Phase II:



Once an approach has been selected, CAPII / WREM-75 process is complete.

Climate Action Plan: Phase II

Technical Work QA/QC Principles

Motivation and Purpose to Develop a QA/QC Stepwise Procedure

- Quality Control and Quality Assurance are standard practices in any technical activity.
- Climate change analysis is integral to current QA/QC procedures, yet it relies on future climatic projections, which involve:
  - Many uncertainties
  - A constant evolvement and innovation in techniques and approaches
- These steps are designed to catch errors before they affect subsequent actions taken to build resilience to climate change.

Six Steps QA/QC Procedure (1-3)

1. QA/QC procedure should be prepared before initiating any technical work.

2. Individuals performing a technical analysis should always check and verify the quality of their work upon completing their work product.

3. Technical work should be accompanied by a Technical Memorandum (TM) describing the procedure(s) used and caveat(s). The TM should also mention the purpose of the technical work and future application(s).

Six Steps QA/QC Procedure (4-6)

4. Technical work should be reviewed either internally by knowledgeable peers and/or, if feasible, externally by consultants contracted under the activity.

5. Potential limitations should be documented, addressed if feasible, and archived for future reference.

6. Climate change is a rapidly evolving science, as are its technical approaches. It is essential to re-evaluate the approaches that have been developed.

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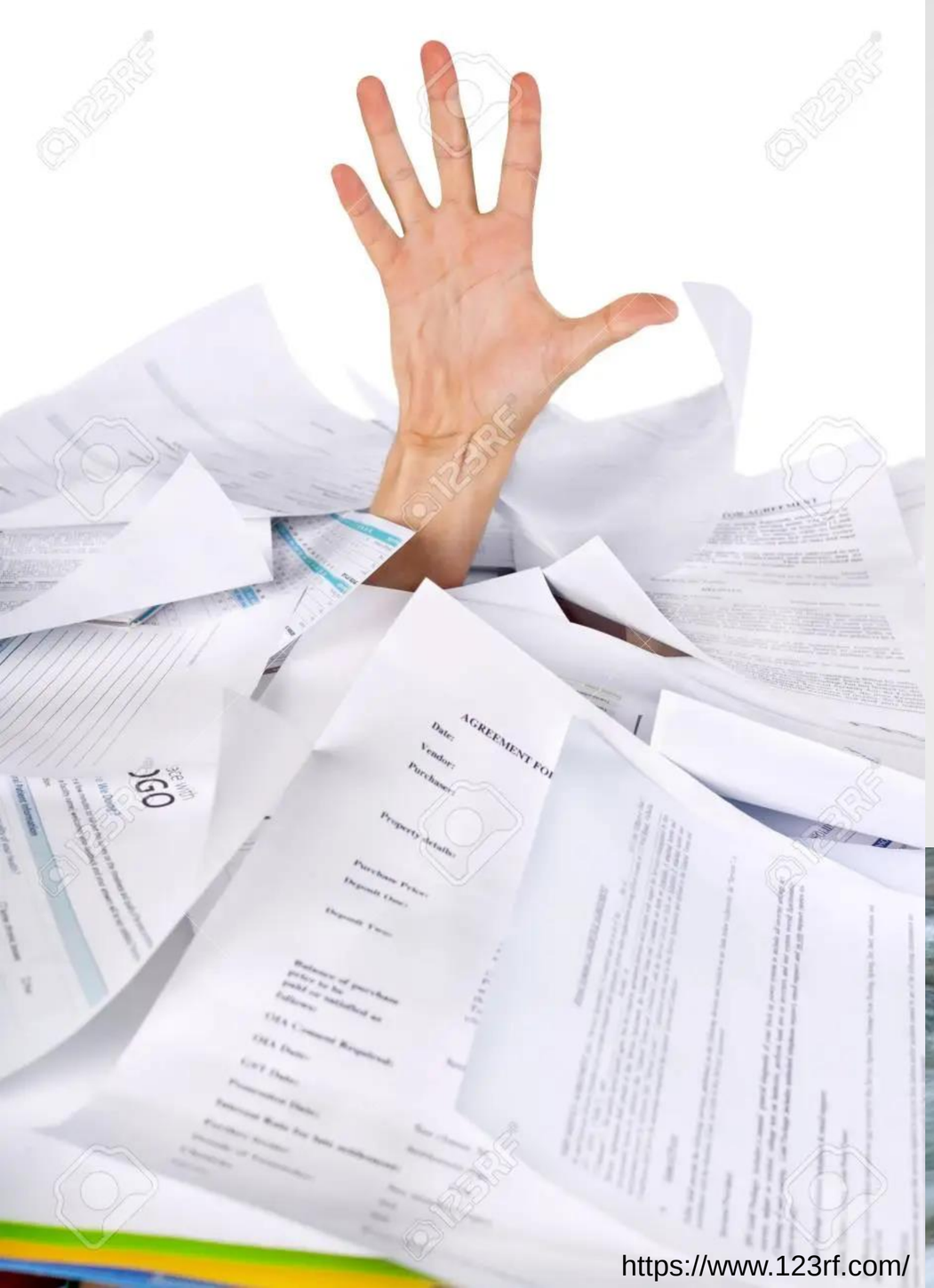
→ ***Continued our internal progress to better inform state activities better***



https://www.123rf.com/

Questions

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