# Coordinating Texas Water Research

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# The need

Beyond infrastructure costs outlined in the State Water Plan, there is a need to determine the best data and projections regarding:

(1) the processes that drive phenomena, such as drought, that affect the distribution of water in the state today and tomorrow;

(2) the technologies and strategies for increasing supply and/or decreasing demand;

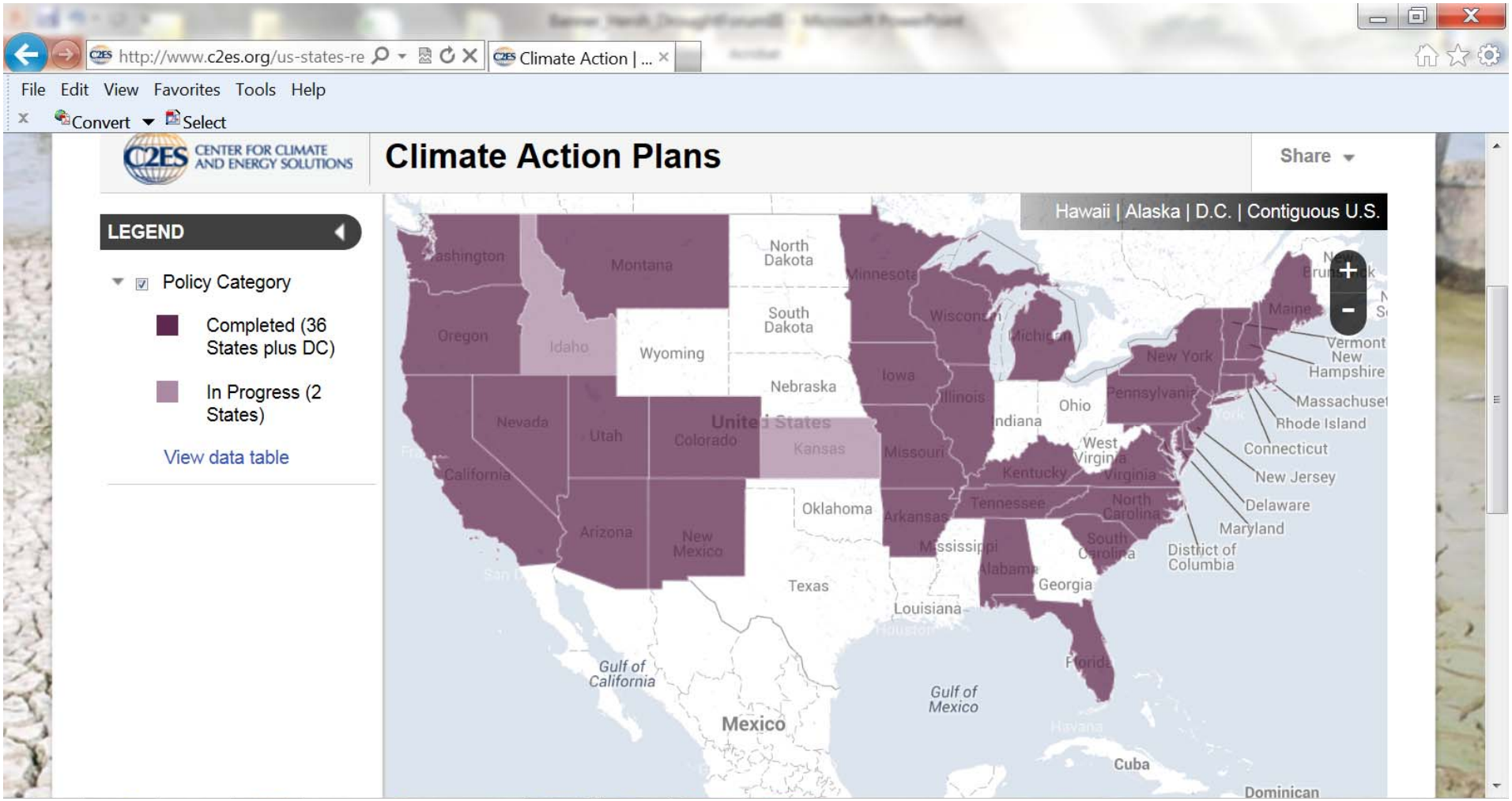
(3) the impact of Texas' growth in terms of population, economy, and the energy sector; and

(4) the impact of such changes in Texas on economy, ecosystems and public health.

# Why bother?

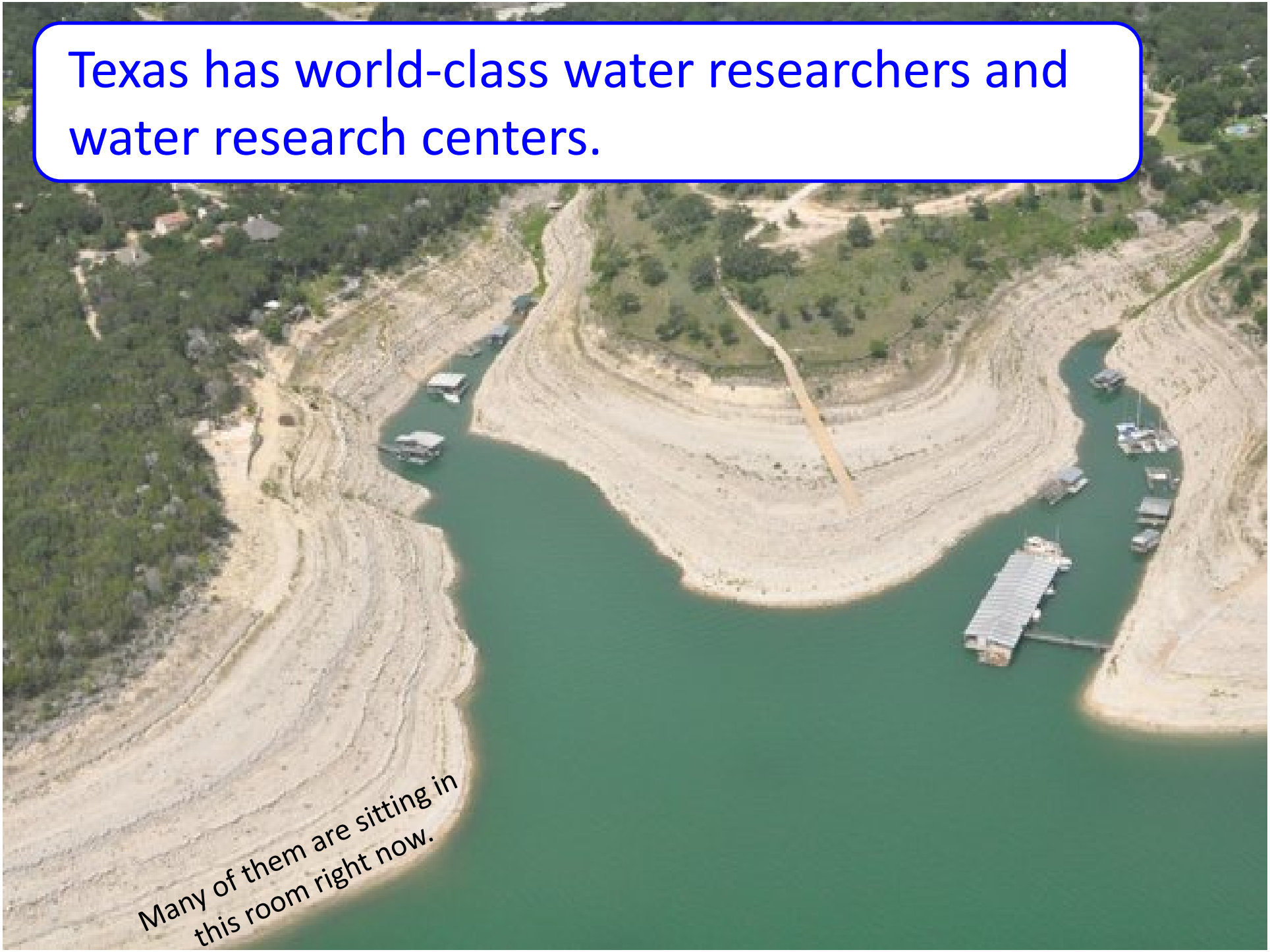
- With research coordination in the area of water resources, Texas could maximize the productivity of its investment in its state universities and could realize potential synergies:
  - between researchers
  - between research institutions
- This need for research coordination also includes experts at government agencies, in industry, in private not-for-profit entities, and stakeholders.
- Apply breadth, depth, and integration of expertise toward an inherently interdisciplinary problem.
- Build on efforts such as the CIESS Water Forum
- State-wide integration is lagging in Texas

# State Climate Action Plans




Center for Climate and Energy Solutions (2013)

Texas has world-class water researchers and water research centers.



# "Texas Panel on Water"

**Potential Activities**

1. Regularly convene a panel of experts

2. Review the state of knowledge on Texas water and projections for its future. Critically assess the existing data to determine the best information available on the science, technology, and socio-economics of Texas' water future.

3. Produce Assessment Reports that

   a. provide the **best information available**, as reference for policy makers, resource managers, and all stakeholders; and

   b. identify key areas for new research.

4. Build a network to coordinate experts throughout Texas and beyond to engender collaborations on areas for new research.

5. Reference for regional and state water project prioritization (e.g., Prop. 6).

# "Texas Panel on Water"

Goals of these activities:

- Produce expert, consensus reports on the state of knowledge
- Raise public awareness
- Quantify uncertainties
- Identify key research needs
- Engender research collaborations
  - Example of public health

Analogous to approach of IPCC, per Banner et al. (2010) Texas Water Journal

# Funding Opportunities

- National Science Foundation
  - **Research Coordination Network (RCN)**
  - Water Sustainability and Climate (WSC)
  - Sustainability Research Network (SRN)
- NSF Research Traineeship Program (NRT, formerly IGERT)
- NSF Science and Technology Center (STC)
- NASA Research Opportunities in Space and Earth Sciences
- Dept. of Interior Regional Climate Science Center (CSC)


Feedback?
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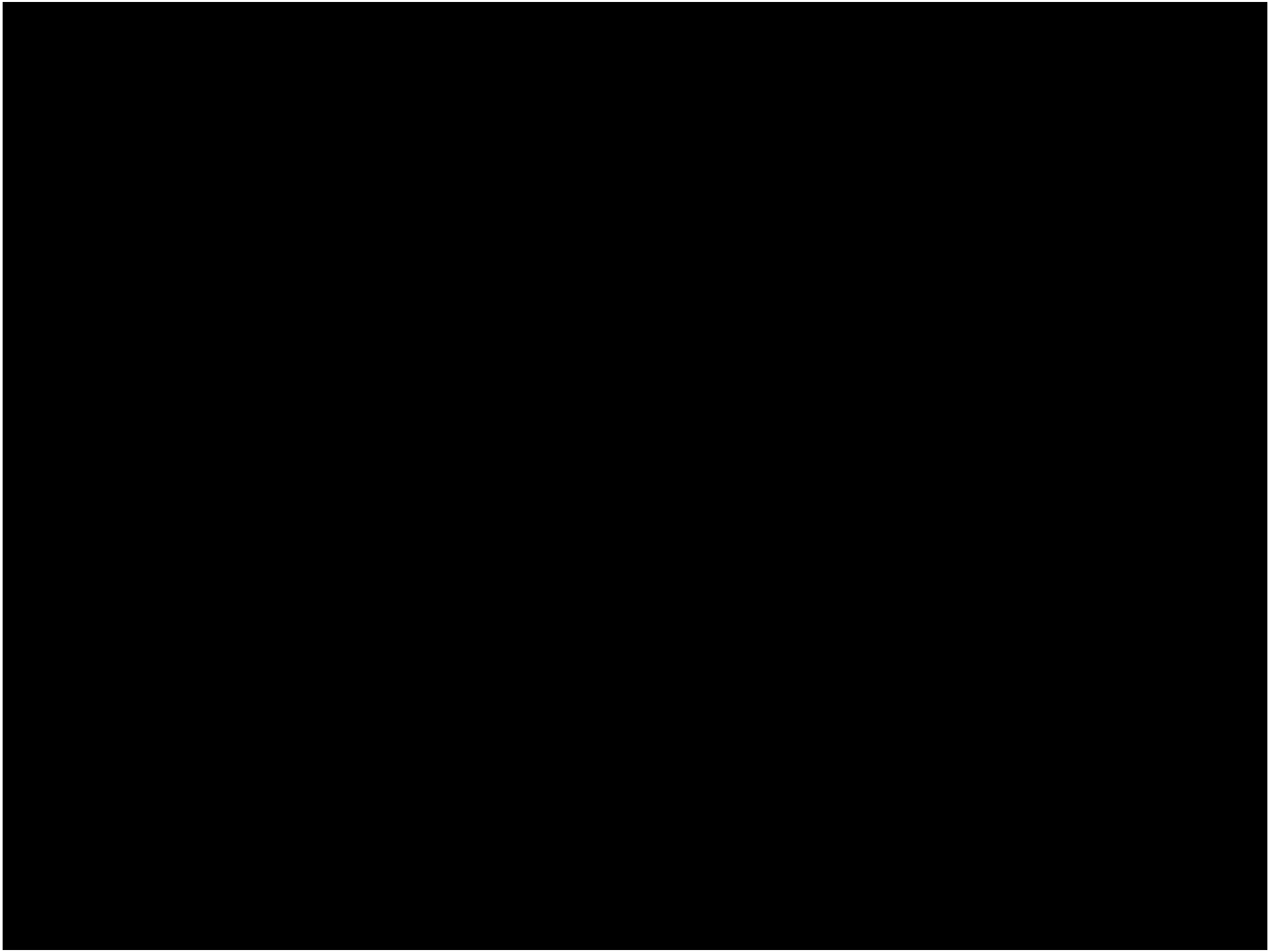

# Prioritization Peer Review

If Prop. 6 passes on Nov 5th, the $2 billion State Water Implementation Fund for Texas (SWIFT) will require regional and state water project prioritization.

- Regional Water Planning Group stakeholder committees to establish standards for project prioritization
- SWIFT Advisory Committee submits recommendations to TWDB for prioritizing funding for specific projects
- Factors: Population served, project urgency, project support ability of local sponsors, water conservation

Analogous to approach of National Research Council on "The Science of Instream Flows" (2005)