



# Architecting Climate Change Initiatives

**May 12, 2010**





## Who We Are

- David Prompovitch: Moderator
  - EPA Chief Architect and EA Program Lead
- Gene Durman: Panel
  - Office of Air & Radiation: OAR Architecture and Air Quality Management & Climate Change Segment Lead
- Lisa Jenkins: Panel
  - Office of Solid Waste & Emergency Response: OSWER Architect and Land Management Segment Lead
- Vince Allen: Panel
  - Office of Water: OW Architect and Water Management Segment Lead





# Intro to Climate Change Architecture

- Enterprise architecture is making strides at EPA and becoming a hands-on tool for supporting business decisions
- The panel will demonstrate the methodology used to analyze EPA's first mission-oriented cross cutting segment
- Documenting processes, budget and resources across the agency promotes transparency and openness





# Framing the Sub-Segment

- Responding to climate change requires innovation
  - New business processes
  - New systems, old ones retooled
  - New data
  - New data pathways
  - New partnerships
- Strategic, Business, and Data Layers are key
  - Dealing with Systems and Technology layers is premature





# How We Approached the Sub-Segment

- Managers need a high-level view
- Managers see the issues in terms of
  - Organization
  - Statutory drivers & performance
  - High level information
  - Relationships with partners
  - Budget
- Our approach
  - Worked directly with managers and SMEs
  - Used the EPA Org Chart as the centerpiece
  - Used simple Visio tools
    - But compatible with EA Troux tool

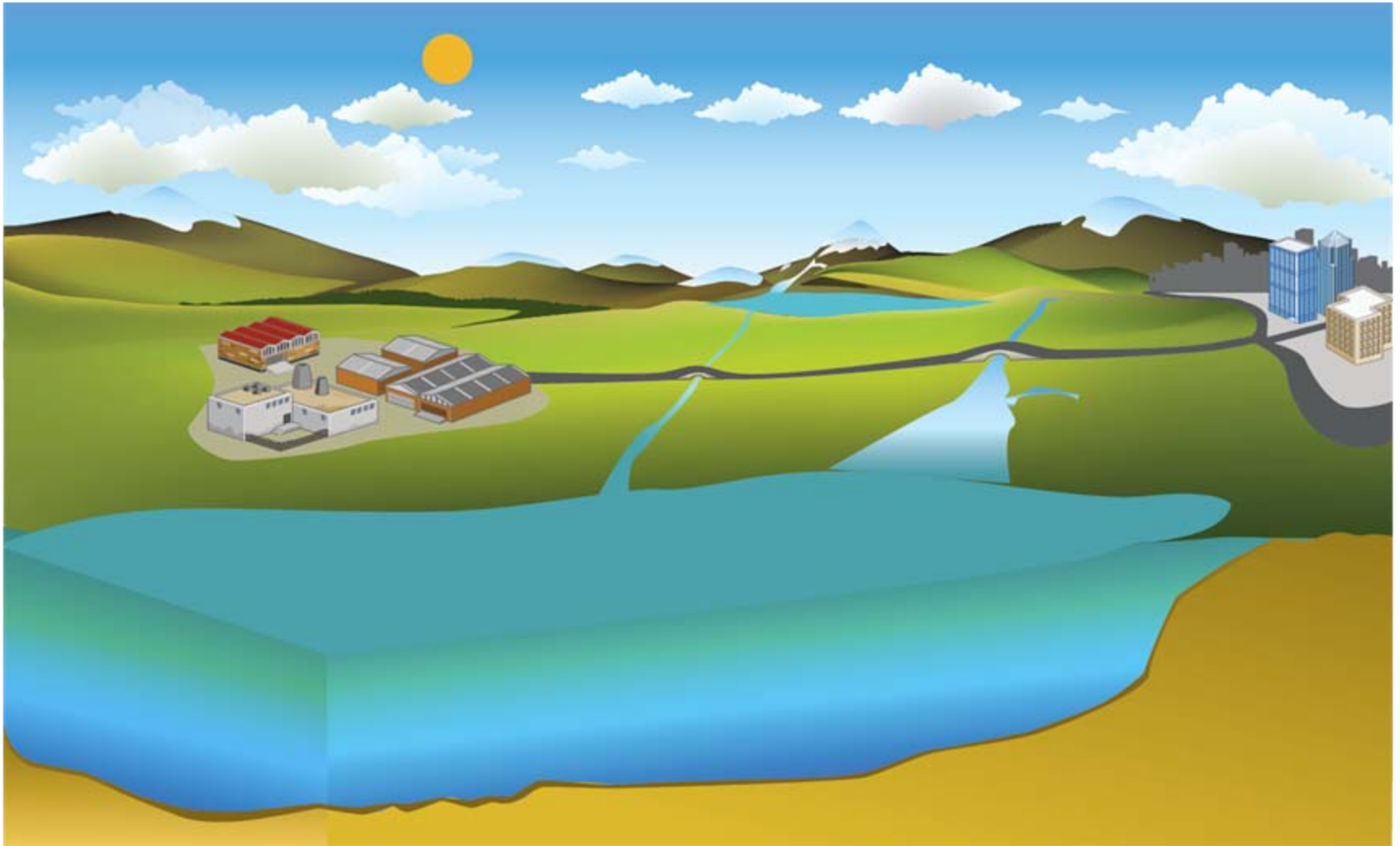




# CC Architecture Processes: Examples

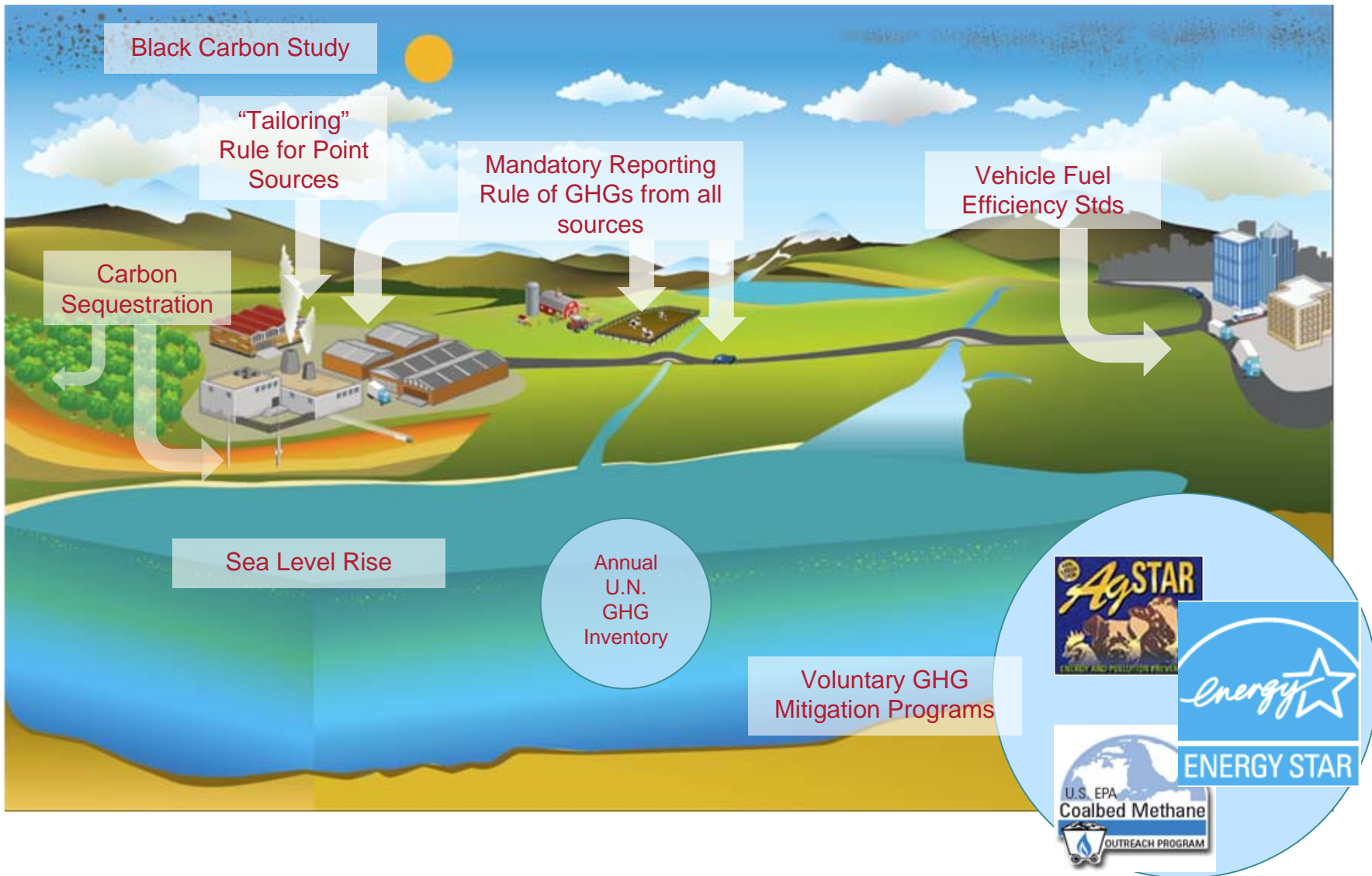
Action	Description	Drivers	Lead	Internal Offices	External Partners
<b>Mitigation Initiatives</b>					
Black Carbon Study	Impacts of control of black particulates on climate change	2009 Budget Authorization	OAR	ORD	Global Earth Observation System of Systems
Mandatory Reporting Rule	Annual inventory of major U.S. sources of GHGs	2008 Budget Authorization, MMR Rule	OAR	OEI, OW	Industry, NGOs, states
GHG Inventory	EPA participation in United Nations GHG Inventory	UN Framework Convention for Climate Change	OAR		Other Federal Agencies, UN Framework Convention, IPCC
Tailoring Rule	Control of emissions of CO2 from regulated point sources	Clean Air Act	OAR		States
Energy Star	Product and building labeling for energy efficiency	Energy Policy Act, Clean Air Act	OAR		Industry, DOE
Materials Management Initiative	Managing materials and land use to reduce GHGs	OSWER, EPA Office of Innovation	OSWER	OW, OPPTS, ORD	
<b>Adaptation Initiatives</b>					
Climate Ready Estuaries	Planning for impacts of climate change on estuaries	Clean Water Act	OW		States
Climate Ready Utilities	Planning for water infrastructure to adapt to climate change	Clean Water Act	OW		States





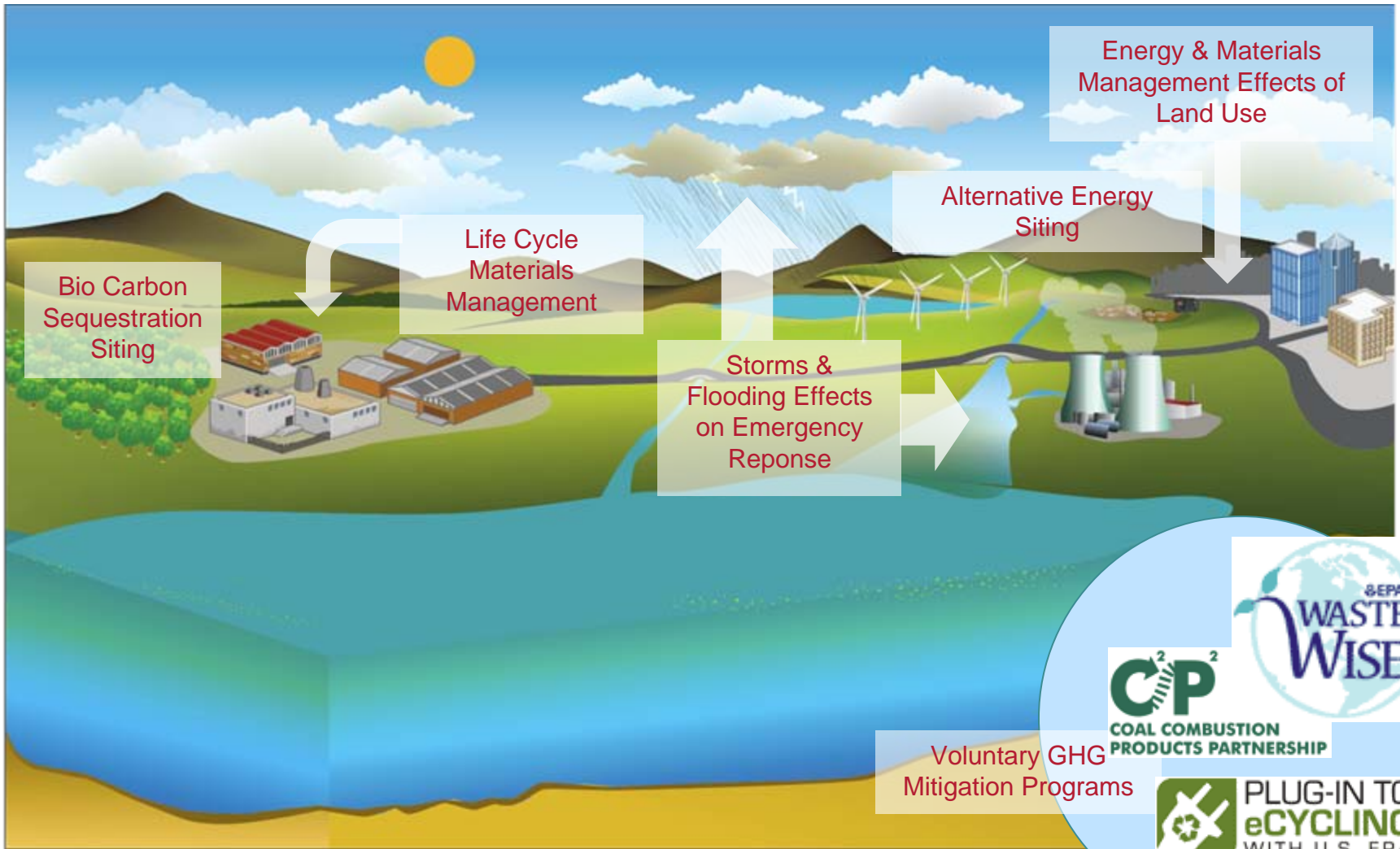
## Climate Change Impacts on EPA Programs





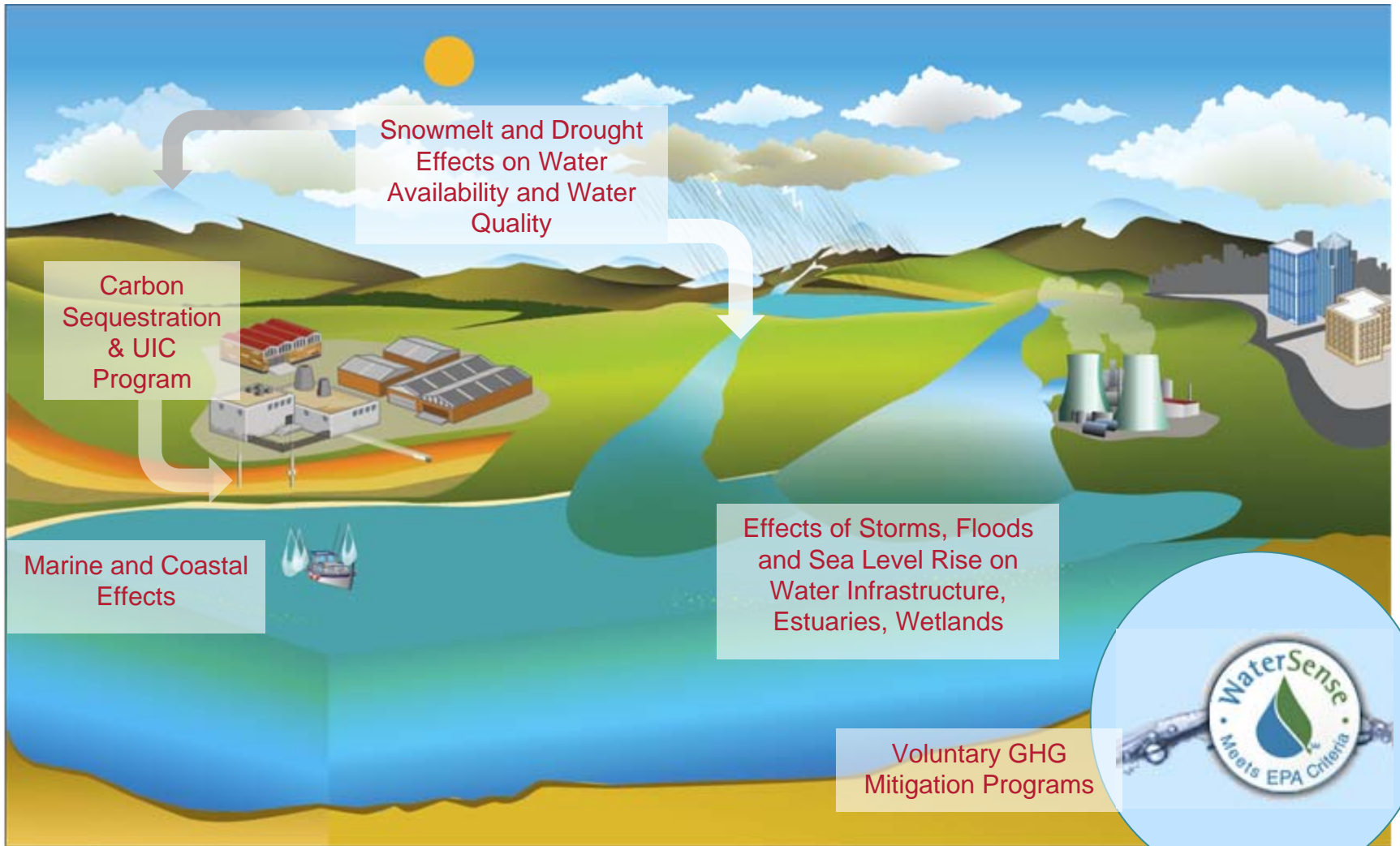
## OAR Programs Affected by Climate Change





## OSWER Programs Affected by Climate Change





## OW Programs Affected by Climate Change





# Architecture Diagrams

