

Successes, Challenges, and Lessons Learned from Implementing AM in the Everglades

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Types of Lessons Learned

- Combination of successes and failures
- Lessons learned about:
 - Institutional structures needed to support AM
 - Collaborative processes and communication
 - Getting the science right
 - Working in a dynamic political environment

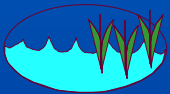
CERP Projects



Aquifer Storage
& Recovery



Surface Water Storage



Stormwater Treatment Areas



Reuse Wastewater



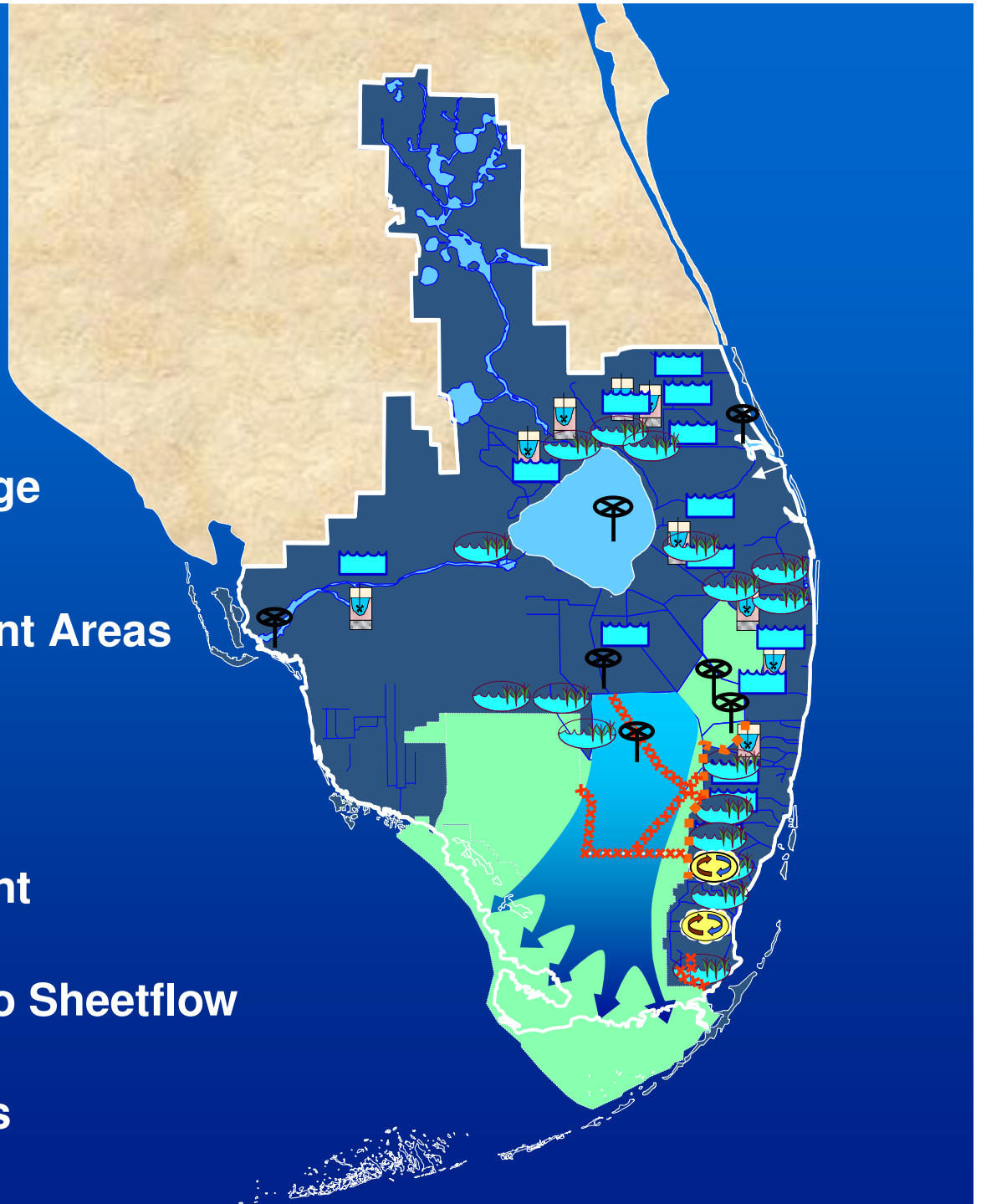
Seepage Management



Removing Barriers to Sheetflow



Operational Changes



Institutional Lessons

- Importance of enabling legislation and regulations:
 - Funding of system-wide monitoring and assessment program
 - Endorsement of AM at a program level
 - Initial Planning for AM/Fork in the Road
 - However, enabling legislation is not sufficient for long-term viability of the AM program (e.g., funding).

Institutional Lessons

- Value of having a specific organization (RECOVER) with responsibility for the AM program
 - Provided initial momentum for developing the AM strategy
 - Could mobilize to educate managers and project staff; bring in outside expertise
 - Crafting program-wide “how to” guidance
 - “Teach by Doing” – the Decomp case

Communication Lessons

- Collaboration can never begin soon enough
 - Waiting for the perfect time to roll-out a new idea usually doesn't work (example from DAMP)
- Educating others about AM takes more time than you think and requires constant re-training as personnel change – Are definitions important?
- Multiple “languages” must be spoken
 - Science-speak vs. manager-speak
 - Developing a common language about uncertainty (scientific, engineering, policy uncertainties)

Science Lessons

- Success with MAP in developing a balanced science plan.
- However, the process for integrating science and decision-making needs attention early.
 - MAP (Box 2) implementation out-paced the development of the science-management interface (Box 3). We're now in catch-up mode.

Policy Environment

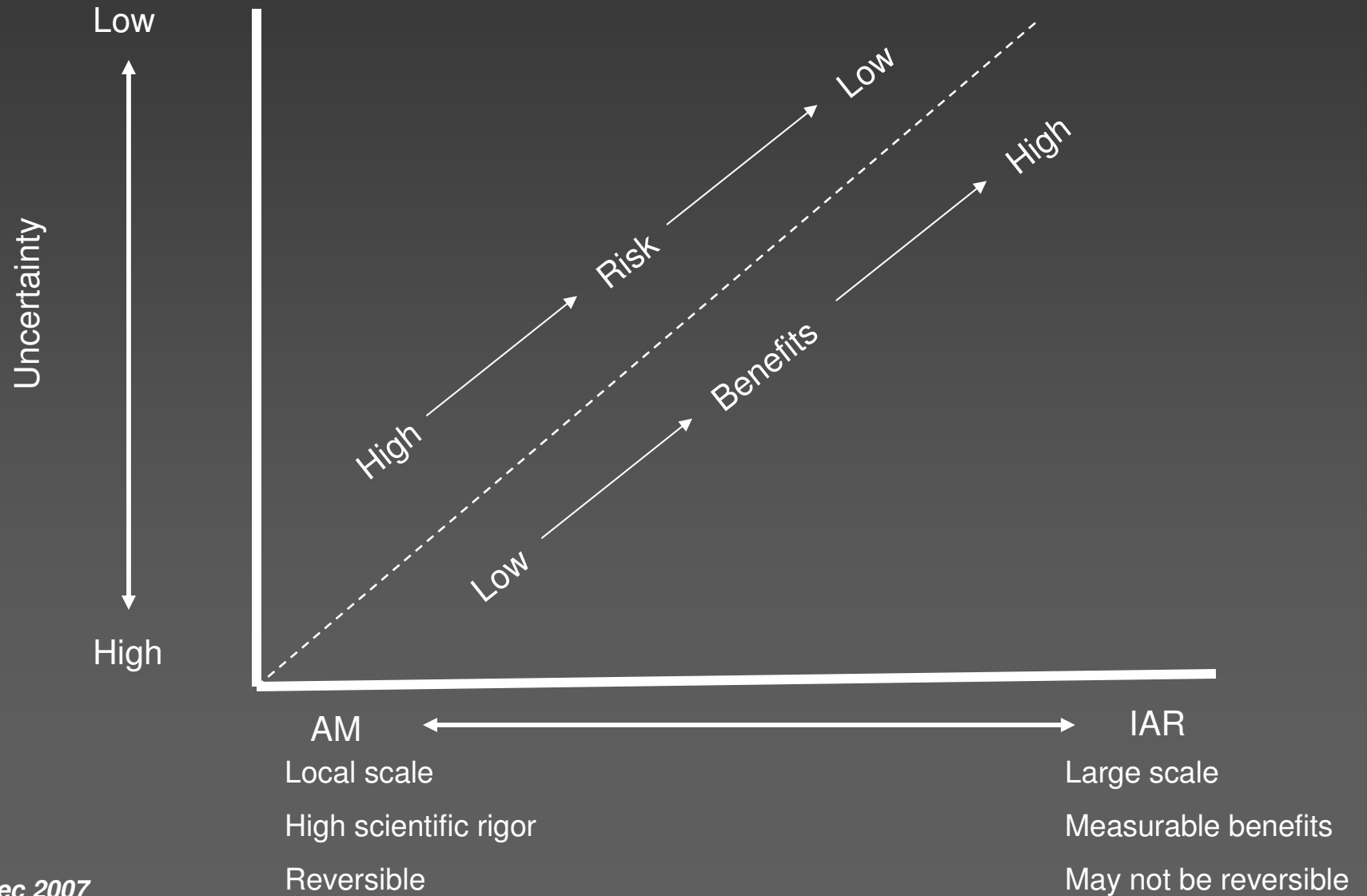
- Dynamic political environment –
 - Managers' view of critical uncertainties are liable to change
 - DECOMP plan example
- Existing planning procedures and policies limit options for AM
 - Learning as a project objective
 - USACE Planning Process and project justification
 - Policy limits on monitoring costs and durations
 - Back to the "Fork in the Road"

Incremental Adaptive Restoration (IAR) AM on steroids?

- The National Research Council proposed IAR as a way to accelerate restoration and address project uncertainties
- CERP Leadership has embraced the NRC recommendations regarding phasing projects and is asking for further input on how concurrent projects can be integrated
- IAR, compared to AM, is larger scale and emphasizes aggressive progress toward restoration
- IAR introduced concept of “decision-critical uncertainties”
- CERP as a testing ground for IAR

Adaptive Management – Incremental Adaptive Restoration Continuum

Arrows represent the degree of certainty, risk and benefits of AM and IAR





Thank You

