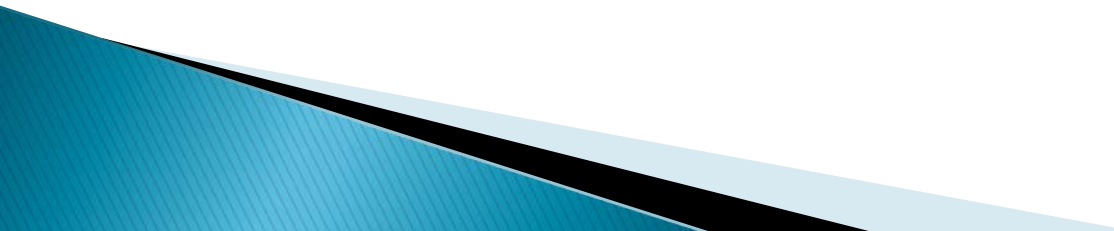




Regulatory Committee Workshop

Waters of the US Rulemaking
And
Connectivity Study

History

- ▶ Post SWANCC (2001) and Rapanos (2006) Supreme Court Decisions
 - ▶ Questions (e.g. significant nexus, relatively permanent water, navigable water, ephemeral jurisdiction, etc.)
 - ▶ 2011 Draft Guidance – Waters Protected by CWA
 - ▶ WESTCAS submitted comments on Draft Guidance in 2011
- 

Status

- ▶ Draft Proposed Rule
 - Sept. 2013
 - In OMB for review
 - Not available for comment
 - May be similar to 2011 Draft Guidance
 - Release of Connectivity Study
- ▶ Connectivity Study
 - Technical/scientific basis for rule
 - Available for technical review and comment
 - Written comments due to EPA on Nov. 6th.
 - Science Advisory Board Panel review Dec. 16–18.

Connectivity Study

- ▶ Technical “water cycle” analysis
- ▶ Consolidation of studies, literature, and case studies
- ▶ All streams are physically, chemically and biologically connected
- ▶ Arid west focus on subsurface connectivity (alluvial and regional aquifers)

DRAFT
DO NOT CITE OR QUOTE

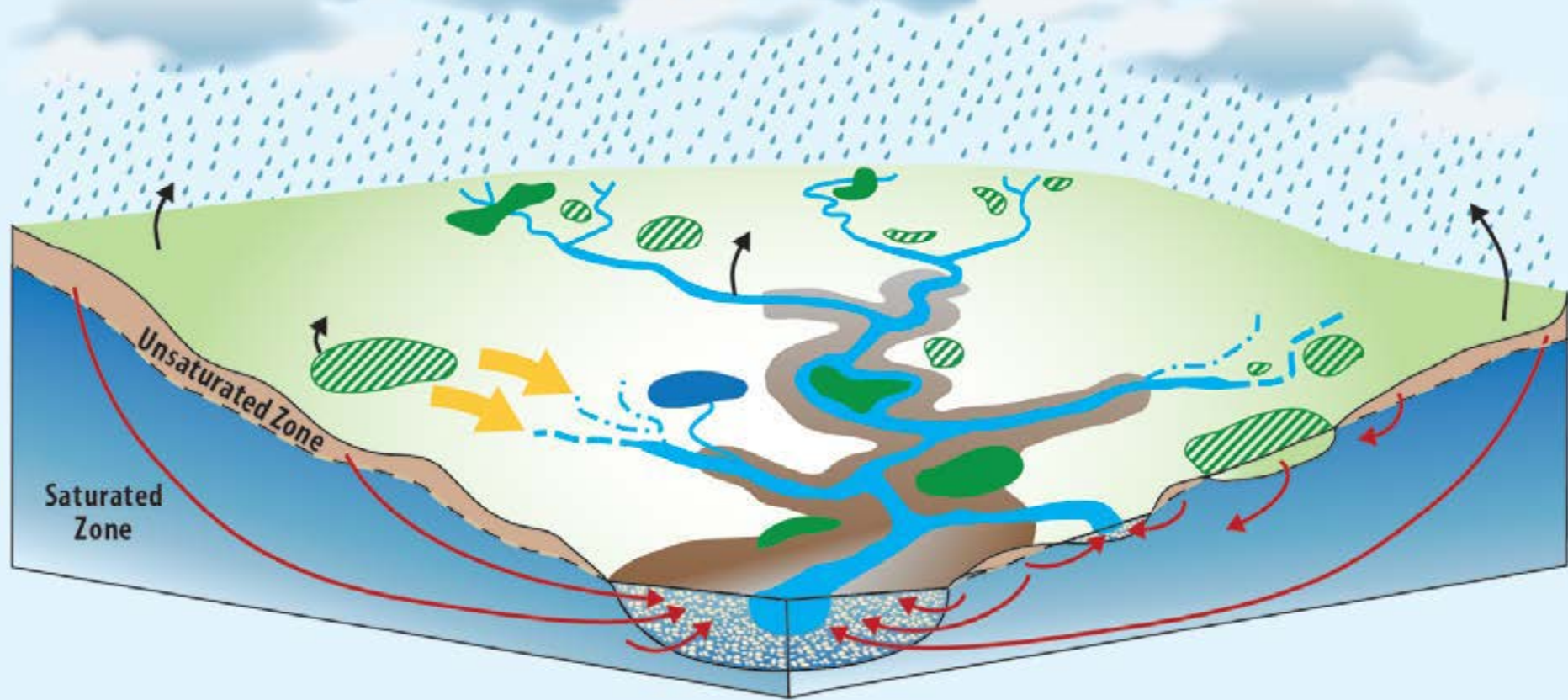
EPA/600/R-11/098B
September 2013
External Review Draft

Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence

NOTICE

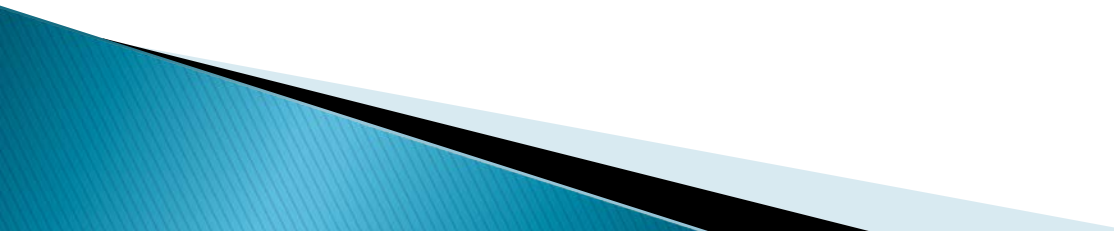
THIS DOCUMENT IS A PRELIMINARY DRAFT. It has not been formally released by the U.S. Environmental Protection Agency and should not be construed to represent Agency policy. It is being circulated for comment on its technical accuracy and policy implications.

Office of Research and Development
U.S. Environmental Protection Agency
Washington, DC



 Perennial stream	 Wetland with surface outlet	 Geographically isolated wetland	 Evapo-transpiration
 Intermittent stream	 Floodplain	 Overland flow (fill-and-spill)	 Subsurface flows
 Ephemeral stream	 Riparian/floodplain wetland	 Hyporheic zone	

Connectivity Study Conclusion 1

- ▶ All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported.
- 

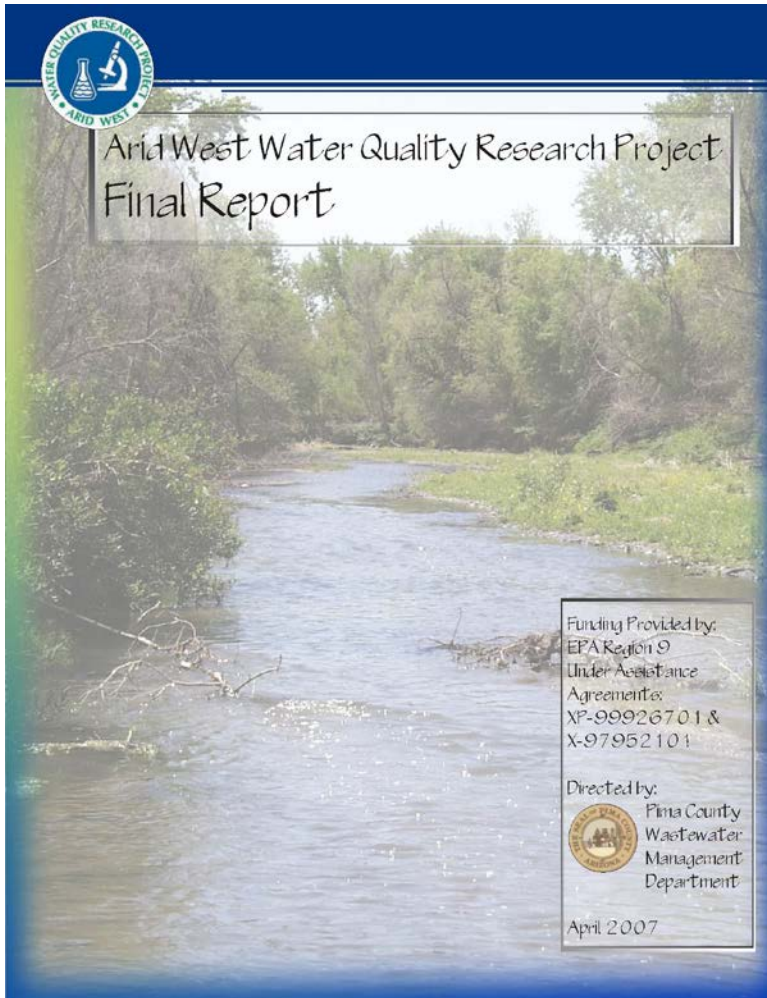
Connectivity Study Conclusion 2

- ▶ Wetlands and open-waters in landscape settings that have bidirectional hydrologic exchanges with streams or rivers are physically, chemically, and biologically connected with rivers via the export of channel-forming sediment and woody debris, temporary storage of local groundwater that supports baseflow in rivers, and transport of stored organic matter.

Connectivity Study Conclusion 3


- ▶ Wetlands in landscape settings that lack bidirectional hydrologic exchanges with downstream waters (e.g., many prairie potholes, vernal pools, and playa lakes) provide numerous functions that can benefit downstream water quality and integrity.

Connectivity Study Concerns



- ▶ Legal, regulatory, or economic impacts not addressed
- ▶ No mention of Arid West Water Quality Research Project
- ▶ Significant Nexus, Navigability, jurisdictional boundaries not studied

Questions

- ▶ Why a scientific review AFTER proposed rule development?
 - ▶ How will the study support rule?
 - ▶ What is “connectivity” in a CWA regulatory context?
 - ▶ What is significant connectivity and how will that be determined?
 - ▶ Should all “connected” waters be regulated?
 - ▶ How will rule impact subsurface waters?
 - ▶ How will rule impact existing aquifer protection regulations?
 - ▶ How will rule impact aquifer recharge?
 - ▶ How will rule impact water reuse strategies?
- 

References

- ▶ EPA website:
<http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm>
- ▶ WESTCAS 2011 Comments:
http://www.westcas.org/PDF/CWA_Guidance-WESTCAS_comment_ltr_final.pdf
- ▶ AWWQRP:
<http://www.pima.gov/wwm/wqrp/index.htm>