Materials for Presentation: Water Banks: Voluntary and Flexible Water Supplies for the Colorado River's Uncertain Future [outline]

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Materials for

Robert Wigginton
Presentation
Water Banks: Voluntary and Flexible Water Supplies for the Colorado River’s Uncertain Future

Robert Wigington, The Nature Conservancy

Natural Resources Law Center, Clyde O. Martz Summer Conference, June 8-10, 2011

I. Water Banking Basics
   A. What is a water bank? As defined by Larry MacDonnell in 1995
   B. Why might water banks be needed in the Colorado River Basin?
      1. Supplies are increasingly uncertain
         a. Climate change – need to plan for the worst
         b. Uncertain water allocations and administration, within and between states
         c. Large scale augmentation is uncertain and expensive
      2. More flexibility is needed
         a. Can be scaled up or down
         b. Relies on existing infrastructure
         c. Flexibility reduces uncertainty
      3. Voluntary market mechanism may be preferred
         a. Puts complex solution closer to the ground
         b. Relies on incentives and established water rights
   C. Why is The Nature Conservancy interested in water banking? It’s a solution that could both protect water supplies for people and help keep rivers healthy

II. Four Prominent Examples for the Colorado River Basin
   A. Arizona-Nevada Groundwater Banking
      1. How it works/conceptual illustration on Colorado River Hydras (base map courtesy of National Geographic)
      2. References
   B. Intentionally Created Surplus (ICS) for Lower Mainstem
      1. How it works/conceptual illustration on Hydras
      2. References
   C. Intentionally Created Mexican Apportionment
      1. How it could work/conceptual illustration on Hydras
      2. References
for Lake Powell and Lake Mead, October 2007, Appendix K, Attachment B:
Taking ICS to Mexico
b. International Boundary and Water Commission, Minutes 317 (June 17, 2010) &
318 (December 17, 2010)
D. Colorado Compact Water Bank in the Upper Basin
1. Key points about emerging proposal
   a. Diverse coalition – east, west, and environmental water users
   b. Proactive strategy to address difficult questions in setting up a water bank
      before crisis hits
   c. How to organize market mechanism, offset socio-economic impacts, and
      maintain/enhance healthy river flows
2. How it could work
   a. Pre-22 rights in Colorado voluntarily sign-up for deposit and pooling
   b. Yet to be defined "critical" post-22 rights pay to make withdrawals instead of
      being curtailed
   c. Straight exchange over curtailment period
   d. Build up storage reserves to release over curtailment period
   e. Conceptual illustration on Hydras
3. References
   a. Tom Iseman, Colorado River Compact Reconnaissance Study, The Nature
      Conservancy, December 2009
   b. Chris Treese & Taylor Hawes, “Colorado Aims to Establish Water Bank to
      Combat Impact of Potential River Curtailment,” Irrigation Leader, January 2011

III. Concluding Issues
A. Thinking Like A River Basin, Leaders’ Perspectives on Options and Opportunities in
   Colorado River Management, Center for Natural Resources & Environmental Policy,
   University of Montana in cooperation with Carpe Diem West, April 2011
   1. The footing ahead is unstable, while a host of unresolved legal issues could
      confound solutions like water banking.
   2. Can we hold enough of the legal issues and potential conflicts in abatement to see
      how something like Intentionally Created Mexican Apportionments or the Colorado
      Compact Water Bank can work?
   3. How can healthy rivers be part of a water banking solution?
B. Agricultural/Urban/Environmental Water Sharing: Innovative Strategies for the
   Colorado River Basin and the West, Colorado Water Institute, Colorado State
   University, April 14, 2011
   1. Western States Water Council called for the “states to work with interested
      stakeholders to identify innovative ways to allow water transfers from agriculture to
      urban use while avoiding or mitigating damages to agricultural economies and
      environmental values.”
   2. Major recommendations from west-wide working group
      a. Pilot an expedited review process for water sharing projects
      b. Foster a flexible, basinwide approach
      c. Create state cabinet level advocates and voluntary water sharing zones
      d. Build inclusive and robust stakeholder processes
   3. Can we act on such recommendations by opening water banks for the Colorado
      River Basin?
Water Bank Surveys


WestWater Research, forthcoming 2011