Webinar 1: Running the Climate Rapids:
Using the Iterative Risk Management Roadmap
Aired: September 27, 2011
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Dr. Kiyomi Morino – Researcher, University of Arizona

Questions and Answers

Q: Where are these tools on your website?

A: To access tools on our website, go to www.carpediemwestacademy.org. Click on Tools in the menu bar. Go to Overview. Click on the Compendium of Tools link which will open a PDF with tool summaries and links.

Q: Suggestion for next step: orientation to the compendium of tools. Has this occurred yet for potential users? Is there technical assistance available for accessing the compendium?

A: *We have not yet held an orientation on the tools as this is our first in the webinar series. It is a wonderful idea for future webinars. Currently we don't have the resources to offer technical assistance on the tools. In terms of accessing the compendium, it is quite straight forward: Go to www.carpediemwestacademy.org. Click on Tools in the menu bar. Go to Overview. Click on the Compendium of Tools link which will open a PDF with tool summaries and links.*

Q: Many institutions are already implementing water resources management/planning such as strategic planning, integrated resources planning, etc. How can your proposed methodology relate/help with these other planning tools?

A: *There are a lot of different planning processes! Most have components that are similar to phases and steps in the Iterative Risk Management framework (e.g., appraise options, track implementation), so it will be easy to use the Academy roadmap to access the compendium of tools, training, and best practices. Some, however, may actually be tools that are more appropriately incorporated as part of the Academy's compendium. For example, scenario*

planning is a tool that is particularly useful for the scoping and decision making phases. Finally, many of the planning processes make use of more focused tools that could be included in the compendium. We would appreciate your input about the planning processes and tools that you are finding useful or would like the Academy to review.

Q: Can you provide a succinct definition of "non-stationarity"?

A: *One of the webinar participants had a good short-hand way of thinking about non-stationarity, based on a Yogi Berra quote: "The past ain't what it used to be." A slightly more technical description is that a non-stationary system has an envelope of variability that is not constant. We are used to spatial non-stationarity, i.e., the variability of climate is much different in eastern Montana than in southern Florida. But the reality of non-stationarity over time is a relatively new admission in water management. A statistical definition is much more precise, with some complicated tests to distinguish different kinds of non-stationarity. A good introduction to non-stationarity for water management is: Milley et al., 2008. Stationarity is dead: whither water management? Science 319:573-574.* (http://wwwpaztcn.wr.usgs.gov/julio_pdf/milly_et_al.pdf). *We are working to include some new tools, training, and best practices related to non-stationarity within the Academy's compendium.*

Q: Would it be possible to offer some examples of water utility climate change "best practices" in the form of case studies or other information on what utility leaders are currently doing and how it is working?

A: *That will make a good topic for a future webinar. In the meantime, we have a couple of documents in the compendium that you might be interested in perusing:*
1) Decision Support Planning Methods: Incorporating Climate Change Uncertainties into Water Planning (http://www.wucaonline.org/assets/pdf/actions_whitepaper_012110.pdf); and
2) Options for Improving Climate Modelling to Assist Water Utility Planning for Climate Change (http://www.wucaonline.org/assets/pdf/pubs_whitepaper_120909.pdf).
Both of these were developed by the Water Utilities Climate Alliance (WUCA).

Q: We are working mainly on sea level rise, in regards to water supply and treatment. Not sure if you have any info on that.

A: *Currently, we have a couple of tools: Habitat Priority Planner and Coastal County Snapshot. Each of these are included in NOAA's Digital Coast Tool Box.*

Q: Are you involved with the National Climate Assessment?

A: *The National Climate Assessment is Congressionally mandated to be conducted by many federal agencies. The NCA is asking many organizations to take part and Carpe Diem West is exploring how they and the Academy can contribute to the NCA. Dr. Hartmann is contributing to the NCA regional assessment for the Southwest (which includes Colorado, Utah, Nevada, Arizona, and California) and the NCA scenarios working group.*

Q: What's your funding?

A: We are funded through foundations and private individuals. For more information on our supporters, please see: www.carpediemwest.org/who-we-are/network.

Q: What about mitigation?

A: *The Academy is focused on how to manage water resources in the face of uncertainty and climate change. Because past emissions are increasingly affecting water resources at present and into the future, the Academy is focused on adaptation. However, mitigation of future emissions is clearly an important strategy for reducing the stress on water resources beyond the middle of this century. And there are strong connections between water and energy because water requires substantial amounts of energy to move and treat, and some energy production requires substantial water supplies. The Academy includes tools, training, and best practices related to the connection between water and energy. We would appreciate your input about tools, related to the connection between water and energy, that you are finding useful or would like the Academy to review.*

Q: Are tools and case studies such as Lifecycle Impact analysis being more commonly used in other applications these days, included in the Compendium and are there case studies yet in using these types of tools in water resource management?

A: *Currently, we do not yet have any tools, or case studies, related to Lifecycle Impact analysis. We can certainly look for tools in this area and appreciate any recommendations or leads.*

Q: Tools or trainings or best practices with an emphasis on Equity analysis/planning or considered to be part of Policy?

A: *We don't have any tools that are explicitly designed to emphasize Equity. However, many can accommodate Equity within an application (e.g., Steps 1-2, Step 6, Step 8). In stage 2, for example, equity can be set as a criteria to evaluate different options.*

Q: In what stage are the implications and structure/infrastructure of existing water policies included in the analysis or are they?

A: *Existing water policies can be included at any stage in the IRM. For example, in the scoping phase (steps 1-2), a group decides what existing or prospective policy limits might be (e.g., reservoir operating rules only or increased storage capacity as well; getting new supplies from outside a basin or including water reuse at different levels of treatment as well). Analysis tools (steps 3-5) may incorporate different policies or infrastructure. For example, WEAP can incorporate different water infrastructure and operations, in ways that could reflect quite different water policies. However, downscaling tools (eg. Bias-corrected and downscaled CMIP3 (IPCC AR4) climate projections) don't reflect water policies at all.*

Q: Does CDWA have any plans to host in person workshop-style opportunities? These types of in-person experiences have the potential to foster greater progress and capacity to partner.

A: We are considering in-person workshops and trainings and are looking into how this will fit with the Academy value. We will keep the Academy website and email list updated with availability of this service.

Q: Are there other sectors that are of interest to you?
water policy
hydropower
irrigation
species management
ecosystem management
land-use planning
water management

Q: Are there other keywords that interest you?
geographic region
snow pack
groundwater
surface water

water quality
water supply
water policy
drought
climate projections
desertification
wildlife
soils
plants
resiliency
climate variability
ground water
surface water
adaptive capacity
policy development
Indirect potable reuse
Sustainability
water pricing
water footprint
fire
coastal
extreme events
planning
downscaling
vulnerability
scenario
adaptation
paleoclimate
climate extremes
carbon sequestration
scenario modeling
scenario planning