



Carpe Diem West

Grant report to the S.D. Bechtel, Jr. Foundation

May 20, 2011

This narrative and the attached financial summary provide Carpe Diem West's final report to the S.D. Bechtel, Jr. Foundation for the July 2010 \$44,275 grant to develop an analysis and compendium of the best available tools for western water and energy managers and NGO stakeholders to manage resources in the era of climate uncertainty.

I. Project Summary and Goals

As called for in the July 19, 2010 proposal to the foundation, Carpe Diem West researched the best tools and practices for incorporating climate change uncertainties into water management. Findings were then organized into a 'roadmap' to help users navigate to the best tool set for their situation and provided a pathway to move to different tools as climate change science and adaptation experience advance. The final compendium and roadmap will be shared with the Carpe Diem West Network through a managed website.

Working under the direction of Dr. Holly Hartmann, Director of the Arid Lands Information Center at the University of Arizona, a team of post-doctoral associates developed the compendium of tools and roadmap. Carpe Diem West's Project Manager, under the direction of the Director, along with a team of web designers, created the website and managed outreach activities to the Carpe Diem West Network. The Carpe Diem West core leadership team and group of experts in the field provided feedback and overall direction and input.

Based on the findings of this research, and what was learned in creating the compendium, roadmap, web presence and outreach, Carpe Diem West is currently assessing the feasibility of establishing the *Carpe Diem West Academy - Managing in the Era of Uncertainty* training series.

II. Key Activities, Strategies, and Accomplishments

- ▶ A useful roadmap was identified, which has provided the foundation for how users can assess where they are in their planning process and what appropriate tools they can use.
- ▶ A tool kit and compendium have been developed, reviewed and evaluated by the University of Arizona post-doc team, under the direction of Dr. Holly Hartmann.
- ▶ A website has been designed. That website will be launched on May 23, 2011.
- ▶ Along with the website, we have found the strong need to incorporate a learning community, using the website as a platform for incorporating feedback and sharing lessons learned from managers and NGOs in the field.
- ▶ Two webinars were held with western water managers in March 2011 to ‘test drive’ the website design and get feedback on the tools compendium and roadmap. Participants were selected because of their leadership in the Carpe Diem West Network. Questions asked of participants included: What are your primary concerns in using internet tools? Have we missed any tools, training, or best practices that you consider essential for dealing with climate change? Is the roadmap easy to follow? Is the roadmap compatible with your organization’s protocol for dealing with climate change?
- ▶ The approach, framework and methodology has been assessed by Carpe Diem West’s leadership team, and by key western water and energy managers, scientists and NGO leaders.
- ▶ Opportunities to develop an actual training series have been further assessed.

III. Analysis of Outcomes and Impacts

The work conducted demonstrated that:

- ▶ Water and energy managers are looking for structure and a framework to determine what tools are most applicable to their agency, and when.
- ▶ There is a large number of tools for analyzing technical needs, but few tools for either scenario planning or decision making.
- ▶ While there are a number of websites that provide lists of some tools, or provide examples of successful adaptation approaches, there is not a “portal” that amalgamates tools, nor is there an assessment of those tools, with a roadmap.
- ▶ Interest and requests for assistance from our larger network have increased in the past months. A review by Carpe Diem West’s leadership team and the two webinars held earlier this month all indicate that the Academy website will be widely used.

IV. Summary of Project Evaluation Results

The July 19, 2010 proposal listed the following evaluation activity:

An online survey will be sent to webinar participants to evaluate the overall project, the effectiveness of the webinar, and the collection of tools and practices. The website will include opportunities to provide feedback on individual tools, as well as the overall collection and assessment of tools.

At the end of 2010, the project principals determined that a more effective form of evaluation would be one-on-one interviews with potential end-users (water and energy managers, decision makers and analysts, and NGO analysts and decision makers), along with webinars to present the initial web design and findings to the community. These interviews and webinars were carried out in March 2011.

In addition, the project advisors, along with Carpe Diem West's larger team of advisors, Board members and Core Team, have reviewed and assessed the project's work, providing feedback and recommendations.

Finally, as the project moves forward into its second phase, we will actively gather feedback via monthly webinars and website feedback mechanisms.

V. Risks and Challenges

Some unanticipated findings from this project are noteworthy:

- ▶ The need for a roadmap to identify which tools are relevant to which practical situations and stages in the decision making process (this was not in the original proposal).
- ▶ The sheer number of tools and their broad distribution (and the amount of time it has taken to gather and begin assessing, categorizing and evaluating those tools).
- ▶ The number of new tools expected to come online in the next 3-6 months.
- ▶ The interest of people outside the water sector (e.g. ecosystem management and the National Climate Assessment) in the framework that has developed - because they are struggling with the same issue of too many tools and little context.

VI. Lessons Learned

A number of key lessons were learned in this first phase:

- ▶ Development of a learning community will be as important as providing a technical database of useful tools for management and scenario planning. This is because, while many tools are available to analyze water and energy management, successful management needs to start with effective scenario planning. Then, after the analysis of the right tools has been completed, to make tough decisions.
- ▶ When interviewed, water and energy managers in Carpe Diem West's leadership network expressed a high level of frustration and confusion in their work trying to determine the best management path forward.
- ▶ There are a number of federal agencies (NOAA, DOI, EPA) that are facing similar challenges when communicating with stakeholders about the best frameworks to choose for managing water and energy. There has been a surprising level of interest in the Carpe Diem West Academy website and methodology, with initial discussions on possible partnerships with these agencies.

VII. Budget

- ▶ Please find attached the original-to-actual budget, including variances.
- ▶ Variances: More funds were applied to staffing time, and less to webinar or survey costs. This is for two reasons:
 - The assessment that more useful stakeholder information could be gleaned from individual interviews versus an online survey.
 - The sheer volume of tools (a much higher number than originally anticipated) that needed to be categorized, assessed and evaluated.
- ▶ Additional funding: No additional funding was sought. Additional staffing costs of Dr. Holly Hartmann's and CEO Kimery Wiltshire's time, and the review by the project advisors, the Carpe Diem West Core Team and Advisors were provided at no cost. In addition, the University of Arizona waived its standard overhead charge for this project.

VIII. Conclusion

Plans for sustainability - expected long-term (mid-year 2012 and beyond) income will come from two sources:

- ▶ Sponsorship of the web (management and updates) by technical providers, including corporations and government entities such as NOAA.
- ▶ The proposed Academy training series will be designed to build a long-term income stream for Carpe Diem West.