



CARPE DIEM WEST

Our water – Finding solutions together

**To: Carpe Diem West Board of Directors
Core Team & Special Friends**

From: Kimery Wiltshire

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Re: Background on Carpe Diem West History and Programs

Prepared for Jan. 27 Board of Directors & Jan. 28 Carpe Diem 3.0 Meetings

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At two important meetings next week - the annual Carpe Diem West Board meeting and the strategy meeting the following day - we will have the opportunity to do some big-picture thinking about Carpe Diem West's work in the context of the current political and scientific climate. As a backdrop for those discussions, this memo provides meeting participants with some background on the history of Carpe Diem West, our methods, and a snapshot of each of our current projects. ***This is an internal document - please do not share it.***

About Carpe Diem West

Carpe Diem West was started nearly four years ago by a group of western water leaders acting on a shared belief that the climate crisis requires everyone in the field to think in new ways. It emerged from the realization that Western water issues were already complex and divisive, and that the profound changes climate scientists predict for the West will only increase the pressure on the West's limited water supplies. Carpe Diem West's founders concluded that the existing culture of conflict and compartmentalized thinking is simply inadequate to deal with these new challenges, and that we need to find new ways to address Western water issues.

This realization led to the creation of the Carpe Diem West in 2007, as a project of the non-profit organization Exloco. The fundamental idea behind Carpe Diem West was to avoid taking any side in water issues, but instead to build a neutral forum, and vehicle for action, in which smart, innovative thinkers from various sectors could come together to discuss ideas and generate shared policy ideas and develop ways to implement those ideas. We began by building a broad-based network of professionals from different parts of the water world - federal, state, and tribal governments, industry, conservationists, and the scientific community - and using this network to begin framing water issues in new ways, and to identify areas where Carpe Diem West could add value.

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These discussions produced the basic approach that Carpe Diem West uses in its work. After the Network identifies a project opportunity, we draw upon individual Network members with expertise in that area to frame the issues. Those issues then form the basis for more focused discussion among the Network of ideas for action, and to the formation of a Working Group to guide the project and work on specific proposals for action. The process is not driven by the need to build consensus; rather, our goal is to create a forum where leaders from all sides can roll up their sleeves and collectively get to work.

In October 2010, Exloco's Board of Directors concluded that the collision of water and climate is the most urgent and fundamental challenge facing the American West, and therefore should be the exclusive focus of the organization's expertise, talents and connections. The Board merged the nonprofit, Exloco, and its Carpe Diem Project, into a single organization with the new name Carpe Diem West.

Carpe Diem West currently has five individual projects, each of which was developed using the basic approach described above.

Projects & Network Building

1. Healthy Headwaters Project

Carpe Diem West's [Healthy Headwaters Project](#) links upstream land managers, downstream water users, and conservation advocates around the issue of water security, creating the constituency for the next generation of headwaters protection.

A. The Opportunity

The source of most of the American West's water lies in high-elevation, primarily public land, watersheds. Communities large and small around the West rely on these watersheds to deliver clean, reliable supplies of water at the times they need it. But many of these landscapes are highly vulnerable to climate change due to impacts such as increased risk of wildfire and invasive species, decreased snowpack, altered timing of runoff, and large-scale changes in vegetation. These changes, coupled with existing stresses and past management legacies, threaten the ability of many watersheds to continue providing reliable water supplies.

As these new threats are emerging, important changes are occurring at the federal level. Land management agencies are re-thinking their priorities, placing a renewed emphasis on their mission in providing water for downstream use. But at the same time, their ability to manage headwaters in the face of climate change is coming under increasing strain from tightening budgets.

Together, these factors - climate stress, shifting agency priorities, and the need for new funding sources - create the opportunity to forge new partnerships in support of the next generation of headwaters protection. Downstream water users represent a potential source of revenue to help fund the management of the lands that have historically provided them with water free of charge. At the same time, agencies are looking to outside sources to help implement their new emphasis on watershed protection. These emerging partnerships have attracted support from the non-profit conservation community as well, since sustainable headwaters management provides widespread ecosystem benefits as well as water security.

B. To Date

Over the past year, the focus of Carpe Diem West's work over the last year has been to connect the various parties involved in creating upstream/downstream partnerships, and facilitate the creation of policies and funding streams that support headwaters protection. In late 2009 we established a Healthy Headwaters Working Group of individuals from cities, NGOs, scientific institutions, and agency staff, and we held formal convenings in March and September of 2010 that were well attended by leadership from those same sectors. In October we released a brief report, [*User Contribution Programs: Linking Upstream Watershed Health to the Hearts, Minds, and Wallets of Downstream Water Users*](#), which surveys existing partnerships and raises several issues regarding their expansion. The third Healthy Headwaters convening in Denver on March 25 will highlight the largest headwaters partnership to date, the \$32 million Forest to Faucet Partnership between Denver Water and the Forest Service.

C. Goals

Our goals for the Healthy Headwaters project are two-fold: (1) to establish land management policies that emphasize making headwaters resilient to the effects of climate change; and (2) to establish funding sources - both inside and outside the federal government - to help pay for headwaters protection and restoration.

D. Strategies 2011

In 2011, we will focus on four basic strategies to further our goal of securing better management and funding in support of headwaters protection.

First, we will develop several policy ideas the Working Group has been working on in the past year. These include:

- ▶ Creating a federal "Healthy Headwaters Partnership Program," which would provide matching funds on a competitive basis to municipalities who partner with the Forest Service on headwaters protection programs.

- Creating a “National Municipal Watershed Protection Rule,” which would provide certain management direction for municipal watersheds nationwide.
- Creating incentives for better management of private lands in municipal watersheds, including acquisitions and easements, as part of the next Farm Bill.

Although Carpe Diem West does not engage directly in policy advocacy, we provide assistance by developing the above ideas to the point our network members can decide whether to move them forward via advocacy campaigns.

Second, we will work to expand the membership of our Working Group and Network to include additional cities and towns across the West. This will serve both to expand the geographic scope of headwaters protection programs, and to provide a constituency to support better policies and funding for headwaters protection.

Third, working with the appropriate Congressional staff, we will develop a request that the Congressional Research Service prepare a report estimating the economic value of the water produced by Western public land watersheds for municipal use, and the relative cost of replacing that water vs. the cost of managing watersheds to provide resiliency from the effects of climate change. Such a report could be used in support of both the policy and network expansion efforts described above.

Fourth, we will continue to act as a central source of information on best practices and lessons learned for those involved in developing new headwaters partnerships, and to connect people who are working on headwaters throughout the West.

2. Colorado River Futures Project

Carpe Diem West’s [Colorado River Futures Project](#) creates a forum where the innovative thinkers among different groups of Colorado River water interests can come together to discuss long-term solutions.

A. The Opportunity

For over a hundred years, competing interests in the seven states of the Colorado River Basin have been arguing over their respective rights to use the water flowing in the Colorado and its tributaries. This period has been marked by a history of contentious negotiations among the seven Basin states, punctuated by occasional agreements, against a perpetual backdrop of actual or threatened litigation. As demand on the river has steadily increased over the decades, this culture of conflict has produced an environment in which no group of water users - cities,

farms, industry, or environmental interests - can feel secure about the future of the water supplies they have come to rely upon.

In the past ten years, climate change has added to this uncertainty. A strong consensus of climate models predicts that the Colorado River Basin will become much drier over the next few decades, reducing mainstem river flows by anywhere from 10% to 30%. At the same time, beginning around 2000 the Basin has experienced a prolonged period of drought. Annual flows in the Colorado in the last ten years have averaged around 12 million acre feet; by contrast, the river's water budget is based on flows of about 18 million acre feet. This drought may constitute the initial effects of climate change on the Colorado.

Several years ago, the seven Basin states negotiated an agreement that formed the basis for the Bureau of Reclamation's 2007 Record of Decision. The agreement sets forth a complex set of rules for managing the Colorado and its large reservoirs under low flow conditions, and provides for curtailing deliveries to junior water rights holders in years where the level of Lake Mead drops below certain levels. While the Record of Decision was widely hailed as a major achievement, it did not attempt to address the long-term imbalances in supply and demand that are the ultimate cause of the underlying conflicts and uncertainty on the Colorado.

Based on our two years of work amongst the principals in the basin, we believe climate change sets the stage for the parties who control the water future of the Colorado River to begin talking about truly sustainable solutions - i.e., ones that provide ways to equitably use water within the limits of long-term supply. Such a conversation has not been possible in the past, largely because there is no safe forum in which existing water interests can talk openly about a full range of options without fear of jeopardizing their legal and political position among competing interests. Thanks to our status as a neutral broker, Carpe Diem West is uniquely positioned to foster that conversation.

B. To Date

The focus of Carpe Diem West's current work is to create a series of conversations among Colorado River stakeholders about long-term solutions. We are timing this work to coincide with the development of the Colorado Basin study currently being prepared by the federal Bureau of Reclamation for final release in January 2012. Due to political constraints and the limited range of parties at the table, it is unlikely that the Basin Study will produce a comprehensive, sustainable solution set for the Colorado. But it could lay the groundwork for future solutions in important ways - for example, by producing, for the first time, an agreement among the seven basin states about the size of the gap between long-term water supply and demand on the Colorado. Thus, we view the release of the successive stages of the Basin Study over the next 12 months as opportunities to foster a parallel discussion about long-term solutions among the stakeholders on various sides who are open to innovation.

Our immediate goals are to identify those innovators and start that discussion. Carpe Diem West is preparing, in conjunction with the University of Montana, our *Colorado Accord Report*, which is based on a series of confidential interviews with 35 influential Basin stakeholders regarding the river's problems and the possible universe of solutions. We are also working closely with the co-chairs of the Basin Study, and with Core Team member Dr. Douglas Kenney of the University of Colorado's Colorado River Governance Initiative (CRGI).

C. Goals

Our longer-term goal is for an influential group of stakeholders from a diverse range of interests will agree in principle on a set of solutions for establishing long-term water security for all parties on the Colorado. Although the formal negotiations required to actually create and implement solutions on the Colorado are beyond the scope of Carpe Diem West's work, this agreement would help set the table for such negotiations, and could be highly influential.

D. Strategies 2011

Carpe Diem West will pursue four strategies for its Colorado River Futures Project.

First, we will complete the *Colorado Accord Report* - which is based on a series of confidential interviews with 35 influential Basin stakeholders regarding the river's problems and the possible universe of solutions - and pursue a carefully targeted strategy to use that report to influence selected key stakeholders in the Basin.

Second, we will recruit, organize, and support a "kitchen cabinet" of selected Basin stakeholders who are open to innovative long-term solutions and who want to help us assess the viability of potential reforms.

Third, working closely with Doug Kenney, we will identify potential solution sets for the Colorado, and assess them with the help of the "kitchen cabinet."

Fourth, working with Resource Media, we will finalize and implement a detailed communications strategy to support our message and influence opinion among key stakeholders in the Basin.

3. Water, Energy, and Climate

Carpe Diem West's [Water, Energy, and Climate Project](#) explores the interconnected challenges that lie at the nexus of water and energy use and develops smart responses on strategically selected issues where we can add value.

A. The Opportunity

In the past few years, a growing awareness has emerged of the huge amount of water embedded in the production and use of energy, and conversely, of the huge amount of energy embedded in the delivery and use of water. While this has led to many productive conversations on the energy side of the equation, urgent issues on the water side have received less attention.

B. To Date

Recognizing that water is the less understood aspect of the water-energy nexus, Carpe Diem West held a landmark two-day water, energy and climate change [convening](#) in San Francisco in March 2010, with key policy and practical leadership from both the water and energy worlds. The group examined the underlying scientific issues, discussed gaps and barriers in the policy framework, and highlighted opportunities for action. Following the conference, we formed the Water, Energy, and Climate Working Group, which engaged in a series of discussions to identify issues where Carpe Diem West could add value.

From that work, it became evident that a major gap in existing efforts in the realm of water and energy is the absence of an effective means of incorporating water impacts into the planning of future renewable energy generation and transmission in the West. The energy sector is currently engaged in planning processes and developing scenarios - the most ambitious of which is a goal is to reduce carbon output by 80% below 1990 levels. That 80% scenario, and the planning scenarios that include goals of lower carbon emissions, all have huge implications for the Western water resources.

In late 2010, working with John Shurts of the Northwest Power and Conservation Council and Ron Lehr of the American Wind Energy Association, we began developing a policy brief to frame the issues that should be included in any adequate consideration of the water impacts of Western electricity infrastructure.

C. Goals

A major goal is to ensure that water-related impacts are factored into ongoing processes for planning the West's power infrastructure over the next 50 years. The Western Governors Association is developing a process for incorporating water impacts into the ongoing transmission planning being conducted in conjunction with the Western Energy Coordinating Council. Using our status as a trusted broker, Carpe Diem West will work with the Western Governor Association and other key players to ensure that process considers the full range of the many related impacts that energy infrastructure has on the West's water. These include the design and location of generation facilities, as well as the effects of climate on hydropower generation and seasonal demand on the West-wide power grid.

D. Strategies 2011

In 2011, we will develop a strategy for how to best integrate water impacts into Western energy planning. In the meantime, we focus on the following actions:

- ▶ Complete the initial policy brief.
- ▶ Using the findings of the policy brief, identify specific issue areas for action.
- ▶ Identify key leverage points in agency processes - both planning processes and individual project approvals - where water impacts can be inserted into energy decisions.
- ▶ Further develop working partnerships with the Western Governors Association and other key players.

4. Carpe Diem West Academy

The [Carpe Diem West Academy](#) is developing training materials for water and energy managers based on best practices for incorporating the uncertainties posed by climate change into water management.

A. The Opportunity

The Carpe Diem West Network has identified practical training on how to manage water and energy resources in the era of climate change uncertainty as a critical need. Water and energy managers trying to address the impacts of climate change on western water resources are faced with three challenges. First, there are a myriad of tools available but little understanding of which tools are most useful or applicable. Second, most of these tools focus on pieces of the overall picture, not on their interconnection or the process of building water management responses that address long-term uncertainty. Third, water resources and energy management are rarely addressed conjunctively in management planning.

B. To Date

In partnership with Core Team member Dr. Holly Hartmann, and her team of University of Arizona postdocs, Carpe Diem West is researching the best tools and practices for incorporating the uncertainties posed by climate change into water management. The survey and evaluation of tools and practices includes those developed by research institutions, non-governmental organizations, and federal, state, and municipal agencies. Because no single approach is appropriate for every situation, the review is focusing on the strengths and limitations of each tool for different applications.

C. Goals

Our ultimate goal is to establish the Carpe Diem West Academy - Managing in the Era of Uncertainty and training format. This Academy, and ongoing web presence, would provide critical information, analysis and tools to western water and energy managers and NGO stakeholders - and serve as a core source of funding for Carpe Diem West.

D. Strategies 2011

Based on the results of the work completed in the first quarter of 2011, we will determine the feasibility of developing an actual Carpe Diem West Academy. We will do this through the following steps:

First, Dr. Hartmann and her team will organize the collection of tools and practices as a 'roadmap' to help users navigate to the best tool set for their situation and provide a pathway to move to different tools as climate change science and adaptation evolve over time. Key areas to be addressed will include basic climate change science and downscaling of climate model projections, vulnerability assessment for integrated systems, scenario planning as a tool for managing irreducible uncertainty, and tools for quantifying hydrologic non-stationarity that can mesh with existing management processes.

Second, we will share the final compendium and examples of best practices with the Carpe Diem Network through a managed website and list serve, and present them in a webinar to Network members. Updates to the compendium will be made on a regular basis as new information and tools are made available.

Third, based on the work and findings of this research, compendium, web presence and outreach, we will conduct a feasibility study and, if appropriate, a business plan for establishing the Carpe Diem West Academy - Managing in the Era of Uncertainty.

5. Public Health, Water, and Climate Change

Carpe Diem West's [Public Health, Water, and Climate Change Project](#) identifies and frames the issues raised by emerging research on the public health impacts resulting from the intersection of water and climate change, and develops policy responses.

A. The Opportunity

Climate change will have far-reaching impacts on public health. While the exact nature of these impacts will vary by region, they will include increased dust and disease-bearing insect

populations, as well as impacts to both agricultural and drinking water supplies. In extreme cases, severe and prolonged drought could produce internal or cross-border migrations of water refugees, creating public health and even homeland security issues. These issues will need to be addressed in concert by planners who have not traditionally worked together.

B. To Date, Goals, and Strategies 2011

This project is in the early stages of development. In partnership with the Center for Health and Climate Change, and working with our network, Carpe Diem West is conducting an initial analysis and policy brief to assess the scope of the problem set and the gaps in scientific research. Following its completion in March 2011, we will use this policy brief to determine next steps, including potential policy responses, and hold a webinar with key leadership.

6. Building the Network & Emerging Projects

A. The opportunity

The opportunity is to build on, and strengthen the ties and interests of, an already established network, and to use on that network to identify emerging issues and opportunities for collective action, including policy changes.

B. To date

We currently have over 1,600 western water leaders, scientists, policy makers and funding community members on our network list. Of those, approximately 150 have participated over the past four years in convenings, working groups and/or conference calls and development of our policy briefs. We have established two working groups to date (Healthy Headwaters and Water, Energy & Climate Change), are developing a “kitchen cabinet” working group for the Colorado Futures Project, and have teams working on the Public Health and Carpe Diem Academy Projects.

Our 12 member Core Team, which leads the overall development of Carpe Diem West and its programs, is comprised of leadership who have provided extensive pro bono time over the past four years.

C. Goals

The Core Team and Board of Directors will be establishing goals for further developing the network. Working goals to date include:

First, to create a more formal definition of what it means to belong to the Carpe Diem West leadership network - this could, for example, be done by asking everyone to agree to a simple statement about western water and the need to work cooperatively together.

Second, to expand the Core Team, working groups and “kitchen cabinet” by bringing more diverse representation to this core leadership group.

Third, to use our Core Team and Network to help identify emerging issues and program opportunities where Carpe Diem West can add value.

D. Strategies

- Using our existing connections, recruit the participation of more diverse voices in the Network and on the Core Team.
- Create a common agreement for network members to agree to.
- Further develop our communications work, including the regular publication of the e-newsletter Confluence and expand our blog discussion.