



May 23, 2012

Colorado Water Conservation Board
Attn: Ben Wade
1313 Sherman Street, Room 721
Denver, CO 80203

Subject: Recharge Colorado CWCB HB05-1254 Grant Application Providing Water-Energy Nexus Workshops

Dear Mr. Wade:

Attached please find Recharge Colorado's (Recharge) application for a Water Efficiency Grant under the program created by HB 05-1254 for \$34,925. We will be providing through the project team and our sponsors a match of \$18,350 or 34 percent of the overall project costs.

Our proposal represents collaboration with the Great Western Institute and numerous other stakeholders and supporters state-wide. Through the activities proposed to be funded by the CWCB Grant and matching support from Recharge, Colorado Springs Utilities, Aurora Water, and Western Resource Advocates, we will provide a series of water-energy nexus educational and interactive workshops to begin a statewide dialogue with the goal of increasing collaboration between water and energy communities in planning and implementing programs through education, awareness, and discussion.

We propose a series of three technical workshops in the Arkansas and Colorado Basins and the Denver Metro area covering both Front Range and the Western Slope and addressing both urban and rural settings. The workshops will each be 1-day (8-hour) sessions, the first half with teaching sessions with presenters that represent both state wide and river basin-specific issues and the second half with attendee breakouts sessions to discuss water-energy nexus subject matter such as:

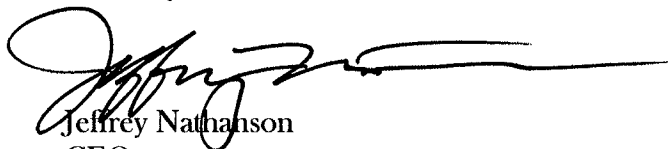
- Developing long-term or integrated resource planning that effectively addresses water-energy interactions at a state, watershed, or regional level
- Creating consistent and detailed data and models that can be used to address current and emerging problems at the water-energy nexus
- Identifying opportunities to increase cooperation among energy and water agencies, utilities, government, NGOs, and communities to share best practices and recognize the nexus and the first step to work together

- Identifying opportunities to integrate water and wastewater into existing energy efficiency programs and integrate energy into existing water and wastewater efficiency programs
- Increasing public education on the water-energy nexus
- Incentivizing residential and business efficiency programs to gain additional savings related to embedded water and energy and develop methodologies that fairly attribute the savings and costs of both water and energy programs
- Integrating energy and water audit practices and provide integrated retrofitting recommendations, rebate programs, and outreach and education efforts
- Creating partnerships between energy and water utilities, industry organization, and nonprofit organizations for joint public meetings and education programs
- Identifying water-energy nexus tools and technologies that exist and can be readily employed for both the supply and demand sides.
- Considering regional specific issues, for example energy exploration in the Colorado Basin.

Although the overall goal for Recharge's project involves conducting the workshops in every major river basin statewide, this grant application includes only the first phase of events, three workshops in three different locations in the fall of 2012. If this set of workshops proves to be successful, a second phase of this project will be proposed to CWCB for consideration.

We look forward to collaborating with you and the Office closely in planning for and implementing this important effort over the coming months. Please contact me with any question you may have at (303) 894-6338 or jnathanson@rechargecolorado.org.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Jeffrey Nathanson', with a long horizontal flourish extending to the right.

Jeffrey Nathanson
CEO
Recharge Colorado

cc: Veva Deheza

The Water-Energy Nexus
a Workshop for Practitioners

Presented to:
Colorado Water Conservation Board
May 23, 2012

From:



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Introduction

There is a growing recognition from practitioners in the water and energy fields in Colorado that there is an imperative for increased dialogue surrounding the water-energy nexus. The purpose of this grant application is to organize and facilitate a series of water-energy nexus educational and interactive workshops to begin a statewide conversation with the goal of increasing collaboration between water and energy communities in planning and implementing programs through education, awareness, and discussion.

Nationally, the water-energy nexus has been the centerpiece for two significant efforts. In May of 2011, the Alliance for Water Efficiency (AWE) and the American Council for and Energy-Efficient Economy (ACEEE) jointly produced Addressing the Energy-Water nexus: A Blueprint for Action and Policy Agenda (Blueprint). The Blueprint developed by more than 50 individuals in the water and energy efficiency fields, laid out 8 thematic elements of its blueprint for action. Two of those thematic elements are specifically related to this grant application:

- Increase the level of collaboration between the water and energy communities in planning and implementing programs.
- Pursue education and awareness opportunities for various audiences and stakeholders.

The Blueprint concludes that the document “is informative and direction setting...we hope that the energy and water conservation communities will learn from it and be motivated to act.”

In January 2007, the U.S. Department of Energy (DOE) reported to the U.S. Congress, Energy Demands on Water Resources Report to Congress on the Interdependency of Energy and Water. The report emphasized the intrinsic relationship between energy and water, stating:

“Electricity production required about 136,000 million gallons of freshwater per day, accounting for over 40% of all daily freshwater withdrawals in the nation...we indirectly use as much water turning on the lights and running electric appliances each day in [our] homes as we use directly in taking showers and watering lawns.”

Despite this intrinsic relationship, the dialogue between the energy and water communities in Colorado has not been forthcoming. The on-going discussion about the impact of water on energy and energy on water in Colorado has not taken place. Recharge Colorado (Recharge) and the Great Western Institute (GWI) (the Recharge team) prepared this grant application requesting monies from Colorado Water Conservation Board’s (Board) Water Efficiency Grant Fund created by HB 05-1254 to initiate this discussion (in the form of an educational and interactive workshop) on the water-energy nexus in Colorado. Through these discussions, our team intends to increase collaboration between water and energy communities at the local (river basin and sub-river basin) level. The proposed workshops, which consist of education and interactive elements, will allow for an opportunity to characterize water and energy saving opportunities throughout the processes of pumping, conveying, treating, distributing, and reclaiming water.

Concurrently, we anticipate the discussion to explore the water efficiency savings in the energy field and through the various water use efficiency efforts that local communities and organizations have, and will continue to implement. These workshops will focus on the combined benefits of water and energy demand reduction, water loss improvements, and water and energy use efficiencies in addressing the water-energy nexus. In addition, the facilitated discussions will be used to characterize challenges and opportunities for

more comprehensive and coordinated water-energy systems management (including a focus on utilities that provide both water and energy services to their customers).

Recharge's mission is to address the linkages between water efficiency, energy efficiency, and economic development in a centralized, coordinated, and collaborative manner to optimize economic and environmental gains in the Rocky Mountain West. GWI's primary purpose is to promote water conservation and water use efficiency through education, policy and research. Together, our organizations will bring years of experience and research to inform and facilitate a Colorado centric discussion that will be a spring board for a continuing dialogue and more meaningful policy development at a local and regional level.

The proposed project "The Water-Energy Nexus Workshop" is directly linked with the mission and statutory responsibilities of the Colorado Water Conservation Board and its Office of Water Conservation and Drought Planning (Office), and has been developed, in part, from our team's extensive knowledge of the policies, goals and needs of the Board and Office and through our deliberate coordination in developing this project with the Office's future plans for education and outreach. **We recognize that this proposed project can only be satisfactorily performed by leveraging our close partnership with the Office and its available resources.**

Additionally, as mentioned above, DOE was authorized and directed by the 2005 Energy Policy Act to establish a program to address Energy-Water Nexus issues. In 2006, DOE developed a National Energy-Water Roadmap Process and held a series of regional workshops to discuss the water-energy nexus. Following the completion of the regional workshops, DOE summarized the results. DOE identified several problem areas in all three regions. Two of those areas speak directly to this grant application:

- There is a lack of long term integrated resource planning that effectively addresses energy-water interactions at the state, watershed, or regional levels.
- There is a lack of consistent and detailed data and lack of models that can be used to address current and emerging problems at the water-energy nexus.

Within Colorado, the Statewide Water Supply Initiative (SWSI) 2010 report also addresses the need for such a workshop. According to that report, between 2008 and 2050, the population in Colorado is expected to double and Municipal and Industrial (M&I) water needs are expected to nearly double even with the expected water demand reductions associated with passive conservation. SWSI 2010 goes on to estimate that Colorado's M&I gap by 2050 could be between 32 and 66 percent after the inclusion of each basin's current and projected identified projects and processes (IPPs). The report points out that this gap is not indicative of a shortfall, rather a future water supply need for which projects and/or methodologies will be needed to develop and deliver new water supplies. The Recharge team envisions the actual workshop proceedings, including participants with a divergent set of perspectives, will allow new insights to be gained on opportunities for water savings (and energy savings) that could help address this M&I projected gap.

The proposed workshops are also supported by SWSI 2010 recommendations:

- Identify and utilize existing and new funding opportunities to assist in implementing projects and methods to meet Colorado's consumptive and non-consumptive water supply needs.
- Continue to lead the dialogue and foster cooperation among water interested in every basin and between basins for the purpose of implementing solutions to Colorado's water supply challenges.

- Support, encourage, and incentivize water providers in planning for and implementing M&I active conservation best management practices and other demand management strategies.
- Work with water providers to identify opportunities where additional water could be made available by increased regional cooperation, storage, exchanges, and other creative opportunities.
- The Board, in consultation with other state agencies, shall develop and implement a plan to educate and promote stewardship of water resources that recognizes water's critical role in supporting the quality of life and economic prosperity of all Coloradans.

Our proposed Water-Energy Nexus workshops will directly or indirectly address each of the above SWSI 2010 recommendations and provide a creative and potentially significant opportunity for water and energy savings by addressing the nexus, a subject that is not covered in depth by SWSI 2010.

Through its short history, Recharge has also heard a loud call for discussion on the water-energy nexus at the local level. Recharge recently held an Executive Council (EC) meeting with representatives from 33 entities from all over Colorado representing Colorado electric and water utilities, government, energy and water efficiency experts, and energy and water conservation related nonprofits, accountants, law firms, architects, industry associations, and other private industry. During its meeting in late February 2012, EC members identified and prioritized areas Recharge should focus its activities. In both the meeting discussion and a follow up survey, the EC identified the water-energy nexus in Colorado as a high priority area for Recharge and to be of significant value.

Finally, Colorado is currently facing a drought year. Ninety-eight percent of Colorado is facing drought conditions. One of the basins included in this project, the Arkansas Basin, is reporting the most extreme drought conditions in Colorado. The annual water resource levels are being compared to the 2002 drought¹. While Colorado has a supply to handle the drought as opposed to 2002, it could not withstand another year if this drought were to continue into 2013 and drought conditions will increase public awareness of and appetite for water conservation.

The Recharge team is proposing a project that will be relevant not only to the region that hosts the workshop, but to the entire state of Colorado. We anticipate that with the completion of the proposed workshops and the resulting feedback we will have a program that we can successfully reproduce in other water basins around the state of Colorado.

Noteworthy is that the proposed project was developed in close coordination and input from project stakeholders many of whom are members of the Recharge EC that will be providing support (e.g., cash, in-kind services, other support) during the execution of this project. Our project stakeholders include:

Formal Written Commitment (see letters in Appendix E)	Verbal Commitment (letters will be forwarded upon receipt)
<ul style="list-style-type: none"> • Colorado Springs Utilities • City of Fountain • Aurora Water • City of Boulder 	<ul style="list-style-type: none"> • National Renewable Energy Laboratory • City of Aspen • City of Glenwood Springs • Arkansas Roundtable

¹ Colorado Drought: CSU Climatologists Say 98 Percent Of Colorado Facing Drought Conditions. The Huffington Post. April 4, 2012.

Formal Written Commitment (see letters in Appendix E)	Verbal Commitment (letters will be forwarded upon receipt)
<ul style="list-style-type: none"> • Southeast Colorado Water Conservation District • Northern Colorado Water Conservancy District • Colorado River Water Conservation District • Colorado WaterWise • Western Resource Advocates 	

The breadth and quality of the support that is represented by this stakeholder list is a strong indication of the need for this project and the need for this project to be funded by Board under the Water Efficiency Grant program.

Our proposal includes:

Project Summary
 Project Background
 Program Approach and Scope of Work
 Metrics to Evaluate Project Success
 Role of the Office
 Appendix A – Project Team Members and Roles
 Appendix B – Detailed Scope of Work
 Appendix C – Detailed Project Budget
 Appendix D – Estimated Project Timeline
 Appendix E – Letters of Commitment
 Appendix F – Recharge Colorado Articles of Incorporation

Application of financial assistance from the Colorado Water Conservation Board (Board) Water Efficiency Grant Program includes several application requirements. The following table summarizes the requirements for this application, summarizes how this application meets those requirements, and directs the reader to sections of the application that address the requirement in additional detail.

Requirement	Application Location
Include the name and contact information for the entity seeking the grant.	Cover page
List of organizations that will assist in performing the project and a written statement of their role and contribution.	Appendix A – Project Team Members and Roles Appendix E – Letters of Commitment
Groups, individuals, organizations and/or institutions that will be included within the education and outreach efforts	Project Background, Page 7 Project Approach and Scope of Work, Page 9 Appendix E – Letters of Commitment
Identify the specific goals of the project. Make note of how the goals of the project tie to the mission and objectives of the Board and its programs as appropriate.	Project Background, Page 7

Requirement	Application Location
Identify in detail the specific activities and tasks to be funded with the Water Efficiency Grant Program monies	Project Approach and Scope of Work, Page 9 Appendix B – Detailed Scope of Work Appendix C – Detailed Project Budget
Description of the project's scope of work	Project Approach and Scope of Work, Page 9 Appendix B – Detailed Scope of Work, Appendix D – Estimated Project Timeline
Detailed project budget, broken down by task	Appendix C – Detailed Project Budget
The signature of an individual with the authority to commit resources of the entity seeking the Grant program monies.	Cover letter
Demonstrate that the applicant is in fact a public or private entity whose primary purpose includes water resource conservation based on its charter and/or defined operating principals.	Appendix F – Recharge Colorado Articles of Incorporation

We thank the Board and the Office for considering this proposal and we appreciate the time and energy that staff and the Board members spend in reviewing and evaluating our application.

Project Summary

Water conservation and energy efficiency are concepts that nearly every resident of Colorado understands in some manner. However, quantified knowledge and understanding of energy savings associated with water conservation and water savings associated with energy efficiency is severely lacking and they are almost completely focused on their individualized silos. Some work has been done in this area outside of Colorado. For example, a March 2011 report summarizes a series of projects in which Southern California Edison, Pacific Gas and Electric, and San Diego Gas and Electric engaged in programs focused on water efficiency to investigate and realize the energy efficiency benefits of such programs to the electric and gas utilities². On March 14, 2012, Environmental Research Letters published an article about calculating the energy required for irrigation water pumping.³ Similarly, opportunities exist for water utilities to realize energy savings opportunities.

Recharge and GWI, working with other non-profit and public organizations statewide, look to partner with the Colorado Water Conservation Board (Board) and the Office of Water Conservation and Drought Planning (Office) to help facilitate the dialog with stakeholders and address combined water and energy savings opportunities concurrently and on a regional basis in Colorado.

Our proposal seeks funding to plan, organize, implement, and gather exit survey data from three workshops in the Arkansas and Colorado Basins and the Denver Metro area covering both front range and the western slope and addressing both urban and rural settings. These 2 basins and the Denver Metro represent 65 percent of the states 337 water utilities, 71 percent of the 2008 water demand, and 73 percent of the 2050 medium projected demand as forecasted in SWSI 2010. Through this educational and outreach effort, coordinated closely with the Board and Office, we hope to initiate a statewide conversation with the goal of

² Embedded Energy in Water Pilot Programs Evaluation - Final Report. March 2011.

³ China's Water Energy Nexus: greenhouse gas emissions from groundwater use for agriculture. Environmental Research Letters. IOP Publishing. March 2012.

increasing collaboration between water and energy communities in planning and implementing programs through education, awareness, and discussion. The discussions and interactions will be both broad, covering the subject of the water-energy nexus in general and focused to regionally specific issues. This will provide the Board and Office with regional and statewide insights on new opportunities for water savings (and energy savings) that could help address the M&I projected gap.

These workshops will focus on bringing together practitioners such as water providers, energy utilities, Interbasin Compact Committee (IBCC), Statewide Water Supply Initiative (SWSI) technical committee, Roundtables, and appointed and elected officials and present materials and focus meaningful discussions. Additionally, the information learned from the working sessions and the exit surveys will potentially support future state policies and legislation and could help to identify new water savings opportunities to help address the M&I projected gap identified in SWSI 2010. **We anticipate this project will be the first phase and a template for a statewide project as the workshops in the three proposed regions prove successful.** The Recharge team envisions providing similar workshops in each of the Board water regions in Colorado, improving on the workshops based on feedback from workshop participants, and tailoring each workshop to the specific region with local water and energy conservation expert speakers and stakeholders. The Recharge team already has strong relationships with water conservation and energy efficiency experts and stakeholders in nearly every Board water region in Colorado and intends to lever these relationships to provide workshops that would be of the greatest value to regional attendees. The Recharge team envisions conducting the workshops included in this grant application by September of 2012.

Project Background

Water and energy efficiency, economic development, and innovation are inextricably linked and the purpose of this project is to discuss the water-energy nexus, gain a deeper understanding of the connections and opportunities, for local and statewide collaboration and implementation in the Arkansas and Colorado Basins of Colorado as well as the Denver metro area. As regional economic activity increases, new demand is placed on finite water and costly energy development. Every drop of water used requires energy for collection, transport, processing, and/or treatment. Every Btu (British thermal unit) of energy consumed requires water for resource collection and delivery, material production, and/or power plant operation. A 2009 report to the Board⁴ estimates the pumping, treatment, delivery, and wastewater processing for potable water in Colorado can consume 800 to 4,000+ kWh (kilowatt hours) of electricity per acre-foot (kWh/AF). Moreover, the heating of water to a typical shower temperature can consume 42,000 kWh/AF for electric heating, or 1,400 therms/AF for natural gas heating.

Alternatively, according to a National Renewable Energy Laboratory report on water consumption for U.S. power generation, for every kWh of electricity used in a residential, commercial, or industrial facility in the western U.S., approximately 4 gallons of water are consumed. **Energy efficiency programs yield water savings and water efficiency programs yield energy savings creating economic benefit for both efforts.** Effective energy and water efficiency programs decrease utility bills for consumers who participate. These savings are available to purchase goods, services, hire employees, make investments, and create wealth that is required to further drive the regional economic engine. Further, effective programs keep rates more stable for everyone over time as efficiency required as a resource is typically less costly than new generation or resource acquisition. Finally, programs that focus on pumping, treatment, distribution, and wastewater treatment can lead important cost savings for water utilities.

⁴ Water Conservation = Energy Conservation – A Report for the CWCBC. Western Resource Advocates. June 30, 2009.

Water and energy efficiency make good investments; savings of more than 50 percent compared with the acquisition costs of new resources are projected in most analyses. McKinsey and Company, the Electric Power Research Institute (EPRI), and the Rocky Mountain Institute (RMI) have all projected more than \$200 million in energy savings if efficiency programs are implemented. The McKinsey study, *Energy-Efficiency Opportunity*, published in 2008 suggested that energy efficiency represented a vast, low cost energy resource for the U.S. economy but, only if the nation can craft a comprehensive and innovative approach to unlock it. If executed at scale they project gross energy savings worth more than \$1.2 trillion in return for an investment of \$520 billion. Such programs would reduce end-use energy consumption by roughly 23 percent. The western region of the U.S. represented 18 percent of the total potential.

There is tremendous potential in Colorado to improve the effectiveness of energy and water efficiency programs and to reap the resulting economic benefits. A 2011 Brookings Institute report, *Sizing the Clean Economy*, estimates Colorado has more than 14,000 workers in energy and resource efficiency jobs. Between 2003 and 2010, Colorado jobs in energy and resource efficiency grew at the third fastest rate in the country at an annual growth rate of 7 percent per year. However, that growth rate has slowed in recent years. From 2003 to 2007 the annual growth rate approached 8 percent per year, but has slowed to less than 6 percent per year from 2007 to 2010 (ranked 12th nationally).

Even if Colorado were to successfully implement all currently identified water supply projects, conservation plans, and other planning processes, the state still faces a gap in water supply in 2050 to meet M&I water demand of 190,000 to 630,000 acre-feet per year. By 2050, Colorado's M&I gap could be between 32 and 66 percent of new M&I demands.⁵

With the call and the need clearly identified at the national, state, and local levels, **this project's key goals** are to provide water providers, energy utilities, IBCC, SWSI technical committee, Roundtables, and appointed and elected officials with:

- Overview of the water-energy nexus
- Examples of successful (resulting in quantifiable water and energy savings and associated cost savings at the utility level) water-energy projects and opportunities for Colorado implementation
- Benefits of engaging in joint water-energy efficiency programs
- Incentives and barriers to implementation
- Provide a water-energy nexus education and awareness opportunity for energy and water utilities, government, and NGOs.
- Working sessions with the workshop attendees to discuss ideas and solutions at the Arkansas and Colorado Basins and Denver Metro area, and statewide level related water-energy nexus solutions.

To assist these efforts, implementation of the proposed project will include the collection of specific, and where possible, detailed information regarding how Colorado's water and electric utilities and industry are positioned with respect to:

- Current understanding of the water-energy nexus
- Cross-resource collaboration educational, technical, and financial barriers

⁵ Statewide Water Supply Initiative 2010. Colorado Water Conservation Board. January 2011.

- Gathering and quantifying region-specific “embedded savings,” that is, energy savings in water cycle and water savings in energy cycle for utilities and consumers.

The Recharge team is uniquely and well positioned to organize and offer these workshops. Recharge is well established as an energy efficiency asset for Coloradans and has many contacts and relationships throughout the state. Recharge has added water efficiency to its purview, and has several Board and Executive Council members representing the water community, and has developed several key water relationships in Colorado. Now teaming, with the GWI and their long standing history in Colorado related to water law, policy, and water conservation planning and implementation, we believe the combined team will deliver an exciting set of workshops and compelling information. The combined team of respected, independent organizations focused on both water and energy efficiency and conservation with significant team members and relationships, bring a powerful offering to Board for all of Coloradans to benefit.

Our work includes several important related objectives. First, none of the Board’s current outreach areas (SWSI, Roundtables, IBCC, and Office of Water Conservation) include a focus on the water-energy nexus. Through this project, our team aims to add to the Board’s ability to explore potentially significant water conservation and cost saving opportunities throughout Colorado. Secondly, outcomes of the meetings will provide the Board and Office with essential data on the technical needs of water utilities, municipalities, special districts, and other water providers for future conservation planning and implementation efforts. These workshops will focus on practitioners such as water providers, IBCC, SWSI technical committee, Roundtables, and appointed and elected officials. The educational portion of the workshops and focused discussions will occur at a professional level, leading to significant and meaningful outcomes. Finally, the information learned from the working sessions in the workshop and the exit surveys might support future state policies and legislation. Further, the Recharge team envisions that outcomes of these workshops could identify water savings opportunities to help address the SWSI 2010 M&I projected gap.

Project Approach and Scope of Work

To achieve our goals and objectives, we will work with stakeholders through a four task approach, explained briefly below and in greater detail in the following sections.

- 1) **Engage the target audience** – including organizations and entities interested in water conservation and energy efficiency, with particular focus on water providers, energy utilities, IBCC, SWSI technical committee, Roundtables, and appointed and elected officials. In addition, some target audience outreach could include industries that have a high level of both energy and water use.
- 2) **Plan and promote workshops** – working with our current project team and stakeholder group (e.g. Colorado Springs Utilities, Aurora Water, Cities of Boulder, Fountain, Aspen, and Glenwood Springs, the National Renewable Energy Laboratory) and other important project partners (e.g. conservation and conservancy districts, Roundtables, and Colorado WaterWise), we will define our messaging, develop the final program for the workshops to include local and regional speakers, and forward information to those that have been identified as likely attendees using e-mail distribution and various information web sites (e.g. Recharge Colorado, the Board, Colorado Foundation for Water Education, Colorado Water Wise, Rocky Mountain Chapter of the American Water Works Association, American Council for and Energy-Efficient Economy Colorado page, etc.)
- 3) **Conduct workshops** – including researching and presentation of materials and messages that have been developed, sharing of technical resources, and sharing of lessons learned about local and regional water-

energy nexus conservation successes and continuing challenges. In addition, the Recharge team will compile and organize, contact and exit survey data so that information collected through attendance lists, emails, and exit surveys will be organized and summarized to help the Board and other stakeholders who can contribute educational, technical, and/or financial assistance, and target organizations and entities that are looking for aid in developing and implementing water-energy nexus focused measures and programs.

- 4) **Prepare and deliver project reports** – in accordance with 1254 Water Efficiency Grant guidelines. The Recharge team will provide 50 and 75 percent complete progress reports and a final project report.

A detailed discussion of each of these three steps is provided below and summarized in Appendix B.

Task 1: Engage the Target Audience

Engagement of the target audience will involve a three step process before the actual advertising and promotion of the workshop begins.

The first step includes developing a list of potential audience members that we will invite to participate in the workshop (noting that attendance is open, but we want to engage key members of the water and energy communities that either have needs or have important stories to share or both). The invitation list for the workshops will include water and energy conservation professionals who are directly responsible for water and energy conservation programs, particularly those from water providers, energy utilities, IBCC, SWSI technical committee, Roundtables, and appointed and elected officials. Others may also be invited including those with local and regional energy or water interests, however, the focus of the workshops will be on those with direct planning responsibilities.

To develop the participant lists, the Recharge team will work closely with the Board and other stakeholders to develop appropriate participants and the mechanisms in which to contact the appropriate invitees.

In the second step of engaging the target audience, we will develop the key message that will be broadcast to the identified participants and others. The message will be developed and refined using the combined resources of the Recharge team and will be used to frame the workshops and promote attendance.

Critical to the messaging will be the manner in which sponsorship is presented. We fully expect to include the names of all those organizations that will be providing support to this project in the advertising content. We will also be certain to highlight the “local hosts” for each specific meeting venue. Finally, we will highlight the Board as the primary sponsor of all events. In this way, we can demonstrate the broad local and statewide support for the workshops to help establish the credibility and importance of the project.

The third step includes scheduling the event and engaging the speakers for the workshops. Working with the project stakeholders, including the Board, we will identify the dates and meeting location, being especially sensitive to potential conflicts or synergies with other activities.

In addition, we will work with the local hosts, as well as the Office and other project stakeholders to select and engage the workshop’s speakers. We strongly believe the workshop attendees will benefit from having a mixture of speakers with statewide, regional, and local perspective presenting at the workshop. In this way, the local speakers can share local stories and lessons learned, whereas selected speakers will talk at every workshop (if the initial workshop proves successful and future workshops are funded) to help maintain consistency of the message and discussion content.

With respect to the meeting location for the workshops, we have already conducted outreach to identify potential meeting hosts and venues, which was performed in part to allow us to prepare a detailed project budget. The final list of potential venues will be developed with the Office once the grant is awarded. To this point of identifying potential venues, several partner groups already have agreed to donate space and/or staff time. Once the list of potential attendees has been created, we will finalize a venue for the workshops. The following table includes a list of potential locations for the workshops and identifies the host that has volunteered to support the project.

Summary of Preliminary Venues for Workshops

River Basin	City	Host
Arkansas	Colorado Springs	Colorado Springs Utilities Conservation and Environment Center
Colorado	Glenwood Springs	To be determined
Denver Metro Area	Aurora	City of Aurora Council Chambers

Task 2: Plan and Promote Workshops

This task will be used to develop the program for an 8-hour workshop and promote it in advance of the event. We will develop the workshop programs working with our project team and the local project sponsor.

We will initiate the promotion of workshops with a “Save the Date” email “blast” to the local sponsor, our current email list, and other potential groups that may have email distributions with potentially interested participants, for example, the Board, Roundtables, Colorado Foundation for Water Education, Colorado Water Wise, Rocky Mountain Chapter of the American Water Works Association, and other potential groups to be identified through the course of project implementation.

Once the program for the workshop has been firmly established, we will promote them using e-mail blasts and other appropriate advertising likely to include brief announcements at the Basin Roundtable and SWSI meetings, advertising in the Colorado Water Wise Council quarterly newsletter. In addition, , the project stakeholders (for example, Recharge and the Board) and other groups (for example, Colorado Foundation for Water Education, Colorado Water Wise, Rocky Mountain Chapter of the American Water Works Association, American Council for and Energy-Efficient Economy Colorado page) will be asked to place announcements on their websites.

We will develop a printable Water-Energy Nexus Workshop Program that can be distributed at meetings by the project stakeholders, members of the Board, Roundtables, etc. The website postings will include the programs, and links to workshop content such as agendas and lists of speakers.

The Recharge team will develop an electronic invitation to the meeting using the free service, Eventbrite announcing the event, providing overview information, and linking to websites with additional information. We will use Eventbrite to collect the RSVPs to the workshops. The Recharge team will respond to attendee questions regarding details of the event such as directions, parking, hotel accommodations, and other necessary details.

The workshops will be free of charge to anyone who wants to attend because the issues and content to be discussed are considered vital to a healthy water resources planning and management dialogue in our State.

Finally, we will develop an exit survey of the workshop attendees to collect updated contact information, ranking and comments regarding the value attendees perceive from the workshop, interest in integrated water and energy conservation planning and implementation, and needs for technical and financial assistance.

Task 3: Conduct Workshops

The Recharge team proposes to hold workshops in the Arkansas and Colorado Basins and the Denver Metro area covering both Front Range and the western slope and addressing both urban and rural settings. These basins represent 65 percent of the states 337 water utilities, 71 percent of the 2008 water demand, and 73 percent of the 2050 medium projected demand as forecasted in SWSI 2010.

The purpose of the 8-hour workshop will be two fold, (1) to educate the attendees regarding the water-energy nexus with the most current and relevant national, statewide, and local information and (2) engage the attendees in a discussion of specific water-energy nexus solutions at the water basin and statewide level via work groups, specifically focusing on opportunities that will result in meaningful resource and dollar savings to resource providers.

The education portion of the workshop will be used to communicate the issues related to the water-energy nexus. Some of the presenters will participate at every workshop to ensure consistent delivery of water-energy nexus information to all workshop attendees in the various regions. Each workshop will also feature region specific knowledge as presented by experts who live and work in the river basin and have knowledge in areas that are region specific as well as a large picture understanding of the issues being presented and discussed. The following table summarizes some of the speakers that have committed to presenting at the workshops. Upon project reward, Recharge will expand upon and finalize the speaker list in each region as appropriate, working with local IBCC, Roundtable, Conservation Districts, and other contacts to determine the final speaker list in each region.

Name	Affiliation	General Topic
All Region Speakers		
Robin Newmark	National Renewable Energy Laboratory	Water-Energy Nexus
Tracy Bouvette	Great Western Institute	Water-Energy Nexus from Water Perspective – Colorado Focus
Will Sarni	Deloitte	Water-Energy Nexus from Water Perspective – National Focus
Arkansas Basin Speakers		
Ann Seymour	Colorado Springs Utilities	Arkansas Basin Specific Water Conservation
Colorado Basin Speakers		
Jeff Rice	Aspen Utilities	Colorado Basin Specific Water Conservation
Denver Metro Area Speakers		
Lyle Whitney	Aurora Water and Colorado WaterWise	Denver Metro Specific Water Conservation
Russ Sands	City of Boulder	Denver Metro Specific Water-Energy Nexus

The speakers will discuss topics that will include the following content:

- Overview of the water-energy nexus
- Examples of successful water-energy nexus projects and opportunities for Colorado implementation
- Benefits
- Incentives and barriers to implementation

Following the formal presentation/education portion of the workshop, the Recharge team will facilitate working group breakout sessions to discuss water-energy nexus issues and solutions including:

- Long-term or integrated resource planning that effectively addresses water-energy interactions at a state, watershed, or regional level
- Consistent and detailed data and models that can be used to address current and emerging problems at the water-energy nexus
- Opportunities to increase cooperation among energy and water agencies, utilities, government, NGOs, and communities to share best practices and recognize the nexus and the first step to work together
- Opportunities to integrate water and wastewater into existing energy efficiency program and integrate energy into existing water and wastewater efficiency programs
- Increase public education on the water-energy nexus
- How to incent residential and business efficiency programs to gain additional savings related to embedded water and energy and develop methodologies that fairly attribute the savings and costs of both water and energy programs
- Integrating energy and water audit practices and provide integrated retrofitting recommendations, rebate programs, and outreach and education efforts
- Creating partnerships between energy and water utilities, industry organization, and nonprofit organizations for joint public meetings and education programs
- Identifying water-energy nexus tools and technologies that exist and can be readily employed for both the supply and demand sides.
- Focus on region specific issues, for energy exploration in the Colorado Basin.

Another part of this task is **sharing relevant information from the workshop** through the creation of a summary packet with agenda, speaker biographies, contact information, presentations, and a summary of the workshop outcomes to be made available via the Internet (and in hard copy, if so requested). This will benefit those who were unable to attend the event.

Information on the individuals and organizations attending each workshop will be retained and provided to the Board and other interested organizations. As part of this effort, we will prepare and administer an exit survey of the workshop attendees to collect updated contact information, ranking and comments regarding of the value attendees perceive from the workshop, interest in integrated water and energy conservation planning and implementation, and needs for technical and financial assistance. We will also provide the Office with the original exit survey forms which have been filled out at the workshops for future reference and use.

Task 4: Prepare and Deliver Project Reports

In accordance with the 1254 Water Efficiency Grant guidelines, the Recharge team will provide the following:

- Written progress reports at 50 and 75 percent of project completion
- A final project report, including exit survey results

The progress reports will provide the Office information regarding the status of the workshop planning and progress made toward project goals. The final report will provide a summary of the project and:

- Lists of workshop invitees and participants, including contact information
- Content provided at workshops, including agendas, and PowerPoint presentations
- Exit survey raw data, and summary data conducted as part of Task 3
- Recommendations for follow-up activities for project stakeholders

In addition, we will coordinate closely with the Office to make the project's efforts helpful to other Board activities. We will have monthly meetings with the Office to coordinate message development, participant lists, scheduling, speaker lists and promotional activities, and, meeting logistics. The communications between our project team and in some cases the project stakeholders and the Office are vital to the overall success of this project.

A summary of the Scope-of-Work is provided in Appendix A.

Metrics to Evaluate Project Success

Though applying metrics to measure the impact and success of this type of outreach and education project on the target audience is difficult, we believe metrics based on the number of attendees, and the number of exit surveys that are retained, and the results of the responses to the survey will provide a useful proxy.

We will send out invitations to water providers, energy utilities, IBCC, SWSI technical committee, Roundtables, and appointed and elected officials, government entities and NGOs within the targeted area. From that outreach, we expect to have between 50 and 80 attendees at each workshop. The attendees to these meetings are expected to control and/or manage a significant portion of the municipal water and energy supply in the region, with the other attendees either controlling or managing other water interests (e.g., agricultural, recreational, environmental, etc.) and energy interests. We are expecting to retain exit surveys from more than 80 percent of the attendees.

The long lasting impacts and benefits of these workshops will be realized, in a qualitative way, through enhanced and improved conversations at the SWSI and HB 05-1177 Roundtables, as well as in coffee shops, Board rooms, and in water and energy planning efforts across the State – influenced by the combined efforts of the project team, involved stakeholders, and the Office.

The Role of the Office

The Office will play a vital role in executing this project. Specifically, the Office will bring important policy and project logistics resources, which are described in more detail below.

Policy

The Office brings to the project the State entity responsible, by statute, for:

- Disseminating water conservation, drought mitigation planning, and related information to water and energy providers and the general public; and
- Providing technical assistance to and working with municipal, industrial, agricultural, and other water providers and state agencies as they plan for, evaluate, and implement water conservation plans and programs, drought mitigation plans, or both.

As part of the proposed project team, the Office will provide significant guidance and input into the identification of the target audience, the development of the workshop messaging, and the engagement of workshop speakers.

Project Logistics

The Office also brings important logistics support to the project team. The Office staff will be used to provide one source of target audience mailing list and maintain the target audience emailing lists after completion of the project using MS Excel and support coordination of the workshops.

Project Staff Qualifications

As explained in Appendix A, the staff working on this effort has significant experience on energy efficiency and water conservation in Colorado and throughout the region. Our past research and analysis provides both excellent contacts within the water and energy communities as well as essential knowledge of terminology, issues, and needs. We are well-positioned to make this outreach and education event a great success.

Project Budget

The project budget is presented in Appendix C. The budget presents the labor costs and expenses for both the Board grant request and for the matching costs including donations of cash and in-kind services. The total project costs including the Board grant and match is \$53,275, with the Board grant request of \$34,925 and the match of \$18,350 (or 34%). Monies will be expended during the project period from June to October 2012. A detailed project budget is included in Appendix C. A few important project budget notes follow:

- The only match contributions included in the project budget are those for which Recharge received letters with specific costs detailed in the letters. Additional in-kind contributions are mentioned in many other letters, without specifying a value of the services. For example, the letter from the Southeast Colorado Water Conservancy District states that, "The District is committed to providing in-kind contribution in the form of labor to plan, promote, and attend the workshop. We can also provide donated meeting space if needed." Another example of donated time that is not included in the current budget is the donation of time to plan for, attend and speak at all workshops by experts for the National Renewable Energy Lab and Deloitte. Neither of these contributions are documented in writing, but both have committed and scheduled for these events pending grant award. These and

other offers for support have not been included in our cost estimate, but are additional in-kind donations that speak to the perceived value of the workshops by stakeholders statewide.

- As we proceed with project planning, we anticipate additional in-kind donations from local speakers and various stakeholders in assisting with promoting the events within their regions.

Project Schedule

The proposed project schedule is provided in Appendix D.

Appendix A

Project Team Members and Roles

The following table summarizes each of the organizations proposed for this project, the role of the organization, specific team member names from each organization, and the role of each team member.

Organization	Organization Role	Team Member	Team Member Role
Recharge	<ul style="list-style-type: none"> Target audience engagement Workshop planning and promoting Project management 	Jeffrey Nathanson - in kind match	<ul style="list-style-type: none"> Project oversight Workshop moderator Input on target audience engagement Input on planning and promoting workshop Project reporting review
		Caitlin Rood – grant funded	<ul style="list-style-type: none"> Target audience engagement lead Workshop planning and promoting lead Workshop logistics Prepare project reports Project management, budget tracking and invoicing
GWI	<ul style="list-style-type: none"> Water efficiency expertise Colorado water policy and guidance Research collaborator on water-energy nexus in Colorado's water use 	Tracy Bouvette - grant funded	<ul style="list-style-type: none"> Input on target audience engagement Input on planning and promoting workshop Presenter Project reporting review

Descriptions of each organization proposed for this project are provided below.

Recharge

Recharge is an independent Colorado-based nonprofit (501(c)(3) application pending) organization to serve as a self-sustaining resource efficiency asset for regional and national stakeholders. Recharge promotes the advancement of a robust, effective marketplace for energy efficiency, water efficiency, and renewable energy projects in Colorado to the benefit of both consumers and businesses through initial services to include:

- (1) A customer platform to find resource efficiency and renewable energy incentives, contractors and information with enhanced custom branding and website integration capabilities for partners,
- (2) Streamlined rebate administration with greater ability to adapt to partner needs, and
- (3) Data analysis for designing, targeting, and evaluating resource efficiency programs and policies.

Recharge's development was guided by a multi-stakeholder advisory committee comprised of representatives from the Governor's Energy Office (GEO), the Public Utilities Commission (PUC), municipal utilities, nonprofits, energy service companies, consumer advocates, and the Treasurer's office. The Board of Directors includes representatives from Board, utilities (municipal, rural electric, wholesale, and/or regulated), the PUC, contractors, financial institutions, consumers and the community, the GEO, and other resource efficiency stakeholders. The Board oversees Recharge as it provides services to consumers, businesses, utilities, government entities, and financiers in return for fees to generate revenue. Recharge also has a 33-member Executive Council representing Colorado electric and water utilities, government, energy and water efficiency experts, and other energy and water conservation nonprofit and private industry.

Great Western Institute

Great Western Institute (GWI) is a Colorado-based 501(c)(3) whose mission is to promote water resource conservation through education, policy, and research.

Water resources conservation includes any and all of those activities, measures, and programs that involve:

- Water use efficiency
- Wise water use
- Water Infrastructure management
- Water reuse

GWI works to leverage our resources and the resources of our partner organizations to help Colorado and other western states efficiently and effectively manage its water resources in an enduring and sustainable manner.

GWI is focused on influencing the development of appropriate public policy through a combination of education and legislative dialogue based on sound science, public need, and informed legislation. This occurs through its programs which include:

- Conducting and facilitating workshops and water policy discussions with various broad-based partners across the state to identify concerns and shared interests and collect information regarding water user and public need.
- Training consultants and water providers how to prepare and implement more meaningful water conservation plans – which means plans that have verifiable and measurable results and are based on the costs and related benefits of implementable measures and programs.
- Supporting water education training for K-12 educators, including the development of curriculum and technology tools that can be used by educators to expand classroom content and student engagement.
- Engaging in important water policy discussions with local, regional and state-based partners to support and improve water resources planning and management efforts.
- Supporting local water conservation planning and implementation efforts, assisting local communities in the pursuit of grants, and in the development of meaningful, verifiable water conservation programs.

Biographies for each of the team members are provided below in the order in which they are presented in the table at the beginning of this appendix.

Jeffrey Nathanson is the Chief Executive Officer of Recharge and is a long time participant and leader in the Colorado CleanTech Industry.

He currently is the Vice Chairman of the State of Colorado's Clean Energy Development Authority. He is a member of the Colorado Cleantech Industry Association and served on the advisory board for the Colorado Cleantech Action Plan. He is also a long-time board member of CORE, the sustainable business trade association focused on energy use, water use and waste minimization.

Mr. Nathanson holds a B.A. degree in Environmental Studies from the University of California, Santa Barbara, and an M.S. degree in Environmental Management and Communications, from the University of Michigan.

Caitlin Rood has more than 15 years as a sustainability engineer. Since December of 2011, Ms. Rood has focused most of her efforts on a project to re-launched Recharge outside of the Colorado Governor's Energy Office as an independent, nonprofit organization to serve as a perpetual, self-sustaining resource efficiency asset for regional and national stakeholders to leverage in advancing the resource efficiency marketplace (energy and water). Ms. Rood's role on the project includes extensive stakeholder outreach and documentation, establishing Recharge as a tax exempt, nonprofit organization, assistance in conducting the proof of value pilot projects, communication and organization with the Recharge advisory committee, interim board of directors, and GEO senior leadership, and administrative project management.

Ms. Rood holds a B.S. degree in Civil Engineering from Marquette University and a M.S. degree in Environmental Engineering from the University of Wyoming.

Tracy Bouvette is the executive director of the Great Western Institute. He has a long history of water resources planning and management in Colorado and other western states. He has contributed substantially to the development of the policies and guidelines that shape the Board Office of Water Conservation and Drought Planning programs. He was one of the primary authors of the Office Water Conservation Plan Development Guidance Document. He was also directly responsible for planning

and implementing the Office's Drought & Water Supply Assessment project and he co-authored HB 04-1365, which redefined the Office's mission and revised the statutory requirements for water conservation planning by eligible water users.

Mr. Bouvette holds a B.S. degree in Civil Engineering, an M.S. degree in Environmental Science and Engineering from Rice University in Houston, and an MBA from the University of Denver.

Appendix B
Detailed Scope of Work

Task	Recharge Team Responsibilities	CWCB Responsibilities	Project Costs (CWCB, Match, and Total)
Task 1 – Engage the Target Audience	<p>Working with the Office and other project stakeholders, the Recharge team will:</p> <ul style="list-style-type: none"> • Provide meeting room facilities for planning and project meetings. • Develop the list of potential participants including their contact information (name, organization, mailing address, phone number, and email address). • Develop the project messaging that will be used to promote the workshops and engage the target audience. • Select and engage the venues and speakers for the workshops and identify presentation topics. 	<ul style="list-style-type: none"> • Provide alternate meeting room facilities for planning and project meetings. • Support in the development of the list of potential audience members, the project messaging, and selecting the venues and speakers for the workshops and identifying presentation topics. • Maintain the participant contact database once the Recharge team has developed all elements of the database. • Perform hard copy entry of contact information as needed. 	<p>CWCB Costs: \$2,705 Match (31%): \$1,210 Total Task 1 Cost: \$3,915</p>
Task 2 – Plan and Promote Workshops	<p>Working with the Office and other project stakeholders, the Recharge team will:</p> <ul style="list-style-type: none"> • Develop content and format of invitations and brochures for the target audience. • Create the e-content for web site postings by selected entities • Contact selected entities and facilitate their posting of information and announcements for the workshops and forums. 	<ul style="list-style-type: none"> • Support the development of the content and format of the brochure and invitations. • Support the development of e-content for web posting. • Post announcements and brochure on the CWCB web site. 	<p>CWCB Costs: \$15,160 Match (39%): \$8,070 Total Task 2 Cost: \$23,230</p>

Task	Recharge Team Responsibilities	CWCB Responsibilities	Project Costs (CWCB, Match, and Total)
Task 3 – Conduct Workshops	<p>Working with the Office and other project stakeholders, the Recharge team will:</p> <ul style="list-style-type: none"> • Prepare for, attend, and lead the workshops. • Prepare workshop materials that will contain: <ul style="list-style-type: none"> - Agenda - Attendee list - PowerPoint presentations - Speaker biographies and contact information • Prepare and produce a record of the workshops including attendee lists with contact information, all speaker presentations, as available, and a summary of the findings from the working sessions. • Prepare, and administer exit survey. • Prepare exit survey summary. 	<ul style="list-style-type: none"> • Support the development of the workshop agendas. • Attend all workshops. • Assist in the development of the exit survey. 	<p>CWCB Costs: \$9,800 Match (39%): \$6,370 Total Task 3 Cost: \$16,170</p>
Task 4 – Prepare and Deliver Project Reports	<p>The Recharge team will prepare:</p> <ul style="list-style-type: none"> • Progress reports at 50 and 75 percent completion • Final report summarizing the project, including summarizing the exit survey results. 		<p>CWCB Costs: \$7,260 Match (27%): \$2,700 Total Task 4 Cost: \$9,960</p>
TOTAL* *See Appendix C for Detailed Project Budget			<p>CWCB Costs: \$34,925 Match (34%): \$18,350 Total Project Cost: \$53,275</p>

Payment Terms

Recharge will invoice Board for incurred project costs by task on a percent complete basis monthly. All invoices will provide detail regarding the tasks and activities performed, labor hours spent, and matching funds contributed, including in-kind services.

Appendix C

Detailed Project Budget

	CWCB Grant Request									Match						
	Hours		Labor	Expenses					Total CWCB	Hours			Labor			
Tasks	Bouvette	Rood	Costs	Copies	Lodging	Travel	Food and Bev.	Misc.	Grant Request	In-Kind	Labor	Support	Costs	Room Rental	Total Match	Total Project
	120	85								CSU	WRA	Recharge				
	per hour	per hour								\$65	\$50	\$135				
Task 1 - Engage Target Audience										per hour	per hour	per hour				
Develop workshop participant list	4	8	\$ 1,160	\$ 25					\$ 1,185	0	0	4	\$ 540		\$ 540	\$ 1,725
Develop key message	4	4	\$ 820						\$ 820	2	0	4	\$ 670		\$ 670	\$ 1,490
Scheduleing event and engaging speakers		8	\$ 680					\$ 20	\$ 700	0	0		\$ -		\$ -	\$ 700
									\$ 2,705						\$ 1,210	\$ 3,915
Task 2 - Plan and Promote Workshop																
Save the date	1	2	\$ 290						\$ 290	0	0	1	\$ 135		\$ 135	\$ 425
Develop program	8	16	\$ 2,320	\$ 25					\$ 2,345	0	0	8	\$ 1,080		\$ 1,080	\$ 3,425
Plan and collaborate with speakers	16	16	\$ 3,280					\$ 20	\$ 3,300			16	\$ 2,160		\$ 2,160	\$ 5,460
Develop training material	16	16	\$ 3,280	\$ 25				\$ 20	\$ 3,325	4	24	16	\$ 3,620		\$ 3,620	\$ 6,945
Develop invitation	2	6	\$ 750						\$ 750	0	0	2	\$ 270	\$ -	\$ 270	\$ 1,020
Promote event and monitor responses		16	\$ 1,360						\$ 1,360	2	0		\$ 130	\$ -	\$ 130	\$ 1,490
Respond to attendee questions		8	\$ 680						\$ 680	0	0		\$ -	\$ -	\$ -	\$ 680
Handout preparation		8	\$ 680	\$ 500				\$ 20	\$ 1,200				\$ -		\$ -	\$ 1,200
Exit survey	3	6	\$ 870						\$ 870			3	\$ 405		\$ 405	\$ 1,275
Other meeting detail logistics	2	8	\$ 920	\$ 100				\$ 20	\$ 1,040			2	\$ 270		\$ 270	\$ 1,310
									\$ 15,160						\$ 8,070	\$ 23,230
Task 3 - Conduct Workshop																
Travel	6	6	\$ 1,230		\$ 450	\$200			\$ 1,880	0	0	6	\$ 810		\$ 810	\$ 2,690
Conduct Workshops	24	24	\$ 4,920				\$ 3,000		\$ 7,920	8	0	24	\$ 3,760	\$ 1,800	\$ 5,560	\$ 13,480
									\$ 9,800				\$ -		\$ 6,370	\$ 16,170
Task 4 - Prepare and Deliver Project Reports																
50 percent complete report	4	12	\$ 1,500	\$ 25					\$ 1,525	0	0	4	\$ 540		\$ 540	\$ 2,065
75 percent complete report	4	12	\$ 1,500	\$ 25					\$ 1,525	0	0	4	\$ 540		\$ 540	\$ 2,065
Final (including exit survey)	12	32	\$ 4,160	\$ 50					\$ 4,210			12	\$ 1,620		\$ 1,620	\$ 5,830
									\$ 7,260				\$ -		\$ 2,700	\$ 9,960
Labor Sub-Total Hours	106	208	\$30,400	\$ 775	\$ 450	\$200	\$ 3,000	\$100	\$ 34,925	16	24	106	\$ 16,550	\$ 1,800	\$ 18,350	\$ 53,275

Appendix D

Estimated Project Timeline

The proposed project schedule assumes a project start of July 1, 2012, continuing through to November 30, 2012. The workshops are tentatively scheduled to take place October 2012. The actual date of the workshops will not be confirmed until the appropriate amount of planning and coordination with the local sponsors, the Office and the project stakeholders occurs, however the dates provided below provide a reasonable prediction of when the activities may be performed. Also included in the schedule are those dates related to the project reporting requirements under the conditions of the grant award.

<u>Task</u>	<u>Estimated Date Completed</u>
Task 1 – Engage Target Audience	
Develop Workshop Participant List and Outreach Mechanisms	July 31, 2012
Develop Key Message	July 31, 2012
Select Dates, Venues, and Speakers	July 31, 2012
Task 2 – Plan and Promote Workshops	
Email Blast for Save the Date	July 15, 2012
Develop Workshop Program	August 20, 2012
Formal Invitation	August 1, 20012
Task 3 – Conduct Workshops	
Arkansas Basin	October 18, 2012
Colorado Basin	October 16, 2012
Denver Metro Area	October 17, 2012
Task 4 – Project Reporting	
50% Progress Report	August 31, 2012
75% Progress Report	September 30, 2012
Final Project Report	November 30, 2012

Appendix E
Letters of Commitment



May 17, 2012

Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

**Subject: Letter of Support Related to the Recharge Colorado CWCB HB05-1254 Grant Application
Providing Water-Energy Nexus Workshop**

To Whom It May Concern:

Recharge Colorado has an Executive Council currently with 33-members including stakeholders interested in both Water and Energy. Through these members we have received \$190,000 in donations. These donations are used as operating funds for Recharge Colorado. During our most recent Executive Council meeting February 28, promoting the Water/Energy Nexus was selected as one of the highest priorities for Recharge Colorado's future efforts.

This proposal is a direct result of that mandate. To further the effort, Recharge Colorado will donate my time, in support of this project for many tasks including:

- Overseeing all project operations
- Providing input on the development of and reviewing project related deliverables such as announcements, training materials, agenda, exit survey, and progress reporting
- Identifying and recruiting speakers
- Moderating all workshops

We estimate that the level of effort required for my time to complete these activities will be 106 hours at an unloaded billing rate of \$135 per hour for a total in-kind contribution \$14,310.

We regularly and continually hear a loud call for and significant interest in this water-energy nexus workshop series and are hopeful that you will be able to fund this important and valuable proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey Nathanson', is written over the printed name.

Jeffrey Nathanson
CEO
Recharge Colorado



May 8, 2012

Jeffrey Nathanson, Chief Executive Officer
Recharge Colorado
1801 California Street, Suite 4900
Denver, CO 80202

Subject: Letter of Support Related to the Recharge Colorado CWCB HB05-1254 Grant Application Providing Water-Energy Nexus Workshops to Colorado River Basins

Dear Mr. Nathanson:

Colorado Springs Utilities (CSU) is a community-owned four-service (electricity, natural gas, water, and wastewater) utility serving the Pikes Peak Region in the Arkansas River Basin. We have a strong history of commitment to the environment, displayed through a variety of programs and public reports. We are also a proud founding Board member of Recharge Colorado.

As a four-service utility, we are keenly interested in subject matter related to the water-energy nexus. CSU fully supports the Water-Energy Nexus Workshop series being proposed by Recharge Colorado and the Great Western Institute (GWI) to the Colorado Water Conservation Board (CWCB) using HB 05-1254 Grant Funds.

As a show of our support, if this project is funded, we plan to offer our Water Conservation Manager, Ann Seymour, as speaker, provide meeting space in our Environment and Conservation Center, and assist in advertising the event within our basin. The value of our support is summarized below:

- Time for Ann Seymour to prepare for, speak at, and participate in workshop: 16 hours x \$65/hour = \$1,040
- One-day room rental for Environmental and Conservation Center = \$800
- Staff time for event advertising = 4 hours x \$25/hour = \$100

CSU strongly encourages CWCB and the Office of Water Conservation and Drought Planning to consider the merits of the Recharge Colorado/GWI grant application and award the requested funds to this worthwhile and important program that will benefit water providers, basin roundtable members, water conservation experts, and water planning managers statewide.

Sincerely,

Wayne Vanderschuere
General Manager
Planning Engineering and Resource Management

121 South Tejon Street, Third Floor
P.O. Box 1103, Mail Code 930
Colorado Springs, CO 80947-0930

Phone 719.668.3811
Fax 719.668.3990
www.wvanderschuere@csu.org



WESTERN RESOURCE ADVOCATES

Protecting the West's land, air, and water

May 17, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
Suite 4900
Denver, CO 80202

Subject: Letter of Support to the Recharge Colorado HB-05-1254 Grant Application Providing Water-Energy Nexus Workshops

Dear Mr. Nathanson,

Western Resource Advocates (WRA) writes in strong support of Recharge Colorado's proposal to host a series of workshops on the energy-water nexus in Colorado. WRA is a non-profit conservation organization dedicated to protecting the Interior West's land, air, and water resources. For over five years, our energy-water nexus program has worked to promote energy-saving water conservation measures and strategies that reduce the water and carbon footprint of the region's electricity sector.

In recent years, Colorado has been a creative leader on energy (and energy-water) issues. The 2010 Clean Air-Clean Jobs Act, for example, resulted in a decision to transition several coal-fired power plants to cleaner sources of energy, which may ultimately free up over 5,000 AF of water for use in the Denver-Metro area. However, there is a tremendous, untapped potential in the state for linking energy and water decisions and increasing energy and water conservation savings. The workshops that Recharge Colorado proposes to hold will foster greater understanding of the energy-water nexus among key stakeholders. Perhaps more importantly, the workshops can help chart a path forward for pursuing key policy initiatives. These initiatives will be critical in Colorado and throughout the West, as population, energy, and water demands are projected to grow in the future, even as climate change and drought reduce available supplies.

WRA not only supports funding these workshops, but has also offered to contribute in-kind services worth approximately \$1,200 (1.5 staff, 2 workshop/prep days, \$50/hour salary).

In sum, WRA strongly encourages the CWCB to fund Recharge Colorado and the Great Western Institute's proposal to host these valuable workshops. Please do not hesitate to contact us if you have any questions.

Sincerely,

Stacy Tellinghuisen
Senior Energy/Water Policy Analyst

COLORADO • 2260 BASELINE ROAD, SUITE 200 • BOULDER, CO 80302 • 303.444.1188 • FAX: 303.786.8054 • EMAIL: info@westernresources.org
NEVADA • 204 N. MINNESOTA STREET, SUITE A • CARSON CITY, NV 89703 • 775.841.2400 • FAX: 866.223.8365 • EMAIL: info@westernresources.org
NEW MEXICO • 409 E. PALACE AVENUE, SUITE 2 • SANTA FE, NM 87501 • 505.820.1590 • FAX: 505.820.1589 • EMAIL: info@westernresources.org
UTAH • 150 SOUTH 600 EAST, SUITE 2AB • SALT LAKE CITY, UT 84102 • 801.487.9911 • EMAIL: utah@westernresources.org

www.westernresourceadvocates.org



Colorado River District

75 Years

Protecting Western Colorado Water



May 21, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
Suite 4900
Denver, CO 80202

**Subject: Letter of Support to the Recharge Colorado HB-05-1254 Grant Application
Providing Water-Energy Nexus Workshops**

Dear Mr. Nathanson,

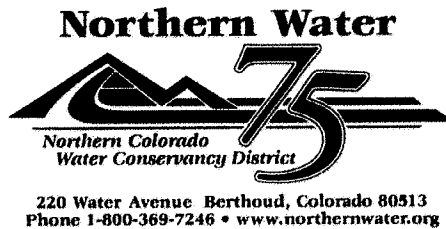
The Colorado River District's mission is "To lead in the protection, conservation, use, and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled." To this end, we encourage discussions and considerations of viable solutions toward fulfilling our mission.

The educational and interactive workshops proposed by Recharge Colorado and Great Western Institute are projected to provide leading state water decision-makers with much information and a setting for discussing ideas and solutions to the water-energy nexus.

The Colorado River District supports funding for Recharge Colorado Water-Energy Nexus workshops through the grant program authorized by HB 05-1254.

Sincerely,

Dan Birch, PE
Deputy General Manager
Colorado River Water Conservation District



May 24, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street, Suite 4900
Denver, CO 80202

**Subject: Letter of Support to the Recharge Colorado HB-05-1254 Grant Application
Providing Water-Energy Nexus Workshops**

Dear Mr. Nathanson:

Northern Water is a public agency created through an act of the state legislature known as the Water Conservancy Act. We are celebrating our 75th anniversary in 2012. In conjunction with the U.S. Bureau of Reclamation, Northern Water administers, operates and maintains the Colorado-Big Thompson Project, the state's largest water supply project. Northern Water currently delivers supplemental water to 640,000 irrigated acres and 850,000 Colorado citizens.

We are writing to express our support for Recharge Colorado's grant application to provide water-energy nexus workshops. In our role as a regional water supplier, Northern Water is keenly aware of the issues associated with both water and energy development. We have participated in numerous conferences and meetings regarding water issues related to energy development.

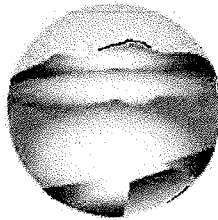
We would be willing to host one of the proposed workshops at our headquarters in Berthoud. We will also assist in the advertising for the workshops.

Northern Water encourages the Colorado Water Conservation Board to consider and approve this worthwhile grant application.

Sincerely,

Eric W. Wilkinson
General Manager

cps



SOUTHEASTERN COLORADO
Water Conservancy District
"Your investment in water"

50 YEARS OF GOLDEN BENEFITS

SIGNING OF THE FRYINGPAN-ARKANSAS PROJECT ACT



May 17, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
Suite 4900
Denver, CO 80202

Subject: Letter of support to the Recharge Colorado HB-05-1254 Grant Application Providing Water-Energy Nexus Workshops

Dear Mr. Nathanson,

Southeastern Colorado Water Conservancy District's (District) mission is: *Water is essential for life, we exist to make life better by effectively developing, protecting, and managing water resources.* We believe the Recharge Colorado is moving in the proper direction to support of our mission and to address several problems concerning the water-energy nexus. A problem that needs to be addressed is there is a lack of long term integrated resource planning that effectively addresses water-energy interactions at the State, watershed, or regional levels. Another problem is the lack of consistent and detailed data and lack of models that can be used to address current and emerging problems at the water-energy nexus. Despite this intrinsic relationship, the dialogue between the water and energy communities in Colorado has not been forthcoming.

The District supports Recharge Colorado's effort to begin this much need dialogue. Recharge Colorado is seeking funding from the Colorado Water Conservation Board Water Efficiency Grant Program Funds to conduct a series of workshops throughout the State, including in the Arkansas River basin. The proposed workshops will increase the level of collaboration between the water and energy communities in planning and implementing water-energy programs.

The District is committed to providing an in-kind contribution in the form of labor to plan, promote, and attend the workshop. We can also provide donated meeting space if needed.

Sincerely,


James W. Broderick
Executive Director



The Voice of the Colorado Water Conservation Community

May 23, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
49th Floor
Denver, CO 80202

**Subject: Letter of Commitment to the Recharge Colorado HB-05-1254 Grant Application
Providing Water-Energy Nexus Workshops**

Dear Mr. Nathanson,

Colorado Water Wise's (CWW) mission is to connect stakeholders, provide educational and technical resources, and serve as the collaborative leader in the efficient use of urban water in Colorado.

CWW supports Recharge Colorado's joint grant application which will allow Recharge Colorado to provide an Energy-Water Nexus Workshop to the Metro Roundtable Region of Colorado. CWW is always seeking opportunities to work with other utilities, businesses and partners to promote water efficiency to its members and to Colorado as well as to collaborate to develop new ideas and tools. CWW feels that this workshop would be an excellent venue to provide this opportunity for CWW and other conservation groups to learn how to do this at a higher level.

While CWW cannot offer monetary support, we would like to help in finding potential speakers if requested. We look forward to working with Recharge Colorado on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Lyle Whitney".

Lyle Whitney
Co-Chair
Colorado Water Wise

A handwritten signature in black ink, appearing to read "Esther Vincent".

Esther Vincent
Co-Chair
Colorado Water Wise



**CITY OF
BOULDER**
Public Works/Utilities

Water Quality & Environmental Services

Water Conservation Program

www.bouldersaveswater.net

May 4, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
Suite 4900
Denver, CO 80202

**Subject: Letter of Support Related to the Recharge Colorado CWCB HB05-1254
Grant Application Providing Water-Energy Nexus Workshops in Colorado**

Dear Mr. Nathanson:

The City of Boulder Water Conservation Program was founded in 1992. The primary goal of the program is to work with residents and businesses to conserve water, both indoors and out. To achieve this goal, the City of Boulder Water Conservation Program offers a number of different services, from landscape consultations to rebates, to help manage water use in and around the city.

We are also a proud founding Executive Council member of Recharge Colorado. The City of Boulder is keenly interested in water-energy nexus education and project implementation and fully supports the water-energy nexus workshop project proposed by Recharge Colorado to the Colorado Water Conservation Board using HB 05-1254 Grant Funds. As a show of our support, we plan to assist in advertising the event to the appropriate entities within our community.

The City of Boulder strongly encourages CWCB and the Office of Water Conservation and Drought Planning to consider the merits of the Recharge Colorado grant application and award the requested funds to this worthwhile and important program that will benefit water providers, basin roundtable members, water conservation experts, and water planning managers statewide.

Sincerely,
Russ Sands



City of Boulder, Utilities
Water Conservation Program Manager

STORMWATER / INDUSTRIAL PRETREATMENT / WATERSHED OUTREACH /
LABORATORY SERVICES

4049 N. 75th Street, Boulder, Colorado 80301

PHONE (303) 413-7350

FAX (303) 413-7373

DRINKING WATER / WATER CONSERVATION

5605 63rd Street Boulder, Colorado 80301

PHONE (303) 413-7400

FAX (303) 530-1137

Water Department
Water Conservation Division
Phone: 303-739-7195
Fax: 720-859-4386



May 3, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
49th Floor
Denver, CO 80202

Subject: Letter of Commitment to the Recharge Colorado HB-05-1254 Grant Application Providing Water-Energy Nexus Workshops

Dear Mr. Nathanson,

Aurora Water Conservation's (AWC) mission is to promote the efficient use of water through the education of its customers.

AWC and Aurora Water will support Recharge Colorado's joint grant application which will allow Recharge Colorado to provide an Energy-Water Nexus Workshop to the Colorado Water Conservation's Metro Board Region. AWC is always seeking opportunities to work with other utilities, businesses and partners to promote water efficiency to its customers as well as to collaborate to develop new ideas and tools. AWC has been researching ways to give its customers a better picture of how water and energy are connected. AWC feels that this workshop would be an excellent venue to provide this opportunity for AWC and other conservation groups to learn how to do this at a higher level.

AWC and Aurora Water will provide a space within the Aurora Municipal Building pending availability to host the workshop (approximately a \$1,000 value) as well as potentially assist in finding presenters for the workshop. We look forward to working with Recharge Colorado on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Lyle Whitney".

Lyle Whitney
Aurora Water Conservation Supervisor



April 27, 2012

Jeffrey Nathanson
Chief Executive Officer
Recharge Colorado
1801 California Street
49th Floor
Denver, CO 80202

Subject: Letter of Support to the Recharge Colorado HB-05-1254 Grant Application Providing Water-Energy Nexus Workshops

Dear Mr. Nathanson,

The Fountain Utilities Department provides electric service to 16,000 customers and water service to 7,400 customers for the City of Fountain and surrounding communities. We strongly support Recharge Colorado's joint grant application for providing the Energy-Water Nexus Workshop to CWCBA's Arkansas Board Region. As a utility with a commitment to conservation programs, that provides both energy and water, we see the importance of work that would further define the connection between the two. We look forward to being able to use and apply the benefits gained from additional understanding to the development of future efforts and programs.

Sincerely,

Curtis A. Mitchell, P.E.
Customer Service Manager
City of Fountain Utilities

cc: Larry Patterson

Appendix F
Articles of Incorporation

**ADDITIONAL PROVISIONS TO THE
ARTICLES OF INCORPORATION OF
RECHARGE COLORADO
(A Nonprofit Corporation)**

**Article I
Objects and Purposes**

This Corporation is organized exclusively for charitable, educational, and scientific purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code, and in this connection, subject to the restrictions set forth below, the specific objects and purposes of the Corporation and the nature of the business to be carried on by it are as follows:

[a] To serve as an asset for Colorado stakeholders seeking to design, implement, target, or evaluate energy or water efficiency programs and projects;

[b] To aggregate and analyze energy, water, and other data as necessary to enable the more effective implementation of resource consumption reduction programs;

[c] To eliminate redundancies and save stakeholders time and money by providing centralized support services to public and private stakeholders who are seeking to promote renewable energy and resource efficiency programs and projects;

[d] To assist consumers and businesses in locating the information, financing, and services they require to implement renewable energy or resource efficiency projects;

[e] To receive, maintain, and administer a fund of real and personal property, derived from all sources whatsoever, and subject to the terms of any specific gift, grant, bequest, or devise and to the restrictions set forth below, to use, apply, and distribute the income from and the principal of such a fund exclusively for the preceding charitable, educational, and scientific purposes;

[f] To further any other charitable, educational, and scientific purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code; and

[g] To do and to engage in all lawful activities that further or are consistent with the preceding objects and purposes of the Corporation.

Article II

Powers

In furtherance of the preceding objects and purposes, the Corporation shall have and may exercise all of the rights, powers, privileges, and immunities now or subsequently conferred upon nonprofit corporations organized under the laws of the State of Colorado.

Article III

Restrictions on Powers

Notwithstanding any other provision of these Articles of Incorporation, the powers of the Corporation are restricted as follows:

[a] The Corporation shall not conduct or carry on any activities not permitted to be conducted or carried on [1] by an organization exempt from federal income taxation under Section 501(c)(3) of the Internal Revenue Code or [2] by an organization the contributions to which are deductible under Sections 170, 642, 2055, or 2522 of the Internal Revenue Code.

[b] No part of the net earnings of the Corporation shall inure to the benefit of any director or officer of the Corporation or any other private individual whatsoever (except that reasonable compensation may be paid for, and reimbursement may be made for reasonable expenses incurred in connection with, services rendered to or for the Corporation affecting one or more of its objects and purposes and except that payments may be made to a private individual other than a director or officer of the Corporation in furtherance of the objects and purposes set forth in Article I), and no director or officer of the Corporation or any other private individual whatsoever shall be entitled to share in the distribution of any of the corporate assets on dissolution of the Corporation.

[c] No substantial part of the Corporation's activities shall be the carrying on of propaganda or otherwise attempting to influence legislation, and the Corporation shall not participate or intervene in (including the publication or distribution of statements) any political campaign on behalf of or in opposition to any candidate for public office.

Article IV
Prohibited Acts

Notwithstanding any other provision of these Articles of Incorporation, if this Corporation at any time is a private foundation as defined in Section 509 of the Internal Revenue Code, the following provisions shall apply:

[a] The Corporation shall distribute its income for each taxable year at such time and in such a manner as not to subject the Corporation to the tax imposed under Section 4942 of the Internal Revenue Code;

[b] The Corporation shall not engage in any act of self-dealing, as defined in Section 4941(d) of the Internal Revenue Code;

[c] The Corporation shall not retain any excess business holdings, as defined in Section 4943(c) of the Internal Revenue Code;

[d] The Corporation shall not make any investments in such a manner as to subject the Corporation to the tax imposed under Section 4944 of the Internal Revenue Code; and

[e] The Corporation shall not make any taxable expenditures, as defined in Section 4945(d) of the Internal Revenue Code.

Article V
Membership

The Corporation shall have no voting members.

Article VI
Board of Directors

The affairs and management of the Corporation shall be under the control of a Board of Directors. The Board of Directors of the Corporation shall be composed of not less than three nor more than 15 directors, as may be fixed by the bylaws of the Corporation or by resolution of the Board of Directors. Directors shall serve for the terms stated in the bylaws of the Corporation. The names and addresses of the persons who shall serve as the initial directors of the Corporation until their successors shall have assumed office or been elected, as the case may be, and shall have qualified are as follows:

<i>Name</i>	<i>Address</i>
Tony Frank Colorado Renewable Energy Society	3245 Elliot Street Denver, Colorado 80211
Jennifer Hampton Navigant	1375 Walnut Street, Suite 200 Boulder, Colorado 80302
Stacey Simms Governor's Energy Office	1580 Logan Street, Suite 100 Denver, Colorado 80203
Gretchen Stanford City of Loveland	200 North Wilson Avenue Loveland, Colorado 80537

In addition, one individual, who shall be appointed to such position from time to time by the Governor of the State of Colorado and who shall at the time of such appointment be an appointee to or employee of the Colorado Public Utilities Commission, shall serve *ex officio* as a member of the Board of Directors, shall be given notice of and shall be entitled to participate in all meetings of the Board of Directors, but shall not be counted for purposes of determining the presence of a quorum, and shall not be entitled to vote, at any meeting of the Board of Directors. The name and address of the initial such *ex officio* member of the Board of Directors, until the Governor of the State of Colorado shall have designated his successor, are as follows:

<i>Name</i>	<i>Address</i>
Jeffrey Ackermann Colorado Public Utilities Commission	1560 Broadway, Suite 250 Denver, Colorado 80202

Article VII

Limitations on Directors' Liability

No director shall be personally liable to the Corporation for monetary damages for any breach of fiduciary duty as a director, except that no director's liability to the Corporation for monetary damages shall be eliminated or limited on account of any of the following:

- [a] Any breach of the director's duty of loyalty to the Corporation;
- [b] Any acts or omissions of the director not in good faith or that involve intentional misconduct or a knowing violation of law;

[c] The director's assent to or participation in a loan by the Corporation to any director or officer of the Corporation;

[d] Any transaction in which the director received improper personal benefit.

This provision shall not limit the rights of directors of the Corporation for indemnification or other assistance from the Corporation, nor shall this provision restrict or otherwise diminish the provisions of C.R.S. Sections 13-21-115.7(2) and 13-21-116(2)(b) (concerning immunity of directors except in the case of wanton and willful acts or omissions), any amendment or successor provision to such section, or any other law limiting or eliminating the liabilities of directors.

Any repeal or modification of the preceding provisions of this Article or any repeal or modification of the provisions of the Colorado Revised Nonprofit Corporation Act which permits the elimination of liability of directors by this Article shall not adversely affect any elimination of liability, right, or protection of a director of the Corporation with respect to any breach, act, omission, or transaction of such director occurring prior to the time of such repeal or modification.

Article VIII

Bylaws

The Board of Directors, by an affirmative vote of at least 75 percent of the Board of Directors, shall have the power to adopt, revise, and revoke such bylaws as it may deem proper for the management of the affairs of the Corporation. Such bylaws may prescribe the authority under which conveyance or encumbrance of all or any part of the corporate property may be made, and the persons who shall be authorized to execute the instruments of conveyance or encumbrance.

Article IX

Officers

The Corporation shall have such officers as may from time to time be prescribed by the bylaws. Their terms of office and the manner of their designation or selection shall be determined according to the bylaws then in effect.

Article X

Change in Articles of Incorporation

The Board of Directors, by an affirmative vote of at least 75 percent of the Board of Directors, shall have the right from time to time to dissolve the Corporation or to amend, alter, change, or repeal any provision contained in these Articles of Incorporation in the manner now or subsequently prescribed by statute, except that no such amendment, alteration, change, or repeal shall be made that shall:

[a] Amend, alter, change, or repeal the restrictions set forth in Articles III and IV unless the Internal Revenue Code changes so that so amending, altering, changing, or repealing such restrictions would not disqualify the Corporation for federal income tax exemption under Sections 501(c)(3) of the Internal Revenue Code or as an organization the contributions to which are deductible under Sections 170, 642, 2055, or 2522 of the Internal Revenue Code.

[b] Operate to permit the use, application, or disbursement of any of the principal or income of all or any part of the corporate property for any purpose other than those expressly provided for in these Articles of Incorporation, or other than exclusively for charitable, educational, or scientific purposes.

[c] Operate to permit the principal or income of any bequest, devise, grant, or gift to this Corporation to be used contrary to the conditions, limitations, or restrictions contained in any such bequest, devise, grant, or gift.

Article XI

Dissolution

Upon any liquidation, dissolution, or winding up of the Corporation, the Board of Directors shall, after paying or adequately providing for the payment of all the obligations and liabilities of the Corporation, dispose of all the assets owned by the Corporation by transferring such assets exclusively to or for the benefit of such organization or organizations as shall at the time qualify under Section 501(c)(3) of the Internal Revenue Code, as the Board of Directors shall determine. Any of such assets not so disposed of shall be disposed of by a court of competent jurisdiction, exclusively for such exempt purposes or to such organization or organizations which are organized and operated exclusively for such exempt purposes, as such court shall determine.

Article XII
Internal Revenue Code

All references to the Internal Revenue Code shall be deemed to mean the Internal Revenue Code of 1986, as it presently is constituted, as it may be amended, or any successor statute of similar purpose.