January 11, 2012

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C.  20416

Re: PUBLIC COUNSEL OF THE ROCKIES' COMMENTS SUPPORTING THE INTEGRATED LICENSING PROCESS IN ORDER TO ENHANCE COMMUNITY INVOLVEMENT, STAKEHOLDER COLLABORATION and CONSIDERATION OF ALTERNATIVES

Public Counsel of the Rockies ("Public Counsel") requests that the Commission direct the City to follow the standard Integrated Licensing Process (ILP) for purposes of FERC processing of its application for a Minor Power Project license for the Castle Creek Project (FERC Project No. P-13254). These comments address the process and not the Project.

I. Public Counsel of the Rockies

Public Counsel is a regional non-profit 501(c)(3) organization founded in 2000 and currently addressing water and energy issues in the Rocky Mountain West. See, www.public-counsel.org. Over the last fourteen months Public Counsel has been organizing, funding and participating in events that support collaborative community involvement in the review and approval processes required for the proposed Castle Creek Energy Center Project (the "Project"). More specifically, Public Counsel has:

(i) Supported the Pitkin County Healthy Rivers and Streams initiative to secure and fund in the Fall of 2010 an independent hydrologist, aquatic biologist, water lawyer and other experts to analyze proposed Project diversions and their impacts on healthy functioning stream ecosystems in Castle and Maroon Creeks;

Comments on TLP Request
Aspen, Castle Creek Project (P-13254)
(ii) Organized and funded a Community Mediation Session convened at the Aspen Institute on March 22, 2011 to develop streamflow protection principles, Project operating protocols and enforcement procedures to address environmental concerns that have arisen over the City’s proposed Project (see, Attachment A, Report of Community Mediation Session, issued May 25, 2011);

(iii) Supported and participated in the June 16, 2011 Public Forum on the Project at the Aspen Institute, organized and funded by Western Rivers Institute;

(iv) Organized and funded independent expert review of Project economics and potential hydroelectric power alternatives (see, Attachment B, Draft Concept-Level Feasibility Analysis and Economic Evaluation of the City of Aspen’s Castle Creek Energy Center Hydroelectric Plant and Potential Options by Kennedy-Jenks Consultants & Engineers, December 6, 2011); and

(v) Organized and funded the creation, beginning in 2012, of Friends of Rivers and Renewables as a vehicle to promote ongoing and facilitated community involvement in the FERC licensing process and in any other federal, state or local approval process required for the Project.

Public Counsel focuses on significant conservation issues in the Rocky Mountain region and promotes community engagement in the public processes required for well-informed decisions by elected officials. Consistent with this general focus, Public Counsel has a specific interest in maintaining the ecological health of Castle and Maroon Creeks, involving the community in a collaborative FERC licensing process for this Project, and ensuring serious consideration of hydroelectric alternatives, if warranted, to best serve the fiscally responsible use of bond, taxpayer and ratepayer funds.

II. The Commission Should Require the City to Use the Integrated Licensing Process.

Under 18 C.F.R. § 5.3, the Commission may grant requests to use the TLP rather than the ILP “for good cause shown.”

Opposition to the TLP filed by American Rivers, Western Rivers Institute and others addresses each of the grounds asserted by the City of Aspen in support of its claim of “good cause” supporting its Request for TLP. Public Counsel primarily addresses “The Level of Anticipated Controversy” (Section II.C below) as the principal ground for why the more collaborative ILP process is warranted in this case. To introduce these comments, a few background observations will be helpful.

First, the City is incorrect that its Memorandum of Understanding (“MOU”) with the Colorado Division of Parks and Wildlife resolved previous community concerns with dewatering impacts on healthy flows in Castle and Maroon Creeks, and that no new concerns regarding the

Comments on TLP Request
Aspen, Castle Creek Project (P-13254)
2
proposed Project will arise in the course of the proceeding. See Request for TLP, pp. 1-2. While
the City efforts to develop such a MOU are commendable, the MOU itself was conceived,
developed, executed, and then announced and ratified at City Council meetings with no
meaningful stakeholder collaboration.

Second, the City participated in 2010 in developing and endorsing a stream protection
mechanism that went well beyond the MOU. It is unclear whether the City may have retreated
from its commitment to science-based decision-making on Project diversions from Castle and
Maroon Creeks, overseen by an independent Board of Experts, “as an express condition of the
FERC approval” (see, Attachment A, pages 2-3 on “Healthy Streams”). Over stakeholder
objections, City Council adopted an Ordinance approving the Project on December 12, 2011.
That Ordinance inexplicably renders such a FERC licensing condition as dependent upon
whether or not the City reaches agreement with Pitkin County on its objections to this Project.

Third, the City is incorrect in claiming that only the small conduit exemption objections
and streamflow impacts are the primary issues raised by stakeholders. In fact, the community
remains concerned about Project economics, triggered by a 70% increase in Project costs not
including interest on bonds. This increase in turn dictates comprehensive assessment of
hydroelectric (and other renewable energy) alternatives.

The significant community interest in the proposed project shows that the ILP, which
provides clear procedures for stakeholder involvement and consideration of alternatives, is
appropriate for this proceeding. We address below the criteria identified at 18 C.F.R. §
5.3(e)(1)(ii) that the Commission considers in determining whether to approve use of the TLP
below.

A. Likelihood of timely license issuance

As stated above, we disagree with the City’s claims that new concerns regarding the
Project will not arise in response to the Notice of Intent, Pre-Application Document, and
supporting documents (“Notice of Intent”), or in the course of the licensing proceeding. See
Request for TLP, p. 2.

We also disagree that the procedural requirements of the ILP will result in duplication of
effort (see id.). Contrary to its assertions, the City’s pre-filing consultation efforts, prior to its
December 12, 2011 filing of its Notice of Intent, have not been extensive on the new Minor
Power Project filing. The City did not seek stakeholder input as to the appropriate scope of study
and environmental analyses prior to filing its Notice of Intent. Indeed, City staff and special
counsel signed and electronically filed the Notice of Intent and Request for TLP moments before
... not after ... commencing some nine hours of public work sessions and hearings by the Aspen
City Council on this Project on December 12, 2012. There were no pre-filing consultation
efforts, and none of the involved national, regional and local conservation organizations were
notified or allowed opportunity for review and comment prior to the December 12, 2011
electronic filing of the Notice of Intent and of the Request for TLP. So, adherence to the ILP’s procedures for such input (see, e.g., 18 C.F.R. §§ 5.8, 5.9) will not duplicate previous efforts.

The TLP does not provide similar procedures for early public input on the scope of studies and environmental analysis (including the identification and systematic consideration of reasonable alternatives), but instead defers potential disputes regarding studies and environmental analysis until after the license application is filed. We believe that waiting until after the City files its license application to resolve potential disputes would be highly inefficient and would be counter-productive to the City’s interest in expeditious license issuance.

B. Complexity of the resource issues

The City suggests that the complexity of the resource issues may be governed by the size of the project. See Request for TLP, p. 2. That is simply not the case. The proposed project may have significant direct, indirect and cumulative impacts on Castle and Maroon Creeks. As stated above, these iconic creeks are vital to the local community because they define the local landscape. Main resource issues connected to the proposed altering of 7.7 miles of creek include water quantity, aquatic habitat, fish health, wetlands, and recreation. Based on our involvement in this project to date, the balancing of non-developmental, beneficial uses of Castle and Maroon Creeks with hydropower production is very complex. The ILP is far better suited than the TLP to a systematic exploration of alternatives to balance these community values.

The ILP’s procedures for early stakeholder involvement will contribute to the efficient and collaborative resolution of complex resource issues. There are a number of local non-governmental organizations that can bring considerable expertise to bear in addressing these issues, including American Rivers, Trout Unlimited, Western Resource Advocates, and Western Rivers Institute. Each of these organizations submitted timely and important objections to the previously pending Small Conduit Exemption application. See Appendix C, Public Comments on Draft Application of City of Aspen to FERC seeking a “Conduit” Exemption from Licensing. In addition, the local taxpayer-supported Pitkin County’s Healthy Rivers and Streams Program has already earmarked $100,000 for independent hydrologists, aquatic biologists and other experts in order to protect healthy streamflows in Castle and Maroon Creeks. Finally, the local community is well-informed and highly-motivated to participate in the ILP as evidenced by countless and continuing Editorials, Guest Editorials, Op/Eds and Letters to the Editor.

C. Level of anticipated controversy

The City asserts that, based on previous comments received, there are only two primary community concerns regarding the proposed project: (1) the City’s attempted and now-abandoned use of the small conduit exemption process, and (2) the potential impacts of the reduction in instream flows for Maroon and Castle Creeks on fisheries and stream habitat. See Request for TLP, p. 2.
We agree that these are two significant concerns raised by the community, but they are not the only concerns. As summarized below, the level of controversy has continued to increase, not decrease, in part because the City has failed to meaningfully collaborate with stakeholders.

Three recent developments underscore the high level of continuing controversy:

(i) On September 15, 2011 a group of property owners along both creeks and a new “Saving Our Streams” nonprofit organization filed suit to stop the project in the Pitkin County District Court. The suit claims the City has “abandoned” its water rights for hydropower. It argues that the City has shown its intent to abandon the hydropower use decreed to the Castle and Maroon creek water rights by not using the water right for this purpose for over 50 years.

(ii) On December 23, 2011 a group of Aspen residents received Aspen City Clerk approval to circulate a Referendum Petition seeking to rescind and overturn newly passed City Ordinance 30, adopted by City Council on December 12, 2011. The Ordinance rezones property for the hydroelectric plant from residential to industrial and adopts Environmental Assessment procedures that are deficient. Petition sponsors anticipate sufficient certified signatures from City registered electors and a special citywide election in the Spring or Fall of 2012.

(iii) Public Council has initiated Friends of Rivers and Renewables (“FORR”) to educate, inform and unify the community around our common community values of clean energy solutions and ecosystem preservation. FORR recognizes that most Aspentites strongly support both these values. Once formally launched in early 2012, FORR anticipates broad community participation in the more collaborative ILP.

FORR will facilitate citizen participation with the City, County and renewable energy as well as river conservation organizations in a collaborative stakeholder search for the best hydroelectric or other clean energy solutions. FORR embraces those hydroelectric solutions that protect our environment, use scarce financial resources wisely, and are supported by the community. Because the City embarked on and continues to pursue the Castle Creek Project with little serious consideration of alternatives, FORR is interested in identifying potential alternatives that would be online sooner, be more cost-effective, and are less likely to degrade local rivers and streams.

In summary, many citizens as well as national, regional and local organizations have expressed their concerns with this Project. Given the controversy surrounding this project, the ILP is plainly appropriate. The ILP will provide a better forum for stakeholder consultation and engagement at the beginning of the new Minor Power Project licensing process in a manner that more efficiently addresses both existing and newly-emerging issues. It will also provide a mechanism to encourage dialogue on Project issues in a manner that anticipates and manages controversy before it further engulfs the Aspen community.

D. Relative cost of the traditional process compared to the integrated process
The TLP could easily result in significantly greater cost because the high level of stakeholder interest, upset and mistrust, coupled with project complexity (stream health and economics), could create future disputes that could have irrevocable implications for the proposed Project. Through the ILP process, the City can proactively anticipate and resolve potential roadblocks (e.g., law suits, referendums, etc.) thereby saving time and money in the long run.

E. **The amount of available information and potential for significant disputes over studies**

The City correctly states that “[a] large amount of information is presently available” regarding the proposed project. See Request for TLP, p. 3. While we appreciate the City’s efforts to prepare the Pre-Application Document, including the consultant-prepared Environmental Report, additional information regarding the project and potential alternatives will be needed. Given that the City considers the existing information to be adequate, we expect that there may be significant disputes over further studies. Multiple water resources groups, among them American Rivers and Western Rivers Institute, have recommended additional environmental studies.

We also support further analysis of alternatives to advance the City’s legitimate interests in enhancing its supply of renewable power. The TLP does not require the applicant to conduct such analysis; the ILP does. See, e.g., 18 C.F.R. § 5.18(b)(5). A reoccurring concern from Aspen taxpayers is the failure of the City to fully explore clean energy alternatives that may have less environmental impact and less cost or risk. We have preliminarily identified the following alternatives that warrant further in-depth consideration of their feasibility.

**Hydropower alternatives**

We recommend analysis of the following alternatives:

(i) retrofitting of the City’s existing Ruedi Reservoir hydroelectric facilities (which came online over 26 years ago) to correct power house design flaws and to capture excess flows during runoff;

(ii) hydroelectric power opportunities at the Homestake Reservoir (which is in the midst of a $20 million+ reconstruction); and

(iii) dispersed kinetic hydroelectric power opportunities in existing municipal water infrastructure (e.g., Thomas Reservoir and various water and wastewater pipelines).

Preliminary independent economic studies of these alternatives support the wisdom of further feasibility analyses.

**Energy efficiency and conservation alternatives**
We recommend analysis of the alternative of investing far more substantially on the demand side in the City’s existing energy efficiency and energy conservation programs.

Investing significant funds to capture the “efficiency resource” would include greater financial and regulatory support of demand reduction programs operated very effectively by local renewable energy non-profits, e.g., Community Office for Resource Efficiency (CORE), and by Clean Energy Economy for the Region (CLEER) through the application their Energy Navigator program to reduce waste of electric power in large city, county, school district, airport, hotel, lodge and other public as well as commercial facilities.

Other renewable energy sources

Finally, we recommend analysis of: (i) purchasing undersubscribed wind energy from the Municipal Energy Agency of Nebraska (MEAN) at approximately 4.6 cents per kwh and (ii) calculating the costs and benefits of these and other immediate opportunities as compared with the delayed benefits of constructing and operating the Project following FERC licensing and the completion of Project construction and testing.

Mailing List

We request that you add the following representatives to the service list compiled for this proceeding:

Tim McFlynn  
Executive Director, Public Counsel of the Rockies  
1280 Ute Avenue #10  
Aspen, CO 81611  
mcflynn@public-counsel.org

Richard Roos-Collins  
Julie Gantenbein  
Water and Power Law Group PC  
2140 Shattuck Avenue, Ste. 801  
Berkeley, CA 94704  
rncollins@waterpowerlaw.com  
jgantenbein@waterpowerlaw.com.

Conclusion

Comments on TIP Request  
Aspen, Castle Creek Project (P-13254)  
7
Thank you for the opportunity to comment on the proper licensing process to be utilized by the City of Aspen for this Project. In light of the high value placed on both renewable energy and the ecological health of these local rivers and streams, we support the process that best insures a forum for all stakeholders to engage in a transparent and collaborative process. Directing the City of Aspen to utilize the Integrated Licensing Process is a major component of restoring and maintaining City-to-community trust and respect.

Dated: January 11, 2012

Respectfully submitted,

Tim McFlynn
Executive Director,
Public Counsel of the Rockies
1280 Ute Avenue #10
Aspen, CO 81611
CERTIFICATE OF SERVICE

City of Aspen, Colorado, Castle Creek Project (P-13254)

I, Tim McFlynn, hereby certify that I have this day served by first-class or electronic mail the foregoing document, “Public Counsel of the Rockies’ Comments Supporting the Integrated Licensing Process in order to Enhance Community Involvement, Stakeholder Collaboration and Consideration of Hydroelectric Alternatives,” upon each person designated on the official service list compiled by the Secretary in the P-13254 case docket.

Dated: January 11, 2012

Respectfully submitted,

Tim McFlynn
ATTACHMENT "A"

FERC PROJECT NO. P-13254
REPORT
OF
COMMUNITY MEDIATION SESSION

ON THE PROPOSED

CASTLE CREEK HYDRO PROJECT

(MARCH 22, 2011 AT THE ASPEN INSTITUTE)

MAY 25, 2011
May 25, 2011

OWEN OLPIN, MEDIATOR
SOUTH FISH CREEK RANCH, P.O. BOX 10
TEASDALE, UTAH 84773

CITY OF ASPEN'S PROPOSED CASTLE CREEK HYDRO PROJECT

To the Citizens of the City of Aspen and Pitkin County

It is my privilege to present the Report of a community mediation convened to
examine and develop principles and procedures to address concerns that have arisen over
the City of Aspen’s proposed Castle Creek Hydro Project. Those concerns have centered
on potential impacts on the stream health of Castle and Maroon Creeks, the City’s strong
commitment to develop renewable energy in response to the imperatives of global
climate change, and the appropriate intensity of environmental review and analysis to be
undertaken by the Federal Energy Regulatory Commission in Project approval
proceedings. The Report sets forth consensus recommendations of the mediation
Participants on those important matters.

The twelve distinguished mediation Participants are identified in the attachment to
the Report, as are the highly qualified Experts who made their expertise available to and
deliberated with the Participants.

A Public Forum will be held on June 16, 2011, from 5:30 to 8:00 p.m. in the
Paepcke Auditorium at the Aspen Institute to provide further information and afford
concerned citizens the opportunity to ask questions and express views on the proposed
Project and its potential impacts.

It has, indeed, been my privilege to serve as mediator and strive with the
Participants and Experts as they worked diligently and probed deeply to achieve
consensus in fashioning the recommendations set forth in the Report. There is also need
to salute Tim McFlynn and Ruthie Brown for their tireless efforts in convening and
carrying out the mediation that led to the Report.

Respectfully submitted,

[Signature]

Owen Olpin, Mediator
Introduction

On March 22, 2011, a small number of nonprofit and community leaders and concerned landowners met privately at the Aspen Institute with City of Aspen senior staff to address issues raised by individuals and organizations objecting to the proposed Castle Creek Hydro Project ("Project"). The all-day meeting was mediated by Mr. Owen Olpin. The participants were benefited greatly by collaboration among and contributions from the experts advising the City and the independent experts who had reviewed the Project on behalf of the Pitkin County Healthy Rivers & Streams Program. Participants, Experts and other attendees are listed on Attachment "A".

This Report has been prepared to summarize the recommended guiding Principles for City decision-making on the Project and on the path forward on two pivotal issues: streamflow protection and environmental review by the Federal Energy Regulatory Commission ("FERC").

Statement of Principles

The City of Aspen’s continued leadership is imperative in its Canary Initiative programs and other projects that reduce carbon emissions, developed and approved through a community-driven and ecologically responsible public process. Decision-making on the proposed Project should be informed by science as well as by (a) the urgency and magnitude of the global climate crisis, (b) guaranteed protection of stream flows sufficient to ensure true stream health in both Castle and Maroon Creeks, and (c) legal protection of water rights held by the City of Aspen.

Healthy Streams

A precautionary and incremental approach to any and all Project operations is imperative, in order to ensure that healthy functioning stream ecosystems in both Castle and Maroon Creeks are fully protected from adverse impacts by Project operations.

The centerpiece of an operating protocol suggested by the City, well-received by the Participants, and the subject of ongoing collaborative review, analysis and refinement by both the City and the Healthy Rivers experts, is a “slow start” with small incremental increases in hydropower diversions, as warranted by rigorous ongoing monitoring and as approved in advance by the Project oversight Board of Experts. Project oversight in this suggested protocol would be vested in a three member Board of fisheries/stream health experts with one member representing Pitkin County’s Healthy Rivers and
Streams, one member representing the Colorado Division of Wildlife and one member representing the City of Aspen. To ensure both public participation in and the transparency of Project oversight, the Board of Experts will hold open meetings, post baseline and monitoring data on its website, and give notice of opportunities for public input to all interested parties requesting same. Some Participants suggested adding one or more citizen members to the Board of Experts.

The Board of Experts by unanimous consensus would (a) approve in advance the details of the initial “slow start” of hydropower diversions and specify, as well as modify from time to time as needed, the details of a rigorous monitoring plan including the impacts to be monitored; (b) make regular and ongoing determinations regarding the Project’s effects on stream health based upon data collected pursuant to the monitoring plan; and (c) impose such additional limitations upon Project operations and diversions as may be required to fully protect healthy functioning stream ecosystems. Such an operating protocol would be legally binding and enforceable as an express condition of the FERC approval, as a specific condition of land use approval within the City Ordinance approving the Castle Creek Energy Center, and as either an inclusion in the stipulated diligence decree concerning the City’s water rights or a separately executed contract between the City and Pitkin County, whichever is more appropriate.

FERC Exemption or Licensing

The Participants are aware of the issues associated with the FERC exemption, permitting or licensing process. The Participants’ interest is limited to ensuring that the environmental safeguards on this Project are at least as comprehensive and rigorous as the most stringent of any FERC licensing process appropriate to a Project of this size and scope.

The Participants support the City’s decision to pursue a conversion of its FERC application for a small conduit exemption to a minor water power project license application (1.5 MW or less) as defined in 18 CFR 4.30 (B)(17), including the appropriate level of NEPA analysis and review (not less than an Environmental Assessment).

Next Steps

The Participants urge City collaboration with organizations like American Rivers, Healthy Rivers & Streams, and other sources of expertise and experience, to the end that an exemplary level of environmental responsibility for Castle and Maroon Creeks characterizes this Project going forward. All
Participants also support one or more open Public Meetings on the important issues raised by the Project including but not limited to environmental responsibility, renewable energy generation, climate change, fiscal responsibility, and the historic legacy of the City of Aspen. To attract broad participation, such meetings should be planned as well as attended by interested landowners and citizens, river conservation and renewable energy organizations, the City of Aspen and its Utilities and Renewable Energy Department, and the Pitkin County Healthy Rivers and Streams program.

Mediator's Comment

The Mediator has reviewed this Report and believes that it fairly and adequately summarizes the results of the March 22, 2011 session at The Aspen Institute and continued collaborative efforts through the date of this Report. The Mediator compliments all the Participants and Experts for their constructive and collaborative work together and for their civility in addressing a tough and complex problem.
Attachment “A”

Mediator
Owen Olpin, Esq.
Teasdale, UT

Participants

Steve Barwick
City Manager
Aspen, CO

Bill Budinger
The Rodel Foundations
Aspen, CO

Tom Cardamone
Executive Director
Aspen Center for Environmental Studies
Aspen, CO

Sharon Clarke
Land and Water Conservation Specialist
Roaring Fork Conservancy
Basalt, CO

Al Dietsch
Citizen
Aspen, CO

John Ely
Healthy Rivers & Streams Program
Pitkin County
Aspen, CO
Connie Harvey  
Maroon Creek Landowner  
Aspen Co

David Hornbacher  
Director  
Utilities and Renewables  
Aspen, CO

John Katzenberger  
Director  
Aspen Center for Global Change  
Basalt, CO

Nathan Ratledge  
Director  
Community Office for Resource Efficiency  
Aspen, CO

Will Roush  
Castle Creek Landowner  
Aspen CO

Auden Schendler  
Vice President of Sustainability  
Aspen Skiing Company  
Aspen, CO
Healthy Rivers & Streams Experts
Greg Espergren, PhD
Aquatic Biologist
Trout Unlimited
Eagle, CO

Kurt Johnson
Hydropower Consultant
Telluride Energy
Telluride, CO

Sarah Klahn, Esq.
Water Lawyer
White & Jankowski
Denver, CO

Lee Rozaklis, PE
Hydrology and Water Engineering
Hydrosphere/AMEC
Boulder, CO

City of Aspen Experts

Cindy Covell, Esq.
Water Lawyer
Alperstein & Covell
Denver, CO

Bill Miller, PhD
Senior Aquatic Ecologist and President
Miller Ecological Consultants
Denver, CO
Karl Kumli, Esq.
Energy, Water and Public Utilities Lawyer
Dietze & Davis, P.C.
Boulder, CO

Kerry Sundeen
Hydrologist and President
Grand River Consulting
Glenwood Springs, CO

Conveners

Ruthie Brown
Co-Convener
Aspen, CO

Tim McFlynn
Co-Convener
Aspen, CO

Rapporteur

Olivia Katz
Aspen, CO
ATTACHMENT “B”

FERC PROJECT NO. P-13254
Kennedy/Jenks Consultants

143 Union Boulevard, Suite 600
Lakewood, Colorado 80228
303-985-3636
FAX: 303-985-3800
Toll Free: 888-535-5285

DRAFT

Concept-Level Feasibility Analysis and Economic Evaluation of the City of Aspen’s Castle Creek Energy Center Hydroelectric Plant and Potential Options

6 December 2011

Prepared for
Public Counsel of the Rockies
1280 Ute Avenue #10
Aspen, Colorado 81611

K/J Project No. 1189052*00
# Table of Contents

**Section 1:**  
Introduction ........................................................................................................... 1-1  
1.1 Background and Authorization ........................................................................... 1-1  
1.2 Scope of Services ................................................................................................. 1-2  
1.3 Conduct of the Evaluation ..................................................................................... 1-2  

**Section 2:**  
Castle Creek Energy Center ..................................................................................... 2-1  
2.1 Overview of the Proposed Project ......................................................................... 2-1  
2.2 Economic Analysis of the Proposed Project ........................................................... 2-1  
2.3 Review of the Proposed Project and Economic Analysis ....................................... 2-2  

**Section 3:**  
Ruedi Reservoir ....................................................................................................... 3-1  
3.1 Overview of the Ruedi Reservoir Opportunity ..................................................... 3-1  
3.2 Economic Evaluation of the Ruedi Reservoir Opportunities ................................ 3-2  

**Section 4:**  
Homestake Reservoir ............................................................................................... 4-1  
4.1 Overview of the Homestake Reservoir Opportunity ............................................. 4-1  
4.2 Economic Evaluation of the Homestake Reservoir Opportunity .......................... 4-1  

**Section 5:**  
In-System Hydropower ............................................................................................ 5-1  
5.1 Overview of the In-System Opportunities ............................................................. 5-1  
5.2 Economic Evaluation of the In-System Opportunities ........................................... 5-1  

**Section 6:**  
Conclusions .............................................................................................................. 6-1
Section 1: Introduction

This section presents a brief background of the Castle Creek Energy Center (CCEC) proposed by the City of Aspen (Aspen) and its potential options. The objectives, scope of services, and conduct of the evaluation are summarized.

1.1 Background and Authorization

Aspen has operated a municipal electric utility since 1954. Its current energy portfolio consists of hydroelectric generation, wind energy purchases, non-carbon energy purchases, and coal energy purchases. Aspen has a long history of hydroelectric power generation. Hydroelectric power is generally considered to be reliable and renewable and have low operating costs and greenhouse gas emissions. In 2005, Aspen created the Canary Initiative that included a climate action plan that called for reductions of greenhouse gas emissions of 30 percent by 2020 and 80 percent by 2050 from 2004 levels. It also supported the development of renewable energy sources, including hydroelectric power.

In 2007, the Castle Creek Hydroelectric Plant was proposed in a conceptual design study prepared for Aspen. Based on this design, $5.5 million of general obligation bonds were authorized by Aspen voters. Aspen also initiated a public outreach program in 2007. In 2008, Aspen filed a Declaration of Intention with the Federal Energy Regulatory Commission (FERC) to initiate the project review process. From 2008 to 2010, Aspen initiated several planning, environmental and permitting studies for the renamed Aspen Energy Center. In late 2010, Aspen submitted an Application for Exemption of a Small Conduit Hydroelectric Facility. In response to this application, numerous comments were submitted to FERC or expressed in public forums. The comments generally related to economic feasibility, potential environmental impacts, regulatory approach, and possible options to the proposed project. On November 1, 2011, Aspen submitted a revised FERC preliminary permit application which included an updated economic analysis. To address the issues related to economic feasibility and possible options, Public Counsel of the Rockies authorized Kennedy/Jenks Consultants to prepare this concept-level feasibility analysis to review the economic analyses of the proposed project and possible options (Agreement dated September 29, 2011).

Potential options to the proposed project that were identified include hydroelectric improvements to Ruedi Reservoir, addition of hydroelectric generation to Homestake Reservoir, and in-system hydroelectric opportunities. For the purpose of this evaluation, the proposed project and the potential options are not considered to be mutually exclusive and more detailed evaluation should be conducted before implementing any project.

---

3 Dietze and Davis, P.C., Application for Preliminary Permit, City of Aspen, Castle Creek Hydroelectric Project, November 1, 2011.

Concept-Level Feasibility Analysis and Economic Evaluation of the City of Aspen’s Castle Creek Energy Center Hydroelectric Plant and Potential Options
1.2 **Scope of Services**

To accomplish the objectives of the feasibility analysis, the following scope of services was developed:

1. Review Available Technical and Economic Evaluations of the Proposed Project
2. Summarize Key Comments Regarding the Proposed Plant
3. Perform a Concept-Level review of the Proposed Project Design and Potential Options
4. Perform an Economic Evaluation of the Proposed Project and Potential Options
5. Prepare Draft and Final Reports
6. Project Coordination and Management

1.3 **Conduct of the Evaluation**

The information developed in this evaluation is a result of review of the information provided by Public Counsel of the Rockies, contact with knowledgeable persons referred by Public Counsel of the Rockies, and office analysis. Initial activities focused on review of the voluminous electronic documents provided by Public Counsel of the Rockies and discussions to supplement the information in these documents. After review of the information provided, the proposed project and potential options were described at a concept-level and the project economics were reviewed.
Section 2: Castle Creek Energy Center

This section provides an overview of Aspen’s proposed Castle Creek Energy Center, summary of the project economics, summary of key comments to the proposed project, and review of the economic analysis. Information related to the description of the proposed project was derived primarily from Aspen’s revised FERC application dated November 1, 2011\(^4\) and conceptual system design dated March 9, 2007\(^5\), and information related to the economic evaluation of the proposed project was derived from the economic analysis included in the revised FERC application. The proposed project provides the baseline to which potential options can be compared.

2.1 Overview of the Proposed Project

Water for the proposed hydroelectric plant would originate from diversions from Castle and Maroon Creeks on which existing diversions and pipelines provide water to Thomas Reservoir, which is a small (15 acre-feet) re-regulation reservoir that provides water for Aspen’s water treatment plant. The capacities of the diversions are 25 cubic feet per second (cfs) from Castle Creek and 27 cfs from Maroon Creek. From Thomas Reservoir, a new 42-inch diameter, 4000 foot long penstock would be constructed. The penstock would deliver water to a new powerhouse which would contain a single Pelton turbine having a generating capacity of 1.175 megawatts (MW). The hydraulic flow through the plant is 25 cubic feet per cfs at a static head of 330 feet. The estimated annual power generation is 7.7 gigawatt-hours (GWh) gross and 6.2 GWh net of generation losses at the Maroon Creek hydroelectric facility. The powerhouse is located adjacent to the original powerhouse structure that was abandoned in 1958. The turbine discharges to Castle Creek approximately 3500 feet above the confluence of Castle Creek and Roaring Fork River.

2.2 Economic Analysis of the Proposed Project

An updated economic analysis prepared by Aspen is presented in the revised FERC application. This economic analysis generally incorporates the review comments of the Nebraska Municipal Power Pool which conducted an independent review of Aspen’s previous economic analysis. The updated analysis utilizes the internal rate of return (IRR) method of several 77-year cost and benefit scenarios. Numerous assumptions are incorporated into the analysis but the key assumptions in the updated analysis that define the scenarios are coal power escalation rate and degree of reduction in hydropower production. Coal power escalation rates of 1 to 3 percent and hydroelectric production reductions of 18 or 35 percent (Some scenarios are permanent reductions and some are temporary reductions.) are evaluated. IRR values of 1.0 to 7.3 percent are calculated. The lowest IRR assumes a coal power escalation rate of 1 percent and permanent hydroelectric production reduction of 35 percent. The highest IRR assumes a coal power escalation rate of 3 percent and a temporary hydroelectric production reduction of 18 percent. Under all scenarios, the estimated benefits do not exceed the costs for 14 to 30 years.

\(^4\) Supra
2.3 Review of the Proposed Project and Economic Analysis

Based on a review of the available documents, the following comments were developed:

1. The conceptual system design recommended two turbine units: one rated at 60 percent of plant capacity and the other rated at 40 percent of plant capacity. The reasons for this recommendation were operational flexibility (i.e., the ability to service one unit without taking the entire plant out of service), operational efficiency (i.e., more efficient operating characteristics and higher power production), and service life (i.e., less wear and tear on equipment). The report concludes that the "extra cost for two units is justified by the added plant flexibility, operational redundancy and increased equipment life span". The FERC application proposes a single 1.175 MW turbine. The reason for this modification could not be identified in the available documents. As suggested in the conceptual system design, initial cost savings are rarely worth the long term cost, particularly if the consequences are irreversible without significant new capital costs.

2. Based on the hydrologic analysis provided by Aspen\(^6\), the turbine generator appears to be sized properly. A flow exceedance curve created from the hydrologic analysis indicates that the turbine would operate at 25 cfs at least approximately 62 percent of the time. However, the results of the slow start implementation program, two turbine units may be a more flexible and efficient option.

3. Capital costs are currently estimated to be approximately $9.5 million of which $5.5 million would be obtained from the 2007 bond issue and $0.4 million from the Community Office for Resource Efficiency. The remainder of the capital requirements would be obtained from electric utility funds. The economic analysis does not consider the forgone investment income from the $3.6 million to be provided by Aspen. Similar to the cost of debt service, this additional cash investment could yield at least 4.5 percent (the cost of capital). At this rate of return, the internal rate of return estimated by Aspen would be significantly reduced.

4. Aspen incorporates either permanent or temporary hydroelectric decreases in its economic analysis. The basis for the decreases, particularly the temporary decreases, is due to the assumed system start conditions to maintain biological resources. The assumption that power production would remain at below 18 percent of capacity for many years and then be restored to full capacity requires more explanation. For economic evaluation, the more conservative assumption of permanent power reduction should be utilized.

5. Except under certain assumptions, the IRR of the proposed project are generally low. The project IRR should be at least 4.5 percent or it would be more advantageous financially for Aspen to reduce its bonded indebtedness and use the savings to subsidize current costs. The primary assumption that determines the project cost-effectiveness appears to be the coal power escalation rate. If the rate is greater than 2 percent, the IRR is generally above 4.5 percent. The escalation rate would have to be greater than 3 percent if the avoided investment income from other Aspen funds is considered.

\(^6\) Email from David Hornbacker dated December 7, 2011.
6. An economic analysis should be accompanied by a discussion of risk factors. Consideration of risk factors may affect the minimum attractive rate of return necessary to proceed with the project. Among the risk factors that should be considered are construction cost overruns, water rights and environmental risks that could affect the ability to divert water, escalation risks that could affect the long term cost-effectiveness of the project, operational risks that could affect equipment life, and effect of climate change on watershed hydrology over the 75-year project life.

Based on this review, the cost-effectiveness of Aspen's proposed project is questionable and would rely on a coal power escalation rate of greater than 3 percent. To meet the goals of the Canary Initiative, it is recommended that Aspen evaluate the possibility of green energy purchases while its economic assumptions are thoroughly reviewed and before long term economic commitments become irreversible.
Section 3: Ruedi Reservoir

This section provides an overview of a potential project to increase the generation capacity of the hydroelectric plant at Ruedi Reservoir and its preliminary project economics. Information presented in this section was primarily derived from the public websites of the United States Bureau of Reclamation (USBR)\(^7\) and the Ruedi Water & Power Authority\(^8\) and discussions with the Ruedi Water & Power Authority\(^9\).

3.1 Overview of the Ruedi Reservoir Opportunity

Ruedi Dam was constructed from 1964 to 1968 by the United States Bureau of Reclamation as part of the Frying Pan-Arkansas Project. The reservoir has an active capacity of 101,280 acre-feet (AF) and a maximum surcharge capacity of 119,010 AF. The capacity of the outlet works is 1810 cubic feet per second (cfs) at the maximum surcharge elevation of 7781.8 feet. Releases from the dam are controlled by USBR according to established release criteria.

In 1984 to 1985, a 5.0 MW hydroelectric plant was constructed by the Ruedi Water & Power Authority and financed by the City of Aspen. The plant is currently owned and operated by the City of Aspen. A penstock from the outlet works delivers up to 300 cfs at a maximum head of 256 feet to the plant and the plant produces 17 to 25 million kilowatt hours (KwH) of power.

Due to certain design difficulties with the stilling pool, backpressure problems develop due to downstream hydraulic restrictions. This problem limits the flow through the plant to approximately 250 cfs and reduces power output. Accordingly, one potential opportunity at Ruedi Reservoir is to increase the release capacity by removing downstream hydraulic constraints. This will restore the turbine capacity to 300 cfs and increase power output. The amount of the increase is cannot be determined without evaluating the turbine efficiency curve. Permitting the reconstruction activity in the stilling pool is also expected to be complex.

Since the construction of the dam, spring flow releases have been modified from their predevelopment patterns\(^10\). Whereas modeled predevelopment flows in the Fryingpan River exceeded 1000 cfs, post-development releases are generally around 100 to 200 cfs in the spring even though releases can exceed 300 cfs during this period depending on water storage needs. Based on a review of historical releases under USBR’s current release criteria, it does not appear that sufficient power generation can be achieved to cost-effectively develop additional hydroelectric capacity. In 2006, USBR conducted a field test of higher reservoir releases during the spring to improve downstream habitat. Although significant improvements were not observed, modified release criteria could create an additional opportunity at Ruedi Reservoir. In this opportunity, a new penstock would be installed on the old outlet works and provide flow to a new turbine and generator so that flows could be divided between the turbines.

---

\(^7\) [http://www.usbr.gov/gp-bin/arcweb_rueresco.pl](http://www.usbr.gov/gp-bin/arcweb_rueresco.pl) and [http://www.usbr.gov/gp/ecag/ruedi.html](http://www.usbr.gov/gp/ecag/ruedi.html)

\(^8\) [http://www.rwapa.org/index.html](http://www.rwapa.org/index.html)

\(^9\) Personal telephone conversation with Mr. Mark Fuller, Executive Director, Ruedi Water & Power Authority, November 23, 2011

to achieve optimum power production. The size of the new turbine and generator would be
dependent on the modified release criteria and the turbine efficiency curve.

### 3.2 Economic Evaluation of the Ruedi Reservoir Opportunities

Ruedi Reservoir offers one near-term opportunity and one contingent opportunity. The near-term opportunity is to remove hydraulic constraints to reduce tailwater elevations so that the existing turbine generator can operate at higher flows. Although a more detailed evaluation of these constraints should be conducted so that the increased power generation can be quantified, the cost of improvements and permitting is not expected to cost more than $0.3 million. Additional operation and maintenance costs from these improvements are not anticipated. At Aspen’s purchased power cost of $0.0548/KWh and cost of capital of 4.5 percent. This project should be cost-effective if it can increase power generation by approximately 400,000 Kwh/year (approximately 1.6 to 2.4 percent increase over current generation).

The contingent opportunity would arise if USBR modifies its release criteria to provide higher spring flows in the Fryingpan River. Until modified criteria are adopted, an economic evaluation would be speculative.
Section 4: Homestake Reservoir

This section provides an overview of the hydroelectric opportunity at Homestake Reservoir and its preliminary project economics. Information presented in this section was primarily derived from public websites of the United States Geological Survey\(^1\) and City of Aurora\(^2\).

4.1 Overview of the Homestake Reservoir Opportunity

Homestake Reservoir was constructed from 1963 to 1967 and is jointly operated by the Cities of Aurora and Colorado Springs. The reservoir has a capacity of 45,000 AF and the capacity is divided equally between the operators. Water diverted from Homestake Reservoir flows through the 5.2 mile long Homestake Tunnel to Turquoise Reservoir, which was constructed as part of USBR’s Frying Pan-Arkansas Project. Because most of the water to the reservoir arrives between May and July, downstream releases, other than during this period, are small. The storage provided by Homestake Reservoir allows water to be diverted through the Homestake Tunnel which has a capacity of 250 cfs.

Because downstream releases are generally small, the primary opportunity is to develop a hydroelectric plant at the outlet of the Homestake Tunnel which is designed as a pressurized conveyance facility. A facility of up to 5 MW appears possible but a more detailed evaluation is necessary. The primary issue with this opportunity is that the water rights and Homestake Tunnel are owned by the Cities of Aurora and Colorado Springs. Aspen would have to obtain the development rights from these Cities and cost of obtaining these rights is unknown at this time. Furthermore, if cost-effective, it is likely that the Cities would retain the rights for their own development.

4.2 Economic Evaluation of the Homestake Reservoir Opportunity

Acquisition of the necessary development rights for this opportunity appears problematic and even if the rights could be obtained, an economic evaluation would be significantly affected by the cost of obtaining the rights. Accordingly, an economic evaluation was not performed. However, it is recommended that Aspen discuss the potential development of this opportunity with the Cities of Aurora and Colorado Springs and based on the results of the discussion, it can perform the necessary economic evaluation.


Section 5: In-System Hydropower

This section provides an overview of potential hydroelectric opportunities within Aspen's water system and its preliminary project economics. Information presented in this section was derived from water system maps provided by Aspen.13

5.1 Overview of the In-System Opportunities

Hydroelectric generation can be developed within water systems at locations where system pressures are reduced and flow rates are relatively consistent and high enough to develop the power cost-effectively. Usually, Francis turbines or reverse centrifugal pumps are used to convert the hydraulic energy into electrical energy; however, specialized technologies for these applications have also been developed.

To evaluate potential opportunities within Aspen's water system, water system maps were obtained from Aspen and the location of pressure reducing valves (PRVs) were identified. From the maps provided, generally only small (6- or 8-inch) PRVs are utilized in the system. One location along Highway 82 which has a 12-inch PRV may be worth evaluating. Flow rates at this location were not provided. However, in general, such in-system opportunities appear limited.

Other potential opportunities are located at the Castle Creek and Maroon Creek diversion facilities. One opportunity is to modify the diversion dams to utilize both diverted flows and instream bypass flows for hydroelectric generation. Assuming that Aspen only diverts flows necessary for water supply, this opportunity involves retrofit of the dams to generate power with all remaining flows. The other opportunity is to retrofit the pipelines that run from the diversion dams to Thomas Reservoir. Although the differences between the diversion dam crest elevations and the Thomas Reservoir high water elevation are relatively small, flows through the pipelines are relatively consistent.

5.2 Economic Evaluation of the In-System Opportunities

Because insufficient technical information was collected, an economic evaluation of the identified opportunity could not be performed.

---

13 Email from Ellen Vaughan, Project Coordinator, Public Council of the Rockies dated October 26, 2011.
Section 6: Conclusions

Based on this feasibility analysis, the following conclusions are presented:

1. Aspen’s revised economic analysis generally incorporates the comments from the independent review by Nebraska Municipal Power Pool. While this analysis is an improvement over the previous analysis, several questions and possible analytical omissions remain. Consideration of these issues will affect the cost-effectiveness of the proposed project.

2. The IRR of the proposed project appears low considering Aspen’s cost of capital and the economic risks associated with the project. Aspen’s economic model depends on several key assumptions that determine the project’s economics. It is recommended that Aspen consider green energy purchases until these economic assumptions can be thoroughly reviewed.

3. In general, any technical or economic evaluation of the potential project options that were identified was hampered by the lack of key information; however, the potential options do not appear cost-effective or cannot be evaluated without the additional information. The potential options that appear worthy of additional consideration include:
   - Tailwater modifications at Ruedi Reservoir
   - Hydroelectric development at Homestake Reservoir
   - In-system hydroelectric development at the 12-inch PRV
   - In-system hydroelectric development at the diversion dams
ATTACHMENT “C”

FERC PROJECT NO. P-13254
Volume 7

PUBLIC COMMENTS ON DRAFT APPLICATION OF CITY OF ASPEN TO FERC (FEDERAL ENERGY REGULATORY COMMISSION) SEEKING A “CONDUIT” EXEMPTION FROM LICENSING

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Summary</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annette Keller</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>1</td>
</tr>
<tr>
<td>Bill Hunt</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>2</td>
</tr>
<tr>
<td>Robert C. Cook</td>
<td>1/20/11</td>
<td>Oppose</td>
<td>3</td>
</tr>
<tr>
<td>Bob Rafelson</td>
<td>1/18/11</td>
<td>Oppose</td>
<td>5</td>
</tr>
<tr>
<td>Chris Lacy &amp; family</td>
<td>1/18/11</td>
<td>Oppose</td>
<td>7</td>
</tr>
<tr>
<td>Karen Ryman</td>
<td>1/11/11</td>
<td>Oppose</td>
<td>8</td>
</tr>
<tr>
<td>Edwin H. Peterson</td>
<td>1/17/11</td>
<td>Oppose</td>
<td>9</td>
</tr>
<tr>
<td>Ann Harvey</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>12</td>
</tr>
<tr>
<td>Dennis &amp; Linda Vaughn</td>
<td>1/17/11</td>
<td>Oppose</td>
<td>13</td>
</tr>
<tr>
<td>Andre Wille</td>
<td>1/19/11</td>
<td>Oppose</td>
<td>15</td>
</tr>
<tr>
<td>Turi Jøsef森</td>
<td>1/18/11</td>
<td>Oppose</td>
<td>21</td>
</tr>
<tr>
<td>Leon C. Hirsch</td>
<td>1/18/21</td>
<td>Oppose</td>
<td>25</td>
</tr>
<tr>
<td>Delia G. Malone</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>27</td>
</tr>
<tr>
<td>Dona Stuart</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>28</td>
</tr>
<tr>
<td>Ann and Ed Hudson, Jr.</td>
<td>1/15/11</td>
<td>Support</td>
<td>30</td>
</tr>
<tr>
<td>Elizabeth Millias</td>
<td>1/03/11</td>
<td>Support</td>
<td>50</td>
</tr>
<tr>
<td>Ellen Freedman</td>
<td>1/16/11</td>
<td>Support</td>
<td>51</td>
</tr>
<tr>
<td>Angie Fyfe</td>
<td>1/20/11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Governor’s Energy Office

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Summary</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabrielle Rafelson</td>
<td>1/18/11</td>
<td>Oppose</td>
<td>54</td>
</tr>
<tr>
<td>Georgia Lipkin</td>
<td>1/15/21</td>
<td>Oppose</td>
<td>56</td>
</tr>
<tr>
<td>Gordon Banks</td>
<td>1/18/11</td>
<td>Oppose</td>
<td>59</td>
</tr>
<tr>
<td>Deric Sherry Gunshor</td>
<td>1/09/11</td>
<td>Support</td>
<td>62</td>
</tr>
<tr>
<td>Hawk Greenway</td>
<td>1/18/11</td>
<td>Support</td>
<td>63</td>
</tr>
<tr>
<td>Jeanete Darnauer</td>
<td>1/21/11</td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>Jody Guralnick</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>67</td>
</tr>
<tr>
<td>John Emerick</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>70</td>
</tr>
<tr>
<td>Judy Robbins</td>
<td>1/15/21</td>
<td>Oppose</td>
<td>72</td>
</tr>
<tr>
<td>Edward H. Wachs</td>
<td>1/21/11</td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Ken Ransford</td>
<td>1/21/11</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Kendrick Neubecker</td>
<td>1/19/11</td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>

Western Rivers Institute
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Date</th>
<th>Position/Role</th>
<th>Oppose/Support</th>
<th>Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.</td>
<td>Paul Noto, Esq.</td>
<td>1/21/11</td>
<td>Attorney for Coalition of Castle and Maroon Creek Landowners</td>
<td>Oppose</td>
<td>88</td>
</tr>
<tr>
<td>32.</td>
<td>Pitkin County Healthy Rivers &amp; Streams Board and accompanying Reports following Independent Expert Review:</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>United States Forest Service, Aspen-Sopris Ranger District</td>
<td>1/19/11</td>
<td>Oppose</td>
<td>186</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>Lucy R. Hibberd</td>
<td>1/10/11</td>
<td>Support</td>
<td></td>
<td>188</td>
</tr>
<tr>
<td>35.</td>
<td>Jim Markalunas</td>
<td>1/14/11</td>
<td>Support</td>
<td></td>
<td>189</td>
</tr>
<tr>
<td>36.</td>
<td>Marsha N. Cook</td>
<td>1/20/11</td>
<td>Oppose</td>
<td></td>
<td>190</td>
</tr>
<tr>
<td>37.</td>
<td>Matt Rice</td>
<td>1/21/11</td>
<td>Oppose</td>
<td></td>
<td>192</td>
</tr>
<tr>
<td>38.</td>
<td>American Rivers</td>
<td>1/21/11</td>
<td>Oppose</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>39.</td>
<td>Tom and Maureen Hirsch</td>
<td>1/21/11</td>
<td>Oppose</td>
<td></td>
<td>205</td>
</tr>
<tr>
<td>40.</td>
<td>Amelia S. Whiting</td>
<td>1/21/11</td>
<td>Oppose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>Colorado Conservation Director</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>American Rivers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>Colorado Water Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>Paul C. Currier, P.E.</td>
<td>1/17/11</td>
<td>Oppose</td>
<td></td>
<td>218</td>
</tr>
<tr>
<td>45.</td>
<td>Matthew C. Hamilton</td>
<td>12/1/10</td>
<td>Support</td>
<td></td>
<td>219</td>
</tr>
<tr>
<td>46.</td>
<td>Robert Harris, Staff Atty</td>
<td>1/21/11</td>
<td>Support</td>
<td></td>
<td>220</td>
</tr>
<tr>
<td>47.</td>
<td>Bart Miller, Water Program Director</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>Sam Rawlings Walton</td>
<td>1/19/11</td>
<td>Oppose</td>
<td></td>
<td>228</td>
</tr>
<tr>
<td>49.</td>
<td>Kit Goldsbury</td>
<td>1/17/11</td>
<td>Oppose</td>
<td></td>
<td>231</td>
</tr>
<tr>
<td>50.</td>
<td>Sara Ransfprd</td>
<td>1/18/11</td>
<td>Oppose</td>
<td></td>
<td>234</td>
</tr>
<tr>
<td>51.</td>
<td>Shane Robbins</td>
<td>1/17/11</td>
<td>Oppose</td>
<td></td>
<td>237</td>
</tr>
<tr>
<td>52.</td>
<td>Eugene Lipkin</td>
<td>1/21/11</td>
<td>Oppose</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>53.</td>
<td>Lanir Drake</td>
<td>1/12/11</td>
<td>Oppose</td>
<td></td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Date</td>
<td>Position</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------</td>
<td>--------</td>
<td>-----------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Susan Hirsch</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Karen Blomquist</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>246</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Tillie K. Walton</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>247</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Will Roush,</td>
<td>1/21/11</td>
<td>Oppose</td>
<td>248</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cynthia Wayburn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jim Roush</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>James J. Coates</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Amete dePagter</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>254</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Christina D. Person</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>257</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Angel Cusick</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Bridget Balentine</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>263</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Jack dePagter</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>266</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>John Simmons</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>269</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Jenni Kading</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>272</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Mary Bright</td>
<td>1/15/11</td>
<td>Oppose</td>
<td>275</td>
<td></td>
</tr>
</tbody>
</table>