

Mr. Rex Gittins
Nebraska Department of Natural Resources
301 Centennial Mall South, 4th Floor
PO Box 94676
Lincoln, NE 68509-4676

RE: Support Services for the Water Funding Task Force

Dear Mr. Gittins and Members of the Water Funding Task Force:

The State of Nebraska is on the verge of transforming the way in which Nebraska's water resources are managed to ensure their continued availability for beneficial use. HDR Engineering, Inc. (HDR) will assist the recently appointed Water Task Force (Task Force) towards execution of a successful report that will identify, compile and organize Nebraska's water needs and recommend to the legislature a process to identify, prioritize and fund statewide projects and research recommendations. This effort will ultimately **establish the framework that will ensure effective conservation, sustainability, and management of Nebraska's water resources.**

HDR is extremely interested in the opportunity to support the Task Force. We offer the Task Force:

- **A Project Manager with exceptional understanding of the intricacies of large, multi-faceted water resource projects and a proven ability to develop solutions for high-profile projects under tight schedules.** John Morton is the ideal Project Manager to drive this project to successful completion. He has the perfect mix of technical experience, regulatory knowledge and stakeholder involvement to understand exactly what needs to be accomplished. From Day 1, John's leadership skills will be apparent as he sets the course to achieve the Task Force's project goals within the aggressive schedule set by the Legislature.
- **Proven capabilities to provide expert facilitation services for projects involving a complex mix of technical, legal, environmental, economic and regulatory issues with a potential for contrasting ideas due to divergent and often competing interests.** HDR recently successfully facilitated public involvement for the State of Nebraska's review of the Keystone XL Pipeline project, which was a highly controversial project completed in a condensed timeframe. HDR's trained facilitators continually recognize the importance of listening and encouraging two-way communication with stakeholders and incorporating stakeholders' ideas, issues and concerns into the project development process.
- **Unparalleled technical knowledge of Nebraska's water laws and water management goals.** Team members John Engel, Blaine Dwyer, and Larry Land have a thorough understanding of Nebraska's water rights and water supply issues from their work on projects throughout the state for the Nebraska Department of Natural Resources (DNR), Platte River Recovery Implementation Program, and multiple Natural Resources Districts (NRDs) throughout the entire state. Their technical knowledge related to conjunctive management, the State's water infrastructure, water administration and management, and integrated management of ground water and surface water will be invaluable to the Task Force.

- **Experience with similar projects throughout the country to bring a wealth of knowledge to the Task Force on how other states have accomplished similar goals.** For the last 16 years, Jeff Fassett has served as an advisor to the Wyoming Water Development Commission and has a keen understanding of a statewide water funding program. This expertise provides the Task Force with significant insight into issues similar to those the Task Force may face.
- **A Nebraska-based team committed to projects in our state and to addressing Nebraska's water needs.** Headquartered in Omaha, HDR and its 1,100 local employees have a vested interest in bringing our skills and expertise to address current natural resource challenges facing Nebraska. Our leadership team and key facilitation staff for this project are all located in Nebraska and have dedicated the majority of their careers to projects within the state. When Nebraska has been faced with challenges and technical issues, HDR has consistently been the firm that has delivered successful projects under critical schedules. You can be assured of HDR's commitment to completing this project to the Task Force's satisfaction.

We are excited to submit this letter of intent indicating our desire to provide an oral presentation to the Task Force. Please accept our attached proposal to support the activities of the Task Force. We look forward to discussing HDR's ability to be your partner in this exciting project. There is no better team for the job.

Respectfully Submitted,

HDR ENGINEERING, INC.



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SPECIFIC RESPONSE TO TASK ORDERS

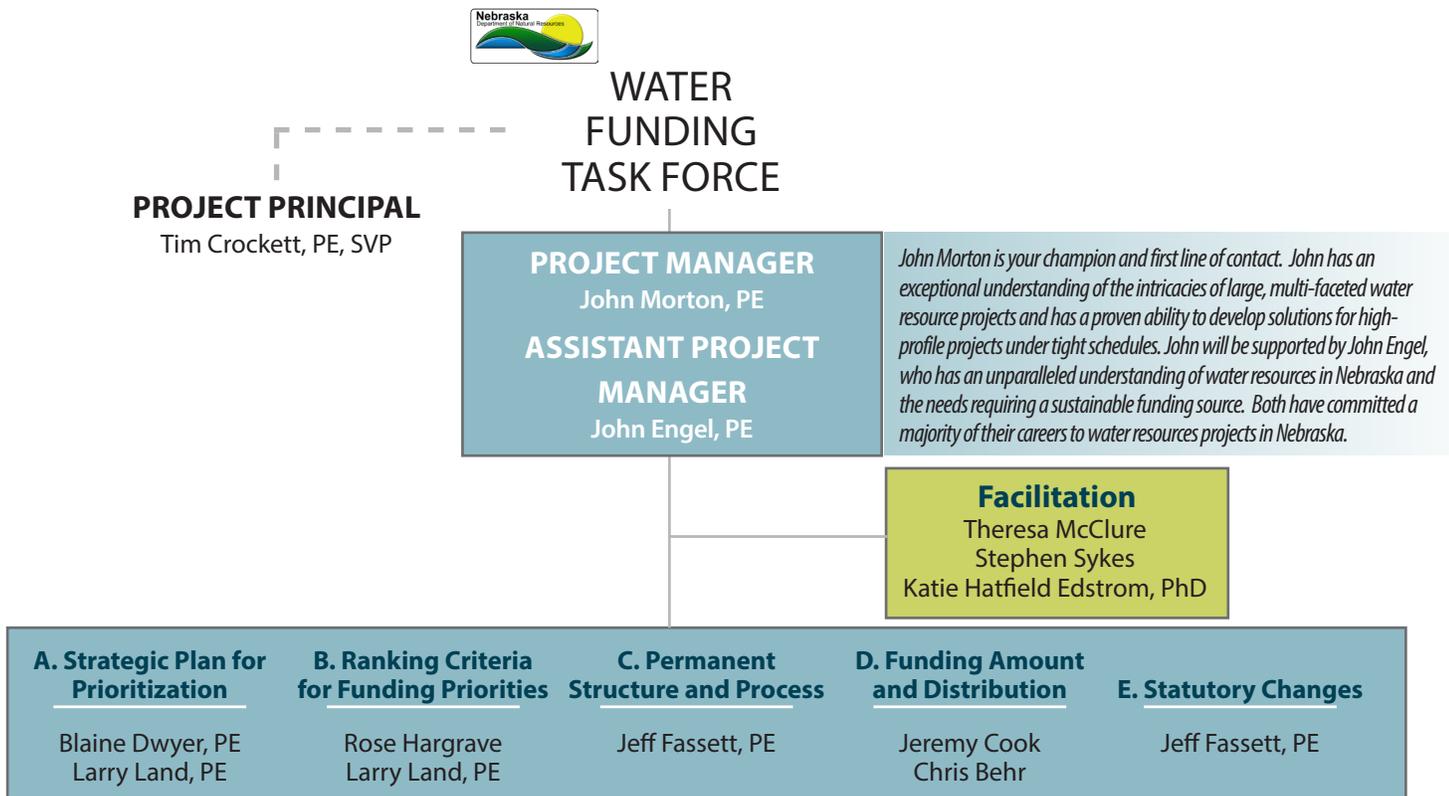
Project Organization

The members of this project team were carefully selected based on their ability to meet the objectives of this project and their experience and knowledge with the technical and facilitation aspects of the project. The team is comprised of highly qualified professionals in every discipline required to complete this project to the Task Force’s satisfaction. **The leadership team and key facilitation staff are based in our Omaha, Nebraska office.**

As will be further described in our approach on the following pages, HDR proposes to establish five “Working Groups” that will each be tasked with providing recommendations for the areas identified in Legislative Bill 517 (LB517), including:

- A. Strategic Plan for Prioritization
- B. Ranking Criteria for Funding Priorities
- C. Permanent Structure and Process
- D. Funding Amount and Distribution
- E. Statutory Changes

Our project team is aligned with the Working Groups, with HDR technical experts and facilitators leading each Working Group. This Working Group structure will allow for the tasks to run concurrently in order to facilitate the schedule. The organizational chart shown below details the key personnel who will work on the project and within each Working Group. Resumes describing their qualifications and experience are provided at the end of this proposal.





Project Understanding & Overall Approach

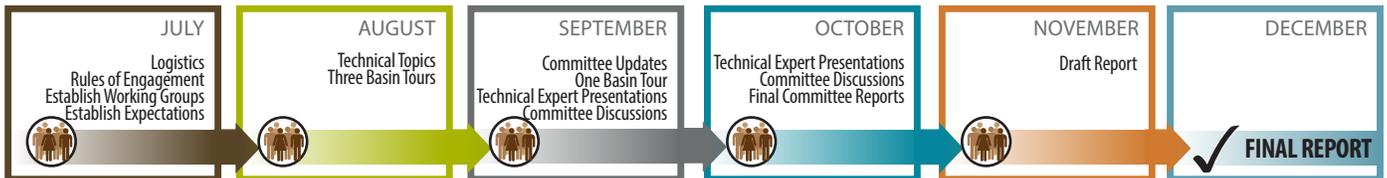
HDR understands that the purpose of this Project is to guide the recently appointed Task Force towards successful completion of their “charge”, as identified in LB517. In short, LB517 mandates the Task Force to develop a report that will identify, compile and organize Nebraska’s water needs and recommend to the legislature a process to identify, prioritize and fund statewide projects and research recommendations. This effort will ultimately establish the framework that will ensure effective conservation, sustainability, and management of Nebraska’s water resources. HDR understands that this Project involves a complex mix of technical, legal, environmental, economic, social, and regulatory issues with a potential for contrasting ideas due to divergent and potentially competing interests. To successfully complete the charge for LB 517 in the defined schedule, the Task Force will need to work efficiently and smoothly.

HDR’s value-added approach to working with the Task Force to provide a clear, concise recommendation to the Nebraska Department of Natural Resources, the Legislature, and the Governor on a Sustainable Water Funding Program, in the required timeframe is based on 1) a Roadmap for Project Success; 2) the establishment of Working Groups for concurrent assessment; 3) technical experts with a wealth of knowledge on Nebraska’s water resource issues; and 4) effective facilitation and development of Rules of Engagement to maximize the value of facilitated workshops.

The HDR project team brings the needed technical, leadership, and facilitation expertise required to galvanize the varied interests and stakeholders that make up this Task Force into an aggregated voice for sustainable water resource management into the future and in accordance with LB 517.

Roadmap for Project Success

The complexity of this project, combined with the aggressive schedule, dictates that a “Roadmap for Project Success” be developed from the very beginning to **clearly define the process and give all participants a clear vision of the end result**. This will ensure that the overall direction and timeline of the project are established and that all of the technical pieces are moving in the right direction. **John Morton is the ideal Project Manager to drive this project to successful completion**. From Day 1, John’s leadership skills will be apparent as he sets this Roadmap in motion to achieve the Task Force’s project goals, to increase the value of the work, and to expedite the schedule:



The Roadmap for Project Success is fully defined in the project schedule presented on Page 8. **This schedule will maintain the forward moving momentum of the project throughout the initiative’s aggressive timeframe.** At the beginning of the project, HDR will work with the Task Force to refine this Roadmap, as needed.

Meetings will begin in late July and should be completed near the beginning of December 2013, coincident with completion of the Draft Report. Task Force basin tours will be scheduled during the months of August and September. This schedule will allow the Task Force to maximize the opportunity to experience and observe seasonal activities important to the work of the group (i.e. irrigation canals, etc).

Task Force meetings will utilize a standing agenda, shown to the right, and will incorporate additional agenda items as the Task Force progresses; these will include discussions by technical experts from a variety of fields and break-out sessions for the five proposed Working Groups, which are described further below. **The facilitated format of the meetings will provide both structure and flexibility as Task Force members develop recommendations on a variety of topics.**

The standing agenda will include:

1. Introductions / Opening of Meeting
2. Review of Progress
3. Review Current Meeting Objectives
4. Facilitated Discussion of Issues
5. Working Group Updates and Needs
6. Public Comment
7. Document Effort Until Next Meeting
8. Final Comments
9. Close of Meeting



Establishment of Working Groups for Concurrent Assessment (Task 1)

HDR proposes to establish five Working Groups that will each be tasked with providing recommendations for the areas identified in Legislative Bill 517 (LB517), including:

<p>A. Strategic Plan for Prioritization</p> <p>Provides recommendations for a strategic plan which prioritizes programs, projects, and activities in need of funding.</p>	<p>B. Ranking Criteria for Funding Priorities</p> <p>Provides recommendations for ranking criteria to identify funding priorities.</p>	<p>C. Permanent Structure and Process</p> <p>Provides recommendations for legislation on a permanent structure and process through which the programs, projects, or activities will be provided funding.</p>	<p>D. Funding Amount and Distribution</p> <p>Provides recommendations for annual funding amount and the start date for distribution of funds.</p>	<p>E. Statutory Changes</p> <p>Provides recommendations for statutory changes relating to authorities and to funds and programs administered by, and boards and commissions under the direction of, the department, based on the Task Force's evaluation of the efficiency of such funds, programs, boards, & commissions.</p>
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Each proposed Working Group will be led by an HDR technical expert and an HDR facilitator. Many Task Force members will be pre-assigned to a particular Working Group based on their interests and expertise. Those Task Force members who are not pre-assigned will be asked to self-select a Working Group of their choice. Any Task Force member that is pre-assigned will have the option of self-selecting to serve on an additional Working Group of their choice if desired.

Meetings of the Working Groups outside of the Task Force meetings are not considered public meetings, as defined by the Nebraska Public Meetings Act. However, all business conducted by these groups will be documented and provided to the Task Force for inclusion in the Final Report.

Each Working Group will provide two reports to the Task Force during regular meetings: (1) initial findings for consideration, comment, and input; and (2) final recommendations for consideration in the Draft Report. Each Working Group will produce a final written recommendation for consideration in the Draft Report. These recommendations will be open for discussion and voted on for determination of their inclusion.

ASSUMPTIONS*
DNR will provide the location for Task Force meetings. The location will be the same for each meeting. HDR assumes no costs for meeting room reservations.
It is assumed that the meeting space, provided by DNR, will include a space for up to five breakout sessions.
For 4 2-day basin area tours, HDR will manage logistics, invitations, arrange transportation, refreshments, and reserve hotel reservations when applicable. Each Task Force member and DNR representative will be responsible for hotel payment and individual transportation expenses. HDR will be responsible for payment and reservations for group transportation, conference rooms, and refreshments.
HDR will provide expert facilitation of each Working Group outside Task Force meetings including one technical resource and one facilitator. HDR will coordinate invitations and meeting locations of each meeting. It is assumed that up to 3 meetings will occur.
HDR will provide agendas, meeting materials, and meeting documentation for all 21 Task Force and 3 Working Group meetings.
HDR assumes travel expenses (mileage or rental vehicle and fuel) for up to 28 meetings (which includes 4 basin area tours). Lodging and state meal per diem for up to 8 days and up to 4 people is provided for in the fee estimate.
HDR assumes up to four people at each Task Force meeting, including two facilitators and two technical experts.
HDR assumes Task Force meetings are four hours.

* Assumptions included in proposal are for costing purposes and may be modified as necessary.

Technical Expert Consultation to Bring a Wealth of Knowledge and Experience to Task Force (Task 2)

In addition to the excellent project leadership staff that is committed to the success of this project, HDR's technical experts will bring unparalleled knowledge and experience to the project. **HDR understands state water resources programs, and with national reach, provides the Task Force access to the breadth of technical resources with subject matter expertise necessary to accomplish the task force goals.** Technical experts will attend issue specific Task Force meetings and present on relevant content related to the Working Group or agenda topic. Our technical experts will be the lead report section authors, and they will provide professional opinion during the preparation of the Final Report.



SPECIFIC RESPONSE TO TASK ORDERS

HDR technical staff is prepared to provide expertise in the following areas:

- Funding, finance, and economics;
- Statutory and Legislative Requirements;
- Water infrastructure, capital improvement scoping, planning, and scheduling; and
- Interstate compacts and agreements.

HDR will also engage outside technical resources as needed to assist the task force in its efforts, such as subject mater experts from UNL.

Technical Experts With a Keen Understanding of the Issues at Hand

HDR’s technical experts bring unique perspectives and insights into programs of other Western states. Water resources expert **Blaine Dwyer** brings decades of expertise related to water infrastructure and capital improvement planning and funding. Mr Dwyer was involved in the Platte River Recovery Program and is recognized throughout the nation for his expertise in water resources and water planning. **Jeff Fassett** brings industry recognized expertise in water rights and interstate compact law, as well as 25 years of intimate experience (in his role as Wyoming State Engineer and in the private sector) with the Wyoming Water Development Commission, a similar state driven water funding program.

ASSUMPTIONS

HDR assumes travel (airfare, hotel, rental vehicle, and fuel) for state regulated per diem costs for a maximum of 8 trips in total for Technical Experts.
Technical Experts will be available for Task Force meetings in-person and via webinar/ teleconference when applicable.
When attending Task Force meetings, HDR Technical Experts will provide technical presentation materials corresponding with meeting agendas.
HDR Technical Experts, in partnership with DNR, will provide primary authorship of technical area chapters within the Final Document provided to the Legislator from the Task Force.
HDR assumes approximately 440 hours of technical expertise in support of carrying out the charge of the Task Force based on division of labor shown on fee table on page 7. These services may include: engineering and technical assessment of potential water resources projects, consultation with other groups, formulation of cost estimates, and other tasks assigned by the Task Force.

Effective Facilitation and Rules of Engagement to Galvanize the Varied Interests into an Aggregated Voice (Tasks 1 & 2)

Group brainstorming, problem-solving, and conflict resolution benefit from deliberate up-front planning and effective facilitation partnered with concise and accurate documentation. Even in a group with varying interests at stake, coupled with an aggressive schedule, a good facilitator can expeditiously shepherd a group through conflict and constraints

in a positive and beneficial way. HDR’s experienced facilitators and logistics specialists are effective communicators that provide meeting management, planning, organization, and consultation. **We will work with the Task Force to develop strong meeting management, partnered with expert meeting planning that allow for an ease in logistical coordination while minimizing group stalemates and potential conflict.** HDR will both facilitate each meeting and provide live meeting documentation with a scribe. This approach will help to eliminate administrative time that it will take to write the final report.

Successful Facilitation of Fast-Tracked Project Under Leadership of John Morton

John Morton, as Project Manager, used a similar process to complete the Keystone XL Pipeline project, a proposed 195 miles of highly controversial crude oil pipeline in Nebraska. Work was completed on an **expedited schedule** in approximately 8 months and included extensive technical analysis, developing a first of its kind process for the Nebraska Department of Environmental Quality that produced a NEPA- like document, **hosting and facilitating multiple public information sessions, distributing a draft document to the public for review, conducting a public hearing,** responding to comments and preparing a final evaluation report.

Logistics

The logistics of meeting planning are critical to the success of any event. Our logistic specialists are well-organized, detail-oriented, and flexible enough to handle large and small efforts. We have developed systematic tools such as scalable planning schedules, site visit checklists and team travel aggregators that help ensure every detail, from planning to execution, is handled without difficulty. In addition, we have skilled negotiators that work to find venues, refreshments, and lodging that meet program criteria while providing the best value. Additionally, our specialists manage the production and review of all meeting materials so it coincides with the overall event preparation schedule.

Rules of Engagement

The following page presents HDR’s proposed **Rules of Engagement that will define operating procedures of the Task Force to assist in effective and efficient facilitation and to expedite complete of the work.**



RULES OF ENGAGEMENT

Task Force Overview

The Nebraska Legislature has determined that Nebraska's water resources are finite and must be wisely managed to ensure their continued availability for beneficial use. As such LB 517 mandates that the Task Force (a) research and data gather; (b) further integrate the management of Nebraska's water supplies; (c) improve the state's aging and antiquated water supply infrastructure; (d) build new water supply infrastructure; (e) promote coordination and collaboration among all water users; and (f) provide information to policymakers to justify a stable source of project funds.

Charge Statement

The Task Force is charged with the responsibility of determining the costs of effective conservation, sustainability, and management of Nebraska's water resources, the states' identified water needs must be compiled and organized and a process must be established in order to identify statewide projects and research recommendations. Additionally, the Task Force must facilitate the creation of a funding process, a collaborative effort of experts representing all water interests and areas of the state is important to ensure fair and balanced water funding.

Task Force Member Responsibility/ Rules of Decorum

Each member of the Task Force is responsible for representing his or her interests with regard to his or her knowledge and experience of Nebraska's water use and economy.

The Task Force will operate on the following rules of decorum:

1. Listen carefully and ask questions so that members can provide informed input and make educated decisions.
2. Review and comment on work products in a timely manner.
3. Attend all meetings as required by the Task Force.
4. Come to meetings prepared and ready to participate.
5. Understand the mandates required by LB 517, the scope of work for the Task Force, and timeline for completion.
6. Be respectful of other Task Force members, Nebraska Department of Natural Resources staff, and the public.

Nebraska Public Meeting Requirements

The Task Force will comply with the Nebraska Open Meeting Law with posted agendas, public notice, open, accessible meetings, and records of the discussions that have occurred. All Task Force and working group meeting notes will be recorded during each meeting, and the notes will be posted with all meeting materials for public review. In addition, still imagery of basin tours will be shared with the public.

In accordance with the Open Meetings Law, reasonable notice will be given in advance of each public meeting. A full tentative Task Force meeting schedule will be available on a publicly accessible internet site, the Department's website for the Task Force, and in a public notice at the beginning of the project schedule. Public notices will be placed three days in advance of each scheduled meeting and will include a brief agenda.

- *Public Notice – Media Plan.* Notification of Task Force meetings will be made in accordance with Nebraska Open Meetings Law. Legal notifications will be placed in the Omaha World Herald and Lincoln Journal Star at the onset of the project. Monthly notifications will be placed reminding the public of upcoming meetings for the month.
- *Public Participation at Meetings.* Accommodations for the general public to attend the Task Force meetings will be made in accordance with Nebraska Open Meetings Law. As required under Nebraska law, the general public that attends the Task Force meetings will be provided an opportunity to comment at the end of each meeting. At the beginning of each meeting, the HDR facilitator will inform members of the public that their comments are welcome during the last fifteen minutes of each meeting. Comments can be provided to the Task Force orally, in written form at the meeting, or via email following each meeting.

Meeting Format

Task Force meetings will be organized and conducted to maximize participant's time and involvement. Meeting agendas will be provided to Task Force members in advance and will include the objectives and goals of each meeting. Meetings will be organized primarily as facilitated discussions that incorporate small group break-out sessions as appropriate.

Tools for Engagement

Effective facilitation of diverse stakeholder groups is equal parts art and science. Establishing a productive and open working environment early on for Task Force members is paramount. As Task Force meetings progress, the facilitation and engagement tools that are utilized are specifically selected to draw out information and input from all participants.

- Audience Response Systems.** Audience response systems are proven polling and opinion gathering tools. The Task Force will benefit in a variety of ways from the use of a mobile phone/text based polling system or a proprietary polling system. Benefits include the ability to both poll anonymously and track individual voting. Polling results can be displayed immediately and can be referenced throughout the project to track opinions on issues as they develop over the course of the Task Force.
- Webinar/teleconferencing.** To allow Task Force members and the public to participate in the meetings, regardless of their location, all meetings will be available via webinar/teleconference. HDR will utilize ADOBE Connect to facilitate the meeting and will work with the DNR to prepare meeting materials in advance so task force members can fully participate. The meeting logistics will be made available to the public in accordance with the Nebraska Open Meetings Act.



ASSUMPTIONS

HDR will be responsible for meeting invitations, agendas, presentation materials, handouts, and minutes for each Task Force and Working Group meeting.
HDR will be responsible for meeting collateral materials and refreshments.
HDR will be responsible for securing teleconferencing/ webinar software which will be available for each meeting.
DNR will be responsible for necessary audio visual equipment if required.
HDR is responsible for cost of media expense up to \$5,000.

Final Documentation (Task 3)

To present and document the Task Force recommendations and technical findings, HDR will develop a draft and final report. The following is a proposed outline that can be utilized to expedite the report development process:

- I. Executive Summary** – Summarizes the major elements, conclusions and recommendations from the Report into a stand alone section.
- II. Legislative Bill 517** – Provides the text of LB 517.
- III. Introduction** – Includes the background, legislative history, Task Force membership, organization of the Task Force and summarizes public participation.
- IV. Task Force Activities** – Describes the activities of the Task Force, meeting notices, agendas, and minutes will be referenced and provided in an Appendix.
- V. Information developed or used by the Task Force** – Summarizes and references the data collected, compiled or utilized by the Task Force, including a summary of Nebraska Water Development needs compiled from other studies and a summary of relevant Nebraska statutes. Details and data will be either referenced or placed in an Appendix.
- VI. Recommendations for a strategic plan** – Provides recommendations for a strategic plan which prioritizes programs, projects and activities in need of funding.
- VII. Recommendations for ranking criteria** – Recommends ranking criteria to identify funding priorities.
- VIII. Recommendations for legislation** – Provides recommendations for legislation on a permanent structure and process through which the programs, projects, or activities will be provided funding.
- IX. Recommendation for annual funding amount** – Recommends the annual funding amount and start date for distribution of funds.
- X. Recommendations for statutory changes** – Includes recommendations for statutory changes relating to regulatory authorities and to funds and programs administered by, and boards and commissions under the direction of, the Department.
- XI. Conclusions** – Summarizes in a succinct table or narrative the major recommendations and conclusions for each section (VI through X).
- XII. Appendices** – Presents information and data too detailed or voluminous for the main report. Will be assembled appropriately referenced in the main body of the report.



SPECIFIC RESPONSE TO TASK ORDERS

HDR will complete the following activities associated with the development of this document:

1. HDR will develop narrative text, tables, maps and graphics with findings of the Task Force and technical experts. Senior professionals will review the draft document for content, tone and accuracy and deliver their findings back to the content authors.
2. During document preparation, HDR will provide copies of the narrative and graphics to the Working Groups for timely initial reviews of the document. The Working Group's approval will be achieved before presenting the draft document to the Task Force.
3. To address comments and concerns of the Task Force, HDR will facilitate up to 4 live editing sessions with the Working Group to review the document by incorporating the view points of the agency and from the Task Force. Senior professionals will participate in the editing process and review document changes for accurate technical content.
4. HDR will prepare the Final Report, review and resolve comments and incorporate revisions into the final document.
5. The report will be published based on final approval from the Task Force.

ASSUMPTIONS
Distribution of the Draft Document will be electronic; preparation of hard copies is not anticipated.
The Final Document will be produced in both hard copy and electronic versions; 50 hard copy sets and 100 CD's will be provided to the DNR for final distribution. The cost for mailing copies of the Final Document is not included for in the fee.
The 4 live editing meetings will occur at DNR offices. Mileage and or rental car and fuel costs are included in the fee.

Estimated Work-Hour, Hourly Rate, and Fee Summary

JOB CLASSIFICATION	HOURLY RATE	TASK 1: PROJECT MTG COORDINATION & FACILITATION ANTICIPATED HOURS	TASK 2: SUPPORT OF TASK FORCE CHARGE ANTICIPATED HOURS	TASK 3: PROJECT REPORTING ANTICIPATED HOURS	TOTAL LABOR COSTS
Senior Technical Advisor	\$288	32	40	0	\$20,736
Project Manager	\$272	146	100	35	\$76,432
Assistant Project Manager	\$195	105	60	64	\$44,655
Senior Engineer	\$220	32	40	0	\$15,840
Senior Scientist	\$150	64	160	50	\$41,100
Economist	\$120	0	40	24	\$7,680
Senior Facilitator	\$125	448	0	5	\$56,625
Facilitator	\$100	450	40	32	\$52,200
Technical Editor/Clerical	\$82	225	150	100	\$38,950
TOTAL HOURS	-	1502	630	310	2442
TOTAL LABOR COST	-	\$205,493	\$104,320	\$44,405	\$354,218
TOTAL EXPENSES					\$45,452
TOTAL PROJECT COST					\$399,670

Key Assumptions:

- For basin area tours, HDR will manage logistics, invitations, arrange transportation, refreshments, and reserve hotel reservations when applicable. Each Task Force member and DNR representative will be responsible for hotel payment and individual transportation expenses. HDR will be responsible for payment and reservations for group transportation, conference rooms, and refreshments.
- HDR assumes up to four people at each Task Force meeting, including two facilitators and two technical experts.
- HDR assumes travel (airfare, hotel, rental vehicle, and fuel) for state regulated per diem costs for a maximum of 8 trips in total for Technical Experts.
- HDR assumes approximately 440 hours of technical expertise in support of carrying out the charge of the Task Force. These services may include: engineering and technical assessment of potential water resources projects, consultation with other groups, formulation of cost estimates, and other tasks assigned by the task force.
- HDR is responsible for cost of media expense up to \$5,000.

Schedule

HDR has developed a schedule for Task Force meetings and basin tours that will meet the expectations of LB 517. This schedule will maintain the forward moving momentum of the project throughout the initiative's aggressive timeframe. Meetings will begin as early as end of July 2013 and should be completed near the beginning of December 2013. Task Force basin tours that represent the diversity of water resources and use in Nebraska and would be informative for the Task Force membership will be scheduled during the months of August and September. Potential basin tours include Western and Central Platte River; Republican River Basin; Niobrara/Loup Basins; and Lower Platte/Missouri River. The Draft Report will be delivered to the Task Force by November 30, 2013 and the Final Report by December 21, 2013.





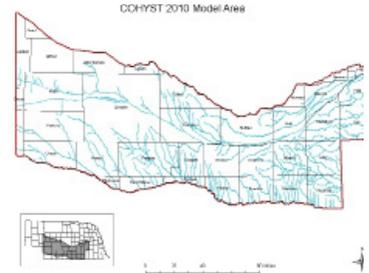
Similar Project Experience

HDR has extensive experience within the State of Nebraska conducting tasks similar to those described in the scope of work. Three recent, relevant projects are provided below to showcase this local experience.

PLATTE RIVER CONJUNCTIVE MANAGEMENT AND COHYST

COHYST Sponsor Group |Nebraska

Nebraska’s surface water supplies are regulated by the DNR and in the Platte Valley are supplied through 16 canal systems. Surface supplies are obtained from natural flow rights and are supplemented by storage water from Lake McConaughy in many instances. Groundwater resources are subject to regulation by NRDs, in cooperation with DNR. Historically, the physical supplies of surface and groundwater have been sufficient to meet the large and growing irrigation demand for water. However, there are still concerns over the sustainability of existing water uses into the future. In order to address these concerns, HDR was contracted by a group of water stakeholders who coordinated their efforts to sponsor and develop a Conjunctive Water Management plan for the Platte Valley with the goal of optimizing the availability of water to groundwater and surface water users within the study area.



In February 2010, the Conjunctive Water Management sponsors and the sponsors of COHYST agreed in concept on a framework to contribute to a single coordinated modeling effort to develop the tools necessary to accomplish their respective management objectives. The primary purpose of the Conjunctive Water Management plan is to ensure efficient management of ground and surface water resources and maintain firm, sustainable, and high quality surface and groundwater sources for the area. To that end, HDR is assisting the COHYST sponsors in the development of a suite of modeling tools to represent all components of the water budget, including a MODFLOW model to represent the groundwater elements; STELLA to represent the surface water operations system, and CropSIM and SWAT combined to represent watershed processes and water partitioning. These modeling tools are integrated to allow representation of each component, as well as the water budget. This allows evaluation of water budget component responses to stresses and signals (climatic, management decisions, etc.) individually as well as the impact to the total water budget. HDR developed the surface water operations model of the Platte River that represents the river reaches, irrigation and supply canals, reservoirs, and hydropower facilities within the Study reach. HDR also utilized the STELLA software package to represent these physical elements and developed operating rules for each of these features for inclusion in the model to facilitate a dynamic, decision-based, model to represent the system.

The modeling tools have recently been completed for the integrated model, allowing HDR to begin evaluating conjunctive management alternatives for the Central Platte River valley to maximize the sustainable, beneficial uses of the surface and ground water resources.

MULTIPLE PROJECTS FOR THE NEBRASKA DEPARTMENT OF NATURAL RESOURCES

DNR |Nebraska

HDR has recently completed multiple projects throughout Nebraska assisting the Department of Natural Resources in its integrated water planning efforts:

- **Central Platte River Valley Conjunctive Management Tool Development.** Utilizing grant funds allocated by the American Recovery and Reinvestment Act of 2009, HDR worked closely with DNR on three tasks to support conjunctive water management efforts in Nebraska. The first task involved developing water leasing templates for use by DNR and water users in the lease and transfer of water appropriations. The second task included the development of database and spreadsheet analysis tools to determine historic excesses to state protected flows in the Platte River. Finally, the third task conducted a case study of conjunctive management alternatives for the Western Canal along the South Platte River that looked at potential project locations and types, impacts and constraints, several metrics for evaluating conjunctive management projects, and each alternatives’ ultimate yield to the South Platte River.



- **Surface Water Operations Model.** HDR has provided technical assistance to DNR in the development of a Stella-based surface water operations model for the Upper Niobrara River Basin that will integrate with a regional groundwater model. The integrated modeling tool will allow the DNR and Natural Resources Districts in the Niobrara River Basin to more effectively manage the hydrologically connected surface-groundwater supply.
- **Development of a Groundwater Model for the Big Blue and Little Blue River Basins.** HDR recently completed development and calibration of a regional groundwater model for the Blue River basins.
- **Refinements to the Fully Appropriated Determination Methodology.** Working jointly with the Central Platte Natural Resources District and Nebraska DNR, HDR conducted a multi-phase effort to investigate potential refinements for consideration by DNR in updating their administrative rules for performing fully appropriated basin evaluations. The first phase involved literature review of western water law, decree, and compact accounting procedures for applicability to Nebraska. Desirable characteristics of methodology were identified and prioritized. The second phase involved limited testing of potential methodologies on the upper Niobrara River and lower Platte River. The final phase involved application of final recommendations to the full Platte River basin. Multiple stakeholder meetings and presentations were conducted throughout the course of the study and a final technical memorandum detailing the development of the recommendations was prepared.

FACILITATION FOR LOWER PLATTE RIVER BASIN

Lower Platte South Natural Resources District and Lower Platte River Corridor Alliance | Nebraska

HDR has extensive experience working on projects in the Lower Platte basin for Lower Platte South Natural Resource District (LPSNRD) and Lower Platte River Corridor Alliance (LPRCA) including:

- **Lower Platte South Natural Resources District (LPSNRD) – Integrated Management Plan (IMP) and Public Involvement Planning:** The LPSNRD and the Nebraska Department of Natural Resources (DNR) is currently in development of a voluntary Integrated Management Plan that requires a comprehensive Public Involvement Plan. The public involvement plan identifies project messaging, key stakeholders, opportunities to communicate, gather input, and prioritize action items for integrated management planning in the Basin. A significant portion of this project involves the facilitation and coordination of a variety of groups including the Integrated Management Plan Subcommittee, a Stakeholder Advisory Committee, informational meetings for public agencies, and a public open house and prioritization workshop. Given the varied interests at stake within the Basin, the planning process for the Integrated Management Plan requires strategic and coordinated facilitation that fosters an environment of dialogue and collaborative decision-making.
- **Lower Platte River Corridor Alliance (LPRCA) - Watershed Management Plan.** The Lower Platte River Corridor Alliance (LPRCA) is a consortium of three Natural Resource Districts (NRDs) and six state agencies dedicated to protecting the long-term vitality of the Lower Platte River Corridor. The entities making up the LPRCA are: Lower Platte North Natural Resources District (LPNNRD), LPSNRD, Pappio-Missouri River Natural Resources District (PMNRD), Nebraska Game and Parks Commission (NGPC), DNR, Nebraska Department of Environmental Quality (NDEQ), Nebraska Military Department, Nebraska Department of Health and Human Services (DHHS), and University of Nebraska – Conservation and Survey Division and Nebraska Water Center.



LPRCA is developing and implementing a watershed management plan for the corridor that will draw on local strategies to enhance the vitality of the Lower Platte River's resources. HDR is working with the project team to facilitate Strategic Planning workshops that are building a vision for enhancing the public's understanding of watershed planning and opportunities to engage with LPRCA online resources. The multitude of stakeholders and interests represented in the Lower Platte River corridor create a challenging environment in terms of management of natural resources. HDR was hired to strategically facilitate discussions with stakeholders that lead to a watershed management plan that best represents the interests of all stakeholders.



EDUCATION

Master of Science, Engineering Management,
University of Dayton, 1991

Bachelor of Science, Civil Engineering, Purdue
University, 1974

PROFESSIONAL REGISTRATIONS

- Professional Engineer - Civil, Nebraska,
No. E-8240, 1995

YEARS OF EXPERIENCE

39 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Proven Track Record of Managing Large,
Complex Projects with Multi-Disciplinary
Teams that Faced the Challenge of
Aggressive Schedules
- Technical and Regulatory Knowledge of
Water Resources Projects in Nebraska
- Ability to Provide Strategic Support
and Drive this Project to Successful
Completion

Mr. Morton is a Senior Project Manager who has an exceptional understanding of the intricacies of large, multi-faceted water resource projects and the proven ability to develop solutions for numerous clients, including the Nebraska Department of Environmental Quality, U.S. Army Corps of Engineers Districts, flood control authorities, and water resources management agencies throughout the Midwest and the country. He has extensive experience managing large, interdisciplinary teams for complex, high-profile projects under tight schedules. Mr. Morton has specialized experience and training in public involvement and interagency coordination. Mr. Morton also spent ten years as a regulatory decision official with the Omaha District Corps of Engineers.

Relevant Experience

- **Nebraska Dept of Environmental Quality, Keystone XL Pipeline Supplemental EIS, Nebraska.** Project Manager. HDR was selected to carry out an environmental study of the Keystone XL Pipeline route alternatives through Nebraska that would avoid impacts to the designated Sand Hills area. Work included developing a first of its kind process for the NDEQ that produced a NEPA like document for the State of Nebraska on 195 miles of a highly controversial proposed new 36 inch crude oil pipeline in Nebraska. Work was completed in approximately 8 months and included extensive technical analysis, hosting and facilitating multiple public information sessions, distributing a draft document to the public for review, conducting a public hearing, responding to comments and preparing a final evaluation report. The work concluded with a briefing to the Nebraska Governor in January 2013.
- **Nebraska Cooperative Republican Platte Enhancement (N-CORPE), Nebraska.** Senior technical advisor for the Nebraska Cooperative Republican Platte Enhancement Project (N-CORPE), which is a collaborative entity of four Natural Resources Districts (NRDs) formed to plan, design and develop a groundwater supply on approximately 19,300 acres of irrigated cropland. The project is intended to provide augmentation for the Republican and Platte Rivers. The project includes converting groundwater wells supplying 32 center pivots to production wells for streamflow enhancement; approximately 8 miles of well lateral piping and 8 miles of collector pipe to route groundwater to transmission mainline; a 7-mile long transmission main to the Republican River and discharge structure to Medicine Creek; roadway and dam improvements along Medicine Creek to manage the increase in flows; and a 9.5 mile transmission main to the Platte River and discharge dissipation structure. The system will be designed to provide 45,000 acre-feet under gravity flow conditions and up to 60,000 acre-feet under pressure conditions. Facilitated agency and stakeholder coordination.



- **Platte River Recovery Implementation Program, Permitting and Agency Coordination, Kearney Nebraska.** Project principal and permitting specialist for the preparation of a Corps of Engineers permit application and Environmental Assessments (EA) for endangered species recovery activities on the Platte River in Central Nebraska. The work is undertaken for the Platte River recovery Implementation Program, which is a partnership between the U.S. Department of Interior and the states of Nebraska, Wyoming and Colorado . Maintains close coordination with Program staff, the states and the U.S. Fish and Wildlife Service..
- **State Of Nebraska Attorney General, Kansas v. Nebraska and Colorado, Attorney General, State of Nebraska, CO, KS, NE.** Project Principal. HDR provided technical support assisting the State of Nebraska in its litigation with the State of Kansas. Activities included estimate of annual irrigation pumping in the region using a combination of electrical energy records and well registration logs. Also worked on development of actual well pumping flow estimate by conducting a program of metering random irrigation wells throughout the Republican River Basin.
- **Denver Water Moffat Collection System Project, Denver, Colorado.** . Deputy Project Manager assisting Denver Water in obtaining federal approvals for the development of additional water supply and storage to supplement Denver Water's Moffat Collection System. Providing Denver Water with strategic support on the federal permitting, especially concerning the Corps of Engineers' 404(b)(1) Guidelines and NEPA process. Assisted in preparing a comprehensive purpose and need statement for the project. Prepared conceptual level feasibility estimates and designs for various water supply options. Developed Denver Water's project's purpose and need statement based on system reliability and vulnerability.
- **Denver Water On-Call Permitting Support, Denver, Colorado.** Senior Technical Advisor. Provided on-call services to Denver Water to assist in the evaluation of potential raw water expansion projects. Evaluated the potential federal nexus and permitting issues associated with various water supply expansion options. Reviewed Denver Water's Integrated Resource Plan and assisted Denver Water in preparing the Moffat Collection System Problem Statement. Provided Denver Water with advice on the Corps of Engineer's permitting regulations, process, and timeframes.
- **Flatwater Group Inc, Sedimentation Augmentation Feasibility Study, Nebraska.** Senior Technical Advisor. Completed one dimensional (1-D) hydraulic and sediment transport modeling using HEC-RAS. The results provided a basis for re-assessing the relative sediment imbalance along the study reach under the existing and proposed flow regimes, and the potential response of the river to alternative plans for sediment augmentation.
- **Alaska Railroad Corporation, Program Management Services for Alaska Railroad Northern Rail Extension Project, Delta Junction, Alaska.** Project Manager. In this landmark project for Alaska, the Alaska Railroad Corporation (ARRC) planed to extend its rail line from Eielson Air Force Base to Delta Junction. HDR was contracted as Program Manager to manage 3rd party relations, maintain cost and control, and lead an extensive outreach program.
- **Canadian National Railway, EJE Merger - Environmental Impact Study, Chicago, Illinois.** Project Manager. The Canadian National Railway Company applied to the Surface Transportation Board to acquire a 198-mile short line that runs in an arc around the city of Chicago, Illinois. Prepared a comprehensive EIS on the highly controversial transaction in less than one year. The project included extensive public involvement, including 22 public open houses and meetings with attendance varying from 100 to 4,000 and the evaluation of over 50,000 comments. HDR was responsible for leading and planning the public meetings, training and managing a national team of comment responders, the development of a comprehensive comment management database, as well as a full array of outreach materials: a project web site, a toll free hotline, informational boards, meeting handouts, posters, presentations, press releases, and direct mail. Presented the results of the study in testimony in front of the Surface Transportation Board.
- **Metropolitan Utilities District, Platte West Environmental Impact Statement (EIS), Omaha, Nebraska.** Senior Technical Advisor. Working for the MUD, facilitated the completion of the required Environmental Impact Statement (EIS) for the Platte West Water Production Facilities. The Metropolitan Utilities District (MUD) provided baseline data and technical information which summarized their viewpoint. HDR prepared a 404(b)(1) Showing document which included a review of purpose, least damaging practical alternatives, compliance with environmental issues, mitigation measures, and factual documentation.



EDUCATION

Master of Science, Civil Engineering, University of Nebraska-Lincoln, 1997

Bachelor of Science, Civil Engineering, University of Nebraska-Lincoln, 1993

PROFESSIONAL REGISTRATIONS

- Professional Engineer – Civil, Nebraska, No. E-9416, 1999

YEARS OF EXPERIENCE

19 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Unmatched Technical Knowledge and Understanding of Water Resources Planning and the DNR Integrated Management Planning Process
- Trusted Relationships Developed with a Broad Range of DNR and NRD Staff Throughout the State of Nebraska.
- Directly Relevant Project Experience in Understanding and Representing Surface Water/Groundwater Interaction
- Thoroughly Familiar with the Proposed Refinements to the DNR's Fully Appropriated Methodology

Mr. Engel is a Senior Water Resources Engineer and serves as HDR's Central Region Technical Director for Water Resources. He is a recognized leader in addressing complex challenges encompassing water supply, hydrology, and hydraulic engineering. His background includes a range of water resources projects from flood control to water supply planning. Project roles range from project engineer performing technical analyses to task and project manager on multi-disciplined design efforts. Recent Nebraska water supply planning experience includes development of recommended methodologies for determining fully appropriated basins, planning and design of conjunctive management projects, evaluation of excess flows in the Platte River basin, and development of surface water operations models of the Platte and Niobrara Rivers.

Relevant Experience

- **Nebraska Department of Natural Resources, Platte River Conjunctive Management Projects, Nebraska.** Project Manager and Technical Lead for three integrated water management projects for DNR: 1) Evaluation of Unappropriated Water in the Platte River Basin; 2) Development of water transfer permit templates; and 3) Conceptual design of a conjunctive management project.
 - » **Evaluation of Unappropriated Water in the Platte River Basin.** Developed a methodology and tool for estimating the amount of unappropriated water in the Platte River Basin for planning purposes. Tasks include defining study reaches; defining wet, dry, and normal periods based upon Fish and Wildlife Service (FWS) methodologies; estimating available supply, and determining demands that include state protected flows and target flows as set by the Governance Committee of the Platte River Recovery Implementation Program (PRRIP) for the Lexington to Chapman reach. Natural flow hydrographs were synthesized at each gage in the Platte Basin and existing appropriator demands were applied using a database query to determine excess flow at each gage in the Platte Basin. The results of this effort was a temporal and spatial distribution of unappropriated water in the Platte Basin based on historic flows for the 1946-2010 period. Finally, a simplified analysis tool was created to reflect and evaluate the effects on available unappropriated flows of multiple proposed projects jointly in operation.
 - » **Development of Water Leasing Templates.** Developed a range of terms and conditions in the form of templates for water leasing contracts that could be used by the DNR under current Nebraska Statutes. This task involved reviewing existing water transfer instruments currently being employed in Nebraska, reviewing current Nebraska Statutes related to water transfers, and developing templates that could be used to facilitate surface and ground water transfers. Task also included research and compilation of current water market value in Nebraska and throughout the western United States.



- » **Conceptual Design of a Conjunctive Management Project.** A conceptual design for a conjunctive management project using the South Platte River and Western Canal was prepared as a template for future use by DNR and other water stakeholders throughout the state. Recharge alternatives were evaluated, revised operational conditions for the Western Canal were developed, and impacts of revised diversion pattern and return flows due to supplemental recharge on flows in the Platte River were determined. Finally a matrix of evaluation criteria was developed for use in evaluating conjunctive management projects for prioritization.
- **Central Platte NRD, Platte River Conjunctive Management, Nebraska.** Project Manager and Surface Water Operations Modeler. Assisting the COHYST Sponsor group in the development and evaluation of integrated modeling tools for the Platte River basin. As project manager and surface water modeler, Mr. Engel is responsible for the development of the surface water operations model of the Platte River that represents the river reaches, irrigation and supply canals, reservoirs, and hydropower facilities within the Study reach. Mr. Engel utilized the STELLA software package to represent these physical elements and developed operating rules for each of these features for inclusion in the model to facilitate a dynamic, decision-based, model to represent the system.
- **Central Platte Natural Resources District, Development of Potential Refinements to Fully Appropriated Evaluation Methodologies, Nebraska.** Project Manager and Technical Lead. Multi-phase project to investigate potential refinements for consideration by DNR in updating their administrative rules for performing fully appropriated basin evaluations. First phase involved literature review of western water law, decree, and compact accounting procedures for applicability to Nebraska. Desirable characteristics of methodology were identified and prioritized. Second phase involved limited testing of potential methodologies on the upper Niobrara River and lower Platte River. Final phase involved application of final recommendations to the full Platte River basin. Multiple stakeholder meetings and presentations were conducted throughout the course of the study and a final technical memorandum detailing the development of the recommendations prepared. As project manager and technical lead, Mr. Engel led the technical analysis of determining appropriate methods for quantifying water supply and demands, directed the testing of these methods in basins throughout Nebraska, evaluated results of methodology application, and formulated final recommendations. As project manager, Mr. Engel managed all staff and financial elements during project execution, as well as, conducted multiple stakeholder meetings and presentations.
- **Central Platte NRD, Over-Appropriated/Fully Appropriated Evaluation, Nebraska.** Project Manager and Technical Lead. Based on directives in LB 962, the Nebraska Department of Natural Resources (DNR) issued a fully appropriated determination for the entire Central Platte Natural Resources District (CPNRD) in 2004. This fully appropriated determination for the CPNRD was determined before implementation of the DNR's annual review process, which is used to evaluate whether or not areas should be determined fully appropriated. HDR evaluated current conditions for the reach of the Platte River within the Central Platte NRD using the DNR's annual review methodologies. This evaluation involved close coordination with the DNR regarding data collection, analysis, and the overall annual review process. . Specific activities included the evaluation of surface water flows, erosion of instream flow rights, and review of the DNR administrative records for the Central Platte River in evaluating the fully appropriated status.
- **Central Platte NRD, Platte River Recovery Implementation Program / Cooperative Agreement, Nebraska.** Water Resources Engineer. HDR analyzed the economic impacts of the implementation of Platte River Recovery Implementation Program as part of the Three States Cooperative Agreement to pursue a basin-wide, cooperative effort to improve and maintain habitat for the four species that have been declared threatened and endangered under the Endangered Species Act. The purpose of HDR's study was to investigate the potential economic impacts of the Program to the State of Nebraska. As water resources engineer, Mr. Engel evaluated surface water supplies and demands in the Platte Basin, as well as the PRRIP requirements and their specific impact to current supplies and demands, and ultimately the impacts to supply for the current water users within the state of Nebraska.



EDUCATION

Master of Arts/Public Policy, Public Relations/
Organizational Communication (Strategic
Public Relations and Political Management),
George Washington University, 2012

Bachelor of Arts, Geography, University of
Nebraska Omaha, 2010

PROFESSIONAL REGISTRATIONS

- ISI Envision Sustainability Professional,
United States National Registration, 2013

YEARS OF EXPERIENCE

10 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Experience Facilitating Stakeholder
Groups for Natural Resource Projects
- Facilitated Public Outreach Efforts for
High-Profile and Controversial Projects
- Ability to Work Under Tight Schedules
- Expert in Communicating Water Related
Planning Issues in the State of Nebraska

As a Public Involvement Manager for HDR, Theresa McClure specializes in project specific communications for infrastructure projects across a wide array of industries including energy, transportation, water, resource management, community planning, and waste. She has experience in the development and management of communication programs that include authentic strategies that engage a community from a grassroots and grass-tops approach. She has experience facilitating and building a community of support on large infrastructure projects by applying the best practices of communication including the use of interactive websites, social media strategies, grassroots engagement, public affairs, education and outreach, crisis communications and issues management, and wide scale media and advertising campaigns.

Relevant Experience

- **Lower Platte South NRD, Integrated Management Plan Public Involvement Implementation, Nebraska.** Project Manager. The Lower Platte South Natural Resources District and the Nebraska Department of Natural Resources are jointly developing an Integrated Management Plan (IMP) for the district's ground and surface water resources in order to protect existing water users, support future economic and population growth, preserve the environment, and be sustainable for both the near and long term. The IMP decision-making process requires an expanded vision of public involvement that increases opportunities for authentic engagement and integrates public input into identified solutions in a reciprocal process of cooperation and communication. Services provided by HDR include identifying key stakeholders and specific issues regarding each stakeholder group, facilitating subcommittee meetings, developing a public involvement process, tools and techniques for public participation, developing a communication management protocol, branding the project, and developing a project schedule.
- **Nebraska Dept of Environmental Quality, Keystone XL Pipeline Supplemental EIS, Nebraska.** Public Involvement Manager. HDR was selected to carry out an environmental study of the Keystone XL Pipeline route alternatives through Nebraska that would avoid impacts to the designated Sand Hills area. Additionally, HDR assisted the NDEQ in planning and facilitating four public meetings in the study area as well as producing an online, self-guided public meeting to gather input.
- **City of Ames, Flood Mitigation Study, Ames, Iowa.** Public Involvement Manager. The City of Ames is situated at the confluence of Squaw Creek and South Skunk River. In recent years, the community has experienced repeated flooding from these waterways. HDR was hired to evaluate a several flood mitigation alternatives and strategies to be recommended to City Council. Public Involvement included a series of workshops and Public Meetings to integrate the knowledge and expertise of the City, the public, and the project team into the decision-making process. Several innovative solutions were also applied, including online public meetings, social media, and public access television.



EDUCATION

Master of Public Administration, Natural Resource Policy, Portland State University, Portland, OR 2011

Bachelor of Arts, Biology; Minor in Spanish, University of Texas, Austin, TX 1998

National Incident Management System, (NIMS) for Public Information Officers, FEMA, Ongoing

YEARS OF EXPERIENCE

11 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Extensive Experience in the Implementation of Comprehensive Communication and Public Outreach Programs
- Expert in Communicating Water Related Planning and Infrastructure Issues

As a Public Involvement Manager for HDR, Mr. Sykes adds value for clients through the development of strategic communications and a variety of public engagement opportunities. Mr. Sykes has extensive experience in the fields of stormwater and wastewater resource management, water planning, public works, waste resource management, and renewable energy. As a skilled facilitator and communications professional, Mr. Sykes is effective at developing and managing advisory committees, building consensus, managing media coordination and messaging, and creating effective communication plans.

Relevant Experience

- **Lower Platte River Corridor Alliance, Strategic Planning, Lincoln, Nebraska.** Public Involvement Manager. The Lower Platte River Corridor Alliance (LPRCA) is developing and implementing a watershed management plan that will draw on local strategies to enhance the vitality of the Lower Platte River's resources. Mr. Sykes is working with the project team to facilitate Strategic Planning workshops that are building a vision for enhancing the public's understanding of watershed planning and opportunities to engage with LPRCA online resources.
- **Metropolitan Utilities District, Wellhead Protection Plan for Platte West and Platte South, Omaha, Nebraska.** Public Involvement Manager. MUD is developing Wellhead Protection Plans (Plans) for two of the utilities' well fields, Platte South and Platte West. Mr. Sykes is assisting MUD with the formation and facilitation of a Well Head Protection Advisory Group for each well field. Mr. Sykes has assisted in identifying key stakeholders and researching issues that were likely to come up during the Advisory Group process. Mr. Sykes also developed a meeting plan for a public meeting to educate and involve the public. The public meeting is timed to coincide with the MUD Board review and approval process. MUD's proactive approach to facility planning and water quality protection will be highlighted throughout this project.
- **Environmental Services Bureau, City of Portland, Portland, Oregon.** Senior Public Affairs Coordinator. Prior to joining HDR, Mr. Sykes managed public involvement, agency communications planning, intergovernmental affairs coordination, and media for a variety of capital projects for a watershed and wastewater management agency. He developed strategic communications and public engagement strategies for the successful 20 year Combined Sewer Overflow Program. In addition, he led communications, public engagement, and interagency coordination for highly contested wastewater pump station siting and construction project. Mr. Sykes developed messaging and public engagement for watershed health project pre-design development, as well as developed strategic messaging and managed interagency coordination for a contested Inflow and Infiltration stormwater management program.



EDUCATION

Doctor of Philosophy, Communications, Ohio University, 2005

Master of Arts, Interpersonal and Public Communication, Central Michigan University, 2002

Bachelor of Arts, Communications, Central Michigan University, 2000

YEARS OF EXPERIENCE

13 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Extensive Experience with Group Leadership, Facilitation and Management
- Skilled in Messaging and Audience Analysis
- Trained Facilitator by the Leadership Strategies Institute
- Expertise in Meeting and Event Planning

As a Public Involvement Coordinator, Dr. Hatfield Edstrom is a skilled communication specialist that has expertise in message construction, audience analysis, and group facilitation. She spent 12 years working in an academic environment where she has instructed college students in various aspects of communication including: small group communication, mass media and culture, public communication, persuasion, social movements, interpersonal communication, and argumentation and debate. She has excellent communication skills, including group leadership, facilitation, and management. To date, she has been involved in projects that have given her the experience to apply the theory and knowledge of what she has been studying and teaching for the past 12 years.

Relevant Experience

- **Lower Platte South Natural Resources District, Strategic Communications and Public Involvement Planning Services for the Integrated Management Plan, Lincoln, Nebraska.** Senior Public Involvement Coordinator. The Lower Platte South Natural Resources District (LPSNRD) and the Nebraska Department of Natural Resources (DNR) is jointly developing an Integrated Management Plan (IMP) for the district's ground and surface water resources in order to protect existing water users, support future economic and population growth, preserve the environment, and be sustainable for both the near and long term. The IMP decision-making process requires an expanded vision of public involvement that increases opportunities for authentic engagement and integrates public input into identified solutions in a reciprocal process of cooperation and communication. Services provided by HDR include identifying key stakeholders and specific issues regarding each stakeholder group, facilitating subcommittee meetings, developing a public involvement process, tools and techniques for public participation, developing a communication management protocol, branding the project, and developing a project schedule.
- **Nebraska Dept of Environmental Quality, Keystone XL Pipeline Supplemental EIS, Nebraska.** Senior Public Involvement Coordinator. HDR was selected to carry out an environmental study of the Keystone XL Pipeline route alternatives through Nebraska that would avoid impacts to the designated Sand hills area. Dr. Hatfield Edstrom developed outreach content material and strategy, assisted public meeting facilitation, lead data entry of public comments, assisted in logistical planning for public meetings, developed online engagement tools, co-authored Chapter 7 of the Final Evaluation Report, and coordinated distribution of the Draft Evaluation and Final Evaluation Reports.



EDUCATION

Master of Science, Water Resource Engineering, University of Colorado Boulder, 1988

Bachelor of Science, Civil Engineering, Colorado State University, 1980

PROFESSIONAL REGISTRATIONS

- Professional Engineer, Colorado, No. 23794, 1985
- ISI Envision Sustainability Professional, United States National Registration, 2013

YEARS OF EXPERIENCE

33 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Decades of Experience Related to Water Infrastructure and Capital Improvement Planning and Funding
- Recognized National Expert in Water Resources and Water Planning
- Extensive Experience Presenting Technical Topics at Interagency Public Meetings

Utilizing thirty-two years of consulting firm management and technical solutions, Mr. Blaine Dwyer guides the expansion of water resource practices by adapting approaches to the specific needs and cultures public and private clients. With thorough understandings of integrated water management and the planning, design and construction processes, Mr. Dwyer develops programs to foster long term relationships with strategic clients that transcend project phases and types of water uses.

Relevant Experience

- **Platte River Water Conservation and Supply Study, Colorado, Wyoming, and Nebraska.** Project Manager and Technical Leader. A study to supply 60,000 to 80,000 acre-feet of water under the requirements of the Three-State/ Department of Interior Cooperative Agreement on Endangered Species. Determined hydrologic impacts with a computer water budget developed in collaboration with representatives of the three states, two federal agencies, agricultural and municipal water users, and environmental interests. Presented at more than 15 interagency public meetings and led the development of the project documentation and the water action plan that serves as the basis for the three-state Governance Committee recommendation as the preferred alternative in the federal EIS.
- **Colorado River Compact Compliance Study, Colorado and other Colorado River basin states.** Project Manager. Assisted the State of Colorado and its consumptive and non-consumptive water use interests to investigate methods to maintain compliance with the Colorado River Compacts and to administer water in compliance with Colorado water law in times of potential non-compliance.
- **Colorado River Water Availability Study, CO, AZ, CA, NM, NV, UT, and WY.** Project Manager. On-going study of water availability in the entire Colorado River Basin using historic, paleo, and climate change hydrology. Performed in consultation with the State of Colorado's Climate Change Technical Advisory Group including representatives of many federal agencies. A hydrology model (VIC) is used to translate potential changes in temperature and precipitation on historic natural flows. Water allocation models and reservoir operation models are then used to simulate effects on more than 60 million acre- feet of storage in the basin including Lake Powell (Glen Canyon Dam) and Lake Mead (Hoover Dam). Other models are used to assess in-state water use and availability using the Colorado Decision Support System with its StateMOD water rights/ water allocation model and its StateCU consumptive use model. Worked closely with water supply agencies throughout the state including the Colorado River Water Conservation District and the Front Range Water Council.



EDUCATION

Master of Science, Agricultural Engineering,
Colorado State University, 1967

Bachelor of Science, Agricultural Engineering,
Texas Tech University, 1965

PROFESSIONAL REGISTRATIONS

- Professional Engineer, Texas, No. 31380,
1971

YEARS OF EXPERIENCE

46 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Extensive Experience in Understanding
and Estimating Surface Water/
Groundwater Interaction
- Clear Understanding the Hydrology and
Hydrogeology of Water Resources in
Nebraska
- Experience with Aquifer Storage
Recovery, Basin Planning, and
Assessment of Water Supply

Mr. Land has over 46 years experience as a water resources engineer. His career includes over 30 years of experience with the U.S. Geological Survey-Water Resource Division. He has worked in the fields of ground water, surface water, and water quality. Mr. Land's greatest interests are solving water supply problems and issues and bringing all the disciplines of hydrology together for a comprehensive, technical assessment. His activities with HDR have been in water-resource planning, development, monitoring, well design, well field evaluation, and conjunctive use of surface water and ground water.

Relevant Experience

- **Assessment and Management of Water Supplies in the Republican River Basin, Nebraska.** Technical Expert. To allocate the surface water supplies in the late 1930's and early 1940's, Nebraska, Colorado and Kansas formed the Republican River Compact. Since, several reservoirs were constructed to develop the surface water supplies for irrigation and flood control, and wells have been constructed, mostly for irrigation, in all three states. Over the years, the streamflow has been declining; and, Kansas has blamed the upstream states wells as the cause. Mr. Land has assisted Nebraska and its defense team in determining the amount of streamflow declines and the causes. He is very much involved in the development of groundwater flow and stream-reservoir models for legal defense purposes as well as management tools.
- **Central Platte NRD, Platte River Conjunctive Management, Nebraska.** Assisting the Department of Natural Resources, Nebraska Public Power District, and the Central Platte Natural Resources District in the development and evaluation of conjunctive management scenarios for portions of Dawson and Buffalo County in the central Platte Valley. Developing a plan to optimize the availability of water to groundwater and surface water users within the study area. Applying COHYST and CropSIM models, as well as developing new water, GIS, and economic modeling tools.
- **Nebraska Cooperative Republican Platte Enhancement (N-CORPE), Nebraska.** Senior technical advisor for the Nebraska Cooperative Republican Platte Enhancement Project (N-CORPE), which is a collaborative entity of four Natural Resources Districts (NRDs) formed to plan, design and develop a groundwater supply on approximately 19,300 acres of irrigated cropland. The project is intended to provide augmentation for the Republican and Platte Rivers.
- **Platte River and CNPPID Cooperative Agreement, Study on Depletion Mitigation Phase I, Holdrege, Nebraska.** Senior Engineer. HDR analyzed the mitigation opportunities along the CNPPID system, including locating potential storage sites for pump storage reservoirs, conceptual level design for gravity fill and pump storage reservoirs, and groundwater mitigation options. Information from this study will be used for Phase II preliminary design for the most feasible options identified.



EDUCATION

Master of Science, Biology, University of Nebraska Omaha, 1984

Bachelor of Arts, Biology, University of Nebraska Omaha, 1977

YEARS OF EXPERIENCE

35 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Experience With Resolution of Contentious Water Issues in Nebraska
- Implementation of Missouri River Recovery Program
- Extensive Experience with Public Meetings and Multi-Agency Coordination

Ms. Hargrave recently retired as a 35-year employee of U. S. Army Corps of Engineers (USACE). She has considerable experience in implementing the USACE Planning process for complex and controversial projects from initial reconnaissance, feasibility and plan formulation, through the CWA Section 404/401 permitting process to construction. Her career of experience has been related to resolution of seemingly intractable issues.

From 2004 to retirement in 2012, Ms. Hargrave served as the Corps Northwestern Division Missouri River Recovery (MRRP) Program Manager, responsible for all programmatic aspects of implementation of the MRRP by two Corps Districts including budgeting, strategic direction, and initial development of overall and species specific adaptive management strategies.

Relevant Experience

- **USACE, Missouri River Master Water Control Manual Revision.** Project Manager. The Manual sets forth the technical criteria for the operation of the Missouri River Mainstem Reservoir System, the largest reservoir System in the U.S. In this role, Ms. Hargrave was required to ensure that all technical analyses were completed by a diverse range of resource professionals from multiple governmental and stakeholder entities and consultants. Additionally, it was necessary to ensure all legal requirements related to the Flood Control Act of 1944, NEPA, ESA, and all reviews, regulations and policies relative to Corps civil works projects were complied with. This very contentious and complex study addressed often times conflicting water supply and environmental resources issues involving 8 states and 28 federally recognized Tribes in the Missouri River Basin, and included evaluation of potential Mississippi River impacts resulting from operation of the System, and coordination with Mississippi River interests to the Gulf. Revision of the Manual was also an intensely litigious and political process. Extensive coordination at all levels within the Corps, and Congressional and Gubernatorial interests was required. Public involvement in the revision process was copious and intense. Ms. Hargrave had overall responsibility for over 100 Tribal and public meetings/hearings held in the Missouri and Mississippi River Basins.
- **National Academies of Science Study, National Research Council Report Entitled The Missouri River: Exploring the Prospects for Recovery.** Corps impetus and Project Manager for a the National Academies of Science study, National Research Council report that included the envisionment and oversight of initial establishment of the Missouri River Recovery Implementation Committee (MRRIC) in conjunction with the range of Basin Tribes stakeholders and the U.S. Institute for Environmental Conflict Resolution. Authorized by the WRDA 2007, the Assistant Secretary of the Army for Civil Works signed the charter for MRRIC in July of 2008. The MRRIC plenary committee is made up of 60 members representing the range of interests in the Basin and numerous workgroups. The Committee provides recommendations to the Corps and the USFWS regarding the implementation of the USFWS 2003 Amended Biological Opinion on the operation of the System and recovery of the Missouri River ecosystem.



EDUCATION

Bachelor of Science, Civil Engineering,
University of Wyoming, 1974

PROFESSIONAL REGISTRATIONS

- Professional Engineer, Colorado, No. 16515, 1979
- Professional Engineer, Wyoming, No. 3175, 1980

YEARS OF EXPERIENCE

38 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Recognized National Expert in Water Rights, Interstate Compact Law and Water Policy Matters
- Expertise with Water Development Planning and Multi-Jurisdictional Administration of Water Rights
- Served as an Advisor to the Wyoming Water Development Commission for 16 Years and has a Keen Understanding of Statewide Water Funding Programs

Mr. Jeff Fassett's expertise in water rights, water resources engineering, and water policy matters in the western states provide him with unique insights into river-basin planning and also make him a highly valued technical expert. In 2002, Jeff was appointed by President George W. Bush to be the Federal Representative and Chairman of the Red River Compact Commission involving the water resources of Oklahoma, Texas, Arkansas and Louisiana. Prior to joining HDR, Mr. Fassett served as Wyoming's State Engineer, where he was an advisor to the Wyoming Water Development Commission. He recently joined HDR as our National Director for Water Resources Agencies. He is an expert in policy development regarding water resource-related issues, including transfer of water, water development planning, multi-jurisdictional administration of water rights, instream flows and endangered species.

Relevant Experience

- **State of Wyoming, State Engineer's Office, Wyoming.** State Engineer. The State Engineer is the director of all policy, technical, and administrative responsibilities of the cabinet-level agency responsible for the appropriation, beneficial use and general supervision and regulation of all waters in the state. Jeff was involved with all policy development regarding water resource-related issues and was Wyoming's representative on many interstate river basin and regional commissions, associations and organizations throughout the west that address water resource policy and law, water quality, and environmental issues in the Colorado, Missouri, Columbia, and Great Basin River basins.
- **Wyoming Water Development Commission, Rawlins Raw Water Storage, Rawlins, Wyoming.** Project Manager. The Rawlins Raw Water Storage Project, Level II is a Wyoming Water Development Commission study that evaluated the feasibility of constructing a raw water storage reservoir.
- **Wyoming Water Development Commission, Pathfinder Modification Project, Casper, Wyoming.** Project Manager. This project involves a complex water rights research and preparing a petition to the State Board of Control for a partial change of use of water for the Pathfinder Reservoir's water right as a part of the State of Wyoming's participation in the Platte River Endangered Species Recovery Program.
- **Wyoming State Engineers Office, Interstate Litigation Technical Support, Wyoming.** Project Manager. The purpose of this project is to provide professional services and expert testimony to the State of Wyoming related to water rights, surface water hydrology, ground water hydrology, reservoir operations, irrigation practices, and other technical assistance related to interstate litigation with the State of Montana regarding the Yellowstone River Compact pending before the US Supreme Court.
- **Wyoming Water Development Commission, Gillette Regional Master Plan, Wyoming.** Mr. Fassett is providing water rights expert consulting directly to the City of Gillette related to the Madison Wellfield project under development.



EDUCATION

Master of Arts, Economics/Finance, University of New Mexico, 2004

Bachelor of Arts, Economics/Finance, University of New Mexico, 2002

YEARS OF EXPERIENCE

13 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Extensive Experience in Natural Resource Economics
- Ability to Evaluate Risk in Decision Frameworks
- Skilled at Cost Benefit Analysis, Financial Frameworks, and Project Prioritization

As an Economist for HDR Engineering, Mr. Cook has successfully performed a variety of analysis for environmental documents, finance and business plans, grant applications, and cost-benefit analysis. Mr. Cook has an extensive background in water resources and natural resources related economic analysis including applications to water reuse, water supply and valuation, benefit cost analysis, and agricultural economics. He has worked with multiple public agencies at the federal, state, and local government levels.

Relevant Experience

- **Nebraska Department of Natural Resources, Platte River Conjunctive Management Projects, Nebraska.** Economist. Developing a methodology and tool for estimating the amount of unappropriated water in the Platte River Basin above Columbus, Nebraska for planning purposes. Tasks include defining study reaches; defining wet, dry, and normal periods based upon Fish and Wildlife Service (FWS) methodologies; estimating available supply, and determining demands that include state protected flows and target flows as set by the Governance Committee of the Platte River Recovery Implementation Program (PRRIP) for the Lexington to Chapman reach. Developing a range of terms and conditions in the form of templates for water leasing contracts that could be used under current Nebraska Statutes. This task involves reviewing existing water transfer instruments currently being employed in Nebraska, reviewing current Nebraska Statutes related to water transfers, and developing templates that could be used to facilitate surface and ground water transfers.
- **Papio-Missouri River Natural Resources District, Bonding Study, Nebraska.** Economist. Mr. Cook served as an economics task lead for a financial analysis of CIP bonding alternatives for the Papio Missouri Natural Resources District. The analysis included the development the review of the NRD's expenses and revenues; projections of growth and long term capital costs; assembly of a detailed cash flow model; and an analysis of six funding alternatives.
- **US Army Corp of Engineers, Portland District, Dairy Creek Ecosystem Restoration, Oregon.** Economist. Mr. Cook completed an Incremental Cost and Cost Effectiveness Analysis IC/CEA. The analysis evaluated different measures for suitability in the restoration of a riparian habitat on the Dairy Creek. The analysis evaluated the benefits from habitat restoration utilizing Corps of Engineers habitat suitability indices against project costs
- **US Army Corp of Engineers, Portland District, Abernathy Creek Ecosystem Restoration, Oregon.** Economist. Mr. Cook completed an Incremental Cost and Cost Effectiveness Analysis IC/CEA for the US Army Corp of Engineers, Portland District. The Analysis evaluated different measures for suitability in the restoration of a tidal estuary on the Abernathy Creek.



EDUCATION

Master of Science, Civil Engineering, Cornell University, 2001

Master of Science, Natural Resources/Economics, University of Wisconsin-Madison, 1994

Bachelor of Arts, Economics/Finance, University of Vermont, 1990

PROFESSIONAL REGISTRATIONS

- LEED Accredited Professional, United States National Registration, 2006

YEARS OF EXPERIENCE

19 Years

BENEFIT TO WATER FUNDING TASK FORCE

- Specializes in Infrastructure Investments and Environmental Impacts
- Experience with Project Prioritization and Cost-Effectiveness Analysis for Water Projects

Mr. Behr is an economist and engineer who specializes in evaluating infrastructure investments and environmental impacts, especially in the water and wastewater sector. Project topics have included alternative analysis of water supply options, facility design and construction risks, statistical analysis of water quality risks, regulatory failure risks, levee failure risk and system reliability analyses. He brings a diverse set of analytical tools such as cost-benefit analyses, environmental valuation, financial analysis, cost-risk analyses, and statistics to his projects. Often his projects include workshops in which he facilitates discussions on topics such as technical engineering solutions and economic forecasts.

Relevant Experience

- **City of Omaha, Risk Analysis and Management, Omaha, Nebraska.** Project Manager. Led a risk analysis on over 40 different projects, which together comprise a program for abating combined sewer overflows (as part of the Long Term Control Plan). The analysis included the identification and quantification of risks for individual projects, project categories and the program as a whole. The analysis included statistically developing escalation forecasts of key construction components and quantification of baseline cost uncertainty and event risks. The identification of risks developed into a management tool for managing events that could threaten the project.
- **New York City Department of Environmental Protection, Cost Benefit Analysis, New York.** Principal Economist. Developed an approach and model to determine the value of projects that would temporarily replace and supplement water supplies during tunnel rehabilitation efforts. The model included data and assumptions on the probability of a major shortfall, the quantity of a water shortfall, the value of lost water, and the type and cost of a series of construction projects to supplement water. Project prioritization was based on risk and cost reduction.
- **New York City Economic Development Corporation, Life Cycle Cost Analysis, New York City, New York.** Principal Economist. Developed a methodology to compute life-cycle costs of green infrastructure systems (such as green roofs and porous pavement) for prioritization purposes. Data on design options and costs was formed into a database. Risk analysis was employed to characterize uncertainty in costs. Results contributed to the City's guidelines on using green infrastructure to reduce runoff.
- **King County, Triple Bottom Line Cost-Benefit Model, King County, Washington.** Principal Economist. Developed cost-benefit and triple-bottom-line models for evaluating alternative drinking water supply sources. The cost-benefit model computes the total net present value of projects and the distribution of costs and benefits among stakeholders. The triple-bottom-line assesses the alternatives under multiple criteria for financial, environmental and social objectives.