



Final Performance Report

Contract No. R19AP00230

June 20, 2024

The Utah Division of Water Resources (UDWR) has completed its Water Marketing Development Strategy project with funding assistance from the U.S. Bureau of Reclamation (USBR) WaterSMART grant program. This Final Performance Report provides a summary of the project.

A funding assistance agreement was executed between UDWR and USBR in August 2020 as Contract No. R19AP00230. UDWR awarded a contract to a consultant team to complete the project tasks. The consultant team includes Clyde Snow and Sessions LLP as the prime contractor, and WestWater Research, LLC and HDR Engineering, Inc. as sub-contractors.

Summary of Work Under Three Project Components

The Utah Water Marketing Strategy project consisted of establishing three pilot water marketing projects across Utah to test newly enacted water banking tools, and then to evaluate results and summarize findings of the pilot projects. A fourth pilot project was added in the final months of the project. The work completed by the project team under the three required components of the USBR grant award are summarized in the paragraphs below. Most of the project work products can be found online at:

<https://water.utah.gov/water-marketing/>

Outreach and Partnership Building

The project team conducted an extensive array of outreach and partnership building activities during the course of the project. In the pilot project areas, these outreach activities were designed to inform and obtain input from potential market participants and stakeholders within the relevant geographic areas. Outside of the pilot projects, the outreach activities were undertaken to disseminate information about the pilot projects and about broader water marketing tools in Utah. Outreach activities included:

- Five public workshops hosted or attended by UDWR and project team members.
- Dozens of individual meetings with Utah water leaders, water users, and stakeholder groups as part of the pilot projects and also to explore water banking concepts in new areas.
- Two state agency workshops on water banking and also presentations at three water conferences in Utah.
- Two legislative briefings to update legislators on water banking implementation.

Scoping and Planning

The project team conducted scoping and planning studies necessary to explore the potential for a new water market in each of the three pilot project areas. Additional studies beneficial to documenting water marketing tools in Utah were also completed. These scoping and planning activities included:

- An analysis of water supply and demand conditions influential to market development for the East Canyon Creek (Snyderville Basin) and southern Cache Valley.
- A water measurement inventory and review for East Canyon Creek watershed to enhance water distribution for water leasing activities.
- A survey of statutory water bank development activities for stakeholders in the Snyderville Basin pilot project.

Water Marketing Strategy Documents

The project team developed various reports, guides, and templates that will assist Utah water users in completing water marketing activities. In particular, the project team was focused on enhancing the ability for Utah water users to evaluate and implement water banking. The project did not involve a single water market strategy but instead the project developed four water marketing strategies in each of the pilot



project areas as well as strategic planning information for various types of water marketing throughout Utah. The water marketing strategy documents developed by the project team include:

- Template water bank application materials that comply with Utah legislative requirements for contract and statutory water banks, as well as example water bank application packets for two pilot project areas.
- A foundational questions document to assist water users in identifying the need for water marketing tools to address local water issues and potential solutions.
- A short educational video on the five milestones of water marketing to help interested stakeholders develop water marketing solutions.
- Inventory tables and informational guides on water marketing methods and water transaction structures to help water users identify the type of water marketing solution that best fits their situation.
- A water valuation guide to assist water users in understanding factors that influence the market value of water rights involved in transactions.
- Three pilot project reports that describe the water marketing activities completed in each geographic area.

Lessons Learned

The project team explored water banking and marketing in four unique locations and a variety of lessons were learned. These key takeaways are listed below:

- *Local conditions should dictate the form, function, and participation in water banks.* The project team conducted extensive outreach work early in the process for each pilot project area and these early efforts shaped the definition of purpose and need for each water bank. While guides, templates, and resources are helpful and were developed by the project team for use throughout Utah, there will always be a need for local stakeholders to analyze local conditions to define the water marketing structures that work best.
- *Consider multiple marketing methods when formulating a water market and identify which methods best address the needs of the participants.* Related to the above point that local conditions should determine water marketing structures, the project team found that the simplest approach may be best. For example, the project team identified a simple reservoir rental pool solution for the Cache Valley pilot project which was made possible because of unique water rights in Hyrum Reservoir. In addition, the project team recommends that the effectiveness of a given water marketing solution (such as water banks) be monitored and that other marketing methods be explored if the solution is not achieving desired outcomes.
- *Having an engaged and local champion is invaluable in setting up water markets.* In many cases, the project team found that the efforts and enthusiasm of a local stakeholder was critical to successfully implementing a new water marketing strategy. The project team provided critical support to evaluating options and addressing questions, but the support of a local stakeholder was often the key distinction in successful water bank efforts. Similarly, the lack of a local champion can delay and prolong the planning process.
- *Water rights accounting is a critical piece of water leasing.* Early in the process, it is important to understand if there are sufficient measurements and accounting procedures in place to ensure leased water supplies can be used as intended. The absence of water measurement and accounting can significantly delay any water marketing activities. The need for additional measurement and accounting was identified early in the planning process for the Snyderville Basin area and the project team worked with UDWR to invest in new measurement stations to allow future water leasing activity.
- *Outreach, education, and public engagement are critical components of developing new market structures.* The project team's efforts to explore and implement water banking in different pilot



project areas resulted in both support and opposition, and it was clear that outreach and education was an important element of introducing a new water transfer mechanism.

Findings and Conclusions on Project Results and Benefits

The project intended to establish example water banking projects in Utah and to provide educational materials to Utah water users to assist them with future water marketing efforts. These objectives were achieved. The specific benefits in each pilot project areas are summarized below:

- *Price River Basin:* A contract water bank was established in the Price River Basin in January 2022 along with an approved water rights change application in December 2022. The bank is authorized for operation through 2030. To date, the contract water bank has not yet operated due to hydrologic conditions and contract timing. When water leasing is conducted, the contract will improve instream flows in the Lower Price River for the benefit of several fish species.
- *Snyderville Basin:* Local stakeholders decided to forego pursuit of a statutory water bank after extensive discussion and planning with the project team. This decision related to the level of effort required to establish a water bank and the availability of viable alternatives to conduct water leasing. Importantly, the project team helped to identify and establish new water measurement stations along East Canyon Creek to allow future water leasing to occur.
- *Cache Valley:* A rental pool was established in Hyrum Reservoir in March 2022 allowing storage water supplies to be transferred between parties. The rental pool will alleviate water shortages in the late irrigation season and improve the utilization of surplus water supplies.
- *Uintah Basin:* A statutory water bank was created in the Uintah Basin in August 2023 to allow water users to deposit surplus water supplies into a water bank, with the water bank providing marketing services to attract interest from prospective buyers and managing the transaction process. The water bank is intended to more efficiently utilize available water supplies. The water bank has been created and approved but has not yet completed trades.

The water banks and marketing structures described above will need to be exercised for multiple years to understand and quantify benefits of each. The project goals of evaluating water marketing structures, implementing water banking programs, and sharing information related to water market development have been achieved.

Demonstrating Collaboration

The project team took a very collaborative approach to the project, as evidenced by the dozens of meetings, public events, and workshops completed during the project. In addition, the project team members addressed stakeholder questions on water banking and assisted with initial water bank concept development through dozens of individual phone calls. The collaboration undertaken by the project team resulted in successful approval of three different water marketing structures: (1) a contract water bank in the Price River Basin, (2) a statutory water bank in the Uintah Basin, and (3) a reservoir rental pool in the Cache Valley. These approvals would not have been possible without active outreach and involvement of various stakeholders by the project team. The Snyderville Basin pilot project is also an example of collaboration, as the local interested parties worked through a process of identifying needs and ultimately decided on solutions different than originally planned.

Completed Water Marketing Strategy

The project team did not complete a single water marketing strategy document. Due to the nature of the project, three separate pilot project reports were produced that present the strategy for each of the three pilot project areas. In addition, various strategic planning documents, guides, and templates were developed for the benefit of future water marketing activities in Utah. Project work products can be found online at: <https://water.utah.gov/water-marketing/>



Water Marketing Strategy Requirements

The following list provides a checklist of required elements under the water marketing strategy with reference to how the project team successfully completed each element.

Implementation Plan

- *How the water market/water marketing activities will be implemented following completion of the strategy.* Provided in each of the pilot project reports. Marketing activities will be implemented for the Price and Uintah pilot projects using approved water banks under Utah statute, and using a contract rental pool agreement for the Cache pilot project.
- *How the water market will operate or how marketing activities will be conducted, including a discussion of any alternatives that were considered and support for why the recommended approach was selected.* Provided in each of the pilot project reports. Various alternatives were analyzed for the Cache and Snyderville pilot projects. Local stakeholders were focused on a water bank structure for the Price and Uintah pilot projects.
- *Addressing long-term project management and financial sustainability.* These elements were a critical piece of discussion and planning for the Snyderville pilot project and ultimately led to the decision to pursue less costly alternatives. Long-term management is specified in contract for the Cache and Price pilot projects.
- *The actual or potential administrative structure and institutional components.* See response above. The Price and Uintah pilot projects utilized water banking structures defined in statute. The Cache pilot project utilized a simple rental pool contract agreement.
- *The participants, water rights, and infrastructure involved.* The pilot project reports describe the background information for each area.
- *How transactions will be tracked.* The contracts for the Uintah, Price, and Cache pilot projects define the process of tracking transactions.
- *The issues to be resolved and the steps to be taken prior to implementation.* The pilot project reports describe issues resolved during the project. The water marketing structures have been implemented for three pilot project areas as part of the project.
- *A description of any decision support tools, software databases, registries, dashboards, or models which are needed to facilitate implementation of the water marketing strategy.* Modeling efforts were not required for implementation. The Snyderville pilot project required hydrologic analysis of water measurement and accounting procedures. The Uintah pilot project will involve the use of a sophisticated dashboard to market water bank supplies.
- *Pilot Activities: (1) include a description of the types of pilot activities undertaken, how the activities were implemented and their duration; and (2) the outcome of all pilot activities including what was learned, and how this information informed others and was incorporated into the strategy.* A total of four pilot projects were undertaken by the project team. The three pilot projects that were originally scoped have individual reports document project activities and findings. The lessons learned from the pilot projects are listed in each pilot project report.

Legal Framework

- *How the water marketing activity fits within state water law requirements.* The pilot projects utilized water banking defined in Utah statute.
- *Any contracts, interstate-compact treaties, or other legal requirements that may impact the water market or marketing activities.* None, other than those contracts entered into by the local parties as part of the pilot projects.
- *The actual or potential rules and requirements that will govern the implementation of the water market/marketing activities.* The rules and requirements that govern implementation are defined in statute for water banking in Utah, and are more specifically defined in the water bank application materials reviewed and approved by the Utah Board of Water Resources.



- *The actual or potential contracts, agreements that are being drafted or would need to be drafted, and any legal actions that would need to be taken (e.g., change of water rights) to support the water market/marketing activities.* A water right change of use application was required for the Price pilot project and was successfully approved in December 2022. A water right change application for the Uintah pilot project will be required once terms of a water lease are defined. The Cache pilot project did not require any state water rights change application. The Cache pilot project involved a Federal reservoir facility and therefore USBR acknowledgement of the contract agreement was received by the project team.
- *Any legal issues to be resolved prior to implementation.* No further legal issues have been identified by the project team and the three pilot projects are currently being implemented.

Monitoring Plan

- *How water marketing activities will be monitored.* Water marketing activities are monitored in a manner unique to each pilot project area and described in the pilot project reports and under the contract agreements for each pilot project area.
- *The process by which market participants will track the physical movement of water from seller to buyer.* The physical movement of water is tracked by the Utah Division of Water Rights as described in the water bank application materials submitted to and approved by the Utah Board of Water Resources.
- *How the purchasers will recognize the receipt of water.* See above response.
- *How transactions will be monitored to avoid harm to other water users.* The avoidance of harm to other water users is one of the critical evaluation metrics for water bank approval by the Utah Board of Water Resources and for change of water right approval by the Utah Division of Water Rights. These approvals were received for the Price and Uintah pilot projects.

Stakeholder Support and Input

- *How stakeholder support and input was incorporated in the water market/water marketing activities.* Stakeholder support varied in each pilot project area as described in the pilot project reports. Stakeholder input was incorporated through extensive meetings in each pilot project area.
- *Who was involved in the planning process; who expressed their support for the planning process; was the project supported by entities representing environmental, agricultural, municipal, tribal, or recreation uses.* The planning process for each pilot project area involved a diverse set of stakeholders. For the Price and Snyderville pilot projects, the stakeholder group involved agricultural, municipal, and environmental interests. A smaller stakeholder group of primarily agricultural water users was involved in the Cache pilot project.
- *What input from stakeholders was incorporated into the water marketing strategy.* The input from stakeholders helped to shape the ultimate water marketing strategy in each pilot project area. For the Price and Uintah pilot projects, local stakeholders were focused on implementing a water bank and the project team helped them craft a solution and process that fit this focused intent. For the Cache pilot project, local stakeholders were considering a water bank but the project team helped them to realize that a simpler structure could be implemented in the form of a contract agreement. In the Snyderville pilot project, the input from local stakeholders was helpful in determining that a water bank was not the right solution and allowed the local stakeholders to pursue other options.

U.S. Bureau of Reclamation Water Marketing Strategy Grant Program
Checklist of Water Marketing Strategy Requirements

1. Implementation Plan

- How the water market will operate or how marketing activities will be conducted, including a discussion of any alternatives that were considered and support for why the recommended approach was selected.* The project provided an inventory of various marketing types and transaction structures for water users to utilize depending on their needs. Three pilot projects were developed to explore water banking in Utah but no single water market was planned for the project.
- Long-term project management and financial sustainability.* Not directly applicable to the project. The project did provide guidance on water valuation and assisted the Snyderville Basin stakeholders in understanding costs and level of effort for establishing and operating a statutory water bank. Long-term management and financial sustainability for the other pilot projects were not part of the project analysis.
- Actual or potential administrative structure and institutional components.* The project team developed these items for the three pilot projects. Specific details were included in the water bank application materials and summarized in the pilot project reports.
- Participants, water rights, and infrastructure involved.* The project team evaluated these elements for the three pilot projects at various levels of detail. A summary is provided in each of the pilot project reports.
- How transactions will be tracked.* The project team helped stakeholders define these elements for the three pilot projects and specific details were included in the water bank applications and associated contracts between banking parties.
- Description of any decision support tools, software databases, registries, dashboards, or models which are needed to facilitate implementation of the water marketing strategy.* The project developed an accounting model and water measurements for conducting water transfers in the Snyderville Basin. In addition, a more general water marketing website was created as a resource for future efforts.
- Issues to be resolved and the steps to be taken prior to implementation.* The project provides a set of recommendations for general water marketing in Utah and for future updates to the Utah Water Banking Act.
- Pilot Activities. Describe the types of pilot activities undertaken, how the activities were implemented and their duration; and the outcome of all pilot activities including what was learned, and how this information informed others and was incorporated into the strategy.* Three pilot projects were conducted to test and evaluate water banking in Utah. The projects spanned over two years from initial concept development through approval of water bank applications. A summary report for each pilot project is included in the technical report, including lessons learned and recommendations.

2. Legal Framework

- How the water marketing activity fits within state water law requirements.* The project included specific work on state law compliance for the three pilot projects. In addition, general transaction structures for water marketing were compiled and summarized for future projects.
- Any contracts, interstate-compacts treaties, or other legal requirements that may impact the water market or marketing activities.* These were evaluated specific to each of the three pilot projects as summarized in the pilot project reports.
- Actual or potential rules and requirements that will govern the implementation of the water market/marketing activities.* Specific contracts (agreements) were developed for the Price and Cache

pilot projects. The Snyderville Basin pilot project did not advance to the point of developing specific rules and requirements.

☒ *Actual or potential contracts, agreements that are being drafted or would need to be drafted, and any legal actions that would need to be taken (e.g., change of water rights) to support the water market/marketing activities.* Specific contracts (agreements) were developed for the Price and Cache pilot projects. A change of water rights application was completed for the Price Basin water bank. The Snyderville Basin pilot project did not advance to the point of developing specific rules and requirements.

☒ *Any legal issues to be resolved prior to implementation.* For the three pilot projects, no outstanding legal issues currently exist.

3. Monitoring

☒ *The process by which market participants will track the physical movement of water from seller to buyer.* This process was established under the Price Basin and Cache water contracts (agreements). For the Snyderville Basin, significant research and support was provided to map out how water transfers would be administered and tracked but the project did not advance.

☒ *How the purchasers will recognize the receipt of water.* See response above.

☒ *How transactions will be monitored to avoid harm to other water users.* For the Price Basin water bank, the structure of the contract water bank and the approval of the water right change application filed by Carbon Canal Company provide assurance that other water users will not be harmed as a result of water transfers. Injury to other water users was not an issue of concern for the Cache rental pool agreement. Monitoring and water rights accounting concepts were a significant piece of the research conducted for the Snyderville Basin.

4. Stakeholder Support and Input

☒ *Who was involved in the planning process; who expressed their support for the planning process; was the project supported by entities representing environmental, agricultural, municipal, tribal, or recreation uses.* The planning process included multiple water users and local stakeholders in each of the three pilot project areas. The project involved dozens of local stakeholder meetings to explore and develop the water marketing concepts. The process was supported by entities representing environmental, agricultural, and municipal uses. Tribal and recreational uses were generally not part of the stakeholder discussions.

☒ *What input from stakeholders was incorporated into the water marketing strategy.* Stakeholder input was used to shape the form of the contract water bank and specifically the parties involved in the Price Basin water bank. This was also true for the Snyderville Basin where stakeholder input drove the research conducted as part of the project as well as shaped the decision to not pursue further water bank development.