EXECUTIVE SUMMARY

State Water Planning Process Feasibility Report
Prepared for Wyoming Water Development Commission

in association with

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State Water Planning Process

The recommended planning process is based on the Prior Appropriation Doctrine, Wyoming water law, and the assumption that Wyoming has the right to manage its resources for the benefit of citizens of the state. To help enable Wyoming to manage its water resources, the planning process will accomplish the following:

1. Identify contemporary water resources data available from state and federal agencies.

2. Use these current data to determine the existing surface water and groundwater uses within each basin and identify potential future uses for available supplies not currently put to beneficial uses.

3. Inventory interstate river compacts and federal and state regulations and policies that impact water management decisions and define them in terms understandable to Wyoming citizens. Develop strategies to assist in meeting these requirements or regulations at the community level. Identify alternatives, if any, for increasing the available supply to meet future demands or current shortages through management, user agreements, or construction projects.

4. Provide access to the above information in a variety of formats for use by state agencies and citizens of Wyoming and allow new data to be easily incorporated into existing planning efforts. Develop a component of the public outreach program that emphasizes educating the citizens of Wyoming on water resources issues.

5. Assist development of basin advisory groups to provide input in the basin planning process and facilitate working relationships among different water users.

6. Create an ongoing planning process that will keep the database current and provide resources to assist in updating basin plans on a cyclical schedule.

7. Insure state agency coordination and cooperation with other resources and local watershed planning efforts.
Public Outreach and Involvement Program

A public involvement program has been implemented as part of the statewide water planning process in order to achieve the following objectives:

- solicit public opinion and participation during basin planning,
- disseminate water resource information,
- inform and educated the public about water resources issues in Wyoming, and
- establish and maintain credibility for the water planning process through citizen feedback.

The following categories summarize the public outreach activities that support the water planning process:

- monthly news releases,
- quarterly newsletters,
- information via the Internet,
- presentations to water interest groups, and
- Basin Advisory Groups (BAGs).

For the water planning process to be effective, it must involve interested citizens at the local level. The planning process depends on the buy-in and participation of local interest groups; therefore, basin advisory groups will be established in each of Wyoming’s seven major river basins. Local citizens have intimate knowledge of water issues and concerns within their basin and will share important information during the planning process, including:

- key information regarding actual or perceived water problems, issues, and concerns;
- contact names of large water users in the agricultural, municipal, and industrial sectors;
- a way to disperse accurate information back to interest groups represented on the BAG, and to the local community at large;
- basin priorities for future water use and development; and
- unique data need required for the basin.
The BAGs, once established, provide a forum and a mechanism for information dissemination to the public about water issues in the basin, public education about water matters, and input and feedback dialogue with the State Engineer’s Office on both in-state and interstate water management issues and concerns.

**Individual Basin Planning Efforts**

Each of Wyoming’s seven major river basins has unique combinations of existing water use, unallocated streamflows, interstate river compact restrictions, water quality issues, and future water use opportunities. It is recommended that the individual basin planning efforts be performed by water resource consultants under contract to the WWDC. This approach both minimizes additional state staff requirements, and supports Wyoming’s economy by providing opportunities for local consultants.

A Basin Scope of Services was developed for use in the basin planning effort and in determining the costs to develop basin. When determining the detail required, the following main factors were taken into consideration:

- **Suitability** – the basin plans meet the objectives outlined for the planning process by identifying, or collecting, current data and providing a method for updating and retrieving this contemporary data.

- **Completeness** – the information generated must be complete enough to be useful in the future if more in-depth modeling or planning is required in a basin. While detailed river simulation modeling is not currently required, detailed data identification and operating criteria memoranda will be generated as a basis for future detailed modeling.

- **Appropriate scale** – the basin planning process must take into consideration realistic funding potentials. The scope assumes the maximum use of existing GIS and tabular data.
Individual basin planning efforts will divided into the following main tasks:

1. Basin Water Use Profile
2. Available Surface Water and Groundwater Determination
3. Demand Projections
4. Future Water Use Opportunities

Storage and Retrieval of Planning Process Products

There will be a number of products as a result of the basin planning process. These products will be accessible, interactive, and understandable. They will include qualitative and quantitative information accessible through an Internet framework.

The Water Resources Data System (WRDS) in the College of Civil and Architectural Engineering at the University of Wyoming will be expanded to take on the additional duties associated with the planning process products storage and retrieval. This recommendation is based on the following:

- WRDS is currently the primary source for water related data in Wyoming.
- WRDS staff have existing capabilities with data storage and Internet Web page development.
- WRDS staff have been involved with statewide water planning and have taken an active role throughout the feasibility phase of the process.

The basin planning products include both tabular and spatial water resources related information that is either required to complete the basin plans or developed as a product of the basin plans. The storage and retrieval system will be developed using state database, GIS, and Internet access standards.
Staffing Requirements

The primary tasks associated with the statewide planning process can be summarized as follows:

- **Implementation of Public Outreach and Involvement Program** – This task includes Basin Advisory Group establishment; coordination and participation; preparation of newsletters and news releases; Web Page development; public presentations, surveys and inquiries.

- **Basin Planning** – This task includes collection of water resource related data, development of water use basin profiles, creation of water supply and use spreadsheet models, projections of demands, review of water use regulations, and identification and evaluation of development opportunities for each of Wyoming’s seven principal river basins.

- **Further development of a Database and Internet Web Site at WRDS** – This task includes development of enhanced database and user interfaces for data generated by the state water planning process.

- **Project Management** – This task requires a project manager to facilitate and guide the project, maintain consistency between project elements, administer contracts, supervise private consultant activities, and review and process private consultant billings.

Services will be required of state staff to accomplish these primary tasks. The amount of resources needed is dependent on a number of variables, including which basins and how many basin plans are concurrently under development, the level of public involvement, overall schedule of deliverables, level of state staff involvement, and the expertise and familiarity of the state staff providing the service.

Several issues were considered when determining an appropriate level of state staffing for the State Water Planning Process. These include:

- private consultant versus state staff,
- availability of existing state staff,
- state job classifications, and
- long term role of planning staff.
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The amount of public outreach (and associated basin advisory group meetings) and the length of the basin planning schedule were found to significantly influence state staffing requirements. Public involvement is critical to the success of the water planning process; therefore, reducing public outreach is not recommended. Both the recommended five-year schedule and the extended 10-year schedule for basin planning will allow Wyoming to meet the objectives set forth for the state water planning process.

**Statewide Water Planning Process Costs**

The costs required to implement the Statewide planning process are associated with:

- public outreach and involvement,
- individual basin planning efforts,
- state staff requirements, and
- planning process information storage and retrieval.

These costs can be further broken into costs associated with consultant activities and costs associated with state activities. The consultant costs associated with the basin planning process should not vary regardless of the planning schedule selected. The following table summarizes the estimated consultant costs for developing the basin plans in all seven major basins in Wyoming. These estimates are based on 1998 average consultant fees.

<table>
<thead>
<tr>
<th>Basin</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>NE Wyoming</td>
<td>$250,000</td>
</tr>
<tr>
<td>Bear</td>
<td>$330,000</td>
</tr>
<tr>
<td>Powder/Tongue</td>
<td>$520,000</td>
</tr>
<tr>
<td>Salt/Snake</td>
<td>$450,000</td>
</tr>
<tr>
<td>Green</td>
<td>$720,000</td>
</tr>
<tr>
<td>Platte</td>
<td>$690,000</td>
</tr>
<tr>
<td>Wind/Bighorn</td>
<td>$780,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$3,740,000</strong></td>
</tr>
</tbody>
</table>
The following table shows the total additional costs associated with basin planning for both the recommended and extended schedule. While the costs associated with the consultant performing the basin plans and the data storage and retrieval aspects of the process do not change, there is a yearly cost savings associated with performing the basin planning over the an extended period due to reduced staffing duties.

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Recommended Schedule Yearly Costs</th>
<th>Extended Schedule Yearly Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Salaries and Benefits</td>
<td>$210,000</td>
<td>$130,000</td>
</tr>
<tr>
<td>Miscellaneous Staffing Costs</td>
<td>$50,000</td>
<td>$38,200</td>
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<tr>
<td>Cost for Public Outreach</td>
<td>$45,000</td>
<td>$30,000</td>
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<tr>
<td><strong>TOTAL ANNUAL COST</strong></td>
<td>$305,000</td>
<td>$198,200</td>
</tr>
<tr>
<td>Additional First Year Cost</td>
<td>$70,000</td>
<td>$52,700</td>
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<tr>
<td><strong>TOTAL FIRST YEAR COST</strong></td>
<td>$375,000</td>
<td>$250,900</td>
</tr>
</tbody>
</table>

The amount of public outreach and the length of the basin planning schedule were found to significantly influence state staffing requirements and, therefore, the costs associated with the planning process. Public involvement is critical to the success of the water planning process, therefore reducing public outreach was not considered. Both the recommended and extended schedule for basin planning will allow Wyoming to meet the objectives set forth for the state water planning process.
Conclusion

The recommended planning process is based upon the Prior Appropriation Doctrine, Wyoming water law, and the assumption that Wyoming has the right to manage its resources for the benefit of citizens of the state. The process detailed in this document will enable the state to fulfill the goal of enhancing Wyoming’s ability to manage water resources for the benefit of all the state’s citizens.