

**Preliminary Working Draft – For Discussion Only**

**Montana Water Supply Initiative – A Watershed Approach to Updating  
the Montana State Water Plan 2015**

**I. Letter from the Director**

**II. Introduction / Executive Summary**

**III. Water User Profile - #1**

**IV. Major Findings and Key Recommendations**

**A. Introduction**

**B. Major Findings (Issues)**

**C. Criteria for screening alternatives**

**D. Key Recommendations**

**1. Issue Statement**

**2. Goal of Recommendation**

**3. Objective**

**4. Implementation Tasks**

*-- Short Term (0-2 years)*

*-- Medium Term (2-10 years)*

*-- Long Term (10-20 years)*

**V. Water Resources in Montana**

**A. Surface Water Resources** – *(This section will provide the reader with an overview of Montana's surface water resources).*

**1. Climate**

**2. Flow**

**3. Data gaps and areas of uncertainty**

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**B. Groundwater Resources of the XYZ Basin** *(This section will provide the reader with an overview of Montana's groundwater resources)*

- 1. Aquifers**
- 2. Data Gaps and Areas of Uncertainty**

### **VI. Water User Profile - #2**

### **VII. Introduction to Water Planning Policy**

- A. Purpose and Need for a State Water Plan**
- B. Statutory Direction for Water Planning (2009 legislation)**
- C. History of the Montana State Water Plan (1973 – 2015)**
- D. Institutional and Legal Framework for Water Use in Montana**
- E. Methodology for Montana Water Supply Initiative Process –** *(This section will present the process DNRC used to update the state water plan)*
  - 1. Convening the Basin Advisory Councils (BAC).**
  - 2. Role of BAC's**
  - 3. Development of basin plans**
  - 4. Public participation in BAC process**
  - 5. Developing the state water plan. How basin plans were used to inform the state water plan.**
  - 6. Updates provided to Legislative Water Policy Interim Committee and Environmental Quality Council**
  - 7. Public participation in developing state water plan**
  - 8. Plan Adoption**

### **VIII. Key Economic and Water Use Sectors in Montana**

- A. Agricultural**
- B. Industrial**
- C. Energy and Mineral Resources**
- D. Municipal and Domestic**

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## E. Recreation and Tourism

### IX. Water User Profile - #3

### X. Water Use in Montana

#### A. Methodology

#### B. Inventory of Consumptive Water Use in Montana Associated with Exiting Water Rights.

##### 1. Current Water Use (diverted and consumed)

- a) *Irrigated Agriculture*
- b) *Livestock*
- c) *Public Water Supply and Domestic*
- d) *Industrial*
- e) *Storage Reservoirs*

##### 2. Annual Water Budgets

- a) *Upper Missouri*
- b) *Lower Missouri*
- c) *Clark Fork and Kootenai*
- d) *Yellowstone*

##### 3. Data Gaps and Uncertainty

##### 4. Summary and Comparison of Water Use by Planning Basin

#### C. Inventory of Non-Consumptive Water Use in Montana Associated with Exiting Water Rights.

##### 1. Current Water Use

- a) *Recreation and Environmental Uses*
- b) *Hydropower*

##### 2. Hydropower – (Compare and contrast between planning basins)

##### 3. Data Gaps and Uncertainty

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### 4. Summary and Comparison of Non-Consumptive Water Use by Planning Basin

## XI. Potential Future Demands for Water in Montana

### A. Methodology

#### 1. Overview of Planning Scenarios

- a) *Agricultural Irrigation*
- b) *Public Water Supply and Domestic*
- c) *Industrial*

### B. Agricultural Demand Projections

*Scenario #1*

*Scenario #2*

*Scenario #3*

### C. Public Water Supply and Domestic Demand Projections

*Scenario #1*

*Scenario #2*

*Scenario #3*

### D. Industrial Demand Projections

*Scenario #1*

*Scenario #2*

*Scenario #3*

### E. Data Gaps and Uncertainty

### F. Summary and Comparison of Future Demands by Planning Basin

## XII. Water User Profile - #4

## XIII. Effects of Frequent Drought and New or Increased Depletions on the availability of future surface water supplies.

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- A. Effects of Climate Variability on the Availability of Future Water Supplies.**
- B. Effects of Drought on the Availability of Future Water Supplies**
- C. Effects of Climate Change on the Availability of Future Water Supplies.**

### **XIV. Options for Meeting New Water Demands.**

#### **A. Opportunities, Strategies and Tools**

- 1. Basins with Unallocated Water to Meet Future Demands**
- 2. Water Distribution Based on Decrees**
- 3. Voluntary Water Management**
- 4. Availability of Water Supply Development Under Interstate Compacts, Decrees, Water Reservations, Tribal & Federal Water Compacts, and International Treaty's.**

*Surface Water*

*Groundwater*

*Data Gaps and Areas of Uncertainty*

- 5. Reallocation of Water**

*Changes in use*

*Mitigation (HB24) - Potential Sources of Mitigation Water in Each Basin*

- 6. Reservoir Storage Options**

*Role of Traditional Storage in meeting waters demands*

*Basins with hydrology that could potentially support new storage*

*Feasibility and Constraints on New Traditional Storage*

*Feasibility and Constraints on Non-traditional Storage*

### **XV. Place Holder for Issues Not Covered Above, but Important to BAC's**

### **XVI. Water User Profile – #5?**

### **XVII. References to additional resources**