

# **Big Sky Sustainable Water Solutions Forum Stakeholder Meeting**

## **Agenda**

**September 21, 2017**

**1:00 p.m. – 4:00 p.m.**

**Big Sky Water and Sewer District Conference Room**

**561 Coyote Drive**

### **1:00 p.m.: Welcome**

- Introductions: Question: One way you worked with water this summer?
- Overview of Agenda

### **1:15: Technical Presentations: Wastewater Treatment and Reuse**

- Ray Armstrong, PE DOWL
- Scott Buecker, PE; AE2S

### **1:55: Progress to Date and Input**

- Preliminary Community Survey Input, Karen Filipovich
- Overview of Progress to Date, Questions on the Table, Jeff Dunn

### **2:15: Wastewater Treatment and Reuse Focus Area Discussion**

Discussion: Review goals, objectives and discussion on wastewater.

### **3:35: Further Work on Focus Area Actions**

- Review previous work and work on actions

### **3:55: Public Comment**

### **4:00: Adjourn**

# **Big Sky Sustainable Water Solutions Forum**

## **Decision-Making for Watershed Stewardship Plans**

**Stakeholders will be focused on decision-making in these areas for Fall 2017:**

1. Actions and priorities in the three focus areas: ecological health of the river systems, water supply and availability, and wastewater treatment and disposal.
  - Actions that will help move the community forward toward fulfilling the Water Forum goals and objectives.
  - Lead partners, timeline for action, and measures of success need to be fully identified
  - Gaps and sequencing steps to enhance prospect of success will be important.
  
2. Framework for implementation:
  - Commitment to structure to continue community and partner engagement in implementation
  - Review process that can evaluate progress and help plan further activities and any needed adaptation of strategy
  - Oversight and transparency to ensure that actions “walk the talk”
  
3. Monitoring and target setting
  - Community indicators chosen and/or plan for identifying further needed indicators
  - Ensuring identified monitoring completed consistently over time
  - Parameters that indicate ecological health
  
4. Funding sources for implementation
  - Funding source information and continued work to gather resources to address priorities for action

Stakeholders will continue their collaborative process based on finding consensus. Coming to agreement in these areas will become the action plan for the watershed stewardship plan.

## **BSSWS Goals, Objectives and Progress on Preferred Priorities for Action:**

(Goals adopted on 3/30/17. Objectives adopted on 6/15/17. Preliminary preferred priorities and observations defined on 6/15/17 with agreement to bring forward to the community for discussion and input.)

### **Overall Vision Statement**

Big Sky strives to be a model mountain community by protecting and improving water resources, sustaining ecological health of the watersheds, and supporting a vibrant local economy.

### **Ecological Health of the Rivers**

#### **Goal**

A healthy and resilient river system sustained through a principled approach to watershed stewardship that includes human activities and natural processes that maintain and enhance stream, riparian and wetland conditions and connections, ensuring water remains clean and cold.

#### **Objectives**

- Maximize water quantity, protect existing high quality and improve degraded water quality
- Identify, sustain, and enhance high-value riparian corridors and wetland areas
- Sustaining aquatic communities while enhancing native populations

### **Proposed Preferred Priorities**

- Build a monitoring system and maintain a community dashboard for ecological health
  - Scientifically monitor and track important parameters for ecological health
  - Build a community dashboard that shares information with the community and provides basis for action if some component is not healthy
- Watershed Restoration: Address existing water quality impairments
- Watershed Conservation: Protect the existing high-quality resources

### **Water Supply and Availability**

#### **Goal**

Manage and balance surface and groundwater supplies for a vibrant community sustaining a broad spectrum of uses and values including fisheries, wildlife, recreation, agriculture, municipal and domestic needs.

#### **Objectives**

- Sustainably manage groundwater and surface water by improved monitoring and forecasting, conservation, and reuse of reclaimed water.
- Maintain sufficient, high quality year-round in-stream flows to meet ecological needs (quality and quantity)
- Increase community resilience to drought and climate variability

## Proposed Preferred Priorities

These priorities are listed in the order that this group thought were priorities.

- Monitoring and modeling: need to know what we have for water supply
- Conservation: Maximize use of the limited, valuable water in the system
- Stormwater: Slow water running through the system
- Wastewater reuse: Reclaim a valuable resource
- Mitigation: Moving water rights for use in Big Sky

## Wastewater Treatment and Reuse

### Goal

Develop and implement holistic wastewater and stormwater management, utilizing best available technologies and practices, to meet Big Sky's long-term community needs and protect and improve the ecological health of the river systems.

### Objectives

- Ensure wastewater does not have a negative impact on the ecological health of the river systems and groundwater resources
- Identify alternative strategies for land application of treated wastewater
- Address onsite septic systems

## Potential Priorities and Observations

This area requires further analysis before options can be prioritized and recommended.

Priority: Identify a portfolio of options used to reclaim water that do not impact the ecological health of the river systems

Observations:

- Nutrient criteria goal of no more than 0.3 mg/l TN (total nitrogen) and 0.03 mg/l TP (total phosphorus) in streams. These nutrient criteria targets are part of the growing season water quality standards on B-1 streams like the Gallatin and Madison systems in order to protect aquatic life
- Higher levels of treating water allow for more options in how that water is reused
- Treatment types, reuse and any mixing zones are factors that need to be further considered for each option
- Efficiency in use means there will be less effluent to treat
- Phasing may be necessary to develop centralized treatment, new types of treatment and reuse options
- Measures Matter:
  - Need to track the load of nutrients
  - Count number of times water is reused