Gallatin Local Water Quality District

Annual Report of Activities and Services
Fiscal Year 2015

July 1, 2014 to June 30, 2015

Prepared by Tammy Swinney, District Manager
September 2015
INTRODUCTION

The Gallatin Local Water Quality District annual report is an opportunity to review our activities and services provided to the community. As a non-regulatory department of Gallatin County, the District focuses on providing services related to groundwater and surface water resources through education and outreach, monitoring and research, and information collection and dissemination. Built into all of the District’s programs and activities is the general philosophy that the District is a place where citizens can receive satisfactory answers to questions related to water resource issues. This same level of service is extended to local groups, organizations and governmental entities.

ACTIVITIES AND SERVICES

Education and Outreach – Public Assistance
Reaching out to improve public awareness and understanding of local water quality, water resources, and the District is an ongoing activity for staff. Opportunities to collaborate with local organizations and other county departments allow the District to reach a larger audience and reduce duplication of efforts.

In fiscal year 2015, we partnered with Gallatin County Environmental Health Services and Montana State University Extension to conduct a homeowner well and septic system maintenance workshop. Staff provided watershed and water quality information at the Montana State University Extension Small Acreage Landowner Workshop. The District’s *Dog Waste and Water Quality* brochure was provided to the City of Bozeman to distribute with pet licenses. The brochure was made available at several trailhead kiosks maintained by the Gallatin Valley Land Trust. Hands-on learning opportunities were provided to local citizen scientists through the Gallatin Stream Team monitoring program annual training.

Education fact sheets, brochures, and the District’s web page were updated, as needed. Updates on the status of the two federal and state superfund sites (Bozeman Solvent Site and Idaho Pole Company Site) were also made available on our web page. Stream health report card brochures were developed for Bozeman Creek and Mandeville Creek.

Figure 1. District staff setting up for a homeowner awareness education event about groundwater and wells with local drillers.
Staff responded to more than 50 requests for information and assistance from citizens, agencies, other county departments, and consultants that utilized a minimum of 0.5 hours staff time per request. Staff fielded over 300 phone calls during the fiscal year. More than 200 ‘Well Educated’ test kits were distributed to local well owners.

**Information Collection and Dissemination**

An important function of the District is to serve as a clearinghouse of water-related information for the public. This involves collecting, organizing, storing and making water quality data available to anyone interested in water resources information. Many of the activities associated with this District goal can relate back to our education and outreach goal.

Initial development of the District’s inaugural State of the Waters Report was undertaken by staff during the fiscal year and is slated to be completed by December 2015 (FY16). The report, which will be prepared on a five-year schedule, is intended to relay groundwater level information along with groundwater and surface water quality data and provide updates on District projects to the general public.

The District utilizes a groundwater quality database to house data collected by staff and historical data collected by other entities that were only available in paper format. Water quality data from the Well Educated Program is also uploaded to this database.

Surface water quality data is reviewed and submitted to the Montana Department of Environmental Quality’s water quality database (EQuIS). District staff reviewed and entered stream data collected by the Gallatin Stream Team volunteers at the end of the 2014 summer field season. As part of the East Gallatin Nutrient Monitoring Program (conducted in partnership with the City of Bozeman), staff performed rigorous data quality review prior to submitting all laboratory and field data to EQuIS.

Groundwater level data collected by staff are reviewed and entered into the Montana Bureau of Mines and Geology (MBMG) Ground Water Information Center (GWIC) database. In fiscal year 2015, this included static water level measurements collected by staff as part of the District’s groundwater monitoring network and the MBMG Groundwater Investigation Program (GWIP).
Several technical reports were completed by staff, including the Logan Groundwater Assessment Report, the Forest Park Mobile Home Wastewater Treatment Facility Groundwater and Surface Water Monitoring Data Report, and the Gallatin Groundwater Project Report: Assessing Cumulative Impacts to Groundwater in High Density Septic System Areas. Results from the Gallatin Groundwater Project Report were presented at the Montana Nitrate Conference and the Montana Section American Water Resources Association Conference.

Monitoring and Research

GLWQD staff conduct monitoring and research activities on both groundwater and surface water that establishes baseline data needs, can be utilized to evaluate long-term trends in water quality and quantity, and to assess water quality issues of concern. Projects and activities may be undertaken by the District and in partnership with other agencies and organizations.

Two multi-year projects are underway in the Gallatin, lead by MBMG GWIP. One project is in Big Sky and the other is focused on the Belgrade/Manhattan area. Staff collected monthly groundwater level data and downloaded water level data from transducers from 102 monitoring wells and surface water sites during the year for the Belgrade/Manhattan project as part of a MBMG memorandum of understanding. Staff also provided assistance to Big Sky GWIP personnel while drilling a monitoring well for the Big Sky project.
The District maintains a groundwater monitoring well network that consists of twenty-three dedicated monitoring wells established by the District and a combination of twenty-five monitoring and domestic wells that are part of the MBMG Groundwater Assessment Program (GWAP). Water level measurements, which are normally collected quarterly for GWAP, were collected by staff monthly during the fiscal year as part of the GWIP project.

The East Gallatin River Nutrient Monitoring Project is a multi-year project conducted in cooperation with the City of Bozeman through memorandum of agreement. The extensive data collection effort includes water chemistry (nutrients, herbicides/pesticides, chlorophyll-α), biological assessments (macroinvertebrates, periphyton/diatoms), and stream discharge along the East Gallatin River near the confluence with Bridger Creek north to the confluence with the West Gallatin River.

The District’s surface water monitoring network includes the volunteer Gallatin Stream Teams which is coordinated by the Greater Gallatin Watershed Council. Our staff provides technical expertise including sampling plan development and volunteer training. Staff also review all data collected to ensure accuracy and enter it into the MT DEQ EQuIS water quality database. All field forms and laboratory reports are maintained in the District office. In FY15 volunteers conducted monitoring activities on the East Gallatin River, Bozeman Creek, Mandeville Creek, and Matthew Bird Creek.

Planning and coordination for the Bozeman Creek *E. coli* bacteria and Microbial Source Tracking (MST) Project began in FY15 with data collection efforts underway in FY16. This project is focused on screening for sources of human and dog fecal pollution in Bozeman Creek.
Time and Effort for District Activities and Services

Figure 8 illustrates time and effort by staff on all District projects and services, many of which are summarized in the previous sections. The percentage of time staff spent on the East Gallatin River Nutrient Monitoring project and the Groundwater Monitoring Network/MBMG GWIP project are based on actual hours worked. The remaining staff hours for the fiscal year associated with general GLWQD projects and activities were divided into three main areas: Administration, Education/Outreach–Public Assistance, and Surface Water Monitoring Network/Stream Teams. The percentage of time dedicated to these categories is based on past experience and workload estimates.

Nearly 44% of staff time was devoted to activities associated with education/outreach and public assistance. Special projects, which are typically associated with other organizations (East Gallatin River Nutrient Project, MBMG GWIP, and Gallatin Stream Teams) constituted a combined 27% of staff time and effort. The remaining 29% of staff time was dedicated to administrative activities, mostly by the District Manager (personnel management, budgeting, work plans, etc.).

Through a one-time program coordinated by The Montana Watercourse, the District was fortunate to utilize two Montana State University (MSU) undergraduate students to assist with organizing several years of well cuttings from the drilling of District monitoring wells in the early 2000’s and developing the Mandeville Creek Stream Health Report Card brochure. In partnership with the City of Bozeman, the District co-hosted a Big Sky Watershed Corps member to assist the District with development of the Bozeman Creek E. coli bacteria and MST Project, and assist with stream field work. The District also hired an MSU intern who performed data entry in the District’s groundwater database and assisted with stream field work. This additional personnel support was valuable in allowing the District to complete project obligations and begin the development of new endeavors.

Effectiveness Measures

The District’s Five-Year Strategic Plan includes an objective to “Measure effectiveness of District education and outreach efforts on water quality” as part of the Education and Outreach Goal. Outcome indicators from the District’s homeowner well and septic education workshop revealed that all attendees increased their knowledge about groundwater basics, well and septic maintenance, and acreage care for groundwater contamination prevention.
FINANCES

Expenditures
Year-end expenditures per the County EDEN accounting system totaled $208,495. Figure 9 illustrates those expenses by account category as percentages of the total. Personnel costs continue to be the District’s largest expenditure at 77.8%. This is an approximate 1% increase from FY14 and is a result of County Commission-approved cost of living and health insurance increases, which will continue to increase annually. The District employs three FTEs and hires temporary employees and work study students as necessary.

Operating costs are the second largest expenditure for the District at 14%. This includes building maintenance (office space), postage, printing/duplicating, advertising, IT Department charges for phones/computers, repair and maintenance, travel and staff training, and professional services (typically laboratory expenses).

Fixed Charges include liability insurance and administrative fixed costs. These values are set by the Finance Department and are based on a percentage of grant and District Fee revenues. These charges cover services provided by the County Treasurer, Accounting, and Auditing departments. In FY15, these constituted approximately 8% of the District’s total expenses. Supplies include expenses for office and operating (field) supplies, food, equipment (<$1,000), and repair/maintenance supplies constituting 2% of District expenditures.

Capital Outlay includes: Capital Reserves and Capital Expenditures-Equipment (>1,000). Capital Reserves are funds set-aside to cover expenditures (payroll, etc.) before District Fee revenues are received. The amount is determined by the Finance Department. Capital Reserves totaled $100,775. Capital Expenditures-Equipment is where funds are set-aside to cover costs of new computers, printers, etc. For FY15, $2,800 was placed in this category. However, it was not spent. A new desktop printer was purchased, but the value was less than $1,000 and not considered a Capital Expenditure.

Note: Capital Outlay = $103,575 (unspent)
Revenue
The District’s revenue sources for FY15 are presented as a percentage of total revenue by category in Figure 10. Total revenue received was $283,982. The District Fee for Real Property and Personal Property (mobile homes) is based on the $6.60 per Fee Assessed Unit (FAU) within the District boundary (36,596 FAU) provided by the Treasurer’s Department. District Fees constituted 80% of revenue for FY15. Funds received as a result of delinquent assessments, miscellaneous revenue and investment earnings generated 1.65% of total revenue.

The Montana Bureau of Mines and Geology (MBMG) Groundwater Investigation Program (GWIP) memorandum of understanding generated 12% of District revenue. The MBMG Groundwater Assessment Program (GWAP) memorandum of understanding was cancelled in FY15 due to an anticipated lack of funding. However, at the end of the fiscal year, some funds did become available and the District was reimbursed for three of four quarters of groundwater monitoring network activities, providing 0.85% in revenue. The East Gallatin River Nutrient Monitoring Project memorandum of agreement with the City of Bozeman generated 5.5% of revenue for FY15.

**Figure 10. GLWQD Revenue Sources Fiscal Year 2015**

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<tr>
<th>Revenue Source</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>District Fees</td>
<td>80%</td>
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<td>MBMG GWIP MOU</td>
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<tr>
<td>MBMG GWAP MOU</td>
<td>0.85%</td>
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<tr>
<td>Delinquent Assessments</td>
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<tr>
<td>Investment Earnings</td>
<td>0.65%</td>
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<tr>
<td>Miscellaneous Revenue</td>
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<tr>
<td>COB EGR Nutrient Mon Proj MOA</td>
<td>5.5%</td>
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<tr>
<td>Montana Bureau of Mines and Geology: Groundwater Investigation Program (GWIP) Memorandum of Understanding</td>
<td>12%</td>
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<tr>
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**DISTRICT STAFF**

Personnel for fiscal year 2015 included:

- District Manager: Tammy Swinney
- Water Quality Technician Specialist: Torie Haraldson
- Water Quality Specialist/Hydrogeologist: Christine Miller
- Administrative Assistant: Nikki McGee
- Big Sky Watershed Corps Member: Beth Wilson
- MSU Interns: Payton Parsons, Rick Woodfork, Levin Zars