

Montana Water Measurement Program, 85-2-113 & 85-

Program Description and Purpose

The Water Measurement Program was created by the 1991 Legislature and charged with identifying chronically dewatered watercourses. Water users that divert surface waters are required to install and maintain controlling and measuring devices on diversions on watercourses determined to be chronically dewatered. Water users are also required to record diversion flow rates and submit their records to the DNRC each year.

The purpose of the program is to provide data and water information to facilitate better local management of water resources in areas where dewatering significantly impairs beneficial uses, such as agriculture, municipal, industrial, fisheries and recreation. The one-person program is funded from a general fund appropriation of \$59,000 per year.

Description of Regulated Community

Currently there are two watercourses regulated according to program statutes. These are the Musselshell River and Mill Creek, a tributary of the Yellowstone River.

Compliance and enforcement efforts in the Musselshell basin have increased dramatically in the past two years with the creation of the "Musselshell River Enforcement Project". Involvement of the Montana Water Court and District Court has increased the number of controlling and measuring device installations in the basin. The number of Water Development assistance grant applications has also steadily increased. Overall compliance in the entire Musselshell basin is estimated at 60 to 70 percent, with a positive trend.

In Mill Creek, installation of measuring devices and reporting reached a 90 percent compliance level in 2001. Currently, although the measuring devices are still in place, reporting has fallen off almost completely. Due to time constraints, the program has been inactive in Mill Creek since 2001.

Assistance and Education

The Water Measurement Program is also involved in many basins in an education and assistance capacity. Assistance includes drought plan development, measuring device education and installation, and technical analyses. These efforts continue in the Jefferson and Big Hole river basins, and in several smaller drainages, such as Burnt Fork Creek, Flint Creek, Sweeney Creek, Rock Creek, etc. Education and assistance efforts constitute at least 80% of total program involvement.

Program Response to Non-Compliance

Program personnel have responded to non-compliance through education and assistance efforts. Also, the District Court and water commissioners have been very active in the Musselshell basin.

Formal Enforcement Actions

The potential \$1000 per day fine for non-compliance has never been used because of the voluntary compliance of water users involved to date.

Benefits

In water short basins, disputes and conflicts will always exist between users, but with program involvement, these conflicts are being resolved in a collective effort and have avoided costly litigation.

Fisheries and recreation benefit from proper water measurement. Through efforts in the Jefferson and Big Hole basins, dewatering has been less problematic than expected during the last four drought years. Irrigators with measuring devices were able to reduce their diversions because they knew how much water they were diverting, and could better manage their water. The efforts of the program have contributed to the efforts of several watershed groups to avoid significant litigation expenses.

FLOODPLAIN PROGRAM

Compliance Report

February 9, 2004

Description of Statute and Program

The Floodplain and Floodway Management Act, Title 76, Chapter 5 together with Administrative Rules in Title 36, Chapter 15 prescribes minimum construction standards for development in designated floodplains and floodways that are enforced through local ordinances and floodplain development permits issued by local governments. The Department is responsible for approving local proposed regulations and administrative and enforcement procedures. The role of the Department is to prepare and adopt the delineation of floodplains and floodways. Floodplain delineation involves determining the 100-year flood flow together with a river hydraulics analysis to identify and map the 100-year floodplain and floodway. Specific floodplain delineations are required to be adopted by administrative rule.

The program manager, a hydraulics engineer, was lost due to a reduction in state general fund expenditures in 1991. The remaining half time engineering position for the program was RIF'ed in June 2003. Floodplain delineations ongoing include sections of the Yellowstone River in Park, Stillwater, Yellowstone, and Dawson Counties, Ten Mile Creek near Helena, Jefferson River near Three Forks, East Gallatin near Bozeman, and the Yellowstone thru Miles City. Funding of the floodplain delineation studies is provided by the federally funded programs of the USGS, FEMA, and the CORPS and in some cases with matching state grant money from the Water Development program. Program funds allocated for formal public notice and administrative adoption of floodplain maps is \$12,000.

The National Flood Insurance Program (NFIP) provides federal funds to provide technical and administrative assistance and oversight to 121 local governments to comply with the national floodplain development requirements. The state developed model ordinances for local governments meet or exceed the national requirements. A federal grant of \$90,000 is used hire one full time and just recently one part time staff person as well as NFIP program operation expenses. The Federal Emergency Management Agency had found that substantial monetary savings in damages are realized when pre-disaster mitigation is implemented.

Description of the Regulated Community

Local governments are required to adopt floodplain regulations and administrative and enforcement procedures once a floodplain delineation is formally adopted. Approximately 95% of the local governments have adopted and are regulating building and construction in the delineated floodway and floodplain according to state prescribed minimum standards.

Enforcement and compliance at the local level is dependent on the variable resources in city or county governments. The NFIP program person is to perform formal audits of compliance for flood insurance purposes but only has time to provide technical and administrative assistance. Local governments rely on this position heavily since a single local staff person usually has several local regulatory programs to administer concurrently.

Promoting Enforcement and Compliance

The real test for noncompliance is the avoidable damage caused by a major flood event that occurs on private structures and local government infrastructure such as roads, bridges, and public buildings. Except for already existing structures, there should be minimum property damage as a result of a flood up to the 100-year event for areas for which a floodplain delineation has been adopted and enforced.

The NFIP person performs a variety of activities to promote compliance with state and federal floodplain requirements.

Education and Outreach

Although primary efforts have been providing individual assistance over the phone or meetings, each year several workshops and newsletters are prepared for local government officials, real estate agents, bankers, and land developers. Model ordinances and informational material is provided by printed material as well as through FEMA and Department web sites. Recently a private organization, the Association of Montana Floodplain Managers has been formed and has pledged to assist in training and education.

DAM SAFETY PROGRAM Compliance Report

Description of Statute and Program

The Dam Safety Act enacted in 1985, Title 86, Chapter 15, is designed to ensure that dams in Montana are operated and maintained in a safe manner. Regulatory responsibilities of the DNRC include:

1. Issuing and managing renewals of 88 Operation permits and yearly 5 Construction permits for non-federal high hazard dams. The term "high hazard" refers to the potential for loss of life downstream below a reservoir that is 50 acre-feet or larger. Dam owners are required to update annually the emergency action plan for each dam and at least once every five years have an engineer perform a periodic safety inspection of the dam for renewal of the operation permit.
2. Performing yearly an average of 10 hazard classifications of 50 acre-foot or larger dams upon application by a dam owner.
3. Dams less than 50 acre-feet or not high hazard are under Department regulatory authority only if a complaint is filed or an inspection reveals that a dam constitutes an immediate hazard to life or property. Yearly we investigate 5 to 10 complaints per year.

The Dam Safety Regulatory Program includes 3.5 Professional Engineers, a part of a clerical support position and an operating budget of \$28,500 is funded through a general fund appropriation.

Description of Regulated Community

High hazard dams permitted by the Department are for single and multiple uses that include irrigation, flood control, water supply, recreation, and sewage lagoons. Permitted dam owners include irrigation districts, private irrigation companies, cities, counties, State of Montana, and private individuals. Managing the permits usually involves interactions with consulting engineers over dam inspections, and design and construction of rehabilitation or major repair.

There are approximately 3200 dams, 50 acre-feet or larger in the state and an unknown but probably substantially greater number of dams less than 50 acre-feet.

The majority of complaints are by downstream landowners or homeowners below small private recreational ponds that are less than 50 acre-feet and that usually require some follow-up repair or construction by the dam owner.

Promoting Compliance and Education

Over the past two years, the Dam Safety program has undertaken a number of actions to promote compliance. Voluntary enforcement accounts for 80% of the efforts. The most noteworthy are the following:

1. Enforcement Tools

The Dam Safety Program continues to update and refine their dam database and permitting documentation to monitor permits and project deadlines. In addition, the administrative rules are being examined for minor updates and clarifications for processing permit applications.

2. Education/Outreach

Annually a Dam Safety Conference is arranged to promote an exchange of dam safety information among dam owners, engineering consultants, and others. The conference includes technical training on an aspect of dam safety such as dam maintenance, emergency action plans, flood analysis, or seismic analysis.

A program of conducting simulated emergency response exercises with dam owners and emergency responders is ongoing. Approximately ten tabletop exercises are conducted each year. A table top exercise usually reveals the importance of the annual updates as well the risk posed by the dam and the importance of timely repairs and maintenance.

In response to the complaints on small recreation pond dams, the Dam Safety Program is in the process of developing a guidebook on how to properly plan and build a safe small dam. The guidebook is being developed in cooperation with the Dept. of Environmental Quality, who is facing environmental impacts associated with the proliferation of small ponds. The guidebook is to educate both owners and contractors on the many issues associated with dam construction, as well as to encourage the involvement of a licensed engineer in the design.

3. Information

Board of Water Well Contractors

Description of Statutes and Program,

Title 37, Chapter 43 MCA., Title 36, Chapter 21 ARM.

This program is to reduce and minimize the waste and contamination of ground water resources within this state by reasonable regulation and licensing of drillers or makers of water wells and monitoring wells. Water well construction standards are set in the administrative rules and enforced to insure competency in the drilling and making of water wells and monitoring wells.

The Board of Water Well Contractors directs the program and the program manager/field investigator is attached to the Department for administrative purposes only. The Board consists of two members from the water well drilling industry and one member each from the DNRC, MT Bureau of Mines, and DEQ. The \$66,000 program is funded entirely by license fees.

The Board directs investigations of complaints of unlicensed drillers and driller's violations of water well construction standards submitted by the public, by regulatory agencies, and by other drillers. The Board holds hearings on complaints and, as warranted, prescribes education, remedial action, fines, bond forfeiture, license suspension, license revocation to enforce state law and regulations. The program manager administers apprenticeship, training, testing, licensing, and annual training and re-licensing of Water Well Drillers, Monitoring Well Drillers, and Water Well Contractors in Montana.

Description of the Regulated Community

The Board regulates those who intend to drill water wells in Montana, principally the 272 trained, bonded, and licensed water well and monitoring well drillers and contractors.

Promoting Compliance and Education

License renewal requires 4 hours per year of continuing education for drillers. Continuing education, often provided by the Montana Water Well Drillers Association, has included new drilling techniques or products and public water well requirements. The Program manager/field investigator spend about 20% of the time participating in training efforts and doing proactive field visits of newly licensed drillers as well as existing drillers.

Program Response to Complaints and Noncompliance

Field investigation of complaints requires about 80% of the field investigator's time. Each complaint is analyzed and field investigated. Typically there is voluntary compliance or correction of a construction standard based on the finding of the field investigator. Follow up Board action is required on a small percentage of complaints. Voluntary actions by the involved well driller coupled with board ordered remedial action, bond forfeiture or license revocation, contribute to a 100 % compliance rate. Complaints that result in some remedial action by the driller have occurred on about 1% of all water wells drilled in a year.

Program Changes with Time

The amount and nature of water well drilling in Montana varies with the rate of population increase and long term weather patterns. Generally there has been increase in the number of holes drilled each year.

Internet availability of drill hole and ground water information from the Ground Water Information Center (GWIC) at the Montana Bureau of Mines has made virtually all drill hole logs in Montana available to the public. The GWIC is testing a new site where drillers enter drill logs online which increases drill log accuracy and allows the board to monitor drillers.