Big Sky Clearwater

Montana Department of Environmental Quality

Volume XXXIII, Issue 1 — Spring 2003

Water and Wastewater Operator Certification News

By Jenny Chambers, DEQ Public Water Supply Section Program Manager

Hello, I am happy to introduce myself and give you all an update on what is new in the operator certification program! On October 7, 2002, I began working for the Department of Environmental Quality in the Community Services Bureau, Public Water Supply Section. I was raised in Colstrip and attended college at Black Hills State University in Spearfish, South Dakota. I have spent the past several years working as an environmental consultant at Fort Riley, Kansas. I also taught Hazardous Waste Certification at a local Community College. I am excited about my new position and looking forward to the challenges and opportunities it will bring!

Water and Wastewater Operator's Advisory Council Changes

On October 16, 2002 the governor's office reappointed Roger Thomas, City of Billings wastewater plant supervisor to serve the term ending October 16, 2008 and he fulfills the qualifications for being a plant operator who holds the highest certificate. There has also been a change in the leadership of the council. Carol Reifschneider, Ph.D., MSU-Northern was elected as chairperson and Joanne "Joni" Hall Emrick, Kalispel as vice-chairperson. Carol takes over for Bob Cottom from the City of Dillion who did a great job as chairperson for the last several years.

Rule Changes

On August 8, 2002 a public hearing on water treatment systems and operator's rules was held and no comments were received. The amended rules (17.40.101, 17.40.201 to 17.40.215 Administrative Rules of Montana) took effect on November 19, 2002. The following is a summary of the rule changes:

- The previous rules indicated no experience requirement for class 5AB. Now an operator will be required to have three months experience to be classified "fully certified."
- The previous rules allowed active military soldiers stationed overseas a waiver for the Continuing Education Credits (CEC) renewal requirement. Now the active military soldier's certificates will be changed to temporarily inactive.

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Inside This Issue

Big Sky Clearwater

Volume XXXIII, Issue 1

Spring 2003

The ***Big Sky Clearwater***,
a publication of the Montana Department of Environmental Quality,
is for water and wastewater operators and managers. The Department welcomes articles of interest and suggestions for articles related to water quality, water and wastewater treatment and the water environment. Articles may be about your treatment plant experiences, or those of others, technical papers or any information that may benefit other operators or managers.

Please submit articles 30 days before publication (*August 1 and March 1*) to:

EDITOR: Big Sky Clearwater
Montana Department of Environmental Quality
1520 East Sixth Ave. • Metcalf Building
P. O. Box 200901
Helena, MT 59620-0901

Visit our website at:

http://www.deq.state.mt.us/wqinfo/DW/Publications.asp - *Spring 2003 Issue*

http://www.deq.state.mt.us/wqinfo/bigskynewsletter.pdf - *Fall 2002 Issue*

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The *Big Sky Clearwater* is published twice a year by the
Montana Department of Environmental Quality's
Planning, Prevention and Assistance *and the* Permitting and Compliance Divisions

Continued from Page 1 - Cover Page

- The wastewater system definitions have been revised.
- A statement was added that if a rule changes a system to a more complex classification then an existing operator would not have to retest, but any new operators would.
- The new rules will only give reciprocity to operators who have equivalent certificates from states with federally approved water operator certification programs.
- The date for the biennial CECs is changed. Now the annual renewal fees and the biennial CECs are due by June 15th to allow time to process fees before the June 30th deadline. The state's legislative fiscal auditor requested this change.
- The disciplinary action section has been modified. The modification includes required hearings to be held by the Department Board of Environmental Review. A department-wide legislative change to all disciplinary actions required this modification.

Operator Reimbursement Program Update

The purpose of the Operator Reimbursement Program is to reimburse public water systems serving 3,300 people or fewer for certain expenses associated with required operator training. Congress included this new program in the 1996 amendments to the Safe Drinking Water Act to provide some compensation for small systems, which are often affected more significantly by new regulatory requirements than large systems. As an operator or owner of a Community or Non-transient Non-Community public water supply system serving 3,300 people or fewer, you may be eligible to receive reimbursement for renewal fees, required operator training costs, application and exam fees, pre-exam training for applicants, mileage, and per diem expenses for unsalaried operators. Please contact Ruby Miller at 444-0490 or rumiller@state.mt.us to request forms or for answers to reimbursement questions.

If you have questions on any operator certification issues or for information about becoming a Montana certified operator, please contact me at 444-2691 or at jchambers@state.mt.us or any of the operator certification staff. The following is a list of other operator certification staff:

Reta Therriault, Certification Technician
Questions on certification, applications, examinations, compliance, and requests for information.
Phone Number: 444-3434
rtherriault@state.mt.us

Ashley Eichorn, Certification Technician
Questions on approved training, continuing education credits, renewals, and requests for information.
Phone Number: 444-4584
aeichorn@state.mt.us

Ruby Miller, Reimbursement Accounting Technician
Questions on the reimbursement program and requests for information.
Phone Number: 444-0490
rumiller@state.mt.us

Wastewater Lagoons and the West Nile Virus

By Bill Bahr of the WPCSRF program

Operators and managers of lagoon wastewater treatment plants must help deal with the problem of the spread of the West Nile Virus (WNV) in our communities, since lagoons are quiescent bodies of water where mosquitoes can breed and lay their larvae. However, the consequences of some of the solutions being offered to control this scourge must be weighed against the negative impacts these applications may have on the treatment ponds. Primarily, the microbiology used to treat wastes in the lagoon systems must be protected from the application of pesticides or other destructive control measures. The good news is that there are some safe chemical controls that can eliminate mosquito larvae without destroying the treatment processes.

It is important to keep the potential risk to human health of WNV in perspective relative to the potential harm to the environment and public health from poorly treated wastewater. WNV is a mosquito-borne virus that first appeared in the U.S. in 1999 and reached Montana in 2002. Most people who become infected with WNV will have either no symptoms or mild symptoms. The fatality rate for WNV is approximately 0.1 percent.

The Montana Department of Public Health and Human Service is working with the state departments of Livestock; Fish, Wildlife and Parks; and Agriculture on a disease surveillance and mosquito abatement program. WNV is transmitted through the bite of an infected mosquito; hence it's prudent to limit your exposure to mosquitoes:

- Reduce time spent outdoors when mosquitoes are biting (i.e., between dusk and dawn)
- Wear long pants and long-sleeved shirts when outside
- Apply mosquito repellent to exposed skin areas (for adults use DEET at 30-35% concentration and for children less than 10% concentration)
- Make sure screen doors and window screens are in good condition
- Eliminate standing water around housing areas (e.g., water in old tires, cans, birdbaths, poorly kept swimming pools, etc.)

Mosquito control measures may be taken in the interest of protecting the public's health. These may include:

- Aerial spraying of pesticides
- Elimination of larval habitats
- Insecticides to kill juvenile (larvae) and adult mosquitoes
- The DPHHS web site is a good source for more information http://www.dphhs.state.mt.us/news/west_nile_virus/west_nile_virus.htm.

Wastewater treatment facilities in Montana are primarily lagoon systems. Only the larger towns and cities have mechanical treatment plants and even some of those incorporate lagoons or ponds into the treatment system. These water bodies provide treatment of the wastes in wastewater by means of biological stabilization. Any WNV preventive measures to control mosquitoes must protect the microorganisms in the treatment ponds. Fortunately, treatment plants are usually located near the communities and would likely be included in the local mosquito control districts.

The Water Pollution Control State Revolving Fund (WPCSRF) program will advise any interested parties regarding methods to control mosquitoes in the vicinity of these communities that will impact the wastewater treatment ponds. Primarily, we will advise communities to work with the mosquito control districts and to use control methods that protect the treatment microbiology. **At this point, there are two methods that appear to be useful: 1) mosquito fish, and 2) environmentally safe larvicides that are either applied at rates too low to impact the treatment microbes or are noninjurious to the microbes.**

To that end, we have little experience with or information about mosquito fish and will refer interested parties to Amy MacKenzie, DPHHS. The larvicides that have been recommended for use that should protect the microbiological life forms in the ponds are the following: Skeeter Abate (Temephos), or Vectobac12AS, which is a Bacillus thuringiensis israelensis (Bti), VectoBac G, or VectoLex CG. The last three mentioned are bacterial in nature and essentially interrupt the life cycle of mosquitoes. These are all considered safe for use in wastewater lagoons, as long as the products are applied according to manufacturer recommendations. **There are probably other larvicides available, so be careful what you apply to wastewater lagoons!**

Please keep in mind that the WNV may represent a smaller threat to the general public health than the failure of the wastewater treatment lagoons to function properly. Communi-

ties may be better served to remove junk, old tires and other places where water can pool than to overreact and apply pesticides that might destroy the microbiology of a lagoon system and/or send environmentally harmful chemicals into the plant discharges and into state waters. Some of the information I have researched regarding the use of larvicides comes from the Journal of Pesticide Reform, Winter 2002, Vol. 22, No. 4. Specifically, in this journal is an article written by Deanna McKinney, titled "Meeting the Challenge of West Nile Virus Without Poisons," that discusses the spread of this disease, various control methods and impacts of these controls.

Other related issues involve constructed wastewater treatment wetlands, natural wetlands and other state waters. Natural streams, wetlands and other water bodies, while potential mosquito habitat, also provide natural predators to help keep mosquito numbers in check. Some Montana treatment systems include constructed wetlands. Again, an active healthy microbiological population is essential for treatment processes to work, so caution must be taken when applying chemicals to these water bodies. We need to compare the perception of the health risk versus the real effects of our response to these threats. Flood irrigation areas, drainage ditches and irrigation tail waters provide much more mosquito habitat in Montana than healthy wetlands, which occupy less than 1% of the landscape in Montana, and streams, which comprise about 3% of Montana's surface area. These areas tend to be biologically balanced with respect to predator and prey relationships.

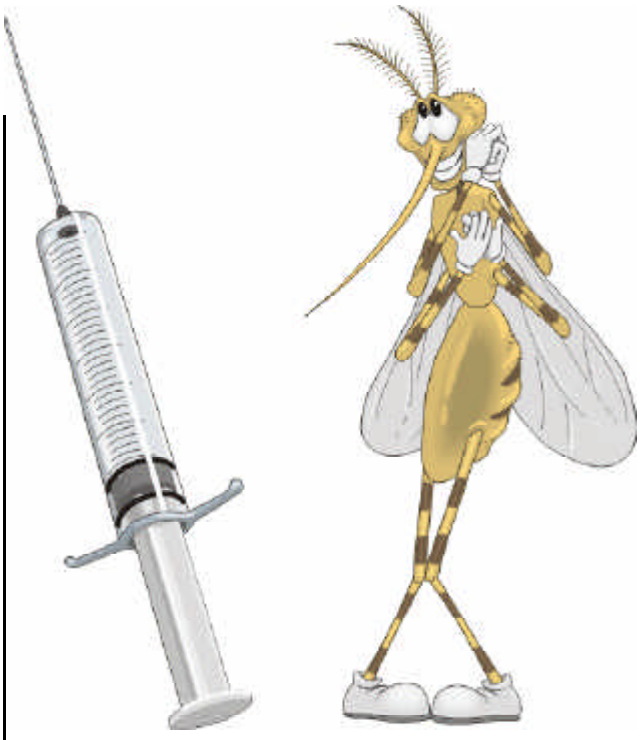
Any spraying around water bodies needs to be done by a licensed pesticide applicator. **Please contact the Montana Department of Agriculture at 444-5400 for information about commercial or government pesticide licenses.** To apply pesticides to state waters, a 308 permit is needed and allows a short-tem exemption from Montana surface water quality standards. **Please contact Montana DEQ at 444-3080 for 308 permit application information.**

The Montana Department of Fish, Wildlife and Parks (FWP) is again asking residents who find dead birds, potential carriers of WNV, to contact their nearest FWP regional office for directions on where to send the carcass.

Educational opportunities for dealing with WNV are planned for this year. Several mosquito control districts will be participating in training in the coming weeks on options and use of various types of abatement methods, including chemical treatments, community-wide clean up activities and other natural treatment options, like mosquito fish in ponds. Montana State University is planning a mosquito and WNV education session in Lewistown in February, but at this point, plans are tentative.

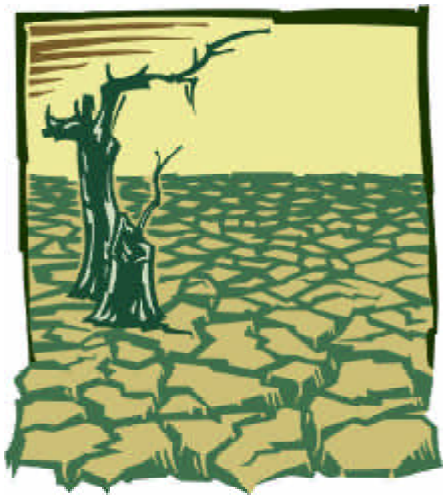
Mosquito abatement strategies are a concern to those trying to protect Montana's wetlands; not only because of the use of chemicals, but also because some approaches suggest "draining" the wetlands to destroy mosquito breeding grounds; but, wetlands are vital to Montana's ecosystem. A comprehensive plan for control of mosquitoes must also protect the integrity of the natural wetlands.

Remember, while wastewater lagoons, constructed wetlands and natural water bodies like streams and wetlands may represent breeding areas for mosquitoes that could carry the WNV disease, there are many environmentally safe methods of controlling mosquito proliferation from these valuable resources. Operators and citizens can help protect public health and the environment by becoming aware of the problem and applying reasonable controls. After all, the potential threat from WNV may not be as great as the long-term results of intensive chemical applications or the elimination of valuable water resources.



DROUGHT – Deja Vu

by Jim Melstad



The precipitation received during the first three months of the water year, October through December, is well below normal in all parts of the state. Even though many parts of Montana were blessed with substantial moisture last spring, subsoil moisture and groundwater levels are still well below normal in many areas. This year could be a very bad year again if we don't receive substantial moisture before summer. It will likely take several years of above-average precipitation before we begin to recover from the drought. In short, **the drought** that has been with us for as long as seven years in some areas **is still with us**.

We strongly recommend that you *begin planning now* if your water system is subject to drought. You should provide your customers with relevant information soon, including water conservation measures and (if applicable) watering restriction information. You should contact us soon if you think that improvements to your system, such as a new well, will be necessary. We can help you to expedite your project *if* there is a true emergency. There may be limited funding available, but demand for the funding is very competitive.

There is drought and water conservation information on our website at http://www.deq.state.mt.us/press/waterconservation.asp that may be useful. Please contact me at 406-444-5315 or at jmelstad@state.mt.us if you should need information or if you have any questions. Good luck in providing plentiful, safe water to your customers this year.

CROSS-CONNECTION CONTROL PROGRAMS IN MONTANA

By Greg Butts, DEQ Water Quality Specialist

Current Montana regulations allow public water systems that wish to implement a Cross-connection Control program to have the program reviewed and approved by the Public Water Supply Section of DEQ. The Administrative Rules of Montana, 17.38 Subchapter 3 defines the Cross-connections rule for Montana Public Water Supply Systems. Part of this subchapter outlines what must be included in a Cross-connection control program (CCCP) that is submitted for approval by this Department. This rule does not require a public water system to develop a CCCP, or that they submit it to the Department for approval. In fact the title for 17.38.310 ARM is 'Voluntary Cross-Connection Control Programs: Application Requirements'.

To date there are four public water systems that have approved Cross-connection Control Programs. They are Mountain Water Company in Missoula, Flathead County Water District #1 (Evergreen Water), the City of Columbia Falls and the University of Montana. Big Mountain Water Company has just submitted an application, but it hasn't been reviewed or approved yet. Implementation of a CCCP requires that the water system devote hours and money to the project. Not only will the person in charge of the program have to organize and manage it, they will likely have to educate consumers, contractors, inspectors and their bosses.

What's that I hear you saying? "Why would I want to set up a cross-connection program for my water system?"

Let me try to explain why. As operators, owners and managers of public water systems we have an obligation to provide safe and clean drinking water to our customers. This is a legal obligation. Public Law 99-339, 1986 Amendments to the Safe Drinking Water Act has language that says the water purveyor has primary responsibility for preventing water or any other substances from unapproved sources from entering the public water supply system. (i.e. cross-connection and backflow prevention). It is the water system owners, operators and managers legal and moral responsibility to eliminate cross-connections, or install backflow prevention valves when they can't be eliminated.

Do you have cross-connections within your public water system? Nearly every water system has cross-connections and all water systems have potential cross-connections. Every time a hose is attached to an unprotected hose-bib there is the potential that a cross-connection will be created. The cross-connections within a water system could be a water softener whose backwash line is plumbed directly to the building sewer, a commercial dishwasher with automatic soap dispensers, a chemical tank with a submerged potable water inlet, a swimming pool at the hotel with a submerged inlet or a garden hose on your house used by the lawn maintenance company to fill their chemical tank. Backflow incidents happen as well but only the most severe are reported and quite often the source of the contaminants in the potable water supply can't be traced.

A cross-connection control program administered by your city, town, water district, private company or however your water system is owned can place the authority to eliminate or protect all cross-connections with your water system. The program can be tailored to fit your water system and can be approved by the state if it meets the simple requirements listed in 17.38.310 ARM reproduced below.

17.38.310 VOLUNTARY CROSS-CONNECTION CONTROL PROGRAMS: APPLICATION REQUIREMENTS

(1) To obtain approval of a voluntary cross-connection control program, an owner or operator of a public water supply system shall file an application with the department.

(2) The application must be accompanied by a copy of the local ordinances or plan of operations that describes the methods for implementing the

cross-connection control program. The local ordinances or plan of operations must include the following:

(a) a statement defining the responsibilities of the public water supplier and the responsibilities of the consumer regarding implementation of the program;

(b) a requirement for a survey to be conducted by the owner or operator of a public water supply system for the purpose of identifying locations where cross-connections are likely to occur and evaluating the degree of hazard at each location;

(c) a requirement to eliminate cross-connections and hazards in compliance with ARM 17.38.305 on a priority basis beginning with those identified as having the highest degree of hazard. A health hazard must be assigned a higher degree of risk than all water contamination hazards;

(d) a description of the procedures and criteria that the public water supplier must, or will, use to evaluate the degree of hazard represented by a cross-connection. The procedures and criteria must, at a minimum, be consistent with the procedures and criteria specified in the "Manual of Cross-Connection Control", incorporated by reference in ARM 17.38.302;

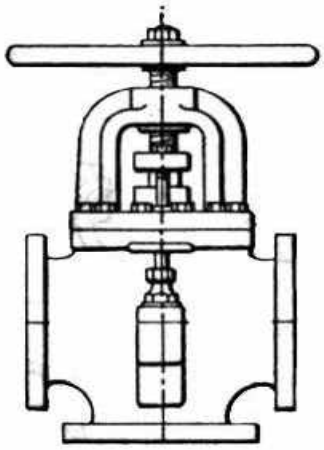
(e) the method for identifying the appropriate backflow prevention assembly or device for a specific degree of hazard. The methodology must be in accordance with the "Manual of Cross-Connection Control" incorporated by reference in ARM 17.38.302;

(f) a requirement for the installation of backflow prevention assemblies or devices where cross-connections identified in the survey cannot be practically eliminated;

(g) a provision for maintaining permanent records of the locations and types of backflow prevention assemblies or devices installed in the public water supply system and a provision requiring records regarding the inspection and testing of these backflow prevention assemblies or devices; and

(h) a written procedure that will be used to inspect and test a backflow prevention assembly or device. The procedures must provide that a certified backflow prevention assembly tester, as defined in this subchapter, will be used to conduct the inspection and testing.

The four public water systems that are implementing cross-connection programs are struggling along and meeting some resistance from users who must commit financial resources to install backflow prevention valves. The managers that I have spoken to are glad that they are implementing the program and count each new backflow valve installed as a step toward safer water for their customers. If you are interested in learning more about backflow prevention, cross-connection control or setting up a program for your water system, please call Greg Butts at 755-8985 or send him an email at gbutts@state.mt.us.



MONTANA SOURCE WATER ASESSMENT

FACT SHEET SWP-101 **April 2000**

Montana is required under provisions of the 1996 federal Safe Drinking Water Act to carry out a Source Water Assessment Program. The U.S. Environmental Protection Agency formally approved the Montana program in November 1999. The program was developed to the greatest extent possible using public participation and input from public water systems (PWSs) and other stakeholders interested in source water protection issues.

Section 1453 of the Safe Drinking Water Act (42 U.S.C. § 300j-13) requires the state program to:

❑ *Identify the source(s) of water used by PWSs*

This process delineates capture zones for wells or a stream buffer area for surface water sources called the source water protection area.

❑ *Identify and Inventory Potential Contaminant Sources*

Potential significant contaminant sources within the source water protection area are identified. Regulated contaminants of concern in Montana generally include nitrate, microbial contaminants, solvents, herbicides, pesticides, and metals. Potential sources of these types of contaminants include septic systems, animal feeding operations, underground storage tanks, floor drains, sumps, and certain land use activities.

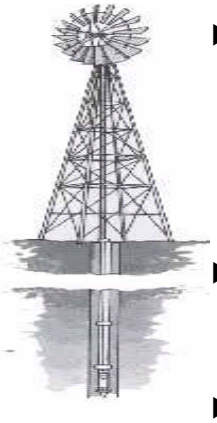
❑ *Assess the Susceptibility of the PWS to those identified potential contaminant sources*

A susceptibility assessment considers the hazard rating of a potential contaminant source and potential barriers to evaluate the likelihood that a spill or release would reach the well or intake. A determination of susceptibility will be made for each identified potential contaminant source within the source water protection area.

❑ *Make the results of the delineation and assessment available to the public*

Source water assessments must be made available to the public. Different resources will be used to bring this information to the public including consumer confidence reports, SWP Internet site, posting at public libraries, posting at local health department, and others.

- Delineation and assessments will be compiled into a map and text report for each PWS.
- Assistance is available for PWSs to help them utilize the delineation and assessment report to develop local source water protection plans. Participation in this part of the program will remain voluntary.
- The program is applicable to all public water systems.



This program may be important to you.

▶ If you are a public water system, it will mean that you will receive a technical report describing your water source(s) during the implementation period that extends to the fall of 2003.

▶ If you are a property or business owner engaged in certain activities regulated by DEQ and located near a PWS, you may be identified on a map provided to the PWS. This map is intended to encourage communication and cooperation between the PWS and those that may impact the water resource.

▶ If you are a consultant working on environmental issues, you may find opportunities to connect this program to your existing work.

▶ If you are a user of a public water system, you may benefit from this program. The reports will make information about your water supply readily available to you.

For more information, contact the Montana Source Water Protection Program at (406) 444-6697.

Montana Department of Environmental Quality

CHEMICAL MONITORING WAIVERS

Source Water Protection

FACT SHEET SWP-104 **June 2002**

Chemical monitoring waivers reduce sample frequency in a compliance period or compliance cycle. Information to support the waiver must be provided by the PWS for consideration. A waiver must be given in writing by MDEQ and will specify which chemical(s) are included in the waiver, the time during which the waiver is in effect, and the sampling required for renewing the waiver. Monitoring requirements are fairly complex based on quarterly, semi-annual, annual, and tri-annual requirements within 3-year compliance periods and 9-year compliance cycles.

Public Water System Monitoring Waivers

Monitoring requirements are complex based on quarterly, semi-annual, annual, and tri-annual requirements within 3-year compliance periods and 9-year compliance cycles. Information to support a use or susceptibility waiver request must be provided by the PWS for consideration. A waiver will be given in writing by MDEQ and will specify which chemical(s) are included in the waiver, the time during which the waiver is in effect, and the sampling required for renewing the waiver

I. Statewide Waivers

Under the statewide waivers, public water supplies are not required to sample for:

Endothall	Dioxin	Asbestos at the source
Diquat	Ethylene dibromide	Cyanide
Glyphosate	Dibromochloropropane	

Additionally, small water systems (3,300 or less) may be waived from initial quarterly monitoring requirements for the organic chemicals (includes VOCs, PCBs, SOCs) by completing one round of organic chemical sampling without detects. This statewide waiver applies only to initial baseline requirements. Repeat sampling during subsequent compliance periods will be required except where “use” or “susceptibility” waivers have been granted.

II. PWS Monitoring Waivers

Waivers can be requested in conjunction with the completion of the source water delineation and assessment report for a PWS. Typically, the PWS operator will need to provide additional, site-specific chemical use information for parcels within the inventory region in order to process a waiver request. Waiver requests must be in writing.

A. Inorganic Chemical Waivers

Inorganic chemical (IOC) waivers are available. The IOCs eligible for waiver consideration are not typically related to human activities hence they are usually either present or not in a source water over the long term. DEQ will consider requests based on monitoring history, treatment and water quality. IOC waivers are not available for arsenic, nitrate/nitrite, lead/copper, or radiological monitoring.

B. Organic Chemical Waivers (VOC/SOC)

Organic chemical monitoring waivers reduce sample frequency in a compliance period or compliance cycle. Monitoring waivers are based either on chemical use in an area or the susceptibility of the water source to contamination.

1. Use Waiver
   Use waivers may be available when it can be shown that specific organic chemicals have not or are not used, manufactured, or stored in a source water inventory region.

2. Susceptibility Waiver
   Susceptibility waivers may be available when the source water is demonstrated to not be susceptible to contamination. Susceptibility is based on factors including hazard and the presence of barriers.

III. PWS Application Procedures for Waiver

A. Statewide waiver
- No application is needed

B. IOC Waiver
- Send letter of request to DEQ
- Include IOC monitoring results

C. SOC Use Waiver
- Send letter of request to DEQ
- Include all SOC monitoring results
- Include map that extends 1 mile from each well; show land use and chemical use history by land parcel. Use MDEQ Form #2**, or:
- Include annotated SWPA Inventory Region Map listing land use and chemical use history by land parcel. Use MDEQ Form #2**.

D. SOC Susceptibility Waiver
- Send letter of request to DEQ
- Include all SOC monitoring results
- Include completed MDEQ Form #4, or;
- Include delineation, inventory, and susceptibility sections from SWDAR. Artesian conditions must be documented under all pumping regimes in order to achieve a susceptibility waiver.

E. VOC Use Waiver
- Send letter of request to DEQ
- Include VOC monitoring results
- Include map that extends I mile from each well listing land use and chemical use history by land parcel. Use MDEQ Form #2**, or:
- Include annotated SWPA Inventory Region Map listing land use and chemical use history by land parcel. Use MDEQ Form #2**.

F. For VOC Susceptibility Waiver
- Send letter of request to DEQ
- Include SOC monitoring results
- Include completed MDEQ Form #4, or;
- Include delineation, inventory, and susceptibility sections from SWDAR. Artesian conditions must be documented under all pumping regimes in order to achieve a susceptibility waiver.

The written request and supporting documentation should be forwarded to the Joe Meek, Source Water Protection Program, Montana Department of Environmental Quality, P. O. Box 200901, Helena, Montana 59620-0901.

** An inventory form (MDEQ Form #2) should be completed for each parcel and should include a map locator number, which cross references to the map, brief land use description, and list of chemicals used or in-use. This site-specific information comes from parcel owners who should be contacted by the PWS operator and asked to provide a list of herbicides, pesticides, solvents, or fuels and approximate quantity currently in use or stored on their property.

City of Hamilton WWTP Awarded First Place EPA National Clean Water Act Award Program

The City of Hamilton received regional and national awards for 2002 from the Environmental Protection Agency for innovative operations and maintenance practices at the Hamilton Wastewater Treatment Plant (WWTP). On a brisk October morning in Hamilton, representatives from the Montana EPA office and from the Montana Department of Environmental Quality attended an award ceremony at the treatment facility. John Wardell, Director of the Montana EPA office, presented city officials with the 1st place award and individual certificates for EPA Region VIII, and individual pins and patches for employees commemorating the national 1st place award. The national award was presented to city officials at the Water Environment Federation (WEF) conference in Chicago in early October. Paul LaVigne and Bill Bahr, DEQ, were on hand along with professionals from HDR Engineering to congratulate the city staff on this remarkable achievement. Pictured below at the awards ceremony are: *(left to right*) Bill Bahr, DEQ; John Wardell, EPA; Lorin Lowry, City Public Works Director; Brad Parke, WWTP Chief Operator; Joe Petrusaitis, City Mayor; Ed Barrett, WWTP Operator; Carol Schwan, City Councilperson; Chris Cobb, City Office Manager; Paul Lear, WWTP Operator; and, Bobbie Parke, City Billing Clerk.

2002 EPA Clean Water Act Award Ceremony for the City of Hamilton
October 22, 2002

Nominations for 2003 EPA Clean Water Act Awards

The Montana Department of Environmental Quality would like to encourage wastewater treatment plant managers from across the state to apply for an Environmental Protection Agency (EPA) award to recognize significant, innovative solutions to collection and treatment problems, and to acknowledge long-term successful management programs at wastewater treatment plants. Montana is blessed with individuals who take the job of treating wastewater seriously and who recognize that protection of the environment and public health is more than just a job … it is a commitment to serve others.

This awards program began in 1986 and, in years past, many Montana treatment plants have received regional and national recognition for their stellar efforts. We are extremely proud of these facilities and the folks who work there as well as the administration and citizens who provide the means to operate and maintain these outstanding wastewater treatment plants.

Nominations for the award must be to the EPA by April 16th so if you would like to be considered, please contact the State of Montana EPA Clean Water Act award manager, Bill Bahr, as soon as possible. Contact him at the DEQ, by phone at 406-444-5337, by FAX at 406-444-6836, by e-mail at bbahr@state.mt.us, or by mail at P.O. Box 200901, Helena, MT 59620-0901. The categories for the awards are as follows:

Operations and Maintenance Excellence
Secondary Treatment Plant: Small (<1.0 mgd); Medium (1.1-10.0 mgd); Large (>10.0 mgd)
Advanced Treatment Plant: Small (<1.0 mgd); Medium (1.1-10.0 mgd); Large (>10.0 mgd)
Non-Discharging Plant: Small (<1.0 mgd); Large (1.1 mgd and larger)
Most Improved Plant: Less than 5.0 mgd

Biosolids Exemplary Management
Operating Projects: Less than or equal to 5 dry tons/day; Greater than 5 dry tons/day
Technology Development Activities
Research Activities
Public Acceptance Efforts: Municipal; All Others

Outstanding Pretreatment Program
Based on number of Significant Industrial Users (SIUs): 0-25 SIUs; 26-100 SIUs; >100 SIUs

Outstanding Storm Water Management Program
Municipal Storm Water control program or project
Industrial Strom Water control program or project

Combined Sewer Overflow (CSO) Control Program
Awarded to municipalities with outstanding CSO programs

Montana's previous winners (1986-2002): (Region VIII and National)

- **Lewistown, Rotating Biological Contactor, 1st Med.-Sec., Region VIII 1989**
- **Polson, Aerated Lagoon, 1st Large Non-Discharging, Region VIII 1989**
- **Superior, Aerated Lagoon, 1st Small Non-Discharging, Region VIII 1989**
- **Bozeman, Activated Sludge, 1st Beneficial Use of Biosolids, Region VIII 1989**
- **Great Falls, Activated Sludge, 1st Large-Sec., Region VIII; 1st National 1991**
- **Chinook, Oxidation Ditch, 1st Small-Sec., Region VIII; 1st National 1993**
- **Missoula, Activated Sludge, 1st Med.-Sec., Region VIII 1993**
- **Lakeside, Aerated Lagoon, 1st Small Non-Discharging, Region VIII; 2nd National 1995**
- **Billings, Activated Sludge, 2nd Large-Sec., Region VIII 1995**
- **Lolo, Activated Sludge, 1st Small-Sec., Region VIII; 1st National 1996**
- **Kalispell, Biological Nutrient Removal, 1st Med.-Advanced, Region VIII 1996**
- **Forsyth, Oxidation Ditch, 1st Small-Sec., Region VIII 1999**
- **Butte, Activated Sludge, Hon. Mention Med.-Sec., Region VIII 1999**
- **Hamilton, Oxidation Ditch, 1st Med.-Sec., Region VIII; 1st National 2002**

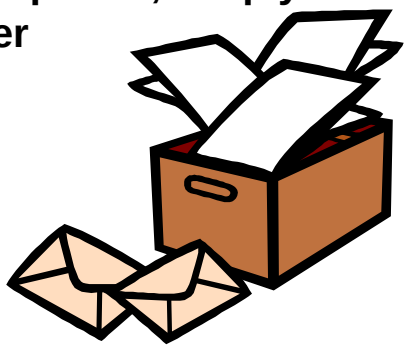
CEC NAGGINGS

(THAT YOU MAYBE SHOULDN'T IGNORE)

HAPPY NEW YEAR!! You were all sent copies of the new rules for comment in August. According to these rules, which went into effect November 9th, the Continuing Education Credits (CEC) period now runs from July 1, 2002 through May 31, 2004. All CEC report forms must be submitted to the department by June 15, 2002.

However, let's not wait until next year to get your credits! Why not earn your credits early so you don't have the stress of having to rush at the end? There are lots of fun and exciting ways to get your credits; including attending any of the many already approved courses. The Montana Environmental Training Center (METC) 2003 calendar lists courses by training providers. You can also complete any of the approved correspondence courses (these are also listed in the METC calendar), or find your own class and apply to have it approved for credit. There are also some new ways to earn credits: Internet and CD-Rom courses. Remember that operators-in-training are not required to earn CEC's.

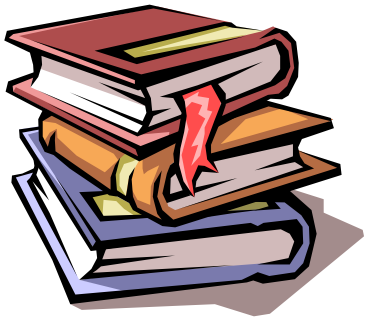
If there are any problems or questions on your CEC status or to request information on any of the training options, simply contact Ashley Eichhorn, Water/Wastewater Operator Certification Technician at (406) 444-4584, or aeichhorn@state.mt.us. Hope to see your credit forms cross my desk soon!



APPLICANTS PASSING EXAMINATIONS FOR FULL CERTIFICATION (CO) OR OPERATOR-IN-TRAINING (OT) – JUNE 2002– DECEMBER 2002

	CLASS 1'S			
5972	Allen, Michael	Harlem	1A	OT
6128	Baker, Nicholas	Billings	1B	OT
6146	Carpenter, Jean	Missoula	1C	OT
5997	Johnson, Tom	Loma	1B	OT
4444	Kerkes, Randy	Great Falls	1C	CO
6145	King, Carl	Missoula	1C	OT
6152	Pericich, Nicholas	Bozeman	1A	CO
6062	Purdon, Brad	Colstrip	1B	CO
6135	Viste, William	Chinook	1B	OT
	CLASS 2'S			
5919	Benbrook, Delores	Whitefish	2C	CO
6143	Cook, James	Havre	2A	CO
6170	Edwards, Ran	Big Sky	2A3B	CO
5955	Hovde, Richard	Big Sky	2C	OT
6036	James, Mark	Kalispell	2A3B	CO
2349	Miller, Larry	Chinook	2C	CO
5985	Reid, Kara	Glacier PK	2A	OT
6158	Rolison, Guy	Laurel	2A	CO
6107	Snow, James	Harlem	2A	OT
6149	Stokes, David	Bonner	2C	OT
6110	Stone, Fred	Anaconda	2D	CO
5487	Walker, Ashley	Polson	2B	OT
	CLASS 3's			
5458	Agosto, Humberto	Wolf Point	3C	CO
6166	Bell, William	Harlem	3A4B	OT
5023	Clark, John	Winnett	3C	CO
4870	Dicken, Greg	Plains	3A4B	OT
4870	Dicken, Greg	Plains	3C	OT
6088	Gerber, Jeff	Whitefish	3A4B	OT
6088	Gerber, Jeff	Whitefish	3C	OT
5213	Harnett, Jonathan	Thompson Falls	3A4B	CO
6162	Hartman, Richard	Highwood	3C	OT
6033	Irizarry, Isaac	Wolf Point	3C	CO
3146	Knaack, Charlene	Bozeman	3A4B	CO
6046	McPhail, Nick	Ronan	3A4B	CO
4752	Miller, Richard	Worden	3A4B	CO
6097	Novotny, Kristian	Big Timber	3A4B	CO
6097	Novotny, Kristian	Big Timber	3C	CO
5206	O'Connor, Brent	Missoula	3C	CO
4512	Proefrock,Stephen	Cut Bank	3C	CO
5985	Reid, Kara	Glacier PK	3C	CO
6156	Seibert, Paul	Missoula	3C	CO
6124	Welty, Greg	Plains	3A4B	OT
6124	Welty, Greg	Plains	3C	OT

	CLASS 4's			
5995	Behm, Troy	Dutton	4C	CO
5023	Clark, John	Winnett	4AB	CO
6163	Collings, Sadie	Wilsall	4AB	OT
6108	Crowder, Carl	Saco	4C	CO
6039	Cuthbertson, Jon	Kalispell	4AB	OT
6082	Gregory, Robert	Ashland	4C	CO
6162	Hartman, Richard	Highwood	4AB	CO
6016	Horn, Stewart	Heart Butte	4AB	CO
6022	LaPlant, Shane	Broadus	4C	CO
6142	Mayer, Blaise	Ramsay	4C	OT
6159	Pidgeon, Loe	Bozeman	4AB	CO
5990	Rice, Marcy	Polson	4AB	CO
4840	Riley, Michael	Dillon	4AB	CO
6014	Rutherford, Milton	Heart Butte	4AB	CO
6121	Stewart, Cathy	Jordan	4AB	CO
5290	Vanderpas, Charles	Bozeman	4AB	CO
4267	Wipf, Paul P.	Ryegate	4AB	CO
	CLASS 5's			
6142	Mayer, Blaise	Ramsay	5AB	CO
6047	Bowen, Tena	Kalispell	5AB	CO
6134	Day, Valerie	Libby	5AB	CO
6150	DeShazer, Jack	Libby	5AB	CO
6154	Edgerley, Mark	Bozeman	5AB	CO
6153	Hecker, Cindy	Sidney	5AB	CO
6132	Hilderman, Paul	Helena	5AB	CO
6180	Holmen, Darrel	Bozeman	5AB	CO
5762	Kulczyk, Ann	Glasgow	5AB	CO
6043	Linderman, Zona	Missoula	5AB	CO
6126	Mart, Dean	Stevensville	5AB	CO
6141	Obergfell, Paul	Sidney	5AB	CO
6155	Parker, Cory	Libby	5AB	CO
6112	Pliley, Steve	Hamilton	5AB	CO
6125	Ross, Terry	Three Forks	5AB	CO
4707	Scheeler, Joe	Clancy	5AB	CO
6113	Schmit, Tom	Hamilton	5AB	CO
6059	Story, James	Dillon	5AB	CO
6115	Wiedeman, Terry	East Helena	5AB	CO



The examinations for certification require considerable time in study and preparation. The DEQ and the Water and Wastewater Operators Advisory Council felt you should know of this accomplishment. It represents a lot of hard work and initiative on the part of the individual.

OPERATOR EXAMINATION NOTIFICATION

DEPARTMENT OF ENVIRONMENTAL QUALITY
1520 EAST SIXTH AVE
PERMITTING & COMPLIANCE DIVISION
WATER & WASTEWATER OPERATOR CERTIFICATION

METCALF BUILDING,
PO BOX 200901
HELENA MT 59620-0901
406/444-3434 – FAX: 406/444-1374

OPERATOR NAME: _____ **OPERATOR #:** _____
(Please print)
NAME OF SYSTEM OPERATED: _____ **PWS#:** _____

MAILING ADDRESS: _____

CITY: _____ **ZIP CODE:** _____ **DAYTIME PHONE #:** _____

CLASSIFICATION OF EXAM REGISTERING FOR: Class _____ **Type** _____

To register for one of the examinations on this form, you must send the following to the above address 15 days before the exam date:

1. **a completed application for certification as a water operator;**
2. **the application fees;**
3. **the examination fees; and**
4. **a completed copy of this form and the fees for each examination.**

TRAINING AND EXAMINATIONS FOR OPERATORS:

[Objects of revenue: exam 503101 ($70.00), water app (A&B) 503104 ($70.00), wastewater app (C) 503105 ($70.00)]

OPERATOR CERTIFICATION TRAINING AND DEQ EXAMINATIONS
NOTE: You must also contact the training provider to register for this training (additional fees may be charged)

Training Provider	Location	Training Date	Exam Date	Exam Registration Deadline	SIGN ME UP FOR (check the exam date) and site below)
Montana Colony & Rural Water Systems (MRWS)*	Great Falls	01/22-01/23	01/24/03	01/10/03	
MRWS Conference *	Great Falls	02/19-21/03	02/21/03 afternoon	02/07/03	
MRWS Annual Operator Certification & Math Review	Kalispell	04/02-04/03	04/05/03	03/21/03	
METC / DEQ Spring Water School	Billings	04/02-04/03	04/05/03	03/21/03	
METC Small Water/Wastewater Summer Certification School*	Missoula	06/18-19/03	06/20/03	06/06/03	
METC/DEQ/MSU 68th Annual Fall Water School	Bozeman	09/22-25/03	09/26/03	09/12/03	

***Only Class 4 and 5 water or Class 3 and 4 wastewater exams will be given.**

DEQ SPRING EXAMINATIONS

Training offered at Billings and Kalispell

Examination Location	Exam Date	Exam Registration Deadline	SIGN ME UP FOR THIS EXAM
Billings	04/05/03	03/21/03	
Great Falls	04/05/03	03/21/03	
Havre	04/05/03	03/21/03	
Helena	04/05/03	03/21/03	
Kalispell	04/05/03	03/21/03	
Miles City	04/05/03	03/21/03	
Missoula	04/05/03	03/21/03	

The deadline to sign up for all examinations is 15 days before the examination date. To sign up for an examination, contact Reta Therriault at 406/444-3434 or rtherriault@state.mt.us for application information. An application is also available on the WWOC web site at http://www.deq.state.mt.us/pcd/csb/Cert/index.asp.

NO EXAMS GIVEN AT EXAMINATION SITES UNLESS THE APPLICATION DEADLINE HAS BEEN MET.

Note that Class 4 and 5 water exams AND Class 3 and 4 wastewater exams can be taken in a DEQ office in Helena, Kalispell or Billings by appointment. Contact Reta Therriault at 406/444-3434 or rtherriault@state.mt.us for application information.

Links to trainers telephone numbers and web sites:

1. Montana Environmental Training Center
   406/771-4433
   http://www.msun.edu/grants/metc/

2. Montana Rural Water Systems, Inc.
   406/454-1151
   www.mrws.org

3. Midwest Assistance Program
   406/273-0410
   www.map-inc.org

4. Montana Association of Water and Sewer Systems
   406/273-3336
   http://www.nmclites.edu/grants/metc/!mawss.html

SPRING WATER SCHOOLS FOR OPERATORS

METC and Montana DEQ/PWSS along with Montana Rural Water Systems will again be sponsoring two Spring Water Schools simultaneously in two locations. Both schools will begin April 2nd and run through April 4th with the exams being given on April 5th. Both locations will also include a review session for the exam takers. Along with basic and review sessions, there will be a number of good water and wastewater topics to attend.

Here are just some of the topics for the upcoming schools:

- Drought Education
- New Rule Updates
- Security and Emergency Planning
- Cross-Connection Control
- Operation and Maintenance of Your Water System
- Public Health
- Surface Water Treatment
- Water/Wastewater Tours
- Distribution Systems

- Wastewater Treatment Process and Design
- Wastewater Sampling for Permits
- Operations and Laboratory Procedures
- Lagoon Operations
- Mechanical WWTP Operations
- Biosolids Treatment and Disposal
- Disinfection with UV and Chlorine
- Collection System O&M
- TMDLs and Non-Degradation
- Safety and Security Concerns

There will be more topics in addition to those presented above. We hope that you will take full advantage of either location and maybe have the opportunity to learn something new or different. If you have any questions regarding either of these schools, please feel free to call 444-4400 or METC at 771-4432 for more information.

PERMITTING & COMPLIANCE DIVISION
CERTIFICATION EXAMINATION NOTICE
SATURDAY — APRIL 5, 2003
Registration — 8:00 a.m.
Examination — 8:30 a.m. - 12:30 p.m.

BILLINGS	**Billings Hotel & Convention Center • 1223 Mullowney Lane (*room listing in lobby*)**
GREAT FALLS	**College of Technology • 2100 16th Ave. South • Heritage Hall • Room B-135**
HAVRE	**MSU-Northern • 300 11th Street West • Hagener Science Center • Room 113**
HELENA	**Cogswell Building • 1400 Broadway • Room C209 (*use south entrance*)**
KALISPELL	**Kalispell Wastewater Treatment Plant • 2001 Airport Rd., Gate #4 • Conference Room**
MILES CITY	**Miles Community College • 2715 Dickinson • Room 107 (*main building*)**
MISSOULA	**Mountain Water Co. • 1345 Broadway • Conference Room**

NOTE: THERE WILL BE NO EXCEPTIONS TO THIS:

By MARCH 21, 2003, as required by ARM 17.40.208, everyone taking examinations MUST have:

1. Completed an application for certification as a water/wastewater operator;
2. Paid application fees ($70.00 for water and/or $70.00 for wastewater); and
3. Submitted examination registration slip and fees of $70.00 **PER** examination. (*Combination examinations 2A3B, 3A4B, 4AB and 5AB count as one exam.*)

[Objects of revenue: A&B water application fee ($70.00) 503104; C&D wastewater application fee ($70.00) 503105; exam fees ($70.00) 503101].

To request application materials or to ask for additional information, call the certification office at 444-3434 for Reta Therrriault or 444-4584 for Ashley Eichhorn or write to:

Department of Environmental Quality
Water/Wastewater Operator Certification
P. O. Box 200901, Helena, MT 59620-0901

PLEASE KEEP THE UPPER PORTION OF THIS NOTICE

Cut along dotted line and return completed registration form.

APRIL 5 – EXAMINATION REGISTRATION SLIP

(To register for an exam, detach and return this slip with appropriate fees by MARCH 21, 2003)

NAME:_____ OPERATOR #:_____

ADDRESS:_____

CITY:_____ ZIP CODE:_____ TELEPHONE #:_____

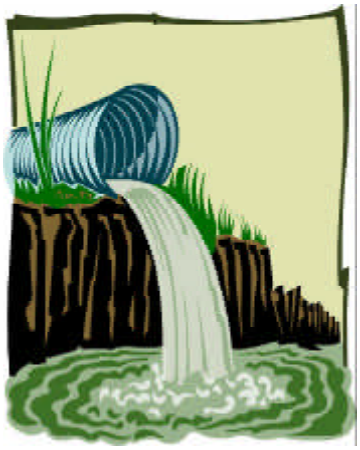
The box marked below is where I will take the esaminations(s):

☐ Billings ☐ Great Falls ☐ Havre ☐ Helena ☐ Kalispell ☐ Miles City ☐ Missoula

	1	2	3	4	5
A – Water Distribution	_____	_____	_____	_____	_____
B – Water Plant	_____	_____	_____	_____	_____
C – Wastewater Plant	_____	_____	_____	_____	
D – Industrial Wastewater	_____	_____	_____	_____	

[Objects of revenue: A&B water application fee ($70.00) 503104; C&D wastewater application fee ($70.00) 503105; exam fees ($70.00) 503101.

Wastewater Exam Prep Sessions Scheduled



The Montana Environmental Training Center (METC) is offering extra exam preparation sessions two weeks prior to the spring, summer and fall water schools in an effort to assist people preparing to take the Operator Certification Exams for Wastewater Classes 1C, 2C, 3C and 4C, and Industrial Wastewater Classes 1D, 2D, 3D and 4D. These schools, provided by METC, coincide with Operator Certification Exam dates.

Please call METC, 406-771-4433 or 406-771-4432, for attendance requirements, locations and dates. The first sessions for the April 5th spring exams will be March 19-20, 2003 in Great Falls.

The sessions will be held over a day and a half and will provide participants with an opportunity to review study materials in greater depth. The sessions will take a guided review approach to wastewater treatment and will provide discussion of the various aspects of wastewater treatment that are listed in the 'Needs-To-Know' criteria of the wastewater study guides provided by the DEQ Operator Certification Program.

The general course of review will be as follows: Wastewater Characteristics and Terminology, Mathematical Concepts and Formula, Wastewater Treatment Technology, Operation and Maintenance, Safety and Environmental Regulations. Throughout the sessions practical applications and hands-on activities will be included, such as practice test problems, problem-solving, and mathematical review.

Since the sessions are held a couple of weeks prior to the exams, participants will have time to study areas that were difficult following the review sessions. **An important reminder is that all people planning to take certification exams should study the recommended study materials prior to either the exam prep sessions or the review sessions offered at the METC schools.** There is too much material to cover in such short periods of time without adequate preparation before attending the prep sessions or the review sessions.

Association of Boards of Certification Wastewater Exams

By Reta Therriault, DEQ

As most of you already know the Operator Certification Program contracted with the Association of Boards of Certification (ABC) to prepare, grade, and summarize the wastewater exams. These examinations have been used for the past year and the results are in. There were many mixed comments from operators taking the exams and most of them were negative. This led me to keep track of the wastewater exam scores for the past two years (September '00 – September '02). I'm happy to share the break down with you!

Old Exam Results			**ABC Exam Results**		
9/2000 – 8/2001	**Pass %**	**Fail %**	**9/2001 – 9/2002**	**Pass %**	**Fail %**
1C	93.75%	06.25%	1C	75.00%	25.00%
2C	75.00%	25.00%	2C	62.50%	37.50%
3C	70.37%	29.63%	3C	83.87%	16.13%
4C	76.47%	23.53%	4C	77.78%	22.22%
Total WW exams	**77.65%**	**22.35%**	**Total WW exams**	**66.23%**	**33.77%**

The above percentages indicate that the new ABC exams have dropped the scores in the 1C and 2C exams and have risen the scores in the 3C and 4C exams.

As some of you have found out, the examinations cover a broader range of questions than before; therefore, other study resources are needed when preparing to take an exam. These additional resources are listed in the front of the materials sent from our office and have also been reviewed to ensure they cover all questions from the exams. Basic track training sessions, offered several times per year, is another helpful resource for people preparing to take an exam. The basic track sessions are geared for people that have spent time studying, but have questions or need just a little boost with computation. So be prepared, by studying in advance, before attending basic track.

Thanks to all the operators that have taken the new wastewater exams and took the time to write comments about the exam and specific questions of concern. Those comments were reviewed, the questions rechecked, and changes were made where necessary. The Wastewater Lagoon Manual has been revised and updated. It is now titled **Basic Wastewater Manual** and is designed to assist all wastewater certification levels. Thanks again and if you have any comments or questions please contact me, Reta Therriault at (406) 444-3434, or at rtherriault@state.mt.us.

New Public Water Supply Section Staff

By Jim Melstad

We are happy to announce that we have a *full staff* for the first time in several years. In the past 12 months, we have hired 7 new staff and the one other individual has changed positions. **Cami Bigelow** joined us in May in a temporary administrative support position. **Jenny Chambers** replaced Shirley Quick in October as the Operator Certification Program Manager. **John McDunn** began work as an environmental engineering specialist in the Field Services Program in December. **Ruby Miller** left the Field Services Program in April and began work as an Accounting Technician in the Operator Certification Program. **Jocelyn Mullen** began work as an environmental engineering specialist in the Engineering Services Program in December. **Maureen Strazdas** joined us in an administrative support position in June. **Chris "Shoots" Veis** began work as an environmental engineering specialist in the Billings Office in April. **Andrea Vickory** began work as a Water Quality Specialist in the Engineering Services Program in March.

We are very fortunate to have them. They will definitely help us to provide you with more assistance in meeting the challenges of new EPA regulations.

Below is a current summary of our staff responsibilities and phone numbers. Feel free to call them with your questions, or stop by to meet them the next time you are in Helena.

PUBLIC WATER SUPPLY SECTION

Community Services Bureau
DEQ

Section Head:

Jim Melstad – Jim's responsibilities are primarily management and supervision. He is responsible for overall coordination and performance of the Operator Certification, Engineering Services and Field Services programs. His duties include budgeting, compliance with program goals and objectives, planning for future program needs, and representing the section in public forums. 444-5315 jmelstad@state.mt.us

Cami Bigelow – Cami provides administrative support for the Public Water Supply Section. Cami is responsible for providing assistance in implementation of the Total Coliform Rule and providing assisting with miscellaneous PWS Section projects as assigned. 444-3967 cbigelow@state.mt.us

Sandi Ewing – Environmental Compliance Specialist for the Public Water Supply Section. She is responsible for compliance monitoring and follow-up. Sandi is responsible for coordinating projects through all support staff. 444-5314 sewing@state.mt.us

Melissa Levens – Melissa is a Database Technician responsible for the database maintenance and generates routine chemical reports to meet the needs of the Public Water Supply Section. She modifies existing codes as needed to reflect the changing needs of the staff. Melissa trouble-shoots; repairs database problems experienced by the staff, monitors data, and meets federal reporting goals. 444-3744 mlevens@state.mt.us

Eugene Pizzini – Water Quality Specialist. He is responsible for coordinating the section's compliance monitoring and follow-up. Primary responsibility is working with each rule manager in the PWS identifying systems out-of-compliance and referring these systems for enforcement. He works very closely with the Enforcement Division to provide assistance in formal enforcement actions and provides public education and training services. 444-3425 epizzini@state.mt.us

Cristy Weber – Cristy provides administrative support for the Public Water Supply Section. Cristy is responsible for providing assistance in implementation of the Total Coliform Rule and in coordinating support for miscellaneous PWS Section projects as assigned. 444-2049 cweber@state.mt.us

ENGINEERING SERVICES PROGRAM

Engineering Services Program staff performs plan and specifications review of proposed improvements to public water and wastewater systems; inspects public systems; administer contracts for plan review and water supply inspection services. The program is responsible for the implementation of Phase II & V, lead and copper, and the radionuclide rules. The program assists the Field Services program with operator training, and responds to public inquiries. Program technical staff provides technical assistance and compliance follow-up when coliform samples indicate a potential for contamination of public water supplies.

Program staff also assists the Enforcement Division in enforcement actions of orders and in response to complaints.

Manager:

Ryan Leland – Environmental Engineer Specialist. Ryan supervises program personnel, manages program activities, and provides technical guidance for the program. He also administers contracts with local governments and engineering consultants to perform sanitary surveys and plan and specification review, assigns plan review and various other projects to Engineering Services Staff, performs plan review and provides technical assistance. 444-5311 rleland@state.mt.us

Data Management:

Lyla Bowen – Accounting Technician. Lyla is responsible for general oversight of the assessment and collection of plan review and service connection fees. She is responsible for assessing interest on delinquent service connection fees, and providing a final review of the assessment of plan review fees before final DEQ approval of engineering plans and specifications are issued. She is responsible for overall maintenance of the database inventory of public water supply systems, including adding, classifying and

deleting public water supplies. Lyla maintains the PWS plan review database, including entering and maintaining plan review status information. This position generates database listings and reports from these database records. 444-2492 lbowen@state.mt.us

Technical Staff:

Sam Martinez – Environmental Engineering Specialist. Sam provides field and office engineering services to the PWS section. Sam's primary responsibility is for implementation of EPA's Lead and Copper Rule (LCR) and implementation of Capacity Development. Sam administers the Blaine County contract for sanitary surveys. 444-5313 samm@state.mt.us

Jocelyn Mullen – Environmental Engineering Specialist. Jocelyn provides field and office engineering service as discussed above. Jocelyn's primary responsibilities include review of engineering plans and specifications, providing technical assistance to engineers, implementation of EPA's Phase II and V rules 3, and rule implementation training. Jocelyn administers the Missoula County contract for sanitary surveys. 444-5881 jmullen@state.mt.us

Jennifer O'Mara – Jennifer is a half-time Environmental Engineering Specialist. She provides field and office engineering services to the PWS section. In addition, Jennifer reviews engineering plans and specifications for the program. Jennifer implements EPA's Phase II & V and radionuclide rules, and provides wastewater treatment plant design consultation. Jennifer administers the Gallatin County contract for sanitary surveys. 444-5318 jenomara@state.mt.us

Andrea Vickory - Andrea is a Water Quality Specialist. She provides compliance assistance and technical assistance services to public water suppliers for the Phase 2/5 Rules, the Radiological Contaminant Rules and the Lead and Copper Rule. She also performs review of raw compliance data and oversees compliance determinations for these rules, and performs sanitary surveys of public water supplies. 444-3358 avickory@state.mt.us

FIELD SERVICES PROGRAM

The program provides operator training and technical assistance to public water suppliers. The program has responsibility for implementing the surface water treatment rule (SWTR), Disinfectants/ Disinfection Byproducts Rule (DBP), Consumer Confidence Reports (CCR) and Cross-Connection Control. Program technical staff conduct sanitary surveys, inspections and watershed surveys and performs comprehensive performance evaluations (CPEs) on filtration plants. Program staff provides technical assistance and compliance follow-up when coliform samples indicate potential contamination of public water supplies.

Program staff assists the Enforcement Division in enforcement actions and in response to complaints. Program staff also monitors contracts with local governments, the university system, and the private sector.

Manager:

John Camden – John is a Field Services Program Manager. He supervises the Field Services Program personnel, manages program activities and provides technical guidance for the program. John also administers contracts, conducts CPEs and sanitary surveys, and develops and delivers training for water operators. He oversees staff implementation of the Surface Water Treatment Rule and Groundwater-Under-the-Direct-Influence of Surface Water, Consumer Confidence Report Rule, DBPs and Cross-Connection Control. 444-4071 jcamden@state.mt.us

Support:

Maureen Strazdas – Maureen works as an Administrative Assistant and provides support to the Public Water Supply Section. In addition to general office support, she enters Phase II & V, LCR and SWTR data and maintains all contract files for the Field Services and Engineering Services Programs. Maureen also helps publish the '**The Big Sky Clearwater.'** 444-2954 mstrazdas@state.mt.us

Technical staff:

Rick Cottingham – Rick is the Surface Water Treatment Specialist for the Field Services Program and implements the SWTR and FBRR. In addition to general field services responsibilities, he provides operator training and technical assistance for filtered and unfiltered surface water supplies. Rick serves as a core member for the comprehensive performance evaluation (CPE) team. Rick also administers the Cascade and Meagher county contracts for sanitary surveys. 444-4019 rcottingham@state.mt.us

Steve Kilbreath – Steve is a Water Quality Specialist for the Field Services Program. He provides hydrogeology support to the program with particular emphasis on non-degradation reviews and determinations for Groundwater-Under-the-Direct-Influence-of-Surface Water (GWUDISW). Steve will perform sanitary surveys of public water supplies and will manage the Central Montana Health District contract for sanitary surveys. 444-4630 skilbreath@state.mt.us

Eric Minneti – Eric is a Water Quality Specialist. He organizes and helps provide training to water system operators and managers throughout the state in coordination with the Montana Environmental Training Center (METC). He provides technical assistance to public water supply owners and operators and provides an understanding of the complex regulatory requirements; He monitors groundwater systems utilizing full-time chlorination and reviews chlorine residual reports for compliance; assists with the Consumer Confidence Report Rule. He also serves as co-editor of "**The Big Sky Clearwater**." Eric also administers a private sector contract for sanitary surveys.
444-4769 eminneti@state.mt.us

John McDunn – John is an Environmental Engineering Specialist and provides engineering support for the Field Services Program. John reviews engineering plans and specifications for the public water supply and sewage systems and implements the EPA DBP rule and serves as a core team member for conducting CPEs. John will perform sanitary surveys and also manage the Ravalli and Butte Silver Bow county contracts for sanitary surveys. 444-5312 jmcdunn@state.mt.us

KALISPELL OFFICE

The Kalispell office provides support to the following counties: Sanders, Flathead, Lake, Lincoln, and Mineral.

Support:

Marilyn Hartman – Marilyn provides administrative support services for the Kalispell Office. 755-8965 mahartman@state.mt.us

Technical:

Greg Butts – Greg is a Water Quality Specialist. He addresses PWS section responsibilities in Mineral, Sanders, Lincoln, Lake and Flathead Counties. He provides technical assistance to public water supply systems, inspects public water and wastewater systems. He provides technical assistance for unsatisfactory water samples, administers inspection contracts with county departments of health, issues boil orders and health advisories, and administers Class 4 and 5 operator certification exams. Greg is responsible for implementation of the Consumer Confidence Rule and the Cross-Connection Control Rule. 755-8985 gbutts@state.mt.us

Mike Kropp - Mike is a Water Quality Specialist. He provides technical assistance to public water supply owners and operators and provides an understanding of complex regulatory requirements; provides guidance to water suppliers in identifying possible sources of water contamination; develops training materials and provides training on regulatory requirements and water system operation and maintenance. Mike will also conduct compliance inspections of public water supplies, perform compliance monitoring of water sampling and monitoring requirements, provide assistance to owners and operators in correcting violations and provide assistance to the DEQ Enforcement Division during formal enforcement actions. 755-8985 mkropp@state.mt.us

Max Lauder – Max works on a half-time basis as an Environmental Engineering Specialist. He provides field and office engineering services to the PWS section. In addition, he reviews engineering plans and specifications for the program. Max assists with EPA's Phase II & V and radionuclide rules, and provides wastewater treatment plant design consultation. He manages PWS contract(s) with local governments for sanitary surveys. 755-8985 mlauder@state.mt.us

OPERATOR CERTIFICATION PROGRAM

This program certifies operators in eighteen classes of water distribution, water treatment, and wastewater treatment systems that serve the public. Through this office, applications are sent and processed, study materials are mailed, exams are scheduled and given twice yearly, and certificates for fully certified and operator-in-training operators are issued. Annual renewal of certificates is required through payment of an annual fee. In addition, continuing education requirements must be met every two years for renewal. This program also coordinates all activities of the Governor-appointed Water

and Wastewater Operators Advisory Council and the Continuing Education Credit Review Committee (CECRC).

Manager:

Jenny Chambers – Jenny is Program Manager of the WWOC Program. Her function is to administer this program to ensure that all aspects of the above are met. Jenny enforces the certification law by informing violators of the requirements and coordinates all activities of the advisory council. She is coordinator for the CECRC for training approval, works on improving study materials and examinations, provides certification training, and acts as a liaison between DEQ and the public to provide current information and interpretation of requirements to operators, department staff, and the general public. 444-2691 jchambers@state.mt.us

Technical:

Ashley Eichhorn – Ashley provides full-time technical support for the program and is responsible for monitoring of continuing education credits, for coordinating activities with the ad hoc Continuing Education Credit Review Committee, and for processing of certification renewal fees. 444-4584 aeichhorn@state.mt.us

Ruby Miller - Ruby provides full-time technical support for the program and is responsible for expense reimbursement to operators of small public water supplies (those serving less than 3300 people). She is also responsible for budget and expense monitoring. 444-0490 rumiller@state.mt.us

Reta Therriault – Reta provides full-time technical support to the program as the lead worker for ensuring adequate customer service, including preparation of examination application and study materials, preparing and administering examinations, processing of renewals and revocations, data processing, and monitoring compliance with certification requirements. 444-3434 rtherriault@state.mt.us

BILLINGS OFFICE:

The Community Services Bureau staff in the Billings Office performs many responsibilities for the Public Water Supply and Operator Certification Programs in the eastern half of the state. Staff conducts sanitary surveys and CPEs, reviews plans and specifications, administers Yellowstone County's sanitary survey inspection contract, assists with training (including water schools), administers operator examinations, investigates spills, handles clean-up requirements, investigates complaints and violations, provides assistance to the Environmental Division, responds to requests for assistance and generally assists to other P & C Division bureaus and programs as may be necessary. The Billings office provides coverage for these counties: Big Horn; Carbon; Carter; Custer; Daniels; Dawson; Fallon; Fergus; Garfield; Golden Valley; McCone; Musselshell; Park; Petroleum; Phillips; Powder River; Prairie; Richland; Roosevelt; Rosebud; Sheridan; Stillwater; Sweet Grass; Treasure; Valley; Wheatland; Wibaux; and Yellowstone.

Engineer Manager:

Jerry Burns – In addition to the general responsibilities discussed above, this position oversees bureau activities in the office, and provides general management and technical guidance. 247-4446 jburns@state.mt.us

Office Support:

Cookie Coats – Cookie provides all administrative support to the bureau staff at the Billings office. 247-4445 ccoats@state.mt.us

Technical:

Matt Usuriello – Matt is a Water Quality Specialist. He provides technical assistance to public water supply owners and operators and provides an understanding of the complex regulatory requirements; provides guidance to water suppliers in identifying possible sources of water contamination; develops training materials and provides training on regulatory requirements and water system operation and maintenance. Matt will also conduct compliance inspections of public water supplies, perform compliance monitoring of water sampling and monitoring requirements, provide assistance to owners and operators in correcting violations, and provide assistance to the DEQ Enforcement Division during formal enforcement actions. 247-4445 musuriello@state.mt.us

Chris Veis – Chris is an Environmental Engineering Specialist and assists in implementation of all responsibilities described above. The incumbent also provides Operator Certification training and is the lead technical person for compliance with the fluoride maximum contaminant level. 247-4447 cveis@state.mt.us

LEGAL SUPPORT

Jolyn Eggart – Jolyn's attorney position is assigned half-time to the Public Water Section to provide legal support. This position covers most of the contract work, provides assistance with enforcement efforts, new Legislation, and rule writing/revisions. 444-5690 jeggart@state.mt.us

Source Water Assessment Report Status

(January 2003)

SWDARS In-Progress

Contracted in Progress	245
DEQ in Progress	69
Other in Progress	21
Total Number of SWDARS In-Progress	**335**
Total Number of SWDARs Completed or In-Progress	**645**

SWDARs Not Started

Priority	High	119
	Moderate	64
	Low	261
	No Priority-Not Started	826
	Total Number of SWDARs Not Started	**1270**

PWSs Not Included in Count

Purchased Water PWSs	174
Inactive PWSs	42
Total Number of PWSs Not Requiring SWDAR	216

Total PWS Count (approximate) 2131

Well Setback Distances

The DEQ updated the subdivision rules (ARM 17.36 sub-chapter 3) back in December 2000 (they were also updated again in May 2002). There are two changes to point out.

The first change requires a minimum horizontal distance between water supply wells and surface water and springs of 100 feet. This setback only applies to water supply wells in new subdivisions that have been submitted for review and approved after the effective date of the rule in December 2000. The rules include a waiver from this setback if the applicant demonstrates conformance with the waiver criteria in ARM 17.36.601(1) though (3).

The term "water supply well" refers to wells used for potable use, it does not include such things as irrigation wells or stock wells. Surface water is defined in ARM 17.36.101(58) as "…any water on the earth's surface including, but not limited to, streams, lakes, ponds, reservoirs, and irrigation ditches, whether fresh or saline." Springs are defined in ARM 17.36.101(54) as "…natural opening in the earth's surface from which water issues or seeps."

The second change is a requirement for a 10-foot setback between water supply wells and floodplains, there is no waiver allowance for this setback. This setback only applies to water supply wells in new subdivisions that have been submitted for review and approved after the effective date of the rule in December 2000.

Another setback that was in the rules before the December 2000 revision and remains in the current rules is the 100-foot setback between drainfields/sand mounds and all wells (except monitoring wells). There is no waiver allowance for this setback.

DEQ rules are available on the internet at: www.deq.state.mt.us/dir/legal/title17.asp. The specific subdivision rules listed above are available at: www.deq.state.mt.us/dir/legal/Chapters/Ch36-toc.asp.

NRIS Thematic Mapper has a new look

The NRIS **Thematic Mapper** has been given a facelift! First, we've reorganized the data page into a tabbed 'atlas' look to make navigation through the various data holdings easier. Next, we've added some new search capabilities for Legislative or Senate districts. Finally, we've updated the look, reorganized the map window, and improved some of the functionality of the map display. We hope the changes enhance the usefulness of the Thematic Mapper.

New Data Available at NRIS

NRIS is pleased to announce the availability of new aerial photos. We've added 264 new photos (or DOQQ's) to our inventory. They are available at http://nris.state.mt.us/nsdi/doq.asp or through NRIS interactive apps available at http://nris.state.mt.us/interactive.html.

We have also processed an update of the Bureau of Mines and Geology GWIC well database. This new release contains over 180,000 groundwater wells in Montana and is available at http://nris.state.mt.us/gis/datalist.html#lw or through the NRIS Thematic Mapper.

Cadastral and CAMA data now available at NRIS!

NRIS, in cooperation with the GIS Bureau of ITSD and the Department of Revenue, is pleased to announce the availability of the combined Cadastral/CAMA data for Montana. The Cadastral parcel level ownership, combined with the rich set of attributes in the DOR's CAMAdatabase, provide a powerful new GIS data layer for Montana users. Currently, these new data are available in two formats, first, through the NRIS Thematic Mapper. Second, we've pre-built county level shapefiles for the completed areas in Montana and posted them for download at nris.state.mt.us/nsdi/cadastral.

Proposed Changes to the Nondegradation Rules for Subdivisions

The DEQ is preparing a draft rule change for the nondegradation rules. The proposed changes would replace most of the current rule in ARM 17.30.716.

Currently, ARM 17.30.716 includes categories of on-site sewage treatment systems (e.g. septic systems) that are considered to cause non-significant changes in water quality. The rules are being modified to provide new criteria for determining certain site-specific conditions when septic systems can be determined as causing non-significant changes in water quality. If a site meets the proposed criteria for non-significant degradation, the applicant does not have to conduct the dilution calculation (commonly referred to as the Bauman-Schafer model) to demonstrate non-significant degradation. The Department is proposing the new criteria because the existing criteria in the rule have proven to be too restrictive and have only been used a handful of times. The proposed rules are designed to reduce the time and cost to complete the nondegradation determinations for many subdivisions without sacrificing protection of water resources.

The DEQ plans to present the draft rules to the Board of Environmental Review at the March 2003 meeting, and is planning on finalizing the rules before the end of 2003.

The current nondegradation rules are available on the Internet at: www.deq.state.mt.us/dir/legal/Chapters/Ch30-toc.asp.

TEN YEARS OF BNR AT THE KALISPELL AWWTP

By Bill Bahr of the WPCSRF program

Joni Emrick, manager of the Kalispell Advanced Wastewater Treatment Plant (AWWTP), presented a paper at the Water Environment Federation annual conference in Chicago in early October 2002. Titled "Long Term BNR Operations – Cold in Montana!," the presentation included discussion of various operational experiences and solutions, performance of this biological nutrient removal facility, cold weather impacts on plant processes and long-term plant efficiency in controlling costs of wastewater treatment for the City of Kalispell.

The Kalispell facility received the Environmental Protection Agency (EPA) Clean Water Act Region VIII award for excellence in operations and maintenance in 1996. Joni received the Montana Water Environment Association (MWEA) Hatfield award for outstanding management of a wastewater treatment facility in 2000. She currently serves on the Montana Department of Environmental Quality (DEQ) Operator Certification Advisory Council, providing a valuable resource to DEQ and for operators across the state.

The Kalispell AWWTP was constructed with DEQ State Revolving Fund loan and Construction Grants monies, matched with local funding, and placed in service in 1992. The negative impacts to Flathead Lake from communities and housing surrounding the lake were well documented by the mid-1980s. Phosphorus loads in the waters entering the lake were causing algal blooms, including toxic blue-green algae, and threatening the pristine water quality of Flathead Lake. DEQ and the Flathead Basin Commission settled on a strategy to limit phosphorus from major population centers in the watershed above the lake by instituting a voluntary ban on detergents containing phosphorus compounds and restricting phosphorus in WWTP discharges to 1 mg/l. The Kalispell AWWTP project was a significant and critical aspect of this strategy.

A knowledgeable and capable operations staff is necessary for treatment plants to optimize performance and meet the stringent requirements of discharge limits. The results of ten years of operations at the Kalispell facility are truly impressive. Phosphorus in the effluent has averaged 0.24 mg/l and, in fact, has dropped to about 0.1 mg/l over the past three years. So, instead of seeing values creep up as more hookups are added to the collections system, the plant has improved treatment performance. There are many other criteria that also indicate that performance at this treatment plant has been outstanding. Suffice it to say that Joni, her staff, and the citizens of Kalispell are to be commended for working together to provide the resources necessary to build and operate a complex treatment plant in Montana's cold climate at such a high level of performance.

Never give up hope...even if you are stuck!