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## Water Policy Interim Committee 60th Montana Legislature

### SENATE MEMBERS

JIM ELLIOTT  
GREG LIND  
GARY PERRY  
BILL TASH

### HOUSE MEMBERS

SCOTT BOGGIO  
JILL COHENOUR  
EDWARD HILBERT  
BILL MCCHESENEY

### COMMITTEE STAFF

KRISTA LEE EVANS, Lead Staff  
GREG PETESCH, Staff Attorney

# MINUTES

Approved September 12, 2007

Date: August 16-17, 2007

Hager Auditorium  
Museum of the Rockies  
Bozeman, Montana

Please note: These are summary minutes. Testimony and discussion are paraphrased and condensed. Committee tapes are on file in the offices of the Legislative Services Division. **Exhibits for this meeting are available upon request. Legislative Council policy requires a charge of 15 cents a page for copies of the document.**

Please note: These minutes provide abbreviated information about committee discussion, public testimony, action taken, and other activities.

An electronic copy of these minutes may be accessed from the Legislative Branch home page at <http://leg.mt.gov>. On the left-side column of the home page, select *Committees*, then *Interim*, and then the appropriate committee.

To view the minutes, locate the meeting date and click on minutes.

### COMMITTEE MEMBERS PRESENT

SEN. JIM ELLIOTT  
SEN. GARY PERRY  
SEN. BILL TASH  
REP. SCOTT BOGGIO  
REP. JILL COHENOUR  
REP. EDWARD HILBERT  
REP. BILL MCCHESENEY

### MEMBERS ABSENT

SEN. GREG LIND

### STAFF PRESENT

KRISTA LEE EVANS, Lead Staff  
GREG PETESCH, Staff Attorney  
CYNTHIA A. PETERSON, Secretary

## Visitors

Visitors' list ([Attachment 1](#))  
Agenda ([Attachment 2](#))

## **COMMITTEE ACTION**

- The WPIC adopted the minutes from the July 10-11, 2007, meeting.

## **CALL TO ORDER - ROLL CALL**

Chairman Elliott called the Water Policy Interim Committee (WPIC) to order at 9:03 a.m. The secretary noted the roll ([Attachment 3](#)).

## **ADMINISTRATIVE MATTERS**

- **Minutes**

Sen. Perry moved to adopt the minutes from the July 10-11, 2007, meeting. The motion carried unanimously by voice vote.

- **WPIC budget overview**

Ms. Evans explained the WPIC saved \$1,000 on travel expenses for the Dillon meeting, but the cost of the tour transportation and the meeting room was approximately \$500, which resulted in a \$500 savings.

- **Travel vouchers**

Ms. Evans explained she is attempting to track the budget closely and urged the WPIC members to submit travel vouchers in a timely manner. Chairman Elliott added he will be requesting additional funding from Legislative Council in September.

## **COMMITTEE PERSPECTIVES ON WATER ISSUES**

Chairman Elliott reminded the WPIC members that the issue before them is not a partisan issue and encouraged the WPIC members to work together and be cooperative. Chairman Elliott expressed his desire to have consensus on any legislation proposed by the WPIC. Chairman Elliott encouraged the WPIC members to contact him if they are experiencing any difficulties with the work before the WPIC and stated all view points would be respected. Chairman Elliott stated there would be an opportunity for discussion among the WPIC members at various times during the meetings and encouraged the WPIC members to raise any concerns they may have. Rep. Cohenour agreed and appreciated Chairman Elliott's comments. Sen. Tash also concurred with the ideas and thoughts expressed by Chairman Elliott.

## **HB 831 IMPLEMENTATION UPDATE - Terri McLaughlin, DNRC**

Terri McLaughlin, Water Rights Bureau, Water Resources Division, Department of Natural Resources and Conservation (DNRC) stated the DNRC has finalized the proposed rules

pertaining to net water depletion. Ms. McLaughlin explained the notice will be published August 23 and deletes the existing rules as required by HB 831 and provided a definition for net depletion (**EXHIBIT 1**). Ms. McLaughlin also submitted Ground Water Permit Application Information for Basin Closure Areas (**EXHIBIT 2**).

- **Questions from the WPIC**

Rep. Cohenour noted the absence of an enforcement provision for the requirements. Ms. McLaughlin responded an analysis would have to be made by the DNRC, and a hydrogeologic assessment would be required when considering the application. Rep. Cohenour asked whether ongoing sampling would occur. Ms. McLaughlin responded there had not been a lot of conversation about studying the effectiveness of the mitigation plan. Rep. Cohenour requested Ms. McLaughlin to address these issues.

Sen. Tash asked whether existing practices would be affected by the changes in rules. Ms. McLaughlin responded they would not be affected by this particular set of rules, but it may be necessary for a party to file a change application. Sen. Tash asked whether it would be necessary in instances where there has been flood irrigation and whether that would require a change application. Ms. McLaughlin responded return from flood irrigation could be considered mitigation and would require a change application. Sen. Tash believed the areas of flood irrigation and mitigation should be addressed, and that it should not be necessary to apply for a change order every time a person puts water back into the ground. Sen. Tash cautioned against discouraging the flood-irrigation practice.

Chairman Elliott asked whether a change order would be needed in order to recharge the aquifer. Ms. McLaughlin agreed that was an option but that there may be other ways, and a change application may not always be needed.

Ms. Evans clarified that if a person is not changing their water use and are continuing their existing practice of flood irrigation, they would not need to file a change order.

- **Public Comment**

Tom Lane, Livingston, spoke about his brother's difficulties in quantifying water in the Jefferson River when considering subdividing his property in Three Forks. Mr. Lane recalled past references to the issue of a water right versus a water privilege, and that the privilege is decided by water priority. Mr. Lane noted the absence of discussion about how to increase the amount of water. Mr. Lane stated the Bozeman community is growing and wondered where the water will come from and who would prioritize where the water is going to go. Mr. Lane wondered if that was the purpose of the WPIC meeting.

Chairman Elliott agreed that was one of the issues before the WPIC. Chairman Elliott cited the "first in time, first in right" provision. Chairman Elliott asked Ms. Evans to further clarify. Ms. Evans added HB 831 and the required hydrogeologic assessment submitted in the permit application process would determine the issue for his brother. Prioritizing use is governed by the priority date regardless of the use of the water. Ms. Evans explained water marketing is also beginning to play a role because entities are purchasing water rights. Ms. Evans stated the WPIC would not necessarily consider prioritizing a type of use versus another use but would look at ways to facilitate the movement of water rights from one entity to another. Mr. Lane

asked whether the WPIC was looking at a way to sell a water right to a city or town. Ms. Evans responded that was already happening through the change process. Mr. Lane stated that the DNRC was concerned about what use the water was destined for. Ms. Evans explained water has to be put to a beneficial use and would include use by municipalities. Mr. Lane predicted the problem would increase in the future and would become critical in 10-15 years.

Paul Shennum has a residence along the west Gallatin River. Mr. Shennum depicted HB 831 as well-written. Mr. Shennum identified the critical part of HB 831 as the implementation guidelines which explain how the applicant will meet the intent to ensure that in a closed basin there will be no harm done to senior water right holders. Mr. Shennum believed enforcement and monitoring are critical. Mr. Shennum reported in 2001 there were 26 states that had an average of 50 projects that used artificial recharge and mitigation to replenish ground water. Mr. Shennum also reported failures within those projects. Mr. Shennum believed those states learned it is a step process to get to the right method and process to implement guidelines to ensure that when there is stream depletion, it will be replenished. Mr. Shennum believed the right way is to go through a stage/step process. Mr. Shennum admitted a stage/step process would take longer and would be more costly, but that it would be the right thing to do. Mr. Shennum suggested the DNRC does not do a good job of enforcement and that there should be a penalty. Mr. Shennum would like to ensure that the public gets an opportunity to comment on the implementation of any plan so he has an opportunity to seek technical assistance.

Clinton Cain, Bozeman, was concerned about water quality and suggested water would become the future's oil or gold. Mr. Cain acknowledged the *TU* decision connected surface water to ground water. Mr. Cain has been in the mining industry and has utilized a way to track water. Mr. Cain suggested there is a harmless drinkable dye that can be put into the water that would prove whether ground water and surface water are connected. Mr. Cain suggested use of satellite maps could also be useful in tracking water.

Al Jaeger, G2 Consulting, Bozeman, has read about the massive amount of water required for biofuel production and believed that should also be a consideration when balancing the future of Montana's water.

Ms. Evans addressed the proposed rules for net depletion and stated the rules could be adopted before the WPIC's October meeting. Ms. Evans suggested the WPIC and public should be prepared to address the rules at the WPIC's meeting in September, so the WPIC's comments and concerns could be forwarded to the DNRC. Ms. Evans also noted the Environmental Quality Council (EQC) has agency oversight over the DNRC.

## **CURRENT GROUND WATER QUALITY LAWS - Tom Reid, DEQ/Julie DalSoglio, EPA**

- **Tom Reid**

Tom Reid, Waste Water Permits Program Supervisor, Department of Environmental Quality (DEQ), provided an overview on Current Ground Water Quality Laws ([EXHIBIT 3](#)).

### ***(Tape 1; Side B)***

Mr. Reid provided a copy of DEQ's Montana Ground Water Pollution Control System (MGWPCS) Domestic Wastewater - Permit Application ([EXHIBIT 4](#)).

- **Questions from the WPIC**

Sen. Tash asked whether the DEQ responds to individual complaints. Mr. Reid explained the public is not brought into the process until the permit is publically noticed, so until that time, the DEQ only works with the applicant.

Rep. McChesney asked whether random audits were performed to ensure reports are accurate. Mr. Reid responded the DEQ performs approximately 130 inspections per year of permitted facilities. Some of the inspections are scheduled and some are unannounced inspections; however, generally, the audits are scheduled.

Sen. Perry asked about the Discharge Monitoring Report (DMR) and wondered who certifies the DMR and asked Mr. Reid to elaborate on enforcement and the safety valve. Mr. Reid responded the owner takes full responsibility of the system, but the owner can appoint a designee. The owner or designee is required to sign a statement saying they take full responsibility under the possibility of civil and criminal penalties that the sampling is accurate. Once the DMRs come to the DEQ, the information is entered into a federal database and the system prints out a list of violations and violation notices are sent. In addressing the safety valve issue, Mr. Reid explained there are difficulties in predicting the movement of ground water and there are standard provisions in every permit that provide for the use of a re-opener clause and the options available to the DEQ. In addition, permits are in effect for five years, so the DEQ has an opportunity to require additional treatment if the DEQ is seeing adverse impacts down gradient.

***(Tape 2; Side A)***

Mr. Reid submitted the EPA National Primary Drinking Water Standards which have been adopted into Montana's drinking water standards (**EXHIBIT 5**). Mr. Reid also submitted EPA 2006 Edition of the Drinking Water Standards and Health Advisories (**EXHIBIT 6**).

- **Questions from the WPIC**

Sen. Perry pointed out the nitrate maximum contaminate level is 10 mil per liter, but the Montana statute states 5/7.5 is the maximum. Mr. Reid agreed the standard is 10 mil per liter, but explained the statute sets up a level of protection depending on the condition of the receiving water. Mr. Reid identified 7.5 mil per liter as the standard if the system is for sewage. If the system is using Level II treatment, the standard becomes 7.5 mil per liter, and that level applies to industrial discharges as well. The level for conventional wastewater treatment systems is 5 mil per liter. Sen. Perry stated he was confused by the difference between the Montana statute and the ground water standard.

Chairman Elliott asked for an explanation of the unit used to measure e-coli. Mr. Reid explained e-coli is measured by the number of colonies per 100 ml.

Sen. Tash asked about compliance with the federal Clean Water Act regarding Total Maximum Daily Loads (TMDL) and its effect. Mr. Reid explained the DEQ and the Environmental Protection Agency (EPA) are in the process of developing TMDLs state wide. Mr. Reid believed 100 TMDLs had been completed and all of the TMDLs would not be completed until 2012. Mr. Reid added there is no equivalent to TMDLs on the ground water side.

- **Julie DalSoglio, EPA**

Julie DalSoglio, Deputy Director, EPA, spoke about statutes that affect ground water and clarified that to date 300 TMDLs have been completed. Ms. DalSoglio submitted and reviewed information on Federal Ground Water Quality Laws (**EXHIBIT 7**). Ms. DalSoglio emphasized the EPA retained its permitting authority in Indian Country. Ms. DalSoglio also submitted a list of Montana Contacts for the Underground Injection Control (UIC) Program (**EXHIBIT 8**).

- **Questions from the WPIC**

There were no questions from the WPIC.

- **Public Comment**

Laura Ziemer, Trout Unlimited, commented that if the WPIC decides stricter water quality standards are required, that any increase be applied across the board to all systems rather than those that are subject to HB 831. Ms. Ziemer was concerned around inadvertently creating a disincentive to go through the permitting process.

Mr. Cain testified he is acquainted with mixing zones since he lives next to a mixing zone.

***(Tape 2; Side B)***

Mr. Cain spoke about problems with pharmaceuticals in the Helena Valley and Frenchtown. Mr. Cain believed pharmaceuticals that are currently not regulated should be included in any increase in water-quality standards. Mr. Cain explained what happens when mixing beds are used and noted the various locations and levels of ground water in the Gallatin Valley. Mr. Cain suggested a legislator with a background in microbiology should have been appointed to the WPIC. Mr. Cain highlighted the importance of the WPIC and its obligation to keep the water clean.

Joe Gutkoski, President, Montana River Action, commented that mixing zones on surface water should be illegal and stated "dilution is no solution to pollution." Mr. Gutkoski cited problems with the Big Sky Water and Sewage District and its use of mixing zones.

Patricia Kurtz, a resident of Gallatin County, requested the WPIC to continue to consider the existing enforceable vehicle abatement law statewide and that those vehicles are a source of pollution.

**(BREAK)**

**WATER QUALITY TESTING REQUIREMENTS WITH REGARD TO MITIGATION AND AQUIFER RECHARGE - John Tubbs, DNRC/Tom Reid, DEQ**

- **John Tubbs, DNRC**

John Tubbs, DNRC, reviewed the DNRC's past historical practices regarding water-quality issues. Mr. Tubbs reported the DNRC is currently receiving requests for change in use based on water quality. Mr. Tubbs clarified the DNRC's environmental assessments also address

water quality. Mr. Tubbs stated there are nine controlled ground water areas that closed ground water development based on contaminated sites. Mr. Tubbs reviewed those sites and the various reasons for their controlled ground water status. Mr. Tubbs stated historically water quality has not been the leading factor in issuing a permit or a change. Mr. Tubbs believed HB 831 focuses its water quality requirements on permitted discharges to ground water. Mr. Tubbs reported 75 percent of the DEQ's applications for subdivisions were for exempt wells. If the water user seeking a permit and change has calculated the net depletion to surface water and they are recharging ground water through their effluent of a waste water treatment plant, it offsets the depletion to ground water and ultimately surface water. In that case, strict water-quality protection is built into the system. If, however, the applicant chose not to include their waste water discharge in their calculation of net depletion, the DNRC can process the application without receiving a copy of a discharge permit from the DEQ. If the applicant chooses to write off the amount of water being returned as a consumed part of their water right, the DNRC can evaluate the application without having to consider the provisions of Sections 18 and 19 of HB 831. Mr. Tubbs emphasized the need to determine the impact net depletion to surface water has on water quality. Mr. Tubbs suggested there is a need to determine exactly what the paragraph in statute is requiring. Mr. Tubbs stated he does not see anything in HB 831 that will require the DNRC to issue anything like a discharge permit.

- **Tom Reid, DEQ**

Mr. Reid submitted and reviewed information entitled Water Quality Testing Requirements with Regard to Mitigation and Aquifer Recharge ([EXHIBIT 9](#)).

- **Questions from the WPIC**

Rep. Cohenour addressed the fact that the standards are based on cost and was interested in knowing whether the costs were reasonable and could actually be met. In addition, Rep. Cohenour wanted to know more about the permitting process and how the process works between the DEQ and the DNRC with regard to time frames and associated costs. Rep. Cohenour wondered where Montana would want to be 20 years down the road with regard to water quality. Mr. Reid explained the costs associated with the Maximum Contaminate Levels (MCL) are costs to the consumer at the point of use. Mr. Reid offered to obtain the information for Rep. Cohenour. Mr. Reid explained the cost will be borne by the discharger and would only apply to systems over 5,000 gallons per day (gpd). Rep. Cohenour wondered whether there was a way to put limitations on the size of the subdivisions versus the amount of the discharge.

Mr. Tubbs added there is no injection well of waste water in the state, and that it would be unlikely to ever occur in Montana. Rep. Cohenour wondered whether there was the possibility that there would be a discharge of waste to surface water. Mr. Reid added the DEQ does not have many discharge to surface water permits.

Chairman Elliott encouraged the WPIC members to consider what Montana wants to look like in 20 years. Chairman Elliott asked the WPIC members to consider whether the legislation and issues discussed by the WPIC should look at the present with regard to the future, or whether the WPIC would want to make its decision on the future with regard to the present.

- **Public Comment**

Steve White, Gallatin County Commissioner, asked the WPIC to address the fact that the language in HB 831 does not provide a definition for "net depletion." Mr. White suggested litigation may result without a definition.

**A SHORT HISTORY OF NUTRIENT AND MICROBIAL TRENDS IN GROUND WATER IN THE GALLATIN VALLEY - IMPLICATIONS FOR NEEDED ACTIONS - Dr. Steve Custer, Department Head, Associate Professor of Geology, Department of Earth Sciences, MSU**

Dr. Custer stated his opinions are based on data, but are not the opinions of Montana State University. Dr. Custer submitted Gallatin Water Resources Task Force Final Report (**EXHIBIT 10**) and A Short History of Nutrient and Microbial trends in Ground Water in the Gallatin Valley - Implications (**EXHIBIT 11**).

***(Tape 3; Side A)***

- **Questions from the WPIC**

Senator Perry inquired what year the Greenup Study was conducted. Dr. Custer responded the Greenup Study was conducted in the mid- to late-90s. Sen. Perry asked why Dr. Custer chose the particular subdivisions. Dr. Custer did not know the basis for choosing the subdivisions, but added the Middle Creek and Sour Dough subdivisions were chosen because those subdivisions were mature and there was a greater chance of finding contamination.

Rep. Cohenour had questions about the modeling and thought it looked like the contamination was coming from the septic area. Rep. Cohenour wondered whether there was something going into the septic. Dr. Custer explained he could not answer the question but suspected there was a shallow well near a recharge point and explained how nitrogen accumulates as the ground is tilled and, therefore, suggested the process could have occurred naturally.

Rep. Hilbert asked whether the content of rainwater had ever been tested. Dr. Custer replied rainwater was tested and although he could not recite the exact number, Dr. Custer recalled the numbers were not high.

Rep. Cohenour asked about the Helena Valley and Dr. Custer responded he did not address the issues with the Helena Valley.

Chairman Elliott noted the resistance to naming the exact location of the wells. Dr. Custer stated the database is not very reliable since it does not have the physical location of the well. Rep. Cohenour explained her office used to keep that data, but there was no place to keep the data in a useable format. Eventually, the information dropped off the request. Rep. Cohenour identified a disconnect on whether the information was useful.

**UPPER MISSOURI OVERVIEW AND TOUR OF GALLATIN VALLEY**

The WPIC members were given a tour of the Upper Missouri and Gallatin Valley. Alan English, Manager, Gallatin Local Water Quality District, provided an overview of the basins. The tour included the following sites:



- **Utility Solutions - water and sewer district - water supply, sewage treatment facilities and system.**
- **Flying A Holdings - aquifer storage and recovery water supply system and water quality testing.**
- **JTL Gravel Pit - ground water to surface water, water quality issues, water right permit requirements.**
- **City of Manhattan - municipal water supply, sewage treatment facilities and system.**

The following exhibits were submitted on the tour:

Flying A Holdings—Aquifer Storage Recovery (ASR)—Water Supply System & Water Quality Testing ([EXHIBIT 12](#)); Overview of the Hydrogeology of the Gallatin Valley ([EXHIBIT 13](#)); and *News Around the Corner*, Special Edition, August 10, 2007 ([EXHIBIT 14](#)).

**(RECESS)**

**Friday, August 17, 2007**

Visitor Register ([ATTACHMENT 4](#))

Chairman Elliott reconvened the meeting at 8:05 a.m. The secretary noted the roll ([ATTACHMENT 5](#)).

**COORDINATING SURFACE WATER AND GROUND WATER QUANTITY AND QUALITY PERMITTING ACTIVITIES—John Tubbs, DNRC, Steve Kilbreath, DEQ**

- **Existing coordination**

Mr. Tubbs testified the DNRC is coordinating very closely with the DEQ. Historically, the two agencies have worked closely together, with the DEQ addressing water quality, and the DNRC addressing water quantity and water rights. Mr. Tubbs also identified Fish, Wildlife and Parks (FWP) as a major player in Montana's water issues. Mr. Tubbs suggested there is a need to coordinate more with local governments. Mr. Tubbs explained how the *TU* decision connected surface water to ground water and caused the DNRC to deny permits which got the attention of local governments. Mr. Tubbs addressed staff and stated both the DEQ and the DNRC recognize each agency's resources. Mr. Tubbs explained that the DEQ and the DNRC are co-located in a number of offices in Billings, Kalispell, and Missoula. Mr. Tubbs stated the DNRC is seeing a lot of infrastructure in place before the application is received and that the DNRC is suddenly the bad guy when the permit is denied. The DEQ and the DNRC are meeting monthly in advance of the WPIC meetings. Mr. Tubbs suggested the three directors of the DNRC, the DEQ and the FWP could make a presentation to the WPIC. Mr. Tubbs stated the WPIC could expect to see a close working relationship among the agencies in the future.

- **Future coordination changes if any**

Steve Kilbreath, Subdivision Section, DEQ, testified the DEQ is working closely with the DNRC to work on exempt well issues.

**(Tape 3; Side B)**

Mr. Kilbreath spoke about a subdivision in Helena with approval from the DEQ and the local government but cannot obtain a final water right. Mr. Kilbreath stated the Subdivision Section is working with the DNRC on addressing subdivision issues. Mr. Kilbreath reported currently there are two different pump tests requirements, and that they are attempting to eliminate one step in the process. Mr. Kilbreath identified one problem as being that a multi-user well is 3-14 homes, and that it should be redefined as 3-10 homes. Mr. Kilbreath explained the DEQ is currently evaluating the time and cost involved of not connecting wells together as opposed to acquiring a water right. Mr. Kilbreath stated the DEQ is looking for legislative guidance on the issue of joint wells. There is a cumulative impact analysis done through MEPA, but Mr. Kilbreath stated the DEQ is heavily time burdened by the number of applications. Mr. Kilbreath explained the DEQ has shortened its evaluation because of time constraints and because the DEQ cannot deny or approve a subdivision based on a MEPA analysis. If the DEQ performs a higher level of a MEPA analysis, the DEQ has only 120 days to perform an Environmental Impact Statement (EIS). Mr. Kilbreath addressed Mr. Reid's earlier comment that ground water discharge permits are at 5,000 gpd and clarified a 16-lot subdivision is 4,800 gpd and a 17-lot subdivision is 5,100 gpd.

- **Questions from the WPIC**

Chairman Elliott asked for clarification that two wells side by side do not need a water right until they are connected. Chairman Elliott noted people are going around the law and asked Mr. Kilbreath whether he had a suggestion on how to address the issue. Mr. Kilbreath agreed it is a problem and that he sees this behavior constantly. Mr. Kilbreath explained there are no rules in place that would require "x" number of lots to have a public system. The definition of a public system is 15 service connections or 25 people served 60 days out of a year. The DEQ has authority in its rules to define a public system as 11 lots. Mr. Kilbreath was uncertain how to change anything that would provide an incentive for people to utilize a public water system. Chairman Elliott asked if there was a way to make the application process simpler and faster. Chairman Elliott was concerned there was a disincentive to go through the paperwork when there was an easier way. Mr. Kilbreath believed the review process at the DEQ for a public water supply is straightforward and simple, but the difficulty is in the DNRC's system. A community public water supply system requires two wells that are connected. How the wells are constructed controls the amount of monitoring required and that there are fairly high costs involved in monitoring a public water supply system.

Sen. Tash asked whether redundant wells only applies to municipal wells. Mr. Kilbreath replied community public water supply systems have to have two wells connected into the system for greater reliability. Mr. Kilbreath explained that if it was a ten-lot subdivision with one well and multi-users, the DEQ would not require two wells. If, however, the subdivision has 25 people, 60 days out of the year, there must be two wells.

Mr. Tubbs commented on the DNRC's permit process and stated the DNRC will be submitting rules to change the process for subdivisions. Currently, the DNRC has 240 days to process a permit but appeals could take several years. Mr. Tubbs cautioned there may be some denials because of the quality of the application. Mr. Tubbs identified the Flathead Indian Reservation as problematic because the DNRC is not allowed to issue any permits or changes due to court decisions. Mr. Tubbs explained how Lake County is relying on the exempt well statute. Mr. Tubbs identified the question as how to address 100- and 300-lot subdivisions with individual wells. Mr. Tubbs explained the directors are discussing whether there should be a set size for the development where a permit would be required regardless of whether the well is less than 35 gpm. Mr. Tubbs stated the cost for requiring a permit for wells less than 35 gpm would be prohibitive since the DNRC does not have the necessary FTE to process the increased number of permits.

- **Public comment**

There was no public comment offered.

#### **APPROPRIATE LEVEL OF WATER QUALITY ANALYSIS ASSOCIATED WITH STORAGE OR INTRODUCTION OF SURFACE WATER TO GROUND WATER RESOURCES**

- **Ms. Kate Miller, Compliance Section Supervisor, Public Water Supply and Subdivision Bureau, DEQ**

Ms. Miller submitted and reviewed Surface Water to Ground Water Ramifications for Public Drinking Water Supplies ([EXHIBIT 15](#)).

- **Dr. Tim Ford, Microbiology Dept. Head, MSU**

Dr. Ford submitted the December 22, 2006, *Morbidity and Mortality Weekly Report* ([EXHIBIT 16](#)). Dr. Ford suspected contamination from ground water is huge and that there are more and more outbreaks from contaminated ground water. Dr. Ford stated it would be unusual for a physician to characterize and report a disease when presented. In addition, some outbreaks are mild and go unreported which makes it difficult to determine the actual burden of disease. Most outbreaks come after a major weather event such as flooding, which affects ground water and surface water. The discharge of personal care products into waste water causes those products to end up in the water supply. Dr. Ford explained how antibiotics can end up in the water system which promotes resistance in bacteria.

**(Tape 4; Side A)**

Dr. Ford depicted ground water as becoming increasingly contaminated and suggested a need to change water treatment practices, which would be far more sophisticated and expensive, in order to have clean source water.

Ms. Miller followed up and commented on a recent study in the Helena Valley which revealed antibiotics as the most common contaminate and had the highest concentrations.

- **Dr. Warren Jones, Professor of Civil Engineering, MSU**

Dr. Jones submitted and reviewed Water Quality Issues & Groundwater Hydrology in Groundwater Recharge ([EXHIBIT 17](#)).

- **Dr. Gary Icopini, Research Hydrologist, MBMG**

Dr. Icopini submitted and reviewed Endocrine Disrupting Chemicals: What are they? Why should we be concerned? ([EXHIBIT 18](#)).

- **Questions and Discussion from the WPIC**

Rep. Cohenour asked Dr. Icopini when compounds are removed from the soil whether they become activated. Dr. Icopini's response was yes and no since some compounds are broken down in the soil and some compounds are absorbed on the soil. Rep. Cohenour was curious what the success rate was for removal and recalled hearing the success rate was 90 percent. Dr. Icopini indicated most studies for waste water treatment plants have not been published yet, but the success rate depends on the beginning concentrations. Dr. Icopini believed individual problems and successes are site-specific. Rep. Cohenour suggested the WPIC should be very cognizant about all the things being done with water when making policy.

Sen. Perry asked Dr. Icopini to explain EE2. Dr. Icopini directed Sen. Perry to No. 4(iii) and stated EE2 is an acronym for a synthetic estrogen used in birth control. Sen. Perry asked about the discharge of water from septic tanks and how an individual can become a licensed installer of septic tanks. Mr. Kilbreath identified county Environmental Health Offices as the agencies that licensed septic installers. Sen. Perry asked if a person could become a licensed septic tank installer by taking an online test. Mr. Kilbreath did not know.

***(Tape 4; Side B)***

Sen. Perry stated he recently discovered someone could become a licensed septic tank installer by taking a simple on-line test. Sen. Perry suggested the WPIC should investigate the requirements for becoming a licensed septic tank installer and emphasized the difference between technical work and field application. Sen. Perry stated he has also heard of rather questionable practices that are occurring in the field.

Sen. Perry asked Dr. Jones about the arsenic at Three Forks and stated he thought it was a natural occurrence due to natural processes that occur in Yellowstone National Park and not irrigation practices. Dr. Jones agreed there was more than one source, but could not say which was the predominant source.

Sen. Perry asked which Dr. Jones would consider the more severe potential problem: contamination of ground water through injection of surface water or the depletion of water resources by the use of ground water pumping alone. Dr. Jones responded the answer would have to be site-specific.

Dr. Icopini also addressed Sen. Perry's question and agreed the answer is site specific but considered contamination issues a greater priority than water supply. Dr. Icopini suggested long-term monitoring would be needed in order to assess water supply.

Chairman Elliott suggested the depletion of ground water and contamination of ground water are interrelated. Dr. Icopini stated it would depend upon the quality of water being used for recharge. Chairman Elliott identified the issue as who bears the cost of keeping humans healthy. Chairman Elliott emphasized that prevention is much cheaper than clean up, and the cost of prevention is generally borne by the consumer, while the cost of expensive clean ups are mostly borne by the public.

Ms. Miller commented that she agreed with Chairman Elliott and suggested the costs of monitoring, regulating, and treating water at the tap are astronomical. Ms. Miller believed preventing contamination at the waste water site would be much more cost effective. Ms. Miller suggested a need to provide incentives for developers to run a sewer line, so waste water can be treated at a higher level.

Sen. Perry asked whether reverse osmosis would sufficiently remove EDCs from drinking water. Dr. Icopini agreed with that statement, and Ms. Miller added reverse osmosis would be 97-99 percent effective. Dr. Jones explained reverse osmosis and its effectiveness and depicted reverse osmosis as the best alternative practice. Dr. Jones believed costs for membrane treatment systems, which are far superior, are beginning to come down. Sen. Perry stated he has the reverse osmosis system in his home and believed it was a viable precaution.

Sen. Perry recognized Sen. Bob Hawks (SD 33) and Rep. J. P. Pomnichowski (HD 63) for their attendance at the WPIC meeting. Sen. Perry stated he would like to see more local officials attend the WPIC's meetings.

Sen. Hawks commented on the critical nature of the WPIC's work and asked the WPIC to consider dispensing the information to the Legislative body before the next legislative session. Sen. Hawks agreed with Sen. Perry that more public officials should be in attendance.

Rep. Cohenour spoke about the costs of prevention versus the costs of cleanup. Rep. Cohenour urged members of the audience to voice their concerns and identify areas where they would like assistance.

- **Public Comment**

Clinton Cain, a Bozeman resident, stated he has been saying the same things as the previous four speakers. Mr. Cain addressed constructing a state-of-the-art water treatment facility. Mr. Cain believed there is a need to have decent sewer plants in order to protect Montana's water.

Debra Wahlberg, a Bozeman resident, requested each panel member to make one recommendation on how to improve water quality. Dr. Ford identified education as a huge component and stated most people will pay for bottled water, which is not regulated, because they believe municipal water is not safe to drink.

Dr. Jones cited the largest risk as being within the regulatory framework that allows subdivisions to be constructed with one-acre lots and individual wells and septic systems.

Dr. Icopini agreed with Dr. Jones but added the problem could also occur with smaller subdivision developments, such as a 40-unit development, next to a 50-unit development. Dr.

Icopini suggested there is a need to encourage developers not to utilize individual wells and septic systems.

Sen. Tash identified enforcement as an imperative component of any laws that may be constructed.

Alan English, Manager, Gallatin Local Water Quality District, addressed the cost of preventing contamination versus the cost of cleaning up contamination as evidenced by the Bozeman solvent site. The cost to date for the clean up of the Bozeman solvent site is in the multi-millions of dollars. However, if the owner had disposed of the waste properly, the total cost would have been \$10,000 to \$20,000. Chairman Elliott requested documentation on the Bozeman solvent site.

Dr. Custer encouraged the WPIC to consider the cost of lift stations and moving sewage and that it is not possible to condense sewage. Dr. Custer believed subdivision regulations will control what happens to water quality. Dr. Custer cited agricultural chemicals as an important component of water quality.

Sen. Perry asked Mr. English to confirm the owner of the cleaning establishment violated existing laws. Mr. English could not confirm that statement because it would depend on the amount of waste that was held at the site at any one time.

***(Tape 5; Side A)***

#### **BASIC GROUND WATER CHEMISTRY "LEARNING SESSION"—John Metesh, MBMG**

Mr. Metesh submitted and reviewed a Learning Session on Water Chemistry with the WPIC ([EXHIBIT 19](#)).

- **Questions from the WPIC**

There were no questions from the WPIC.

**(BREAK)**

#### **CUMULATIVE IMPACTS FOR WATER QUALITY—Tom Reid, DEQ/Tom Patton, MBMG**

- **Tom Reid**

Mr. Reid submitted copies of the waste water discharge permits for Utility Solutions ([EXHIBIT 20](#)) and Town of Manhattan ([EXHIBIT 21](#)). Mr. Reid submitted and reviewed Cumulative Impacts ([EXHIBIT 22](#)).

- **Tom Patton, MBMG**

Mr. Patton submitted and reviewed Montana Bureau of Mines and Geology, Ground Water Assessment Program, December 2006 ([EXHIBIT 23](#)) and Montana Ground-Water Assessment, Long-term water-quality records ([EXHIBIT 24](#)).

**(Tape 5; Side B)**

- **Questions from the WPIC**

Sen. Perry noted the rapid growth in Gallatin County and asked whether there was a way to perform more sampling on a more frequent basis and whether there were other methods that could be employed to increase sampling. Sen. Perry also wanted to know whether utilizing students or volunteers would be helpful. Mr. Patton noted the technicality of performing the sampling and suggested the program could be modified to do more targeted sampling. Mr. Patton stated additional funding to increase the number of people to perform sampling would be helpful.

Mr. Reid followed up and stated there are water quality districts that also perform water sampling.

Rep. Cohenour asked whether the MBMG has been receiving data from other agencies and water districts that are also conducting sampling. Mr. Patton agreed they have been receiving additional water-quality data.

**ALTERNATIVE WATER QUALITY STANDARDS—Tom Reid, DEQ**

Mr. Reid submitted and reviewed Alternative Water Quality Standards ([EXHIBIT 25](#)).

- **Committee questions and discussion**

There were no questions from the Committee.

- **Public comment**

Mr. Cain explained his interest and concerns with the infiltration bed and mixing zone owned by Utility Solutions in the Four Corners area. Mr. Cain is very concerned about water quality and believed that people below him are also very concerned even though Utility Solutions has met all state laws. Mr. Cain suggested the entire basin is at risk for contamination. Mr. Cain would like to see development done properly.

**(LUNCH)**

(Rep. McChesney excused.)

Chairman Elliott suggested Thompson Falls would be an appropriate location for the next WPIC meeting because of the Salish Kootenai water compact and issues with aquifers.

## **ECONOMIC DEVELOPMENT AND GROWTH WITH PROTECTION OF SENIOR APPROPRIATORS AND WATER QUALITY—Panel Discussion**

- **Legal perspective—Russ McElyea, Counsel, Moonlight Basin Ranch Limited Partnership**

Mr. McElyea submitted and reviewed Water Right Permitting from the New Appropriator's Perspective ([EXHIBIT 26](#)).

*(Tape 6; Side A)*

- **County growth perspective—Greg Sullivan, Planning Director, Gallatin County**

Mr. Sullivan submitted and reviewed Growth Planning in the Gallatin Valley in Montana ([EXHIBIT 27](#)).

- **County sanitation perspective—Tim Roark, Director of Environmental Health**

Mr. Roark explained he operates as a regulator in his capacity as Director of the Gallatin City/County Health Department. Mr. Roark believes it is critical to work with county government in the planning aspect and that communication is key. Mr. Roark stated local governments can have regulations that are more stringent than the minimum standards. Mr. Roark believed local governments need to have the ability to address site-specific information and issues. Mr. Roark reported Gallatin County has over 15,000 septic permits and processes between 500-600 permits per year. Mr. Roark stated there are in excess of 60 subdivision applications pending in his office. Mr. Roark identified the question as what kind of sustainable resources can be dedicated to the issues. Mr. Roark explained his power and authority stems from Title 50, chapter 2, Montana Code Annotated, and that his duties are specifically listed in statute. Mr. Roark recommended that a water user utilize the water more than once before returning the water. Mr. Roark suggested never letting mixing zones and well isolation zones overlap. Mr. Roark also suggested increasing the minimum lot size which would result in a decrease of cumulative effects and interference with neighboring development. Mr. Roark strongly endorsed the use of public waste water systems since individual wells are not required to have monitoring or maintenance. Mr. Roark thought it was critical for individual septic systems to have well and septic maintenance and suggested utilizing maintenance districts and signed contracts that include pumping and general oversight. Mr. Roark addressed the issue Sen. Perry raised regarding septic system installers and explained Gallatin County has requirements for registered installers. Mr. Roark explained a sanitarian does not inspect every system that is installed since it is not cost effective. Mr. Roark was unaware of the availability of on-line certification for septic installers. Mr. Roark suggested the state should consider regulating and implementing a certification process for site evaluators. Mr. Roark adamantly agreed that prevention costs less and reinforces maintenance and monitoring.

- **Senior appropriator perspective—Holly Franz, PPL Montana**

Ms. Franz is a water rights lawyer who represents a variety of clients, including irrigators and municipalities. Ms. Franz suggested the problems in the Beaverhead, Madison, Jefferson, and



Gallatin valleys are similar and that the earlier rights are for agriculture. Ms. Franz explained how there are more decreed water rights for agricultural use than there is water available in the river. Ms. Franz submitted and reviewed the DNRC's Upper Missouri Water Availability Analysis, December 1997 (**EXHIBIT 28**).

**(Tape 6; Side B)**

Ms. Franz explained adverse affect and how it is determined whether a water right is impacting senior water rights. Ms. Franz stated net depletion must be determined to discover whether a senior water right holder is being adversely affected. Ms. Franz agreed the DNRC's process should be timely, so people know how to proceed. Ms. Franz identified one problem as being the difficulty and expense for senior water users to continue to file objections to all applications that are filed in order to protect their water rights.

- **Questions from the WPIC**

Sen. Perry asked Mr. Sullivan about his handout's reference to a subdivision the Commission will hear to divide 30 acres into 28 lots. Sen. Perry noted the proposed subdivision's location was within the Utility Solution service area and asked whether the subdivision had the opportunity to connect to Utility Solution's system. Mr. Sullivan agreed the subdivision could connect to Utility Solution's system, but was unaware whether that request had been made. Mr. Sullivan clarified there were no new water rights associated with the parcel being sought to be subdivided. Sen. Perry requested Mr. Sullivan to obtain a definite answer to his question.

Mr. Kilbreath clarified the DEQ subdivision rules require a hook up to a public system to be within 500 feet of the public system. If they are within 500 feet and the system has capacity and agrees to accept the hook up, the hook up has to be within the DEQ's rules unless they can show it is physically or economically impossible to hook up. The DEQ rules currently require if it would cost three times more for a person to run the sewer to the parcel of land than it would to have an individual septic system, it would be allowed.

Barb Campbell, Utility Solutions, clarified the particular subdivision is within the Utility Solution service area but has not contacted Utility Solutions about connecting to Utility Solutions' system. Ms. Campbell added Utility Solutions is not legally required to add the subdivision to its system, but has not denied anyone who has requested service.

Sen. Tash asked Mr. McElyea what the priority date is for the water rights at Moonlight Basin. Mr. McElyea responded the water rights were in the 1990s or early 2000. Sen. Tash noted the advantage of being located at the top of the basin. Sen. Tash thought the public should be aware of the multiple use of water and the storage of water to sustain stream flows. Sen. Tash noted that recently there has been more collaboration between Big Sky and Moonlight Basin.

Chairman Elliott asked Mr. McElyea whether Moonlight Basin was located entirely in Madison County. Mr. McElyea agreed and stated a small portion of Moonlight Basin is in Gallatin County. Chairman Elliott asked how Moonlight Basin intends to address the infrastructure needs of its community. Mr. McElyea explained water and sewer is addressed by Treeline Springs, a subsidiary of Moonlight Basin, which is regulated by the Public Service Commission (PSC) and is a private water service and waste water treatment company. The road issues in Moonlight Basin are addressed through the subdivision planning process. Road maintenance is provided

for through a nonprofit corporation that operates like a municipality and funded by a private transfer tax. In addition, there are a variety of homeowners' associations. The Moonlight Basin developer has also taken some responsibility for road maintenance. Mr. McElyea explained that Moonlight Basin desires to maintain the infrastructure without the use of tax dollars. Chairman Elliott recalled Big Sky had earlier requested a sales tax to maintain its infrastructure. Mr. McElyea clarified Moonlight Basin is not heading in that direction.

Upon question from Chairman Elliott, Mr. Sullivan explained the growth in Gallatin County and that more people are moving into unincorporated areas.

Chairman Elliott addressed the benefits of economic development and recalled in Gallatin County in the past it cost \$1.35 to provide services for every dollar of revenue. Mr. Sullivan agreed residential development costs more to service than commercial development but noted commercial development brings in more revenue in terms of tax benefits. Mr. Sullivan stated the more dense the housing, the more cost effective the services are. Mr. Sullivan identified density as a huge issue in Gallatin County, and stated the City of Bozeman has a policy that desires six units per acre.

- **Public Comment**

Clinton Cain had two questions for the WPIC: (1) If the City has acquired 100,000 gallons of water and put that water through its system, how much water would be returned to the ground water system; and (2) if a person had to transfer water rights, whether there was any provision that would favor cities in acquiring water. Chairman Elliott could not readily obtain the answers to Mr. Cain's questions, but offered to obtain the answers.

John Youngberg, Montana Farm Bureau, represents farmers and ranchers throughout Montana. Mr. Youngberg identified three issues of concern: (1) the time it takes to get a new permit; (2) a change in use application being required for every new well will take approximately two to five years; and (3) the need for enforcement.

Hannelore Sharbono of Carbon County spoke about how she discovered her stream was dry upon returning from a trip and found that her neighbors had built a pond without contacting her. Ms. Sharbono stated she filed a complaint with the DNRC in Billings, but has not received any assistance. Ms. Sharbono is experiencing extreme stress over not being able to access her water. Ms. Sharbono believed people should have to seek permission to build a pond. Ms. Sharbono also believed the problem lies with enforcement of the current laws.

***(Tape 7; Side A)***

Sen. Perry suggested Ms. Sharbono's story was a good example of the problem with enforcement of Montana's water laws. Sen. Perry stated unlike other laws in Montana, enforcement of a water law sometimes requires a neighbor to report and charge another neighbor. Ms. Sharbono commented it would take a lot of money for her to make things right.

Bill Schenk, an attorney for FWP, testified that instream flow water rights are the only mechanism to protect fish and aquatic life. Mr. Schenk explained Montana could have included a criteria for fish and aquatic life in the Water Use Act. Mr. Schenk realized that much of what is instream is a product of irrigation and return flow. Mr. Schenk recognized that existing water

users of all sorts are involved. Mr. Schenk responded to Mr. McElyea's comments and stated he used to review public notices of water right permit applications and change of use applications. Mr. Schenk suggested there are a lot of water users in Montana who do not get a paycheck for working on their water right issues. Mr. Schenk identified a need for institutional controls and assurance that the process will protect water users' interests. Mr. Schenk depicted Montana's water as being on a fast track, and stated the current tight schedule precludes meaningful discovery or settlement discussions. Mr. Schenk requested the WPIC not to set up a system that discriminates between types of water use, and believed Montana will have to look at some hard questions regarding what is considered an acceptable use of water.

Sen. Tash asked whether the burden of proof should be on the objector. Mr. Schenk replied within the permit process the burden of proof should be on the applicant to show by a preponderance of evidence that they are meeting the legal physical availability of water. Sen. Tash asked whether in the event of interference the burden should be on the objector. Mr. Schenk responded once a party enters the adversarial process, both parties take on the burden.

Laura Ziemer, Trout Unlimited (TU), addressed exempt wells and TU's concern that exempt wells are not mitigated for adverse impacts. Ms. Ziemer also addressed fast tracking permit applications and recalled one idea that there should be an alternate permit application process. Ms. Ziemer stated *TU* would support further exploring the idea of an alternate permit application process to alleviate the bottleneck in the long application process while still protecting senior water users.

Steve White, Gallatin County Commissioner, stated when Gallatin County deals with preliminary plat approval, there are substantial conditions. Special attention is paid to the protection of agricultural users and the canal companies.

John Bloomquist, a water rights attorney in Helena, suggested the ground water irrigation applicants were not being addressed. Mr. Bloomquist requested the WPIC to ensure HB 831 does what it was supposed to do, and that the rules are not so cumbersome that they will price irrigators out of the market. Mr. Bloomquist cautioned against letting the Water Use Act become a land use management tool. Mr. Bloomquist also stated if the desire is to control subdivisions, the Water Use Act should be left alone. Mr. Bloomquist urged the WPIC members to avoid the numbers game and to follow the rules that are already in place.

- **Questions from the WPIC**

Sen. Perry asked Mr. Bloomquist about his comment about relying on the Water Use Act and asked how that could be accomplished in light of the *TU* decision. Mr. Bloomquist cautioned against reading too much into the *TU* decision and noted the decision did not affect prior appropriations. Mr. Bloomquist suggested the *TU* decision is a nonissue because of HB 831, and that Montana has always treated ground water and surface water as a unitary system. Mr. Bloomquist believed a new applicant should not be issued a permit unless they can demonstrate they are not adversely affecting another water user. Mr. Bloomquist believed the DNRC needs to be able to look at individual circumstances when determining whether there is an adverse affect. Mr. Bloomquist explained that as long as senior water right users can exercise their right, they are not hurt.

Rep. Cohenour commented that human consumption will always be placed above agriculture, and cautioned against having to prioritize uses. Ms. Ziemer provided her interpretation of the *TU* decision and agreed the *TU* decision affirmed the prior appropriation doctrine in Montana. Ms. Ziemer also believed the *TU* decision acknowledged that Montana is moving toward a conjunctive use system. Ms. Ziemer suggested there is a need to set up local water banks, so impacts of new wells can be mitigated as they are put in.

Rep. Cohenour asked Ms. Franz to expand on PPL's water right of 10,000 CFS. Ms. Franz explained water rights are always tied to beneficial use and explained the different conditions where a water right could be less. Ms. Franz explained the answer would depend on whether a water right holder has the right and the ability to put the water to beneficial use.

(Chairman Elliott excused.)

### **HB 831 CASE STUDY PROGRESS—Montana Bureau of Mines and Geology**

- **Case study site locations and contact progress**

John Metesh submitted and reviewed MBMG Case Study Update, Recap ([EXHIBIT 29](#)).

- **Questions from the WPIC**

Sen. Tash requested a comparison between the studies done on the Beaverhead and the Gallatin. Mr. Metesch responded the efforts in both areas are similar.

- **Public comment**

#### **PUBLIC COMMENT on any matter not contained in this agenda and that is within the jurisdiction of the WPIC**

No further public comment was offered.

### **OTHER BUSINESS**

There was no further business to come before the WPIC.

*(Tape 7; Side B)*

### **INSTRUCTIONS TO STAFF**

Ms. Evans reviewed items on the work plan that would be on the agenda at the next WPIC meeting. Items to be addressed at the WPIC's next meeting are monitoring to determine the effectiveness of mitigation and aquifer recharge plans; cumulative impact analysis for water quantity; HB 831 implementation case study update; subdivision regulations; enforcement policy development; exempt wells; the AVISTA call; and perch aquifers in subdivisions.

*(Tape 7; Side B)*

Ms. Evans requested the WPIC members to consider whether they would like to include a tour at the next meeting.

Rep. Cohenour requested a panel discussion on exempt wells. Ms. Evans responded that based on the work plan, the panel discussion on exempt wells would be included on the WPIC's October agenda.

Rep. Cohenour also stated she attended a water sectional at the National Council of State Legislators conference, and suggested it might be helpful to hear from representatives from Idaho and Colorado.

#### **ADDITIONAL PUBLIC COMMENT**

Lee Provance, Gallatin County Road and Bridge Superintendent, requested legislation that would allow counties to draw water for road construction. Mr. Provance suggested everybody who has a water truck steals water because there is no other way since Section 85-2-410, MCA, requires 24-hour advance public notice. Mr. Provance explained how road construction crews need water to avoid health and safety concerns. Mr. Provance explained they would be happy to pay their fair share and noted that road work benefits all water users.

#### **ADJOURN**

There being no further business to come before the WPIC, the meeting was adjourned at 3:53 p.m.

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