

ENVIRONMENTAL QUALITY COUNCIL

March 24, 2000

Original Minutes with Attachments

COUNCIL MEMBERS PRESENT

Sen. William Crismore, Chair
Rep. Kim Gillan, Vice Chair
Rep. Paul Clark
Sen. Mack Cole
Rep. Monica Lindeen
Sen. Bea McCarthy
Sen. Ken Mesaros
Rep. Doug Mood

Sen. Spook Stang
Rep. Bill Tash
Rep. Cindy Younkin
Mr. Tom Ebzery
Ms. Julie Lapeyre
Ms. Julia Page
Mr. Jerry Sorensen
Mr. Howard Strause

COUNCIL MEMBERS EXCUSED

Sen. Jon Tester

STAFF MEMBERS PRESENT

Mr. Todd Everts
Ms. Krista Lee
Mr. Larry Mitchell
Ms. Mary Vandebosch
Ms. Judy Keintz, Secretary

VISITORS' LIST

Attachment #1

COUNCIL ACTION

- Approved minutes from EQC meeting of January 21, 2000.
- Agreed to review the Lockwood Solvent Site issues in regard to options and expediency.
- Set next meeting date for May 5th in Helena.

I CALL TO ORDER AND ROLL CALL

CHAIRMAN CRISMORE called the meeting to order at 8:00 a.m. Roll call was noted; SEN. TESTER was excused. (**Attachment #2.**)

II ADOPTION OF MINUTES

Motion/Vote: SEN. MCCARTHY MOVED THAT THE MINUTES OF THE JANUARY 21, 2000, EQC MEETING BE APPROVED AS WRITTEN. THE MOTION CARRIED UNANIMOUSLY.

III SUBCOMMITTEE UPDATES

◆ Eminent Domain Subcommittee

SEN. COLE reported that at the Subcommittee meeting held on the previous day, the members reviewed the draft handbook on eminent domain. He stated that the handbook will be a very useful tool for those interested in the eminent domain process. A panel of industry representatives provided insight into their use of the eminent domain process. The industries represented included: Express Pipeline, Montana Electrical Cooperatives' Association, US West, and the Montana Telecommunications Association. They advised the Subcommittee that eminent domain is rarely used. The Express Pipeline representative explained that there have been times that the court ruled that the necessity was not present. The company continued to negotiate with the landowner. Most of the industry representatives stated that the eminent domain statutes are working very well.

The Subcommittee also held a long discussion on findings and draft recommendations for their final report. Another meeting will be held on April 12th in Helena with the major focus being a continuation of work on findings and draft recommendations. In the evening, a public hearing was held via the MetNet. The Miles City site was well attended but no one was present at the Glasgow site. A large crowd was present at the Billings site and the attendees brought forth recommendations for modifying the eminent domain laws.

◆ MEPA Subcommittee

SEN. MCCARTHY noted that the MEPA Subcommittee also met the previous day. They reviewed four chapters of the draft report. The Subcommittee reviewed and discussed various issues that have been presented during hearings and panel discussions. The public hearing was held at 5:00 p.m. with a small turnout. This will be the final public hearing that the Subcommittee will be holding. The Subcommittee will be meeting in Helena on Friday, the 14th of April. This will be a day-long work session devoted to

discussing the study findings and recommendations. Copies of the draft report will be available before the meeting and can be obtained by contacting the EQC Office.

◆ **Land Use/Environmental Trends Subcommittee**

MR. SORENSEN reported that a representative from the Montana Smart Growth Coalition provided information to the Subcommittee. The Coalition is comprised of 28 organizations around the state. They have contracted with the American Planning Association to review the Montana planning statutes. The group has been meeting with various focus groups in the state. Discussions were held regarding SB 97. One of the largest problems with planning is the lack of a funding source for local governments.

Another item was the continuing discussion regarding indicators and environmental trends. When this report was developed in 1996, it was noted that certain information was unavailable or difficult to track over time. It is important to become aware of the types of data sets being used by the various state agencies. Several of the agencies that regulate the environment will be invited to a meeting for a brainstorm/panel discussion on how to arrive at environmental trends that could be monitored by the state. This meeting will be held in conjunction with the Water Policy Subcommittee with the focus on water issues. The intent is not to prepare another indicator report this interim but instead to start a process with the agencies so that monitoring will occur to provide the legislature and the citizens of Montana some measurements of the status of the environment.

Regarding the land use issue, the Subcommittee is interested in monitoring how growth policies are being implemented in the state. There are several counties that have embarked on growth policies and the feedback received is that the legislation is working pretty well. Some problems have been noted in regard to funding, especially for the baseline work. The Subcommittee is focusing on the type of funding that is needed and whether there are sources that could provide some seed money for growth policy work. Conversations held with MACo have indicated that this is not a priority for them. The Subcommittee hopes to have further discussions with MACo on the issue.

The Montana Consensus Council is holding a Montana Growth Policy Forum on April 6th in Helena. The intention is to bring various groups together in hopes that the efforts can be coordinated. Two of the Subcommittee members will be attending the forum.

◆ **Water Policy Subcommittee**

SEN. MCCARTHY reported that the Legislative Council on River Governance will be meeting April 7-9 in Whitefish. The main topic will be the Bonneville Power Administration (BPA) issues. Idaho is particularly concerned about the salmon issue and the proposed breaching of the dams.

The Water Policy Subcommittee has not met since the last EQC meeting and will not be meeting again until May.

IV OTHER BUSINESS

MR. MITCHELL provided a copy of the “Metal Mine Performance Bonds and State Liability” report prepared by **Roger Lloyd, Legislative Fiscal Division, Exhibit 1. Mr. Lloyd** has agreed to present this information if the Council is interested. There is an issue as to how much liability the state may incur in reclamation of certain sites. The DEQ files were studied and it was found that the difference between the cost for reclamation of hard rock mines in the state and the amount of bonding is approximately \$25 million. About \$10 million of this amount is from the former Pegasus Mine. There is a problem with bonding adequacy. The agency has become aware of the problems involved in cashing a bond. The state has found itself in a position of negotiating or litigating to attempt to collect the money. Pages 12-14 of the report review potential legislative changes that may need to be reviewed. The Legislative Finance Committee has appointed a subcommittee to address this issue. The members of the subcommittee are **Sen. Beck, Sen. Jergeson, Rep. Taylor, and Rep. Tropila.**

Rep. Lila Taylor, HD 5, remarked that this has been an eye opener for the Legislative Finance Committee. The companies need to put up adequate bonding. However, this is very costly and may prohibit development in the state.

The Council requested a presentation on the issue at the next EQC meeting in May.

V COAL BED METHANE ISSUE UPDATE

Mr. Dave Breisch, Bureau of Land Management (BLM), provided an outline on BLM coal bed methane (CBM), **Exhibit 2.** The BLM is preparing an environmental assessment (EA) on CBM. Within the project area that Redstone Gas Partners

(Redstone) was interested in the BLM administers approximately 51% of the oil and gas and approximately 12% of the surface. The rest of the area is a mixture of privately owned minerals and surface and state owned minerals and land. Redstone's original project was to drill approximately 40 exploratory wells. The BLM approved 15 drilling permits and stated that they would approve up to 40 federal drilling permits and prepare a separate EA for each of the drilling permits. If Redstone wanted more permits, the BLM would need to prepare an EA for the greater proposal. Redstone has received permits from the State of Montana for a number of wells. There is no coal bed methane production from any federal well at this point.

Redstone asked the BLM to analyze the drilling of up to 325 wells within its project area with the hopes of placing 250 of those wells in production. The BLM has chosen to prepare an EA rather than an EIS. They are working with a third-party contractor to prepare the EA. The issues are listed in the outline. The major issues associated with coal bed methane development center around ground water and the disposal of that ground water.

Penaco Energy has prepared a proposal to drill five exploratory wells. One of the drilling permits was approved and one well was drilled as a stratigraphic test well. Production on the well is not allowed until an EA can be completed by the BLM on the five wells. The EA should be completed near the first part of April of this year.

Internet of Wyoming has drilled one federal well in southwestern Custer County. The purpose of that well was to look for natural gas and to test for CBM. The drilling and testing have been approved but production has not.

The State of Montana has designated a large geographic area as a controlled ground water use area. Redstone, Penaco Energy, and Internet of Wyoming projects all fall within this area. One aspect of the controlled ground water area involves setting up a system to monitor the impacts of CBM development on the ground water resource. The BLM has a representative on the technical advisory committee for this project.

Tom Richmond, Board of Oil and Gas, provided a document showing the Department of Natural Resources and Conservation's controlled ground water area, **Exhibit 3**. A

listing of the permit actions taken by the Board of Oil and Gas was also provided, **Exhibit 4.**

The DNRC proposed a controlled ground water area last year covering most of the Powder River Basin. Four public hearings were held. The Board has worked with the DNRC to meld the controlled ground water area with the Board's permitting responsibilities. The purpose of the controlled ground water area was to mitigate the effects of CBM development on developed water resources. In early December, Order 99-99, was adopted, **Exhibit 5.** The Order sets out three parts to the process: 1) an exploratory phase consisting of single wells drilled on statewide spacing for gas wells; 2) limited test pods of approximately five wells to be approved only after notice and public hearing; and 3) a process requiring a larger submission by the operator for the establishment of field development proposals.

To date, there is only one CBM project that is producing gas. There are three operators in the state. Of the permit actions taken, there are approximately 145 wells drilled for CBM and approximately 123 of the wells produce a total of 8 million cubic feet of gas a day. On the average, each well produces approximately 15 gallons of water per minute.

A technical advisory committee has been established to advise the Board on the field development projects. The committee consists primarily of hydrologists from the DNRC, the U.S. Geological Survey, the BLM, the Montana Department of Environmental Quality (DEQ), the Montana Bureau of Mines and Geology, and an industry representative.

The Board has not received any applications for field development proposals. There are a handful of applications pending for individual test wells and a pending application for several five-well test pods. The Board has been served with a lawsuit by the Northern Plains Resource Council alleging that they have failed to comply with the Montana Environmental Policy Act (MEPA) in permitting the wells.

Steve Regele, DEQ, remarked that CBM development in Wyoming and Montana is a major action that will significantly affect the environment in Montana. A letter has been prepared for the Director of the DEQ's review. It appears that the leases throughout the

state have changed hands and there is a lot of interest from Carbon County to Carter County. Wyoming has had production water discharges into the Tongue River and Powder River that drain into Montana. There are concerns regarding the impacts from the dewatering of local and regional aquifers and an increased network of new trails and roads. The Wyoming wells are producing an average of approximately 20 gallons per minute of water each. Wyoming has approximately 3,000 wells and is anticipating approximately 30,000 wells. This would double the flow in the streams in the Powder River Basin. The waters are salty and sodium rich.

As a result of CBM development in Montana, the water could damage irrigated lands and crops. Vegetation in stream channels could die off and there is also a concern regarding erosion and loss of soil. Stock water wells could dry up and springs could be affected.

The BLM is preparing an EA. The Eastern Land Office of DNRC has recently issued permits on three sections including five sites for drilling and development of wells. Currently, there is total containment of produced water. The NPRC has requested that the DEQ, DNRC, and the Montana Board of Oil and Gas prepare an EIS. A lawsuit has been filed regarding this issue. The DEQ Water Pollution Control Advisory Council is drafting a recommendation for a comprehensive EIS. The DEQ is working on permits under the Montana Pollution Discharge Elimination System. Staff has visited some of the sites and found more discharge points than they had anticipated. Water samples were taken and are being evaluated. They have been receiving a large number of phone calls and visits from the public regarding CBM.

Significant concerns have been raised about the lack of information necessary for making sound decisions. DEQ staff are recommending that the Director request that the Governor appoint a lead agency to form an interagency team to prepare a programmatic EIS and to analyze potential impacts of CBM development. They are also recommending a moratorium on CBM development. There have been inquiries from the Crow Tribe and the Northern Cheyenne Tribe since they are being approached to develop CBM on their lands.

MR. EBZERY asked how long the programmatic EIS may take, who would pay for it, and the impacts of a moratorium on the project. **Mr. Regele** remarked that it may take

two years to complete a programmatic EIS and it would be paid for by the entities interested in CBM development. He added that 263 permits to drill CBM wells in Montana were granted by the Board of Oil and Gas. A preliminary EA has been prepared by the DEQ on air quality issues.

Bruce Williams, Vice President of Operations for Redstone Gas Partners, stated that they are currently producing 123 wells in the area discussed. CBM development includes producing a number of wells to create a pressure drop in the target coal and allow gas to escape. They are conducting a pilot project to determine whether CBM development is a good economic venture. Preparing an EIS on the assumption of permitting 30,000 wells is premature. It will take a certain amount of development to gather a reasonable amount of data to know the quality of water produced, the quantity of the water produced, and how much water will need to be produced before there is gas production. This data cannot be obtained by comparison with the Wyoming development. They have requested two discharge permits - one for Squirrel Creek and one for the Tongue River. They requested multiple outfall points for each of the discharge permits and those multiple outfall points were described in the draft permits. They have not received any response from the DEQ since their inspection. If there is confusion on their part, it may have to do with the numerous outfalls requested. The permits were requested two years ago and the permits still have not been issued. When they asked the DEQ the reason for the delay, they were told that the DEQ has not been able to analyze the effect of the future development. The permit is not for future development but for the development completed to date. The DEQ has not returned phone calls or answered letters. They are opposed to a moratorium on permitting activity and not allowing them to capture the data needed to make an informed environmental decision. This would significantly deter development in the area.

SEN. COLE raised a concern regarding the coordination of agencies involved in the project. **Mr. Richmond** explained that the technical advisory committee has been the first attempt to assemble all the scientists involved in the project. The lines of responsibility are clear. The Board of Oil and Gas Conservation regulates private land and state land. The BLM regulates federal land and they are the technical advisor to the Tribes. The Board does not authorize the discharge of water to any surface stream. This is the responsibility of the DEQ. **Mr. Regele** noted that this project has boomed in

Wyoming in the last year. They have gone from 3,000 to 30,000 wells. The possibility exists for that type of development in Montana. Water quality impacts from CBM developments in Wyoming are a concern. These waters flow into Montana. They are having difficulty evaluating what can be allowed in Montana in addition to the water that is coming into Montana from Wyoming. The issue is very complicated with far reaching possibilities.

SEN. COLE questioned whether the coal companies were involved with the process. **Mr. Richmond** stated that they have met with both Spring Creek and Decker Coal Mines. Both companies have submitted written comments with their concerns that they would like to see addressed in the EA.

SEN. COLE asked for more information on the production of the 123 wells. **Mr. Richmond** stated that current production is going to a pipeline that serves the Buffalo and Sheridan domestic market. This is the Williston Basin Interstate Pipeline. There have been rumors that there are plans to place a line from Montana Dakota Utilities's main line that follows the Yellowstone River Valley.

SEN. COLE questioned whether there was any activity on a pipeline going north at this time. **Mr. Breisch** stated that he was not aware of such activity.

Mike Caskey, Redstone Gas Partners, stated that there has been initial activity on easement acquisition for a possible route. This is primarily in the Otter Creek area.

SEN. COLE noted that the Redstone's permit request has taken a long time. **Mr. Regele** stated that he would check with DEQ staff. It was his understanding that they had responded with some deficiencies in the application. The DEQ is awaiting a response to the deficiencies. They have determined that based on the data submitted by Redstone, an MPDES permit was not necessary. However, additional information was requested.

REP. LINDEEN questioned how long the drilling and production had been going on in Wyoming and why this data would not relate to the same process in Montana. **Mr. Williams** remarked that, in general, the data was correct. The average well in Wyoming

produces 20 gallons per minute but the average well in Montana is not producing this amount. It is necessary to develop where the coals are located. Coals are not the same. In Montana, they are developing in a different geologic environment that is more faulted and fractured.

MR. STRAUSE questioned whether the drilling on BLM land could move forward without further state permits. **Mr. Richmond** explained that they do not permit federal wells. They accept the federal permits for record purposes. There is a memorandum of agreement on spacing of wells and procedure for hearings, etc. **Mr. Breisch** added that the state has primacy for EPA administered programs such as underground injection, air quality and discharge of produced water.

MR. STRAUSE commended the DEQ for taking a cautious attitude. Earlier in the meeting, the Council heard a presentation about the possibility of Montana citizens paying \$25 million for developments that may have been inappropriate or where there was not a good process to determine the ramifications of the developments. We don't want history to repeat itself in that regard.

SEN. MESAROS remarked that there may be a need for increased communication between the agencies on this issue. Interested parties also need to be included in the discussions. **Tim Murphy, BLM**, stated that there has been meaningful and productive coordination on this issue. The BLM hosted a session in Sheridan, Wyoming with a DEQ representative explaining discharge permits. Recently the DEQ hosted BLM scientists at their headquarters in Helena and available data was reviewed. There is a lot of data available on coal beds due to the long history and monitoring of coal seams. There has been a serious effort to exchange scientific information. The BLM is proposing to form a CBM council to include the DEQ, DNRC, Board of Oil and Gas, the Crow and Northern Cheyenne Indian Tribes, other agencies, a representative from the environmental community, a representative from industry and an irrigator. This body would be used to manage and request particular data for issues today and in the future. An EIS may be appropriate to determine whether or not there is a significant impact. However, if there is a finding that no significant impact is apparent, they will prepare that finding and attach it to the completed EA and send it to all interested parties. This

document would be unsigned and additional input would be requested for an additional 30 to 45 days.

Public Comment

MS. PAGE stated that she has a 15-minute video she would like to show at the next EQC meeting which involves public comment from a rancher in the Gillette, Wyoming area. He has prepared a video and has running commentary on the effects to his ranch. CHAIRMAN CRISMORE remarked that this will be included on the agenda for the next EQC meeting.

Art Hayes, Jr., Rancher and Tongue River Water Users Association, stated that the Association opposes any discharge into the Tongue River. There are a tremendous amount of variables in the discharge. The unknown information includes: 1) the discharge from methane wells in Wyoming, 2) the water quality; and 3) the flow of the Tongue River. In the 1970s, there was a lot of coal mine data gathered on all the tributaries of the Tongue River. This data shows that in the coal veins, the water is high in sodium. A soil scientist from MSU has stated that there is no conceivable way that a permit would be issued for discharge of this water to any surface system. It would not only kill all existing vegetation but would potentially impact any shallow ground water in the vicinity and most likely render the soils useless for any type of plant growth. The best recommendation would be to discharge the water into evaporation basins and harvest the salt.

The Association is very interested in having the DEQ prepare an EIS. The Cheyenne Tribe is viewing this as a violation of the Montana Water Compact with the Tribe.

Rep. Lila Taylor, HD 5, maintained that this could be a boom for the state but it could be disastrous for many people who live in the area. She is a landowner near the two mines. There is a lot of concern regarding the quality and quantity of the water involved. Many of the landowners in the area have wells that are to the depth of some of the first layers of methane. Redstone has been very good about dealing with water problems. There has been a recommendation to reinject the water into another aquifer. It is important to learn from the issues in Wyoming and to know what Wyoming did or did not do that would help Montana in this process.

Sen. Reiny Jabs, SD 3, remarked that the main concern is what to do with all the water. It is not suitable for irrigation. The permit should state how the excess water will be handled. Also, a bond should be required for reclamation. **Mr. Richmond** and **Mr. Breisch** replied that a bond was required before a permit was issued.

VI LOCKWOOD WATER QUALITY ISSUE UPDATE

Catherine LeCours, DEQ, provided a copy of her slide presentation, **Exhibit 6**. She reported that the Lockwood Solvent Site is near the Lockwood Exit from Interstate 90. Beall Trailers, Inc., 1430 Highway 87 East, has been identified as a key industrial player. This is a semi-tractor trailer repair and maintenance facility. Dyce Chemical, Inc., 1353 Taylor Place, is the other key industrial player. They are a chemical repackaging and distribution company. The human health impact is most substantial in the Lomond Lane Area. (Slide 2)

The Petroleum Release Section of DEQ became involved in 1988 because of a pipeline rupture and the Site Response Section become involved in 1997. (Slide 3)

The DEQ asked for the assistance of the EPA. Four main contaminants of concern have been located at the Lockwood Solvent Site. In the Lomond Lane area there are high concentrations of Tetrachloroethylene, commonly known as perchloroethylene or perc (PCE). PCE is used approximately 95% in the dry cleaning industry with a small portion of it used in the degreasing of metals. The EPA has listed it as a possible human carcinogen. Montana's water quality standard for PCE is 5 parts per billion (ppb) and the highest concentration detected in the ground water at the Lockwood Solvent Site is 4,270 ppb. The highest concentration detected in a residential well is 1,900 ppb. (Slides 4 and 5)

Near Beall Trailers there are high concentrations of trichloroethylene or TCE. This is a product caused by the degradation of PCE when it loses one chlorine atom. It is used in pure form as a chemical to help degrease metals. This is what it was used for at Beall Trailers. TCE is also a possible human carcinogen. The water quality standard for TCE is 5 ppb. The highest found in the ground water was 3,770 ppb and the highest in a private well was 150 ppb. This is the same well that had the 1,900 ppb of PCE. (Slide 6)

Dichloroethylene is not found in pure form. It is an intermediate chemical used in the production of solvents and a solvent degradation product. Because it is a degradation product, it has been found at elevated concentrations throughout the entire Lockwood Solvent Site. It is a possible human carcinogen and its water quality standard is 70 ppb. The highest found in the ground water was 15,200 ppb. (Slide 7)

Vinyl chloride is a known human carcinogen and its water quality standard is 0.15 ppb. The highest concentration detected in the ground water was 415 ppb and the highest in a private well was 190 ppb. Again, this came from the same well having the highest concentrations of the other contaminants of concern. (Slide 8)

In 1986 a Cenex petroleum pipeline leak investigation revealed that there was benzene, toluene, ethylbenzene and xylenes (BTEX) in the Lockwood Water Users Association (LWUA) wells. TCE was also detected in the wells at 2.0 ppb. The water quality standard was 5 ppb. The pipeline investigation ended in 1988. (Slide 9)

The Petroleum Release Section became involved in 1991 when contaminants were detected again during routine sampling the LWUA wells and the Leaking Underground Storage Tank (LUST) Trust Program began a series of investigations to locate the source of the benzene. (Slide 10)

The LUST Program installed monitoring wells near the LWUA wells. They conducted an aquifer test to characterize the aquifer and the radius of influence of the wells, suggested treatment alternatives for the benzene in the wells, and evaluated remedial technologies to address the ice buildup on the intake structure in the Yellowstone River. (Slide 11)

In 1993, the Montana Department of Health and Environmental Sciences, now DEQ, sampled three residences down gradient of the petroleum release and study area. Again, TCE was detected but below water quality standards. (Slide 12)

Based on the known release of TCE to the ground water, but at levels below water quality standards, the DEQ ranked the Lockwood Solvent Site as a high? priority site. The site was included in the multi-site cooperative agreement with the EPA and was investigated under Federal Superfund methodologies. (Slide 13)

In June 1998, the Site Response Section performed an Integrated Assessment of the Lockwood Solvent site. The investigation focused on areas up gradient of the LWUA wells and the petroleum release sites.

The Integrated Assessment included 23 soil samples and 30 ground water samples from Geoprobe holes or existing wells. Geoprobe is a direct-push technology that drills a one inch hole into the ground and allows for soil and ground water sampling without the higher priced monitoring wells. The next slide shows a photo of the Geoprobe unit.

As a precautionary measure, DEQ personnel collected 14 ground water samples from residential wells in the Lomond Lane area. At that time, this area was not the focus of the initial investigation. The initial investigation identified Beall Trailers as a potential source for TCE and breakdown products in the ground water. This was based on field data in June which was laboratory confirmed in September.

The initial investigation also revealed elevated levels of PCE, its breakdown products, and other contaminants in the residential wells in the Lomond Lane Area. These contaminants were known when the laboratory data was available in September. Immediately, DEQ provided bottled water to affected residents, issued a public health notice and sampled additional residential and commercial wells in the area that were not sampled in June. The DEQ began planning a second investigation. (Slide 14)

In late 1998 and early 1999, DEQ funded and performed a second investigation to focus on the Lomond Lane area to try and determine the source of the PCE contamination. This investigation included septic system samples from commercial properties and soil samples near the highest contaminant ground water concentrations. By now, a quarterly ground water sampling program was in place so ground water samples were taken from selected residential and commercial wells in the area. DEQ was able to determine general source location. (Slide 15)

The ground water flow is generally towards the river in a northwesterly direction. (Slide 16)

To date, the DEQ and EPA have identified 11 residential and 8 commercial wells that are contaminated above Montana's water quality standards. Bottled water is being provided for drinking at those homes. Potential routes of exposure still exist through inhalation of the vapors. There are a total of 97 people affected - 59 residents and 38 employees. (Slide 17)

In 1999, the DEQ requested that the Agency for Toxic Substances and Disease Registry (ATSDR) perform a health consultation to evaluate the potential health concerns associated with ingestion, inhalation and dermal exposure to the contaminated ground water as well as potential exposure through outdoor uses, like watering lawns and running through the sprinklers. The DEQ also requested the ATSDR evaluate the risk to human health from contaminated vapor migration into residential and commercial structures. The ATSDR concluded that long term exposure to the ground water could present health concerns and recommended provision of permanent whole house alternate water supply within one year to all affected residents. Based on the urgency to provide permanent whole-house alternate water and the lengthy process that DEQ must undertake to notice potentially liable persons, DEQ requested the assistance of EPA's Emergency Removal Program to perform a Time Critical Removal Action. (Slide 18)

The EPA was asked to provide a permanent whole-house alternate water supply to the affected residents, identify and remove the source or sources of PCE and other chlorinated solvents, sample residential indoor air quality and mitigate, if necessary, and prepare a Hazard Ranking System package for potential listing on the National Priorities List. (Slide 19)

In 1999, the EPA's Emergency Removal Program responded to a DEQ request for assistance at the Lockwood Solvent Site. Under the coordination of Peter Stevenson, a source investigation began last September and available data suggests a potential source on the property of Dyce Chemical. EPA has requested cooperation from Dyce to continue the source investigation onto their property.

EPA also sampled the indoor air at two residences located above the highest concentrations of PCE in the ground water. Both of these houses have cisterns for whole house use so the concentrations detected are from ground water vapor migration. Other homes above the plume that use the ground water in their house may also be of

concern. The September sampling did not indicate a concern with air concentrations in living spaces, however one residence did have contaminant levels at the screening values in the crawl space below the house.

The EPA returned to these homes in January and sampled again to evaluate a worst case scenario. Those results indicate a concern with vapor concentrations in living spaces. For example, EPA has established a screening level of 3.1 micrograms per cubic meter for PCE in ambient air. PCE in the air in living spaces at these homes ranged from 30 to 130 micrograms per cubic meter. These results are preliminary and EPA is planning further studies and evaluating vapor reduction techniques for these homes.

Last month, the LWUA accepted EPA's application to connect residences in the Lomond Lane area to the public water supply. EPA's contractor is developing the engineering plans for the extension and connections. Public water should be available by this summer. (Slide 20)

Quarterly sampling continues for select residential, commercial and monitoring wells. Reports are available at the DEQ offices in Billings and Helena and at the Parmly Billings Public Library. (Slide 21)

The LUST Program has spent over \$300,000. The EPA and DEQ have spent approximately \$84,000. The DEQ's Environmental Quality Protection Fund has spent \$70,000. The EPA Removal program has spent \$100,000. The total spent to date is over a half million dollars. The EPA has asked for more funds for the public water supply expansion which should cost \$720,000. (Slide 22)

Slide 23 shows the location of the TCE plume. The concentrations increase where the TCE plume reaches the PCE plume and commingles. The highest concentrations of TCE in the ground water are located on the Beall Trailers property. (Slide 23)

Even though there are no sampling points in the area near the river, it is believed that the plume is day lighting at the river and is reaching the Yellowstone River. The highest concentrations of PCE detected in the ground water to date are located north of Dyce Chemical's property boundary. (Slide 24)

Slide 25 shows where the two plumes overlap and co-mingle.

Slide 26 shows a photograph taken in June 1998 on the northern edge of Dyce Chemical. The EPA is currently working with Dyce Chemical to conduct a source investigation on Dyce's property.

Beall Trailers contacted the DEQ voluntarily and requested some assistance to continue a further investigation on their own property. The DEQ provided Beall with a Scope of Work for an interim remedial investigation. Beall provided the DEQ a draft Sampling and Analysis Plan. The EPA and DEQ are reviewing the plan and will provide comments. (Slide 27)

Beall's investigation for source identification is focused on a former drain field which serviced the Steam Clean Bay. It was in this bay that the asphalt tractor trailers were steam cleaned with a TCE solution prior to being serviced. (Slide 28)

The EPA is the current lead agency for the site and DEQ is maintaining constant communication with them regarding the site. The EPA is working with Dyce to continue the source investigation. They are continuing the quarterly ground water monitoring. The EPA is currently preparing a draft Hazard Ranking System package for listing the site on the Superfund National Priorities list (NPL). The EPA plans to further investigate and remediate the indoor air quality concerns. When they identify the potentially responsible parties, the DEQ and EPA will pursue cost recovery. (Slide 29)

Rick Russell, LWUA, presented his written testimony, **Exhibit 7**.

Gary Forester, LWUA Board Member, remarked that the EQC is the only agency that has provided any action on this issue. MR. EVERTS has been involved in this situation for over 10 years. MR. MITCHELL has also been helpful. He was provided a letter that the LWUA received from the DEQ which stated that they could drink the water but it could not be put back in the river. In 1998, REP. GILLAN initiated their first contact with the DEQ. It was due to that meeting that the DEQ agreed to pursue a solvent site investigation. **Senator Baucus** and **Commissioner Kennedy** have been involved in this process for over ten years. He requested that the EQC staff attorney review the specific statute that states that the LWUA cannot access damages from the responsible

parties without naming all of the responsible parties. The wells are a senior water right. The Yellowstone River has not been adjudicated. The LWUA has been damaged and desperately needs remedial action.

MR. MITCHELL explained that there are no naturally occurring chlorinated solvents in the Yellowstone River and for the state to provide an authorization to degrade to allow the discharge of chlorinated solvents into the Yellowstone River will be a tall order because of the state nondegradation policy. The DEQ has not received an application for an authorization to degrade from the LWUA. The LWUA wants to use the ground water wells, which the DEQ has stated are safe to use in their water system, to keep the river water intakes thawed so that the Yellowstone River water can be used in the treatment plant. The process to obtain an authorization to degrade takes time and money. He provided a summary of the remediation statutes, **Exhibit 8**.

Sandi Olsen, DEQ, remarked that the new language was added to the CECRA statute as a result of the SB 382 study committee. It was the intent of the committee that the Department be required to notify all responsible parties even though the word “all” was not used.

Denise Martin, **DEQ**, added that there has been a movement in Montana to more fairly administer the State Superfund Program so that one party does not end up with all the responsibility for cleaning up a site. An Orphan’s Share Fund was established with a very critical allocation process. Anyone who is responsible for a source of contamination at the site must be noticed as a potentially liable party. In the Lockwood situation, the DEQ believes that they are obligated to notice anyone with a current or past source of contamination above the ground water plume. Another noticing requirement is that before any legal action is taken, it is necessary to offer all the liable parties the opportunity to conduct the work voluntarily. There are at least twenty-two current owners of sources of contamination above the contaminated ground water plume at the Lockwood Solvent site.

Commissioner Bill Kennedy, Yellowstone County, stated that this problem has been going on for over ten years. It is imperative that the process be expedited. The LWUA has three wells that cannot be used. It could take another ten years for all the parties to become involved.

CHAIRMAN CRISMORE directed the EQC staff to research the issue to see if there were any possible options or solutions to expedite the process. He requested a report at the next meeting.

REP. CLARK questioned whether the DEQ could not proceed with the project if they were unable to notify each party. He further questioned the situation if there was a responsible party that could not be identified. **Denise Martin, DEQ** explained that it is their understanding that all responsible parties that have a source of contamination of the contaminated ground water must be notified. The parties become aware of their opportunity to file a petition through the Controlled Allocation of Liability Act. Following the first notice letters, the recipients are able to provide the Department with names of anyone that may have been overlooked. After 30 days, the Department has another opportunity to issue notice letters. If one of the parties is willing to proceed with cleanup and comes forward, the Department can address the site in that manner. Once the site is listed on the NPL, federal Superfund money is available. The EPA has discretion and does not need to notice all people who might have a source of contamination above the ground water plume. They can ask the two primary parties identified to do the work.

REP. TASH questioned whether this could be reviewed through enforcement and compliance. MR. EVERTS explained that staff could look into the legislative history and provide the Council with a report.

MR. STRAUSE noted that the legislation appears to be in the best interests of those who pollute the environment instead of the people who had nothing to do with the incident.

Gail Holmes, Lockwood Solvent Site, stated that her well is poisoned. If the contaminants are in her well, they are in the Yellowstone River. This situation has been going on for 12 years. There has been nothing done for the residents except to provide bottled water. The people living above the Lockwood Solvent Site cannot receive any help until the site is made a Superfund site. She requested assistance in obtaining cooperation from the agencies. Their properties are worthless. She just had a loan rejected because her property was unacceptable due to the contamination.

Denise Martin, DEQ noted that the EPA has stated that the site could be proposed to the final NPL in July of this year.

VII LOCATION OF NEXT MEETING

The next meeting was set for May 5 in Helena. The Eminent Domain Subcommittee will meet on April 12th in Helena and the MEPA Subcommittee will meet on April 14th in Helena.

VIII ADJOURNMENT

There being no further business, the meeting was adjourned.

SEN. CRISMORE, Chair