Record of Decision
Amendment

Upper Tenmile Creek Mining Area Site
Lewis & Clark County, Montana

September 2008

U.S. Environmental Protection Agency
Federal Building
10 West 15th Street, Suite 3200
Helena, Montana 59626

Declaration

This part of the record of decision (ROD) amendment summarizes key information and contains the formal authorizing signature page for the ROD amendment.

Site Name and Location

This ROD amendment has been prepared for the Upper Tenmile Creek Mining Area Site (the Site) in Lewis and Clark County, Montana. The national Superfund database (i.e., CERCLIS) identification number for the Site is MTSFN7578012. The Site, southwest of Helena, Montana, includes the Upper Tenmile Creek drainage basin south of U.S. Highway 12. The Site covers about 53 square miles and contains 150 known abandoned or inactive mine sites within or near the historic Rimini Mining District in the Upper Tenmile Creek watershed. The watershed currently serves as an important source of water (approximately 50 percent) for the City of Helena.

Statement of Basis and Purpose

This decision document amends the ROD for the Site, signed June 28, 2002, by the U.S. Environmental Protection Agency (EPA) and the State of Montana Department of Environmental Quality (DEQ). It addresses only the elements of the 2002 selected remedy that pertain to the community of Rimini.

This ROD amendment summarizes design options considered for the Rimini community water system and wastewater options, including a comparative analysis of these options using National Contingency Plan (NCP [40 CFR Part 300]) criteria. This ROD amendment is issued by EPA, the lead agency for site activities. EPA selected the remedy in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC §9601 et seq., as amended by the Superfund Amendments and Reauthorization Act (collectively, CERCLA), and EPA's Superfund regulations, the National Contingency Plan (NCP [40 CFR Part 300]). Upon signature, this decision document will become part of the administrative record for the Site as specified in the NCP (Section 300.825(a) (2)).

This ROD amendment was prepared to address the following:

- The differences between cost estimates presented in the original ROD for the Site and (1) actual costs incurred during remediation of contaminated residential yards and portions of the road and wastewater systems and/or (2) current engineering cost estimates for completion of remediation actions for the residential yard and road in Rimini and the Rimini community water and wastewater systems based on preliminary and final designs and actual contractor bids, where available.

- The risk based decision process followed in selecting the Rimini community drinking water system and halting construction of a community wastewater system. The only difference between the 2002 ROD for Rimini and the selected remedy represented in this ROD amendment involves the community wastewater system. Under the 2002 ROD, a community wastewater system would be

constructed if needed (contingency). Under EPA's selected remedy, construction of a community wastewater system will be suspended and EPA will replace or repair individual septic systems as required during excavation of contaminated materials from yards.

- In addition to the deed notice outlined in the 2002 ROD, information on any remaining yard contamination will be made available at EPA's Superfund record center located at 10 West 15th Street, Suite 3200, Helena, Montana. This information will also be provided to DEQ and Lewis and Clark County. Individual property owners will be provided information detailing the specifics of their own yard cleanup and requirements for excavating and maintaining remediated properties.

The administrative record and key documents used as the basis for this decision document are available for review at the EPA Montana Office, located at 10 West 15th Street, Suite 3200 in Helena, Montana, Monday through Friday 8:00 am to 5:00 pm.

Assessment of Site

The response action selected in this ROD amendment is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances, pollutants, or contaminants from the site, which may present an imminent and substantial endangerment to public health or welfare.

Description of Selected Remedy

The selected remedy presented in this ROD amendment proposes to construct a community water system and halt construction of a community wastewater system. This ROD amendment does not change other remedy elements from the 2002 ROD decision not included in this ROD amendment.

Residential yard removal will be completed as outlined in this ROD amendment. Individual septic systems damaged or removed during yard remediation will be repaired or replace as necessary. A grouped wastewater treatment system may be used to repair or replaced several individual systems damaged during this removal if the affected property owners and Lewis and Clark County officials agree on the grouped system design and any necessary easements. The Rimini Water and Sewer District is pursuing options to independently complete the community wastewater system. To facilitate the complete removal of residual contaminated soils around existing drainfields in Rimini, and to avoid incurring additional costs to remove wastewater treatment equipment already installed, EPA may leave the existing community facilities in place for District use. If the District is unable to complete the system within a reasonable time frame, then EPA will remove the currently installed equipment consistent with U.S. Forest Service requirements.

Protectiveness of Selected Remedy

The selected remedy presented in this ROD amendment summarizes only those portions of the 2002 selected remedy that relate to Rimini contaminated yards, Rimini Road, community water system, and community wastewater system. The full remedy is described in detail in both the 2002 ROD and the Upper Tenmile Creek 5 Year Review. The selected remedy is protective of human health and the environment through the following:

Contaminated Yard Soils

- All accessible soils in yards at residences and occasional-use recreational cabins in Rimini containing contaminant concentrations above cleanup levels will be excavated and disposed of in the Luttrell repository. Excavated areas will then restored to pre-removal conditions by backfilling with clean soils, reseeding or sodding, and fencing. Shrubs, trees, and other residential yard features will be maintained or replaced in consultation with the landowner.

- Institutional controls such as deed notices and information to current and future property owners regarding any inaccessible wastes that may remain on site with concentrations of contaminants above cleanup action levels will be implemented.

Contaminated Roadway Materials

- Contaminated road materials will be excavated to an average depth of 2 to 3 feet and disposed of in the Luttrell repository. Approximately 5,000 feet of roadway through the community of Rimini will be addressed.

Rimini Water Supply

- Build a new community water system for Rimini residents. The source of water for the community system will be surface water. The system will include water storage, treatment and distribution and have the capacity to serve approximately 50 residences.

Rimini Community Wastewater System

- The selected remedy included a contingency (option) for EPA to construct a small community wastewater system to replace individual septic systems removed during the excavation of contaminated yard soils upon formation of the Rimini Water and Sewer District (District). This contingency was not required to meet the CERCLA protectiveness standard and will not be used in the final remedy for Rimini because of the high costs associated with its completion. EPA will replace individual septic systems if damaged at residences during removal of contaminated soils.

Statutory Determinations

The selected remedy attains the mandates of CERCLA Section 121 and, to the extent practical, the NCP. Specifically, the selected remedy is protective of human health

and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action (unless a waiver is ultimately determined necessary and appropriate), is cost effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. This remedy also satisfies the statutory preference for treatment as a principal element of the remedy (i.e., reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment). Because this remedy may result in hazardous substances, pollutants, or contaminants remaining on site at concentrations greater than those that would be protective for unlimited use and unrestricted exposure, reviews will be conducted five years after initiation of remedial action and every five years thereafter to ensure that the remedy continues to provide adequate protection of human health and the environment.

Data

The following information is included in the Decision Summary section of the 2002 ROD. Additional information can be found in the administrative record file for this site.

- Chemicals of concern (COC) and their respective concentrations
- Baseline risk presented by the COCs
- Cleanup levels established for COCs and the basis for these levels
- Documentation of how the remedy uses treatment to address source materials constituting principal threats
- Current and reasonably anticipated future land use assumptions and current and potential future beneficial uses of groundwater used in the baseline risk assessment and ROD
- Potential land and groundwater use that will be available at the site as a result of the selected remedy
- Estimated capital, annual operation and maintenance, and total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected
- Key factors that led to selecting the remedy

Carol L Campbell — 9/29/08

Carol Campbell
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation
U. S. Environmental Protection Agency, Region VII

Date

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Acronyms

AMD	acid mine drainage
amsl	above mean sea level
ARAR	applicable or relevant and appropriate requirements
ARD	acid rock drainage
ATSDR	Agency for Toxic Substances and Disease Registry
BCM	Basin Creek Mine
BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COCs	contaminants of concern
COE	U.S. Army Corps of Engineers
DEQ	Montana Department of Environmental Quality
DFWP	Montana Department of Fish, Wildlife, and Parks
District	Rimini Water and Sewer District
DNRC	Montana Department of Natural Resources and Conservation
EPA	U.S. Environmental Protection Agency
FS	feasibility study
GAC	granular activated carbon
gpcd	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
GWUDISW	groundwater under the direct influence of surface water
H_2SO_4	sulfuric acid
HHRA	human health risk assessment
HRS	hazardous ranking system
IC	institutional control
LF	linear foot
MCL	maximum contaminant levels
MEANS	Means Cost Estimator
MPA	microscopic particulate analysis
NCP	National Contingency Plan
NPL	National Priorities List
O&M	operations and maintenance
POE	point of entry
POU	point of use
ppm	part per million
PRGs	preliminary remediation goals
PWS	public water supply
RAOs	remedial action objectives
RI	remedial investigation
ROD	record of decision
Site	Upper Tenmile Creek Mining Area Site
TBC	"to be considered" standards
USFS	U.S. Forest Service

Section 1
Introduction and Statement of Purpose

This record of decision (ROD) amendment has been prepared for the Upper Tenmile Creek Mining Area Site (the Site) in Lewis and Clark County, Montana. The national Superfund database (i.e., CERCLIS) identification number for the Site is MTSFN7578012. The Site, southwest of Helena, Montana, includes the Upper Tenmile Creek drainage basin south of U.S. Highway 12. The Site covers about 53 square miles and contains 150 known abandoned or inactive mine sites within or near the historic Rimini Mining District in the Upper Tenmile Creek watershed. The watershed currently serves as an important source (50 percent) of water for the City of Helena.

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- In addition to the deed notice institutional controls outlined in the 2002 ROD, information on any remaining yard contamination will be made available at EPA's Superfund record center located at 10 West 15th Street, Suite 3200, Helena, Montana. This information will also be provided to DEQ and Lewis and Clark County. Individual property owners will be provided information detailing the specifics of their own yard cleanup and requirements for excavating and maintaining remediated properties.

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Section 2
Site History, Contamination, and Selected Remedy

Much of the Upper Tenmile Creek watershed is comprised of forest system lands. The historic mining activity included hard rock mining for gold, lead, zinc, and copper. Active hard rock mining began in the 1870s and continued through the 1930s. Limited intermittent mining activities were conducted during and after World War II. The last active commercial mining ended in 1953. This watershed has also been a historic source of drinking water for the City of Helena since the late 1800s. The result of all this activity has been contamination of ground and surface waters as well as contamination of yards and roads.

2.1 Site Cleanup History

The major investigations and activities conducted at the Site since the 1980s are listed in the 2002 ROD. Since that date, the following activities have been undertaken:

2003: EPA removed approximately 10,000 cubic yards of mine wastes and contaminated soils from residential properties and roads at the Landmark Subdivision area at the north end of the Site and approximately 22,000 cubic yards of mine wastes from the Lee Mountain mine site in Rimini. The wastes and contaminated soils were disposed in the Luttrell Repository. EPA also constructed a pilot biological treatment system to demonstrate control of acid mine drainage from the Lee Mountain mine site.

The Rimini Sewer and Water District (District) was formed to own, operate, and maintain any water and wastewater systems constructed for the community of Rimini.

2004: EPA removed an additional 12,000 cubic yards of mine wastes and contaminated soils from residential properties at the Landmark Subdivision area. The removed materials were disposed at the Luttrell Repository. Final cover was placed over Cells 1 and 2 at the Luttrell Repository.

2005: EPA began installation of a wastewater treatment system for the community of Rimini.

2006: EPA removed approximately 30,000 cubic yards of mine wastes and contaminated soils from residential properties in the community of Rimini. The removed materials were disposed at the Luttrell Repository.

2007: EPA removed approximately 6000 cubic yards of mine wastes from the Lee Mountain staging area in Rimini. The removed wastes were disposed at the Luttrell Repository

2.2 Contamination

Upper Tenmile Creek flows from its headwaters to the northeast and then north through a deep gorge between Red Mountain and Lee Mountain until it enters a relatively wide alluvial valley as it exits the Site near Highway 12. The headwaters of Tenmile Creek are about 5 miles upstream of the community of Rimini, which is located in the approximate center of the Site. From its headwaters, Tenmile Creek flows for approximately 25 miles before entering Lake Helena. Only the uppermost 13 miles of Tenmile Creek are located in the Site.

Investigations at the site have documented releases of hazardous substances containing elevated concentrations of arsenic and metals (cadmium, copper, lead, zinc, and others) that may pose risks to human health and the environment. Contaminants of concern (COCs) have been observed to exceed established human health or environmental standards, including EPA's maximum contaminant levels (MCLs) for drinking water and state water quality criteria for aquatic life. These COCs are derived primarily from uncontrolled sources of waste rock, tailings, acid mine drainage (AMD), acid rock drainage (ARD), and contaminated groundwater, surface water, soil, and stream sediments.

Mining Wastes

Mining wastes at the Site are a primary source of contamination and are generally composed of waste rock and tailings. Waste rock material consists of rocks excavated or removed from the ground during mining operations, but not processed for mineral recovery. This material has eroded or been placed in yards and the road in Rimini as fill or graded material. Composition of this material can vary greatly depending upon specific mine operations and geology. Some waste rock may contain COCs similar to that of background or host rock not associated with the mineralized ore bodies. Other waste rock may be highly mineralized, ore-grade materials with high concentrations of metals and arsenic. Waste rock can also vary greatly in size, from fine-grained to cobble or larger-size material and can be acid generating.

Tailings are solid-matrix waste products from ore processing or concentrating operations. Tailings are typically fine-grained material deposited hydraulically in impoundments or settling ponds. Tailings deposits were principally located in Rimini and the Landmark Subdivision area. These have largely been removed.

Potential human receptors include site residents, workers, and recreationists. Key potential exposure pathways are ingestion of groundwater and surface water, ingestion of home-grown produce or direct contact or incidental ingestion of soils, sediments, and dust inhalation, ingestion, or direct contact.

2.3 Risk Summary

EPA focused the Upper Tenmile risk assessments on development of risk-based preliminary remediation goals (PRGs) for the entire Site. These are chemical-specific concentrations that represent the threshold for adverse health effects above a level of

concern. Potential exposures to COCs in soil, ground water, surface water, sediment, interior dust, airborne particulates, and fish were evaluated. Based on land uses at the time of the risk assessment and potential future land uses as determined by observed trends and consultation with Lewis and Clark county officials, EPA considered the primary populations of concern to be residents, recreational visitors, and workers.

2.3.1 Human Health

The following conclusions reached in the *Final Human Health Risk Assessment Report for Upper Tenmile Creek* (CDM 2001) were summarized in the June, 2002 ROD:

- Excess cancer risk estimates are generally an order of magnitude higher in the Rimini area than elsewhere in the Site. This area is of particular concern because of the high potential for contact with human receptors and the possibility of human redistribution of the contamination. Also, the accuracy of the estimates is greater due to a higher sample density in this area.

- Incidental ingestion of waste rock is the pathway that most frequently creates cancer risks and non-cancer adverse effects in excess of those considered protective.

- Cancer risks and non-cancer effects are elevated based on potential future use of surface water and ground water as a drinking source for both residents and workers.

- Risks associated with incidental ingestion of sediment and adit discharge water are predicted to be above a level of concern. However, elevated risks are localized to the area around Rimini.

- In addition to the above-listed human health concerns, the Division of Health Assessment and Consultation in the Agency for Toxic Substances and Disease Registry (ATSDR) concluded that fugitive dust associated with Rimini Road may result in an excess cancer risk above a level of concern (ATSDR, 2001). This is due to post-flood road reconstruction in the 1980s using mine wastes for backfill.

Chemical-specific performance standards (action levels) are either Applicable or Relevant and Appropriate Requirements (ARARs)-based standards or risk-based remediation goals. Where ARAR-based standards exist, they are considered performance standards. The performance standards for surface and groundwater at the Site for protection of human health are summarized in Tables 2-1 with the basis for the standards noted.

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Table 2-1
Surface and Ground Water Action Levels for Protection of Human Health

Media/Contaminant	Surface Water (ug/L)		Ground Water (ug/L)	
	Concentration	***Basis***	***Concentration***	***Basis***
Arsenic	10	MCL[1]	10	MCL
Cadmium	5	MCL	5	MCL
Copper	1,300	DEQ-7[2], TT[3]	1,300	DEQ-7, TT
Lead	15	DEQ-7, TT	15	DEQ-7, TT
Mercury	0.05	DEQ-7[2]	2	MCL[1]
Zinc	2,000	DEQ-7[2]	2,000	DEQ-7[2]

[1] Maximum Contaminant Level
[2] Circular DEQ-7 - Montana Water Quality Standards
[3] No MCL, but Treatment Technique (TT) required at noted action level (40 CFR 141, Subpart I)

2.3.2 Ecological Risk

The following conclusions reached in the Ecological Risk Assessment were summarized in the ROD:

- Sensitive ecological receptors such as fish and macro-invertebrates are being adversely affected by contaminants in surface water and all solid media. Tenmile Creek near Rimini exhibits the highest risks from all media.
- Dissolved cadmium, copper, lead and zinc are the most important stressors for aquatic biota. Arsenic, cadmium, lead, manganese and zinc are the primary stressors for benthic invertebrates.
- Very low or no flows exist below Rimini during significant portions of the year causing stress on aquatic biota.
- Throughout much of the Site, concentrations of metals in surface water, sediment, and soils should be greatly reduced to protect sensitive organisms such as fish and macro- invertebrates inhabiting or using these media.

Ecological protection performance standards for the Site are summarized in Table 2-2 below with the basis for the standard.

Table 2-2
Surface Water Action Levels for Ecological Protection

Contaminant	Concentration[1] ug/L	Basis
Aluminum	87	DEQ-7[2]
Arsenic	150	DEQ-7[2]
Cadmium[1]	0.1	DEQ-7[2]
Copper[1]	2.8	DEQ-7[2]
Lead[1]	0.54	DEQ-7[2]
Mercury[1]	0.91	DEQ-7[2]
Zinc[1]	37	DEQ-7[2]

[1] – based on a hardness of 25 mg/L
[2] -Circular DEQ-7 - Montana Water Quality Standards

2.4 2002 Selected Remedy

The 2002 ROD encompassed all remedial response action aspects of the Site, which included contaminated waste rock and tailings, AMD, ARD, groundwater, surface water, stream sediments, yard soils at permanent residences and occasional-use recreational cabins, roadway materials, and water supply.

The selected remedy presented in the 2002 ROD was Alternative 5, as modified, for mine wastes and Alternative D for the Rimini community water system (the design and construction of a community water system to replace individual contaminated groundwater supplies).The ROD specified that all accessible contaminated yard soils and roadway materials in Rimini were to be excavated and removed to the Luttrell repository.

The selected remedy also provided for the contingent design and construction of a small community wastewater system to replace existing individual septic systems damaged during the removal of contaminated yard soils in Rimini. The selected remedy contained elements that address each of the contaminated media at the Site. The remedy was selected after the development, screening, and evaluation of potential remedial alternatives in the FS, and after review and consideration of public

and agency comments received on both a preliminary draft proposed plan and the final proposed plan.

2.4.1 Description of 2002 Selected Remedy

As stated in Section 1, this ROD amendment summarizes only those portions of the 2002 selected remedy that relate to Rimini contaminated yards, Rimini road, community water system, and community wastewater system. Therefore, these are the only aspects of the selected remedy described below. The full remedy is described in detail in both the 2002 ROD and the Upper Tenmile 5 Year Review.

Contaminated Yard Soils

- All accessible soils in yards at residences and occasional-use recreational cabins in Rimini containing contaminant concentrations above cleanup levels will be excavated and disposed in the Luttrell repository. Excavated areas will then be restored to pre-removal conditions by backfilling with clean soils, reseeding or sodding, and fencing. Shrubs, trees, and other residential yard features will be maintained or replaced in consultation with the landowner.

- Institutional controls such as deed notices and information to current and future property owners regarding any inaccessible wastes that may remain on site with concentrations of contaminants above cleanup action levels will be implemented. The property owners will be provided information about requirements for excavating and maintaining remediated properties.

Contaminated Roadway Materials

- Contaminated road materials will be excavated to an average depth of 2 to 3 feet and disposed of in the Luttrell repository. Approximately 5,000 feet of roadway through the community of Rimini will be addressed.

Rimini Water Supply

- Build a new community water system for Rimini residents. The source of water for the community system will be surface water. The system will include water storage, treatment and distribution and have the capacity to serve approximately 50 residences.

Rimini Community Wastewater System

- The selected remedy included a contingency (option) for EPA to construct a small community wastewater system to replace individual septic systems removed during the excavation of contaminated yard soils upon formation of the Rimini Water and Sewer District (District). This contingency was not required to meet the CERCLA protectiveness standard and will not be used in the final remedy for Rimini because of the high costs associated with its completion. EPA will replace individual septic systems if damaged at residences during removal of contaminated soils.

2.4.2 Remedial Action Objectives

The remedy outlined in the 2002 ROD was selected to meet the media-specific (e.g., mine waste, surface water, etc.) remedial action objectives (RAOs) selected to protect human health and the environment in Rimini. The RAOs established in the 2002 ROD for this site are:

Mine Wastes, Soils, and Sediment

- Achieve acceptable exposure risks for residents and visitors
- Achieve acceptable exposures risks for terrestrial and aquatic species

Surface Water

- Protect current and reasonably anticipated future source waters for the Helena water supply system
- Achieve acceptable exposure risks for residents and recreational visitors through attainment of surface water quality standards
- Achieve acceptable exposure risks to terrestrial and aquatic species through attainment of surface water quality standards

Groundwater

- Protect current and reasonably anticipated future users of groundwater
- Control groundwater contaminant plumes at mine adits and waste source areas through the use of source control measures
- Prevent or minimize contaminant loading from the near-stream groundwater underlying mine waste source areas to surface water

Section 3
Basis for Amending the ROD

The remedy presented in the 2002 ROD for the Site was selected by EPA after careful evaluation of the NCP criteria, leading to a remedy through which risk for human health and the environment is reduced to protective levels. During the completion of the actual remedial design of the selected remedy, there has been no information identified that would change identification of potential receptors, exposure routes or exposure mechanisms originally evaluated by EPA in arriving at the selected remedy. Current and future anticipated land uses (residential and recreational) as determined by observed trends and consultation with Lewis and Clark County officials remain unchanged since the 2002 ROD. EPA is addressing the following remedy elements in this ROD amendment:

- Differences between cost estimates calculated for the selected remedy during the feasibility study (FS) and presented in the original ROD and the actual costs incurred in completion of portions of this remedy.

- This ROD amendment adopts by reference the ARARs set forth in the 2002 ROD and "to be considered "(TBCs) standards identified in this ROD amendment. These ARARs are summarized in Appendix A. In addition, state public water supply circulars containing substantive standards for both water and wastewater systems have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), Circular DEQ-2 *Design Standards for Wastewater Facilities*, (1999) and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini. EPA also considered these standards in estimating costs for completion of the community water and wastewater systems.

- Rimini Community Water System: EPA will complete the design and construction of a new community water system for Rimini residents. The source of water for the community system will be treated surface water from Tenmile Creek. The system will include water storage, treatment and distribution and will have the capacity to serve approximately 50 residences. Construction of the community water system will begin once DEQ, in conjunction with the Rimini Water and Sewer District (or a political subdivision of the state), can supply 10 percent of construction costs as required under CERCLA and provide in writing assurances to provide for all of the operations and maintenance (O&M) costs associated with the community system. As an interim measure, EPA will supply bottled water to the community until the state and local agencies provide these assurances. EPA will provide the bottled water for a period not to exceed 3 years after issuance of this ROD amendment. If the state and local agencies fail to provide the assurance necessary to construct the

community water system, then EPA will review the remedy in consultation with those agencies.

- Rimini Wastewater System: EPA will halt construction of the community wastewater system and replace or repair as necessary individual septic systems damaged during the excavation of contaminated yard soils on all properties to which EPA is granted access.

Minor design changes will be documented using technical design memoranda. Any substantive modifications to the selected remedy would be documented through an explanation of significant differences or ROD amendment, in accordance with the NCP and EPA guidance.

Section 4
Descriptions of Cost Differences

EPA recognizes that there have been significant differences between the cost estimates of the selected remedy as presented in the 2002 ROD and current cost estimates for completion of the contaminated yard removal tasks and the community water and wastewater systems. Agency and public concerns have led EPA to prepare this ROD amendment to analyze these cost estimate differences.

Cost is only one of nine criteria established by EPA to guide remedy selection decision making and is a modifying rather than a threshold criteria in the process of identifying a preferred remedy. Cost estimates used to support the 2002 ROD were developed consistent with EPA guidance during the feasibility study (FS) phase of the Superfund process. The FS included screening-level cost estimates with relative accuracy that allowed EPA to make comparisons among alternatives. The procedures used to develop these estimates are similar to those used for the detailed analysis, except that alternatives are not as well refined and cost components are not as well developed. Cost estimates used to compare alternatives identified in the FS are expected to be accurate within the range of +50 to -30 percent of the actual cost. EPA guidance directs that costs used to compare alternatives are to be developed using industry standard estimating tools. At this site, industry standard Means Construction Cost Estimator handbooks and limited vendor quotes were used to fulfill these requirements. Comparison cost estimates are not intended to reflect final costs for the remedy.

At the FS stage, the design for the remedial action project is still conceptual, not detailed, and the cost estimate is defined in costing guidance as +50%/-30%. The cost engineer must make assumptions about the detailed design in order to prepare the cost estimate. As a project progresses, the design becomes more complete and the accuracy of the cost estimate increases.

During remedy selection, a preferred alternative is identified, presented in a proposed plan, and documented in a ROD following evaluation of public comment. The standard multipliers used to estimate oversight costs in the 2002 ROD were based on a percentage of construction costs typically seen at US Army Corps of Engineers (COE) projects. Because they were meant to be used to compare remedy alternatives, they did not include numerous tasks required for remediation of this site such as analytical support, community relations, confirmation sampling, and workplan administration.

As a project moves from the planning stage into the design and implementation stage, the level of project definition increases, thus allowing for a more accurate estimate of total cost. During final design and implementation of the selected remedy in the 2002 ROD, actual site conditions were identified that increased estimates above those projected in the FS/ROD. Design elements such as detailed and researched layouts of treatment components including equipment and supplies (e.g., pipelines, valves, etc.)

were identified in the detailed design phase of remedial action. Actual construction conditions, including excavation refusal (inability to cost-effectively excavate) due to excessive rock in shallow areas, traffic conditions, and residents' access requirements also increased both incurred costs and overall estimates of the costs of the selected remedy.

4.1 Cost Differences for Completed Contaminated Yard Material Removal

The differences between FS/2002 ROD estimated costs and construction costs to date and the more detailed engineering cost estimates for completion of contaminated yard removal are presented in Table 4-1. In addition to these cost differences, Table 4-1 identifies factors that contributed to the cost increases during residential yard remediation and that are expected to increase the cost of future remedial actions. Several of the items summarized in Table 4-1 are discussed below.

- In the Landmark Subdivision area, the RI/FS investigation focused on a limited area near two historic reclaimed mill sites. Detailed design sampling has indicated that there had been extensive distribution of mine wastes and contaminated soils to a much wider area affecting nearly all properties in the Subdivision area.

- Actual waste removal volumes were significantly greater than the preliminary estimates used in the FS/2002 ROD. Both the vertical extent and depth of the waste was found to be greater than anticipated during excavation and concurrent cleanup verification testing. Current estimated waste removal volume is more than 12 times that estimated in the FS/2002 ROD.

- Yard removal costs presented in the 2002 ROD were based on Means Cost Estimator (Means) handbooks, which estimate average costs for typical excavation conditions. The Means numbers used in the original estimate did not address difficulties in construction that only could be realized during the 2003 and 2004 excavation work at the Site. Numerous boulders encountered in the waste excavation zone complicated the removal of contaminated soils and mining waste. The boulders had to be handled numerous times during excavation and often had to be transported and disposed off site.

- Standard cost estimating procedures used during the FS/2002 ROD were based on conceptual designs that did not include long haul distances, steep grade, and road maintenance issues.. In addition, drought significantly increased dust suppression efforts needs to reduce impacts of dust on residents and minimize truck maintenance needs. Finally, substantially increased fuel costs impacted construction costs, particularly for hauling in 2006.

- Due to the complexities of the site, actual construction surveying, environmental protection, bridge improvements, air monitoring, and traffic control costs due to site conditions were significantly higher than estimated by the standard percentage multiplier used in the FS/2002 ROD estimate.

- The volume of topsoil required to provide adequate growth media had to be imported off site, with haul distances up to 30 miles away at considerable additional expense over the FS/2002 ROD estimate. The near-site topsoil source assumed in the FS/2002 ROD estimate was found to be not suitable for revegetation needs.

- Actual revegetation expenses were considerably higher than the FS/2002 ROD estimates, which were based on Means unit costs. The FS/2002 ROD estimates did not include trees and shrubs. These elements were established in consultation with landowners during final design. In addition, a much larger area was reclaimed in the Landmark Subdivision than was originally expected, requiring a much larger revegetation effort than assumed in the FS/2002 ROD.

- Unit costs for Landmark Subdivision yard soil removals have been adjusted to reflect ongoing increases in fuel costs.

4.2 Revised Cost Estimates for the Community Water System

Table 4-2 presents a comparison of the FS/2002 ROD cost estimate and the revised cost estimate for design and construction of the Community Drinking Water System. Tenmile Creek surface water is used as the preferred drinking water source for the community of Rimini. Several of these items summarized in Table 4-2 are discussed below.

- The current design specifies a surface water source and treatment system to meet the water system standards rather than the two groundwater wells estimated in the FS/2002 ROD.

- The actual cost per foot for the pipeline installation will be higher at Rimini than estimated in the 2002 ROD due to difficult excavation as evidenced by large rocks encountered during recent excavation activities. In addition, current estimates for material costs for plastic pipe have increased along with crude oil costs. Crude oil is the source of plastics, and the costs to the consumer have increased accordingly.

- The unit costs for the water distribution main installation were estimated in the 2002 ROD at about $8/linear foot (LF). The actual installed cost will be approximately $50/LF due to large rock removal (based on experience from recent excavations in Rimini) and logistics problems with traffic. A single-lane road must be maintained at all times because of the lack of available property on which to construct a temporary bypass route. There is a restricted road right-of-way due to proximity to houses, and it is necessary to maintain emergency egress and access at all times. Residents' access to driveways must also be maintained under these conditions. These factors were not identified until the detailed design.

- The current design will require a surface water treatment system with water filtration to remove micro-biological parameters. The 2002 ROD assumed that a

bedrock groundwater source not requiring treatment could be located with sufficient yield for the community system. Since the 2002 ROD, the remedial design water source investigation demonstrated that a bedrock source could not provide an adequate yield and that a surface water source would be necessary.

- The standard multipliers used to estimate oversight costs in the 2002 ROD are based on a percentage of construction costs typically seen at COE projects. They do not include numerous tasks required for remediation of this site, including analytical support, community relations, confirmation sampling, and work plan administration.

- The 2007 estimate of $4.00 per gallon of tank size for installation of the water storage tank includes retaining wall, foundation, access road, insulation, electrical and instrumentation, and other site work related to the specific tank location and design, which were not known at the time of the FS/2002 ROD. The original FS/2002 ROD cost of roughly $1.00 per gallon did not include these items. The geology, hydrology, topography, and land ownership patterns limit EPA's flexibility with final design.

- A service connection cost of $1,000 per connection used in the FS/2002 ROD cost estimate did not reflect the difficulties in trench excavation (large rock and shallow groundwater) and length of service connections. The revised cost of $10,850 per connection reflects these complications and additional costs for several stream crossings that were subsequently identified during design.

4.3 Revised Cost Estimates for the Community Wastewater System

Table 4-3 presents a comparison of the FS/2002 ROD cost estimate and the current cost estimate for design and construction of the Community Wastewater System. The current estimate incorporates actual costs incurred during the residential yard remediation and partial wastewater system installation. Several of these items summarized in Table 4-3 are discussed below.

- The number of linear feet required for the 8-inch sewer main increased from 3,500 to 5,500 LF because the only suitable location of the wastewater treatment system used in the final design was further from the community than anticipated.

- The 2002 ROD assumed that the community drainfield could be located adjacent to Rimini. Soils investigations during design revealed that the drainfield had to be located on a bench above Tenmile Creek about 0.5 miles north of Rimini. The wastewater system required 1,500 feet of force main between the septic tank and the treatment site that were not included in the 2002 ROD conceptual design. During final design, it became evident that a site large enough for both the septic tank and the treatment system could not be procured without acquisition of Forest Service land.

- After the FS and the 2002 ROD were issued, EPA learned that the current road alignment footprint did not match the right-of-way and boundaries claimed by adjacent property owners. Therefore, EPA had to alter the anticipated community wastewater system design to include additional bends, piping, and manholes.

- State of Montana standards presented in Circular DEQ-2 identified as TBC in this ROD amendment required the size of the septic tank to serve the design capacity of the Rimini system to be increased from 8,000 gallons to 48,000 gallons.

- The only site available for the wastewater system dictated a larger design layout. In addition, an access road, bridge, and pipeline stream crossing were required, which were not anticipated in the FS/2002 ROD conceptual design.

- FS/2002 ROD trenching and pipe installation costs were based on Means handbooks. Current estimates are based on actual excavation difficulties, including the significant number of boulders encountered and major trench dewatering, experienced during recent site work in Rimini that increase the unit cost.

- The 2002 ROD did not anticipate the need for temporary relocation of the Helena water line during construction. During remedial design and based on recent excavation and site work completed at the Site, it was determined that both full replacement and relocation of 3,800 feet of the City of Helena water main and temporary relocation may be required to ensure uninterrupted water supply service to the City of Helena using the current design for the community wastewater system. Existing site conditions pose a high risk of damage to the city's water line due to narrow confines of the working space.

4.4 Revised Cost Estimates for the Rimini Road Removal

Table 4-4 presents a comparison of the FS/2002 ROD cost estimate and the revised cost estimate for design and excavation and disposal of accessible waste material in Rimini Road. The current estimate incorporates actual costs incurred during the residential yard remediation that are expected to impact future remedial actions. The major cost difference summarized in Table 4-4 is:

- The FS/2002 ROD estimated road replacement costs at $8.37 per cubic yard of removed material. The revised unit cost estimate for road replacement is $45.00 per cubic yard. This number is based on actual road replacement costs incurred during the 2006 construction season.

- The 2002 ROD assumed that EPA would have to replace 800 feet of the existing City of Helena 18-inch raw water line in conjunction with the removal of wastes from Rimini Road. EPA is working with the City to eliminate the need to relocate the Helena raw water line. This approach is consistent with recommendations made by the Corps of Engineers during a 2007 value engineering assessment.

Section 5
Re-evaluation of the Design Options Using the Nine NCP Criteria

Re-evaluated design options for both the community water and wastewater systems. These design options are evaluated below using the nine NCP criteria.

5.1 Nine NCP Criteria

The nine NCP criteria for evaluating the appropriateness of a remedy are grouped into threshold criteria, primary balancing criteria, and modifying criteria. A discussion of each threshold, primary balancing, and modifying criterion is presented below. Each of the design options is then evaluated using the nine NCP criteria.

5.1.1 Threshold Criteria

Two threshold criteria are requirements for any design option: (1) overall protection of human health and the environment and (2) compliance with ARARs.

5.1.1.1 Overall Protection of Human Health and Environment

Under this criterion, the adequacy of the protection afforded by a remedial action must be shown and the means by and degree to which risks will be eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls (ICs) must be described.

5.1.1.2 Compliance with ARARs

Under this criterion, the ability of a given remedial design option to meet ARARs must be established. Compliance with the chemical, action-specific and location specific ARARs outlining specific cleanup criteria for site contaminants must be attained by a remedy.

5.1.2 Primary Balancing Criteria

Five primary balancing criteria address the technical and cost elements of each design option: (1) long-term effectiveness and permanence; (2) reduction of toxicity, mobility, or volume of contaminants through treatment; (3) short-term effectiveness; (4) implementability; and (5) cost.

5.1.2.1 Long-Term Effectiveness and Permanence

Under this criterion, the effectiveness and permanence of the remedial action is established in terms of risk remaining at the site after the remedial action. The adequacy and reliability of required ICs with the design option are evaluated to determine if the design option provides appropriate risk management of the treatment residuals or untreated waste left in place.

5.1.2.2 Reduction of Toxicity, Mobility, or Volume through Treatment

Under this criterion, the degree and quantity of contaminant toxicity, mobility, and/or volume reduction by specified treatment is evaluated. The anticipated performance of a treatment technology employed by the remedial action is discussed in terms of long-term reliability of the treatment process and the type and quantity of treatment residuals.

5.1.2.3 Short-Term Effectiveness

Under this criterion, the impacts on the community, site workers, and the environment during the construction and implementation phase of the remedial action are evaluated. The changes in short-term exposure (degree of risk) until long-term protection is achieved are also considered. In addition, the impacts on human health and any potential adverse environmental impacts during the construction are evaluated.

5.1.2.4 Implementability

Under this criterion, the technical and administrative feasibility of implementing the design option is evaluated. The availability of needed materials and services is also considered. The technical feasibility considerations include difficulties anticipated in construction, reliability of the selected technology, and ease of implementing the remedy. Administrative feasibility addresses the need to coordinate with interested parties, as well as compliance with any substantive permit requirements

5.1.2.5 Cost

The cost estimates evaluated under this criterion were developed for the FS/2002 ROD according to *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (EPA 2000a). Costs for the comparative evaluation of these design options in this amendment were updated from the FS/2002 ROD estimates using actual unit costs experienced during implementation of contaminated yard removals and actual site conditions. These changes in costs are discussed in detail in Section 4 of this ROD amendment.

5.1.3 Modifying Criteria

5.1.3.1 State Acceptance

This assessment evaluates any technical and administrative issues the state may have regarding each of the alternatives.

5.1.3.2 Community Acceptance

This assessment evaluates any technical and administrative issues the community may have regarding each of the alternatives. These public comments, received orally during the public meeting or in writing during the public comment period, are addressed by EPA in a responsiveness summary and presented in Section 8 of this ROD amendment.

5.2 Community Water System

As outlined in the 2002 ROD, EPA is completing the design of an alternative water supply system for the community of Rimini to replace the contaminated groundwater and surface water sources currently used for drinking water. During this design phase, EPA evaluated both community water systems and individual point of use (POU) and point of entry (POE) systems. The community water system and POU/POE design options are described in greater detail below.

5.2.1 Community Water System Design Option Description

The community water system design option conceptualized in the FS and further developed during the design phase of the remedial action, consists of a central water source, treated if required in a central facility, and a distribution system supplying this treated water to the community of Rimini. The FS and 2002 ROD estimated there were approximately 35 residences that use contaminated groundwater or surface water as a drinking water supply. An approximate design water demand was not established at that time. The number of residences that may hook up to the new water system is estimated to range from 26 to 50. The contaminated drinking water exposure risk that drove the listing of the site on the National Priorities List (NPL) would be addressed under this design option. The evaluation presented in this ROD amendment assumes distribution and individual water services to 25 hookups, which is roughly the median of the range. The actual number of connections would be determined by the District based on the number of property owners agreeing to participate in the District. Additional future hookups to the community water system would be funded by the District. The design capacity of the community water system was reviewed during the 2007 Army Corps of Engineers value engineering assessment.

Using DEQ standards, the design water demand is currently based on 50 hookups. Since there is no existing central water supply system and current water use data are unavailable, 100 gallons per capita per day (gpcd) is assumed for water demand. Based on three persons per hookup, this equals an average daily water demand of about 23 gallons per minute (gpm), and peak day demand of about 38 gpm, and summer irrigation usage of 10.4 gpm.

Under these guidelines, finished water storage should have a minimum volume equal to the average day demand, or 33,100 gallons. In order to provide adequate storage to meet peak summer demand, the community water storage tank was sized at 50,000 gallons, which is 90 percent of estimated maximum daily demand. The current cost estimate is based on a 50,000 gallon storage tank. The system design does not include hookups for undeveloped lots in Rimini. Costs for future connections would be borne by the owners of the undeveloped lots if future capacity is available from the District.

Responsibility and costs for operations and maintenance and any future expansion of the community water system would be borne by the District as outlined in both the 2002 ROD and this ROD amendment.

5.2.1.1Community Water Source

EPA evaluated both groundwater and surface water sources for the community water systems. EPA identified four potential alluvial groundwater locations; Ruby Creek, Beaver Creek, Upper Tenmile Creek, and Minnehaha Creek. However, testing conducted subsequent to the 2002 ROD eliminated all four groundwater locations as potential sources for the community water systems.

EPA then evaluated Tenmile Creek surface water as a source which would require modification of the City of Helena's existing diversion structure in Rimini. This design concept was included in the 207 Army Corps of Engineers value engineering assessment. Use of this surface water source will not conflict with the City of Helena's water rights. Water from Tenmile Creek would require biological treatment system as well as treatment for arsenic and other metals in Tenmile Creek found at concentrations above the MCLs set by the Safe Drinking Act. The water treatment plant for Rimini would be located near the City of Helena intake structure. The treated water supply would then be pumped to Rimini residents and the water storage tank through a main.

Treatment of Tenmile Creek surface water would be accomplished by a membrane system with chlorine disinfection. Pretreatment of the raw water prior to delivery to the membrane systems would also be required to address seasonal and storm event turbidity spikes.

Responsibility for the O&M of a surface water source would be the Districts.

5.2.2 POU/POE Design Option Description

Section 2.1 of EPA's guidance document *Point of Use or Point of Entry Treatment Options for Small Drinking Water Systems* (EPA April 2006), states that both POU and POE units *must be owned, controlled and maintained by the public water system (PWS) or by a contractor hired by the PWS to ensure proper operation and maintenance of the devices and compliance with MCLs.* While EPA can present this design option as a viable treatment option without a PWS for the community of Rimini, the District is the local governing body that would be responsible for the O&M of either POU or POE systems. Because of problems obtaining access from several homeowners during removal activities, the District has informed EPA in writing that it has no interest in owning and maintaining either a POU or POE system in each household. Regardless, EPA has decided to continue the evaluation of both POU and POE systems under this design option in this ROD amendment.

EPA evaluated individual POU/ POE systems under this design option as described below.

Individual POU/POE System

Individual POU/POE systems require installation of one or a series of treatment methods at all sources of drinking water in the home, such as at sinks. Most residences in Rimini use groundwater as the drinking water source. Under this

alternative, the individual POU systems would treat groundwater from the existing individual wells, not from a central water source.

Water chemistry at each drinking water source will determine the combination of treatment methods required for an individual POU system to reach drinking water standards. These treatment methods can include but are not limited to reverse osmosis systems, neutralizing filters using chemical treatment for pH adjustment, oxidizing zeolite filters for metal treatment, granular activated carbon, (GAC) and sediment filtration. Both the individual POU and POE systems would treat contaminated drinking water to MCLs as required by the Clean Water Act.

Due to the varying water chemistry (arsenic and metals loadings) throughout Rimini, some residences may require the construction of outbuildings to accommodate multiple individual POU or POE treatment methods. These residences may also require new pumping systems to overcome the water pressure losses that may result from the use of multiple treatment trains.

5.3 Comparative Evaluation of Water Design Options Using NCP Criteria

Each of the design options for a drinking water supply for the community of Rimini was evaluated using the NCP criteria outlined in Section 5.1 of the ROD amendment. This evaluation is presented below. A comparative ranking of each option's performance under each criterion is presented as a summary of this evaluation in Table 5-1.

5.3.1 Overall Protection of Human Health and Environment

5.3.1.1 Community Water Design Option

A community water system would provide drinking water and eliminate exposure of residents to contaminated water sources currently in use in Rimini. While using Tenmile Creek surface water as a source would require treatment to reach MCLs, this option would be protective of human health and the environment.

5.3.1.2 Individual POU/POE

Installation of individual POU/POE systems in Rimini would provide a drinking water source at each residence that would meet MCLs.

5.3.2 Compliance with ARARs

5.3.2.1 Community Water Design Option

The community water system would provide a source of drinking water that meets MCLs and all state requirements, making this design option compliant with ARARs as set forth in the 2002 ROD and TBCs identified in this ROD amendment.

5.3.2.2 Individual POU/ POE

Individual POU/POE systems would provide drinking water to each residence to meet MCLs. However, individual POU/POE systems would not meet the state standards for a PWS (TBC) as they would be installed on individual rather than single water sources. The POU design at this site would comply with the drinking water standard ARARs as set forth in the 2002 ROD and TBCs identified in this ROD amendment.

5.3.3 Long-Term Effectiveness and Permanence

5.3.3.1 Community Water Design Option

A community water system would provide a long-term source of safe drinking water that meets MCLs. A central treatment system for Tenmile Creek surface water would require trained operators and maintenance and financial support by the District to ensure proper O&M. Therefore, this design option provides an effective and permanent solution to risks associated with long-term exposure if the District concurs with this remedy.

5.3.3.2 Individual POU/POE

Both individual POU/POE systems would meet MCLs for drinking water and provide effective drinking water treatment.

As stated in Section 5.2.2, the District is the local governing body responsible for O&M of either individual POU or POE systems. The District has informed EPA in writing that the District will not own and maintain either a POU or POE system in each household.

Fouling problems may occur in individual POU/POE carbon-based treatment systems if they are not properly maintained to prevent biological contamination or to account for the high iron content of Rimini groundwater. Units previously installed by EPA in Rimini have experienced significant O&M problems and several have been abandoned. These operational problems have included the following:

- Unsuccessfully repairing POU/POE systems, servicing the POU/POE system with incorrect filters. When the incorrect filter types are installed, the protectiveness of the POU/POE system is compromised.
- POU systems that are installed under a sink must have a visible indicator advising residents that they are not functioning. However, when the indicator is ignored, protectiveness cannot be ensured.
- Small parts, such as polyethylene-tubing, cracked tees, and quick connects, wear out and require frequent maintenance. Delayed maintenance could compromise protectiveness.

- Systems have small reservoirs for storing water and water production is low when the reservoir is empty. Homeowner frustration can lead to disabling an individual system.

- Frequent use of water softener pellets to reduce iron and hardness is necessary to keep the systems functioning optimally. Metals and biological concentrations would increase when iron and hardness impact the functioning of the system through precipitation of metals onto filter membranes.

- System components can freeze and break when water lines are not drained properly, particularly where a residence is occupied only periodically.

Residents can easily and unknowingly expose themselves to high levels of contamination from nonfunctioning individual POUs / POEs. Since the District will not provide O&M for either POU or POE systems due to concerns with obtaining property access, this design option will not provide a long-term and permanent source of treated drinking water for Rimini.

5.3.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

5.3.4.1 Community Water Design Option

The community water system design option would require treatment of surface water to meet drinking water standards. However, this proposed treatment only removes contamination from water into another media, such as sludge, and therefore does not provide an overall reduction of toxicity, mobility, or volume of contaminants through treatment.

5.3.4.2 Individual POU/POE

Both POU/POE systems treat metals and biological material in drinking water. However, this treatment only removes contamination from water into another media such as sludge or spent filter media that requires additional treatment or specialized disposal. Therefore, individual POU/POE systems do not provide an overall reduction of toxicity, mobility, or volume of contaminants through treatment.

5.3.5 Short-term Effectiveness

5.3.5.1 Community Water Design Option

Using Tenmile Creek surface water as a drinking water source would require construction of a central water treatment plant. Construction of a community water system would also require installation of supply mains along Rimini Road and connections to every residence in Rimini.

All construction activities along Rimini road would be phased, leaving one lane of the road open at all times to minimize the impacts on the community, especially emergency ingress and egress. Driveway areas would be backfilled to maintain entry to properties. Potential exposures from airborne contamination during excavation

would be mitigated by dust suppression measures. Therefore, this design option would effectively minimize short-term impacts and exposures to workers and the community during construction.

5.3.5.2 Individual POU/POE

Installation of either individual POU or POE systems would require minimum disturbance of yards and would not affect Rimini Road. However, the installation of POE treatment, utilizing a central water source would require trenching through Rimini Road. Therefore, this option would be effective in preventing exposure or impacts to workers and the community during construction.

Under both the POU and POE options, the problem of disposing of filter elements and other consumable replacements would offset some of the effectiveness of these systems. Since the District has refused to administer either POU or POE systems, the responsibility for ordering and replacing these consumable items would be that of the individual homeowner.

5.3.6 Implementability

5.3.6.1 Community Water Design Option

This design option would employ standard construction methods and readily available equipment to construct a community water system. The design of the water main and tie-in construction activities would be phased to enable continuous construction while minimizing disruption of the community . Although there may be considerable construction inconvenience for one construction season, this design option is implementable.

A community water system would be designed to meet all DEQ standards for monitoring and well installation.

5.3.6.2 Individual POU/POE

Individual POU/POE systems would employ many different combinations of treatment methods due to the varied water chemistry throughout Rimini. The District has informed EPA in writing of their intent not to provide O&M for POU/POE systems due to the difficulty of obtaining access from individual homeowners. Therefore, replacement and continued operations of these systems would be difficult to implement.

Individual POU systems have been installed as interim measures in Rimini. Examples of implementability problems observed with these existing POU systems include:

- Scheduling time with property owners to repair their systems has been problematic. Maintenance contractors would have to meet with the property owner and service systems outside of the normal 8:00 am to 5:00 pm working day to accommodate the schedules of Rimini residents.

- Sampling, tracking data, procuring labs, etc. for documenting the overall treatment of the individual POU systems is difficult and unlikely to occur on a regular basis.

- Delays in finding replacement parts for damaged or worn out POU systems from suppliers that have gone out of business or have parts on back order for long periods of time create reliability issues.

- Coordination of the shipment and handling of hazardous resin cleaners, such as phosphoric acid, would require technical expertise that may not be readily available in the District.

- The likelihood of improper maintenance with the changing of property ownership is high for homes relying on POU systems. New owners may not understand the health risks associated with drinking contaminated water for a system that is not regularly serviced.

- Maintenance of water treatment systems may require back flushes of metal concentrates into the septic systems which could impair the operation of the septic system.

Based on these implementability considerations, POU or POE system design options are not considered highly implementable for Rimini.

5.3.7 Cost

A relative comparison of the present worth costs for construction of the water supply system and individual POU/POE design options is presented in Table 5-1. The present worth calculations for each water design option were calculated for 30 years using a 7% discount factor.

5.3.8 State Acceptance

EPA did not receive comments from the state during the proposed plan public comment period.

5.3.9 Community Acceptance

Public comments on the proposed plan show the majority of residents in Rimini support installation of a community water system. Several residents were supportive of the POU or POE option.

5.3.10 Comparative Analysis Summary

A comparison of the performance of each design option using the NCP criteria is presented in Table 5-1. This comparison assigned a high, moderate, or low performance ranking to each design option under each criterion.

Comparative rankings show that the community water system design option is more implementable and provides a higher degree of long- term effectiveness and permanence than the POU or POE design option. This is true using either water

source option presented under this design option. Therefore, EPA's preferred design option is the community water system.

5.4 Community Wastewater System

Construction of a community wastewater system was presented in the 2002 ROD as an option for replacing individual septic systems removed or damaged during the excavation of contaminated yard soils. Construction of the community wastewater system was contingent upon formation of the District to administer and operate the system. Construction of the community wastewater system was included as part of the remedy because many of the septic systems in Rimini cannot be replaced in their existing locations because of current design standards and restrictions for septic/drainfield system installation. Also, most individual lots do not accommodate systems that meet current design standards, such as setbacks from streams, 100 year flood plain, groundwater wells, and property boundaries.

5.4.1 Installed Wastewater System Components

After formation of the District, several components of the community wastewater system were installed near Rimini in late 2005 and early 2006. These components included:

- 20,000-gallon recirculation tank at the treatment site
- Two small control buildings
- 8-inch sewer main and six manholes from the treatment site to the northern boundary of Rimini
- 48,000-gallon septic tank
- 4-inch force main and stream crossing from the septic tank to the treatment area
- Access bridge and road
- Valve, flow meter, and lift station vaults
- Clearing and grubbing of the drainfield area
- Drainage features, culverts, and earthwork around the treatment area and access road

EPA evaluated three design options for the community wastewater system in this ROD amendment. These design options are to (1) halt construction of the community wastewater system and excavate contaminated yard soil with replacement or repair of individual septic systems damaged during yard remediation, (2) complete the community wastewater system as proposed in the 2002 ROD, and (3) replace the community wastewater system with several group treatment systems placed

throughout Rimini. These design options were evaluated using the nine NCP criteria to select the most protective option for the Rimini residents. Each of these design options is discussed below.

5.4.2 Excavate Contaminated Yard Material and Replace / Repair Individual Septic Systems Design Option

Under this design option, EPA would remove approximately 2,400 cubic yards of remaining contaminated soils from Rimini yards if the agency is provided access. EPA would not complete construction of the community wastewater system but would determine the viability of individual septic systems and repair or replace as necessary. Any systems that EPA deems irreparable will be replaced with individual systems designed to meet current wastewater system criteria. Most components of the community wastewater system that have already been installed would be removed, and all areas restored to USFS specifications. The USFS may allow the 48,000-gallon septic tank to be left in place, which would alleviate the cost of removing the tank.

EPA considered installation of additional clean cover material over contaminated resident yard areas rather than excavating waste material was considered during the conceptual design of this alternative. The design criteria for septic systems have a maximum depth requirement for cover fill (18 inches) that is set to ensure that evapotranspiration, a key component in the effective operation of septic systems, can occur. Using additional fill as a protective barrier may increase the depth of cover fill beyond the 18 inch maximum and could prevent effective evapotranspiration and thus additional fill cannot be placed over existing drainfields.

In addition, the Montana Department of Environmental Quality does not consider the reach of upper Tenmile Creek in Rimini to be impaired by nutrient loading or other biological materials; accordingly, the reach has not been included on the State's Clean Water Act list of impaired surface waters for those contaminants.

5.4.3 Completion of the Community Wastewater System Design Option

Under this design option, EPA would complete the community wastewater system. Two categories of properties would be connected to the community wastewater system. The first category includes prior remediated yards where septic systems were damaged. The second category would include yards where mining waste was left in place in 2006 above and below existing septic systems to prevent damage to the systems during cleanup. The completion of the wastewater system (previously considered by the Army Corps of Engineers 2007 value engineering assessment) would include the following:

- Installation of the sewer main and manholes and along Rimini Road
- Installation of drainfield piping
- Installation of treatment pods at the proposed treatment facility location

- Installation of service connections from the sewer mains to each existing residence previously involved in yard cleanup
- Installation of flow meter, valves, and lift station pumps
- Electrical, instrumentation and control facilities

The size of some of the necessary system components has increased due to standards presented in TBCs identified in this ROD amendment. For example, the

2002 ROD anticipated 35 connections to the community wastewater system. During the detailed design of contaminated yard removal, 25 existing wastewater systems were identified in the community that could be disturbed as a result of yard cleanup activities. Required septic tank volume for this number of systems was calculated to be 47,250 gallons, resulting in selection of a 48,000-gallon tank. The wastewater system design has therefore been modified to accommodate the 25 existing properties. No existing design capacities will be increased under this option.

5.4.4 Installation of Grouped Wastewater Treatment Systems Design Options

As one alternative to a central community wastewater system, EPA considered replacing the existing septic systems with smaller groups of treatment/drainfield facilities located throughout Rimini. These systems would typically be located on one property and would provide water treatment for that property and adjacent residences. This would require coordination between property owners for ongoing access to the system and the homes it serves. This design option assumes that either the District or individual residents would be responsible for operations and maintenance of these systems. The number of smaller treatment systems would be driven by design constraints for location of these types of systems under DEQ and Lewis and Clark County regulations. EPA would still be able to excavate and remove all contaminated material underneath the septic systems.

5.5 Comparative Evaluation of Wastewater Treatment Design Options

Each of the design options for wastewater treatment was evaluated using the NCP criteria outlined in Section 5.1 of the ROD amendment. This evaluation is presented below. A comparative analysis ranking of each design option's performance using each criterion is presented as a summary of this evaluation in Table 5-2.

5.5.1 Overall Protection of Human Health and Environment

5.5.1.1 Excavate Contaminated Yard Material and Replace/Repair Individual Septic Systems

Excavation of contaminated yard material would mitigate potential exposure to mine wastes left below and above existing septic systems. Under this design option, approximately 2400 cubic yards of contaminated waste material would be excavated.

Arsenic concentrations in this material ranged from 122 parts per million (ppm) to 1626 ppm arsenic with an average concentration of 412 ppm. These concentrations exceed the high end of the acceptable risk range outlined in the 2002 ROD, which corresponds to an arsenic concentration of 120 ppm. The contaminated material left in place if the septic systems are not removed would average approximately 4 times this arsenic concentration.

Replacement/repair if required, of damaged or removed individual septic systems in the yards with contaminated soils would eliminate the inherent problems with attempting to excavate around existing systems that are old and are not well marked. The replacement systems would be designed to comply with DEQ requirements outlined in Section 3 of the ROD amendment. This design option would protect human health and the environment.

5.5.1.2 Completion of the Community Wastewater System Design Option

As discussed under the previous design option, excavating all contaminated yard material would mitigate potential exposure pathways from mine wastes left below and above existing septic systems. The community wastewater system would be designed to meet DEQ regulations and specifications. This design option would protect human health and the environment

5.5.1.3 Installation of Grouped Wastewater Treatment Systems Design Option

Installation of grouped wastewater treatment systems may also require replacement or repair of existing individual septic systems and subsequent removal of all contaminated yard material beneath these systems. This design option would protect human health and the environment.

5.5.2 Compliance with ARARs

5.5.2.1 Excavate Contaminated Yard Material and Replace/Repair Individual Septic Systems

During yard remediation, EPA would replace individual septic systems if necessary. To the extent that individual septic systems are replaced, new systems would be as protective, if not more than, the systems they replaced. This design option meets ARARs as set forth in the 2002 ROD and this ROD amendment for wastewater treatment systems. EPA would continue to work with the District and the Lewis and Clark County health board to design acceptable replacement systems.

5.5.2.2 Completion of the Community Wastewater System Design Option

This design option would allow the completion of the community wastewater system designed to meet DEQ standards. This design option meets ARARs as set forth in the 2002 ROD and TBCs identified in this ROD amendment for wastewater treatment systems.

5.5.2.3 Installation of Grouped Wastewater Treatment Systems Design Option

This design option would replace septic system damaged during yard remediation with new grouped septic systems designed to meet DEQ requirements, ARARs as set forth in the 2002 ROD, and TBCs identified in this ROD amendment for wastewater treatment systems. However, as discussed in detail in Section 5.5.6.3, there may be lot size and location constraints that would preclude these systems meeting DEQ set back requirements. Therefore, this alternative may require a variance from those requirements as approved by the Lewis and Clark County Board of Health.

5.5.3 Long-Term Effectiveness and Permanence

5.5.3.1 Excavate Contaminated Yard Material and Replace Individual Septic Systems

Removing all contaminated yard waste under this design option would minimize risk of future exposure to this waste during construction or repair projects on a property. This design option provides an effective long-term and permanent solution.

5.5.3.2 Completion of the Community Wastewater System Design Option

Removing all contaminated yard waste under this design option would minimize risk of future exposure to this waste during construction or repair projects on a property. This design option would provide an effective long-term and permanent solution.

5.5.3.3 Installation of Grouped Wastewater Treatment Systems Design Option

Removing all contaminated yard waste under this design option would minimize risk of future exposure to this waste during construction or repair projects on a property. This design option would provide an effective long-term and permanent solution for the entire community of Rimini.

5.5.4 Reduction of Toxicity, Mobility, or Volume Through Treatment

5.5.4.1Excavate Contaminated Yard Material and Replace/Repair Individual Septic Systems

This design option provides no reduction of toxicity, mobility, or volume of contaminated material through treatment.

5.5.4.2 Completion of the Community Wastewater System Design Option

This design option provides no reduction of toxicity, mobility, or volume of contaminated material through treatment.

5.5.4.3 Installation of Grouped Wastewater Treatment Systems Design Option

This design option provides no reduction of toxicity, mobility, or volume of contaminated material through treatment.

5.5.5 Short-Term Effectiveness

5.5.5.1 Excavate Contaminated Yard Material and Replace/Repair Individual Septic Systems

Short-term impacts to the community during remediation of yards would be controlled by phasing restoration activities to meet the needs of the community when possible. For example, equipment movement and hauling over Rimini Road would be planned for weekdays during working hours when the majority of residents were not at home. Phased activities would also be used to maintain one open traffic lane at all times, enabling residents to have access to their houses whenever necessary. This design option would effectively mitigate the short-term impacts to the community during construction activities.

5.5.5.2 Completion of the Community Wastewater System Design Option

Short-term impacts to the community during completion of the community wastewater system would be controlled by phasing construction activities to meet the needs of the community when possible. For example, equipment movement and hauling over Rimini Road would be done during working hours on weekdays when the majority of residents were at work. By phasing construction activities, such as laying all sewer main piping along one side of the road keeping one traffic lane open at all times, residents will be able to travel in and out of Rimini daily. Temporary backfill would be placed over any disturbed driveways at the end of each day to provide access to homes. Potential exposure to the community from airborne waste generated during construction activities would be controlled by dust suppression measures. Therefore, by utilizing standard construction practices, the short-term impacts to the community during construction activities would be minimized under this design option.

5.5.5.3 Installation of Grouped Wastewater Treatment Systems Design Option

Short-term impacts to the community during construction of grouped wastewater treatment systems would be controlled by phasing construction activities to meet the needs of the community when possible. For example, equipment movement and hauling over Rimini Road would be done during working hours on weekdays when the majority of residents were at work. Scheduled installation of a wastewater treatment facility would be coordinated with each affected property owner to minimize any disturbance. Temporary backfill would be placed over any disturbed driveways at the end of each day to provide access to homes. Potential exposure to the community from airborne waste generated during construction activities would be controlled by dust suppression measures. Therefore, by using standard construction practices, this design option would effectively minimize the short-term impacts to the community during construction activities.

5.5.6 Implementability

5.5.6.1 Excavate Contaminated Yard Material and Replace/Repair Individual Septic Systems

Excavation and replacement or repair of individual septic systems would be performed using standard construction methods and readily available equipment. Therefore, this design option is highly implementable.

5.5.6.2 Completion of the Community Wastewater System Design Option

Completing construction of the community wastewater system would be performed using standard construction methods and readily available equipment. The design of the sewer main and tie in construction activities would be phased to enable continuous construction while minimizing impacts on the community. This design option is implementable.

5.5.6.3 Installation of Grouped Wastewater Treatment Systems Design Option

While the installation of grouped wastewater treatment systems would use standard construction methods and readily available equipment, locating these systems in Rimini could be problematic because of the small size of lots in Rimini. Figure 5-1 shows an overview of the community of Rimini. Even though there are several design options for treatment of wastewater in the smaller grouped systems, all designs would require installation of drainfields. There may be difficulties meeting DEQ design standards without waivers.

DEQ standards require a minimum setback of 10 feet from property lines and structures for drainfield installation. In addition, DEQ standards require minimum setback distances of 100 feet for drainfields from all wells (irrigation and potable water), surface water, and the 100 year floodplain. Figure 5-1 shows the areas of Rimini that do not meet either setback requirement.

Installation of grouped wastewater systems would also require co-operation and coordination for multiple property owners for both construction and O&M activities.

Finally, DEQ standards require drainfields be at least 4 feet above groundwater. Much of Rimini has a depth to groundwater of less than 4 feet. While this can be addressed by installing raised facilities, it would require additional earthwork, re-contouring, and subsequent installation of storm water control measures. Installation of grouped systems would require easement and access across more than one property boundary. The District or individual residents would be responsible for O&M of grouped systems. The adequacy of O&M is uncertain where individuals are responsible, and EPA does not currently know if the District is willing or able to provide O&M. Therefore, this option is rated low in terms of implementability.

5.5.7 Cost

Costs of the two options deemed feasible are presented in Table 5-2. Detailed cost estimates were not prepared for the grouped wastewater treatment system design option as potential locations and groupings were not identified in Rimini as of the date of this ROD amendment.

5.5.8 State Acceptance

DEQ did not provide comments during the proposed plan public comment period.

5.5.9 Community Acceptance

Public comments received during the public meeting and on the proposed plan show the majority of residents in Rimini support installation of a community wastewater system. Several residents suggested that the community wastewater system was betterment and should not be pursued. In addition, some residents requested additional cost information to verify that completion of the wastewater system was more expensive than halting construction of this system and replacing individual septic systems damaged or removed during yard remediation.

5.5.10 Comparative Analysis Summary

These design alternatives provide long-term and permanent effective remedies for the community of Rimini. At this site, the agency has concluded that to halt construction of the community wastewater system, excavate contaminated yard material and replace/repair individual septic systems" design option would provide the same protectiveness to the residents, property owners, and workers, be easier to implement, and require substantially less capital cost to implement than the contingent remedy set out in the 2002 ROD.

While a community wastewater system might provide greater security against nutrient loading in upper Tenmile Creek through Rimini, current risks are minimal and do not require that EPA's CERCLA remedy address them. Moreover, any risk associated with potential exposure to biotic materials in groundwater or surface water at Rimini will be mitigated by construction of the community drinking water system.

5.6 Decision

EPA has decided to construct a community water system and halt construction of the community wastewater system. This ROD amendment does not change other remedy elements from the 2002 ROD decision not discussed in this ROD amendment.

Residential yard removal will be completed as outlined in this ROD amendment. Individual septic systems damaged or removed during yard remediation will be repaired or replace as necessary. A grouped wastewater treatment system may be used to repair or replace several individual systems damaged during this removal if the affected property owners and Lewis and Clark County officials agree on the grouped system design and any necessary easements or waivers. The Rimini Water

and Sewer District may independently complete the community wastewater system. To facilitate the complete removal of residual contaminated soils around existing drainfields in Rimini, and to avoid incurring additional costs to remove wastewater treatment equipment already installed, EPA may leave the existing community facilities in place for District use. If the District is unable to complete the system within a reasonable time frame, then EPA may remove the currently installed equipment consistent with U.S. Forest Service requirements.

Section 6
Support Agency Comments

DEQ did not provide comments on the proposed plan issued in October 2007.

Section 7
Statutory Determinations

The selected remedy presented in this ROD amendment is protective of human health and the environment, complies with ARARs as set forth in the 2002 ROD, is cost effective, and utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

Section 8
Responsiveness Summary

This section presents a summary of the comments raised during the public meeting or through correspondence received by EPA during the public comment period after issuance of the proposed plan for the community of Rimini as well as EPA's responses to those comments. These comments are sorted by key issues.

Individual responses to issues stated in the public meeting transcript or received in letters or emails are attached in Appendix B of this ROD amendment.

Implementability:

Comment: The Rimini Water and Sewer District indicated that it doesn't think it can support a water system only (not enough people interested in water-only service and therefore not enough revenue generated).

***Response*:** Projections for community water system O&M indicate that monthly costs will be approximately $72 per month per hookup (for 25 total hookups), $60 per month per hookup for 30, and $51 dollars per month per hookup for over 35 connections.

EPA will not construct the community water system if the state or political sub-division of the state does not provide written assurance that it will assume ownership and operate and maintain the system.

Comment: Several comments questioned whether it is legal to connect a community water system to a residence that has a "substandard" wastewater system.

***Response*:** There is currently no state prohibition for constructing and using a community water system at residences using wastewater systems that do not meet current state requirements. Under state law, counties may enact such a prohibition. However, according to Lewis and Clark County officials, a home with a "grandfathered" (pre 1972) septic system that is not in failure could be hooked up to a community water system without violating state or county requirements.

Comment: The District indicated it will not accept ownership and responsibility for a water system using POUs.

***Response*:** Comment noted**.** EPA will not assume responsibility to monitor the performance of the individual systems and confirm the protectiveness of the selected remedy. Therefore, POUS will not be used.

Comment: Many comments stated that the completion of yard removals was questionable because people will not allow EPA to excavate around their current septic systems.

***Response*:** Implementation of a remedy, regardless of the protectiveness to human health or the environment, is always contingent upon permission of a property owner. Should a property owner deny access for completion of any remedial action activities in writing, EPA will not pursue further actions on that property. However, EPA will note the residual contamination in the record and may place a notice on the deed for that property describing the residual contamination.

Protectiveness:

Comment: EPA should calculate residual risk assuming that no more yard removals are allowed.

***Response*:** EPA estimates that approximately 2,200 cubic yards of contaminated waste material remains in place over and under existing septic systems in yards throughout Rimini. Arsenic concentrations in this material ranged from 122 ppm to 1626 ppm arsenic, with an average concentration of 412 ppm. EPA believes this average concentration is unacceptably high to the resident of the yard where waste material remains in place over and under existing septic systems. See Appendix B for residual risk calculations per property.

Comment: Community wastewater system would enhance protectiveness because it would provide better treatment of wastewater (meets all design standards).

***Response*:** Although the community wastewater system may provide enhanced treatment of non-Superfund pollutants, such as nitrates and nutrients, those factors are not considered in the Superfund evaluation.

ARARS:

Comment: County says state design standards are based on EPA requirements under Clean Water Act ARARs. EPA needs to define how the preferred alternative meets them, or why they are not ARARs.

***Response*:** State public water supply circulars containing substantive requirements for both water and wastewater systems have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini. EPA also considered these standards in estimating costs for completion of the community water and wastewater systems.

The Lewis and Clark County Board of Health has adopted Circular DEQ-4, applicable to subsurface wastewater disposal systems. This county rule requires that any failed system be modified to meet more recent county design criteria or be connected to a community system, if such a connection is "readily available," and if such a

connection is not "economically impracticable."[1] County rules do not require existing, functioning systems to meet more recent design standards or to connect to a community system unless and until the existing system has "failed." A "failed system" is defined by Board rule 9.14 as "an on-site wastewater system that no longer provides the treatment and/or disposal for which it was intended, or violates any of the requirements of ARM 17.36.912 (q)."[2] EPA's proposed alternative would design and install replacement systems that would meet or exceed the design capabilities of existing systems and the protectiveness goals of County Board of Health rules.

In addition, EPA interprets the Board's rule regarding "failed systems" as intended to address underground wastewater systems that have malfunctioned, or which have otherwise ceased to operate correctly, by virtue of unintended, undesired, or unforeseen circumstances. Under EPA's proposed alternative, replacing existing septic systems will not cause or contribute to any unintended discharge of wastewater into surface or groundwater sources from either new or old septic systems. Moreover, EPA expects replacement systems to meet or exceed all of the criteria set out by the Board under rule 3.4(6) to qualify for a variance from more recently-issued design criteria.[3]

The remedy set forth in the proposed plan would be at least as protective as the requirements set out in County Board of Health rules and the state requirements on which they are based. Also, EPA would expect residents to operate and maintain any new individual septic systems in compliance with all state and local requirements.

Comment: County says TMDL is a part of CWA and therefore should be an ARAR.

***Response*:**

TMDLs established or approved by EPA under the CWA are planning tools designed to reduce contributing point and non-point sources of pollutants in water quality limited segments (WQLS). TMDLS are usually established by the states, territories, or authorized tribes and approved by EPA. The EPA established TMDLs are not promulgated as rules, are not enforceable, and therefore are not ARARs. TMDLs established by states, territories, or authorized tribes that have not been promulgated , as is the case in Rimini, are also not ARARs (*Contaminated Sediment Remediation Guidance for Hazardous Waste Sites* OSWER 9355.0-085 (December 2005))

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[1] § 2.6, Systems Requiring Connection to Public Wastewater**.** No community system is currently available in Rimini. In addition, like State and Board rules, Circular DEQ-4 allows for deviation from its mandatory requirements on a case-by-case basis. (Board Rules §1.3.1)

[2] ARM § 17.36.912 is the definition section of ARM Title 17.

[3] The Board may grant a variance where the system will not contaminate any drinking water supply; cause a public health hazard with insects, rodents, or other disease carriers; cause a public health hazard by being accessible to persons or animals; violate any law governing water pollution or wastewater treatment and disposal; pollute, degrade, or contaminate state waters; or cause a nuisance due to odor, unsightly appearance or aesthetics. (§3.4(6))

The first and most important goal of every Superfund cleanup remedy is to protect human health and the environment. The cleanup remedy selected by EPA in its June 2002 record of decision specifically targets human health risks created by heavy metals in mine wastes, acid mine drainage into Upper Tenmile Creek, and contaminated soils, which are recognized as hazardous substances under CERCLA. While implementation of EPA's remedy will not cause a discharge of biological pollutants, EPA's remedy was not designed to prevent potential discharges of microbial contaminants from residential wastewater systems that might malfunction in the future.

DEQ's Clean Water Act list of impaired waters (Water Quality Restoration Plan and TMDL for Lake Helena Watershed Planning Area, December 2004 and August 2006) did not list nutrient loading as a problem on the reach of Tenmile Creek that passes through Rimini, and the reach is not identified by the state as impaired by coliform or sewage-related pollutants under the Montana Water Quality Act. However, to address any concern about potential drinking water contamination, EPA's proposed plan includes the construction of a community drinking water system for Rimini. The source of water for this community system would not be located near any individual Rimini septic system that might fail in the future.

Under the proposed alternative, EPA would replace individual septic systems on a case-by-case basis. Each replacement system would function as well as or better than the system it replaces.

Cost:

Comment: Many comments stated that greater detail on cost estimates should be provided; that they couldn't evaluate alternatives based on the level of cost detail provided.

***Response*:** The revised cost estimates for the Rimini wastewater system and Rimini Road remediation are provided in Section 4 of this ROD amendment.

Comment: Several comments suggested the estimates of water and wastewater system capital costs appeared to be highly inflated.

***Response*:** EPA has recognized significant differences between cost estimates for the selected remedy as presented in the 2002 ROD and current cost estimates for completion of the Rimini Road remediation tasks and the community water systems. Cost estimates prepared during the FS and used in the 2002 ROD were prepared using the *Guidance for Conducting Remedial Investigation and Feasibility Studies under Comprehensive Environmental Response Compensation and Liability Act (CERCLA)* (EPA 1988) and *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (EPA 2000). Due to the nature of the FS process, costs estimates used to compare potential alternatives are generally prepared based on conceptual designs for each alternative. These conceptual designs are based on rough layouts of the treatment components for each alternative. Conceptual designs only include rough order of

magnitude sizing criteria based on an estimated volume of waste to be addressed. Individual components, such as tank sizes or pipeline diameters, are not specified until the detailed design phase of a remedial action. Therefore, EPA guidance requires that costs for these conceptual designs be developed using industry standard estimating tools.

For the Rimini area remedy components, the Means Construction Cost Estimator handbooks (Means) and limited vendor quotes were used to fulfill these requirements. Means provides industry standard unit costs for standard construction activities, such as trenching, excavation, pipeline installation, etc. The conceptual design layouts are used to derive rough quantities required to complete the standard construction activities, such as the estimated feet of pipeline required or number of connections to a water main. These estimated quantities are used in conjunction with the unit costs and vendor quotes obtained for treatment components that may not be covered in the Means handbooks to make up the FS level cost estimates. FS level cost estimates are used primarily to compare alternatives, not accurately predict final costs.

Design elements, such as detailed and researched layouts of treatment components including equipment and supplies (e.g., pipelines, valves, etc.), are identified in the detailed design phase of remedial action implementation. Actual site conditions that were unobservable prior to the start of remedial action activities have caused changes in the final remedy design and increases in costs above those projected in the FS/ROD. These conditions include excavation refusal (inability to cost effectively excavate) due to excessive rock in shallow areas, traffic conditions, and resident access requirements that are identified during the design implementation phase of a remedial action. These factors will affect overall costs of a selected remedy. Finally, the cost of petroleum and petroleum-based products has increased dramatically during the past few years.

Comment: Several comments said the NCP requires presentation and consideration of present worth O&M costs.

***Response*:** Present worth calculations are included in current cost estimates.

Other:

Comment: Many comments suggested the water and wastewater systems would be betterment.

***Response*:** Under EPA's April 22, 1987 "Guidance on Superfund Federal Liens," p. 5, the agency sets forth a policy that Superfund liens should be filed on any property on which the agency has conducted a cleanup, "unless little or no benefit results from such filing." In Rimini, there is no evidence that current owners would reap a significant windfall as a direct result of EPA's expenditure of response costs, either from the soil cleanup or construction of the community water system. In addition, a safe drinking water source for residents (with contaminant concentrations reduced

below the MCL) is required to address this exposure pathway and provide a protective remedy.

Comment: Many comments said EPA should acknowledge that overall there is strong support for both a water and wastewater system within the community.

***Response*:** EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs did not result in a substantial reduction of Superfund program–regulated wastes risk to public health and the environment.

Section 9
References

DEQ. 1999. Circular DEQ-2 Design Standards for Wastewater Facilities

____. 2004. Circular DEQ-4 Montana Standards for Subsurface Wastewater Treatment Systems.

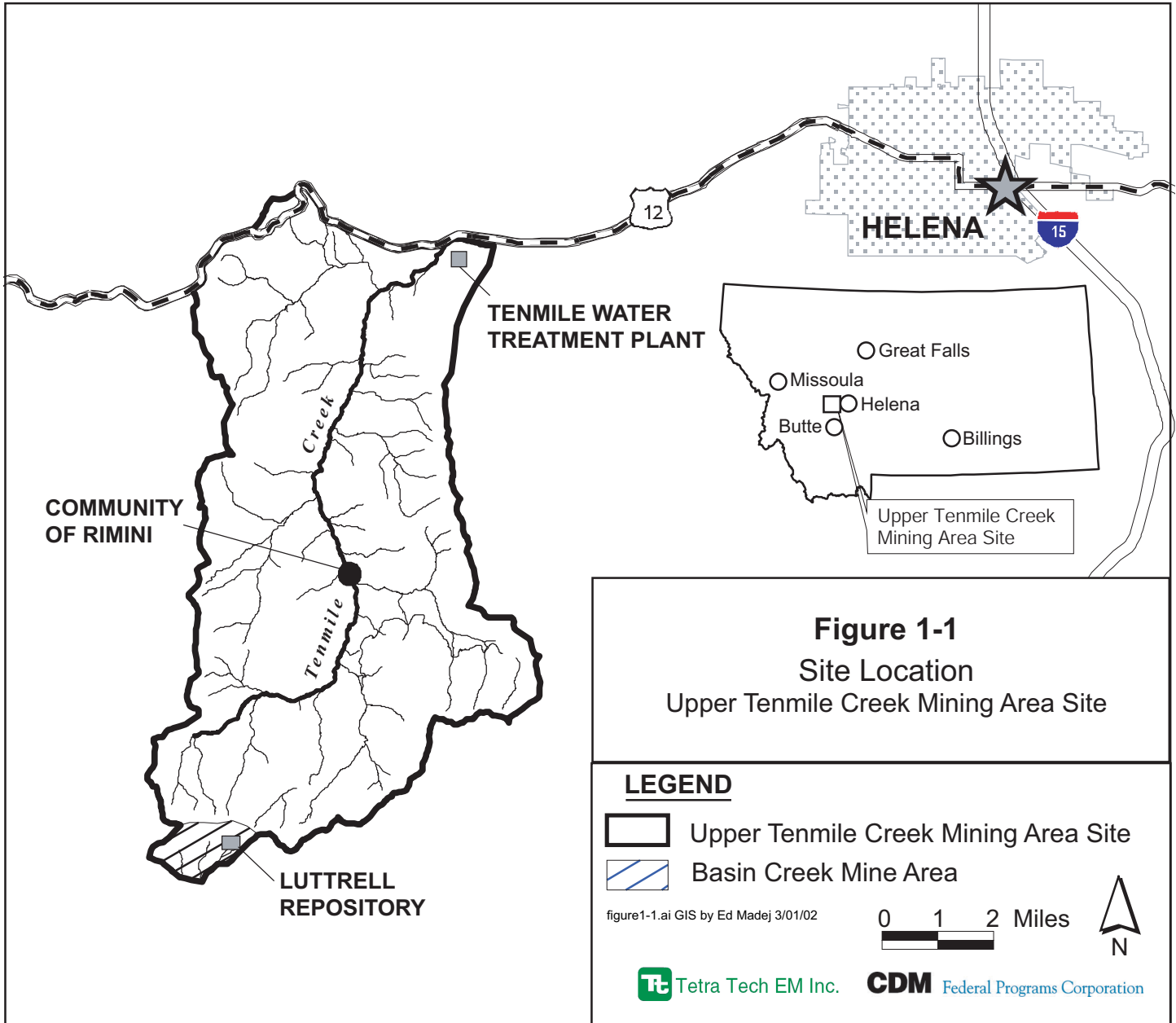
____. 2006. Circular DEQ-*1* Standards for Water Works.
EPA and DEQ

EPA. 2000a. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study

____. 2002. Upper Tenmile Creek Mining Area Site Record of Decision

____. 2006. Point of Use or Point of Entry Treatment Options for Small Drinking Water Systems

____. 2007. Proposed Plan**,** Upper Tenmile Creek Mining Area Site, Lewis and Clark County, Montana


HELENA
12
15
TENMILE WATER
TREATMENT PLANT
Great Falls
Missoula
Helena
Butte
Billings
Upper Tenmile Creek
Mining Area Site
COMMUNITY
OF RIMINI
Tenmile
Creek
LUTTRELL
REPOSITORY
Figure 1-1
Site Location
Upper Tenmile Creek Mining Area Site
LEGEND
Upper Tenmile Creek Mining Area Site
Basin Creek Mine Area
figure1-1.ai GIS by Ed Madej 3/01/02
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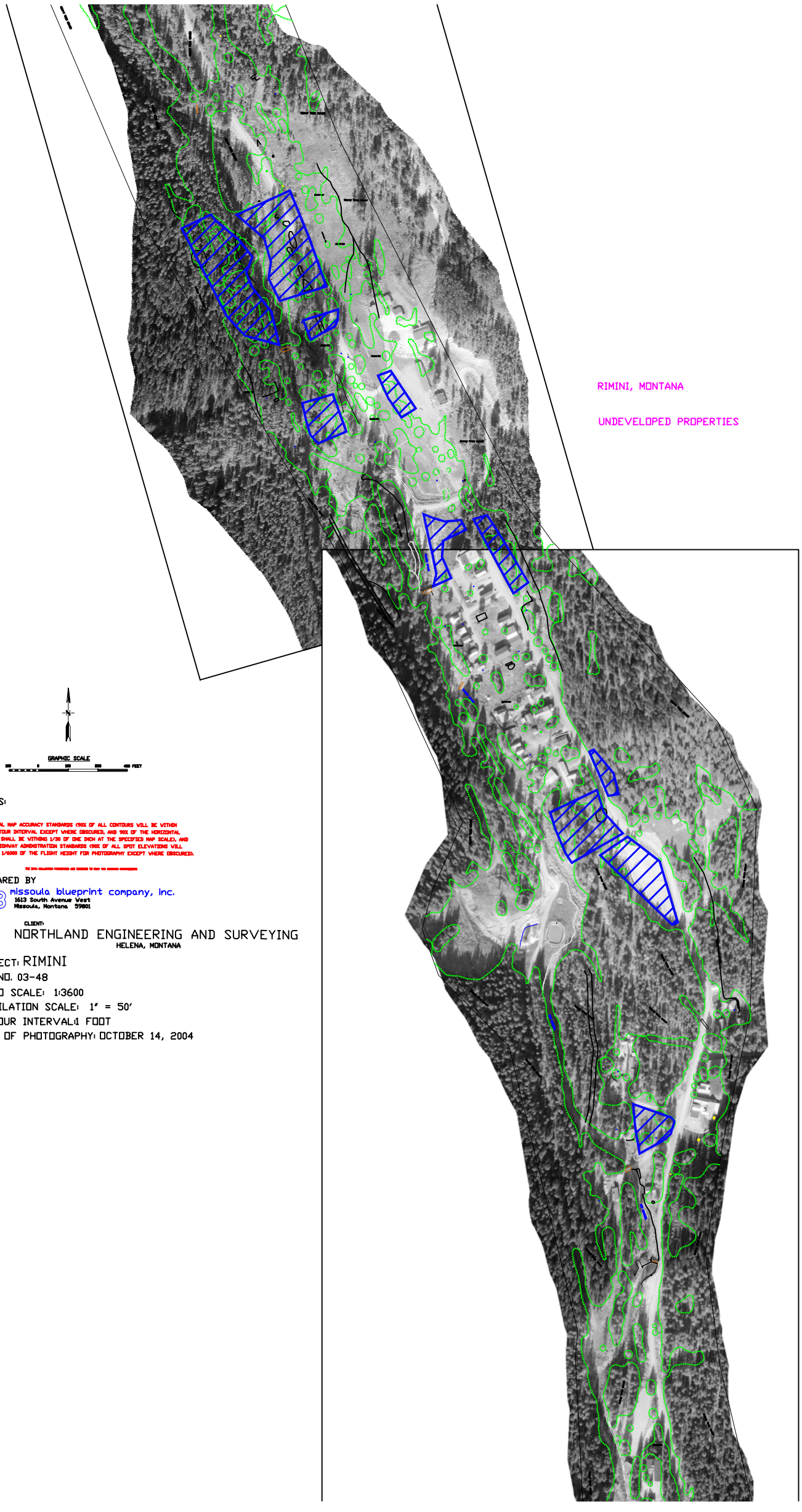
Tetra Tech EM Inc.
CDM Federal Programs Corporation



RIMINI, MONTANA

UNDEVELOPED PROPERTIES

GRAPHIC SCALE

NOTES:

OF NATIONAL MAP ACCURACY STANDARDS (90% OF ALL CONTOURS WILL BE WITHIN 1/2 A CONTOUR INTERVAL, EXCEPT WHERE OBSCURED, AND 90% OF THE HORIZONTAL POSITIONS SHALL BE WITHING 1/30 OF ONE INCH AT THE SPECIFIED MAP SCALE), AND FEDERAL HIGHWAY ADMINISTRATION STANDARDS (90% OF ALL SPOT ELEVATIONS WILL BE WITHIN 1/6000 OF THE FLIGHT HEIGHT FOR PHOTOGRAPHY EXCEPT WHERE OBSCURED.

THE DATA COLLECTION PROCEDURES ARE DESIGNED TO MEET THE ACCURACY REQUIREMENTS

PREPARED BY

missoula blueprint company, inc.
1613 South Avenue West
Missoula, Montana 59801

CLIENT:

NORTHLAND ENGINEERING AND SURVEYING
HELENA, MONTANA

PROJECT: RIMINI
JOB NO. 03-48
PHOTO SCALE: 1:3600
COMPILATION SCALE: 1" = 50'
CONTOUR INTERVAL: 1 FOOT
DATE OF PHOTOGRAPHY: OCTOBER 14, 2004

Table 4-1 Residential Yard Remediation

Comparison of ROD Selected Remedy and Design/Construction Costs
Upper Tenmile Creek Mining Area Site
Community of Rimini

Remedy Component	June 2002 Selected Remedy Unit	Unit Cost	Quantity	Cost	Source	January 2007 Revision Unit	Unit Cost	Quantity	Cost	Source	Cost Comparison Comments
Residential Yard Soils - Rimini											
RA Construction Contractor											
Yard Remediation Components											
Site Preparation and Storm Water Control	AC	$13,900	7.03	$97,717	ECHOS 2000	Each Property	$1,830	46	$84,180	2006 Actual/Bid	Includes site fixture removal, relocation, and restoration and erosion control
Excavate Yard Soil	CY	$1.98	45,347	$89,787	Means 2000	CY	$23.00	34,742	$799,066	2006 Actual/Bid + Est. 2007 volume	Means estimate (ROD) assumed easy excavation; 2006 actual cost based on difficult excavation with significant boulders requiring off-site disposal, and includes haul to Luttrell.
Transport Waste to Luttrell Repository	CY-MILE	$0.60	421,727	$253,036	EPA Removal Branch		--			Included in Excavation	
Luttrell Repository Disposal	CY	$5.00	45,347	$226,735	ECHOS 2000	CY	$5.48	34,742	$190,483	2006 Actual/Bid + Est. 2007 volume	Actual 2006 bid unit cost (with spread and compact) less than ROD estimate ($8.14)
Spread and Compact Waste	CY	$3.14	45,347	$142,390	EPA Removal Branch		--			Included in Luttrell Disposal	
Utility Relocation	EA	$500	23	$11,500	Engineer's Estimate		--			Included in General Conditions	
Unclassifiied Fill	CY	$5.00	34,010	$170,050	Engineer's Estimate	CY	$21.00	11,317	$237,657	2006 Actual/Bid	Actual 2006 bid unit cost includes 35-mile haul from Helena valley; materials not available in Rimini vicinity
Place Topsoil	CY	$12.00	11,337	$136,044	Engineer's Estimate	CY	$17.00	23,425	$398,225	2006 Actual/Bid	Actual 2006 bid unit cost includes 35-mile haul from Helena valley; materials not available in Rimini vicinity
Install Sod	SF	$0.25	306,092	$76,523	Means 2000	SF	$0.62	80,000	$49,600	2006 Actual/Bid	Includes installation; ROD estimate only material cost
Install Seed		--				SF	$0.08	418,978	$33,518	2006 Actual/Bid	Includes installation; not included in ROD estimate
Install Trees/Bushes		--				EA	$118	967	$114,106	2006 Actual/Bid	Includes installation; not included in ROD estimate
			Subtotal	***$1,203,782***				***Subtotal***	***$1,906,836***		
Construction Support Activities											
Mobilization/Demobilization, Bonding and Insurance				$96,397			--				Bonding and insurance typically built into site line item costs. ROD estimate assumed mobilization and demobilization only
Construction Contingencies				$180,744			5%		$95,342	2006 Actual/Bid	Approximate amount of contingency used in 2006.
General Conditions (Mob/Demob., supervisors, acct.,engr., etc.)		--				LS	$635,764	1	$635,764	2006 Actual/Bid	Includes supervisors, construction plans, surveying, environmental protection, bond, insurance, record drawings
General Site Work (Road maint., environ. protection, health & safety, etc.)		--				LS	$439,466	1	$439,466	2006 Actual/Bid	Not included in ROD estimate
			Subtotal	***$277,141***				***Subtotal***	***$1,170,572***		
Subtotal RA Construction Contractor				**$1,480,923**					**$3,077,407**		
		Cost per cubic yard:		**$32.66**				**Cost per cubic yard:**	**$88.58**		Unit cost shows improved cost efficiency over prior Landmark residential yard remediation
Project Management											
Project Management				$88,926	EPA Guidance		8%		$93,646	% Based on actual 2003/2004	
Construction Management and Oversight				$118,568	EPA Guidance		20%		$234,114	% Based on actual 2003/2004	
Subtotal Project Management			***Subtotal***	***$207,494***				***Subtotal***	***$327,760***		
Total Capital Costs (Rimini Yard Remediation)				**$1,688,417**					**$3,405,168**		
Residential Yard Soils - Landmark											
Site Preparation and Storm Water Control	AC	$13,900	1.10	$15,290	ECHOS 2000	LS	$31,653	1.00	$31,653		
Excavate Yard Soil (Average Depth of 4 feet)	CY	$1.98	4,413	$8,738	Means 2000	CY	$22.97	23,283	$534,811	Actual 2003/2004 volume less 8,000 cy excavated by Removal Branch in 2004 plus 10,000 cy estimated in future	Actual/projected volume 5 times ROD estimated volume; limited data available prior to remedial design. Actual excavation depth varied from 2 feet to more than 8 feet, difficult excavation with significant boulders requiring off-site disposal.
Transport Waste to Luttrell Repository	CY-MILE	$0.60	69,725	$41,835	EPA Removal Branch	CY	$19.81	31,283	$619,716	Actual 2003/2004 Landmark Costs - all wastes hauled by RA contractor; volume includes 10,000 cy estimated in future	Actual/projected volume 7 times ROD estimated volume. 2003/2004 haul costs approximately $1.24/cy-mile, 16 mile haul route.
Spread and Compact Waste	CY	$3.14	4,413	$13,857	ECHOS 2000	CY	$9.78	31,283	$305,948	Actual 2003/2004 Landmark Costs; volume includes 10,000 cy estimated in future	Actual/projected volume 7 times ROD estimated volume. Unit costs similar since 2007 estimate includes Luttrell disposal costs.
Luttrell Repository Disposal	CY	$5.00	4,413	$22,065	EPA Removal Branch		--			Included in spread & compact	
Utility Relocation	CY	$500	4	$2,000	Engineer's Estimate		--				
Unclassifiied Fill	CY	$5.00	2,648	$13,240	Engineer's Estimate		--			Included in cover soil.	
Place Cover soil	CY	$12.00	1,765	$21,180	Engineer's Estimate	CY	$29.78	23,283	$693,368	Actual 2003/2004 Landmark Costs; volume includes 10,000 cy estimated in future	Actual 2003/2004 cost included 27-mile haul from Helena valley; growth media not available in Landmark vicinity. Design required 24" of cover soil to promote vegetative growth.
Install Sod	SF	$0.25	47,656	$11,914	Means 2000	SF	$0.60	350,000	$210,000	Actual 2003/2004 Landmark Costs; area includes 150,000 sq ft estimated in future	Includes installation; ROD estimate only material cost.
			Subtotal	***$150,119***				***Subtotal***	***$2,395,495***		
Construction Support Activities											
Mobilization/Demobilization, Bonding and Insurance		8%		$12,012			--				Bonding and insurance typically built into site line item costs. Cost is for mobilization and demobilization only
Construction Contingencies		20%		$30,045			5%		$119,775		Approximate amount of contingency used in 2006.
General Conditions (Mob/Demob., supervisors, acct.,engr., etc.)		--				LS	$259,784	1	$259,784	Actual 2003/2004 plus additional 75% estimated for future, based on additional volume	
General Site Work (Road maint., environ. protection, health & safety, etc.)		--				LS	$472,547	1	$472,547	Actual 2003/2004 plus additional 75% estimated for future, based on additional volume	
			Subtotal	***$42,057***				***Subtotal***	***$852,106***		
Subtotal RA Construction Contractor				**$192,176**					**$3,247,601**		
		Cost per cubic yard:		**$43.55**				**Cost per cubic yard:**	**$103.81**		Unit cost comparable to previous work conducted at other sites with similar scope
Project Management											
Project Management		8%		$15,383	EPA Guidance		8%		$259,808	% Based on actual 2003/2004	
Construction Management and Oversight		10%		$19,229	EPA Guidance		20%		$649,520	% Based on actual 2003/2004	
Subtotal Project Management			***Subtotal***	***$34,612***				***Subtotal***	***$909,328***		
Total Capital Costs (Landmark Yard Remediation)				**$226,788**					**$4,156,930**		
Total Capital Costs				**$1,915,204**					**$7,562,097**		

Table 4-2 - Community Water System

Comparison of ROD Selected Remedy and August 2007 Cost Estimates
Upper Tenmile Creek Mining Area Site
Community of Rimini

	June 2002 Selected Remedy					August 2007 Revision (Surface Water Source Assumed)					
Remedy Component	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Cost Comparison Comments**
RA Construction Contractor											
Water Main and Distribution System Components											
Distribution Main	LF	$7.77	3000	$23,310	ECHOS 2000	LF	$58.58	4,870	$285,285	2007 Design Estimate	Includes excavation, dewatering, pipe bedding material, pipe, and fittings. ROD estimate assumed 3,000 ft of main and typical excavation; 2007 estimate assumes 4,870 ft of main and difficult excavation in narrow road, boulders, with dewatering
Service Connection Including Meters	EA	$1,000	35	$35,000	Engr.'s Estimate	EA	$10,235	25	$255,875	2007 Design Estimate	Includes connection to main, curb stop, water meter, shut-off valve, yard hydrant, and connection to house. ROD estimate assumed 35 connections and typical generic connection; 2007 estimate assumes 25 connections and actual pipe lengths, trench depths, fittings, etc.
			Subtotal	***$58,310***				***Subtotal***	***$541,160***		
Water Source and Treatment System Components											
Water Supply Wells	EA	$15,000	2	$30,000	Engr.'s Estimate						ROD assumed 2 wells @ $15,000 each; 2007 estimate assumes a surface water source.
Well Pumps and Pitless Adaptors	EA	$8,000	2	$16,000	Engr.'s Estimate						2007 estimate assumes surface water source.
Well Ancillary Facilities (well house, electrical, instrumentation, backup generator, etc.)			--		Engr.'s Estimate						2007 estimate assumes surface water source.
Surface Water Intake Structure and Ancillary Facilities						LS	$366,115	1	$366,115	2007 Prelim. Design Estimate	2007 estimate assumes new intake structure within Helena intake facility.
Electric Power Line	LF	$10	500	$5,000	Engr.'s Estimate	LF	$20.34	250	$5,085	2007 Prelim. Design Estimate	ROD estimate assumed well near Rimini and 500 ft of electrical power line. 2007 estimate assumes treatment plant in Rimini and 250 ft of power line.
Electric Power Infrastructure (Telemetry, Backup Generator)			--			LS	$55,935	1	$55,935	2007 Prelim. Design Estimate	2007 estimate includes pad mounted transformer and telemetry not included in ROD estimate.
4" Water Transmission Pipeline	LF	$5.87	1000	$5,870	ECHOS 2000	LF	$50.33	2,750	$138,408	2007 Prelim. Design Estimate	ROD assumed 1000 ft with typical excavation. 2007 estimate assumes 2,700 ft with difficult excavation in rocky conditions and some blasting. Includes excavation, dewatering, pipe
50,000 Gallon Storage Tank	LS	$50,000	1	$50,000	Engr.'s Estimate	LS	$236,127	1	$236,127	2007 Prelim. Design Estimate	ROD assumed $1.00/gal capacity; 2007 estimate assumes $4.00/gal, with insulation, heating, and recirculation components.
Surface Water Treatment Unit			--			LS	$268,015	1	$268,015	2007 Prelim. Design Estimate	ROD estimate assumed no treatment needed. 2007 estimate assumes full surface water treatment needed, with filtration for microbiological parameters and chlorination.
SW Treatment Building						LS	$254,250	1	$254,250	2007 Prelim. Design Estimate	2007 estimate assumes heated treatment building meeting Montana state standards for community water systems required.
SW Treatment Building Electrical, Mechanical, HVAC, Piping						LS	$172,890	1	$172,890	2007 Prelim. Design Estimate	2007 estimate assumes heated treatment building meeting Montana state standards for community water systems required.
Site Fencing	LF	$20	400	$8,140	ECHOS 2000	LF	$20.70	400	$8,279	Previous Work at Site	
WTP and Tank Site Development (Access, site prep, property acquistion, etc.)			--			LS	$84,538	1	$84,538	2007 Prelim. Design Estimate	2007 estimate includes access road to tank area.
			Subtotal	***$115,010***				***Subtotal***	***$1,589,641***		
Construction Support Activities											
Mobilization/Demobilization, Bonding and Insurance				$13,866			--				
Construction Contingencies				$51,996			15%		$319,620		
General Conditions (Mob/Demob., supervisors, acct.,engr., etc.)			--			LS		1	$532,700		
General Site Work (Road maint., environ. protection, health & safety, etc.)			--			LS		1	$426,160		
			Subtotal	***$65,862***				***Subtotal***	***$1,278,480***		
Subtotal Construction Contractor				***$239,182***					***$3,409,281***		
Project Management											
Project Management		8%		$19,135	EPA Guidance		10%		$340,928	% Based on actual 2003/2004	
Construction Management and Oversight		10%		$23,918	EPA Guidance		20%		$681,856	% Based on actual 2003/2004	
Subtotal Project Management			***Subtotal***	***$43,053***				***Subtotal***	***$1,022,784***		
Total Capital Costs				**$282,235**					**$4,432,065**		

***** Note: Estimated annual operation and maintenace (O&M) costs for the community water system are $18,300/year, based on the current preliminary design concepts. These preliminary estimated annual O&M costs may be revised after the specific treatment components and operating parameters are developed.***

Comparison of ROD Selected Remedy and August 2007 Cost Estimates
Upper Tenmile Creek Mining Area Site
Community of Rimini

Table 4-3 Community Wastewater System

	June 2002 Selected Remedy					August 2007 Revision (Complete Wastewater System Assumed)					
Remedy Component	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Cost Comparison Comments**
RA Construction Contractor											
Sewer Main and Collection System Components											
Sewer Main	LF	$25	3500	$87,500	Engr.'s Estimate	LF	$65.66	5380	$353,251	2007 Design Estimate/Previous Work	Includes excavation, dewatering, pipe bedding material, pipe, and fittings. ROD estimate assumed 3,500 ft main and typical excavation; 2007 estimate assumes 6,610 feet (including portion completed in 2005), difficult deep excavation in narrow road, boulders, and dewatering.
Sewer Main (north of Rimini)			--			***LF***	***$63.89***	***1269***	***$81,076***	***2005 Actual Completed (north of Rimini)***	***Included dewatering and video sewer inspection.***
Sanitary Sewer Manholes	EA	$2,000	10	$20,000	Engr.'s Estimate	EA	$5,609	31	$173,879	2007 Design Estimate/Previous Work	ROD assumed long straight alignments in road. 2007 estimate assumes 37 manholes because of numerous alignment changes required to keep sewer main in road footprint to avoid right-of-way issues with property owners.
Sanitary Sewer Manholes (north of Rimini)			--			***EA***	***$4,197***	***6***	***$25,182***	***2005 Actual Completed (north of Rimini)***	
Sanitary Sewer Residential Service Lines (4-inch)	LF	$25	3500	$87,500	Engr.'s Estimate	EA	$10,413	25	$260,325	2007 Design Estimate	Includes connection to sewer main, tie-in to house. ROD estimated assumed typical 100-ft service connections at $2,500 each; 2007 estimate assumes 25 connections and actual pipe lengths, trench depths, fittings, etc.
Connect to Existing Household Sewer	EA	$500	35	$17,800	Engr.'s Estimate			--		Included in Residential Service Line	2007 estimate assumes difficult excavation in boulders, dewatering, and longer service lines.
Creek Crossing	LS	$2,000	1	$2,000	Engr.'s Estimate	EA	$11,492	3	$34,476		
			Subtotal	**$214,800**				**Subtotal**	**$928,189**		
Treatment System Components											
Community Septic Tank	LS	$8,000	1	$8,000	Engr.'s Estimate	***LS***	***$258,893***	***1***	***$258,893***	***2005 Actual Completed (north of Rimini)***	***Size of tank increased due to DEQ design requirement change after ROD prepared, ROD estimated 8000 gallon tank, 2007 design estimates 48,000 gallon tank for same number of connections. Includes installation.***
Recirculation Treatment Unit (including pumps)	LS	$70,000	1	$70,000	Engr.'s Estimate	LS	$143,516	1	$143,516	2005 Actual Bid or Work Completed	
Recirculation Tank			--			***LS***	***$109,104***	***1***	***$109,104***	***2005 Actual Completed (north of Rimini)***	
Pressure Dosed Drainfield (excluding pipe already purchased)	LF	$20	3000	$60,000	Engr.'s Estimate	LF	$178,251	1	$178,251	2005 Actual Bid or Work Completed	
Drainfield pipe purchased in 2006			--			***LS***	***$5,881***	***1***	***$5,881***	***2005 Actual Completed (north of Rimini)***	
Tree Removal	LS	$5,000	1	$5,000	Engr.'s Estimate	***LS***	***$54,785***	***1***	***$54,785***	***2005 Actual Completed (north of Rimini)***	***2007 estimate includes required timber purchase from Forest Service for tree removal.***
Access Road			--			***LS***	***$139,302***	***1***	***$139,302***	***2005 Actual Completed (north of Rimini)***	***Design required remote treatment system, with new access road, bridge, and substantially more tree removal than assumed in ROD.***
Force Main (4-inch) with Creek Crossing			--			***LF***	***$78.94***	***1700***	***$134,198***	***2005 Actual Completed (north of Rimini)***	***Required to connect septic tank to revised treatment system location.***
Electrical, Instrumentation, Control Bldg., Ancillary Equip.			--			LS	$72,975	1	$72,975	2005 Actual Bid or Work Completed	
			Subtotal	**$143,000**				**Subtotal**	**$1,096,905**		
Additional Site Requirements											
Temporary Diversion of Helena Raw Water Supply Line			--			LS	$168,505	1	$168,505		Redesign of the wastewater system layout would eliminate these additional site requirements. The redesign costs would be approximately $275,000 resulting in a net savings of approximately $500,000.
Partial Relocation of Helena Raw Water Supply Line			--			LS	$480,137	1	$480,137		
Partial Relocation of Rimini Irrigation Line			--			LS	$50,147	1	$50,147		
			Subtotal	**$0**				**Subtotal**	**$698,789**		
Construction Support Activities											
Mobilization/Demobilization, Bonding and Insurance				$28,900				--		Included in General Conditions	
Construction Contingencies				$107,850			15%		$408,582		
General Conditions (Mob/Demob., supervisors, acct.,engr., etc.)			--			LS	$304,405	1	$304,405		
General Conditions in 2005 (actual)			--			***LS***	***$148,781***	***1***	***$148,781***	***2005 Actual Completed (north of Rimini)***	
General Site Work (Road maint., environ. protection, health & safety, etc.)			--			LS	$215,660	1	$215,660		
General Site Work in 2005 (actual)			--			***LS***	***$102,132***	***1***	***$102,132***	***2005 Actual Completed (north of Rimini)***	
			Subtotal	**$136,750**				**Subtotal**	**$1,179,560**		
Subtotal RA Construction Contractor				**$494,550**					**$3,903,444**		
Project Management											
Project Management	8%			$39,468	EPA Guidance		10%		$283,936	% Based on actual 2003/2004	
Project Management in 2005			--			***LS***	***$106,408***	***1***	***$106,408***		
Construction Management and Oversight	10%			$49,335	EPA Guidance		20%		$567,883	% Based on actual 2003/2004	
Construction Management and Oversight in 2005			--			***LS***	***$212,806***	***1***	***$212,806***		
Subtotal Project Management			**Subtotal**	**$88,803**				**Subtotal**	**$1,171,033**		
Total Capital Costs				**$583,353**					**$5,074,477**		
Wastewater Treatment System Costs Incurred in 2005/2006									***$1,378,548***		
Projected Future Costs to Completed Community Wastewater Systen									**$3,695,928**		

***** Notes: (1) Past wastewater treatment system costs incurred in 2005/2006 are highlighted and printed in bold italics***

(2) Estimated annual operation and maintenace (O&M) costs for the community wastewater system are $18,800/year, based on the current system design concepts.
This estimate assumes that wastewater system administrative expenses, such as billing, reporting, filing, and management, are covered under the community water system estimate and are not duplicated here.

(3) The final design may be modified such that replacement or diversion of the Helena raw water line is not required.

Table 4-4- Rimini Road Remediation

Comparison of ROD Selected Remedy and August 2007 Cost Estimates
Upper Tenmile Creek Mining Area Site
Community of Rimini

	June 2002 Selected Remedy					August 2007 Revision (Road Waste Removal Assumed)					
Remedy Component	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Unit**	**Unit Cost**	**Quantity**	**Cost**	**Source**	**Cost Comparison Comments**
RA Construction Contractor											
Road Remediation Components											
Site Preparation	ACRE	$13,900.00	4	$55,600	ECHOS 2000	LS	$4,277.00	1	$4,277	2007 Design Estimate	In 2007 estimate, most site preparation costs included in General Site Work below.
Waste Excavation	CY	$1.98	23,328	$46,189	Means 2000	CY	$7.69	12,804	$98,463	2007 Design Estimate	ROD estimate assumed easy excavation of fine-grained waste materials; 2007 estimate based on 2003 - 2006 actual cost based on difficult excavation with significant boulders requiring off-site disposal, and dewatering.
Waste excavation north of Rimini in 2005		--				***CY***	***$17.75***	***1,064***	***$18,886***	***2005 Actual***	***Includes 1 mile haul to staging area***
Waste hauling	CY-MILE	$0.60	216,948	$130,169	EPA Removal Estimate	CY	$31.94	10,963	$350,158	2007 Design Estimate	Haul volume assumes portion of excavated is oversize rocks not hauled to Luttrell.
Waste hauling of wastes from north of Rimini in 2006		--				***CY***	***$23.00***	***1,064***	***$24,472***	***2006 Actual***	
Spread and Compact Waste	CY	$3.14	23,328	$73,250	ECHOS 2000	CY	$6.00	10,963	$65,778	2006 Actual + 10% escalation	Unit costs similar, since 2007 estimate includes Luttrell Disposal.
Spread and Compact Waste from north of Rimini in 2006		--				***CY***	***$5.46***	***1,064***	***$5,809***	***2006 Actual***	
Luttrell Repository Disposal	CY	$5.00	23,328	$116,640	EPA Removal Estimate		--			Included in Spread and Compact Waste	
Utility Relocation	LS	$5,000.00	1	$5,000	Engr.'s Estimate	LS	$43,755.00	1	$43,755	2007 Design Estimate	
Partial Replacement of City of Helena Raw Water Line	LF	$81.00	800	$64,800	Means 2000		--			Included in Community Wastewater System estimate (Table 4-3).	
Unclassified Fill	CY	$5.00	17,031	$85,155	Engr.'s Estimate	CY	$35.95	9,229	$331,810	2007 Design Estimate	
Unclassified fill placed north of Rimini in 2005		--				***CY***	***41.49***	***978***	***$40,577***	***2005 Actual***	
Place 12-inch base course	CY	$10.00	6,296	$62,960	Engr.'s Estimate	CY	$71.60	1,202	$86,063	2007 Design Estimate	ROD estimate assumed borrow source in or near site; 2007 estimate based on 2006 actual, which required import form distant source to meet county road specifications
Place road base course north of Rimini in 2005		--				***CY***	***$52.97***	***400***	***$21,188***	***2005 Actual***	
Place 6-inch top course	CY	$15.00	3,148	$47,220	Engr.'s Estimate	CY	$70.05	2,373	$166,237	2007 Design Estimate	Same as base course above.
Place road top course north of Rimini in 2005		--				***CY***	***$51.38***	***248***	***$12,742***	***2005 Actual***	
Replace culverts		--				LS	$50,892.00	1	$50,892	2007 Design Estimate	
			Subtotal	***$686,983***				Subtotal	**$1,321,108**		
Construction Support Activities											
Mobilization/Demobilization, Bonding, and Insurance		8%		$54,851			--				Bonding and insurance typically built into site line item costs. Cost is for mobilization and demobilization only
Construction Contingencies		15%		$102,845			15%		$198,166		
General Conditions (Mob/Demob., supervisors, acct.,engr., etc.)		--							$179,203		
General Site Work (Road maint., environ. protection, health & safety, etc.)		--							$126,959		
			Subtotal	***$157,696***				***Subtotal***	***$504,328***		
Subtotal RA Construction Contractor				**$844,679**					**$1,825,436**		
Project Management											
Project Management		8%		$67,467	EPA Guidance		10%		$182,544	% Based on actual 2003/2004	
Construction Management and Oversight		10%		$84,333	EPA Guidance		20%		$365,087	% Based on actual 2003/2004	
Subtotal Project Management			***Subtotal***	***$151,800***				***Subtotal***	***$547,631***		
Total Capital Costs				**$996,479**					**$2,373,067**		
Rimini Road Remediation Costs Incurred in 2005 and 2006									***$123,675***		
Projected Future Costs to Complete Rimini Road Remediation									**$2,249,392**		

***** Notes: (1) Past Rimini Road remediation costs incurred in 2005 are highlighted and printed in bold italics***

(2) Operation and maintenance (O&M) costs for the Rimini Road remediation are not estimated because no mine waste materials will be left in the road. Since the road is a county road, general road maintenance, such as plowing and grading, will be the responsibility of Lewis and Clark County.

Table 5-1 Comparative Evaluation of Water Design Options

EVALUATION CRITERIA	DESIGN OPTION	
	Community Water System	POU/POE
Overall Protection of Human Health and the Environment	High – Provides a drinking water source throughout the residence that meets MCLs and other water quality parameters for drinking water.	Low – No protection for potential dermal exposure to arsenic where groundwater from wells has very high arsenic concentrations and is not treated by POU.
Compliance with ARARs	High – Meets ARARs.	High – Meets ARARs.
Long-Term Effectiveness and Permanence	High – Permanent source of potable water through treatment to each residence in Rimini. Water quality monitored to assure protectiveness.	Low – Maintenance difficulties prevent POU/POE options from providing adequate long-term protectiveness. Variable water types, treatment requirements, and system types present significant difficulties in maintenance. Assessment of long-term effectiveness depends on property owners providing access to the responsible organization.
Reduction of Toxicity, Mobility, and Volume Through Treatment	Low – While prevents human exposure risks, provides no overall treatment of contaminants in soils or groundwater.	Low – While prevents human exposure risks, provides no overall treatment of contaminants in soils or groundwater.
Short-Term Effectiveness	Low – Even with phased construction and dust suppression, this option will have impacts to the community during construction.	High – Ease of installation and lack of major construction activities have less impact on the community than the community water system.
Implementability	High – Employs standard construction methods and equipment.	Low – Regulatory responsibilities are uncertain. Employs standard construction methods and equipment. Variable water source types, treatment requirements, and system types present significant difficulties in design.
Cost	Low – Much higher cost than POU/POE. Present worth (including expended costs) is $4,808,000	High – Significantly less costly than community water system. Present worth is $461.757
State Acceptance	No comments from the state at this time	No comments from the state at this time
Community Acceptance	Majority of community support this option.	Some community support for this option

Table 5-2 Comparative Evaluation of Wastewater Design Options

EVALUATION CRITERIA	DESIGN OPTION		
	Halt Community Wastewater System and Replace Septic System as Needed	Complete Community Wastewater	Grouped System
Overall Protection of Human Health and the Environment	High – Includes removal of contaminated material overlying and possibly underneath septic systems.	High – Includes removal of contaminated material overlying and possibly underneath septic systems.	High – Includes removal of contaminated material overlying and possibly underneath septic systems.
Compliance with ARARs	High – Meets ARARs.	High – Meets ARARs.	High – Meets ARARs.
Long-Term Effectiveness and Permanence	High – Includes removal of all contaminated material from yards. Excavation of waste is a permanent solution.	High – Includes removal of all contaminated material from yards. Excavation of waste is a permanent solution.	High – Includes removal of all contaminated material from yards. Excavation of waste is a permanent solution.
Reduction of Toxicity, Mobility, and Volume Through Treatment	Low – No reduction in toxicity, mobility, or volume through treatment.	Low – No reduction in toxicity, mobility, or volume through treatment.	Low – No reduction in toxicity, mobility, or volume through treatment.
Short-Term Effectiveness	High – Fewer community impacts since no sewer mains along Rimini Road and no individual sewer connections on residential properties would be constructed.	Low – Even with phased construction and dust suppression, this option will have impacts to the community during construction, at both residential properties and on Rimini Road.	High – Fewer community impacts since no sewer mains along Rimini Road and no individual sewer connections on residential properties would be constructed.
Implementability	High – Employs standard construction methods and equipment.	High – Employs standard construction methods and equipment.	Moderate – Employs standard construction methods and equipment. However, access and easement considerations as well as possible setback waivers affect implementability.
Cost	Low – Present worth is $1,607,000	High – Present worth including costs already incurred is $5,477,000	No costs were prepared for grouped system as potential locations and groupings have not been identified.
State Acceptance	No comments received at this time	No comments received at this time	No comments received at this time

Community Acceptance	Also had some community support	Majority of comments received support this option	Second most supported option by community

Appendix A
ARARs

Appendix A
Summary of Applicable or Relevant and Appropriate Requirements
Upper Tenmile Creek Feasibility Study

Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
FEDERAL								
I. Contaminant Specific								
	A.		Safe Drinking Water Act (SWDA) (42 USC 300f-300j) (40 CFR 141-142)	Establishes maximum contaminant levels (MCL) for chemicals in drinking water distributed in public water systems.		**X**	**X-RA**	
		1.	Maximum Contaminant Levels (MCLs)	MCLs may be used to establish water discharge standards and groundwater remediation standards.		**X**	**X-RA**	
	B.		Clean Water Act (CWA) as amended by the Water Quality Act of 1987 (33 USC 1251-1376)	Storm runoff water, extracted groundwater, or soil remediation process water from the Site discharged to a surface water body (including discharge to a storm drain or flood channel) would require attainment of Water Quality Criteria.		**X**	**X-A**	
	C.		National Ambient Air Quality Standards (40 CFR 50.6, 50.12)	Establish standards for PM-10 and lead emissions to air during construction activities.	**X**			**X**
II. Location Specific								

Appendix A
Summary of Applicable or Relevant and Appropriate Requirements
Upper Tenmile Creek Feasibility Study

Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	A.		National Historic Preservation Act (16 USC 470) (40 CFR 6.301(b), 36 CFR Part 63, Part 65, and Part 800) (NHPA)	Requires consideration of the effect of the response action upon any district, site, building, structure, or object that is included in or eligible for the Register of Historic Places.			**X-A**	
	B.		Archaeological and Historic Preservation Act (16 USC 463) (40 CFR 6.301(c))	Requires action to recover and preserve artifacts if removal action threatens significant scientific, prehistoric, historic, archeological data.			**X-A**	
	C.		Historic Sites Act of 1935 (16 USC 461, et seq.) (40 CFR 6.310(a))	Requires consideration of the existence and location of landmarks on the National Registry of National Landmarks			**X-A**	
	D.		Executive Order 11593 Protection and Enhancement of the Cultural Environment (16 USC 470)	Ensures programs contribute to the preservation and enhancement of non-federal historic resources during remediation action implementation				**X**
	E.		The Archeological Resources Protection Act of 1979 (16 USC 470aa-47011)	Remedy should meet substantive requirements for any excavation or removal of archeological resources from public lands or Indian lands.			**X-RA**	

Appendix A
Summary of Applicable or Relevant and Appropriate Requirements
Upper Tenmile Creek Feasibility Study

Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	F.		American Indian Religious Freedom Act (42 USC 1996, et seq.)	Protects and preserves the right of American Indians to believe, express and exercise the traditional religions of American Indians. Implementation of remedial action must consider implications to Native America worship and possible impacts to sacred sites.			**X-A**	
	G.		Native American Graves Protection and Repatriation Act (25 USC 3001, et seq.)	Prioritizes ownership and requires return of Native American cultural items. Excavations impacting Native American graves must be coordinated with Native people prior to start of excavation.			**X-A**	
	H.		Fish and Wildlife Coordination Act (16 USC 661) (40 CFR 6.302)	Protects fish and wildlife resources. Remedial action will be designed to minimize impacts on fish and wildlife.			**X-A**	
	I.		Endangered Species Act (16 USC 1531) (50 CFR Parts 17 and 402)	Protects threatened or endangered species.			**X-A**	
	J.		Floodplain Management Regulations (Executive Order No. 11988) (40 CFR 6.302(b))	Protects floodplains.			**X-A**	
	K.		Protection of Wetlands Regulations (40 CFR Part 6) (Appendix A) (Executive	Protects wetlands.			**X-A**	

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Summary of Applicable or Relevant and Appropriate Requirements
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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
			Order No. 11990)					
	L.		Section 404 Clean Water Act (33 UCS 1250, et seq.) (33 CFR Part 330)	Regulates discharge of dredged or fill materials into waters.			**X-A**	
	M.		Migratory Bird Treaty Act (16 USC 703, et seq.)	Protects migratory bird resource			**X-A**	
	N.		Bald Eagle Protection Act (16 USC 668, et seq.)	Protects bald and golden eagles			**X-A**	
	O.		Resource Conservation and Recovery Act and regulations (40 CFR 264.18 (a) and (b))	Provide seismic and floodplain restrictions on the location of a waste management unit.			**X-RA**	
III. Action Specific								
	A.		Clean Water Act, Point Source Discharges requirements (33 USC 1342)	Authorizes the issuance of permits for the "discharge" of any "pollutant."		**X**	**X-A**	
	B.		Substantive Montana Pollutant Discharge Elimination System (MPDES) Permit Requirements (ARM 17.30.1342-1344)	Set substantive requirements applicable to all MPDES and National Pollutant Discharge Elimination System (NPDES) permits.		**X**	**X-A**	
	C.		Technology-Based Treatment (ARM 17.30.1203 and 1344)	Provisions of 40 CFR Part 125 for criteria and standards for the imposition of technology-based treatment requirements		**X**	**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				are adopted and incorporated in MDEQ permits.				
	D.		Causing of Pollution (MCA 75-5-605)	Prohibits the causing of pollution of any state waters.		**X**	**X-A**	
	E.		Nondegradation (MCA 75-5-303)	Existing uses of state waters and the level of water quality necessary to protect the uses must be maintained and protected.		**X**	**X-A**	
	F.		ARM 17.30.705	Provides that for any surface water, existing and anticipated uses and the water quality necessary to protect these uses must be maintained and protected.		**X**	**X-A**	
	G.		ARM 17.30.1011	Provides that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality.		**X**	**X-A**	
	H.		ARM 17.24.633	All surface drainage from a disturbed area must be treated by the best technology currently available.	**X**	**X**	**X-A**	
	I		Federal RCRA Subtitle C Requirements (42 USC 6921, et seq.)	Presents requirements for the solid wastes that may be left in place in “waste management	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				areas" as a result of a remedial action.				
	J.		40 CFR Part 264 Subpart F	General Facility Standards for solid wastes and closure requirements.	**X**		**X-RA**	
		1.	40 CFR 264.92, .93. and .94	Prescribes groundwater protection standards.		**X**	**X-RA**	
		2.	40 CFR 264.97	Prescribes general groundwater monitoring requirements.		**X**	**X-RA**	
		3.	40 CFR 264.98	Prescribes requirements for monitoring and detecting indicator parameters.		**X**	**X-RA**	
		4.	40 CFR 264.111	This provides that the owner or operator of a hazardous waste management facility must close the facility in a way that minimizes the need for further maintenance, and controls or eliminates the leaching or escape of hazardous waste or its constituents, leachate, or runoff to the extent necessary to protect human health and the environment.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		5.	40 CFR 264.117	Governs the length of the post-closure care period, permits a lengthened security period, and prohibits any use of the property which would disturb the integrity of the management facility.	**X**		**X-RA**	
		6.	40 CFR 264.310	Specifies requirements for caps, maintenance, and monitoring after closure.	**X**		**X-RA**	
		7.	40 CFR 264.301	Prescribes design and operating requirements for landfills.	**X**		**X-RA**	
		8.	40 CFR 264.301(a).	Provides for a single liner and leachate collection and removal system.	**X**		**X-RA**	
		9.	40 CFR 264.301(f)	Requires a run-on control system.	**X**	**X**	**X-RA**	
		10.	40 CFR 264.301(g)	Requires a run-off management system.	**X**	**X**	**X-RA**	
		11.	40 CFR 264.301(h)	Requires prudent management of facilities for collection and holding of run-on and run-off.	**X**	**X**	**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		12.	40 CFR 264.301(i)	Requires that wind dispersal of particulate matter be controlled.	**X**		**X-RA**	
	K.		40 CFR 257	Establishes criteria for classification of solid waste disposal facilities and practices.	**X**		**X-A**	
		1.	40 CFR 257.3-1	Washout of solid waste in facilities in a floodplain posing a hazard to human life, wildlife, or land or water resources shall not occur.	**X**		**X-A**	
		2.	40 CFR 257.3-2	Facilities shall not contribute to the taking of endangered species or the endangering of critical habitat of endangered species.			**X-A**	
		3.	40 CFR 257.3-3	Facility shall not cause a discharge of pollutants, dredged or fill material, into waters of the United States and shall not cause non-point source pollution.	**X**	**X**	**X-A**	
		4.	40 CFR 257.3-4	Facility shall not contaminate an underground source of drinking water beyond the solid waste or an alternate boundary.	**X**	**X**	**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		5.	40 CFR 257.3-8(d)	Access to a facility shall be controlled so as to prevent exposure of the public to potential health and safety hazards at the site.	**X**		**X-A**	
	L.		Surface Mining Control and Reclamation Act (30 USC 1201-1326)	Establish provisions designed to protect the environment from the effects of surface coal mining operations, and to a lesser extent non-coal mining. Require that revegetation be used to stabilize soil covers over reclaimed areas and that revegetation be done according to a plan which specifies schedules, species which are diverse and effective, planting methods, mulching techniques, irrigation if appropriate, and appropriate soil testing.	**X**		**X-RA**	
STATE AND LOCAL								
I. Contaminant Specific								
	A.		ARM (17.30.1005)	Explains applicability and basis for groundwater standards that establish the maximum allowable changes in groundwater quality.		**X**	**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	B.		ARM (17.30.1006)	Classifies groundwater based on its quality or use and sets standards for different classes.		**X**	**X-A**	
		1.	MDEQ-7	Lists numeric quality standards for surface and groundwater.		**X**	**X**	
	C.		ARM (17.30.1011)	Provides that groundwater whose existing quality is higher than the standard must be maintained at that high quality.		**X**	**X-A**	
	D.		State of Montana Surface Water Quality Requirement, Montana Water Quality Act, MCA (75-5-1, et seq.) and implementing regulations	Establishes requirements for restoring and maintaining the quality of surface and groundwater.	**X**	**X**	**X-A**	
	E.		ARM (17.30.622)	Codifies standards for waters classified A-1.		**X**	**X-A**	
	F.		ARM (17.30.623)	Codifies standards for waters classified B-1.		**X**	**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	G.		ARM (17.30.637)	Prohibits discharges containing substances that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; or (e) create conditions which produce undesirable aquatic life.	**X**	**X**	**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	G.		Montana Ambient Air Quality Regulations, ARM (17.8.206, 222, 220, 223)	Establishes sampling, data collection, and analytical methodology for ambient air quality standards such as particulate matter, lead emissions, and PM-10 concentrations during construction of remedy.	**X**		**X-A**	
II. Location Specific								
	A.		Montana Antiquities Act (MCA 22-3-421, et seq.)	Addresses the responsibilities of state agencies regarding historic and prehistoric sites on state owned lands.			**X-RA**	
	B.		Montana Human Skeletal Remains and Burial Site Protection Act (1991) (MCA 22-3-801)	Assures that all graves within the state of Montana are adequately protected.			**X-A**	
	C.		Montana Floodplain and Floodway Management Act and Regulations (MCA 76-5-401, et seq.) (ARM 36.15.601, et seq.)	Specify types of uses and structures that are allowed or prohibited in the designated 100-year floodway and floodplain.			**X-A**	
	D.		Montana Natural Streambed and Land Preservation Act and Regulations (MCA 75-7-101, et.seq.) (ARM 36.2.401, et.seq.)	The adverse effects of any remedial action that alters or affects streambed or its banks must be minimized.			**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	E.		ARM 36.2.410	Establishes minimum standards which would be applicable if a response action alters or affects a streambed.			**X-A**	
	F.		MCA §§ 87-5-502 and 504	Requires that any construction or hydraulic project must eliminate or diminish any adverse effect on fish or game habitat.	**X**	**X**	**X-A**	
	G.		Montana Solid Waste Management Act and regulations (MCA 75-10-201, et seq.) (ARM 17.50.505)	Sets requirements for the location of any solid waste management facility.	**X**		**X-A**	
III. Action Specific								
	A.		ARM § 17.50.505(1) and (2)	Sets forth standards that all solid waste disposal sites must meet and specifies general soil and hydrogeological requirements pertaining to the location of any solid waste management facility.	**X**		**X-A**	
	B.		ARM § 17.50.506	Specifies design requirements for landfills.	**X**		**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	C.		ARM § 17.50.510	Sets forth general operational and maintenance and design requirements for solid waste facilities using land filling methods.	**X**		**X-A**	
	D.		MCA 75-10-212 and ARM 17.50.523	For solid wastes, MCA 75-10-212 prohibits dumping or leaving any debris or refuse upon or within 200 yards of any highway, road, street, or alley of the State or other public property, or on privately owned property where hunting, fishing, or other recreation is permitted. ARM 17.50.523 specifies that solid waste must be transported in such a manner as to prevent its discharge, dumping, spilling or leaking from the transport vehicle.	**X**		**X-A**	
	E.		MCA 75-10-206	Provides for a variance from certain solid waste requirements where such variance would not result in a danger to public health or safety.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
	F.		ARM 17.50.530	Sets forth the closure requirements for Class II landfills.	**X**		**X-A**	
	G.		ARM 17.50.531	Sets forth post closure care requirements for Class II landfills.	**X**		**X-A**	
	H.		Montana Strip and Underground Mine Reclamation Act (MCA 82-4-201, et seq.)				**X-RA**	
		1.	MCA 82-4-231	Requires operators to reclaim and re-vegetate affected lands using most modern technology available. Operators must grade, backfill, topsoil, reduce high walls, stabilize subsidence, control water, minimize erosion, subsidence, landslides, and water pollution.	**X**		**X-RA**	
		2.	MCA 82-4-233	Operators must plant vegetation that will yield a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area and capable of self-regeneration.	**X**		**X-RA**	
	I.		Montana Metal Mining Reclamation Act, MCA § 82-4-301, et seq.				**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		1.	MCA 82-4-336	Disturbed areas must be reclaimed to utility and stability comparable to areas adjacent.	**X**		**X-RA**	
		2.	ARM 17.24.501	Provides general backfilling and grading requirements.			**X-RA**	
		3.	ARM 17.24.519	Requires monitoring of settling of regraded areas and potential modification of reclamation, spoiling and grading techniques to alleviate uneven settling problems.	**X**		**X-RA**	
		4.	ARM 17.24.631(1), (2), (3)(a) and (b)	Requires minimization of disturbances to the prevailing hydrologic balance. Other pollution minimization devices must be used if appropriate, including stabilizing disturbed areas through land shaping, diverting runoff, planting quickly germinating and growing stands of temporary vegetation, regulating channel velocity of water, lining drainage channels with rock or vegetation, mulching, and control of acid-forming, and toxic-forming waste materials.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		5.	ARM 17.24.633	Surface drainage from a disturbed area must be treated by the best technology currently available (BTCA). Treatment must continue until the area is stabilized.	**X**		**X-RA**	
		6.	ARM 17.24.634	Requires disturbed drainages be restored to the approximate pre-disturbance configuration, to the extent consistent with the selected remedial alternatives.	**X**		**X-RA**	
		7.	ARM 17.24.638	Sediment control measures must be implemented during operations.	**X**		**X-RA**	
		8.	ARM 17.24.639	Sets forth requirements for construction and maintenance of sedimentation ponds.	**X**		**X-RA**	
		9.	ARM 17.24.640	Discharges from sedimentation ponds, permanent and temporary impoundments, must be controlled to reduce erosion and enlargement of stream channels, and to minimize disturbance of the hydrologic balance.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		10.	ARM 17.24.641	Practices to prevent drainage from acid or toxic forming spoil material into ground and surface water will be employed.	**X**		**X-RA**	
		11.	ARM 17.24.643 through 17.24.646	Provisions for groundwater protection, groundwater recharge protection, and groundwater and surface water monitoring.		**X**	**X-RA**	
		12.	ARM 17.24.701 and 702	Requirements for redistributing and stockpiling of soil for reclamation. Also, outline practices to prevent compaction, slippage, erosion, and deterioration of biological properties of soil will be employed.	**X**		**X-RA**	
		13.	ARM 17.24.703	When using materials other than, or along with, soil for final surfacing in reclamation, the operator must demonstrate that the material (1) is at least as capable as the soil of supporting the approved vegetation and subsequent land use, and (2) the medium must be the best available in	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				the area to support vegetation.				
		14.	ARM 17.24.711	Requires that a diverse, effective and permanent vegetative cover of the same seasonal variety and utility as the vegetation native to the area of land to be affected must be established.	**X**		**X-RA**	
		15.	ARM 17.24.713	Seeding and planting of disturbed areas must be conducted during the first appropriate period for favorable planting after final seedbed preparation but may not be more than 90 days after soil has been replaced.	**X**		**X-RA**	
		16.	ARM 17.24.714	Mulch or cover crop or both must be used until adequate permanent cover can be established.	**X**		**X-RA**	
		17.	ARM 17.24.716	Establishes method of revegetation.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		18.	ARM 17.24.717	Relates to the planting of trees and other woody species if necessary, to establish a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the affected area and capable of self-regeneration and plant succession at least equal to the natural vegetation of the area, except that introduced species may be used in the revegetation process where desirable and necessary to achieve the approved land use plan.	**X**		**X-RA**	
		19.	ARM 17.24.718	Requires soil amendments, irrigation, management, fencing, or other measures, if necessary to establish a diverse and permanent vegetative cover.	**X**		**X-RA**	
		20.	ARM 17.24.721	Specifies that rills or gullies in reclaimed areas must be filled, graded or otherwise stabilized and the area reseeded or replanted if the rills and gullies are disrupting the	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				reestablishment of the vegetative cover or causing or contributing to a violation of water quality standards for a receiving stream.				
		21.	ARM 17.24.723	States that operators shall conduct approved periodic measurements of vegetation, soils, water, and wildlife during the period of liability.	**X**		**X-RA**	
		22.	ARM 17.24.724	Specifies that revegetation success must be measured against more than one approved unmined reference area or by comparison with technical standards from historic data.	**X**		**X-RA**	
		23.	ARM 17.24.726	Requires standard and consistent field and laboratory methods to obtain vegetation production, cover, diversity, density and utility data, and sets out the required methods for measuring and documenting productivity.	**X**		**X-RA**	
		24.	ARM 17.24.728	Sets performance standards for native species and introduced species in	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				revegetated areas.				
		25.	ARM 17.24.730 and 17.24.731	Provide that the revegetated area must furnish palatable forage in comparable quantity and quality during the same grazing period as the reference area or as compared to a technical standard derived from historic records.	**X**		**X-RA**	
		26.	ARM 17.24.733	Provides performance standards for composition and stocking of trees, shrubs and half-shrubs on the revegetated area and for measurement of revegetation success.	**X**		**X-RA**	
		27.	ARM 17.24.751	Measures to protect and enhance fish and wildlife habitat will be employed.			**X-RA**	
		28.	ARM 17.24.824	If land use is to be other than grazing land or fish and wildlife habitat, areas of land affected by mining must be restored in a timely manner to higher or better uses achievable under criteria and procedures set forth.	**X**		**X-RA**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
		29.	ARM 17.8.220	Ensure that existing air quality will not be adversely affected by remedial action. Settled particulate matter shall not exceed a 30 day average of 10 grams per square meter.	**X**		**X-A**	
		30.	ARM 17.8.222	The concentration of lead in ambient air shall not exceed a 90 day average of 1.5 micrograms per cubic meter of air.	**X**		**X-A**	
		31.	ARM 17.8.223	The concentration of PM-10 in ambient air shall not exceed a 24 hour average of 150 micrograms per cubic meter of air and an annual average of 50 micrograms per cubic meter of air.	**X**		**X-A**	
		32.	ARM 17.8.308	There shall be no production, handling, transportation, or storage of any material, use of any street, road, or parking lot, or operation of a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particles. Emissions shall not exhibit an	**X**		**X-A**	

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				opacity exceeding 20% or greater averaged over 6 consecutive minutes.				
		33.	ARM 17.8.304(2)	Emissions into the outdoor atmosphere shall not exhibit opacity of 20% or greater averaged over 6 consecutive minutes during construction..	**X**		**X-A**	
		34.	ARM 17.24.761(2)(a), (e), (h), (j), and (k)	Fugitive dust control measures such as 1) watering, stabilization, or paving of roads, 2) vehicle speed restrictions, 3) stabilization of surface areas adjoining roads, 4) restriction of travel on other than authorized roads, 5) enclosing, covering, watering, or otherwise treating loaded haul truck, 6) minimizing area of disturbed land, and 7) revegetation, must be planned and implemented, if any such measure or measures are appropriate for this remedial action.	**X**		**X-A**	
		35.	Noxious Weeds (MCA 7-22-2101(8)(a)) (ARM § 4.5.201, et seq.)	Designated noxious weeds must be managed consistent with weed management	**X**			

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
				criteria.				
J.		Surface Water	(ARM 17.30.637)	Prohibits discharges containing substances that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; or (e) create conditions which produce undesirable aquatic life.	**X**	**X-A**		

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Reference				Reasons	Media		ARAR[1]	TBC
					Soil	Water		
K.		Montana Department of Environmental Quality Public Water Supply Circulars	Circular DEQ-*1 Standards for Water Works*, (February 2006), Circular DEQ-2 *Design Standards for Wastewater Facilities*, (1999) and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition)	These circulars contain standards, such as capacity, size, and location determinations, for water and wastewater systems design.				**X**

Notes:
ARAR - applicable or relevant and appropriate requirement for the remedial action
TBC - other criteria or guideline to be considered for the remedial action
Abbreviated regulatory codes:
USC - United States Code
CFR - Code of Federal Regulations
ARM – Administrative Rules of Montana

Appendix B

Individual and Public Responsiveness Summary

Don Reimer

11/30/2007

Mike Bishop
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U.S. EPA, Montana Office
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Helena, MT 59626
Susan Bodine
Office of the Assistant Administrator of OSWER
(5101T) EPA West Building
130 Constitution Ave, NW
Washington, DC (20004)

Subject: Comments on the Proposed Plan, Upper Tenmile Creek Mining Area Site, Lewis and Clark County, Montana

Dear Mr Bishop, and Ms Bodine:

In 2003 the Rimini Water and Sewer District (RWSD) was established as a political subdivision of Lewis and Clark County, Montana. The District was formed at the behest of the EPA to ensure a legal, local entity was in place to assume ownership and management of the community water and wastewater treatment facilities planned for in the 2002 EPA Record of Decision (Upper Tenmile Superfund Site). Since its formation, the Rimini Water and Sewer District Board of Directors and members have met monthly to establish by-laws, ordinances, and operating procedures in anticipation of eventually taking over responsibility for the planned systems.

Prior to the release of the proposed amendment to the 2002 ROD the District communicated with the EPA Remedy Review Board and provided background information regarding the requirements for a viable community water and wastewater infrastructure. A copy of that letter dated May 23, 2007 is included as an attachment to this correspondence. The District concluded that both water and wastewater treatment facilities would be necessary to achieve EPA's

human health and environmental protection goals; to meet State and County public health regulations; and to be affordable and viable. The proposed 2007 ROD amendment does not meet those conditions.

After the release of the proposed amendment to the 2002 ROD, District property owners actively supported the implementation of the EPA remedy actions. In good faith, District property owners allowed the EPA to conduct yard remediation activities that in some cases cause damage to private septic systems. As a result, in addition to health and environmental issues, property owners are now facing possible enforcement action from the County and personal liability as a consequence of their cooperation with the EPA's previous decisions and actions. The proposed ROD amendment does not account for the conditions that have changed as a result of partial completion of the 2002 ROD, and it does not provide scientific evidence to support the assumption that equivalent protection to human health and the environment will be accomplished. If fact, it is possible that the health of District residents and our environment has been further compromised by these remediation activities.

A detailed documentation of these and other deficiencies in the proposed 2007 ROD amendment have been provided by Steve Ackerlund, the technical advisor for Rimini Community Incorporated (RCI). The Rimini Water and Sewer District Board endorses his assessment and that of the Lewis and Clark County Water Protection District. We encourage the EPA to withdraw the currently proposed ROD amendment and begin immediately collaborating with the District, and State and local officials to provide realistic actions that will meet the human health and environmental goals of the 2002 ROD.

The Upper Tenmile was proposed for the EPA National Priorities List in 1999. From that time to the present, members of the District have

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs did not result in a substantial reduction of Superfund program–regulated wastes risk to public health and the environment.

EPA will continue to work with the District and Lewis and Clark County to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems. EPA recommends that property owners work with Lewis and Clark County to resolve this issue.

Comment noted.

provided the highest level of cooperation with the EPA in meeting our common objectives for human health and the environment. We sincerely hope for the opportunity to continue this support. The Rimini Water and Sewer District Board meets at 6:30pm, the second Tuesday of every month in the Rimini Community Center. EPA representatives are invited to contact us and schedule to be included on our upcoming meeting agenda to discuss alternative actions. Thank you for the opportunity to comment.

Sincerely,

Don Reimer, President

Rimini Water and Sewer District

Board of Directors

Don Reimer

11/08/2007

Mike Bishop, EPA Project Manager
US Environmental Protection Agency
10 West 15th Street, Suite 3200
Helena, MT 59626

RE: Proposed Plan, Upper Tenmile Creek Mining Area Sit

Dear Mr. Bishop,

The Rimini County Water and Sewer District (District) request the data supporting the EPA's Comparison of ROD Selected Remedy and August 2007 Cost Estimates, Upper Tenmile Creek Mining Area Site, Community of Rimini. Specifically the district request copies of bids, design estimates, assumptions, and other data that will assist us in evaluating water and wastewater service alternative and in preparing comments on EPAs Proposed Plan, Upper Tenmile Creek Mining Area Site, Lewis and Clark County, Montana. The District appreciates your prompt attention to this matter.

Sincerely,

Don Reimer, Chair
Rimini County Water and Sewer District
PO BOX 1114
Helena, Montana 59624

EPA selected the preferred alternative using the balanced selection criteria outlined in the NCP and defined in the Proposed Plan. The community acceptance is only one part of this evaluation. The first two criteria, overall protectiveness of human health and the environment and compliance with ARARs are the minimum standard a selected alternative must meet. The selected remedy meets both of these criteria.

The Corps of Engineers (Corps) provided a value engineering assessment of the preferred alternative costs to insure these costs were reasonable and the approach to both design and costing were effective. These Corps suggestions were incorporated into the cost estimates used in evaluation of selection of the preferred alternatives and selection of the remedy.

Both the ARARs analysis and the revised cost estimates are included in the final ROD amendment.

Alicia Russell

10/11/2007

Dear Mr. Bishop,

As an American taxpayer, I am opposed to the EPA's wasteful spending in the Ten Mile area of Rimini Montana, and specifically to the $4.45 million community water system that is proposed for the smaller number of full time households in Rimini.

It is immoral that an agency created to safeguard human life against man-made toxic conditions in the environment, should spend what is an absurd amount of money on a project of this nature, when people in Libby, Montana are dying from asbestos and EPA's efforts there are hampered for lack of funds.

Comment noted.

EPA made a wise decision to halt community-sewer construction. Now it should simply make another wise decision and simply install in-home reverse osmosis systems for those in Rimini who "need" it.

I urge you to reconsider to the judiciousness of the $4.45 million dollar community water system in Rimini.

Sincerely,

Alicia Russell

Ron and Vivian Banschbach
10/22/2007

We are still in support of both the promised water and waste water treatment systems for Rimini as we believe it is the environmentally conscientious action to take to protect the integrity of the watershed which supplies more than 50% of Helena's water and to also protect the health of all persons who receive their water from the Rimini are watershed.

We request that the EPA reconsider its decision not to provide both the promised wastewater treatment and water systems and complete the wastewater system which it has already stared constructing.

Sincerely,

Ron and Vivian Banschbach

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

Taylor Bernard

11/22/2007

Dear Mike Bishop,

In Rimini, MT, I am opposed to the construction of the community water system. As a taxpayer, I have concerns and questions arising from articles I have read.

These residents have made a choice to live there. An affordable means (reverse osmosis), is available to protect and filter the drinking water. Contrarily, the expense (C>H = W), of a community water system far exceeds the value of the homes- thus equating into excessive, wasteful, if not ridiculous. Is Rimini really a community?

Also I'm concerned about the EPA's mission. There are limited resources (taxpayer's money). Can the EPA be objective? Is the EPA capable in the oversight's of these resources – using it "where needed"?

Being a contributor, I do not support a million dollar water system in Rimini, a ghost town.

Sincerely,

Taylor Bernard

As current water sources in Rimini contain metals at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

Melanie Reynolds MPH
David Krainacker MD
11/30/2007

Mr. Mike Bishop
U.S. EPA, Federal Building
10 West 15th Street, Suite 3200
Helena, MT 59626

Subject: Comments on the Proposed Plan for Upper Tenmile Creek Mining Area Site

Introduction and Purpose

The Lewis & Clark City-County Board of Health (BOH) and City-County Health Department would like to thank the United States Environmental Protection Agency (EPA) for this opportunity to comment on the "Proposed Plan for Modification of ROD for Upper Tenmile Mining Area Superfund Site" (Plan). The City-County Health Department administers the Lewis and Clark County On-Site Wastewater Treatment Regulations and has worked with the Rimini community on issues related to drinking water quality and wastewater disposal for over 30 years. Similarly, we have worked with the EPA and the Montana Department of Environmental Quality (DEQ) on related issues since the inception of the upper Tenmile Superfund site. The BOH has been involved in several discussions and informal sessions with residents, EPA and DEQ about the Upper Tenmile Superfund site over the past several years. The intention of our review of the Proposed ROD Modification is to provide substantive comments reflecting the BOH's mission to improve and protect the long-term health of residents in our communities.

We would like to highlight three key foundations of our proposition concerning the Plan and remedy selection and implementation for the Upper Tenmile site:

- Actions taken in Rimini should be based on a watershed approach with the support of all stakeholders, including the EPA, DEQ, Lewis and Clark County, the City of Helena and, to the extent practicable, the residents of Rimini.

- Our preferred course of action is to implement the elements of the 2002 ROD, as originally prepared and approved by EPA with State of Montana concurrence.

- If the 2002 ROD has become impracticable to implement, EPA should work with the stakeholders to identify alternatives that can be implemented and are financially and environmentally sustainable.

We have organized our comments to follow the order of the major topics as they appear in the Plan. Our comments address the scope of the Plan, the community water system, the community wastewater system, road remediation and compliance with applicable or relevant and appropriate requirements (ARARs). Each section begins with a general discussion of our position and preferences, followed by more detailed discussion of points of concern. A list of questions we would like EPA to publicly address concludes our comment letter.

Scope of the Proposed Plan

The BOH wishes to better understand EPA's intent with respect to which specific remedy components will be completed and which will not. The 2002 ROD remedy components include waste rock and tailings, acid mine drainage, groundwater, surface water and stream sediments in the Upper Tenmile Creek watershed. EPA has already made significant progress within the watershed to complete these portions of the remedy, but substantial work remains. These elements are not addressed in any form of the Plan.

Paragraph one of the Plan, Introduction, reads, "*The proposed plan does not re-evaluate the other*

2002 remedy components, which address waste rock and tailings, acid mine drainage, groundwater, surface water, and stream sediments in the upper Tenmile Creek watershed."

It is our impression from the above statement that EPA will complete the remedy for these elements in conformance with the 2002 ROD. If, however, it is EPA's intention to discontinue or modify the selected remedies for these elements then a clear description of any changes should be disseminated for public review. The BOH strongly supports completion of the intent of the 2002 ROD in removing hazardous waste and tailings and actions that will lead to watershed restoration. To fail to complete this component of the remedy would not be protective of public health or the environment and would impair water quality throughout the watershed.

Wastewater Treatment System

The BOH disagrees with EPA that halting the construction of the community wastewater system is a "preferable" alternative. The BOH is required by 50-2-116. Montana Code Annotated, to "*…adopt regulations no less stringent than those in Title 17, Chapter 36, Sun-Chapter 9 of the Administrative Riles of Montana (ARM)*, " for regulating the treatment and disposal of wastewater, and the design, construction, use, alteration, or maintenance of on-site wastewater treatment systems within Lewis and Clark County.

The EPA evaluated this option (for a community wastewater system) in the 2002 ROD and determined that it would achieve overall protection of human health, be in compliance with applicable or relevant and appropriate requirements (ARARs), have long-term effectiveness and permanence, reduce health hazards through treatment and be implementable. Our review of the Plan indicates that the community wastewater system would still achieve all of these important remedy selection considerations. Indeed, EPA has already spent $1.6 million to

The Proposed Plan and ROD amendment only address the portions of the 2002 ROD remedy that pertain to the community or Rimini. EPA's waste rock removal and adit source control measures outlined in the 2002 ROD are scheduled to begin in 2009.

construct a community wastewater system, so the reduced future costs would provide even greater rationale to retain this component of the remedy.

EPA's preferred alternative to abandon the community treatment system and install individual systems on a case-by-case basis ignores threshold and balancing criteria in accordance with the federal regulations in the National Oil and Hazardous Substance pollution Contingency Plan (NCP) 40 CFR Section 300. Criteria #1 and #2 are considered threshold criteria by EPA and are given more weight in the decision-making process. Criteria #3 through #7 are considered balancing criteria and given less weight. Criteria #8 and #9 are considered modifying criteria by EPA. We have questions and comments with respect to EPA's conclusions for many of these criteria.

1. ***Overall protection of human health and the environment (Criteria #1).*** EPA's preferred alternative does not provide overall protection of human health and the environment. In the 2002 ROD, EPA notes, "Many of the existing septic systems in Rimini are located near Tenmile Creek or in the 100-year floodplain and cannot be replaced in compliance with current design standards." (Page 9-26). This conclusion is still correct, yet the preferred alternative would ignore current design and siting standards and replace damaged individual wastewater systems. Constructing wastewater treatment systems of unknown design in floodplains, in floodways, in areas of shallow groundwater, and within 100 feet of surface water and wells is not protective of human health or the environment. Individual wastewater treatment systems in these locations contaminate groundwater and surface water by adding nutrients, pathogens

State public water supply circulars containing substantive requirements for both water and wastewater systems have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini.

and other components of human waste.

On the other hand, a community wastewater treatment system would provide public and environmental health protection to every user of Tenmile Creek and all downstream users of surface and groundwater. The disposal field would be located outside the floodplain, at a distance of greater than 100 feet to all wells and to Tenmile Creek, and in an area where groundwater is deeper than two to four feet commonly found in Rimini, The community system would provide a much greater level of protection by enhanced nutrient reduction relative to individual replacement systems (of unknown design; EPA has not defined the level of treatment that replaced systems would achieve) with greater depth of soil for contaminant absorption and biological degradation.

EPA's proposal to replace poorly sited systems with newer, poorly sited systems is irresistible and will result in continued contamination of groundwater and surface water. Further, individual systems do not provide, "*…the same level of protectiveness…*" (Plan, page 7) as a community system, because the individual systems are located sometimes within inches of groundwater, less than 100 feet from surface water and domestic wells, and within floodplains and/or floodways. The community system provides a higher level of protection, not only to Rimini residents but also to aquatic life and all recreational users of the creek and other downstream water users. Therefore, the BOH supports the construction of the community wastewater system to provide treatment for those systems EPA has

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

Nutrient reduction is not part of Superfund cleanup criteria. The criterion of overall protection of human health and the environment applies to actual and potential risk from uncontrolled releases of hazardous substance as defined in CERCLA. This risk reduction results form the removal of contaminated yard soils. Therefore, since the soil removal re the same under each alternative, the alternatives are equally protective under Superfund.

damaged in its yard soil removal activities.

2 ***Compliance with applicable or relevant and appropriate requirements (ARARs) (Criteria #2).*** EPA has presented a list of ARARs for the Rimini area on page 10 of the Plan. Our comments address gaps in EPA's application of ARARs to this site.

EPA's preferred option to repair and replace damaged individual, on-site wastewater treatment systems on an as-needed basis neglects consideration of the Montana Water Quality Act and the Montana Groundwater Protection Rules. The BOH has adopted and enforced the Lewis and Clark County On-Site Wastewater Regulations under Title 50, Chapter 2 that mandates local boards of health to regulate the disposal of sewage not otherwise regulated by state. Further, local boards may be no less stringent than Title 17, Chapter 36, Subchapter 9 of the Administrative Rules of Montana (intended to implement the requirements of the Sanitation in Subdivision Act (Title 76, Chapter 4) and the Water Quality Act (Title 75, Chapter 5).

EPA's preferred alternative fails to consider or conform to these ARARs. EPA's preferred alternative places the owners of wastewater treatment systems in conflict with local government by damaging and then repairing or replacing systems in violation of state and local regulations. Local wastewater regulations require individuals to site and operate their systems in accordance with accepted public health standards, developed in accordance with ARARs identified by EPA itself.

Current design standards are based on

The selected remedy presented in the ROD amendment is compliant with all ARARS. State public water supply circulars have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini.

Sewage is not a Superfund regulated waste.

EPA's own recommendation for the protection of human and environmental health. That the agency ultimately responsible for setting standards for health protection nationally would disregard their own criteria damages EPA's credibility as well as the credibility of the agencies that implement EPA guidelines locally, including the State of Montana and Lewis and Clark County.

EPA also provides inaccurate consideration to Section 303(d) of the Clean Water Act and the TMDL program. The BOH asks EPA to consider that both the State of Montana and the EPA were taken to task by a federal judge who stated that TMDLs must be established in Montana and that the, "…Clean Water Act be honored so far as possible after twenty years of neglect." (Friends of the Wild Swan, Inc., et al., vs. U.S. Environmental Protection Agency and the State of Montana, Case number CV97-35-M-DWM). EPA's proposed plan continues that neglect by failing to address wastewater disposal in Rimini in concert with TMDL requirements.

EPA continues to work with the District and Lewis and Clark county to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

Representatives of EPA Superfund have informed Lewis and Clark County and the City-County Health Department the TMDL program is a separate entity from the Superfund program. This is irrelevant. The TMDL for the Lake Helena watershed, including protection of Tenmile Creek, is mandated through the Clean Water Act, and EPA has acknowledged the Clean Water Act is an ARAR for this project. The goal of the Clean Water Act programs is to improve the nation's waters. If the Clean Water Act is legitimately considered by EPA to be an ARAR for this project, and if EPA wishes to encourage local government

TMDL nutrients and biological contaminants are not regulated under Superfund.

to "voluntarily reduce pollution," then EPA should set a leading example in the Tenmile watershed.

3. ***Long-term effectiveness and permanence (Criteria #3).*** The BOH disagrees with EPA that the proposed individual system replacement and a community treatment system offer the same long-term effectiveness and permanence. It should be obvious that a wastewater treatment system sited away from surface water, outside of floodplains, and well above shallow groundwater would be more effective in providing reliable protection of human health and the environment over time than individual systems sited in floodplains, areas of shallow groundwater, or within 100 feet of streams and wells. In fact, systems sited in locations that may be saturated for portions of the year, such as areas of shallow groundwater or within floodplains, would be expected to have reduced life spans relative to a properly sited system.

   Removal of contaminated yard waste is a permanent and effective solution to contaminated yard waste exposure. Completion of the community water system, which the Rimini Water and Sewer District will maintain, is a long term and permanent solution to contaminated drinking water exposure.

   Additionally, EPA has already performed work on some properties that required the use of heavy equipment. The heavy equipment causes soils compaction and reduces their ability to effectively treat wastewater. In some cases, this activity has damaged systems and the BOH has reports from residents that there are system failures because of the remedial construction. Replacing individual systems in damaged soils greatly reduces treatment capability, effectiveness and lifespan of systems,which rely on natural, unaltered soils to work effectively.

   EPA will repair all damaged systems.

4. ***Reduction of toxicity, mobility, or volume through treatment (Criteria #4).*** The BOH disagrees with EPA that

individual systems sited in shallow groundwater with inadequate setbacks to surface water and wells, and within the floodplain would offer the same protectiveness of a system located away from these features. In particular, the BOH believes that the mobility of contaminants from human wastewater in an area of shallow groundwater is much higher than it would be for a system located in an area where groundwater is higher in depth. Further, we believe that having greater unsaturated soil depth will reduce toxicity, as would be the case at the existing proposed drainfeild site by allowing adequate time for virus and bacteria to be attenuated or destroyed, and by allowing plant-uptake of nutrients. The two alternatives are not equivalent.

Neither the repair/replacement of individual systems nor the community wastewater systems meet this criteria as they do not provide treatment.

There is another, indirect consequence of EPA's proposal to repair or replace damaged, individual wastewater treatment systems. We believe that EPA's contractors will be overly conservative when working in residential property so as not to disturb or damage septic tanks, drainfields and wastewater piping. This means that soils with unacceptably high concentrations of metals that should have been removed in accordance with other remedy elements will remain in place near wastewater systems.

EPAs contractor will removal all contaminated soils within a yard to clean up levels regardless of septic tanks or drainfields. Any individual systems damaged during the excavation activities will be repaired or replaced.

5. ***Cost (Criteria #7).*** EPA is required to evaluate the estimated capital and/or operation and maintenance costs in comparison to other equally protective measures. The BOH does not believe that the preferred alternative, the replacement of individual systems on an as-needed basis, has been adequately assessed in terms of cost.

Cost estimates and more detailed cost backup information are provided in Section 4 and Appendix C of the ROD amendment. These costs included capital and operation and maintenance costs for a community water system.

EPA has not included a cost analysis in

the Plan that allows the public to independently evaluate and compare the remedies, or that would substantiate EPA's conclusions. For example, what is the post-remediation cost to residents who must respond to county actions concerning repaired or replaced wastewater systems? Residents in violation of state and county siting rules may incur legal costs to defend their new systems, and pay penalties for non-compliance. It is likely they would have to expand their own funds to bring their systems into compliance with wastewater regulations, possibly including the cost of new systems that provide a greater level of treatment. For example, because EPA's actions during yard removal have altered the properties of the soils in the area, the county would require more expensive, engineered systems. State and county regulations both require specialized systems when sited in fill materials because they are less stable than native soils, and because there is an interface created between the natural soil and the fill material that can cause surfacing of sewage.

EPA has also not included the costs the Lewis & Clark County Government would incur attempting to require, implement, and enforce the wastewater treatment regulations for individual systems in Rimini if a public treatment facility is not installed.

EPA has also not included the cost of operation and maintenance of either the community wastewater system or more expressive, individual systems. It is impossible to evaluate the two alternatives with respect to cost based on the sparse information EPA has provided.

6. ***Community acceptance (Criteria #9).*** During the public meeting held October 24, 2007 in Rimini, not one of the 18 speakers supported the proposed plan. Of those 18, seven spoke in support of retaining the 2002 ROD intact and 13 spoke in support of finished the construction of the community wastewater system.

   BOH agrees with this majority. We believe that the best alternative is to revert back to the 2002 ROD and complete all work that was identified at that time. We believe that EPA should deliver on its original agreement to build a community system, since it has damaged numerous systems and altered the soils at the site to make replacing those systems even more difficult. BOH believes that there is no community support for the 2007 Plan, as evidenced by public comments and personal communication with residents.

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

Road Remediation

EPA plans to address road waste by excavating, transporting and disposing of contaminated roadway material as originally stated in the 2002 ROD (Plan, page 7). The BOH supports this decision. We believe it is of crucial importance to practice dust control during any roadway soil removal activity to prevent air contamination and potential inhalation exposure to both residents and workers during construction activities.

Dust suppression will be part of the Rimini Road remediation design.

The BOH is concerned that EPA has not clearly outlined a work plan that will phase construction activities so that water lines and wastewater lines are installed one time for cost efficiency, and with no subsequent trenching or other potentially damaging construction. Cost estimates distributed by EPA indicate that the cost of laying the distribution main and service connections ($285,285) for the community water system were counted

EPA has evaluated many approaches to completion of the Rimini Road remediation. Finding the most cost effective method of phasing tasks will be part of the final design process.

separately from the cost of laying community wastewater sewer main (&353,251). By performing these tasks simultaneously, overall costs would have been considerably lower. The BOH believes that EPA should reevaluate cost estimates for the community wastewater system using a more practical work plan that avoids doubling excavation costs.

Water System

The BOH agrees with all parties that a community water system would provide the highest level of public health protection, eliminating potential exposures to high levels of arsenic and other metals in some residential wells, and offering a source of clean water to other residents whose wells could become contaminated in the future. Unfortunately, the EPAs preferred alternative, to construct a surface water supplied community drinking water system, is a potentially unsustainable venture due to the high costs of operation, maintenance, and compliance with ever-changing rules and regulations for such systems.

EPA has not substantiated in the Plan the costs for this element of the remedy. For example, EPA estimates an additional cost of $4,450,000 to construct a water system to provide drinking water to an estimated 45 people. This cost (about $100,000 per person) does not include long-term operation and maintenance costs nor does it include the cost to either the State of Montana or Lewis and Clark County for institutional controls to "prohibit use of contaminated groundwater for drinking water," (Plan, page 5). Furthermore, costs for construction are not clear, and based on the information provided, it is impossible to determine whether construction will be done concurrently with roadwork, or separately. This detail can greatly affect the overall costs and must be clearly explained. EPA also does not address operation and maintenance costs and institutional control costs for either of the non-preferred options, point-of-use water

Cost projections for a community water system O&M indicate that monthly costs will be approximately $72 per month per hookup (for 25 total hookups), $60 per month per hookup for 30 connections, and $51 dollars per month per hookup for over 35 connections.

treatment (POU) and point-of-entry water treatment (POE). It is not possible to make an informed decision with this data.

We don't understand EPA's statement on page 4, column 2 of the Plan, last full paragraph from bottom, that EPA only considered capital costs of alternatives because the remedies will be constructed in one or two years, and EPA cannot fund O&M activities. This apparent contradiction from EPA guidance and statute needs further explanation from EPA. The remedy evaluation criteria established by the National Contingency Plan include criterion #7, Cost, as the estimated capital and/or operation and maintenance (O&M) costs. Since the point-of-entry treatment system provides equal protection, a comparison of the costs should also be included.

The ROD amendment presents a present worth cost analysis.

In addition, community system costs should be based on full present worth, not only because of the future O&M but also for other costs identified above, such as implantation of deed restrictions and well closures. And since the remedy is not likely to take only "one or two years" to implement (EPA's record of performance on the wastewater system should offer some perspective) the present worth costs become more important to the calculations.

City-County Health Department staff and the BOH have discussed the Plan with members of the Rimini community, including members of the water and sewer district. We have heard quite clearly they cannot afford the long-term operation and maintenance costs of the water system EPA proposes unless both the water and the community wastewater system are necessary to make the district economically feasible. This makes sense, as only a limited number of residents would need a new, clean water supply while a new community wastewater system would bring a substantial number of other residents into the long-term cost formula. The fears of the water and sewer board concerning future cost increases are so

great (naturally so, given EPA's history of under-estimating cost on this aspect of the project) that they have considered dissolving the district altogether.

Additional Questions

The BOH feels EPA should respond to our comments, above, and prepare a supplement to the Plan with further information for the public to consider. Officials and staff with Lewis & Clark County, including the Health Department's Environmental Services Division, have informed EPA and DEQ of a willingness to work collaboratively to develop a satisfactory solution to these problems.

The following questions should also be answered by EPA before a remedy is selected or the Plan is modified.

1. What are the estimated costs for operation and maintenance of a surface water treatment system over a 20-year period? How do these costs compare to the operation and maintenance cost of Options B – POU systems, and C _ POE systems?

These costs are presented in the ROD amendment

2. What institutional controls does EPA propose to prevent individuals from drinking contaminated groundwater and to prevent further degradation of the groundwater resources and the water quality of Tenmile Creek? Has EPA had recent discussions with an agency about the form the institutional controls would take, who would be responsible for the institutional controls, and what the cost of those controls would be over a 20-year period? How would institutional controls be funded, including staffing resources?

Deed notices are the only possible institutional controls in an unincorporated area without zoning or building permit ordinances, such as Rimini.

3. Will the other 2002 remedy components, which address waste

rock and tailing, acid mine drainage, groundwater, surface water and stream sediments in the upper Tenmile Creek watershed continue to be addressed as originally outlined in the 2002 ROD or will EPA discontinue these efforts after addressing seven of the originally proposed 70 mines?	Yes, EPA is planning to begin work on waste rock removal and adit source control measures in 2009.
4. Is EPA willing to work with Forest Service and with state and local government to look at options for transferring the partially completed wastewater ownership to the county or the water and sewer district? Will EPA allow the infrastructure and land to transfer to local ownership, with Forest Service approval?	EPA would evaluate any proposals made by Lewis and Clark county as well as the Rimini Water and Sewer District.
5. Will EPA be willing to offer technical or financial support for local efforts to finish the wastewater system? Would EPA be willing to contribute the $200,000 estimated cost for removing the existing wastewater treatment system infrastructure to an escrow account to provide financial support?	
6. How will EPA address the issue of damaged septic systems, compacted soils and septic system siting concerns that the BOH has raised? Will EPA commit to working closely with the BOH and Health Department Staff to insure compliance with state minimum standards for the design and siting of septic systems if the Plan is approved as written? How?	EPA continues to work with the District and Lewis and Clark county to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

Please do not hesitate to contact Melanie Reynolds at 457-8910 should

you have any questions concerning our comments, or to discuss future deliberations for this important decision.

Sincerely,

Melanie Reynolds
Health Office
Lewis & Clark City-County Health Department

David Krainacker, M.D.
Chair
Lewis & Clark City-County Board of Health

Bret Boundy

11/12/2007

Mike Bishop
US EPA
10 West 15th St, Suite 3200
Helena, MT 59626

The EPA should no build a 4.5 million dollar community water system in Rimini. Yes, it was part of the original Record Of Decision, but with a price tag 15 times higher than it was when that decision was made, I can't believe the 2002 R.O.D. is even applicable anymore. Besides, after watching this project change every year for the last five years, any proposal on paper is just a work of fiction to me anyway. What are the odds that a water system will actually cost 10 million dollars and it will then be torn our just before it is complete?

EPA has recognized significant differences between cost estimates for the selected remedy as presented in the 2002 ROD and current cost estimates for completion of the Rimini Road remediation tasks and the community water systems. The cost estimates prepared during the FS and used in the 2002 ROD were prepared using the *Guidance for Conducting Remedial Investigation and Feasibility Studies under Comprehensive Environmental Response Compensation and Liability Act (CERCLA)* (EPA 1988) and *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (EPA 2000). Due to the nature of the FS process, costs estimates for potential alternatives are generally prepared based on conceptual designs for each alternative. These conceptual designs are based on rough layouts of the treatment components for each alternative. Conceptual designs only include rough order of magnitude sizing criteria based on an estimated volume of waste to be addressed. Individual components, such as tank sizes or pipeline diameters, are not specified until the detailed design phase of a remedial action. Therefore, EPA guidance requires that costs for these conceptual designs be developed using industry standard estimating tools.

The community water system has always been the part of this project that has the least to do with the welfare of the public at large. The quality of water in my house doesn't affect anyone in Helena and it doesn't affect the fish in Tenmile Creek. Spending millions of dollars so that I won't have to change a filter or because I might not want to buy bottled water is an over-the-top effort to baby-proof the world with money we don't have.

As current water sources in Rimini contain metals at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

The wastewater system, on the other hand, is the one thing that actually does affect the public, both in Rimini and everyone living downstream. The wastewater system appeared to be the one thing that the City, County, and State all had a vested interest in because of public health of others. In this town of Rimini, surrounded by public land in a water shed above Helena, I can accept that my freedom to choose any wastewater system I want is limited, but for five years, the EPA and the county have given me absolutely NO option. I can tolerate some of the inefficiency, bureaucracy, and political wrangling that foes along with life in a civilized, semi-democratic republic, but this project has finally crossed the line into pure insanity.

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

This project needs to be pruned so it can be finished, and a 4.5 million dollar water system designed to supply 50 people, for which work has not even begun, seems like a good place to start cutting. The wastewater system, which is completed except for the piping to the houses, should be the part the EPA finishes. Tearing it out doesn't serve the taxpayers, the community, or the watershed.

Bret Boundy
3381 Rimini Rd
Helena, MT 59601

Michaelene Brown

10/22/2007

Mike Bishop
EPA Assistant Regional Administrator
EPA Region 8 Office
1595 Wynkoop St
Denver, CO 80202-1129

Dear Mr. Bishop,

We would like to comment on the proposed amendment to the 2002 Record of Decision for Rimini.

We strongly disagree with the EPA conclusion that the preferred alternative provides the same level of protection to public health as the original ROD.

The EPA came to our community with a mandate to removed hazardous waste from properties located in Rimini. We were told that the EPA would build a wastewater system since the disturbance of individual septic systems would be unavoidable given that many property owners weren't sure of exactly where the systems and their drain fields were located. EPA insisted that they needed to excavate as much of the property as the residents would allow in order to remove the health hazards posed by soils laden with heavy metals.

Prior to selection of waste excavation coupled with the repair and replacement of existing individual waste treatment systems as the proposed remedy, this action was evaluated against the NCP threshold criteria for both overall protectiveness of human health and the environment and compliance with ARARs Then, the proposed action was comparatively evaluated against the 2002 ROD proposed remedy using these criteria. The results of this comparative analysis showed the proposed remedy outlined in the ROD amendment to be as protective as the remedy proposed in the 2002 ROD for heavy metals and other hazardous contaminants regulated under CERCLA.

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

The EPA actually constructed part of the proposed community sewer system. This led residents in the community to believe that excavation of their properties and the possible risk to their septic systems would be acceptable since there would be a community waste water system to hook up to IF EPA damaged the septic systems. EPA assured homeowners that they would replace the systems "as good or better" than they found the systems, never explaining that Lewis and Clark County would no longer recognize the "grandfathered system" once it was altered.

The EPA requested that the Rimini Community create a water and sewer district in preparation for ownership of the completed systems. The Lewis & Clark Commissioners approved the formation of the District, an election was held and a board was formed.

During the remediation of the properties in Rimini, 13 septic systems were damaged or destroyed. In addition to the fact that these systems are now considered out of compliance with current Lewis & Clark County zoning regulations, the ground under these systems is still not remediated. Many lots could not be properly cleaned due to their size and the fact that the septic system occupied a large portion of the lot. Some systems have failed months after the completion of remediation due to damage from heavy equipment being driven across them. The EPA is now asking 20 property owners to risk having contractors come back on their properties to clean around the septic systems again in an effort to remove soils that were left by the EPA. Property owners now have to make the choice of protecting their grandfathered septic systems if they were undamaged during the remediation or keeping the contaminated soils that should be removed for the protection of public health.

EPA continues to work with the District and Lewis and Clark County to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems. EPA recommends that property owners work with the Lewis and Clark County health board to resolve this issue.

This proposed plan also places the Water and Sewer Districts in the precarious position of being unable to financially operate the water system since property owners may be unwilling to hook up to water if sewer is unavailable.

We would also like to comment on the EPA's position that the Rimini Community is divided over the installation of the systems. The community voted in support of the formation of the District by an overwhelming majority and that majority remains in favor of the water and waste water systems. This community has spent hundreds of hours weighing the pros and cons of many technical issues. They have struggled with the constant change of EPA construction plan, funding issued and politics. They have put their lives on hold waiting for the EPA to begin remediation of their yards and construction of a water and wastewater systems. Residents have attended hundreds of meetings educating themselves about the issues facing their community.

Rimini residents have also endured the mean-spirited, vicious personal attacks of six people who call themselves the Rimini Independents. Rimini residents who have participated in the remediation process or shown support for the completion of these systems have been attacked in news print as well as on signs placed in their neighborhoods. In spite of all of this the community remains overwhelmingly in favor of the completion of the originally proposed ORD. The community of Rimini has worked hard to make informed decisions and takes very seriously our commitment to supporting the removal of hazardous waste from the Upper Tenmile Watershed and assuming the operation and maintenance of the completed water and wastewater systems. We request that the EPA honor the promises made to our community.

Sincerely,

Michaelene Brown

3422 Rimini Road

Helena, MT 59601

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

November 8th, 2007

Don Reimer

Dear Mr. Bishop

The Rimini County Water and Sewer District (District) requests the data supporting EPA's *Comparison of Rod Selected Remedy and August 2007 cost Estimates, Upper Tenmile Creek Mining Area Site, Community of Rimini.* Specifically the district request
Copies of bibs, design estimates, assumptions, and other data that will assist us in evaluating water and wastewater service alternatives and in preparing comments on EPAs *Proposed Plan, Upper Tenmile Creek Mining Area Site, Lewis and Clark Country, Montana.* The District appreciates your prompt attention to this matter

Sincerely,

Don Reimer, Chair
Rimini County Water and Sewer District
P.O. Box 1114
Helena, Montana 59624

Cost estimates and more detailed cost backup information are provided in Section 4 of the ROD amendment.

Thomas Downing

Nov. 2, 2007

Re: Written Comments on Proposal Rimini Cleanup, and Community water and waste water systems

Mike,

I would just like to say that I am glad to see the road remediation and the community water system are still in the plans, I however feel that the community waste water system should also be included and finished at the same time as the road and water system are being worked on, it just makes sense to finish what has been started, and do it all at the same time. Thank you for your time.

Comment noted. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

Sincerely,
Thomas Downing
3604 Rimini Road

Kerry Dunn
10/09/2007

Kerry Dunn Kerry_Dunn@hotmail.com

To: Mike Bishop/MO/R8/USEPA/US@EPA

Subject: Plans for Water Treatment System in Rimini, Montana

Dear Sir,

As an American Taxpayer I oppose the plan to spend $4.45 million on a water treatment system for the 13 full time residents of Rimini, Montana that want it. That is an incredible waste of money and resources. If you must put in something I recommend in-home reverse osmosis systems that work great and cost considerably less. I'm pleased that the $4 million sewer treatment plant was halted, but the water treatment plant must be stopped or changed as well.

I appreciate your time and consideration in this matter.

Sincerely,

Kerry D. Dunn, Aurora, CO 80014

As current water sources in Rimini contain metals at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

Kirk and Cathy Eakin

12/03/2007

U.S. Environmental Protection Agency
Region 8 Montana Office
10 West 15th Street, Suite 3200
Helena, MT 59626

Re: Public Comments on ROD Amendment for Upper Tenmile Creek Mining Area Site

Mr Bishop:

We are not sure why the EPA Montana office had to waste more time and money on a ROD (Record of Decision) amendment since contingency plans for sewer and water were documented in the 2002 ROD. This just seems par for the course for this project, the more time and money spent the better for CDM and its contractors. Many of the Rimini residents have had enough of the EPA, with the possible exception of those residents getting new individual septic systems, EPA planted trees replaced with even larger EPA planted trees, and landowners having building sites excavated for them.

The comments heard at the public meeting in favor of a water and sewer system were from landowners that do not own a "flushable" toilet or own land without any structures to put the toilet. This is truly "BETTERMENT." The EPA should not be in the business of community betterment.

The EPA's number one concern should be cleaning up the mine waste left by historic mining in the Upper Tenmile drainage. In the 5 years or so that the Montana EPA have been working in Rimini, the mines in or near town have not been entirely remediated. In fact, the Susie mine is probably adding more contamination to Tenmile Creek now that before the EPA pilot study! How many more years is the EPA Montana office going to spend money working on the Lee Mountain Mine.

The Rimini project was never about human health risk. Every time I mention Rimini Road as

In Rimini, there is no evidence that current owners would reap a significant windfall as a direct result of EPA's expenditure of response costs, either from the soil cleanup or construction of the community water system. In addition, a safe drinking water source for residents (with contaminant concentrations reduced below the MCL) is required to address this exposure pathway and provide a protective remedy.

a health risk identified by the ASTDR, my concerns are dismissed by the EPA Montana office. The typical reply is that the ASTDR document is not correct. Isn't this the document that the EPA used to get the Rimini listed as a Superfund site. If the ASTDRE document is not correct, than maybe Rimini site should not have been listed as a Superfund site in the first place. It appears that the site may have been listed based on erroneous or fabricated health risk data. (You needed a human health risk to get the Rimini site listed).

Please refer to the response to the letter from Kevin Riordan, National Forest Supervisor.

I agree that the sewer system has nothing to do with Superfund and should be forgotten. The bridge over Tenmile Creek and all associated fill material should be removed from the Tenmile Creek floodplain and the road and drainfield area should be reclaimed to USFS specifications.

Forget about digging up the yards reclaimed by the EPA in 2006-2007 to remove the homeowners individual septic systems and the minuscule amount of potentially contaminated mine waste underneath these systems. This sounds like an attempt to keep this ill-fated project going for years, just keep re-doing everything every couple of years. Maybe you should jack up all of the houses in Rimini and replace the direct underneath because there might be some contamination under there.

EPA estimates that approximately 2,200 cubic yards of contaminated waste material remain in place over and under existing septic systems. Arsenic concentrations of this material ranged from 122 parts per million (ppm) to 1626ppm arsenic with an average concentration of 412 ppm. These concentrations of arsenic exceed the high end of the acceptable risk range outlined in the 2002 ROS, which corresponds to an arsenic concentration of 120 pp. If the contaminated waste material is not removed, the contaminated material left in place would average nearly 4 times this arsenic concentration.

Now, it is also time to forget about the community water issue. Enough time and money has been spent looking for a community water source. Everyone in Rimini has water, those with poor water quality could have their drinking water meet water quality standards by investing in water filters and a reverse osmosis system. Many self-sufficient Rimini residents have been providing safe drinking water to their homes way before the EPA came to town.

As current water sources in Rimini contain metals at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

First and foremost, Rimini Road should be reclaimed during the 2008 construction season since the Lewis and Clark County used mine tailings to reclaim the road after the 1981 flood. This path of exposure to heavy metals should be dealt with as soon as possible, especially since the contamination has been known about for so long.

Rimini Road was addressed in the initial 2002 ROD.

Mike, it's about time to get the Rimini project done. The EPA Montana office needs to stick to the original ROD and not get diverted again. Do NOT reclaim a subdivision (i.e. Landmark) that was not even mentioned in the original ROD> Do NOT count garages and shacks as households that need flushable toilets. Do NOT dig up EPA planted living trees and replace with larger trees at the whim of the landowners. Do NOT excavate building sites in the guise of needing fill material. And finally, Do NOT dig up reclaimed yards to remove a spade full of contaminated dirt from under individual septic systems.

Just provide reverse osmosis systems to those few households that truly need them, reclaim the sewer/drainfield area, reclaim Rimini Road, than please leave the community of Rimini, as you wore our your welcome a long time ago!

Kirk & Cathy Eakin
3440 Rimini Road
Helena, MT 59601

Cc: Mr. Stephen Johnson – EPA Washington
Ms. Susan Bodine – EPA Washington
Mr. James Woolford- EPA Washington
Ms. Carol Rushin – EPA Denver
Mr. Paul Peronard – EPA Denver
Ms. Eve Byron – Helena IR
Ms. Cathy Siegner – QCN

Chris Evans

10/30/2007

Mike Bishop
US EPA
10 West 15th Street, Suite 3200
Helena, MT 59626

RE: Upper Tenmile Creek Mining Area Site

Dear Mr. Bishop,

In regard to the above referenced project, the Lewis & Clark Conservation District would like to go on record in support of the Rimini Community Waste Water Treatment project.

We would like to see the project completed as originally planned. Going with the "preferred alternative" in halting construction of the community waste water system would leave the landowners with a mess in the Conservation District's opinion.

All other county residents are required to follow the county septic regulations and this totally defeats the purpose of those regulations. The Conservation District objects to halting the community waste water treatment system.

Please contact me with any questions at 449-5000 ext.12

Sincerely,
Lewis & Clark Conservation District
Chris Evans
District Administrator
CC: Water Quality Protection District

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

Rick Garrison

10/25/2007

Rick Garrison rimini@mt.net

To: Eve.byron@helenair.com

CC: Mike Bishop/MO/R8/USEPA/US@EPA, Russell@shruggulch.com

Subject: Garrison

Hi Eve,

I liked most of what you wrote in today's paper. I do have an exception with one of your "facts."

More than once you have reported that 1.6 million was "spent" on our wastewater system…. And that it is mostly complete.

Are you aware that Arrowhead construction (who did excavation work on the drain field site) was paid for their work in "Timber"? That's right! They received all the trees from the drain field site in lou of cash.

Sure there were some other components installed and paid for…. But the bulk of the "advantax" system still sit on drawing board.

Mike Bishop personally told me that "most of the components" for this system have not been installed?

I could argue that because the "septic tank" will stay in the ground and be used for fire protection …. It has value. What ever it cost should be taken out of the equation …..

That leaves a small amount…. IF ANY! That was actually spent…..

I can understand that argument… that "because" the wastewater system is mostly complete… they should finish it! The problem is though… That is just not true!

The U.S. Forest Service determined the value of the trees removed by Arrowhead Construction and Arrowhead paid the Forest Service for the trees.

Approximately two-thirds of the wastewater treatment components were installed.

People read the Independent Record. Your reporting should be factual and not based on some "spin" that is a last ditch effort by proponents of the wastewater system.

I'm looking forward to working on the water board… without this wastewater system over our heads. Our future is bright. Perhaps now we can get down to the business at hand.

Rick Garrison

Robert J Garrison

10/11/2007

Robert J Garrison skweto@whidbey.net

To: Mike Bishop/MO/R8/USEPA/US@EPA

Good Morning Mr Bishop,

I write to you as an outsider who has at the least a semi biased view (my brother is Rick Garrison) of the battle over the clean up and water / septic issues in Rimini. I must say that after watching both sides from what is turning out to be just short of a decade I am glad that the EPA has finally started winding down the project. I really do see both side of the coin but have never understood why a person would purchase land in a well known "mining community" that is fraught with environmental problems, very little usable water and ancient septic (if you even had that) and then wonder why they should have the government pay to fix their problems for them.

I understand the need for proper clean up and support the efforts to make a place such as Rimini safe to live in. I applaud the EPA for efforts in making contaminated areas safer.

I live in Washington north of Seattle. One of the issues facing many people is the expansion of the Sea-Tac Airport. I wonder if a person purchases a home at the end of the runway. Should they not expect some noise and disruption? I say they should. Does is seem reasonable to expect that the government and its agencies be required to move the airport or sound proof the homes? (That is but one example.) I say no, it is not.

Now back to the issues of Rimini. What of the tax payers. Should all of the people of the great state of Montana have to keep paying for a project that will benefit some 13 or 14 households? Are we now talking about something like 4.5 million dollars to be spent? Is the cost worth the benefit to a few that knew of the problems when they bought their land? I suggest that it is not. Sometimes what is fair for the whole may not please the few.

The Upper Tenmile Watershed, in which Rimini is located, was listed as a Superfund site in October of 1999. Therefore, due to the contamination observed in current water sources in Rimini at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. EPA concluded that the community water treatment system will be more protective then individual water treatment options.

I thank you for what you have done for Rimini in the past clean and your efforts to do what you believe were right for the community in the past. I now thank you for possibly taking a more reasonable approach to what further needs to be done.

Thank you sir.

Sincerely,

Robert J Garrison.

Anita Hartshorn
10/18/2007

AnitaHartshorn@aol.com

To Mike Bishop/MO/R8/USEPA/US@EPA

CC: James Woolford/DC/USEPA/US@EPA,
Paul Peronard/EPR/R8/USEPA/US@EPA,
DavidECooper/DC/USEPA/US@EPA, Susan

Subject: Rimini 4.5 million water treatment

Dear Mr. Bishop,

The construction of a $4.45 million dollar water-treatment system for a handful of homes in Rimini that want it seems ludicrous and especially considering the EPA's original estimate for the cost of this system was $300,000.

Comment noted.

As an American taxpayer I would like it to be known for the record that I would much prefer my tax dollars going to pay off the deficit that will haunt my great grandchildren if we do not get it under control.

Anita Hartshorn
Vice-President of
Glacier I.C.E. Inc.

Donna K Humbert

10/24/2007

Mike Bishop
U.S. EPA
10 West 15th Street, Suite 3200
Helena, MT 59626

I grew up in Rimini, my family home is at 3375 Rimini Road where my mother still lives. I know the septic system problems as well as the lack of good drinking water for many of the families in Rimini. I am a tax payer so feel that my views are legitimate and should be considered regarding this situation.

Potable water and the septic system needs to be completed as promised for all property owners of Rimini. All of this was promised and approved by the majority. A great deal of time and effort went into this project, so to just pull out now would be a great injustice.

Sincerely,
Donna K Humbert
10272 South Caribou Ridge Road
Harrison, ID 83833-8748

EPA agrees completion of the community water system is required to be protective of human health in Rimini. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

Carl and Georgiana Kochman
10/25/2007

Mike Bishop, EPA Project Manager
U.S. Environmental Protection Agency
10 West 15th Street, Suite 3200
Helena, MT 59626

Dear Mike Bishop,

During the summer and fall of 2006, the EPA- as part of the Rimini remediation project- excavated the yard at 3419 Rimini Road. This is the location of our residence, Carl & Georgiana Kochman. In the process, our drain field was disturbed and subsequently stopped functioning. We now have raw sewage causing a swamp in our yard, with sewage accumulating under the fill dirt and sod that was laid over it. As the 2007 summer months passed, as various personnel mulled over what to do, the sewage has back up further toward our house, the results are plainly visible.

Comment noted – system was removed and replaced with a Level 2 system in 2007.

The one fact is that forefront: we are faced with this situation because of the EPA yard remediation in Rimini. We, as property owners, have no responsibility in the cause of the problem and therefore no financial responsibility in the fix.

To fix the problem, we are now faced with four options as presented by the EPA:

1) Replace the drain field.
2) Do a property boundary change, and install a system identical to what we have now.
3) Install a Level 2 treatment system that conforms to the county interim zoning within our current property configuration.
4) The EPA honors its original commitment, and installs a community sewer system for the Rimini Community.

<u>Option 1 - Replace the Drain Field</u>

While this is the simplest and least costly to the EPA, it is the lease desirable. This system will not conform to the Lewis & Clark County interim zoning. As such, we will not sign any documents that release the EPA from future responsibility for the work.

Option 2- Property Boundary Change: install a simple tank/drain field system.

The estimated cost for this will be $5,000 to $6,000 for the boundary change, plus the cost of the system. We would insist that the EPA pay for all aspects of the project including the survey necessary for the boundary change. However, it is also not out preferred solution, as we have kept the two parcels separate on purpose, giving us the flexibility for sale and/or development. If you were to do the boundary change and we needed or wished to rescind it, the system installed would again not meet code.

Option 3- Install a Level 2 Treatment System

This is our second preferred solution. While a Level 2 Treatment system requires regular maintenance and testing, as well as increased electricity usage, we are to cover those added expenses. This option does not need a boundary change, Lewis & Clark County interim zoning and delivers a long-term fix.

Comment noted. System was replaced with a Level 2 system in 2007.

Option 4- Install the Rimini Community Sewer System

This is our preferred solution. The sewer systems in Rimini for the most part are old and dated. Some are failing now; others will follow, with the primary cause being the disturbance of the drain fields and septic tanks during the remediation. The costs of replacing those systems will fall to the EPA, either with the agency's voluntary participation, or through litigation. We know and understand that there will be ongoing maintenance and upkeep costs for the community system and that the residents would be responsible for those costs, but those

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

would be approximately the same as for a Level 2 Treatment system. As part of the original 2002 ROD, the EPA committed to a community system, and most of the Rimini residents planned for that. Unfortunately, the EPA's October 2007 Proposed Plan does not include a community sewer system, leaving with really only one option: a Level 2 Treatment system.

We appreciate the EPA stepping up to the plate and committing to a Level 2 Treatment system to remedy the problem of our failed drain field.

Sincerely,

Carl Kochman & Geogiana Kochman

CC; Dave Swanson, CDM Rimini Remediation Project Manager

May Moore

10/19/2007

Mike Bishop
U.S. EPA
10 West 15th Street, Suite 3200
Helena MT 59626

In response to the Proposed plan to halt the waste water system in Rimini. I think this would be a big mistake. We were told to form a water/sewer board, which we did. It passed by a majority of the residents and property owners. A lot of time and effort went into this by people with full time jobs and families. It was done in good faith, now we are informed it was all in vain.

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes, as compared to repair or replacement of individual systems..

I have lived in Rimini for more than fifty years and I know the problems associated with septic systems. The high ground water level in many areas is a concern as well as the close proximity to Ten Mile Creek with the possibility of contamination to it. Ten Mile Creek is an important part of the Helena watershed as well as its use for recreation, fishing, etc.

The lid on my septic tank was shattered during the compaction of my driveway. I do not know if the tank itself was damaged and may not know unless it fails. I bought a new lid myself but replacing the tank would be more difficult.

Comment noted. EPA's preferred alternative provides for repair or replacement of systems damaged during excavation of contaminated material.

Sincerely,

May Moore
3375 Rimini Road
Helena, Montana 59601
406-442-2506

MICHAEL RUSSEL
POST OFFICE BOX 5075
HELENA, MONTANA 59604-5075

November 28, 2007

RE: Written comment on EPA-Montana's Upper Tenmile Proposed Plan for a Record of Decision Amendment

Mike Bishop
Upper Tenmile Project Manager
EPA-Montana
10 West 15th Street, Suite 3200
Helena, MT 59624

CC: Carol Rushin
James Woolford
Susan Bodine
David Cooper
Montana EQC

Mr. Bishop:

EPA-Montana's 2002 Record of Decision contains the components to safely and satisfactorily achieve the requirements of CERCLA at a National Priorities List-designated site. Unfortunately, EPA-Montana and the Montana Department of Environmental Quality chose as their preferred alternative not only the most costly option (under even a competent and expense-minded management), but the one that had to lead *de facto* to real-estate development and private-property betterment – beyond any reasonable claim of environmental remediation and the protection of human health from residual effects of 19th and early 20th century mining.

EPA-Montana's 2008 Upper Tenmile Record of Decision Amendment must direct the completion of work in Rimini as quickly and economically as possible, which means:

discontinue construction of the proposed community sewer system (and remove the existing partial installation from USFS-managed lands), offer point-of-use reverse-osmosis treatment to Rimini residents with operable plumbing in inhabitable improvements (2002 ROD Rimini Water Supply Alternative B), and replace (or cap) with clean material mine trailing used by Lewis and Clark County to rebuild Rimini Road through Rimini after the 1981 flood.

There are two primary reasons that necessitate this simple, cost-effective course of action. One can be defined in site-specific, practical terms; the other more broadly by reference to the stated purpose and goals of the Superfund program. Since there are lessons to be learned from EPA-Montana's experience with the Upper Tenmile site, the broader reason is of fundamental importance.

Superfund-site residents hear endless verbiage about prioritization of risk – and the work required to mitigate risk – at a Superfund site. Having observed first hand that interchangeability of so-called "priorities" at the Tenmile site, it is not surprising to find that sites themselves – in Montana and other states – appear to have been prioritized in a similarly random manner. It makes no difference whether "Superfunding" derives from a general-fund appropriation or a special tax: Funding is and will always be finite, and if Superfund's goal is the protection of human health within an environmental framework, every available dollar must be made to count *by objectively assessing and prioritizing environment-related human-health risks on a national basis.*

You have claimed that the Tenmile project's (over-budget) costs are on a par with similar Superfund cleanup, and CDM Federal Programs' Neil Marsh said at a recent watershed meeting, "Every Superfund project I've been involved in has exceeded budget."

Due to the varying water chemistry throughout Rimini, use of a point of use system would require a custom design for each residence. It would be difficult for EPA to monitor the performance of the individual systems which would in turn hamper EPA from demonstrating the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

The ROD amendment for Upper Tenmile has already passed through the remedy review board (RRB), which helps prioritize work throughout all regions of EPA.

Freudian slip-references aside, such casually offered statements suggest that EPA and its contractors know at the outset that they are about to take stakeholders and taxpayers for an overpriced ride, guided by an unreliable map.

The Rimini facet of your Tenmile project has been so much out of scale with what could have provided a reasonable solution to a theoretical risk assessment – an assessment that Rimini residents do not, as demonstrated by their actions, take seriously even after being "educated" by EPA – I cannot help but suspect that you and Mr. Marsh deliberately set out in search of a close-to-home "public health hazard" to mine until your retirement. Not only has this been a duet of priority shifting, fact-manipulation, and self-contradiction, it appears to have been a dedicated attempt to redefine the purpose of the Superfund program. From offering multi-million dollar community-sewer connection to nonresidents with abandoned outhouses behind uninhabitable structures – to proposing to build a $4.45 million water-treatment system for twice as many households now in existence – to constructing and improving a network of passenger-car-accessible roads to every previously inaccessible corner of Helena's primary watershed – to the value-enhancing landscape work your contractors performed on select Rimini properties – this project has ultimately revealed itself as a land-development windfall.

One needn't be a conspiracy theorist to wonder who's pulling whose strings when anticipating the human-health-related restoration of land to pre-mining conditions – while observing the irrefutable creation of land-use opportunity unrelated, except by proximity, to cleanup efforts. One needn't be a student of Superfund to realize that if two sites at opposite ends of the demonstrable-risk-assessment spectrum must compete for funding within the same state, site

All ROD costs are taken from the feasibility costs estimates, which are conceptual estimates developed for alternative comparison and budgeting. The actual construction costs on most Superfund sites are developed during the detailed design of a selected remedial action.

Implementation of a remedy, regardless of the protectiveness to human health or the environment, is always contingent upon permission of a property owner. Should a property owner deny access for completion of any remedial action activities in writing, EPA will not pursue further actions on that property.

The size of the community water system was based on the DEQ water circular guidelines for system size.

prioritization across the country must be similarly askew. One needn't be a moralist to understand that there is something terribly wrong when a dollar spent on turning a ghost town into a developable subdivision – on digging up small transplanted trees and replacing them with larger ones at a water/sewer commissioner's speculative "Big Sky Estates" – is a dollar never to be spent in a place like Libby.

If the Tenmile site had a promotional brochure the byline could read: "Dirt to Dollars: How to cash in on Superfund."

In April 2004 I asked you, "What is the goal of Superfund in the Tenmile?" Your answer – "To reduce risk to human health and the environment" – was consistent with Superfund policy. Your actions, on the other hand (endorsed by director Wardell), have consistently entailed property-betterment under the auspices of mining-related-risk reduction, have been enthusiastically welcomed by Rimini's leading opportunists under like-minded false pretenses, and have been *inconsistent* with Superfund policy.

In a memorandum to Region 8 Associate Administrator Carol Rushin, the chairman of EPA's National Remedy Review Board observed "that some [Rimini] properties do not currently have a septic system or have a minimal system. Replacing the individual septic systems with the higher cost community system appears to raise a betterment and/or enhancement issue. If there is a betterment/enhancement, the associated incremental cost of a community system should not be borne by the Superfund program…"

This observation is equally applicable to an oversized community water system.

Accordingly, a ROD amendment for Upper Tenmile site must put this project back on

Under EPA's April 22, 1987 "Guidance on Superfund Federal Liens," p. 5, the agency sets forth a policy that Superfund liens should be filed on any property on which the agency has conducted a cleanup, "unless little or no benefit results from such filing." In Rimini, there is no evidence that current owners would reap a significant windfall as a direct result of EPA's expenditure of response costs, either from the soil cleanup or construction of the community water system. In addition, a safe drinking water source for residents (with contaminant concentrations reduced below the MCL) is required to address this exposure pathway and provide a protective remedy.

track in the context of *national* site prioritization and Superfund-policy precedent setting.

In practical, site-specific terms, Rimini has been inaccurately referred to as a "town," has been falsely described by you as having "45 to 60" households, and has been misleadingly portrayed by potential community water/sewer beneficiaries as 80-plus percent "in favor." In a May 2007 letter to EPA's National Remedy Review Board the Rimini Water and Sewer District deceitfully asserted "the expectation that there will be near 100% voluntary [community system] participation in the future." In other words, supporters of EPA-Montana's proposed taxpayer-funded multimillion-dollar community water/sewer system have found it necessary to exaggerate Rimini's actual residential population – and lie about who will eventually participate in what – in an effort to legitimize the high cost of their property's enhancement.

Having recently glimpsed the possible consequences of exposing Rimini's true demographics to EPA's upper-level decision makers in Denver and Washington, Rimini' community-system supporters are now proclaiming, as if coached by a TAG advisor and with desperate abandon, that they will pay "whatever it costs." Even a cursory objective consideration of system capital expenditure versus actual number of connections, property values, and income levels (not to mention the delinquent status of one multiple-hookup-eligible resident's property tax) is sufficient to forecast the inevitable fiscal failure to Rimini's EPA-prompted water/sewer district.

"Helping those who help themselves" is an ethic relevant to "assisted" healthy living. Only one Rimini resident attended the county-sponsored lead-testing clinic held in Rimini in the late '90's; only two residents participated

EPA interprets the District's statement to accurately reflect the District's position that over time, as property changes ownership and septic system continue to fail, nearly all properties will be connected to the wastewater system.

Cost projections used by EPA in the ROD amendment for community water system O&M indicate that monthly costs will be approximately $72 per month per hookup (for 25 total hookups), $60 per month per hookup for 30 connections, and $51 dollars per month per hookup for over 35 connections.

in the fed-sponsored in-home heavy-metals-testing program offered last year. The 40% residential Rimini minority who oppose an EPA-build community water/sewer system have taken their health seriously enough to personally, responsibly ensure the quality of their own drinking water. By contrast, many of the 60% residential majority who support a community system have *chosen* to drink untreated water and to purchase homes with failing sewers – and even to build homes with no provision for water or waste disposal.

Ironically and sadly, EPA's community-system efforts rewarded irresponsibility and punish thoughtful self-reliance.

Lest you forget, Mr. Bishop, this project began in the mid-1990's with a local watershed group that established two primary objectives: An increase in the flow of Tenmile Creek, and an improvement in water quality – in that order of priority. I attended those early meetings, and have retained the notes and/or meeting minutes. However unwisely, this group believed that the way to achieve its goals was to "invite" the participation of EPA. Ten years and tens of millions of dollars later, we all know how much more water *doesn't* flow in the creek, and how, according to director Wardell in a 2006 statement to the Montana Environmental Quality Council, we cannot be sure of an improvement in water quality. I am frankly surprised no one at EPA has announced that since the water in the Tenmile is still bad, it's best not to allow too much of it in the creek.

I cannot think of a single aspect of this project that has been accomplished on schedule or within budget (or very well) – and with the same director directing the same site manager employing the same lead contractor, there is no reason to believe the EPA-Montana's future performance will be anything but a repeat of the past. The contradictions others and I have pointed out since 1999 – from CDM calling a

With the community or Rimini being located within a Superfund site, EPA has prioritized remedial actions to address the human health threat from exposure to contaminated yard and road waste and contaminated drinking water as the first part of the CERCLA process at the site.

water source "perennial" when searching for a community supply, then labeling it a "seasonal spring" when locating a septic drain field in its path – to the rushed installation of plastic sewer components in sub-zero weather while leaving 3000 cubic yards of EPA-deposited hazardous waste exposed to wind and erosion through winter and spring behind a fallen-down fence in Rimini – to irrigating freshly laid sod and clean yard soil with untreated metals-laden water from Tenmile Creek – to effectively derogating the 2002 Record of Decision's Surface Water remedial action objective of "Protect[ing] current and reasonably anticipated future source waters from the Helena water supply system" as a "misconception or misrepresentation" – are as *real* a measure of your work in the Tenmile as any theoretical, *potential* mining-related "risk pathway" you might have interrupted.

A streamlined, cost-effective Upper Tenmile ROD Amendment directing *the minimum CERCLA-allowed action* is the reasonable second chance EPA-Montana and the Montana DEQ should pursue, and is the only alternative that demonstrates respect for Montana's and America's taxpaying citizenry. Similarly, your resignation from the project would be a significant contributory step in the right direction.

Sincerely,

Michael Russell

Michael A. Murray
Ed Tinsley
Andy Hunthausen
11/30/2007

Mike Bishop
EPA Project Manager
U.S. Environmental Protection Agency
10 West 15th Street, Suite 3200
Helena, MT 59626

Re: Comments on Proposed Plan for Modification of the 2002 ROD for Upper Tenmile Mining Area.

Dear Mr. Bishop,

The Lewis & Clark Board of County Commissioners is responsible for the protection of the public health, safety and welfare of all Lewis and Clark County Residents. We have an active and immediate interest in the Environmental Protection Agency's (EPA) activities in the Upper Tenmile Area and we have worked collaboratively with EPA from the beginning of the establishment of the Superfund site in that area. We have supported the listing of the area as a National Priority site, the implementation of the Superfund project, the activities of the Water Quality Protection District in watershed projects and the creation of the Rimini Water and Sewer District.

We have consistently attended public meetings in Rimini, supported activities of the Upper Tenmile Watershed group, supported the EPA" remediation activities and worked with residents of Rimini in addressing their concerns and representing their wishes. We will continue to be the primary responsible agency for public health, safety and welfare long after EPA has completed its activities and moved to other concerns. We are resolute in our commitment to the achieving the goals of protecting public health and the environment in the Upper Tenmile Drainage.

We do not present technical or detailed comments herein, but we fully support the more detailed comment letters being directed to you by the Lewis and Clark County Water Quality Protection District

and the Lewis and Clark City-County Board of Health.

With this background in mind, we present our formal comments on the 2007 Proposed Plan for the Upper Tenmile Creek Mining Area Site:

- Lewis and Clark County, Montana. It is our strong desire for EPA to fulfill their promise to Rimini residents and to Lewis and Clark County to complete all activities as originally described in the 2002 ROD, including continued efforts to remediate mine tailings and waste material. We do not support changes as presented in the proposed plan.

EPA is committed to addressing mine tailings and waste material in the Upper Tenmile Watershed as outlined in the 2002 ROD. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

- We believe that any course of action taken in Rimini should be based on a watershed approach with the support of all stakeholders, including the Rimini Water and Sewer Board, residents of the Upper Tenmile, EPA, Montana Department of Environmental Quality (DEQ), Lewis and Clark County, and the City of Helena.
- We hold the belief that EPA should support its own Total Maximum Daily Load (TMDL) program through it activities at Superfund sites, and specifically in the Upper Tenmile Drainage.

EPA is addressing Superfund contaminant loadings throughout the Upper Tenmile Creek watershed via completed and ongoing yard removals and future waste rock removals and adit source control measures. However, loadings of sewage and nutrients are not covered under Superfund.

- We believe the proposed plan neglects consideration of costs associated with long-term institutional controls and operation and maintenance costs, and is therefore an inaccurate representation of the true cost of EPA's preferred alternatives.

If completion of the activities described in the 2002 ROD is impracticable, then we believe it is imperative for EPA to work collaboratively with Lewis & Clark County and DEQ to identify practical alternatives that are economically and politically palatable to all stakeholders. We believe that alternatives as presented in the proposed plan are impracticable, violate state and local wastewater regulations, ignore the EPA TMDL program objectives and, in the case of the

EPA will continue to work with the District and Lewis and Clark country to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

State public water supply circulars containing substantive requirements for both water and

wastewater systems have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of water and wastewater systems in Rimini.

surface water treatment system, are not supported by residents.

The Lewis and Clark County Commissioners believe that any amendment to the existing ROD should incorporate the flexibility to negotiate with local government and the Rimini Water and Sewer District on implementation of alternatives that benefit stakeholders, while simultaneously serving EPA's Superfund mandates. We would appreciate the opportunity to meet with you to achieve this goal.

Sincereley,

Michael A Murray, Chairman

Ed Tinsley, Commissioner

Andy Hunthausen, Commissioner

CC: Richard Opper, Montana Department of Environmental Quality, Lewis and Clark City-County Board of Health, Lewis and Clark County Water Quality Protection District, Eric Griffin, Lewis and Clark County Public Works Director Steve Ackerlund

Mark A Poore

10/23/2007

Mark A Poore
3495 Rimini Rd
Helena, MT 59601

Mike Bishop
EPA Project Manager
10 West 15th Street
Helena, MT 59626

Re: Public Comment for EPA Proposed Plan for the Upper Tenmile Creek Mining Area Site

Dear Mr. Bishop,

I would like to comment on the proposed amendment to the 2002 Record of Decision for Rimini.

I strongly disagree with the EPA conclusion that the preferred alternative provides the same level of protection to public health as the original ROD.

Prior to selection of waste excavation coupled with the repair and replacement of existing individual waste treatment systems as the proposed remedy, this action was evaluated against the NCP threshold criteria for both overall protectiveness of human health and the environment and compliance with ARARs Then, the proposed action was comparatively evaluated against the 2002 ROD proposed remedy using these criteria. The results of this comparative analysis showed the proposed remedy outlined in the ROD amendment to be as protective as the remedy proposed in the 2002 ROD for heavy metals and other hazardous contaminants regulated under CERCLA.

The EPA came to our community with a mandate to remove hazardous waste from properties located in Rimini. We were told that the EPA would build a wastewater system since the disturbance of individual septic systems would be unavoidable given that many property owners weren't sure of exactly where the systems and their drain fields were located. EPA insisted that they needed to excavate as much of

the property as the residents would allow in order to remove the health hazards posed by soils laden with heavy metals. The EPA actually constructed part of the proposed community sewer system. This led residents in the community to believe that excavation of their properties and the possible risk to their septic systems would be acceptable since there would be a community waste water system to hook up to if EPA damaged the septic systems. EPA assured homeowners that they would replace the systems "as good or better" than they found the systems, never explaining the Lewis and Clark County would no longer recognize the "grandfathered system" once it was altered.

The EPA requested that Rimini Community create a water and sewer district in preparation for ownership of the completed systems. The Lewis & Clark Commissioners approved the formation of the District, an election was held and a board was formed.

The proposed plan also place the Water and Sewer District in the precarious position of being unable to operate the water system since property owners may be unwilling to hook up to water if sewer is unavailable because of increased costs.

I would also like to comment on the EPA's position that the Rimini community is divided over the installation of the systems. The community voted in support of formation of the District by an overwhelming majority and that majority remains in favor of the water and waste water systems. This community has spent hundreds of hours weighing the pros and cons of many technical issues. They have struggled with the constant change of EPA construction

Under the preferred alternative, EPA will remove all remaining contaminated yard soils that exceed the same protective risk based levels as used in previous yard removals in Rimini. This meets the risk based standards of protectiveness for the community of Rimini

EPA continues to work with the District and Lewis and Clark County to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems. EPA recommends that property owners must work with the Lewis and Clark County health board to resolve this issue.

plans, funding issues and politics. They have put their lives on hold waiting for the EPA to begin remediation of their yards and construction of a water and wastewater systems. Residents have attended hundreds of meetings educating themselves about the issues facing their community.

Rimini residents have also endured the mean-spirited, vicious personal attacks of six people who call themselves the Rimini Independents. Rimini residents who have participated in the remediation process or shown support for the completion of these systems have been attacked in news print as well as on signs placed in their neighborhoods. In spite of all of this the community remains overwhelmingly in favor of the completion of the originally proposed ROD.

The community of Rimini has worked hard to make informed decisions and takes very seriously our commitment to supporting the removal of hazardous waste from the Upper Tenmile Watershed and assuming the operation and maintenance of the completed water and wastewater systems. We request that the EPA honor the promises made to our community.

Sincerely,

Mark Poor
3495 Rimini Road
Helena MT 59601

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

UPPER TENMILE CREEK MINING AREA SITE
LEWIS AND CLARK COUNTY

PROPOSED PLAN

PUBLIC HEARING

Held at Rimini Community Center
Rimini, Montana

October 24, 2007
6:30 p.m.

REPORTED BY: CHERYL ROMSA
CHERYL ROMSA COURT REPORTING
P. O. BOX 1278
HELENA, MONTANA 59624
(406) 449-6380

WHEREUPON, the proceedings were had as follows:

(John Wardell opened the meeting and introduced Diana Hammer. Diana Hammer welcomed everyone, explained the reason for the public hearing, and introduced Mike Bishop. Mike Bishop explained the proposed changes and the preferred alternative in the ROD amendment to the 2002 Record of Decision.)

MS. HAMMER: Our court reporter will do her best to capture everything you say. So to help us out, if you could

clearly state your name and spell your last name for her, that will really help; and if you could also give your address so we have that as part of the record, as well.

We'd like you to limit your comments to about five minutes, if you can. If you have more to say, we'd be happy to take it in writing, or if we have time after everyone has made their comments, we could revisit or open it up again for additional comments. But there's a number of people here who I think would like to make comments, so we're going to initially limit it to five minutes. There was a sign-in sheet at the back if you wanted to make a public comment tonight, and if you didn't have a chance to sign this (indicating), we'll begin with these and then open it up to additional people. So the first person is Cathy Maynard.

MS. MAYNARD: My name is Cathy Maynard. My address is 3494 Rimini Road. I am a property owner and resident of Rimini. It is my opinion that the proposed preferred alternative and the proposed amendment to the ROD lacks adequate documentation to support the conclusion that it will provide the same levels of protection for public health and environmental health as the original 2002 ROD.

Prior to selection of waste excavation coupled with the repair and replacement of existing individual waste treatment systems as the proposed remedy, this action was evaluated against the NCP threshold criteria for both overall protectiveness of human health and the environment and compliance with ARARs Then, the proposed action was comparatively evaluated against the 2002 ROD proposed remedy using these criteria. The results of this comparative analysis showed the proposed remedy outlined in the ROD amendment to be as protective as the remedy proposed in the 2002 ROD for heavy metals and other hazardous contaminants regulated under CERCLA.

In addition, the cost estimates that are provided in the proposed alternative are inadequately documented and are not supported by information provided by other technical experts that are qualified to give the same type of cost estimate.

Cost estimates and more detailed cost backup information will be provided in Section 4 of the ROD amendment.

The alternatives in the original 2002 ROD have been partially implemented with the support of the residents of the community of Rimini in the belief that the entirety of those alternatives would be completed. Failure to complete the alternatives of the 2002 ROD puts property owners at unacceptable levels of health risk and will require compliance with county standards that were not in place when the original ROD was implemented and when the property owners agreed to allow the initial remediation of their properties to be initiated.

EPA continues to work with the District and Lewis and Clark county to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

State public water supply circulars containing substantive requirements for both water and wastewater systems have been identified as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini. EPA also considered these standards in estimating costs for completion of the community water and wastewater systems.

And with that, I'd just like to say that I would hope that the EPA will continue implementing the original 2002 ROD and complete the work they've started.

Thank you.

MS. HAMMER: Micky Brown.

MS. BROWN: My name is Micky Brown. I own the property at 3422 Rimini Road. I'd like to read a letter that I put

together. My husband is unable to be here; he is currently in the hospital. He is also opposed to the proposed plan.

We strongly disagree with the EPA's conclusion that the preferred alternative provides the same level of protection to public health as the original ROD. The EPA came to our community with a mandate to remove hazardous waste from properties located in Rimini. We were told that the EPA would build a wastewater system since the disturbance of individual septic systems would be unavoidable given that many property owners weren't sure exactly where their systems and their drain fields were located. EPA insisted that they needed to excavate as much property as possible -- I'm sorry, I read that wrong, excavate as much of the property as the residents would allow in order to remove health hazards posed by the soils laden with heavy metals.

Please see response to Ms. Maynard, page 2

The EPA actually constructed part of the proposed community sewer system. This led residents in the community to believe that excavation of their and the possible risks to their septic systems would be acceptable since there would be a community wastewater system to hook up to if the EPA damaged the septic systems. EPA assured homeowners that they would replace the systems as good or better than they found the systems, never explaining that the Lewis and Clark County Health Department would no longer recognize the grandfathered system once it was altered.

Under the preferred alternative, EPA will remove all remaining contaminated yard soils that exceed the same protective risk based levels as used in previous yard removals in Rimini. This meets the risk based standards of protectiveness for the community of Rimini. Please see response to Ms. Maynard, page 2.

During the remediation of the properties in Rimini, 13 septic systems were damaged or destroyed, in addition to the fact that these systems are now considered out of compliance with current Lewis and Clark County zoning regulations. The ground under these systems is still not remediated. Many lots could not be properly cleaned due to their size and the fact that the septic

systems occupied a large portion of the lot. Some systems have failed months after the completion of the remediation due to damage from heavy equipment being driven across them. The EPA is now asking 20 property owners to risk having contractors come back on their properties to clean around the septic systems again in an effort to remove soils that were left. Property owners now have to make the terrible choice of protecting their grandfathered septic systems if they were undamaged during remediation or keeping contaminated soils that should be removed for the protection of public health.

EPA recommends property owners work with the Lewis and Clark County health board to resolve this issue.

This proposed plan also places the Water & Sewer District in the precarious position of being unable to financially operate the water system, since property owners may be unwilling to hook up to the water if the sewers aren't available.

We would also like to comment on the EPA's position that the Rimini community is divided over the installation of the systems. The community voted in support of the formation of the district by an overwhelming majority, and that majority remains in favor of the water and wastewater systems.

Cost projections for a community water system O&M indicate that monthly costs will be approximately $72 per month per hookup (for 25 total hookups), $60 per month per hookup for 30 connections, and $51 dollars per month per hookup for over 35 connections.

This community has spent hundreds of hours weighing the pros and cons of many technical issues. They have struggled with the constant change of EPA construction plans, funding issues, and politics. They have put their lives on hold waiting for the EPA to begin remediation of their yards and construction of water and wastewater systems. Residents have attended hundreds of meetings, educating themselves about the issues facing their community.

Rimini residents have also endured the mean-spirited, vicious, personal attacks of six people who call themselves the Rimini Independents. Rimini residents who have participated in the

remediation process or shown support for the completion of these systems have been attacked in news print, as well as on signs placed in their neighborhoods. In spite of all of this, the community remains overwhelmingly in favor of the completion of the originally proposed ROD.

The community at Rimini has worked hard to make informed decisions and takes very seriously our commitment to supporting the removal of hazardous waste from the Upper Tenmile Watershed and assuming the operation and maintenance of the completed water and wastewater systems. We request that the EPA honor the promises made to our community.

Thank you.

MS. HAMMER: Thank you.
George.

MR. KOCHMAN: George is not feeling well tonight.
I'm her husband, and I have her statement, if I can just read that into the record. Her name is George. Georgiana is her full name. Last name is K-O-C-H-M-A-N. We live right next door at 3419 Rimini Road.

She writes: I'm one of the silent majority. In the past I have chosen to remain silent when the very vocal minority has sent me harassing letters, issued defamatory personal attacks on members of the community, and twisted the truth to meet their agenda.

I believe that the facts and an honest evaluation of the issues have proved enough to move the 2002 ROD forward. I do not think it's necessary to waste my time countering what amounted

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

Please see responses to Ms. Brown, page 4 and Ms. Maynard,

to anti-government rhetoric and misinformation. This is long overdue, but tonight I'd like to tell you that I do support the original 2002 EPA Record of Decision. I do fully support the Rimini Water & Sewer District. I do fully support the Rimini Water & Sewer District Board of Directors and the many hours of selfless work they have devoted to educating themselves and the many hours spent discussing all aspects surrounding the development of a water/sewer district in an effort to develop fair and balanced ordinances.

I do not support the EPA's Proposed Plan. The plan as written does not fully address the identified risks to human health and the environment, and the EPA needs to address those pressing public health and water quality issues.

I will submit a more detailed written statement prior to the close of the public comment period.

MS. HAMMER: Okay, thank you.
Carl.

MR. KOCHMAN: And I'm next, yes. Carl Kochman. Again, the last name is K-O-C-H-M-A-N. My address is also 3419 Rimini Road.

I'm a Montana native. I have done businesses here in the state for close to 40 years here now; owned, operated, and managed as such. And I've done work in all 50 states, 27 foreign countries, currently vice chair of the Montana Chamber of Commerce Board of Directors. I'm also appointed by the Governor as a Montana ambassador. I've sat on a lot of other boards and commissions around the state.

And I have a great belief in this state. Obviously, I've seen the

rest of the world, I've seen the rest of the country, and I know what we have here and I know that we need to treasure it and we need to protect it. And not completing the wastewater system up here goes against that. It doesn't give us or the rest of the Helena Valley the fair treatment of clean water and nutrient levels rising in the creeks and so on. It just isn't a good idea.

The other thing that I've come across in visiting with other people around the country, as well as people in the Home Office in Washington, D.C., is that the EPA has a reputation for coming in someplace, starting a project; it takes way too long, the people who were originally in favor of it go away, they move on to something else; the people who come in either don't understand why they're doing it or they're bored with it; and the EPA pulls out and leaves a mess. I hope that doesn't happen here.

Thank you.

MS. HAMMER: Thank you, Carl.
Phil Maynard.

MR. MAYNARD: My name is Phil Maynard. I'm a property owner and resident of Rimini. My address is 3494 Rimini Road. I just want to say that I am not in support of the proposed alternative and that I am in support of the original 2002 ROD.

Thank you.

MS. HAMMER: Thanks, Phil.
Steve Ackerlund

Steve Ackerlund.

EPA is committed to completing implementation of the preferred alternative within the community of Rimini.

MR. ACKERLUND: Is it all right if I move up here? I've never talked to the backs of heads before. Sorry to be different, but this is more comfortable for me.

My name is Steve Ackerlund, A-C-K-E-R-L-U-N-D, 1600 Virginia Dale in Helena. And I am an environmental consultant hired by RCI and graciously supported by EPA's technical assistance grant program. RCI asked me to review the proposed plan and help them evaluate it, and I'm here to give just a summary of that evaluation and will follow up with written comments at the close of the public comment period.

So I was pretty shocked to see the brevity of the Proposed Plan, and in my assessment it is inadequately informed and, as such, the preferred alternative is really not legitimated, in my opinion. I would ask the EPA to identify a case where industry or other elements that they regulate have proposed such a plan with such brevity and lack of analysis and data and that they've approved that. And if there isn't such a thing out there, which I'm not familiar with, then I would ask for an explanation as to why a different standard applies to the EPA as opposed to the entities that they regulate.

So as I looked at the Proposed Plan, I do have to question what the basis of that plan is. And it's not clear in the introduction. There is the discussion in paragraph 2 about controversy in the community, but that controversy is inadequately defined. As it applies to the 2002 remedy agreement, the project, up until that point, had large success and was supported by a large number, if not all, of the stakeholders involved in this project. And so while there may have been a lot of misunderstandings and strifes that are associated with the details of the plan, within the context of this Proposed Plan and general remedy agreement, I don't believe there is any controversy. So that needs to be clarified.

So if we go beyond the controversy and say, well, what else was the motive, why are we doing a ROD reevaluation, the only other thing I can conceive is it's about money and about cost. But, again, I would ask that the Proposed Plan be modified to make clear and transparent what the real motive is for doing a reevaluation.

Moreover, it seems to reflect to me a failure of the whole Remedy Review Board process and the Corps of Engineers process. My understanding of those things were that these efforts were going to come in and figure out how to save money, how to do the work more efficiently, and instead, all that's come out of it is a tenfold increase in cost. So I think this whole process that's happened in the last six months seems to be a failure. So, again, I would just ask that those cost increases need to be a lot more justified.

Secondly, EPA's own guidance states that the cost part of the proposed plan needs to also include operation and maintenance costs, and those have been entirely omitted from the Proposed Plan. Now, the board did, in response to EPA's request, submit information about O&M and acceptability of costs, et cetera, which we thought was going to be part of what was going to inform the process, and unfortunately, there's no mention of that at all in your Proposed Plan. If you go back and look at those letters, it clearly states that, you know, the district does not feel that O&M for a water-only system isaffordable or functional. So as such, your proposed alternative, your preferred alternative is not a functional, legitimate alternative on those grounds. And if you're going to propose that as an alternative, I think it needs to be informed by some survey information, et cetera, and proper O&M information to indicate that a water-only system is something that is affordable and functional for the community.

The Corps of Engineers (Corps) provided a value engineering assessment of the preferred alternative costs to insure these costs were reasonable and the approach to both design and costing were effective. These Corps suggestions were incorporated into the cost estimates used in evaluation of the alternatives and selection of the remedy. The revised cost estimates will be included in the final ROD amendment

That information is entirely lacking.

Okay, moving on, the last major point on content that I'll make tonight with the few minutes I have is regarding the ARARs or the rules and regulations that Superfund is supposed to strive to live up to. The most important one here, of course, is the Montana Water Quality Act, which is identified, but the single sentence in there that says EPA believes that the preferred alternative complies with all the ARARs is simply not an analysis at all. There's nothing there for me to even comment on or review. That needs to be greatly expanded.

And some of the questions I have on that process, you know, the whole idea is that residents will give access to EPA to come in and complete the soil remediation and leave septic systems in place that are like kind or better. But it's not clear or supported that anyone is going to agree to do that when, in fact, they may be subjected to county enforcement for actions taken by EPA. So if EPA believes they comply with the ARARs, that's great, but what about the rest of us and what are you doing to ensure that they're covered by Superfund under that action?

There's no information at all that indicates that anybody will agree to yard remediation, so the whole basis for assuming that the preferred alternative is going to improve public health lacks any information. If no one agrees, there will be no yard remediation and, therefore, there will be no human health protection as indicated that's rated, you know, high or whatever the criterion was in the plan.

Secondly, of course, you have the problem that even with participation, you end up with a series of septic systems that may or may not comply with modern standards and may or may not

O&M costs were used in the calculation of present worth at 7% for 30 years for each alternative. These values are presented in Tables 5-1 and 5-2 and Appendix C of the ROD amendment. Please see response to Ms. Brown, page 4.

EPA selected the preferred alternative using the balanced selection criteria outlined in the NCP and defined in the Proposed Plan. The community involvement piece is only one part of this evaluation. The first two criteria, overall protectiveness of human health and the environment and compliance with ARARs are the minimum standard a selected alternative must meet. The selected remedy meets both of these criteria. These ARARs are presented in the ROD amendment.

Implementation of a remedy, regardless of the protectiveness to human health or the environment, is always contingent upon permission of a property owner. Should a property owner deny access for completion of any remedial action activities in writing, EPA will not pursue further actions on that property. However, EPA will note the residual contamination in the record and may place a notice on the deed for that property describing the

be there. So we're not getting the watershed protection and the human health and ecological benefits that we should be getting from the Superfund action.

So, again, the ARARs analysis is woefully inadequate, and when you begin to consider it, it's not at all clear that this preferred alternative is a real alternative that could be implemented at all.

So in closing, I'll say that this -- the 2002 Record of Decision is the only adequately informed, evaluated, considered decision that's been made in this project. And it was -- the project was deemed as a success up until that point, and, you know, for whatever reason, the constant efforts to sort of reevaluate, change, modify, respond to special interests, while well intended, since that time, I think have led to the problems that this project has experienced. And it's my opinion that we need to go back to that 2002 Record of Decision.

If for some reason the EPA can't come up and legitimate a motive that they really do need to come up with another alternative, then I do think that, you know, it's not too late. If we can move away from this sort of, you know, entrenched and kind of outdated way of doing business, and if you're willing to work cooperatively with the community, with others in a more collaborative process, I do think that there is still time complete this project as a success and meet EPA's needs and interests as well as the needs and interests of the others. But it's going to take a lot more thought and involvement than is reflected in this Proposed Plan.

Thank you.

MS. HAMMER: Thanks, Steve.
Bret.

residual contamination.

Please see response to Ms. Maynard, page 2.

MR. BOUNDY: Bret Boundy; B-R-E-T, B-O-U-N-D-Y.
I'm at 3381 Rimini Road.

You know, I know a lot of people have been working hard, trying to do what they think is right here, but it's been interesting. In 2002, when we first moved here, you know, the plan was sewer and water, clean up the yards, it's all going to happen next summer, and I was kind of silly enough to think that was probably what was going to happen. And I felt that it was no more my place to move into a Superfund site and bitch about it than it would be to move into a mine waste area and expect it to be cleaned up, and I've supported it. But in the five years that have passed, especially this last little bit I read, it doesn't seem to share that much resemblance to what was sold at the time.

I think the EPA should not build a 4-and-a-half-million-dollar community water system. I know it's part of the original Record of Decision, but the price tag is just 15 times higher than it was. Well, I can't believe that -- You can't say nothing has changed in the Record of Decision if the price goes up 15 times. Besides, after watching the project change every year for the last five years, any proposal on paper, to me, is just fiction anyway. Who is to say it won't cost 10 million bucks and then we'll tear it out just before we finish it anyway.

EPA has recognized significant differences between cost estimates for the selected remedy as presented in the 2002 ROD and current cost estimates for completion of the Rimini Road remediation tasks and the community water systems. The cost estimates prepared during the FS and used in the 2002 ROD were prepared using the *Guidance for Conducting Remedial Investigation and Feasibility Studies under Comprehensive Environmental Response Compensation and Liability Act (CERCLA)* (EPA 1988) and *A Guide*

to Developing and Documenting Cost Estimates During the Feasibility Study (EPA 2000). Due to the nature of the FS process, costs estimates for potential alternatives are generally prepared based on conceptual designs for each alternative. These conceptual designs are based on rough layouts of the treatment components for each alternative. Conceptual designs only include rough order of magnitude sizing criteria based on an estimated volume of waste to be addressed. Individual components, such as tank sizes or pipeline diameters, are not specified until the detailed design phase of a remedial action. Therefore, EPA guidance requires that costs for these conceptual designs be developed using industry standard estimating tools.

For the Rimini area remedy components, the Means Construction Cost Estimator handbooks (Means) and limited vendor quotes were used to fulfill these requirements. Means provides industry standard unit costs for standard construction activities, such as trenching, excavation, pipeline installation, etc. The conceptual design layouts are used to derive rough quantities required to complete the standard construction activities, such as the estimated feet of pipeline required or number of connections to a water main. These estimated quantities are used in conjunction with the unit costs and vendor quotes obtained for treatment components that may not be covered in the Means handbooks to make up the FS level cost estimates.

Design elements, such as detailed and researched layouts of treatment components including equipment and supplies (e.g., pipelines, valves, etc.), are identified in the detailed design phase of remedial action implementation. Actual site conditions that were unobservable prior to the start of remedial action activities have caused changes in the final remedy design and increases in costs above those projected in the FS/ROD. These conditions

The community water system has always been a part of the project that, to me, has the least to do with the welfare of the public at large anyway. The quality of water in my house doesn't affect anyone in Helena, it doesn't affect the fish in Tenmile Creek. Spending millions of dollars so that I don't have to change a filter or because I might not want to buy bottled water is an over-the-top effort to improve the world with money we don't have.

The wastewater system, on the other hand, is the one thing that actually does affect the public, not just here in Rimini, but anyone living downstream. The wastewater system appeared to be the one thing that the City, the County, and the State, all under EPA regulations themselves, all had a vested interest in n. It's the part that the EPA almost got finished and now proposes to tear out. It seems like it's an awful waste of time and effort and funds to bring absolutely no public benefit. To me, the regulations on septic systems are probably more oppressive than they need to be, but my sewage does have the potential to affect the health of others. Other people do have a right to make a comment on it.

In a town such as Rimini, surrounded by public land and a watershed above the city, things are bound to get complicated. And I can silently tolerate the inefficiency and bureaucracy and political wrangling that goes along with living in a civilized, semi-democratic republic, because collective silliness beats evils of a dictatorship and the chaos of anarchy. But the project has finally become too bizarre and wasteful for me to stand and watch. I think it needs to be pruned so that it can be finished sometime hopefully in my life. And a 50-person, 4-and-a-half-million-dollar water system, if that's really what it's going to cost,

include excavation refusal (inability to cost effectively excavate) due to excessive rock in shallow areas, traffic conditions, and resident access requirements that are identified during the design implementation phase of a remedial action. These factors will affect overall costs of a selected remedy. Finally, the cost of petroleum and petroleum-based products has increased dramatically during the past few years.

Completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not yield a substantial additional reduction of risk to public health and the environment from exposure to Superfund program-regulated wastes.

for which I doubt final plans have even been completed, seems like a good place to start cutting.

One would think that the wastewater system which is supposedly completed except for the piping in the houses, which would benefit people downstream, would be the one part you would finish. I've been jammed up between the County and the EPA and everybody for five years. They won't let me rebuild it and, meanwhile, the EPA pretends to build it and then quits. And if the wastewater system is truly so poorly designed that it would be better to tear out than finish, I ask that the EPA and the County put aside whatever differences they have going on and give me a reasonable option that I can do on my own.
Thank you.

MS. HAMMER: Thank you, Bret.
May.

MS. MOORE: May Moore, that's M-O-O-R-E, 3375 Rimini Road.

I have lived up here for over 50 years, so I think I know all about the water and sewer system and the problems that we have. It would be a huge mistake to not go ahead with the wastewater system. We need it, it's very necessary. I wrote a letter and sent it in, but this is just my opinion. It would be a terrible mistake, and I hope we go ahead with the wastewater system. It's necessary.

Please see response to Mr. Boundy, page 15

MS. HAMMER: Thank you, May.

That was all of the folks that signed up to speak. Are there others who would also like to make a public comment tonight? And we'll go just with however the people raise their hand.

Jim.

MR. MARTIN: To comment?

MS. HAMMER: To comment. Oh, I'm sorry. Jim, if you want to comment, and then, I'm sorry, there are a couple others on the list that was back there.
MR. MARTIN: My name is Jim Martin, I live at 3642 Rimini Road. I've lived here in Rimini 32 years.

Anyway, Senator Barbara Boxer, June of 2005, was quoted as saying EPA, not just in Montana, but nationwide, is out of control and needs to be overhauled. And her specific opinion on Superfund sites throughout the United States, dealing with misinformation of people to the public and overspending the taxpayers' money, is exactly what's gone on up here. Nothing is really justified. This Superfund site in this Tenmile drainage runs parallel with Senator Boxer's quotes.

Ever since its beginning eight years ago, money's seem to be of no object to EPA of Montana for this Superfund site. Yet, Mr. Wardell's office was 18 miles away from this area. Went unchecked. Many of the specific work projects at various locations were done improperly and had to be done over. This Superfund site will give Region 8 EPA a black eye. Because EPA is not in the sewer and water business, providing these two systems would show betterment for the landowners, who then can capitalize on the U.S. taxpayers' dollar for improving his or her property. EPA of Montana, in this drainage area, should fix the road, install RO systems, and leave town.

Thank you.

MS. HAMMER: Thank you, Jim.

In Rimini, there is no evidence that current owners would reap a significant windfall as a direct result of EPA's expenditure of response costs, either from the soil cleanup or construction of the community water system. In addition, a safe drinking water source for residents (with contaminant concentrations reduced below the MCL) is required to address this exposure pathway and provide a protective remedy.

Jock.

MR. BOVINGTON: My name is Jock Bovington, and I live at 3508 Rimini Road.

I just want to say that I am in support of the community's interest in finishing the -- the project as it was stated at the beginning in 2002, the support for both water and sewer. That support in the community started back when the district was voted into place, and there was a very large majority of people that voted in favor of both water and sewer and the district. Since that time, I think we all know that there have been a lot of changes and I think we could go on and on and on about that. The main thing that I think has caused a stressor up here has been such an increase in the cost of the O&M for the community. So the project started as if it was going to be a $35-a-month cost for each household to operate, and that was grossly underestimated. And so as that cost estimate continued to rise, I think the stress level in the community came up.

But what was pretty amazing to me -- And we talk about being divided in the community, we talk about that we were conflicted in the community. I think it's kind of amazing to me that there's been almost the same level of support for this process even with that kind of change. I am amazed at the cost of putting the system in, I mean, to the point where I can't even believe that it would cost that much to put water and sewer in. So Steve's input on those numbers is kind of interesting to me.

Please see response to Ms. Boundy, Pg 15 and Ms. Brown, page 5.

The other issue I want to comment on has to do with the issue Jim just brought up on the issue of betterment. I think we all know what betterment is, and it's people getting something that they don't deserve and that type of thing. That issue probably is not understood more by --better by anyone else other than EPA.

Please see response to Mr. Boundy, page 13.

I mean, that's kind of what they have to know coming into the whole process, is to avoid the whole betterment discussion. And I guess I would have thought that the issue of betterment was addressed back when they decided to add the sewer system to this process. They must have done an evaluation on the betterment issue. The other issue is when they designed the sewer system and they designated which properties were entitled to the cleanup, it seems like their – they answered their betterment issue.

My concern really isn't as much about the betterment side -- although it's kind of hard to be viewed as someone who is the recipient of a number that's so large it's unbelievable, but I'm not as concerned about the betterment side of this as I am about them leaving and then that there's actually going to be harm. So at this point in time, I mean, we have to look at both sides of that. I know there are issues with the County as to how we're going to be treated when they leave if the system doesn't go in, those types of things. So look at the --look at the harm side of the equation, too.
That's all I have to say.

MS. HAMMER: Thank you, Jock.
Kathy Pickett.

MS. PICKETT: Hi, I'm Kathy Pickett, 3455 Rimini Road. I've been up here since 2001. And I just think that the EPA should do what they first started out to do. They promised us this, they said there was no money problems. We've been all through this. We have been cut down in the papers, we've got signs across our street, and we have put up with all this to get the work done. And I think that we put up our side and we stuck behind the EPA, so they should stick behind us.

Please see response to Mr. Ackerland, page 10 and Mr. Boundy, page 13.

Please see response to Mr. Martin, page 17

MS. HAMMER: Thank you, Kathy.
Ron Thompson.

MR. THOMPSON: I'm Ron Thompson. I live at 1 Hidden Cove Court. I have a property up here, about four acres and a couple structures on it. I just want to be brief and say I support the 2002 ROD amendment. I would like to see sewer and water come into this community, and I want to pay the costs -- you know, my share of whatever that's going to be. So I think it's a good thing, it's a good move, and I think it should be completed.

That's all.

MS. HAMMER: Thank you, Ron.
That concludes the list of folks that have signed up, so now we'll open it up to others.

Rick.

MR. GARRISON: Sure. Maybe I'll step up here, too.

You know, I want to say, first off, that I do support the preferred alternative, which is the point-of-use systems. And the decision about betterment and everything has been -- while not made by people's decisions in this room, it was made by regional and national levels. So betterment, I think, has been addressed.

And by the way, I really enjoyed today's article about, what is it, a senate bill, you know, where they're going to try to put a royalty on mining to support future Superfund activities. I mean, I thought that was great.

It's clear to me that mining is doing well. You know, I mean, there's been more money made in this community in the last nine

years than historically in -- well, since 1886.

You know, I do support the RO alternative that's listed here, because it's -- for one, it's been in the 2002 ROD, it's something that's always been available, and it's something that I would always like to have seen Portage Environmental get behind and maybe give us some information on. Because I'm, by the way, the water board vice president. And, you know, we've had kind of a -- our board has, up to now, supported the Advantec system or this drain field. And now that they're not doing that, we have to look at other alternatives. And this one alternative is -- well, it's very inexpensive. And so it brings me to the question of why would they do a water system as an alternative without the wastewater? I just don't quite understand that.

About a year ago, we sat right here and we sent the EPA up to Monitor Creek to look for water additionally for the system, and it was kind of a last-ditch effort. And Portage did the one thing that I really appreciated. It was the one educational message that they gave to us, this guy named Skipper something, I forget his name. Maybe Steve can tell me. But we talked about these wells that were drilled in a shallow aquifer, and it was kind of a long shot, you know.
They weren't going to drill like Lindsay Drilling went to, like 160 feet. We knew that it would be a long shot. And then from a state regulatory standpoint, we realized as a water board that on a public system, there was going to be ground water influenced by surface water and it was too regulatory.
From a permitting standpoint from the State, it was really, really prohibitive.

And later on, we had -- the next water board member meeting we had, we went ahead and voted to, resolved to support EPA in that last-ditch effort to find water, which we know has failed.

As current water sources in Rimini contain metals at levels that pose a threat to human health, EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

We also ruled out the use of the city's surface water. That was done by -- And that's why I ask why are we even considering using it, because it's too regulatory from a state standpoint, to put chlorine in it and everything else that's needed. We've discussed this for years, and it really surprises me why it's even in here. So that's what I wanted to say about that.

The other thing is, you know, back in '92, there was a water court -- Rimini used to have a historic water right that was for public, and all 28 of our townspeople were plaintiffs in a water court case. And a couple particular residents at that point negotiated with the City, who wanted to default this water right, this public system, and they went into court, and what the City -- what was proposed is that the people up in the upper part of town who have infrastructure were going to keep this water right and the rest of the plaintiffs were dismissed as owning this water. And the City agreed with that. The historic infrastructure to the upper properties regained this surface water right that they have. It's Rimini 11.

And I think at that point people like me, whose name was taken off that case, it turned that water from a public system into a private system.

And that's what I think is a real solution here: Go with the point-of-use systems and then figure out how to privatize this Rimini 11 water which exists and not involve the public system or the public EPA. It's very simple and it could be done. These people have a responsibility to their own water right. There's 11 people that have ownership in real property that was taken away from the general public and it is in private hands now. So I implore those people to spend their own money on doing their own infrastructure. The EPA can come in with their point-of-use filters, maybe a pre-filter on some of these systems.

I also disagree in here, briefly, that these point-of-use systems aren't as good and they damage public health. My water is on a spring and it's 99 percent clean. Cathy Eakin, for instance, she's got an RO filter already; it's a hundred percent. Every single source of water should have a tailor-made, custom filter for it rather than a one-size-fits-all that's going to be cost prohibitive and overly regulatory.

Please see response on page 19

I also believe that the water that we have has to dovetail in with the 14 septic tanks that are permitted in this town. You know, if we go to a public water system, is that water going to go for irrigation to some lands that don't have septics? So anyway, I would like to see, at the next water board meeting, further information from the County as to the 14 of us who have septics, what are our futures, what can we do, and maybe some information more on RO filters, because Steve made a good point, there's some -- Let's see here.

You know, another thing that excited me here as a water board member sitting right here, this last election year, a year ago when the Democrats took Congress and there was all this talk about fiscal responsibility and we're going to manage our spending and all that. I mean, we have to look at the fact that we're in Iraq, war, we're spending trillions of dollars. This is borrowed money, people. We don't have the 7 million or whatever sitting in the bank to build this system, it's going to be borrowed. So we need to consider that. I would – It would be great if the EPA, and I think they're on the right track here, would come forward and say, you know what, we're going to pursue the least expensive alternative and it's part of the original Record of Decision and it's suitable for public health, and leave it at that.

And by the way, I, knowing my relationship with the County

and my septic -- My yard has been remediated beautifully. They've certified it as healthy. I do not and will not let them come in with a shovel and dig around my septic, because, again, I would invite county sanitarian scrutiny. And that's 3 million –

Please see response to Ms. Boundy, page 15

Is 7.5 accurate, the 4.5 million for the water system and 3 million more for the additional yard work, is that right, Mike?

MR. BISHOP: Right.

MR. GARRISON: So it's not 4.5 million, it's 7 million.

The last thing I'll say here is the water board, which I, again, am the vice president of, has sort of taken a one-track mind here looking at this Advantec system, and we haven't looked at RO filters and these other options. And now that the Advantec system is off the table, I believe it's time to look at some of these more specific things. In a matter of eight days, I'm going to become the senior water board member. Both Phil and Jock's terms expire on November 7th. So I think it's real important to find out what Don Reimer and Ron Banschbach think about this, because if they think like I do and basically vote not to spend any more taxpayer dollars, we're going to dissolve the water district. It's just going to be over. So -- If it that's contested, it can go to a vote and we can put 300 bucks up for a special election and we can appoint anybody we want on the board. If somebody wants to be on the water board, talk to me, I'm here.

I think I've about covered it all. I just -- just a few points. Most of my points are in writing and have gone on to Washington, D.C., and Region 8, which is where these public comments are ultimately going to end up, because they're the ones that make this decision, not us here.

Thank you very much.

MS. HAMMER: Thank you, Rick.

Would anyone else like to comment tonight?
Michael.

MR. RUSSELL: My name is Michael Russell. My address is Post Office Box 5075 in Helena, 59604. What I'd like to share orally is a summary of a written statement that I've sent to the EPA.

For the second time in a year, I agree with Steve Ackerlund. This Proposed Plan is really pretty shallow, pretty much an empty shell. But I don't think that that's the problem with it. And in disagreeing with Mr. Ackerlund -- I mean, excuse me, in agreeing with Mr. Ackerlund, I disagree with his interpretation of the emptiness of this plan. The $4.45 million is not adequately explained, there's very little documentation,that's been observed and it's all true. But the proper answer to that is not to say let's fill it in and move forward with the most expensive thing to do.

The proper thing to do is to reevaluate the entire thing from square one. And I suggest going back ten years ago, 1996, I guess that's eleven years ago, when the Upper Tenmile Watershed Steering Group used to get together here to discuss the future of their watershed. And I remember that watershed -- I was here for those meetings then, and I remember that watershed group deciding that the most important thing in this watershed of concern to them was water quantity, getting the water into Tenmile Creek. That seems like ancient history now. The number two concern was water quality. We've recently learned in the last year, April 6, 2006, at the Environmental Quality Council hearing that EPA's efforts in the Upper Tenmile

will not necessarily provide any improvement to water quality downstream. Mr. Bishop said on television that there has been a misrepresentation or a misconception that work up here is somehow going to improve water quality at the Tenmile plant. So in the last ten years, we can certainly say that the number two concern of the original Upper Tenmile Watershed Group is null and void; water quality is not even an objective.

Please see response to Mr.Boundy, page13

And we all know how much more water there is in the creek now than there was ten years ago. That's what started this. That's what brought EPA in here. We also know that the Upper Tenmile Watershed Group discussions have turned into EPA meetings, well over a hundred of them. And I had lunch, I remember, nine years ago, I think, with one of the originators of the Upper Tenmile Watershed Steering Group, Pat Hettinger, who was fortunate enough to fly the coop before seeing the results of her initial efforts. She showed me a letter that she wrote to EPA expressing two very serious concerns: One, that control of what happens in this watershed would be lost, given up to EPA, and two, that the objectives would be misplaced in the mayhem that was probably going to follow. And both of those have come true.

He's not here, so I'm going to go ahead and thank him. He probably wouldn't want to be thanked by an anti-government terrorist like me, but Mr. Boundy has expressed an opinion tonight that I can only say I'm grateful to have heard and I am shocked it is not shared by every decent and reasonable person in existence in this room, and that is that we have watched, in these last eight years that EPA has been here, time and again, it will be done in 2003, it will be done in 2004, it will be done in 2005, 2006; 2007, we're in limbo; now we can do it in 2008 or maybe 2009. There is nothing on earth to suggest that these past eight years -- that what has led to

everything that has happened in these past eight years is going to be different next year, that all of a sudden EPA is going to discover ability and competence and skill, do what they say when they say they're going to do it for price they say. And I'm certainly thankful that Mr. Boundy, although I disagree with his interpretation of the need for sewer -- The National Remedy Review Board was very clear on their response to Assistant Regional Administrator Carol Rushin on how that is how betterment and why it is not a Superfund remedy for this area. I agree that to look at $4.45 million for 50 connections --I don't know where these 50 connections comes from, there are 23 full-time residences here, 33 voting age residents in the community.

And also, another thing, I and friends of mine have been called, in effect, a liar. And I guess I should mention, since some of my friends are here who probably aren't disturbed by those accusations. David Cooper of the National Remedy Review Board received a letter from the Rimini Water & Sewer District alleging, quote -- this is in May of 2007, prior to the remedy review hearing --"that the Rimini Water & Sewer District is confident there will be near 100 percent voluntary participation in the community system in the future." Now, when I hear near 100 percent, not the majority, not most folks, but near 100 percent, I have visions of maybe 95 percent or, to be generous, 90 percent.

Jim, when the 4-and-a-half-million-dollar water system is installed here as EPA would like to, when in the future are you going to hook up to it?

MR. MARTIN: I sort of doubt it. Never.

MR. RUSSELL: Rick, how about you?

Please see response to Mr. Martin, page 17

MR. GARRISON: Never.

MR. RUSSELL: Kathy?

MS. EAKIN: No. No way

MS. HAMMER: Excuse me, Michael, could you kind of wrap up your comments? I think some other people –

MR. RUSSELL: Yes. I would be happy to wrap up my comments.

Would you please indicate that the Rimini Independents have no intention of hooking up to this system, nor do the other seven people in this community. That's twelve out of thirty-three voting residents.

Ten years has shown us what EPA can and cannot do. There is nothing on earth to suggest that next year or the year after, they're going to do any better. Please, admit your mistakes, stop trying to save face, do the least required by the ROD, and go home. Thank you.

MS. HAMMER: Thank you.
Marilyn.
MS. MONROE: Well, my name is Marilyn Monroe, and I live at 25D Stoney Brook Village, Montana City. I've been a property owner up here in Rimini since 1995. And I guess I just want to say that I fully support the original idea of putting in a wastewater system, and if it's built, I will hook up to it.

So thank you.

MS. HAMMER: Thank you, Marilyn.

I just saw a hand over here also. Thought I did. Would anyone else like to make a comment tonight?
Please go ahead.

MS. WINAND: Sally Winand, W-I-N-A-N-D, Post Office Box 1353, Mayfield, Colorado. I first came up to Rimini 15 years ago, and when I came, it was a beautiful, delightful mountain community. When I came back last year, it was desolate and barren and had lost a lot of charm and character.

Please see response to Mr. Ackerlund, page 11

I've been following all the articles in the newspaper, and I am appalled at the amount of taxpayers' money that has been wasted on such a few people when there are other places that the money could have done much better.

MS. HAMMER: Thank you.
Anyone else?

Cathy.

MS. EAKIN: Cathy Eakin, E-A-K-I-N, 3440 Rimini Road.

After reviewing the Proposed Plan, I think it's ridiculous and a waste of money to dig under septic tanks to remove potential contaminated soil. I feel the EPA should do the minimal requirement and leave town. The road through the community should be the top priority and be reclaimed immediately. The community doesn't need a water system. Everyone has water but needs to take responsibility and purify their own water, like I have for over 12 years. Spending $4.45
million on a community water system is betterment in the same way as a sewer system.

The people in Rimini do not take the health risks seriously. In

1996, I was the only person to participate in a voluntary lead study by the County. Last year, only two residents participated in a federal government in-home test for metals. The EPA has been here since 1999 and there is not a lot to show for all the money spent.

Please do the road and in-home water systems and leave our community as soon as possible.

MS. HAMMER: Thank you, Cathy.

MR. GARRISON: Can I make one brief comment on one specific thing?

MS. HAMMER: Sure. Please restate your name, sir.

MR. GARRISON: It's Rick Garrison. I'm vice president of the Rimini Water & Sewer District, and I live at 3434 Rimini Road, which is the old railroad depot site over here.
In order to be protective of human health to the community, EPA must remove all high threat surface soils. Wholesale remediation of the road prior to completion of yard remediation would cost the tax payers twice as much as sequentially remediating Rimini Road.
The one thing as far as the water board is concerned, I disagree that -- of this general notion of institutional control. I personally will, when I get a filter put on -- whether I pay for it myself like Cathy did or get the EPA to help me design and put one in, I want to develop a relationship with the State and I want to form maybe a simple water filter users association to where we could get a certified tech either annually or biannually, quarterly, whatever they would prefer. But we don't need a full-blown political subdivision of a water and sewer district to manage this thing they call institutional control. That whole concept is kind

Please see responses to Mr. Garrison, page 19 and Mr Kochman, page 7

of a slap in our face. I mean, I don't understand, but I can certainly understand where the EPA is coming from where, the State is coming from when they throw that term around. But I have a solution for that and it doesn't include having a water district.

So thank you.

MS. HAMMER: Thanks, Rick. Other comments?
Don.

MR. REIMER: Don Reimer, R-E-I-M-E-R. I live at 3372 Rimini Road. I've been here since '84 and I've been on the water-sewer board since 2005.

I'm in support of the -- I was in support of the 2002 ROD, and I think it should be completed. I'm also on the water-sewer district as the president, and we've been working very tirelessly on all the issues that have been addressed. We've been trying to form the district. As the district, we think that the sewer and the water is necessary for the community. We would like to see it completed.

Thank you.

MS. HAMMER: Thank you, Don.
May.

Please see response on page 19.

MS. MOORE: May Moore.

I'd like to clarify. I thought Rick Garrison was no longer on the water-sewer board. I thought since he hadn't attended, he was no longer on the board, and I would like someone to clarify it, if somebody can tell me that.

Thank you.

MR. GARRISON: Well, Marilyn Bracken is the county -- you know, she's the one to talk to.

MS. HAMMER: Well, maybe we can follow that up a little later.

MS. MOORE: I would appreciate it.

MS. HAMMER: Are there other comments for evening? Jock.

MR. BOVINGTON: My name is Jock Bovington; I live at 3508 Rimini Road.

I, up until recently, was on the Water & Sewer District Board. I was on the Water & Sewer District Board at the beginning. It's been, what, three or four months ago that I resigned -- six months ago that I resigned from the water and sewer board, and that position was filled by Renee Boundy. And I just want to say that Rick -- for Rick Garrison to not be even aware of that seems to give everyone here an indication of, you know, what type of board member he has been. And I just want to go on record for that.

Please see response to Ms. Boundy, page 15

MS. HAMMER: If we can keep our comments to the Proposed Plan. Thank you for the clarification, but the purpose of tonight's meeting is to take your comments on what EPA is proposing.

Does anyone else have anything they'd like to say?

(No response.)

MS. HAMMER: Well, there are many opportunities to comment. If you don't wish to speak tonight, you can certainly send us an e-mail, you can send us a letter by regular mail -- some of you have already done that – or if you want to just make a brief comment on this sheet of paper up here (indicating), you're welcome to do that, as well.

Last chance for comments.

(No response.)

MS. HAMMER: Okay. Well, thank you very much for coming. We appreciate your comments. I know there's some hard decisions here. I don't think it will be easy, but we will be reviewing -- after the close of the public comment period, we'll be reviewing all the comments, we'll consult with the DEQ, and then we'll make a decision about how to move forward. And we're expecting that decision to come out in late January, early February 2008, so in the next several months.

Thank you very much. We'll be around here for a few minutes if anyone has anything else they'd like to add.

Thank you.

(The public hearing was concluded at 7:32 p.m.)

* * * * * * * * *

Michelle Brown
Jack Bovington
11/30/2007

Mike Bishop
EPA Project Manager
US EPA, Montana Office
10 West 15th Street
Helena, MT 59626
Susan Bodine
Office of the Assistant Administrator of OSWER (5101T)
EPA West Building
1301 Constitution Ave, NW
Washington DC (20004)

Subject: Comments on the Proposed Plan, Upper Tenmile Creek Mining Area Site, Lewis and Clark County, Montana

Dear Mr. Bishop and Ms. Bodine,

The members of Rimini Community Incorporated (RCI) appreciate this opportunity to provide our comments to the proposed amendment to the 2002 ROD. RCI members also appreciate the work EPA has done within the Tenmile watershed to address abandoned mine sites and remove waste from residential areas. We have been in support of the overarching goals of protecting human health and improving environmental quality since 1999 when the Upper Tenmile was included in the EPA NPL. While there have been many questions and ample concern expressed over the years as residents try to understand the EPA decision –making process, we are supportive of EPA's decisions expressed in the Proposed Plan to complete yard remediation work, proved an affordable community water system, and complete numerous additional remediation projects in the watershed.

We must also express serious concern over the inadequate evaluation supporting the preferred alternative in the Proposed Plan. Specifically, the

preferred alternative:

1) Does not adequately demonstrate that the threshold criterion of protection of human health and the environment will be achieved;

2) Does not adequately demonstrate that the threshold criterion of compliance with ARARs will be achieved;

3) Does not provide adequate evaluation of the economic viability of the Rimini Water and Sewer District (RWSD) if it only provides drinking water supply; and

4) Does not provide a complete, accurate, and sufficiently explained assessment of cost.

The detailed comments provided below identify issues demonstrating that the preferred alternative in the proposed ROD amendment is not a legitimate alternative in part because it lacks the additional data collection and analysis necessary for adequate evaluation. If provided, we believe this information would support the conclusion that the preferred alternative does not meet the threshold criteria. In contrast, the 2002 ROD alternative was adequately evaluated, does meet the threshold criteria, and should remain the preferred alternative. It is our observation that much of the stakeholder knowledge important to this evaluation has not been adequately recognized and considered by those who prepared the Proposed Plan. Consequently, the EPA has not achieved its goal to "advocate and strengthen early and meaningful community participation during Superfund Cleanups" (http://epa.gov/superfund/community/index.htm).

We respectfully request that the EPA revise this proposed ROD amendment and commit to working more closely with affected stakeholders to develop an alternative that will meet EPA's goals, be in compliance with all applicable or relevant and appropriate requirements (ARARs) and result in real improvement to public health protection. Recent RCI discussion with other stakeholders, including Lewis and Clark County, the US Forest Service and the City of Helena, indicates that the common goal of a community wastewater system is still strongly supported yet needs the cooperation of the EPA to be accomplished.

The section below details our concerns, questions and comments to specific parts of the proposed plan,

1) Introduction, P1, para 1: Sentence one overstates the level of evaluation performed. The only new information generated to support this evaluation is a re-assessment of capital costs. The focus on cost, in conjunction with greatly exaggerated cost estimates and overall project cost over-runs (addressed in a alter comment) gives the impression of a politically, rather than factually motivated basis for the Proposed plan. Please be more explicit on the purpose and scope of this assessment, or indentify the additional evaluations that support this Proposed Plan.

Present worth costs for the selected remedy are presented in the ROD amendment. These costs include O&M and ongoing maintenance costs.

2) Introduction, p1, para1, The text omits any mention of involvement in the development of the Proposed Plan by the Montana Department of Environmental Quality (MDEQ). Superfund regulations require that the Proposed Plan identify the extent to which the support agency(ies) are in agreement with the proposed plan. Please include a description of MDEQ's involvement and final position regarding the preferred alternative.

DEQ has reviewed and commented on both the Proposed Plan and the ROD amendment

3) Introduction, p1, para2: To state that "the community of Rimini is divided" is a gross mischaracterization of the history of events on this project. There are 3-5 individuals who are vocal opponents to the EPA and Superfund actions. They call themselves the Rimini Independents and oppose the project on the philosophical basis that they are anti-EPA. Their leader does not reside in the Community of Rimini. The majority of the citizens of Rimini, Lewis and Clark County Leadership, the City of Helena leadership, and nearby residents are supportive of the 2002 ROD. This majority support has been well documents in letters and discussions with the EPA Montana Office. Members of RCI have worked throughout the Superfund project to engage in a constructive dialogue and problem solving. To characterize such efforts as "divided" based on a very small vocal minority is misleading and incorrect. To give equal weight to the anti-government sentiments of this minority is irresponsible. Please revise this text to clarify and

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

support this claim or revise it to acknowledge the support that has been given to EPA on this project by the majority of Rimini residents and other key stake holders.

4) Introduction, p2, para 1: Please refer back to comment 1 and explain how the EPA determined to focus the re-evaluation only on the Capital cost of the community wastewater system.

The ROD amendment provides a present worth evaluation which includes O&M costs.

5) Nature and Extent of Current Contamination in the Community of Rimini, p3 second bullet: A detailed and quantitative assessment of the areas already remediated and those needing remediation in Rimini must be included to support the evaluation of Overall Protection of Human Health for the Preferred Alternative in Table4. Due to lack of assessment, there is no documentation to support the assumption that property owners, who now face potential enforcement action from the County for septic system disturbance, will allow remediation of areas in yards containing the septic system. Current property owner input suggests that existing EPA efforts have left as much as 30 to 40 percent of some yards not remediated.

Implementation of a remedy, regardless of the protectiveness to human health or the environment, is always contingent upon permission of a property owner. Should a property owner deny access for completion of any remedial action activities in writing, EPA will not pursue further actions on that property. However, EPA will note the residual contamination in the record and may place a notice on the deed for that property describing the residual contamination.

The cleanup levels used to determine yard cleanup are risk based and do not vary from those proposed in the 2002 ROD

6) Summary of Human Health Risks, p4, para 3. A presentation of the incremental lifetime cancer risk for the post remediation condition for both the 2002 ROD and preferred alternative must be provided to support the evaluation presented in Table 4. In consideration of concerns described in comment 5 about property owners allowing permission for additional yard remediation under the preferred alternative, the risk evaluation should include a range of risks for a limited remediation scenario and a full property owner cooperation scenario.

Comment noted.

7. Evaluation of Rimini Water Supply Options, pages 4-7: We are not providing detailed comment on this section of the proposed plan. RCI concurs that options B and C are unrealistic for the Community of Rimini, and supports the 2002 ROD decision to construct a community drinking water system to provide effect, long-term, clean and healthy drinking

There is currently no state prohibition for constructing and using a community water system at residences using wastewater systems that do not meet current state requirements. Under state law, counties may enact such a prohibition. However, according to

water throughout the home. This support has always been based on the completion of a combined water and wastewater system. Business planning and cost estimates conducted by the TAG advisor have led RCI and the RWSD to conclude that a water only system is not a viable alternative. None of the information leading to this conclusion has changed. Therefore we continue to believe that the water system, cannot be evaluated independently of the wastewater system. EPA should evaluate if it is legally permissible and environmentally responsible to provide water to properties that have failed, non-compliant, or otherwise sub standard septic systems (that operate using older design and within a floodplain under the "grandfathered" provisions). EPA should also evaluate if there is sufficient economy of scale to support a water only system at a reasonable operation and maintenance cost. These comments are not provided to encourage a more complete assessment of integrated water/wastewater alternatives.

Lewis and Clark County officials, a home with a "grandfathered" (pre 1972) septic system that is not in failure could be hooked up to a community water system without violating state or county requirements.

8)Evaluation of Rimini Wastewater System Options, p7, para 2: In the event that further assessment leads to the conclusion that the Preferred Alternative does meet the threshold criteria and is therefore a valid alternative, it is our position other alternatives should still be considered. Such recognized options must be considered more fully as EPA continues to strive for cost savings by eliminating task identified in the 2002 ROD. For example, assuming the RWSD can successfully negotiate with the Forest Service regarding property use and can identify alternative financial support, the EPA could chose to leave the currently installed wastewater system component in place, and thereby reduce costs. The insufficient evaluation included with the proposed ROD amendment reflects a failure of the Remedy Review Board and the US Army Corps of Engineers to constructively identify other cost saving options. RCI continues to be willing to work more constructively and collaboratively with the EPA to identify other options that better meet the needs of all stakeholders.

The selected remedy meets all ARARS and considers all TBC such as the DEQ water circulars in design of repair/replaced individual septic systems.

9)Preferred Alternative- Halt Construction of Community Wastewater system, replace individual septic systems on case-by-case basis, p7, para 9: The

The 2400 cubic yards is based on contaminated yard material over septic

basis for removing approximately 2,400 cubic yards is not clear. Please provide a more complete list of assumptions used to support this estimate (see also comment 5). EPA must first evaluate and resolve the ongoing legal controversy with the County regarding potential property owner liability from past and future proposed EPA actions. Again, there is no documentation provided to support the assumption that property owners will cooperate with further yard remediation actions, given that some property owners now face very problematic and expensive liability due to the damage to existing septic systems cause by the remediation thus far. The Preferred Alternative cannot be considered as legally defensible or expected to provide further health protection until this issue is resolved with property owners and the County. This issue was resolved through the more detailed evaluation that comprised the 2002 ROD and resulted in the selection of the alternative to construct a wastewater system. The only condition that is known to have changed since the 2002 ROD is that EPA has overrun their budget, a problem for which other options than project abandonment must certainly be worth investigating. EPA must evaluate the legal issues faced by property owners before an adequate assessment can be made regarding the amount of soil that would be removed from yards under the Preferred Alternative.

systems in residences that still require yard remediation.

Please see response to Comment 5.

10) Preferred Alternative- Halt Construction of Community Wastewater system, replace individual septic systems on case-by-case basis, pg7, para 10: To comply with EPA guidance. EPA must identify the magnitude of the residual risk.

Residual risk is defined in the 2002 ROD

11) Comparative Evaluation of Wastewater Options, Table 4, pg8: The 2002 ROD alternative is well supported by the detailed analysis that supported it. While recognizing that a ROD amendment need not address the entire project as comprehensively as the original ROD, more specifically this table is deficient in its analysis of the following new project elements comprising the Preferred Alternative:

a) Overall Protectiveness of Human Health and the Environment, EPA has not completed sufficient evaluation to support the claim that

Prior to selection of waste exaction coupled with the repair and replacement of existing individual waste treatment systems as the proposed remedy , this action was evaluated against the NCP threshold criteria for both overall protectiveness of human health and the environment and compliance with ARARs as

additional soil removal will be achieved (see comments 5 and 9). The uncertainty in achieving soil removal distinguishes this alternative from the 2002 ROD Alternative, and in keeping with the High/Low grading system, this square must be scored low. The Proposed Plan does not address the "Environment" component of this threshold criteria as required under the NCP. The co-mingling of mine waste issues with non-compliance septic issues in a watershed that does not meet designated beneficial uses because of both metals and nutrients requires that all of these pollutants be considered within this Superfund remedy. While the Superfund action was not initiated to address septic related nutrient issues, the two alternatives under consideration clearly differ in the degree of environmental protection they provide because the Preferred Alternative does not equally protect Tenmile Creek. EPA must consider the environment in the context of this evaluation criteria, and upon doing so score the Preferred Alternative lower than the 2002 ROD alternative.

pertains to heavy metals and other hazardous contaminants regulated under CERCLA. Then, the proposed action was comparative evaluated against the 2002 ROD proposed remedy using these criteria. The results of this comparative analysis showed the proposed remedy outlined in the ROD amendment to be as protective as the remedy proposed in the 2002 ROD.

b) Compliance with ARARs. EPA's assessment of ARARs is wholly inadequate (see comment 15). The EPA does not adequately respond to or explicitly waive Montana water quality rules regarding septic system permitting (per comment 9), as required by guidance and regulation. EPA must explicitly state they are waiving the Montana Water Quality Act as an ARAR and explain how this waiver legally protects citizens from legal action by the County, or the EPA must concede that the Preferred Alternative gets a Low score for Compliance with ARARs.

The selected remedy is compliant with ARARs. Any repair or replacement of individual septic system will follow the design criteria outlined in the DEQ circulars , which are TBSD for the ROD amendment

c) Long-term Effectiveness and Permanence. Considering comment 5, it is not correct to state that the Preferred Alternative will remove "all contaminated material from yards." EPA must revise this statement and downgrade the ranking.

Removal of contaminated yard material is a permanent and effective long term solution to human exposure. Supplying a community water system is a permanent and long term effective method of eliminating exposure to contaminated drinking water.

d) Reduction of Toxicity, Mobility, and Volume through Treatment, Contaminant mobility will be reduced for both alternatives by excavating contaminated soils and placing them in an engineered repository. The 2002 ROD alternative

Removal is not treatment and this criterion deals with treatment.

will also reduce mobility of nutrients to Tenmile Creek, and therefore deserves a higher ranking.	
e) Short-term Effectiveness. In this case, the comment focuses on the ranking for the 2002 ROD Alternative. The term "impacts" is not clear in this context. Past construction efforts have demonstrated that EPA can control dust and reduce any health impacts to insignificant efforts. Consideration of other "impacts" such as inconvenience would not seem appropriate. The term "impacts" must be clarified, and the ranking upgraded to reflect the adequacy of control during construction to protect health.	Comment noted.
f) Implementability. Considering the legal issues and stakeholder conflicts that the Preferred Alternative creates regarding the enforceability of Montana's water quality laws to resident septic systems, the implementability must consider operational costs. Assessments conducted to date by RCI and the RWSD lead us to conclude that a water only system will have unacceptable operation and maintenance costs. This criterion must be downgraded relative to the 2002 ROD alternative unless legal issues are resolved, acceptable cost estimates are provided, and affected stakeholders agree to cooperate with proposed solutions.	Detailed cost estimates, including O&M and ongoing maintenance costs for the selected remedy are presented in the ROD amendment.
g) Capital Cost. First, EPAs regulation and guidance require the consideration of both capital and operation and maintenance costs. The omission of operation and maintenance costs was a serious omission from the 2002 ROD as well. At a minimum a financial operating plan for the RWSD should be provided. Such a plan would reveal that the District will face substantial startup costs as they build a warehouse of parts and experience to maintain the system. EPA should not the evaluation of alternatives complete until a comprehensive business plan is prepared working closely and collaboratively with the RWSD and other stakeholders. This plan would identify terms for transfer of ownership from EPA to the District, consideration of ordinances established by the District, hidden capital costs associated with startup, any revenue shortfalls that may occur during early months or years of operation,	Present worth costs are presented in the ROD amendment.

ongoing operation and maintenance costs, agreements with the City of Helena for water, completion of the wastewater discharge application process, and tentative labor agreements to support operations. Once a comprehensive business plan is complete, the EPA will then be in a position to properly estimate costs. The current cost estimates provided by EPA are insufficiently explained and justified. The gross increase in cost estimate from prior estimates reflects a failure of the Remedy Review Board to sufficiently identify and eliminate wasteful practices. This gives the impression that the inflated and unsubstantiated cost estimates support a political agenda by allowing the EPA to take credit for achieving phantom savings. EPA must attach detailed cost estimates to the future versions of the Proposed Plan and provide a detailed justification for why prior costs greatly exceed budgets costs. EPA must also provide justification for why alternatives to existing practices cannot be identified to better manage their cost overruns. Once this information is provided, we anticipate the term "much higher" will not be supported. In summary, the cost information provided in inadequate to support revising the 2002 ROD alternative. Rather, EPA should offer up constructive alternatives to improve cost control. RCI would like to participate in the development of these alternatives.

12) NCP Evaluation Criteria, P 9, box 8: Per comment 2, the Proposed Plan must state DEQ's position regarding the decision.

Please see response to comment 11.

13) NCP Evaluation Criteria, P9, box 8: EPA guidance indicates that EPA should provide a summary of community views. Per comment 1, the EPA must accurately identify and describe the community support of the 2002 ROD.

A responsiveness summary is included in the ROD amendment.

14) Overall Protection of Human Health and the Environment, p 9, last para: EPA must support the implied position that 2,400 cubic yards of soil will be removed under the Preferred Alternative (see comment 5). EPA must also identify the residual risk associated with different potential outcomes of the Preferred Alternative, recognizing that continued

Please see response to Comments 2 and 5.

Please see response to Comment 11

property owner participation is highly uncertain under the Preferred Alternative (see comment 6).

15) Compliance with ARARs, Preferred Alternative, Soil Remediation with Septic System Replacement on Case-by-Case basis, p 10, para 6: The statement, "EPA believes this approach complies with ARARs," does not meet the functional definition of having conducted an "evaluation." Superfund regulations require a new ARARs analysis when a ROD is amended. EPA must describe how the newly identified Preferred Alternative complies with each of the laws and related regulations identified on page 10 of the Proposed Plan. When completed, it is likely the Preferred Alternative will not comply with ARARs. Mine waste and septic issues are inextricably linked in the Community of Rimini. The preferred alternative does not ensure that septic systems will be managed in accordance with the Montana Water Quality Act. It is also unclear whether a water only alternative will be financially viable, putting in jeopardy accomplishing the protections intended under the Safe Drinking Water Act. If EPA decides to not achieve ARARs explicit documentation about any waivers and how such waivers will protect residents must be provided (see comment 11b).

Please see response to Comment 11

16. Cost, p 12 and 13, EPA should provide documentation to substantiate and explain the significant increase in cost estimates to complete the 2002 ROD alternative and the basis for the Preferred Alternative cost estimates. Without such explanation, a complete review of the Proposed Plan is not possible. Questions about the cost increases should be resolved with stakeholders before releasing a final Proposed Plan. For example, it is not clear why removing existing wastewater components has a relatively minimal cost compared to the seemingly inflated costs to construct.

Please see response to Comment 11

17) Summary of Comparative Evaluation, p 13, para 1: The Proposed Plan does not support the statement that the Preferred Alternative "proves the same level of protection." As stated in prior comments, the preferred alternative does not guarantee that any

Please see response to Comment 11

additional yard remediation will be allowed by property owners due to potential liability under the Montana Water Quality Act. Further, the statement ignores the environmental benefits of reduced nutrient release to Tenmile Creek that is afforded by the 2002 ROD alternative. No documentation is provided to support and justify the costs differential and costs to complete the wastewater treatment plant appear inflated. The disruption to the community to complete the wastewater system would be welcomed by the majority or residents and property owners and cannot fairly be characterized as "causing significantly less disruption." The summary fails to identify the uncertainties associated with implementing the preferred alternative. Yards may not be remediated, many properties may not be able to receive water from a community water system because they have non-compliance wastewater systems, and the economic viability of a water only District has not be adequately evaluated. Extremely important and omitted from any consideration are the future repercussions of EPA leaving the RWSD in an economically vulnerable position. Registered voters within the District boundary formed the Rimini Water and Sewer District with encouragement and assurances from the EPA that as part of the 2002 ROD both a water and wastewater system would be completed. Under Montana law the RWSD cannot be dissolved without the approval of the County commissioners, which is extremely unlikely due to the water quality challenges in Tenmile Creek. The alternative is that property owners will become burdened with extremely high fees to complete the wastewater system and maintain the District. Within the Proposed Plan, EPA must acknowledge the need for a comprehensive business plan for the RWSD that helps ensure its success (see comment 11g) or it must identify the likelihood of the long-term financial burden EPA will have imposed on property owners by not fulfilling their expressed agreement to construct a quality wastewater system when they urged residents to form the District.

Please see response to Comment 5.

18) Community Participation, p 13: The TAG program has been beneficial in assisting members of the Community to keep informed of EPA's plans, and supporting their efforts to participate more

Comment noted.

effectively with EPA. However, the EPA needs to move well beyond the TAG meetings, and newsletters to achieve "meaningful" public participation. RCI and other stakeholders would be much better served if EPA would embrace their stated goal of providing "meaningful" community participation beyond the minimum required by law. The dedicated efforts of RCI and other stakeholders to collaboratively engage the EPA have been consistently met with internal EPA decisions announced and defended, but with little to no inclusion of stakeholder input. The real motivation for dropping completion of the wastewater system is not clear, nor is it ever clear who in the EPA organization is responsible for the decisions. RCI strongly believes that the 2002 ROD alternative was a good decision. If EPA, working independently, cannot conceive an approach for achieving the 2002 ROD Alternative at an acceptable cost, RCI is willing to work constructively and collaboratively with the EPA to identify alternatives that can. A more effective community participation plan should be identified in this Proposed Plan.

Sincerely,

Michelle Brown

President, RCI

Jack Bovington

TAG Manager, RCI

Kevin T Riordan

12/03/2007

Mr. Mike Bishop
US Environmental Protection Agency
Montana Office
10 West 15th Street, Suite 3200
Helena, Montana 59626

Dear Mr. Bishop,

This letter is in response to your request for comments on the new preferred alternative the EPA is considering after the re-evaluation of the remedy which was selected for the Rimini community in the 2002 Record of Decisions (ROD) for the Upper Tenmile Creek Mining Area Superfund Site.

The only difference between 2002 ROD for Rimini and the proposed new preferred alternative involves the community wastewater system. Namely, after re-evaluation, in the EPA's preferred alternative the wastewater facility would not be constructed. The other features of the 2002 ROD would remain, including the construction of a community water system.

As you are aware, the Forest Service has been a cooperating agency in the Superfund cleanup of the Tenmile Watershed since the Superfund planning began, and we have worked closely with EPA in all aspects of the analysis, the ROD and the implementation of the 2002 Decision.

Included in the 2002 ROD was construction of a wastewater system for the community of Rimini. With no suitable options for locating that system on other than National Forest System lands, a site for that system was located on the Helena National Forest just south of Rimini. After completion of the system, ownership of the land and the improvements was to be transferred to the Rimini Water and Sanitation District. Construction of the system was begun in 2005

and then halted in 2006. Currently a bridge over the Tenmile Creek, a 40,000 gallon holding tank, a leachfield and other infrastructure are located on the site.

As we have discussed previously, those improvements on the Forest present a liability to Forest Service and we have requested that if they are not completed and ownership of the property not transferred, they must be removed. Our position has not changed, and the removal of the improvements is included in the new preferred alternative. However, we do recognize the potential for utilization of the holding tank as a fire engine fill site and if an appropriate entity can be identified who will be responsible for the tank, we will consider allowing the tank to remain in place. All other infrastructure would be removed.

Comment noted.

Recently we were approached by Lewis and Clark County and the Rimini Water and Sewer District about the possibility of leaving the wastewater system infrastructure in place until such time as they can obtain another source of funding to complete the system. In our discussions with them, we reiterated our concern with the issue of liability for the system and the need for it to be removed from the National Forest. However, we also discussed the possibility of transferring the ownership of the land to the County or District through an appropriate process such as land exchange, thereby relieving us of that liability. Thus, before EPA makes its final decision on the disposition of the wastewater system, I suggest that the Forest Service, EPA, County, Water and Sanitation District, and other interested parties meet to discuss the possibility of leaving the infrastructure in place.

Comment noted.

In closing, be assured that the Forest Service will continue to work closely with you in the continued implementation of the 2002 ROD and the forthcoming revisions to that ROD. If you have any questions regarding this letter, please

contact me at 449-5201, or Helena District Ranger Duane Harp at 495-3924.

Sincerely,
Kevin T Riordan
Forest Supervisor
CC: Lewis and Clark County Commission

Roger K Siewert

11/10/2007

Mike Bishop
EPA Project Manager
US Environmental Protection
10 West 15th Street, Suite 3200
Helena, MT 59626

Dear Mike Bishop:

I have supported the Upper Tenmile Watershed group from its start. I believed at that time, that the EPA would be the best governmental agency to help address the number of environmental problems in the watershed. The two most important problem being water quality and quantity. The 2002 ROD addressed these.

The 2007 ROD plan removes one of the worst environmental problems in the watershed, that being residential sewer systems dumping sewer waste into a narrow mountain valley ground water system, to be carried down stream.

There for I cannot support this change to the 2002 ROD. I believe that a monitored central sewer system will be required in the near future.

Thank you for your time.

Sincerely,

Roger K Siewert

EPA cleanup options are completed under CERCLA, which addresses uncontrolled releases of hazardous chemical and metals. Biota and sewage do not fall under the CERLA enforcement actions and are therefore not part of the EPA evaluation of alternatives.

EPA has sampled Tenmile Creek for nitrates, biota and other indicators of sewage loading to the reach running through Rimini. The result of the sampling events demonstrates no measurable loading into Tenmile Creek from leaking septic systems in Rimini.

Melinda Stanton

Dear Mike, Carol, and James,

I read with dismay the article in the Helena Independent Record regarding money to be spent up in Rimini, MT, for 4.45 Million for surface water treatment plant for 13 homeowners. What a waste of money!!

Why aren't these homeowners paying for their own water system? Why should taxpayer money be used so frivolously? It is good that this waste of money is getting national attention, and hopefully you will come up with a better plan.

Sincerely,

Melinda Stanton
Anaconda, MT
Laguna Beach, CA

As a result of contaminant releases from historic mining operations, current water sources in Rimini contain metals at levels that pose a threat to human health. EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

Alvina Welliver

10/20/2007

US EPA- Montana Office
Attn Mike Bishop
10 West 15th Street, Suite 3200
Helena, Montana 59626

Dear Mr Bishop:

This is not with regard to the revised, proposed cleanup plan for Rimini, but rather a few comments on the project.

I feel so sorry for some of the Rimini people. The original problem was with the road, but with all the remedial being done, and the work in the Landmark area, the money is gone and the road still isn't taken care of.

Remediation of the Rimini road is part of EPA's preferred alternative presented in the ROD amendment.

It would have been so much better if the Rimini project had been completed before so much time and money was in the Landmark area. I have lived at 1373 Rimini Road since 1958 and I have lived to be 88 years old. So I don't think the situation was urgent as that in Rimini.

Despite all the time and money spent on this project the people in Rimini are worse off than they were to begin with. My understanding is that many of the septic systems were damaged during the remediation and there doesn't appear to be a solution. Hopefully more immediate help with be forthcoming for the Rimini people.

Under the preferred alternative, EPA will repair or replace systems damaged during excavation of contaminated yard material. EPA will continue to work with the District and Lewis and Clark County to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

Sincerely,
Alvina Welliver

Jim Wilbur for Spencer Shropshire

11/30/2007

Mike Bishop
EPA Project Manager
US Environmental Protection Agency
10 West 15th Street, Suite 3200
Helena, MT 59626

RE: Comments on Proposed Plan for Modification of ROD for Upper Tenmile Mining Area Superfund Site.

Dear Mr. Bishop:

The Lewis & Clark County Water Quality Protection District (District) was established in 1992 "To preserve, protect, and improve water quality within the District Boundaries," which include the Upper Tenmile Creek Watershed. The District was involved in the establishment of the Upper Tenmile Watershed Steering Committee and its ongoing efforts of tracking the US Environmental Protection Agency (EPA) cleanup activities that led to designation of the Upper Tenmile Creek Mining Area Site as a CERCLA Superfund cleanup site. Since the District has been involved with EPA clean-up efforts of the designated Superfund site, we offer the following comments on the "Proposed Plan for Modification of ROD for Upper Tenmile Mining Area Superfund Site" (Proposed Plan) published in October 2007 and its recommended modifications. It should also be remembered in this discussion that the EPA created certain expectations and made promises pertaining to the cleanup of Tenmile Creek itself throughout the community's consideration of designating the Upper Tenmile Watershed as a Superfund site and during the years of developing the 2002 Record of Decision.

The Proposed Plan examines several remedies approved in the "Record of Decision, Upper Tenmile Creek Mining Area Site, Lewis and

Clark County, Montana" (ROD) issued in June 02. In particular, the Proposed Plan reviews the approved remedies for the Rimini area contained within the 2002 ROD for the Upper Tenmile Mining District including excavation of contaminated yard soils, construction of a community wastewater system, construction of a community water supply system, and excavation of mining wastes contained in the roadway within the community of Rimini. The Proposed Plan contains options regarding each of these remedies with an EPA Preferred Alternative identified that could be implemented through a ROD amendment.

I. Wastewater and soils

We disagree with EPA's proposal to abandon the community wastewater system. The following comments are made with reference to the NCP Evaluation Criteria.

Comment noted.

1) Overall protection of human health and the environment

The preferred alternative would not provide an equivalent protection to human health and the environment as the original remedy does, nor would it be in compliance with applicable or relevant and appropriate requirements.

EPAs evaluation of the proposed remedial actions against the NCP criteria for protectiveness and compliance with ARARs show the preferred alternative to be as protective of human health and the environment as the remedy outlined in the 2002 ROD.

Two criteria, protectiveness and ARARs compliance, are identified in the Proposed Plan as threshold criteria that must be met by the selected remedy in accordance with the federal regulations in the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) 40 CFR Section 300 (page 9 of the Proposed Plan). The following comments discuss protectiveness and other selection criteria for different elements of the remedy.

The EPA states that approximately 2,400 cubic yards of contaminated soil remains to be excavated from yards in Rimini that were left in place near existing residential septic system, and 20 additional yards meet the criteria for

cleanup. The proposed alternative calls for halting construction of the community wastewater system that was constructed in 2005 and 2006 at a cost of $1.6 million. The EPA now proposed to spend $200,000 to remove constructed components of that system and instead install individual residential septic systems where disturbed at an additional cost of approximately $550,000.

The 2002 ROD States,

"The selected remedy also provides for the design and construction of a small community wastewater system, if necessary to replace existing individual septic systems that may be damaged during the removal of contaminated yard soils in Rimini." Page D-2

The Proposed Plan document does not inform the public that up to this date as many as 12 existing systems were damaged by EPA contractors during Rimini yard soil removal activities in 2006. In some cases, replacement or prepared systems failed to comply with state and county health department requirements for locational setbacks.

This problem has been anticipated, because the District, EPA and Rimini homeowners have long known that most residential lots within the community cannot meet wastewater system setback requirements due to their location within a 100-year floodplain (see FEMA Flood Insurance Rate Map- Panel 300038 11625D), insufficient depth of treatment soils due to shallow water table and/or depth to bedrock, or proximity to Tenmile Creek, adjoining property lines, and residential drinking water wells. The failure to comply with these siting requirements leads to inadequately treated wastewater from these septic systems discharging to groundwater and potentially Tenmile Creek. Untreated wastewater polluting these water resources has adverse implications for human health

EPA identified state public water supply circulars containing substantive requirements for both water and wastewater systems as "to be considered" criteria during the detailed design of these systems. Circular DEQ-*1 Standards for Water Works*, (February 2006), Circular DEQ-2 *Design Standards for Wastewater Facilities*, (1999) and Circular DEQ-4 *Montana Standards for Subsurface Wastewater Treatment Systems* (2004 Edition) contain standards, such as capacity, size, and location determinations, for these systems. These standards are protective of human health, and EPA has considered them in the design of any water and wastewater systems in Rimini.

and the environment that were not analyzed in the Proposed Plan. Untreated wastewater delivers potential nutrient pollutants, pathogens, viruses, and other health risks to the watershed, and puts local residents, downstream users, and aquatic life at risk.

Allowing inadequately treated wastewater to enter Tenmile Creek violates the recently EPA-adopted Total Maximum Daily Loads (TMDLs) for nutrients, primarily nitrogen and phosphorus as mandated by Section 303(d) of the Clean Water Act. Downstream reaches of Tenmile Creek, Prickly Pear Creek and Lake Helena are designated as officially impaired by these nutrients on the Montana Department of Environmental Quality (DEQ) 303(d) list. By officially sanctioning these illegal septic systems, EPA is condoning actions that add to the pollution of these streams of the watershed and the water of the Montana and United States.

Based in this information, we believe that the statement in the Proposed Plan that the 2002 ROD and preferred alternative (for wastewater treatment) provide "equivalent levels of protection to human health and the environment and both are rated high against this criterion" (page 10) is incorrect and the agency's evaluation of replacement individual residential septic systems does not provide equivalent protection of human health and the environment to that offered by a community wastewater system. The 2002 ROD remedy of replacing the disturbed septic systems during yard cleanups with a community wastewater system is the appropriate remedy and should continue to be the EPA's preferred alternative.

The preferred remedy outlined in both the Proposed Plan and ROD amendment documents addressed Superfund regulated contaminant loadings into Upper Tenmile Creek from yard waste. The TMDL for nutrients such as nitrogen and phosphorus are not covered under Superfund and not part of the NCP evaluation.

2. Compliance with applicable or relevant and appropriate requirements (ARARs)

The second threshold criterion that must be met by the EPA selected remedy is compliance with applicable or relevant and appropriate requirements (ARARs). EPA chose not to include the following state and local

The preferred remedy complies with all ARARs. In the design of the replacement and repair of individual septic systems, EPA considered the TBC requirements outlined in

government requirements in the alternatives evaluations:

MT Subdivision and Platting Act (Title 76 Chapter 3 MCA) Lewis & Clark County Planning- Interim Zoning Regulations

MT Sanitation in Subdivision Act (Title 76 Chapter 4 MCA)

Lewis & Clark County On-site Wastewater Treatment Regulations

EPA states on page 10 of the Proposed plan that the action-specific ARARs include the Clean Water Act, Montana Groundwater Protection Rules, and the Montana Water Quality Act. However, EPA apparently dismissed or incorrectly considered in the ARARs analysis components of federal state water quality statute and implementing regulations. For example, EPA notes in the 2002 ROD, "Many of the existing septic systems in Rimini are located near Tenmile Creek or in the 100-year floodplain and cannot be replaced in compliance with current design standards." Page 9-26. It also ignores the setback requirements of Montana Water Quality Act and Montana Groundwater Protection Rules, state statutes that provide the basis for the regulation and disposal of sewage in Montana, and are applicable in Rimini. The Lewis & Clark City-County Board of Health has mandated authority to regulate wastewater treatment in the County under state statute (Section 50-2-116 Montana Code Annotated {MCA}) and can be no less stringent then the state regulations (Title 17, Chapter 36, Subchapter 9 of the Administrative Rules of Montana). The adopted Lewis & Clark County on-site wastewater treatment regulations should be an ARAR for the preferred alternative remedy of this plan.

The use of individual wastewater treatment systems in the Rimini environment (floodplain, proximity to groundwater and

EPA's response to Item 1 above.

creek, insufficient soil depth, etc.) leads to increased groundwater contamination by insufficiently treated sewage, violating the Clean Water Act goals for water quality restoration as well as the recently established TMDLs for Tenmile Creek for nutrients (nitrogen). Groundwater and Tenmile Creek are directly connected, so inadequately treated wastewater passes into groundwater and migrates quickly to Tenmile Creek, causing increased nutrient loads and pathogen delivery. The Lake Helena Watershed Framework Plan written and adopted by EPA and implemented by DEQ clearly indentified conventional septic systems as the major contributor to the Lake Helena Watershed and impairments of Tenmile Creek, Prickly Pear Creek and Lake Helena for nitrogen. The Framework Plan established a total nitrogen load reduction of 80% for the watershed. The EPA evaluation of the preferred alternative of the Proposed Plan ignores this requirement.

The District therefore objects to the conclusion on page 10 of the Proposed Plan that the preferred alternative of case-by-case replacement of septic systems on "complies with ARARs." This erroneous statement leads to a mistakenly high rating for the preferred alternative for achieving compliance with ARARs.

Biologics and nitrates found in municipal wastewater are not Superfund contaminants. However, EPA is indirectly addressing this issue through repair or replacement of damaged septic systems.

3. Long term effectiveness permanence

Criterion #3 is considered by EPA as a balancing criterion in the remedy selection process. Long-term effectiveness and permanence refers to the ability of an alternative to provide reliable protection of human health and the environment over time. The Proposed Plan concludes that the replacement of septic systems "would also be effective in the long term" and rates the preferred alternative "high" again this criterion on page 10.

The District believes this alternative is not protective of human health and the

Removal of contaminated yard waste is a permanent and effective long term solution for human exposure. Construction and operation of a community water system is an effective and permanent solution for exposure to contaminated drinking water.

environment and therefore cannot be protective in the long-term. The contaminated soils being dealt with in the yards and roadway under this cleanup were often deposited by flooding that will reoccur. The replacement of septic systems in the designated floodplain does not comply with the #3 criterion of long-term effectiveness and permanence. Individual wastewater treatment systems do not offer comparable long-term protection as a community system sited in conformance with state and local setback requirements.

6. Implementability

Criterion #6 is Implementability, referring to the feasibility of an alternative and including the "coordination of federal, state and local governments to work together to clean up the site" (Proposed Plan page 9). This inter-authority cooperation desired by this criterion was established in the 2002 ROD remedy; state, federal and local governments were all supportive of constructing a community wastewater system. Lewis & Clark County has been an advocate of this remedy since its selection in 2002 and has approved the Water & Sewer District for the community of Rimini needed to remedy implementation, as requested by the majority (84%) of the residents. The decision by EPA in 2006 to replace damaged septic systems in non-compliance with state and local regulations has been opposed publicly by the Lewis & Clark Board of County Commissioners and the City-County Department of Health.

EPA continues to work with the District and Lewis and Clark county to identify appropriate means to complete the cleanup of waste in yards and repairing or replacing damaged septic systems.

7. Cost

The #7 criterion is cost, with the explanation that the evaluation includes "the capital and/or operation and maintenance (O&M) costs of an alternative in comparison to other equally protective measures."

The District does not agree that the measures considered are "equally protective" and

Cost estimates and more detailed cost backup information are provided in Section 4 and Appendix C of the ROD amendment

believes costs of the preferred alternative should not be compared to the existing remedy. The costs analyses included in the Proposed Plan lack explanations of detail, assumptions of costs, operation and maintenance, institutional control costs, construction timing, and other factors necessary for the public to adequately evaluate the accuracy of the agency numbers. For example, the initial planning for the community wastewater system, water supply system, and the replacement of soils in the roadway and yards were to be coordinated to provide significant cost savings by timing of installing of collection piping and supply piping with the excavations for road and yard soil replacements. It is unclear if the estimates for costs of the wastewater and water supply systems and the road reconstruction are determined as separate or coordinated projects which would make a substantive impact to the evaluation of alternative costs. The primary reason given for the remedy reexaminations is cost, although EPA also cites the division of public opinion over EPA activities as a substantive reason for a ROD amendment. The EPA preferred Alternative proposes significant alteration to at least one ROD approved remedy (excavation of yard wastes and construction of a community wastewater system) and modifies the source of the water supply for the community water supply system. Under the heading "Summary of Comparative Evaluation" (Page 13 of Proposed Plan) EPA discloses their rationale for the new preferred alternative:

"EPA has selected the preferred alternative (Table 7) because it provides the same level of protection to public health and compliance with ARARs as the 2002 ROD, but has the following changes;

- Completing the preferred alternative costs approximately $2,950,000 (28%) less ($7,450,000 vs. $10,400,000).

document.

Please see previous response to Item 1 of this letter.

- The preferred alternative is easier to implement and causes significantly less disruption to the community during construction.

The US Army Corps of Engineers (USACOE) conducted a 2007 Value Engineering (VE) assessment of work being considered for the Rimini Community. This assessment recommended several modifications to the community wastewater system design to reduce costs. One VE recommendation included eliminating the reconstruction of the City of Helena's Water pipeline from the remedy, resulting in a savings of over $600,000 according to the USACOE. In the EPA Proposed Plan supplemental cost information, a note mentions this option with a resulting $500,000 savings: however, EPA does not reflect the savings in the community wastewater system costs estimates shown in the Proposed Plan.

The VE assessment was used to revise the costs for the completion of the community wastewater system prior to the comparative analysis of alternatives in the ROD amendment. The additional costs of completion the community wastewater system over repair or replacement of individual systems does not provide substantial additional protection of human health.

The EPA has not included cost estimates for the operation and maintenance (O&M) costs for any alternative. (The reason given is this is not a cost to be paid by the EPA, however with the wastewater alternatives and the water supply alternatives this cost is to be paid by the homeowner). In addition, EPA is, by regulation and its own guidance, supposed to estimate the O&M costs, regardless of who would pay. Homeowner expense cause by remedy implementation, whether for septic system replacement due to non-conformance with state and county standards or monthly fees associated with a community system, should be a key factor in this decision. It is important to realize that long-term costs to Rimini residents will play a critical role in the success or failure of these alternatives.

O&M costs are presented in the ROD amendment. Cost projections for a community water system O&M indicate that monthly costs will be approximately $72 per month per hookup (for 25 total hookups), $60 per month per hookup for 30 connections, and $51 dollars per month per hookup for over 35 connections.

We urge EPA to consider the connected nature of remedies in this re-evaluation, particularly with respect to cost. If the community wastewater system is not completed it is unclear of how many residents of Rimini would be willing to participate in the

Implementation of a remedy, regardless of the protectiveness to human health or the

proposed water supply system. The number of residents participating has a direct bearing on the O&M charges and the fiscal feasibility of the proposed system. The Rimini Water & Sewer District, which received 84% of the eligible voters support when established, has always been organized to provide both community water and sewer services. Current supporters have stated that community acceptance will erode if only a water supply is offered. The issue of returning the property upon which the partially completed wastewater system has been constructed to the US Forest Service is not fully explained in the proposed plan. The agreed land exchange process requires the EPA to complete the system and for the land to be transferred to the Rimini Water and Sewer District. The Rimini Water and Sewer District requested a Memorandum of Understand with EPA that specified that the system would b constructed and demonstrated operational before accepting the ownership of the land and wastewater system and future liability. Restoration of the land and returning it to the Forest Service is only necessary if the community system is not completed.

Another O&M cost that is not factored into this Proposed Plan is the costs to residents of reconstructed septic systems when EPA exits the scene and the homeowner is left with the cost of complying with County wastewater regulations. Illegal wastewater treatment systems installed by EPA will have to be upgraded, at homeowner expense after the site is delisted.

9. Community Acceptance

One of the reasons given for this review of remedies is the division of the Rimini community of completion of elements of the 2002 ROD l community acceptance is a selection criteria. As mentioned above the approval of the Water & Sewer District showed substantial support (84%) for the wastewater and water supply remedies

environment, is always contingent upon permission of a property owner. Should a property owner deny access for completion of any remedial action activities in writing, EPA will not pursue further actions on that property

EPA recognizes the comments received from a majority of residents in the community of Rimini expressed support for completion of

selected in 2002 ROD. It may be difficult for EPA to gauge community acceptance when the future costs to Rimini residents have not been disclosed.

However, it appears that more people directly affected by the EPA's actions in Rimini want the 2002 ROD elements to be completed than do not. EPA has often faced even greater community division during CERCLA remedy selections. If community acceptance were given as much weight as EPA implies with this Proposed Plan, remedies would not have been implemented in Butte, East Helena, Leadville and numerous other sites across the country.

II; Water Supply

Water Supply- The analysis of the water supply alternatives in the proposed plan is a much simpler and more practical comparison than for the wastewater system. It is clear a potable clean water supply to some residents of the Rimini Community is necessary. Arsenic levels measured in Rimini area wells are some of the highest found in Montana. The inability to locate a feasible groundwater source for a community supply would logically lead to the Tenmile Creek source.

The point of use and point of entry alternatives require maintenance and toxic waste disposal. If individual septic systems are provided with POU or POE systems there is the potential for inappropriate disposal of that waste through septic systems leaving to environmental degradation.

III. Rimini Road Wastes

Rimini Road Wastes- The EPA chose not to review any of the previous alternatives for road waste cleanup of this problem. One of the reasons for support of the total removal of the mining wastes from the roadway was the cost efficiencies of excavating the road while wastewater and water supply piping is

the community water system and community wastewater system. However, completion of the partially constructed community wastewater system was determined to be much more costly than repair or replacement of damaged/destroyed individual septic systems. The much higher costs would not produce a substantial additional reduction of risk from Superfund program–regulated wastes as compared to the risk reduction from excavation and repair/replacement of individual septic systems.

Comment noted.

Comment noted.

EPA proposed no change in the Rimini Road

installed. If supply and waste lines do not have to be installed, a less costly option and one resulting in limiting sediment loading to Tenmile Creek is to cap and seal the roadway in Rimini. Removal and replacement of one to two feet of mining waste in the roadbed and paving the road may also be an effective protective measure. The US Western Forest Highways Program may address mining waste found in other parts of Rimini Road in this manner in the future road reconstruction.

IV. Mine Adits and AMD Mine Adits and AMD- The EPA issued the "Record of Decision, Upper Tenmile Creek Mining Area Site, Lewis & Clark County, Montana" (ROD) in June 2002. This document stated, "Approximately 245,000 cubic yards of contaminated material will be excavated from 70 category C,D and E high priority mine sites.

The 2007 Proposed Plan states,

"EPA has removed approximately 115,000 cubic yards of mine wastes from the Red Mountain, Bunker Hill, Tenmile, Peerless Jenny/King, Susie and Red Water mine sites. In addition, EPA constructed the Lutrell mine waste repository for mine wastes removed from the Upper Tenmile and adjacent watersheds. EPA also operates a leachate collection and treatment system at the repository. In 2003 and 2004 …EPA removed approximately 22,000 cubic yards of mine wastes from the Lee Mountain mine in Rimini." Page 2.

EPA makes clear that the current proposed plan, "…does not re-evaluate the other 2002 remedy components, which address waste rock and tailings, acid mine drainage, groundwater, surface water and stream sediments in the upper Tenmile Creek watershed continue to be addressed as originally outlined in the 2002 ROD or will EPA discontinue these efforts after addressing only a fraction of the originally proposed 70 mines? Discussion of closure of the Luttrell remediation from that outlined in the 2002 ROD.

Mine Waste Repository in the near future raises questions about the EPA intent and ability to implement these measures as proposed. We request that EPA confirm its' intention to complete the remedy for these elements in conformance with the 2002 ROD. If, however, it is EPA's intention to discontinue or modify the selected remedies for these elements then a clear description of any changes should be disseminated for public review. The District strongly supports completion of the intent of the 2002 ROD in removing hazardous waste and tailings and actions that will lead to watershed restoration. To fail to complete this component of the remedy would not be protective of public health or the environment, and would impair water quality throughout the watershed. We ask the EPA for an unambiguous commitment to the intent of the 2002 Record of Decision that removal of hazardous waste and tailings continue is designated areas necessary for restoration of the Tenmile Creek Watershed.

Thank you for your consideration of our listed concerns.

Sincerely,

Jim Wilbur for Spencer Shropshire

Water Quality Protection District Board

The Proposed Plan and ROD Amendment affect only with the community or Rimini. Other parts of the 2002 ROD remedy for the rest of the Upper Tenmile Creek site will be performed at a later date.

Richard Wilson

10/31/2007

ATTN: Bishop
US EPA
10 West St Suite 3200
Helena, MT 59626

To whom,

3462 Rimini Resident votes **NO** on another very foolish project coming from the minds of fools. IF you need to spend 4.5 million how about helping to bring homes for homeless vets. Now you be doing something worthwhile instead of spending 5 weeks at Maynard dump turning it into a golf course.

Comment noted.

Watching EPA-CDM at work is much like watch the Simpson's show. No to the H_20 project.

Richard Wilson

Katrina Wilson Martin

12/03/2007

Mike Bishop, EPA Project Manager
US Environmental Protection Agency
10 West 15th Street Suite 3200
Helena, MT 59626

Re: Comments on Proposed Plan, Upper Tenmile Creek Mining Area Site

Dear Mr. Bishop,

I would like to submit some brief comments on the proposed plan that resulted from the re-evaluation of the 2002 ROD as it pertains to the Rimini Community. As a preface to my remarks I want to disclose I have not read the proposed plan in full: I base these comments on the 14-page summary which was distributed in the community.

The preferred alternative is a good one, with the exception of the proposed construction of a community water system. Particularly sound is the decision to halt the construction of a community wastewater system. Replacement of individual septic systems on a case-by-case basis –IF they are disturbed during excavation of contaminated soils-achieves the ROD goals without betterment for the community.

Also, I am skeptical as to the practicality of planning to remediate the road leaving one lane open at all times. Clearly there are places in the town of Rimini where this plan will be impossible to implement. The close proximity of structures to the traveled part of the roadway would seem to preclude an open lane for traffic and working space adequate for equipment to achieve the remediation. Perhaps your engineers will be able to figure this out, but the track record of those firms working on the project so far leaves little confidence that this will happen.

Comment noted.

The decision to recommend construction of the community water system is very troubling. A close reading of the summary document shows that all three alternatives meet the crucial criteria regarding ARARs. The community water system (Option A) and POE systems (Option C) rank high for the other crucial criteria regarding overall protection of human health and the environment. The POE systems (Option B) rank low because of "potential dermal exposure" where there are very high arsenic concentrations. The question is how many of the residences have those very high levels, and could there not be a combination of POE/POU systems installed based upon the actual levels of arsenic at a particular residence.

The summary on page 5 discusses "potential problems and concerns" regarding POU/POE systems. The fact these three items could be decisive in choosing an expensive community system over the others is astonishing to me.

Think about this for a minute…

1) The government chooses to build a water system for a tiny community because the individual residents who are going have their water made safe by the taxpayers cannot possibly be expected to change filters in an RO System!! What a disturbingly paternalistic and insulting reason for this agency to decide to build a multi-million dollar water system for a few people who it obviously deems are too lazy to act with any measure of individual responsibility. The agency's poor view of human nature may be grounded in truth, but it should NOT be the basis for making a determination which is supposed to reflect sound public policy and be based upon specific statutory mandates.

2) The government chooses to build a water system for a tiny community because there are variable water types (there are actually different

The dermal exposure risk only affected the choice of a POE system which treats all of the potable water coming into a residence over a POU, which only treats portions of potable water, such as water in the kitchen sink. This was not a factor used to eliminate POE/POU technology.

Current water sources in Rimini contain metals at levels that pose a threat to human health. EPA is required to select a remedial action remedy to address this threat. Difficulties with the design, implementation and compliance monitoring for POU or POE systems would make it difficult for EPA to ensure and demonstrate the protectiveness of the selected remedy, as required by CERCLA. It is not the public inability to change a filter, but rather the assurance that they receive the correct filters and media for each custom system, they have a means of safe disposal of spent filters and the means to provide annual maintenance on water treatment systems. These logistical issues and other concerns would make it difficult for EPA to monitor the performance of the individual systems and demonstrate the protectiveness of the selected remedy, as required by CERCLA. Therefore, EPA concluded that the community water treatment system will be more protective then individual water treatment options.

"types" of water??) and treatment requirements in the residences. If there are 45 houses (a generous figure) which might eventually be serviced by this $4.5 million system, that is $100,000 per house. Successful POE systems have been installed in homes in Rimini for a few thousand dollars; surely even some engineering challenges in some of the houses could result in a successful POE systems being installed for far less than $100,000.

3) The government chooses to build a water system for a tiny community because the property owners cannot be relied upon to allow access to the state or political subdivision responsible for implementing the POE/POU systems!! How can it be proper under an established statutory and regulatory scheme to make an assessment such as this a deciding factor in the choice of a remedial action?

If however, the government is going to consider the human foibles and inadequacies as a basis for balancing one alternative over another, this agency should consider another very real possibility: delinquencies in customers' monthly payments to the district which will be responsible for maintaining the system. Those persons too lazy to change filters and those who cannot be relied upon to allow access to regulators should also be deemed incapable of paying their water bills on time each and every month. With a system that serves so few customers, the margin of safety regarding cash flow is very low. Ten percent delinquencies in a large system can be handled fairly easily; such delinquency in a small operation presents much greater challenges.

With POU/POE systems an individual who doesn't meet his/her obligations regarding maintenance and access will be hurting only himself/herself. When lack of discipline or financial difficulties strike a few of the community system users and the system cannot meet its obligations, everyone on the system will suffer.

Implementation of a remedy, regardless of the protectiveness to human health or the environment, is always contingent upon permission of a property owner. This is part of the effectiveness evaluation of a proposed alternative.

EPA has evaluated the options to reduce exposure to contaminated drinking water sources (both surface and groundwater) and has concluded that a community water system using a surface water supply would offer the greatest long- term reduction in potential exposure to contaminated water sources.

Has the agency considered the long-term effect on its budget when word passes around the country that the EPA will build a community water system for property owners in designated Superfund Site because homeowners cannot be trusted to change filters and allow regulatory access to their homes? As the saying goes: "Be careful what you wish for."

In conclusion I feel the determination of Option A as the preferred alternative in the proposed plan is not based upon sound and defensible reasoning: POU/POE systems seem to meet the crucial evaluation criteria.

Thank you for this opportunity to comment on the proposed plan.

Sincerely,

Katrina Wilson Martin
3642 Rimini Rd.

Appendix C
Present Worth Tables

Present Worth Calculations - Water Design Options

Design Option Community Water System Remedy Component	August 2007 Cost		Design Option POU/POE System Remedy Component	August 2007 Cost
Captial Costs			**Captial Costs**	
Water Main and Distribution System Components			***Water Source and Treatment System Components***	
Distribution Main	$285,285		Neutalizing Filters	$12,500
Service Connection Including Meters	$255,875		Chemical Feed Pumps and GAC	$32,500
Surface Water Intake Structure and Ancillary Facilities	$366,115		Water Softener	$55,000
Electric Power Line	$5,085		Booster Pump, RO, and GAC	$22,500
Electric Power Infrastructure	$55,935		Installation	$12,500
4" Water Transmission Pipeline	$138,408			
50,000 Gallon Storage Tank	$236,127			
Surface Water Treatment	$268,015			
SW Treatment Building	$254,250			
SW Treatment Building Electrical, Mechanical, HVAC, Piping	$172,890			
Site Fencing	$8,279			
WTP and Tank Site Development (Access, site prep, property acquisiion, etc)	$84,538			
	$2,130,802			$135,000
Construction Support Activities			*Construction Support Activities*	
Mobilization/Demobilization, Bonding and Insurance	$0		Mobilization/Demobilization, Bonding and Insurance	
Construction Contingencies (15%)	$319,620		Construction Contingencies	$13,125
General Conditions	$532,700		General Conditions	$83,867
General Site Work	$426,160		General Site Work	$59,416
Subtotal	$1,278,480		*Subtotal*	$156,408
Project Management			*Project Management*	
Project Management (10%)	$340,928		Project Management	$24,391
Construction Management and Oversight (20%)	$681,856		Construction Management and Oversight	$48,782
Subtotal	$1,022,785			$73,173
Total Capital Costs	**$4,432,066**		**Total Capital Costs**	**$364,581**
Annual Costs			**Annual Costs**	
Labor	$8,920		Neutalizing Filters	$1,250
Sample analysis	$1,176		Chemical Feed Pumps and GAC	$1,250
Electircal Costs	$2,255		Water Softener	$1,250
Consumables and Other Direct Costs	$3,390		Booster Pump, RO, and GAC	$4,500
Equipment Replacment/Repair	$1,574			
Subtotal	$17,315			
Management and Contingencies			*Management and Contingencies*	
Contingency (Scope and Bid)	$2,597		Contingency (Scope and Bid)	$125
Project Management	$1,732		Project Management	$250
Technical Support	$2,597		Technical Support	$125
Subtotal	$6,926		*Subtotal*	$500
Total Annual Costs	$24,241		**Total Annual Costs**	$1,750
Periodic Costs			**Periodic Costs**	
Five year review costs	$25,000		Five year review costs	$25,000
Management and Contingencies			*Management and Contingencies*	
Contingency (Scope and Bid)	$3,750		Contingency (Scope and Bid)	$3,750
Project Management	$2,500		Project Management	$2,500
Technical Support	$3,750		Technical Support	$3,750
Subtotal	$10,000		*Subtotal*	$10,000
Total Periodic Costs	$35,000		**Total Periodic Costs**	$35,000
Present Worth - 7%, 30 years			**Present Worth - 7%, 30 years**	
Capital Costs	$4,432,066		Capital Costs	$364,581
Annual costs	$300,807		Annual costs	$21,716
Periodic Costs	$75,460		Periodic Costs	$75,460
Total Present Worth	$4,808,333		**Total Present Worth**	$461,757

Present Worth Calculations - Wastewater Design Options

Design Option: Complete Community Wastewater System			Design Option: Excavate Contaminated Yard Material and Replace / Repair Individual Septic Systems	
Remedy Component	**August 2007 Cost**		**Remedy Component**	**August 2007 Cost**
Captial Costs (includes costs already incurred)			**Captial Costs**	
Sewer Main and Collection System Components				
Sewer Main	$353,251		Excavation	$250,000
Sewer Main (north of Rimini)	$81,076		Repair/Replace Systems	$500,000
Sanitary Sewer Manholes	$173,879			
Sanitary Sewer Manholes (north of Rimini)	$25,182			
Sanitary Sewer Residential Service Lines (4-inch)	$260,325			
Connect to Existing Household Sewer				
Creek Crossing	$34,476			
Treatment System Components				
Community Septic Tank	$258,893			
Recirculation Treatment Unit (with tank and pump)	$143,516			
Recirculation Tank	$109,104			
Pressure Dosed Drainfield	$178,251			
Drainfield pipe purchased in 2006	$5,881			
Tree Removal	$54,785			
Access Road	$139,302			
Force Main (4-inch) with Creek Crossing	$134,198			
Electrical, Instrumentation, Control Bldg., Ancillary Equip.	$72,975			
Additional Site Requirements				
Temporary Diversion of Helena Raw Water Supply Line	$168,505			
Partial Relocation of Helena Raw Water Supply Line	$480,137			
Partial Relocation of Rimini Irrigation Line	$50,147			
	$2,723,883			$750,000
Construction Support Activities			*Construction Support Activities*	
Mobilization/Demobilization, Bonding and Insurance	$0		Mobilization/Demobilization, Bonding and Insurance	$0
Construction Contingencies	$408,582		Construction Contingencies	$112,500
General Conditions	$453,186		General Conditions	$150,000
General Site Work	$317,792		General Site Work	$75,000
Subtotal	$1,179,560		*Subtotal*	$337,500
Project Management			*Project Management*	
Project Management	$390,344		Project Management	$217,500
Construction Management and Oversight	$780,689		Construction Management and Oversight	$163,125
Subtotal	$1,171,033		*Subtotal*	$380,625
Total Capital Costs	**$5,074,476**		**Total Capital Costs**	**$1,468,125**
Annual Costs			**Annual Costs**	
Labor	$9,065		Labor	$1,000
Sample analysis	$4,488		Revegetation	$2,500
Electircal Costs	$1,914			
Other Direct Costs	$1,650			
Equipment Replacment/Repair	$1,712			
	$18,829			$3,500
Management and Contingencies			*Management and Contingencies*	
Contingency (Scope and Bid)	$2,824		Contingency (Scope and Bid)	$525.00
Project Management	$1,883		Project Management	$700.0
Technical Support	$2,824		Technical Support	$350.0
Subtotal	$7,532		*Subtotal*	$1,575
Total Annual Costs	$26,361		**Total Annual Costs**	$5,075
Periodic Costs			**Periodic Costs**	
Five year review costs	$25,000		Five year review costs	$25,000
Management and Contingencies			*Management and Contingencies*	
Contingency (Scope and Bid)	$3,750		Contingency (Scope and Bid)	$3,750
Project Management	$2,500		Project Management	$2,500
Technical Support	$3,750		Technical Support	$3,750
Subtotal	$10,000		*Subtotal*	$10,000
Total Periodic Costs	$35,000		**Total Periodic Costs**	$35,000
Present Worth - 7%, 30 years			**Present Worth - 7%, 30 years**	
Capital Costs	$5,074,476		Capital Costs	$1,468,125
Annual costs	$327,109		Annual costs	$62,976
Periodic Costs	$75,460		Periodic Costs	$75,460
Total Present Worth	$5,477,045		**Total Present Worth**	$1,606,561