EARTHWORKS

February 14, 2012

Mr. James L. Winters
U.S. Army Corps of Engineers
10 West 15th Street,
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e-mail to montanore@usace.army.mil

Re: Application No: NWO-2011-01063-MTH

Please accept these comments from Earthworks and the Idaho Conservation League concerning the proposed Montanore Mine 404 permit application. Earthworks is a national conservation organization dedicated to protecting communities and the environment against the adverse impacts of mining. We have offices in Montana, Colorado, California, Washington DC, Texas and New York, and we have members who recreate in the Cabinet Mountains Wilderness and surroundings.

Since 1973, the Idaho Conservation League has worked to protect Idaho's clean water, wilderness, and quality of life through citizen action, public education, and professional advocacy. As Idaho's largest state-based conservation organization we represent over 20,000 supporters who have a deep personal interest in ensuring that mining activities are consistent with protecting our water, wildlands, and wildlife.

The Army Corps of Engineers (ACE) should deny the proposed Montanore 404 permit because it fails to meet the 404b(1) guidelines, and insufficient NEPA analysis has been completed to understand the impact of the proposed Montanore Project to waters of the U.S., threatened and endangered species, water quality, the Cabinet Mountains Wilderness, and other important resources as required by NEPA and the CWA.

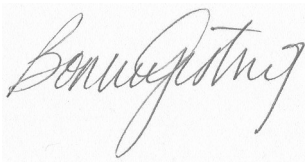
The proposed project fails to comply with the 404(b)(1) guidelines because, 1) it will contribute to violations of water quality standards, 2) the direct, indirect and secondary impacts of the project will result in the destruction of designated critical habitat under the Endangered Species Act, and the possible extirpation of bull trout in important bull trout recovery streams, 3) the direct, indirect and secondary impacts of the project will significantly degrade waters of the U.S., including Outstanding Resources Waters within the Cabinet Mountains Wilderness Area and 3 ½ miles of headwater streams in the Libby Creek drainage, 4) it doesn't reflect the Least

Environmentally Damaging Practicable Alternative (LEDPA), and, 5) it fails to meet the no discharge effluent limitation guidelines for copper mines that use froth flotation mills.

The proposed permit also fails to comply with Subparts C, D, E and F because it doesn't provide sufficient information on the potential impacts to the physical and chemical characteristics of the aquatic ecosystem, the biological characteristics of the aquatic ecosystem, special aquatic sites, and human use characteristics. The proposed permit fails to comply with Subpart H because it fails to sufficiently analyze or incorporate measures that would minimize the adverse effects, including a liner for the tailings impoundment.

I incorporate by reference our comments on the Supplemental Draft Environmental Impact Statement, and those of technical experts Ann Maest, Tom Myers, Chris Frissell, as well as comments submitted by Save Our Cabinets, the Clark Fork Coalition and the National Wildlife Federation.

Sincerely,



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cc: Maggie Pierce, EPA
Steve Potts, EPA

There is insufficient information to determine compliance.

Overall, there is insufficient information available on the tailings storage facility (TSF), TSF location, and potential impacts, to make a determination of compliance. The TSF plan is conceptual only, with no geotechnical data to determine whether the facility will be stable, or whether it is capable of storing 120 million tons of tailings. And, there are significant unknowns concerning water management and storage in the facility.

> *"the field exploration program would include a site reconnaissance and a drilling and sampling program to evaluate: site geology and foundation conditions; groundwater conditions and water quality, borrow material availability, and geotechnical characteristics of foundation and borrow materials. The SDEIS further states that the review would encompass whether the tailings impoundment design is stable, in short and long-term, and additional geotechnical analysis would determine whether the proposed seepage collection system is sufficient to protect surface water." (p. 47 - 48)*

The SDEIS includes a water balance for average flow conditions, but it does not analyze how peak flow conditions will be managed, including flow into and out of the tailings impoundment and long-term storage. Additional hydrologic information is needed to evaluate the proposed site, preferential flow pathways, and flow conditions.

Furthermore, there is insufficient information on the ecological functions and values of the wetlands, springs, and headwater streams that would be buried, or otherwise adversely affected by the TSF.

A December 2011 letter from the COE to the Kootenai National Forest outlines a number of information gaps that are needed for NEPA analysis, which have yet to be addressed.[1] This information needs to be provided for public review and comment.

- Describe the mitigation for the temporal losses to stream and wetland function.
- Describe the functional and areal replacement for all affected streams and wetlands, including those indirectly affected by the work.
- Identify the changes or losses of headwater stream channels on the landscape.
- Identify the loss or impairment of headwater streams, lakes, and wetlands, and describe the effects of those impacts on the function and structure of the aquatic areas throughout the watersheds, including the portion of the watersheds below the affected headwater areas of the Kootenai River watershed and the Clark Fork River watershed. Describe functional and area replacement of adversely affected headwater streams.

Additional clarity in this area is needed because it is not clear from the SDEIS that the TSF with its tailings waste would not present a long-term threat to the aquatic resources and special aquatic sites.

[1] Todd Tillinger, Army Corps of Engineers, SDEIS comments on proposed Montanore Mine, to Paul Bradford, Kootenai National Forest, December 21, 2011.

Without this information, it is impossible for the agency and the public to have adequate information to understand the potential impacts of the project, and whether mitigation is possible. Montanore's consultants state that significant redesign of the facility may be required, and it is possible that an alternative facility would be required.[2]

Additionally, it is incorrect to assert that, "There will be no direct discharge of tailings into waters of the U.S." as stated in the Corp's December 2011 letter to the U.S. Forest Service on the Montanore SDEIS. The idea that covering up a wetland or stream with a layer of dirt makes them non-waters is factually and legally incorrect. Under CWA regulations, it's hydrology that defines a water of the U.S. and dumping a load of fill does not, by itself, change the underlying hydrology of a water. Furthermore, if mine tailings are placed on top of clean fill, precipitation will readily leach metals and nitrates (elements of the mine tailings) from the upper layers into the lower layers, and into these waterways. Therefore, the TSF is a direct disposal of mine waste into waters of the U.S.

In any event, the corps has to consider the direct and indirect impacts of the proposed discharge, so it must look at the geochemical impact of the mine waste disposed. Further analysis of these impacts is necessary.

There is insufficient analysis of alternatives.

Further analysis of alternatives is needed. As suggested by the U.S. Environmental Protection Agency in a Dec. 20, 2011 letter to the U.S. Forest Service and Montana DEQ, the agencies should "more fully evaluate and disclose the potential environmental benefits and feasibility of paste tailings surface deposition and dry "stack" tailings with backfilling, and consider these measures as potential components of the preferred alternative."[3] The agencies should also consider an alternative that limits the amount of mineral production, given the limited space available for tailings disposal and the long-term and apparently unavoidable impacts to Outstanding Resource Waters resulting from groundwater drawdown. Furthermore, the agencies should analyze an alternative that involves a liner system for the tailings impoundment as a component of the preferred alternative.

Without this information a least environmentally damaging practicable alternative (LEDPA) cannot be determined.

It will contribute to exceedances of water quality standards.

State Water Quality Standards: The SDEIS predicts that groundwater quality below the tailings impoundment will exceed groundwater standards for manganese and antimony, and that concentrations of nitrate, metals and TDS, will increase (SDEIS, S-32). It is also possible that seepage from the tailings impoundment could contribute to water quality impacts in surface water (i.e., Libby Creek and possibly Poorman Creek).

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[2] Klohn, Krippen, Berger, "Montanore Tailings Facility Risk Assessment," March 6, 2009. p. 45
[3] U.S. EPA, Letter to the U.S. Forest Service and Montana DEQ concerning the Montanore SDEIS, December 20, 2011.

How will the agency ensure that seepage from the TSF won't be discharged into groundwater and surface water (i.e., Libby Creek)? The SDEIS does not include sufficient geochemical analysis to determine the quality of the leachate (please see attached comments from geochemist Dr. Maest), nor is there sufficient analysis to analyze the various hydrologic pathways.

It does not meet the "no discharge" effluent limit guidelines.

Toxic Effluent Standard or Prohibition: According to the 404b analysis in the SDEIS, the TSF will be designed as a no discharge facility and all discharges will be captured by seepage collection system or pumpback wells.

It is unrealistic, and unsupported by data, to assert that there will be no discharge from the tailings impoundment, given that the tailings impoundment will be unlined and mine waste will be placed in the repository on top of wetlands, springs, and four headwater streams that discharge to Libby Creek, and the impoundment must operate in perpetuity.

It does not appear that the mine will meet the "no discharge" effluent limit guidelines (ELGs) outlined at 40 CFR 440, Ore Mining and Dressing Point Source Category, Subpart J – Copper, Lead, Zinc, Gold, Silver and Molybdenum Ores Subcategory.

An MPDES permit is clearly needed for the tailings impoundment.

It will degrade waters of the U.S., including Outstanding Resource Waters, wetland complexes, headwater streams, and other groundwater dependent ecosystems.

Outstanding Resource Waters (Rivers and Streams):
If not for the discharge of fill material necessary to establish the TSF and other mine components, the mine could not be developed and there would be no reduction in surface flows or lake levels in the Cabinet Mountains Wilderness Area. The indirect effects of the proposed Montanore mine will result in severe dewatering of designated Outstanding Resource Waters.

Collectively, the East Fork of Bull River and Rock Creek would see reduced flows from the Montanore Mine Project and Rock Creek Mine project – designated outstanding resource waters and the two most important bull trout recovery streams in the region. The adverse effects would result in habitat loss downstream of Rock Lake and St. Paul Lake, including during bull trout spawning.

Reductions in stream flow in Libby Creek, East Fork Rock Creek, Rock Creek and East Fork Bull River during mining would also decrease aquatic habitat. Ramsey Lake may also be affected. According to the SDEIS, the Project will reduce stream baseflow within the Cabinet Mountains Wilderness Area, resulting in up to 1,300 years of seasonal stream dry-up in streams that contain designated critical habitat for a threatened species – the bull trout. These impacts are unavoidable if the project commences.

The SDEIS does not provide mitigation measures that would offset these impacts over the long-term. The SDEIS predicts that drawdown will result in reductions and/or increases in flows in the

7Q10 in a number of Outstanding Resource Waters ("ORW") that exceed the 10% threshold outlined in Montana's nondegradation policy. These streamflow alterations are "degradation" as defined in 75-5-103(7), and therefore violate Montana's nondegradation policy, which prohibits any degradation of ORWs. ARM 17.30.705(2)(c).

Wilderness Lakes:
The SDEIS contains new predictions of impacts to Rock Lake that are not disclosed in the 2009 DEIS. Rock Lake is a 58-acre high mountain lake, and a 1.1 square mile watershed located in the wilderness area. Rock Lake is unique in the area because of its size and groundwater dependence. It is also one of the most popular destinations in the Wilderness Area for the public. Additional analysis of the impacts to the lake are needed because the basis for the predicted reductions to lake levels and volume is unclear, given that both the December 2010 Groundwater Report and the SDEIS state that the hydraulic characteristics of the major geologic structures which control the groundwater flow systems that support Rock Lake and Spring 31 have not been investigated.

What are the likely impacts to the littoral flora and fauna that occupy the perennially inundated nearshore area of the lake?

Headwater Streams:
The project will permanently bury four headwater streams to Libby Creek in mine waste and other fill material. It will eliminate all aquatic life in those reaches, and eliminate habitat for the wildlife that use these ecosystems. These four tributaries comprise a 996-acre watershed of Libby Creek.

According to a December 2011 letter from the COE, "*The National Research Council identified certain wetland types that cannot be effectively mitigated and recommends impact avoidance. Ephemeral, intermittent and permanent streams provide high levels of water quality and quantity, sediment control and nutrients. Headwater streams are, in part, responsible for maintaining the high quality of the Nation's river system. Though ephemeral and intermittent streams may go dry during a portion of any given year, the period during which they do flow is essential for the plants and animals using those resources. These aquatic resources would continue to provide habitat and biological integrity for benthic macro-invertebrates and amphibians that utilize water flows within the substrate. Mitigation of headwater streams is technically difficult when attempting to create their lost functions and services. Compensatory mitigation for stream impacts would be difficult and may, in fact, be infeasible when attempting to offset aquatic and special aquatic losses*."[4]

After mine closure, the surface and ground water that is no longer captured during mining operations would discharge to the watershed. It is unclear if the impacted wetland and stream complexes could eventually achieve a self-sustaining, high valued environment appropriate for the landscape that does not require long-term maintenance following closure. How will the project be designed to minimize or eliminate those risks?

[4] Todd Tillinger, Army Corps of Engineers, SDEIS comments on proposed Montanore Mine, to Paul Bradford, Kootenai National Forest, December 21, 2011.

How will the permittee and agency ensure that the tailings impoundment won't leach metals, nutrients, or other contaminants into the area's groundwater and surface water when the tailings impoundment isn't lined? Given that the tailings impoundment must store mine waste in perpetuity, please explain how the site will be managed to ensure that groundwater and surface water will be protected from seepage in perpetuity. How will the tailings facility be maintained in perpetuity? The Corps needs to address all of the issues it raised in its SDEIS comment letter to the Kootenai National Forest, including the Corp's position that the SDEIS is inadequate. The Corps cannot issue a 404 permit until the EIS is fixed, which means that the agencies must redo the SDEIS and make it available once again for public comment.

Other Groundwater Dependent Ecosystems

The project may also result in the severe degradation of groundwater dependent ecosystems, which have not been properly surveyed. The SDEIS indicates that there will be indirect impacts to groundwater dependent ecosystems, including within the Wilderness Area, from groundwater drawdown. It indicates that a survey will be done at some future time to determine the extent of wetlands and other GDEs that might be effected by drawdown, and monitor those impacts. This is insufficient. This NEPA and 404(b)(1) analysis must identify the wetland and other GDEs that will be affected by the mine, analysis of those impacts to GDE dependent wildlife, and potential mitigation.

The SDEIS does not disclose the indirect impacts of groundwater drawdown to 14.7 acres of CWA jurisdictional wetlands and 0.31 acres of non-jurisdictional wetlands in the Little Cherry Creek area, north of the Poorman Tailings Impoundment. It also does not address the impacts to wetland and spring systems on the west side of the Cabinets including the 60-acre Rock Creek Meadow wetlands complex.

Once those GDES have been surveyed and included in the baseline data for this project, what are the possible mitigation measures to address the long-term loss and function of these resources, and the wildlife that depend on them? To what extent is critical habitat affected?

<u>It will destroy critical habitat for threatened and endangered species.</u>

The direct, indirect and secondary impacts of the proposed Montanore Mine will adversely affect threatened populations of bull trout including critical bull trout habitat and important spawning areas in the headwaters of the East Fork of Bull River and Rock Creek.

According to the SDEIS, Bull trout redds have been observed in the East Fork Bull River and Rock Creek. Redd surveys by Avista (Storaasli and Moran 2008) indicate that East Fork Bull River, and to a lesser extent Rock Creek, are two primary spawning streams that support the Cabinet Gorge bull trout population (Montana Bull Trout Scientific Group 1996). DEIS – p. 284.

"Because the East Fork Bull River is considered the most important bull trout stream in the lower Clark Fork River drainage, decreased levels of bull trout spawning within this stream could have long-term adverse effects on bull trout population within the lower Clark Fork River Drainage." (p. 146)

Under the category of irreversible and irretrievable commitments, the SDEIS states that, *"Alternatives 2, 3 and 4 could result in an irreversible reduction of bull trout and westslope cutthroat trout habitat in Rock Creek drainage due to decreases in flow. Loss of bull trout habitat in the EFBR in all alternatives could be detrimental to bull trout populations in the lower Clark Fork River because this stream is considered a primary spawning location in this system." (p. 178)*

Surveys of reaches in other streams within the Bull River drainage in 1999 indicated that the majority of the bull trout in this watershed are found in the East Fork, with 85 percent of the all the bull trout collected in the Bull River watershed collected from the East Fork Bull River. Fish found in the upper reaches within the CMW included bull trout, westslope cutthroat trout, and slimy sculpin (FWP 2008a).

Bull and brown trout redd surveys also were conducted on the East Fork Bull River and Rock Creek from 2001 to 2007 by Avista (Storaasli and Moran 2008). The number of bull trout redds in the East Fork Bull River ranged from nine in 2004, 2005, and 2007 to a high of 32 in 2002. (DEIS – p. 371)

As the USFWS notes in its November 15, 2011 SDEIS Comment letter, "the East Fork of Bull River is the single-most important bull trout spawning and rearing stream in the Lower Clark Fork bull trout core area" and "80% of observed bull trout redds in the East Fork of Bull River occur upstream of the wilderness boundary."[5] The FWS and EPA highlight the possibility of serious reductions or extirpation of bull trout populations from the East Fork of Bull River.

How will they project mitigate for the long-term loss of bull trout critical habitat and bull trout in the two most important bull trout recovery streams in the region? How will they mitigate for the loss of important spawning areas, particularly in the upper reaches within the Wilderness Area? How will they mitigate for the loss of westslope cutthroat habitat? What are the impacts to amphibians within the various wetland complexes? What species are present? Are there sensitive species present?

According to the 404b analysis in the SDEIS (p. 18), the roughly 3 ½ miles of headwater streams that will be buried by the proposed TSF do not provide fish habitat. Where is the supporting documentation for this? When were these reaches sampled? What time of year? By whom?

It does not include analysis of appropriate and practical steps to minimize potential adverse impacts

Section 230.11(f) – Proposed Disposal Site Determinations

According to the SDEIS, a mixing zone is not anticipated for any 404 permitted discharge. It is unrealistic to conclude that the TSF will not discharge to the environment since the TSF will not be lined and the tailings will cover streams, springs and wetlands with a direct connection to

[5] U.S. Department of the Interior, "Letter to Kootenai National Forest on SDEIS, November 15, 2011.

Libby Creek. The agencies need to obtain additional information to determine whether a mixing zone will occur as a result of discharges from the TSF, its size, and potential impacts. Additional hydrologic analysis of the area is needed to determine whether there will also be discharges from the site to other streams. Are there preferential pathways that will carry wastewater discharges into that stream?

Section 230.11(g) – Determination of Cumulative Impacts to the Aquatic Ecosystem

According to the SDEIS, "*The Montanore and Rock Creek projects, assuming they occurred concurrently, would cumulatively reduce flows in the Rock Creek and East Fork Bull River watersheds. No other aspects of the two projects would have cumulative effects on surface water resources. The cumulative effects would result in additional habitat loss downstream of Rock Lake and St. Paul Lake, including during the bull trout spawning period. The cumulative effects of the project with all other reasonably foreseeable actions would not be significant*."

Where's the analysis to support this conclusion? How can this section determine whether the cumulative effects of the project are insignificant without a detailed analysis of the impacts on bull trout and other important fish species? Furthermore, the cumulative indirect impacts will degrade Outstanding Resource Waters by reducing flows beyond the threshold amount identified in Montana's nondegradation provisions.

There is insufficient information and analysis of the potential impacts on physical and chemical characteristics of the aquatic ecosystem.

Section 230.21 – Suspended Particulates/Turbidity

Impacts from sediment could exacerbate impacts to aquatic life when considered in combination with the changes in flow in Libby Creek during various operational stages. According to the SDEIS, many of the streams in the Libby Creek watershed will experience increases in sediment, which will likely affect aquatic biota, including bull trout and other fish species (p 135, 152). Increases in sediment can lead to substantial adverse physical habitat effects including fine sediment deposition in spawning and incubation areas and filling of interstitial habitats for macroinvertebrates. Because Libby Creek and Little Cherry Creek are approaching or exceeding the 30% threshold for fine sediments in spawning and incubation areas (p. 135), it is likely that any additional sedimentation will harm physical habitat for the threatened bull trout and other salmonids.

Further analysis is needed to define the impacts of increased flows to Libby Creek and other streams on sediment levels and turbidity, and aquatic life.

Section 230.22 – Water

Nutrients and Chemical Content: We continue to oppose the inappropriate use of the 1992 BHES Order instream water quality limits. The BHES Order was issued in 1992 to another company (Noranda) that subsequently abandoned the project. Much of the surface water impacted by the BHES Order now provides habitat for threatened species of bull trout. The

original order, when issued, was not required to consider the impacts to bull trout nor impacts to sensitive species, such as westslope cutthroat trout and interior redband trout. The 1992 Order does not authorize the degradation of bull trout habitat.

The BHES total inorganic nitrogen (TIN) of 1 mg/l may not be protective of beneficial uses, since the limit is nearly four times higher than MDEQ's recommended level - the draft numeric nutrient criterion of 0.3 mg/L, which identifies a level to protect against aquatic effects of nitrogen in streams. The SDEIS suggests that it is unknown whether TIN concentrations greater than 0.233 mg/L and less than 1 mg/L would increase algal growth to the extent that it could be considered "nuisance" algae.

The SDEIS makes a reference to increases in nutrients having some beneficial use of increased productivity for fish, but there is no analysis of whether this would benefit non-native fish over native fish – west slope cutthroat and/or bull trout.

Furthermore, there is an increasing amount of scientific data available that indicates that even very small increases in copper concentrations can harm salmonids. The BHES order establishes degradation limits that would allow total copper concentrations up to 0.003 mg/L in all surface waters affected by the project (BHES 1992). This is a significant increase in copper concentrations in the area streams, and would allow degradation of high quality waters to the chronic aquatic life standard of .00285 mg/l. For example, dissolved and total copper concentrations in most reaches of Libby Creek are measured at <0.00038 mg/l. Thus, the BHES Order would allow an increase in copper concentrations in Libby Creek of a thousand-fold over ambient conditions.

The SDEIS fails to provide any analysis of the potential impacts to salmonid populations as a result of these degraded conditions, particularly to threatened species, even though it acknowledges that there is uncertainty. "*Potential effects of aquatic life from an increase in copper concentrations are difficult to determine given recent uncertainties regarding the protectiveness of the hardness-modified copper standard and existing instream copper concentrations. Typical groundwater and snow-fed mountain streams would be expected to have low dissolved organic carbon concentrations that make dissolved copper bioavailable and potentially toxic*." (p. 31, SDEIS, Draft 404b(1) analysis)

It further states that, "*Any increase in metal concentrations could increase the potential risk for future impacts to fish and other aquatic life in some reaches. Metal concentrations near the aquatic life could result in physiological stress, such as respiratory and ion-regulatory stress, and mortality*." (SDEIS, S-38)

Current scientific research indicates that increases in copper concentrations as little as 2-9 parts per billion can have sublethal effects on salmonids. One study showed an increase of just 2.3 to 3.0 ppb billion of dissolved Cu above background levels was enough to interfere with behaviors tied to olfaction in juvenile coho salmon; from 1.0 to 20.0 ppb affected their sense of smell within 10 minutes and water hardness did not influence the study outcome (Baldwin et al. 2003).

Further analysis is needed of the cumulative impacts to the Libby Creek watershed and aquatic

biota, including threatened species, of increases in nutrients, metals, temperature, habitat loss, and other impacts associated with the direct, indirect and secondary impacts of the proposed project.

Temperature: What are the potential changes in temperature in area waters resulting from the depletion of flows due to groundwater drawdown during mining operations? And, what are the expected cumulative effects, including projected changes resulting from global warming? Further analysis is necessary, including any possible mitigation measures.

There is insufficient information and analysis of the potential impacts on biological characteristics of the aquatic ecosystem.

According to the SDEIS, the project, in summary:

- May affect, and is likely to adversely affect, the grizzly bear
- May affect, and is likely to adversely affect, the Canada lynx
- May affect, and is likely to adversely affect, the bull trout and designated bull trout critical habitat

The East Fork Rock Creek and particularly East Fork Bull River are two primary tributaries supporting recovery of migratory bull trout in the US Fish and Wildlife Service's Lower Clark Fork River Critical Habitat Subunit (USFWS 2010c), and the only critical habitat tributaries designated in the Cabinet Reservoir reach. In its 2006 Rock Creek Biological Opinion, the Fish and Wildlife Service found that harm to bull trout in Rock Creek did not jeopardize recovery because productive habitat was present elsewhere in the unit—most notably, in East Fork Bull River (USFWS 2006, p. B-54 and B-58). The Montanore project now threatens further impact in Rock Creek and essentially permanent harm to East Fork Bull River.

According to a Nov. 2011 letter from the US Dept. of Interior to the Forest Service concerning the SDEIS for Montanore,

> "***The East Fork Bull River is the single-most important bull trout spawning and rearing stream in the Lower Clark Fork bull trout core area.*** *The modeling analysis projects base flows to be reduced by 11 percent at the Cabinet Mountains Wilderness boundary and by 97 percent within the wilderness at Year 52, and to potentially persist for more than 1000 years. When combined with expected climate change impacts of higher stream temperatures, earlier spring run-off, and the increased frequency of rain-on-snow events, such impacts would adversely impact the value of the upper East Fork Bull River for spawning and rearing habitat, including the possibility of serious population reductions or even extirpation of bull trout from the East Fork Bull River. Currently, 80 percent of observed bull trout redds in the East Fork Bull river occur upstream of the wilderness boundary.*
>
> *The analysis for East Fork Rock Creek is similar to East Fork Bull River, with base flows projected to be reduced by 59 percent at the wilderness boundary and by 100 percent within the wilderness. Although flows in the lower end of this stream (near its confluence*

with the Clark Fork River) go subsurface for part of the year creating a seasonal barrier to fish passage, it is an important drainage for bull trout recovery in the Clark Fork River basin.

According to the SDEIS, ESA compliance would be ensured through Section 7 consultation. The 404b analysis requires determination of whether the discharges would affect ESA species, yet a thorough analysis of impacts to endangered species isn't provided in the SDEIS. It's insufficient to say that the impacts to endangered species will be adequately addressed in some future analysis outside of the NEPA process. It needs to be available and analyzed in the 404 analysis process, and available for public review and comment. Furthermore, the indirect effects of the proposed Montanore Mine and the cumulative effects of the proposed Montanore and Rock Creek mines are expected to have significant effects on threatened and endangered species via habitat loss, etc. But for the disposal of fill into water of the U.S., the project would not move forward as permitted. It is essential that this NEPA document provide a thorough analysis of these impacts and possible mitigation measures.

The project will adversely affect the Cabinet Mountains Wilderness.

The proposed mine will have a significant adverse effect on the Cabinet Mountains Wilderness, the only wilderness area within the Kootenai National Forest, and one of the first ten wilderness areas protected by Congress. The drawdown of groundwater will result in the dewatering of key wilderness features, including lakes and rivers designated as Outstanding Resources Waters. These effects appear to be long-term, with no apparent mitigation. Rock Lake is one of the top destination points in the wilderness area.

Furthermore, the groundwater drawdown will severely degrade Wilderness rivers and streams that provide critical habitat for threatened bull trout. The East Fork of Bull River is the most important bull trout recovery stream in the region.

Additional impacts will occur to groundwater dependent ecosystems and the wildlife that depend on them. A survey of the GDEs isn't included in the baseline data, or analyzed in the SDEIS, so it is impossible to determine the actual severity and extent of impacts, or whether they can be mitigated.

These impacts are inconsistent with the values for which the Wilderness area was established, and will have a direct impact on wilderness visitors due to long-term, in some cases permanent, impacts to rivers, streams and lakes, and the aquatic life they support.

Subpart G—Evaluation and Testing

The 404b analysis in the SDEIS lists a wide variety of mitigation measures intended to reduce or mitigate impacts to animal and plant populations. However, there is no analysis of the effectiveness of these mitigation measures. For example, the SDEIS suggests creating a stream channel from reclaimed Poorman tailings impoundment to Little Cherry Creek. Significant analysis needs to be conducted to determine whether that's feasible.

Section 230.77 Controlling Runoff from Impoundment

According to the SDEIS, the stormwater control system and diversion ditches will be designed for a 10 hour/25 year storm event. This is insufficient. There is ample documentation at other mine sites in Montana, where designing mine facilities for a 100 year storm event has failed to control runoff. Given the area's high level of precipitation, all stormwater systems should be designed to comply with a minimum of a 100-year storm event.