

FINAL

## 2006/2007 WORK PLAN

### NEW WORLD MINING DISTRICT RESPONSE AND RESTORATION PROJECT



OCTOBER 2006

United States Department of Agriculture  
Forest Service  
Gallatin National Forest

**MAXIM**  
TECHNOLOGIES INC.

*Final*

**2006/2007 WORK PLAN  
NEW WORLD MINING DISTRICT  
RESPONSE AND RESTORATION PROJECT**

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## I.0 INTRODUCTION

This document provides descriptions of work tasks to be completed during 2006/2007 in conjunction with response and restoration activities for the New World Mining District Response and Restoration Project in Park County, Montana (**Figure 1**). The 2006/2007 Work Plan complements the Overall Project Work Plan (Maxim, 1999a) by providing a description of specific work elements that will be completed in 2006/2007. This work plan initiates the project cycle for the eighth year of the project. Project activities conducted by the U.S. Department of Agriculture (USDA) Forest Service began in 1999. Those activities are described in the 1999, 2000, 2001, 2002/2003, 2003/2004, 2004/2005, and 2005/2006 Work Plans (Maxim, 1999b; 2000; 2001a; 2002a; 2003a; 2004a; 2005a).

This year's work plan for the project crosses over into 2007 and is designated the 2006/2007 Work Plan. This period of time is covered in this document because it is more useful for the planning period to begin in the spring to accommodate field and construction activities that must be completed during a relatively short season beginning in late May and ending in early October.

A general description of the site, project objectives, and project organization are provided in this introductory section. Following this introductory section is a detailed description of the work tasks that will be completed during 2006/2007, a project schedule, and project deliverables. For more detailed descriptions of the overall project, the reader can refer to the Overall Project Work Plan (Maxim, 1999a) and/or annual project summary documents produced in 2001 through 2005 (Maxim, 2001b; 2002b; 2003b, 2004b; 2005b). These documents are available on the project website at,

<http://www.fs.fed.us/r1/gallatin>

and at three project information repositories located at the Gallatin National Forest Supervisor's Office in Bozeman, Montana; the Gardiner Ranger District Office in Gardiner, Montana; and at the Cooke City Chamber of Commerce office in Cooke City, Montana. The reader is encouraged to review these documents to gain a better understanding of the overall project.

### I.1 PROJECT BACKGROUND

On August 12, 1996, the United States signed a Settlement Agreement (Agreement) with Crown Butte Mines, Inc. (CBMI) to purchase CBMI's interest in their New World Mining District (District) holdings. This transfer of property to the U.S. government effectively ended CBMI's proposed mine development plans and provided \$22.5 million to cleanup historic mining impacts in the District. In June 1998, all interested parties and CBMI signed a Consent Decree (Decree). The Decree, approved by the United States District Court, finalized the terms of the Agreement and made available the funds that are being used for mine cleanup. Monies available for cleanup will be spent first on District Property, which, as defined in the Decree, includes all property or interests in property that CBMI relinquished to the United States (**Figure 1**). As funds are available after District Property is cleaned up to the satisfaction of the United States, other mining disturbances in the District may be addressed.

The USDA Forest Service, as the lead agency responsible for implementing the cleanup, has assembled a management team and has published objectives to guide reclamation and restoration of the historic mining impacts in the District. Under their Superfund authority, the USDA Forest Service will execute the response and restoration project by following guidance provided by the Environmental Protection Agency (EPA) for non-time-critical removal actions (EPA, 1993). Non-time-critical removal actions are defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) as actions that are

implemented by the lead agency to respond to “the cleanup or removal of released hazardous substances from the environment ... as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment...” (EPA, 1993).

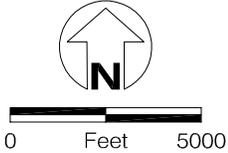
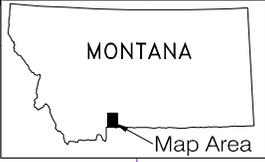
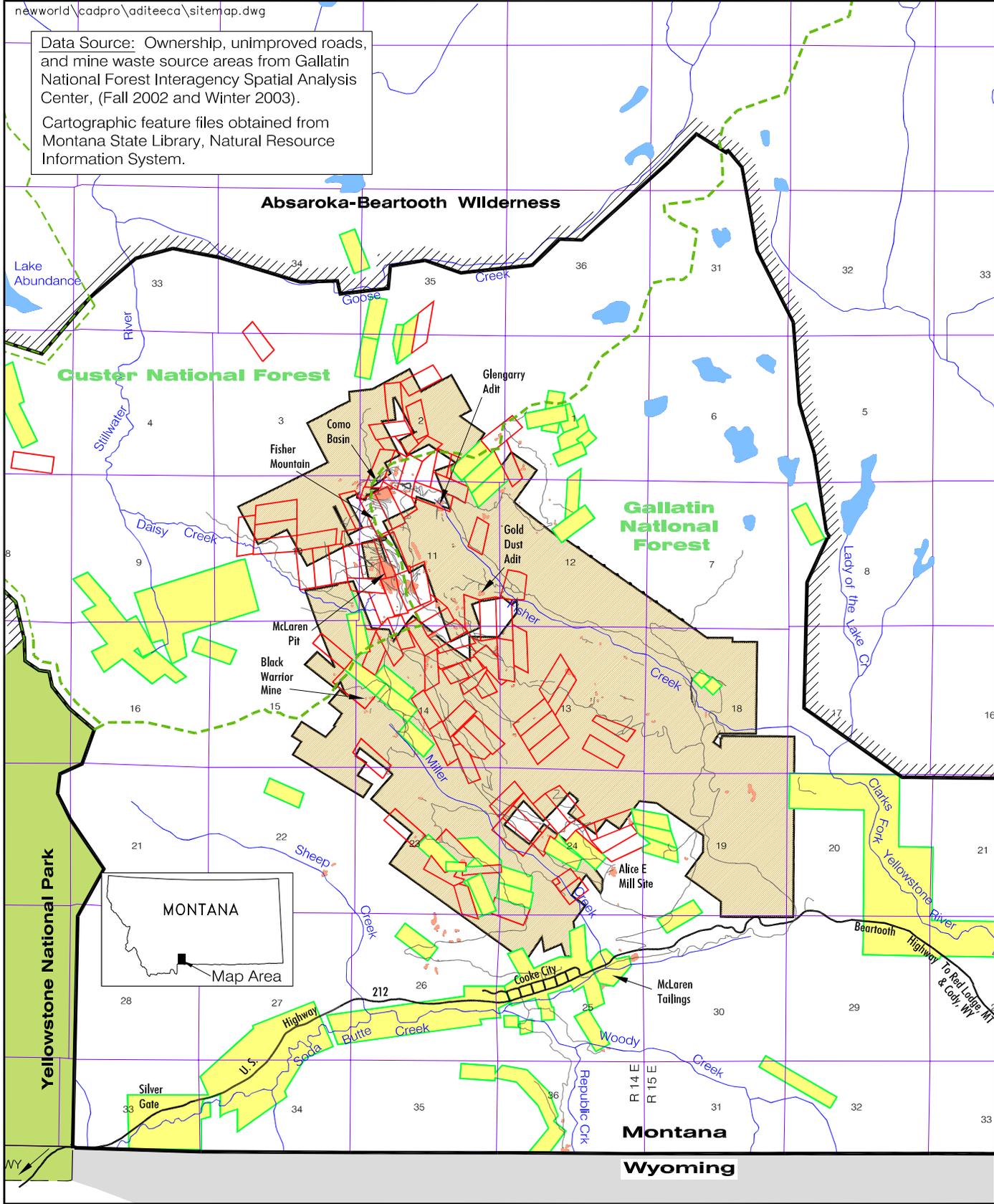
In 1995, EPA began a site investigation after initial announcement of the property transfer from CBMI. The EPA investigation involved installation of monitoring wells, surface water sampling, groundwater monitoring, and completion of a groundwater tracer study. In October 1998, the USDA Forest Service assisted CBMI in completing and submitting a Support Document and Implementation Plan to support the CBMI petition for temporary modification of water quality standards. Under the Decree and Agreement, CBMI is required to submit petitions regarding temporary standards if requested by the USDA Forest Service. The Support Document and Implementation Plan (Stanley and Maxim, 1998) was submitted to the State of Montana Board of Environmental Review (Board) on January 22, 1999. The petition for the adoption of temporary standards for Fisher Creek, Daisy Creek, and a portion of the upper Stillwater River was accepted by the Board and noticed for public hearing. The proposed rule was modified to reflect public comment and the temporary water quality standards were approved and adopted by the Board on June 4, 1999. The goal of the temporary standards is to allow the project to proceed so that water quality in Fisher Creek, Daisy Creek, and the Stillwater River improves to the point where these streams meet uses for waters classified B-I under classification standards established by the State of Montana.

The temporary standards are subject to change as improvements in water quality are realized. They are reviewed every three years to determine if changes are desirable, and the first review was required in 2002. The Board held a hearing on July 26, 2002, to review the long-term water quality data collected since the standards became effective in June 1999, and compared project progress with that presented in the implementation plan (Maxim, 2002c). As a result of this review, the Board took no action to modify the temporary standards as originally defined in June 1999. A second tri-annual review hearing on temporary water quality standards was held by the Board on June 3, 2005, with the same result.

In March 1999, the USDA Forest Service initiated the planning process for the project. Planning documents were in place in June 1999, and work began on the project with the monitoring of surface water and groundwater quality at selected monitoring points. Activities that have been conducted to date include the following:

- Establishing a database management system for the project.
- Cataloging existing information available for the site.
- Conducting public meetings and annual technical meetings to distribute relevant project information to interested parties.
- Completing a technical evaluation of existing information and data.
- Developing a suitable map base of District Property to support engineering design.
- Conducting annual monitoring of surface water and groundwater quality at select locations in the District.
- Obtaining data to fill identified data gaps for proposed response actions at the site including installing monitoring wells, collecting environmental samples, and collecting other environmental data.
- Identifying unrecorded mine waste dumps, adits, and boreholes, and developing a database of site characteristics.

Data Source: Ownership, unimproved roads, and mine waste source areas from Gallatin National Forest Interagency Spatial Analysis Center, (Fall 2002 and Winter 2003).  
Cartographic feature files obtained from Montana State Library, Natural Resource Information System.



- District Property Boundary
- District Boundary
- Unimproved Road
- National Forest Boundary
- Wilderness Boundary
- Mine Waste Source Area
- District Property (Patented Claims)
- District Property (Unpatented Claims)
- Private Property

Project Vicinity Map  
New World Mining District  
Response and Restoration Project  
Cooke City Area, Montana

FIGURE 1

Figure I- back page

- Improving portions of the Daisy Pass and Lulu Pass roads to accommodate construction traffic.
- Improving a previously constructed surface water diversion around the Como Shaft.
- Completing a repository siting evaluation report and collecting hydrogeologic data on two prospective repository sites.
- Completing a surface water tracer study by the U.S. Geological Survey on Daisy Creek and Miller Creek to determine surface water inputs of metal contaminants.
- Ranking mine waste sources according to a modified Hazard Ranking System to aid in the prioritization of sites slated for clean up.
- Identifying unrecorded cultural features.
- Reopening the Glengarry Adit and Como Raise to more fully characterize underground sources of water within the mine.
- Evaluating water quality treatment alternatives for acid mine discharges.
- Preparing a Selective Source Response Action Engineering Evaluation/Cost Analysis (EE/CA) for potential response alternatives (Maxim, 2001c).
- Removing approximately 25,000 cubic meters (32,700 cubic yards) of mine waste rock and mill tailings (nine percent of the total District waste) from seven mine waste areas, disposing of these wastes in an engineered repository, and revegetating about 1.9 hectares (4.6 acres) of the former waste areas for the Selective Source Response Action.
- Preparing a McLaren Pit Response Action EE/CA (Maxim, 2001d).
- Consolidating and capping waste rock dumps from the Daisy Creek headwaters into the McLaren Pit. These waste source areas account for about 67% of the District's total waste rock volume on District Property. Construction activities were initiated in 2002 with the consolidation of the wastes, and concluded with capping the consolidated wastes with an impermeable cover in 2003.
- Preparing a report for the Board of Environmental Review with respect to their review of the temporary water quality standards.
- Preparing a Como Basin/Glengarry Adit/Fisher Creek Response Action EE/CA (Maxim, 2002d).
- Closing the Glengarry Adit to eliminate contaminated outflows.
- Reopening and evaluating the McLaren Adit, and grouting an exploration boring that intersected the adit tunnel.
- Preparing the Miller Creek Response Action EE/CA (Maxim, 2004c).
- Monitoring reclaimed and revegetated sites in the District.
- Completing construction of surface controls at select sites in the Miller Creek and Fisher Creek drainages.
- Initiating response action construction work in the Como Basin to consolidating and capping mineralized disturbed soils.
- Removing approximately 23,000 cubic meters (30,000 cubic yards) of mine waste rock from four waste rock dumps located in the Fisher and Miller creek drainages and disposing of these wastes in the New World Waste Repository.

- Characterizing the distribution of sediment in Fisher Creek and Daisy Creek.
- Studying ferricrete deposition in Fisher Creek and Daisy Creek.
- Studying the effects of reclamation work on grizzly bear activity in the District.
- Studying the occurrence of metal contaminated sediment in the Stillwater wetland.
- Initiating the process to list the District on the National Register of Historic Places.
- Preparing Project Summary documents to succinctly describe project activities over the years.

## **I.2 SITE LOCATION AND DESCRIPTION**

The District falls within the Gallatin and Custer National Forests and abuts Yellowstone National Park's northeast corner. The Absaroka-Beartooth Wilderness Area bounds the District to the north and east, with the Montana-Wyoming state line forming the southern boundary of the District. The District lies entirely within Park County, Montana (**Figure I**).

The communities of Cooke City and Silver Gate, Montana, are the only population centers near the District. The neighboring communities of Mammoth, Wyoming, and Gardiner, Montana, are located about 80 kilometers (50 miles) to the west. Red Lodge, Montana, is located about 105 kilometers (65 miles) to the northeast via the Beartooth Highway, and Cody, Wyoming, is located 95 kilometers (60 miles) to the southeast.

The District is located at an elevation that ranges from 2,400 meters (7,900 feet) to over 3,170 meters (10,400 feet) above sea level. The site is snow-covered for much of the year and only one route of travel is open on a year-round basis -- the highway between Mammoth and Cooke City. The Sunlight Basin road accesses the District from northwestern Wyoming during the spring, summer, and fall but only allows access to within a few miles of the District in winter. The Beartooth Highway allows access to the District from the east but is closed during winter.

The District covers an area of about 10,360 hectares (25,600 acres). Historic mining disturbances affect about 20 hectares (50 acres) located on District Property. Mining disturbances on non-District Property include the McLaren Tailings and McLaren Millsite, which cover an additional 6.9 hectares (17 acres).

The topography of the District is mountainous with dominant glacial features, and is situated at the headwaters of three river systems that all flow into the Yellowstone River. The three tributaries are the Clarks Fork of the Yellowstone, the Stillwater, and the Lamar. The Lamar River flows through Yellowstone Park. The major tributary streams in the District include Daisy, Miller, Fisher, Goose, Sheep, Lady of the Lake, Republic, Woody, and Soda Butte creeks.

## **I.3 PURPOSE AND OBJECTIVES**

The primary purpose of this work plan is to guide project activities that will be conducted in the 2006/2007 planning year. Objectives for the 2006/2007 Work Plan are consistent with those detailed in the Overall Project Work Plan (Maxim, 1999a) and those described in the Revised Support Document and Implementation Plan for Temporary Water Quality Standards (Maxim, 2003c). Primary objectives for work done in 2006/2007 include: conducting response actions; collecting sufficient information to support engineering analyses and designs for response actions; monitoring water quality and

revegetation success to document the results of response and restoration actions; and, satisfying the requirements of the rule allowing adoption of temporary water quality standards.

## 2.0 SCOPE OF WORK

To meet the objectives for 2006/2007, the following activities will be performed:

- Maintain community relations in accordance with the Community Relations Plan (Maxim, 1999c).
- Maintain the project database and project website.
- Continue monitoring surface water and groundwater in the District including closely monitoring surface water and groundwater conditions downstream of the closed Glengarry Adit and downstream and within the capped McLaren Pit.
- Complete Phase II construction of the Como Basin cap and finish final reclamation work at the New World Waste Repository and the dump sites where removals occurred in 2005.
- Collect construction monitoring data during construction of the Como Basin cap.
- Continue to monitor the repository sump and associated surface water and groundwater locations.
- Monitor revegetation at the McLaren Pit, McLaren Triangle, McLaren borrow area, and waste dumps reclaimed in Miller Creek in 2004.
- Plug and abandon unused monitoring wells and piezometers in the project area.
- Release the Draft Adit Discharge EE/CA to the public for review and comment.
- Prepare the 2005 Project Summary
- Prepare the 2007/2008 Work Plan

A more complete description of each of these activities is presented below.

### 2.1 COMMUNITY RELATIONS

A Community Relations Plan (CRP) has been developed for the project and is included in the Overall Project Work Plan (Maxim, 1999c). The CRP describes community relation strategies that will be used to share information with the public and obtain timely input on proposed project activities. Community relation techniques include preparing news releases, preparing project summaries, conducting technical workshops and public meetings, making project documents readily available to interested parties, and accepting and responding to public comment on project activities.

Community relation activities described in the CRP will be used in 2006/2007 to keep the public informed of project activities. Events expected for 2006/2007 with the anticipated timing of the events are listed in **Table I**. As other events arise during the year, the public will be informed in a timely manner in accordance with the CRP.

<b>TABLE I COMMUNITY RELATION ACTIVITIES 2006/2007 Work Plan</b>	
<b>Event/Task</b>	<b>Timing</b>
Public Meeting	July 6, 2006 - Cooke City
Public Meeting	August/September 2006 - Cooke City
Technical Workshop on Work Plan Activities	December 2006 – Bozeman

## 2.2 MAINTAIN PROJECT WEBSITE AND DATABASE

The USDA Forest Service has maintained a project website since project inception. The website address is:

<http://www.fs.fed.us/r1/gallatin>

The project website contains general information on the project as well as a library of archived information specific to the work that has been conducted over the past seven years. The library contains downloadable versions of all documents that have been made available to the public in addition to a list of historic documents produced by various authors during the 1990's. Project information stored at the New World Response and Restoration Project document repository in Bozeman is also listed on the website. Environmental data that have been collected at the New World site are cataloged in a Microsoft Access® database, and analytical data for surface water and mine waste samples are available for downloading from this database.

The project website will be maintained to disseminate information, reports, and data related to the project. Relevant reports prepared during 2006/2007 will be posted to the website after hard copy documents are made available to the public. Other reports, such as technical memoranda, will also be available on the project website. The project water quality database will continue to be updated as new project information is collected during 2006/2007.

## 2.3 SURFACE WATER QUALITY MONITORING

This section of the work plan describes surface water monitoring activities that will be completed in 2006. Surface water monitoring includes monitoring for long-term, supplemental, and construction purposes.

### 2.3.1 Long-Term Surface Water Quality Monitoring

Surface water quality monitoring will be conducted in 2006 at the 12 sampling stations identified in the Long-Term Surface Water Quality Monitoring Plan (Maxim, 1999d). Long-term surface water sampling sites are shown on **Figure 2** and listed in **Table 2**. Samples will be collected before the onset of snowmelt (April), during higher flow conditions (June/July), and during low flow (September/October).

Surface water samples will be collected and analyzed in accordance with procedures and methods described in the Site-Wide Sampling and Analysis Plan (SAP) (Maxim, 1999f). In addition to the analytical methods described in the Site-Wide SAP, analysis of dissolved metals will be added to the parameter list

for selected sites. Analysis of dissolved metals will allow further evaluation of reclamation success, particularly in the McLaren Pit area, as dissolved metals analysis removes the contribution of metals present in suspended sediment. Sites selected for dissolved metals analysis are identified in **Table 2**.

**Table 3** lists surface water field parameters and standard operating procedures (SOPs) from the Site-Wide SAP. **Table 4** lists preservation and bottle requirements and **Table 5** lists surface water analytical requirements and practical quantitation limits (PQLs).

### 2.3.2 Construction Monitoring

Surface water quality monitoring will be performed during response action construction in the Como Basin at stations FCT-11 and SW-3 (**Figure 2**). Construction monitoring will be conducted on a weekly basis when construction earthwork is active. The objective of construction water quality monitoring is to document water quality conditions and make appropriate adjustments to construction practices if water quality is significantly affected by construction activities. Construction monitoring will consist of measuring the following field parameters: flow, pH, specific conductance, turbidity, and total iron and copper concentrations using a colorimetric Hach field kit. Field parameters will be measured according to procedures and methods described in the Site-Wide SAP (Maxim, 1999f). **Table 3** lists SOPs for measurement of field parameters.

### 2.3.3 Supplemental Water Quality Monitoring

Supplemental surface water stations will be monitored in Daisy Creek, Fisher Creek, and Miller Creek (**Table 2**). Supplemental stations located in the Daisy Creek drainage will be monitored to augment groundwater monitoring in the McLaren Pit area. In Fisher Creek, stations FCT-11 and FCT-12 will be monitored to allow evaluation of loading changes in Fisher Creek that result from the Glengarry Adit closure and capping mineralized disturbed soils within the Como Basin. In Miller Creek, station SW-5 located at the mouth of the creek, will be monitored to augment water quality data for this drainage. In addition to surface water stations, monitoring will be conducted at the closed Glengarry and Gold Dust adits in June/July and September to document post-closure flow and water quality conditions.

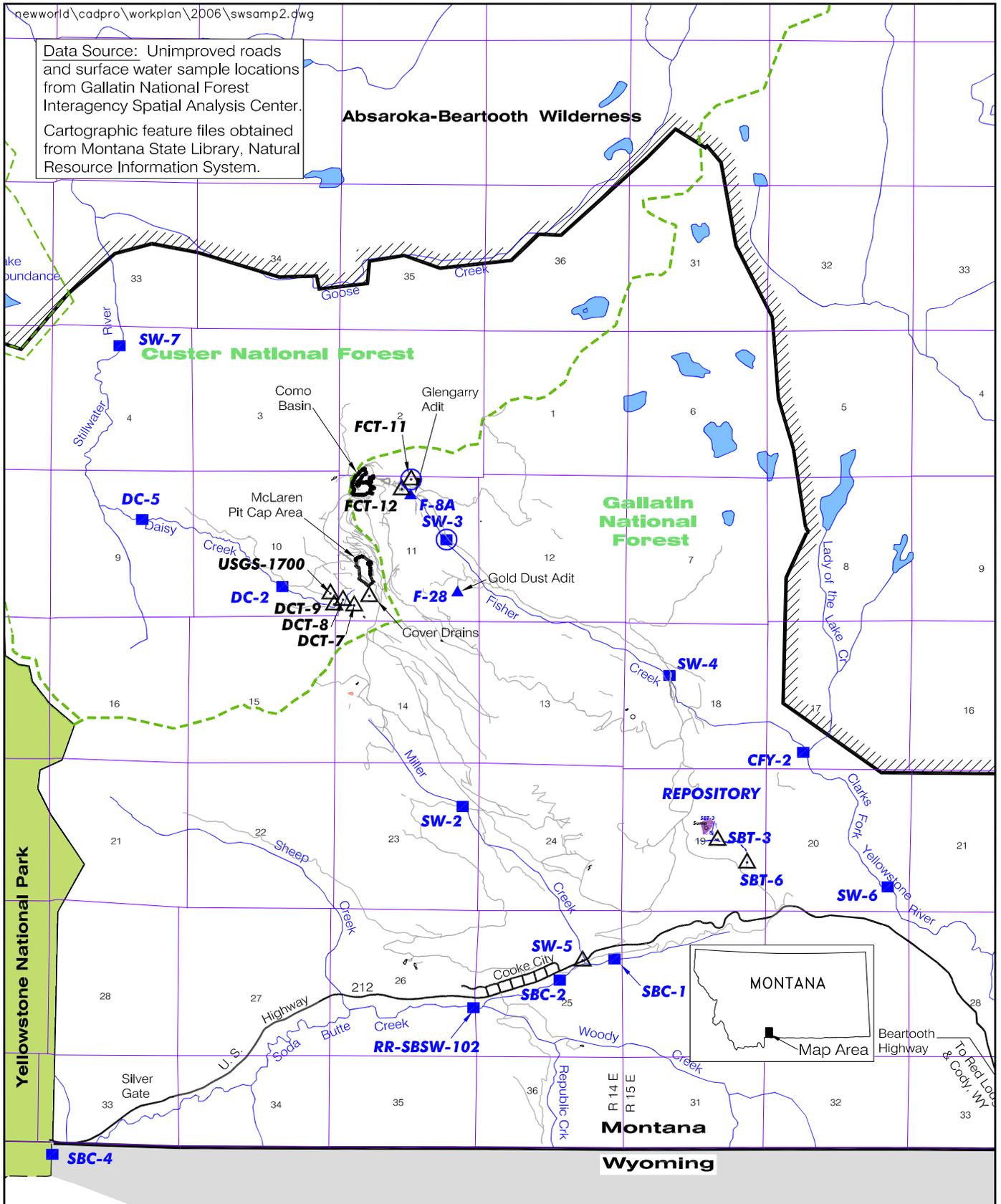
Samples will be collected from all supplemental surface water stations in conjunction with other long-term monitoring events (**Table 2**). Supplemental stations will be sampled and analyzed in accordance with procedures and methods described in the Site-Wide SAP (Maxim, 1999f). **Tables 3, 4, and 5** list field parameters, sampling requirements, and analytical requirements.

### 2.3.4 New World Repository Monitoring

Surface water monitoring will be conducted at the New World waste repository in accordance with the methods and procedures described in the New World Waste Repository Long-Term Monitoring Plan (Maxim, January 2006). Surface water monitoring includes monitoring water quality in surface water tributaries SBT-3 and SBT-6 downstream of the repository. Monitoring will be conducted in April prior to snowmelt, during high flow conditions in May, and during low flow conditions in the fall. Samples will be collected for both dissolved and total recoverable metals analysis as well as field parameters, physical parameters, and common ions.

<b>TABLE 2 2006 SURFACE WATER SAMPLE SITES 2006/2007 Work Plan</b>					
<b>Site Name<sup>(1)</sup></b>	<b>Location</b>	<b>April</b>	<b>May</b>	<b>June/ July</b>	<b>Sept/ Oct</b>
<b>Daisy Creek Drainage</b>					
DCT-7*	Daisy Cr. tributary south of McLaren Pit	--	--	X	X
DCT-8*	Daisy Cr. tributary south of McLaren Pit	--	--	X	X
DCT-9*	Daisy Cr. tributary south of McLaren Pit	--	--	X	X
USGS-1700*	Daisy Cr. tributary south of McLaren Pit	--	--	X	X
Cover Drains*	McLaren Pit drains beneath cover (DCSW-101, -102, -103)	--	--	X	X
DC-2	Daisy Creek below confluence of McLaren tributaries	X	--	X	X
DC-5*	Daisy Creek above confluence with Stillwater River	X	--	X	X
SW-7*	Stillwater River at Stillwater Trail Crossing	X	--	X	X
<b>Fisher Creek Drainage</b>					
FCT-12*	Tributary south of Glengarry Adit	--	--	X	X
FCT-11‡*	Tributary below Como Basin	--	--	X	X
Glengarry Adit	Closed adit portal area near FCT-11	--	--	X	X
Gold Dust Adit	Closed adit portal area	--	--	X	X
SW-3‡	Fisher Creek below Glengarry Adit	X	--	X	X
SW-4*	Fisher Creek at Lulu Road Crossing	X	--	X	X
CFY-2*	Fisher Creek above Clarks Fork confluence	X	--	X	X
<b>Clarks Fork River Drainage</b>					
SW-6*	Clarks Fork Yellowstone River at Saw Mill Road	X	--	X	X
<b>Miller Creek Drainage</b>					
SW-2*	Miller Creek below Miller Mountain Road Crossing	X	--	X	X
SW-5*	Miller Creek near mouth	X	--	X	X
<b>Soda Butte Creek Drainage</b>					
SBT-3*	Soda Butte Creek Tributary below Repository Site	X	X	--	X
SBT-6*	Soda Butte Creek Tributary below Repository Site	X	X	--	X
SBC-1	Soda Butte Creek above confluence with Miller Creek	X	--	X	X
SBC-2	Soda Butte Creek below McLaren Tailings	X	--	X	X
RR-SBSW-102	Soda Butte Creek below Woody Creek	X	--	X	X
SBC-4	Soda Butte Creek at Park Boundary	X	--	X	X

Note: (1) All stations will be sampled and analyzed for the full suite of laboratory parameters except for construction samples.  
‡ Construction monitoring site; samples will be analyzed for field parameters and total field copper and iron.  
\* Indicates sample will be analyzed for both total and dissolved metals.



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- District Boundary
- ~ Unimproved Road
- National Forest Boundary
- /// Wilderness Boundary
- Long-Term Surface Water Monitoring Station
- ▲ Adit Station
- Construction Monitoring Station
- △ Supplemental Monitoring Station

2006 Surface Water Monitoring Stations  
New World Mining District  
Response and Restoration Project  
Cooke City Area, Montana

FIGURE 2

Figure 2 – Back page

**TABLE 3  
SURFACE WATER FIELD PARAMETERS  
2006/2007 Work Plan**

<b>Parameter</b>	<b>SOP Number<sup>(1)</sup></b>	<b>SOP Title</b>	<b>Event</b>
Specific Conductance	SOP-05	Field Measurement of Specific Conductance	All
pH	SOP-06	Field Measurement of pH	All
Water Temperature	SOP-07	Field Measurement of Water Temperature	All
Flow	SOP-01	Streamflow Measurement; Wading Technique	All
Turbidity	SOP-35	Field Measurement of Turbidity	Construction
Total Iron	Hach <sup>(2)</sup>	Hach Water Analysis Handbook	Construction
Total Copper	Hach <sup>(2)</sup>	Hach Water Analysis Handbook	Construction

- 1 Maxim Standard Operating Procedures (Appendix A, Site-Wide SAP)
- 2 Field analysis will be conducted using a Hach DR 2000 Spectrophotometer following the procedures in Hach Water Analysis Handbook (1991)

**TABLE 4  
SURFACE WATER SAMPLING REQUIREMENTS  
2006/2007 Work Plan**

<b>Parameter</b>	<b>Preservation<sup>(1)</sup></b>	<b>Bottle Size/Type</b>
Total Recoverable Metals	HNO <sub>3</sub> to pH < 2; Iced to 4°C	250 milliliter polyethylene
Dissolved Metals	Filtered through 0.45 micron filter; HNO <sub>3</sub> to pH < 2; Iced to 4°C	250 milliliter polyethylene
Common Ions/Physicochemical	Iced to 4°C	500 milliliter polyethylene

- 1 HNO<sub>3</sub> = nitric acid

**TABLE 5  
SURFACE WATER ANALYTICAL REQUIREMENTS  
2006/2007 Work Plan**

<b>Parameter</b>	<b>PQL (mg/L)<sup>(1)</sup></b>	<b>EPA Method No.</b>	<b>Max. Holding Time</b>
<b>Physicochemical</b>			
Specific Conductivity	None	2310B	28 days
pH	None	150.1	Upon arrival at lab
Total Dissolved Solids	None	2340C	7 days
Total Suspended Solids	None	160.2	7 days
Hardness	None	2340B	6 months
Acidity	None	305.1	14 days
<b>Metals<sup>(2)</sup></b>			
Aluminum	0.05	200.8/200.7	6 months
Cadmium	0.0001	200.8/200.7	6 months
Copper	0.001	200.8/200.7	6 months
Iron	0.01	200.8/200.7	6 months
Lead	0.001	200.8/200.7	6 months
Manganese	0.003	200.8/200.7	6 months
Zinc	0.01	200.8/200.7	6 months
<b>Common Cations<sup>(2)</sup></b>			
Calcium	1.0	200.8/200.7	6 months
Magnesium	1.0	200.8/200.7	6 months
Potassium	1.0	200.8/200.7	6 months
Sodium	1.0	200.8/200.7	6 months
<b>Common Anions<sup>(2)</sup></b>			
Sulfate	None	375.2	28 Days
Bicarbonate	None	2320B	14 Days
Carbonate	None	2320B	14 Days
Chloride	None	325.3	28 Days

1 PQL = Practical Quantitation Limit in milligrams per liter (mg/L)

2 Surface water parameters will be analyzed as total recoverable (unfiltered); for the select stations shown in Table 2, both total and dissolved metals will be analyzed.

## 2.4 GROUNDWATER MONITORING

Groundwater monitoring will be conducted in 2006 at the wells shown in **Tables 6 and 7**. Well locations are shown on **Figures 3 and 4**. Groundwater monitoring activities are discussed in the following subsections.

### 2.4.1 Fisher Creek Groundwater Monitoring

Wells scheduled for the long-term monitoring event will be monitored one time in 2006 in July (**Table 6**). These wells have generally been monitored annually since well installation. Monitoring will be conducted in July when water levels at the higher elevation sites are typically at the highest level reached during the year. Past experience has shown that water quality is generally more mineralized and contains higher concentrations of contaminants during this high water level period. Field parameters and water level will also be measured in well FCGW-100, the Glengarry Adit well, once per month beginning in June and ending in September.

The July long-term groundwater monitoring event will involve measuring water levels, measuring field parameters, and collecting samples for laboratory analysis. **Table 8** lists field parameters that will be measured and **Tables 9 and 10** list groundwater analytical parameters and practical quantitation limits (PQLs).

### 2.4.2 McLaren Pit Groundwater Monitoring

Extensive monitoring will be conducted in the McLaren Pit area (**Table 7**), as was done in 2003, 2004, and 2005 to closely monitor changes in groundwater conditions that may result from the capping of the McLaren Pit waste rock, which was capped in 2003. McLaren Pit wells will be monitored in July, when water levels are at or near seasonal highs, and once again in September/October.

Monitoring will involve measuring water levels, measuring field parameters, and collecting samples for laboratory analysis. As shown in **Table 7**, samples will only be collected from select wells for laboratory analysis in July, with the remaining wells slated for measurement of field parameters only. In September, only field parameters will be measured (**Table 7**). Groundwater samples will be submitted to an analytical laboratory for analysis of parameters listed in **Table 10**.

### 2.4.3 New World Repository Monitoring

Groundwater monitoring will be conducted at the New World waste repository in accordance with the methods and procedures described in the New World Waste Repository Long-Term Monitoring Plan (Maxim, January 2006). Groundwater monitoring includes measuring depth to water in the repository sump and monitoring groundwater in the monitoring well network established at the site.

The repository sump will be monitored quarterly beginning in April 2005. Monitoring will include maintaining and downloading water level data from the continuous water level instrument and collecting water quality samples. Water quality parameters are listed in **Table 5** for the sump. If the sump fills to capacity with water, water in the sump will be pumped into appropriate water trucks and disposed at the Cody, Wyoming, sewage treatment ponds.

Groundwater monitoring will be conducted at the three well pair locations SBGW-105, -107, and -108 and include maintaining and downloading water level data from the continuous water level instruments installed in wells SBGW-105T and SBGW-107T and collecting water quality samples. Well locations are

shown on **Figure 3**. Repository wells will be sampled twice: in late May when water levels are typically at the highest level reached during the year and in mid-summer after water levels have fallen to seasonal lows. Groundwater samples will be submitted to an analytical laboratory for analysis of parameters listed in **Table 10**.

<b>TABLE 6 FISHER CREEK AND REPOSITORY WELL MONITORING 2006/2007 Work Plan</b>								
<b>Well No.</b>	<b>Year Installed</b>	<b>Completion Formation</b>	<b>Monitoring Event</b>					
			<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Continuous</b>
<b>Fisher Creek Area</b>								
EPA-11	1996	Tertiary Intrusive Dike	--	F	X	F	F	--
EPA-12	1996	Scotch Bonnet Diorite	--	F	X	F	F	--
FCGW-100	2004	Glengarry Adit behind plugs	--	F	X	F	F	--
MW-1	1989	Wolsey Shale	--	--	X	--	--	--
MW-9A	1990	Alluvium	--	--	X	--	--	--
MW-9B	1990	Precambrian	--	--	X	--	--	--
MW-10A	1990	Alluvium	--	--	X	--	--	--
MW-10B	1991	Precambrian	--	--	X	--	--	--
MW-11	1990	Precambrian	--	--	X	--	--	--
SB-16	1991	Precambrian	--	--	X	--	--	--
Tracer-5	1997	Fisher Mtn. Intrusive	--	--	X	--	--	--
<b>New World Waste Repository</b>								
SBGW-105T	1999	Till	X	--	X	--	--	W
SBGW-105	1999	Granite	X	--	X	--	--	--
SBGW-107T	1999	Till	X	--	X	--	--	W
SBGW-107	1999	Granite	X	--	X	--	--	--
SBGW-108T	1999	Till	X	--	X	--	--	--
SBGW-108	1999	Granite	X	--	X	--	--	--

Note: X Samples collected and analyzed for full suite of laboratory parameters.  
 F Samples collected and monitored for field parameters only; Aug/Sept indicates sample collected each month.  
 W Continuous water level monitoring.  
 -- Indicates no monitoring

**TABLE 7  
MCLAREN PIT AREA MONITORING WELLS  
SCHEDULED FOR SAMPLING IN 2006  
2006/2007 Work Plan**

Well No.	Year Installed	Completion Formation	Monitoring Event	
			July	September
DCGW-100	2003	Meagher Limestone	X	F
DCGW-101S	2001	Colluvium	X	F
DCGW-101D	2001	Lulu Pass Rhyodacite Porphyry	X	F
DCGW-111S	2003	Colluvium	X	F
DCGW-111D	2003	Bedrock	X	F
Tracer-2	1997	Fisher Mtn. Intrusive	X	F
MW-2	1989	Wolsey Shale	X	F
MW-3	1989	Wolsey Shale	X	--
DCGW-103S	2001	Colluvium	F	--
DCGW-103D	2001	Bedrock	F	--
DCGW-104§	2001	Waste Rock	X	F
DCGW-105§	2001	Waste Rock	X	F
DCGW-106	2002	Colluvium	F	--
DCGW-107	2002	Colluvium	X	--
DCGW-108	2002	Colluvium	X	--
DCGW-109	2002	Colluvium	F	--
DCGW-110	2002	Colluvium	F	--
DCGW-112	2002	Colluvium	F	--
DCGW-131	2002	Colluvium	F	F
DCGW-132	2002	Colluvium	X	F
DCGW-133	2002	Colluvium	X	F
DCGW-134	2002	Colluvium	F	F
DCGW-135	2002	Colluvium	F	F
DCGW-136	2002	Colluvium	X	F
DCGW-137	2002	Colluvium	X	F
DCGW-138	2002	Colluvium	X	--

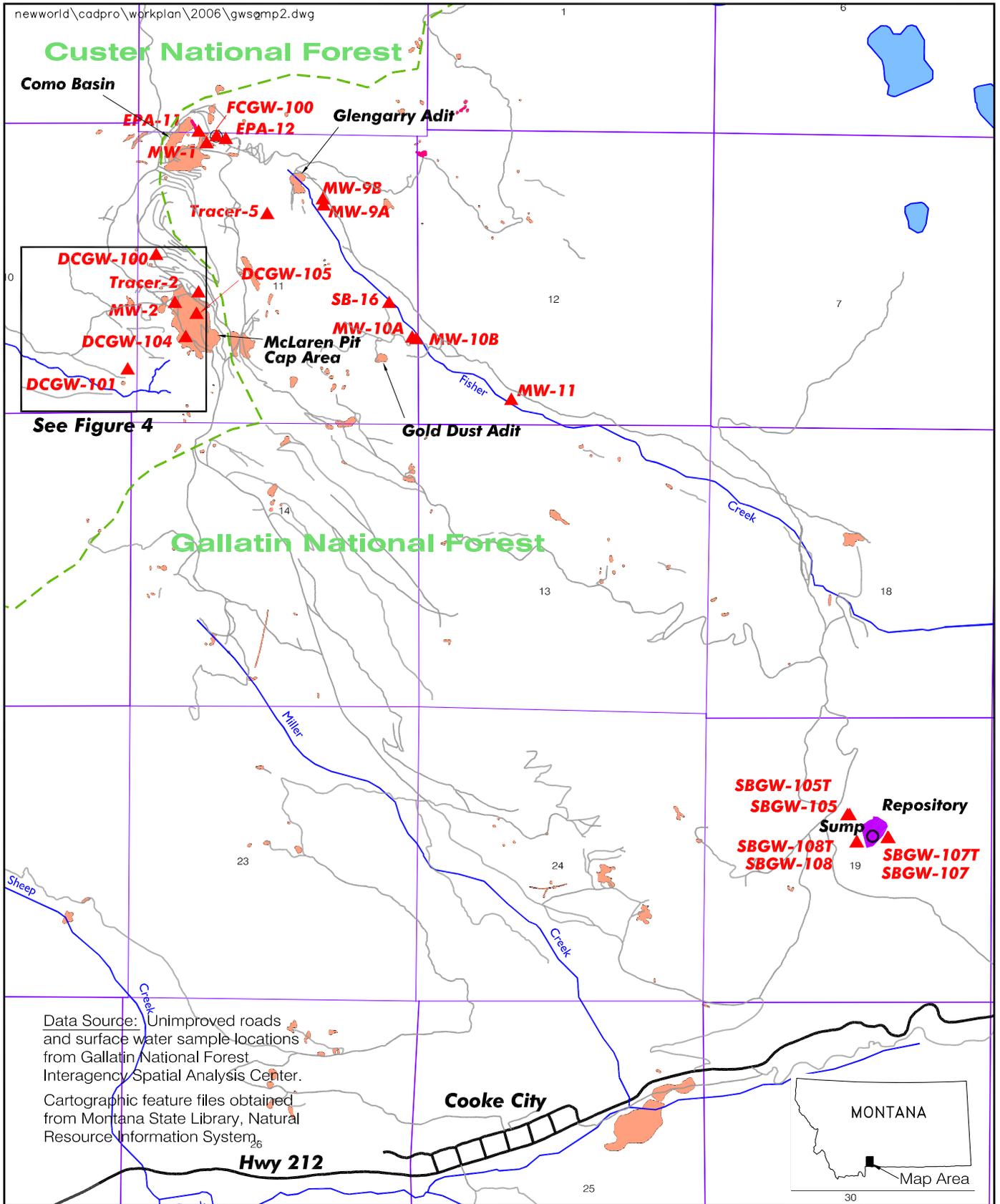
Notes: X Indicates well will be sampled for full suite of laboratory parameters along with depth to water and field parameters  
F Indicates only depth to water and field parameters monitored  
§ Continuous water level monitoring  
-- Indicates no monitoring

<b>TABLE 8 GROUNDWATER FIELD PARAMETERS 2006/2007 Work Plan</b>			
<b>Parameter</b>	<b>SOP Number<sup>(1)</sup></b>	<b>SOP Title</b>	<b>Event</b>
Specific Conductance	SOP-05	Field Measurement of Specific Conductance	All
pH	SOP-06	Field Measurement of pH	All
Water Temperature	SOP-07	Field Measurement of Water Temperature	All
Oxidation-Reduction	SOP-28	Field Measurement of Redox Potential (Eh)	All
Dissolved Oxygen	SOP-08	Field Measurement of Dissolved Oxygen	All
Depth to Water	SOP-20	Field Measurement of Groundwater Level	All

1 Maxim Standard Operating Procedures (Appendix A, Site-Wide SAP)

<b>TABLE 9 GROUNDWATER SAMPLING REQUIREMENTS 2006/2007 Work Plan</b>		
<b>Parameter</b>	<b>Preservation<sup>(1)</sup></b>	<b>Bottle Size/Type</b>
Dissolved Metals	Filtered through 0.45 micron filter; HNO <sub>3</sub> to pH < 2; Iced to 4°C	250 milliliter polyethylene
Common Ions/Physicochemical	Iced to 4°C	500 milliliter polyethylene

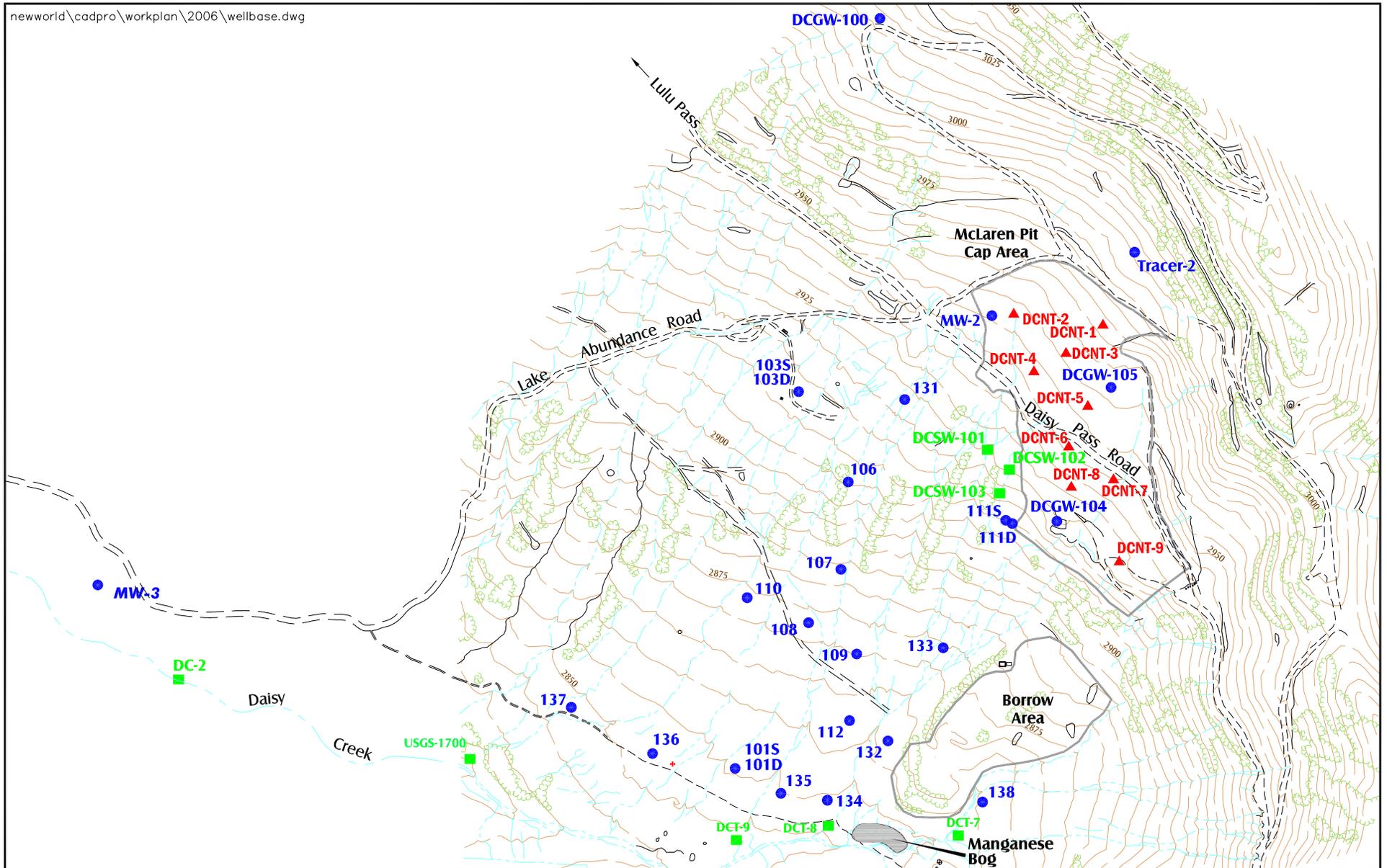
1 HNO<sub>3</sub> = nitric acid



Data Source: Unimproved roads and surface water sample locations from Gallatin National Forest Interagency Spatial Analysis Center.

Cartographic feature files obtained from Montana State Library, Natural Resource Information System.

2006 Groundwater Monitoring Stations  
 New World Mining District  
 Response and Restoration Project  
 Cooke City Area, Montana  
**FIGURE 3**



0 10 Meters 50  
1:5000

Contour Interval = 5 meters

- Surface Water Station
- 101 Monitoring Well (DCGW prefix not included)
- Creek/Drainage
- Road/Trail
- ▲ DCNT-9 Moisture Monitoring Tube

2006 McLaren Pit Area Monitoring Stations  
New World Mining District  
Response and Restoration Project  
Cooke City Area, Montana

FIGURE 4

**TABLE 10  
GROUNDWATER ANALYTICAL REQUIREMENTS  
2006/2007 Work Plan**

Parameter	PQL (mg/l) <sup>(1)</sup>	EPA Method No.	Max. Holding Time
<b>Physicochemical</b>			
Specific Conductivity	None	2310B	28 days
pH	None	150.1	Upon arrival at lab
Total Dissolved Solids	None	2340C	7 days
Hardness	None	2340B	6 months
Acidity	None	305.1	14 days
<b>Metals<sup>(2)</sup></b>			
Aluminum	0.05	200.8/200.7	6 months
Cadmium	0.0001	200.8/200.7	6 months
Copper	0.001	200.8/200.7	6 months
Iron	0.01	200.8/200.7	6 months
Lead	0.001	200.8/200.7	6 months
Manganese	0.003	200.8/200.7	6 months
Zinc	0.01	200.8/200.7	6 months
<b>Common Cations<sup>(2)</sup></b>			
Calcium	1.0	200.8/200.7	6 months
Magnesium	1.0	200.8/200.7	6 months
Potassium	1.0	200.8/200.7	6 months
Sodium	1.0	200.8/200.7	6 months
<b>Common Anions<sup>(2)</sup></b>			
Sulfate	None	375.2	28 Days
Bicarbonate	None	2320B	14 Days
Carbonate	None	2320B	14 Days
Chloride	None	325.3	28 Days

1 PQL = Practical Quantitation Limit in milligrams per liter (mg/L)

2 Groundwater parameters will be analyzed as dissolved constituents as filtered through a 0.45 micron filter

## 2.5 MCLAREN PIT MOISTURE MONITORING

In 2003, nine moisture monitoring tubes were installed in the McLaren Pit capped area (**Figure 4**). Six tubes are accessible while blockages in three of the tubes prevent access with instrumentation. The six accessible tubes will be monitored in 2006 using a neutron probe instrument that measures relative moisture content in the wastes beneath the McLaren Pit cap. Measurements made in 2006 will be compared to measurements made in previous years to determine relative moisture changes in the

waste. Moisture monitoring will be conducted in September in conjunction with McLaren Pit groundwater monitoring activities.

## 2.6 RECLAMATION MONITORING AND MAINTENANCE

Revegetation monitoring in 2006 will involve documenting percent cover and species composition in the McLaren Pit, the McLaren Triangle, the McLaren borrow area, and four dump sites in Miller Creek. The Miller Creek sites were reclaimed in 2004 and include the following: Miller Creek Dump One (MCSI-99-72), Miller Creek Dump Two (MCSI-96-1), Miller Creek Dump Four (MCSI-00-1), and Lower Miller Creek Dump One (MCSI-96-4). The McLaren sites were reclaimed in 2003. Reclamation monitoring will be conducted in accordance with monitoring procedures that are described in the Long-Term Revegetation Monitoring Plan (Maxim, 1999e). The purpose of cover monitoring at these sites is to determine if revegetation cover is meeting the project objective of 20%.

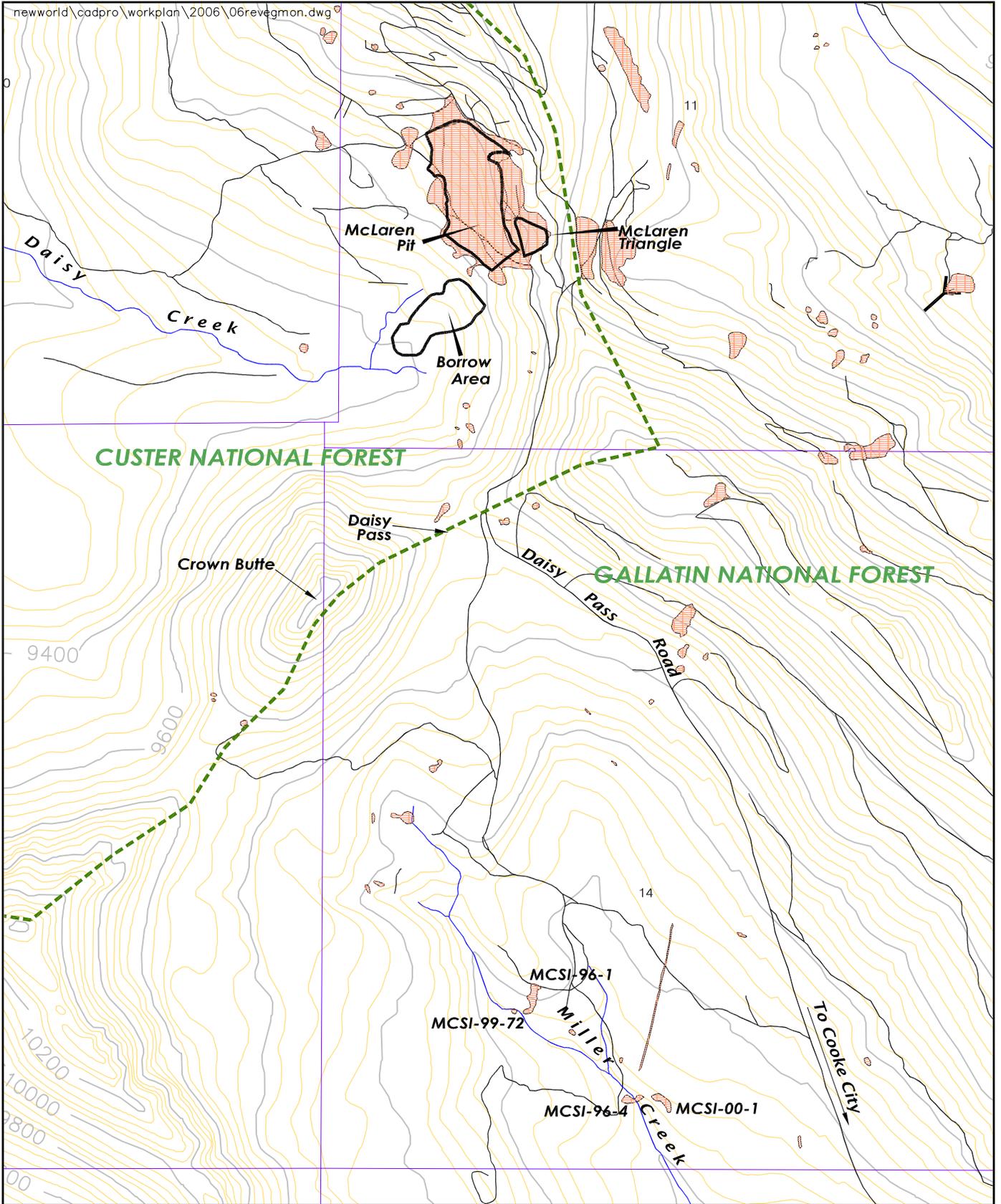
If bare or eroded areas are observed during cover monitoring, soil samples will be collected for laboratory analysis. Samples will be collected from a depth of about 15 cm and placed in one-gallon polyethylene bags. Samples will be labeled by location and returned to a qualified laboratory for selected analyses in accordance with the parameters and methods in the Site-Wide SAP for native soil collection. Laboratory parameters may include USDA soil texture, coarse fragment content, pH, electrical conductivity, organic matter, nutrients, and total metals (aluminum, arsenic, cadmium, copper, lead, and zinc). Sample collection and parameter selection will be performed at the discretion of the field investigator to ensure site-specific conditions are being addressed. Following receipt of the laboratory analysis, recommendations will be made to amend soils or reseed barren areas. If necessary, reclamation maintenance will be performed in 2006.

In 2004, area-wide monitoring of the McLaren Pit cap identified a 0.5 acre area where vegetation did not grow (**Figure 5**). This area is adjacent to the cap where mine waste from the multicolor dump was removed and where mine drainage from the McLaren Mine formerly discharged. Soil samples were collected from this area for analysis of fertility, acid/base account, and other physical parameters to determine whether soil problems were the cause of the revegetation failure. Soil analytical results indicated that the soils were strongly acidic (Maxim, 2005c). The lime requirement to neutralize the soils to a circum-neutral pH ranged from 146 tons of calcium carbonate equivalent material per 1,000 tons of soil in the footprint of the former multicolor dump to an average of about 30 tons/1,000 tons in the unvegetated area below the former multicolor dump footprint (**Figure 5**).

To alleviate the unvegetated condition described above, the Forest Service will remove the erosion mat, amend the area with limestone, reseed with the project seed mix, and then cover the area with erosion mat. Fine-grained, agricultural limestone will be applied at two rates – 24 tons in the former footprint of the multicolor dump and 10 tons in the unvegetated area below the former footprint of the multicolor dump. Limestone will be incorporated into the top six inches of soil using an agricultural disk or other suitable equipment. The site will then be fertilized and seeded and recovered with erosion control mat.

## 2.7 COMO BASIN CAP CONSTRUCTION

Work in the Como Basin was initiated in 2005 with the stripping of soil from half of the area that is to be covered, regrading the stripped area, installing a geomembrane on the regraded area, amending stripped soils with limestone, and then covering the geomembrane with the amended soil. In 2006, construction work will be completed in the Como Basin by installing a geomembrane on the remaining portion of the cap area and revegetating the entire site. Other reclamation construction work that was initiated but not finished in 2005 will be completed during the 2006 construction season, including final



0 Feet 300

-  Mine Waste Source Area
-  Forest Boundary
-  Road

2006 Revegetation Monitoring Areas  
 New World Mining District  
 Response and Restoration Project  
 Cooke City Area, Montana

Figure 5 – Back Page

regrading and revegetation at the expanded New World repository and regrading and revegetation at the four dump sites in Fisher Creek (Glengarry and Gold Dust) and Miller Creek (Black Warrior and Little Daisy) where waste rock materials were removed.

## 2.8 ABANDON UNUSED MONITORING WELLS IN THE DISTRICT

**Table II** and **Figure 6** display the monitoring wells in the District that are no longer used for monitoring groundwater quality. These wells were installed over the years by various agencies and CBMI for site assessment purposes. Wells listed in **Table II** are no longer used for groundwater monitoring generally because the wells were installed for a different purpose than is now needed for response and restoration activities. For instance, wells with the “KP” and “SB” prefix were installed by CBMI to investigate groundwater conditions in the area of CBMI’s proposed mine facilities. Wells with the “SBGW” prefix were installed in 1999 during the repository siting investigation. These “SBGW” wells are no longer needed to monitor the constructed repository site. Monitoring wells shown on **Figure 6** and **Table II** will be abandoned in accordance with State of Montana monitoring well abandonment procedures by a licensed monitoring well abandonment contractor.

## 2.9 NATURAL RESOURCES RESTORATION WORK ALONG DISTRICT ROADS

The Miller Creek EE/CA (Maxim, 2004c) included an alternative that would alleviate the impact of sediment derived from roads throughout the District on surface water quality. This natural resource restoration action will involve limiting erosion from existing roadway disturbances. Five types of road rehabilitation actions are proposed:

- 1) Road closure; including either recontouring or obliteration (ripping in place), followed by seed and fertilizer application, and installation of erosion blankets.
- 2) Drainage and turnpike construction in low-lying road sections. Spot surfacing. These roads would remain open. (Turnpike construction is a descriptive engineering term for roadwork where drainage relief is provided for standing water problems along low-lying areas.)
- 3) Restricted width use (spot drain and surface where needed for sediment control).
- 4) Road closed by institutional controls (barriers or gates) to all non-administrative travel.
- 5) These roads would remain open with improvements that would include drainage, constructing ditches, installing culverts and/or rock check dams or other sediment control structures. Cut and fill slopes would be revegetated.

Engineering design activities will be initiated in 2006 to implement this restoration action, which is scheduled for construction in 2007. Engineering design activities will include developing specific plans and specifications that can be used to obtain proposals from construction contractors.

## 2.10 ADIT DISCHARGE EE/CA

The USDA-FS prepared an internal agency review draft of an Adit Discharge EE/CA in 2005. This draft, which was circulated to agency partners at the EPA, Montana DEQ, National Park Service, and U.S. Fish and Wildlife Service, evaluated impacts to water quality from remaining adit discharges located on District Property. A total of 27 adit openings with discharges were inventoried in the District, with ten of these sites identified as perennial discharges with water quality that exceeds Montana’s standards. In

addition, a series of drains located at the reclaimed McLaren Pit site convey poor quality water from the reclaimed area to Daisy Creek; as such, these drains were included in the evaluation of mining-related discharges in the EE/CA.

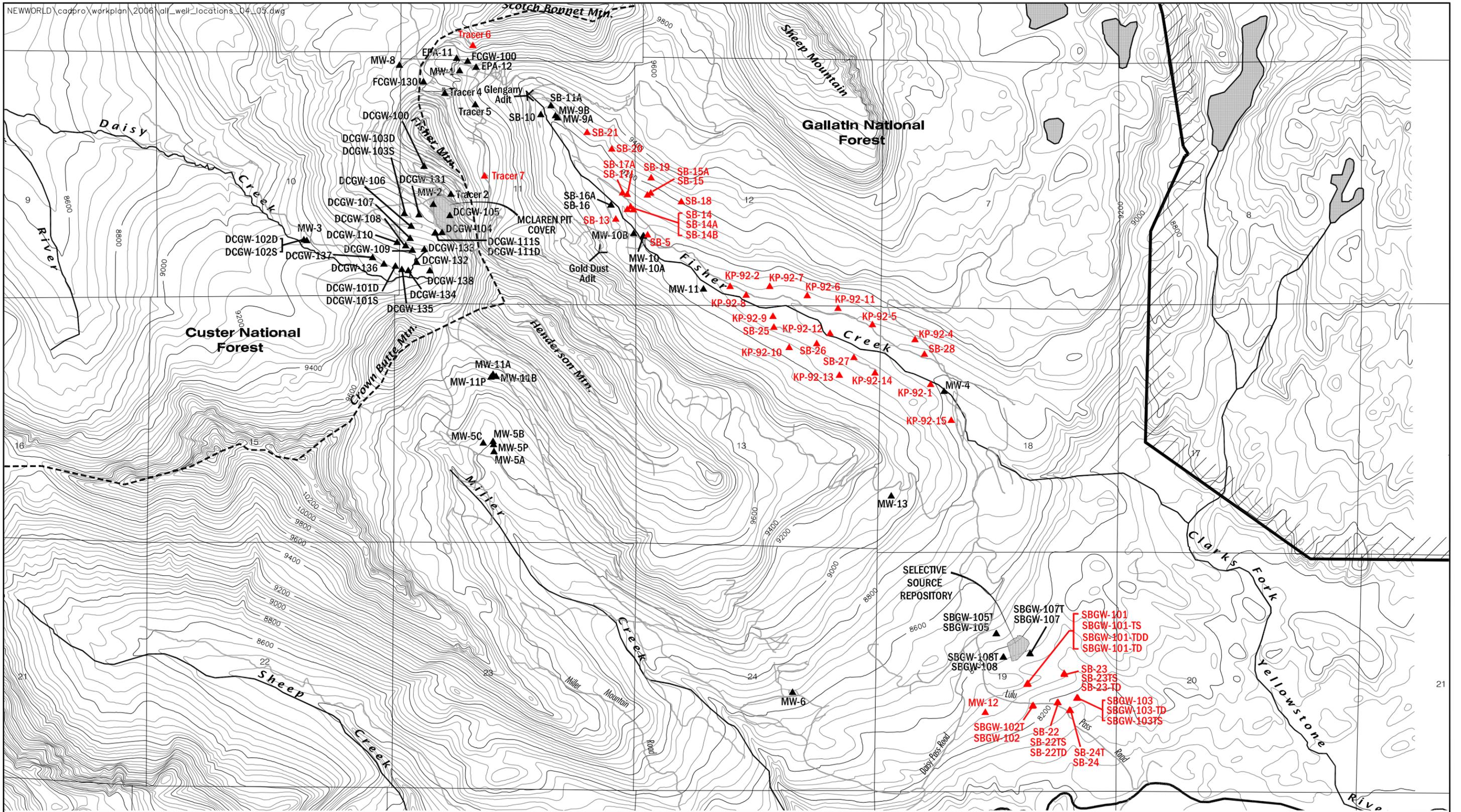
The USDA-FS has received comments from its agency partners on the EE/CA and is in the process of revising the document to incorporate comments received. In addition, the geohydrology technical working group suggested including 2005 and 2006 data, which were not included in the 2004 release of the internal review draft. The revised document will then be released to the public as a draft to allow public review and comment on the evaluation of alternatives and the preferred alternative. The expected release of the public draft of the Adit Discharge EE/CA is January 2007. The USDA-FS will continue to collect any necessary data at these sites to evaluate other alternatives that may be appropriate as a result of agency and public comment. Prior to the release of the final EE/CA, any more current data will be assessed to verify whether these data impact the evaluation of alternatives presented in the draft report.

## **2.11 PREPARE 2007/2008 WORK PLAN**

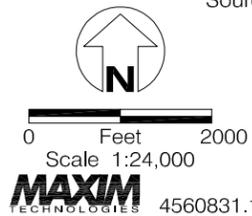
A work plan similar to this plan will be prepared to guide specific work activities to be completed during 2007/2008. These activities will complement those performed under the long-term plans and will involve surface water, groundwater, and revegetation monitoring, construction monitoring, and construction activities.

## **3.0 PROJECT SCHEDULE**

**Figure 7** illustrates the schedule for 2006/2007 activities.



Source: Topographic data from USGS 7.5 Cooke City Quad  
Contour Interval = 40'



- District Boundary
- Forest Boundary
- Roads
- Groundwater Monitoring Well
- Groundwater Monitoring Well To Be Abandoned

Monitoring Wells To Be Abandoned  
New World Mining District  
Response and Restoration Project  
Cooke City Area, Montana  
FIGURE 6

Figure 6 – back page

**TABLE 11  
MONITORING WELLS SCHEDULED FOR ABANDONMENT  
2006/2007 Work Plan**

Drainage	Well ID	Location	Install Date	Installer	Casing Diam. (in)	Cased Depth (ft)	Well Screen(ft)	Well Protector	COMMENT
Fisher Ck	KP92 1	Fisher Ck	6/28/1992	KnightP/Ruen	1.5	35.5	25.5-35.5	4" steel	
Fisher Ck	KP92 2	Fisher Ck	6/30/1992	KnightP/Ruen	1.5	43.8	33.8-43.8	4" steel	
Fisher Ck	KP92 4	Fisher Ck	6/9/1992	KnightP/Ruen	1.5	48.5	38.5-48.5	4" steel	
Fisher Ck	KP92 5	Fisher Ck	6/11/1992	KnightP/Ruen	1.5	35.3	25.3-35.3	4" steel	
Fisher Ck	KP92 6	Fisher Ck	1992	KnightP/Ruen					
Fisher Ck	KP92 7	Fisher Ck	6/17/1992	KnightP/Ruen	1.5	38.5	28.5-38.5	4" steel	
Fisher Ck	KP92 8	Fisher Ck	6/20/1992	KnightP/Ruen	1.5	51.0	41-51	4" steel	
Fisher Ck	KP92 9	Fisher Ck	6/22/1992	KnightP/Ruen	1.5	51.0	41-51	4" steel	
Fisher Ck	KP92 10	Fisher Ck	6/28/1992	KnightP/Ruen	1.5	94.5	74.5-94.5	4" steel	
Fisher Ck	KP92 11	Fisher Ck	6/13/1992	KnightP/Ruen	1.5	32.0	22-32	4" steel	
Fisher Ck	KP92 12	Fisher Ck	6/23/1992	KnightP/Ruen	1.5	36.5	26.5-36.5	4" steel	
Fisher Ck	KP92 13	Fisher Ck	6/25/1992	KnightP/Ruen	1.5	50.0	40-50	4" steel	
Fisher Ck	KP92 14	Fisher Ck	6/26/1992	KnightP/Ruen	1.5	37.0	27-37	4" steel	
Fisher Ck	KP92 15	Fisher Ck	6/30/1992	KnightP/Ruen	1.5	36.9	26.9-36.9	4" steel	
Soda Butte	MW 12	1/4 mi W of Fisher Ck Rd	9/13/1990	Hydrom/Ruen	4	5.0	2.5-5.0	6" steel	
Fisher Ck	SB 5	Near MW-10	8/10/1990	Bechtel/Ruen	2	25.0	12-22	NG	
Fisher Ck	SB 9 B	Fischer Ck							
Fisher Ck	SB 9	None given	8/11/1990	Bechtel/Ruen	2	20.5	13-20	NG	Artesian
Fisher Ck	SB 10 B	10' W of MW-10							
Fisher Ck	SB 13	Fisher Ck	9/24/1991	Bechtel/Ruen	1.5	100.0	70-99.5	6" steel	
Fisher Ck	SB 14	Fisher Ck	9/20/1991	Bechtel/Ruen	2	100.0	85-99.5	6" steel	
Fisher Ck	SB 14 A	Fisher Ck	9/22/1991	Hydrom/Ruen	2	45.3	25-45	4" steel	
Fisher Ck	SB 14 B	8' NE of Bechtel's deep SB-14	9/22/1991	Hydrom/Ruen	2	71.5	56-71	NG	
Fisher Ck	SB 15 A	Twinned with SB-15B Bechtel	9/17/1991	Hydrom/Ruen	2	37.0	12-37	4" steel	
Fisher Ck	SB 15	Fisher Ck	9/18/1991	Bechtel/Ruen	2	55.5	45.6-53.1	6" steel	
Fisher Ck	SB 17 A	W of SB-14	9/25/1991	Hydrom/Ruen	2	30.0	15-30	4" steel	
Fisher Ck	SB 17	Fisher Ck	9/25/1991	Bechtel/Ruen	2	49.5	39.5-49.1	6" steel	
Fisher Ck	SB 18	Fisher Ck	9/13/1991	Bechtel/Ruen	1.5	50.5	27.3-46.5	6" steel	

**TABLE 11  
MONITORING WELLS SCHEDULED FOR ABANDONMENT  
2006/2007 Work Plan**

Drainage	Well ID	Location	Install Date	Installer	Casing Diam. (in)	Cased Depth (ft)	Well Screen(ft)	Well Protector	COMMENT
Fisher Ck	SB 19	Fisher Ck	9/16/1991	Bechtel/Ruen	1.5	50.5	28.5-38.5	6" steel	
Fisher Ck	SB 20	Fisher Ck	9/10/1991	Bechtel/Ruen	2	49.0	29-48.6	6" steel	
Fisher Ck	SB 21	Fisher Ck	9/8/1991	Bechtel/Ruen	1.5	60.5	55-60	6" steel	
Repository	SB 22	SE of Repository	9/28/1991	Bechtel/Ruen	2	70.0	58.3-67.9	6" steel	Artesian
Repository	SB 22 TS	SE of Repository	8/2/1999	Maxim/Bush	2	23.5	20.5-23.5	6' of 6" steel	
Repository	SB 22 TD	SE of Repository	8/2/1999	Maxim/Bush	2	39.0	36-39	6' of 6" steel	
Repository	SB 23	SE of Repository	9/29/1991	Bechtel/Ruen	2	70.5	50.7-70.3	6" steel	
Repository	SB 23 TS	SE of Repository	7/27/1999	Maxim/Bush	2	9.0	6-9	6' of 6" steel	
Repository	SB 23 TD	SE of Repository	7/27/1999	Maxim/Bush	2	19.0	16-19	6' of 6" steel	
Repository	SB 24	SE of Repository	9/30/1991	Bechtel/Ruen	2	70.0	50-69.6	6" steel	Artesian
Repository	SB 24 T	SE of Repository	7/28/1999	Maxim/Bush	2	9.0	6-9	6' of 6" steel	
Fisher Ck	SB 25	Fisher Ck	10/10/1991	Bechtel/Ruen	2	50.0	open end	NG	Artesian
Fisher Ck	SB 26	Fisher Ck	10/14/1991	Bechtel/Ruen	2	60.0	open end	NG	
Fisher Ck	SB 27	Fisher Ck	10/17/1991	Bechtel/Ruen	2	70.0	open end	NG	
Fisher Ck	SB 28	Fisher Ck	10/19/1991	Bechtel/Ruen	2	70.0	open end	NG	
Repository	SB(GW) 101	S SE of Repository	7/24/1999	Maxim/Bush	2	102.0	92-102	6' of 6" steel	
Repository	SB(GW) 101 TS	S SE of Repository	7/26/1999	Maxim/Bush	2	22.0	19-22	6' of 6" steel	
Repository	SB(GW) 101 TD	S SE of Repository	7/26/1999	Maxim/Bush	2	33.0	29-33	6' of 6" steel	
Repository	SB(GW) 101 TDD	S SE of Repository	9/19/1999	Maxim/Bush	2	76.5	73.5-76.5	6' of 6" steel	
Repository	SB(GW) 102	S SE of Repository	7/22/1999	Maxim/Bush	2	29.5	19.5-29.5	6' of 6" steel	
Repository	SB(GW) 102 T	S SE of Repository	7/28/1999	Maxim/Bush	2	10.0	5-10	6' of 6" steel	
Repository	SB(GW) 103	S SE of Repository	7/24/1999	Maxim/Bush	2	50.0	40-50	6' of 6" steel	
Repository	SB(GW) 103 TS	S SE of Repository	7/28/1999	Maxim/Bush	2	13.0	10-13	6' of 6" steel	
Repository	SB(GW) 103 TD	S SE of Repository	7/28/1999	Maxim/Bush	2	21.0	18-21	6' of 6" steel	
Fisher Ck	Tracer 7 (BC-12)	E flank Fisher Mtn.		CBMI	--	open borehole	--	--	270 feet deep; not cased

**FIGURE 7**  
**NEW WORLD MINING DISTRICT RESPONSE AND RESTORATION PROJECT**  
**2006/2007 PROJECT SCHEDULE**

Task Name	Jan '06	Feb '06	Mar '06	Apr '06	May '06	Jun '06	Jul '06	Aug '06	Sep '06	Oct '06	Nov '06	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	
Community Relations	[Solid Blue Bar]																
Maintain Project Website/Database	[Solid Blue Bar]																
Prepare 2006/2007 Work Plan				[Solid Blue Bar]													
Prepare Project Summary 2006						[Solid Blue Bar]											
Repository Sump Monitoring	[Solid Blue Bar]																
Perform Spring Water Quality Mon.			[Solid Blue Bar]														
Perform May Repository Groundwater Monitoring					[Solid Blue Bar]												
Perform High Flow Surface Water Monitoring						[Solid Blue Bar]											
Perform July Groundwater Sampling							[Solid Blue Bar]										
McLaren Pit Area September Groundwater Monitoring									[Solid Blue Bar]								
Como Basin Phase II Construction							[Solid Blue Bar]										
Complete New World Waste Repository Construction							[Solid Blue Bar]										
Construction Monitoring							[Solid Blue Bar]										
Revegetation Monitoring								[Solid Blue Bar]									
Abandon Unused Monitoring Wells in District								[Solid Blue Bar]									
Perform Fall Surface Water Quality Monitoring										[Solid Blue Bar]							
Prepare 2007/2008 Work Plan												[Solid Blue Bar]					

Figure 7 – back page

## 4.0 REPORTS

Project documents will be prepared during 2006/2007 for many of the items discussed in Section 2.0. These documents are summarized in **Table 12** along with a description of the document contents and approximate delivery schedule.

<b>Deliverable Title</b>	<b>Contents</b>	<b>Delivery Schedule</b>
2006/2007 Work Plan	This Document	Draft – June 2006 Final – July 2006
Project Summary 2006	Summary document of project activities completed since 1999	July 2006
Draft Adit Discharge EE/CA	Evaluation of potential response actions for remaining adit discharges in the District	January 2007
Reclamation Monitoring Report	Reclamation monitoring results	January 2007
Road Restoration Engineering Design Package	Engineering plans and specifications detailing restoration road work to be constructed along District roads.	January 2007
2006 Surface Water and Groundwater Monitoring Report	Results and analyses of ongoing surface water, groundwater, and moisture monitoring	February 2007
2007/2008 Work Plan	Proposed activities for 2007/2008	Draft – May 2007 Final – June 2007

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