✧ SUMMARY ✧

THE WEST GOLD PROJECT

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Sandpoint Ranger District, Idaho Panhandle National Forests

Background

This summary provides an overview and key information from the draft supplemental environmental impact statement for the West Gold Project.

In 2002, a decision was made to carry out this project. However, subsequent litigation and other court decisions relating to environmental analysis led the Forest Supervisor to withdraw the West Gold decision so that the analysis could be supplemented with more information.

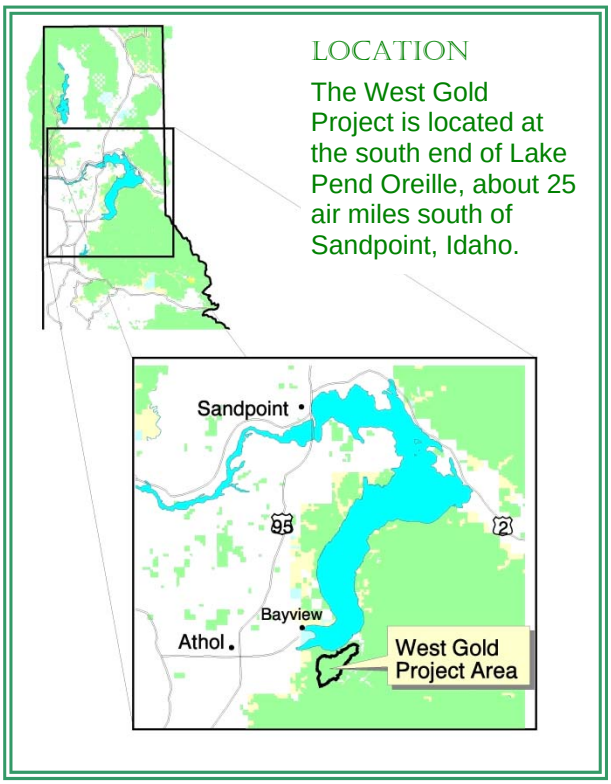
The supplement includes most of the original FEIS. The alternatives analyzed in the supplement are essentially the same as those analyzed in the FEIS. Major changes include the elimination of information relating to a proposed OHV route (because it was established in 2003), the addition of information regarding mine reclamation in the Gold watershed, more information on old growth, and an expanded discussion of cumulative effects. We also clarified and refined analysis and conclusions, and updated analysis that has been affected by the passage of time or new information.

Project Location

West Gold Creek is located within the Gold Creek watershed; an area that has been affected by decades of fire suppression, historic mining practices and poorly designed roads. Despite these influences, the Gold Creek watershed continues to be one of the most important spawning areas for threatened bull trout in the Pend Oreille Lake subbasin.

What Is The West Gold Project?

The West Gold Project is a forest health and watershed improvement project proposed by the Sandpoint Ranger District. It is one of several



major efforts underway to improve the forested and aquatic habitats of the Gold Creek Watershed. Other efforts include the reclamation of abandoned mine sites, and the repair of roads that erode sediment into Gold Creek (see the last page of the summary "Mine Reclamation and Road Work in the Gold Creek Drainage").

To best understand what ecological problems exist in the West Gold drainage, it helps to know the ecological history of the area.

Historic Forest Conditions

Historically, the forests in this area were a varied mix of tree species of different sizes and ages, providing diverse and healthy forest habitats for plants, animals, birds, and fish. Wildfires of different intensities helped maintain these forest conditions by thinning out trees like Douglas-fir and grand fir, which grow easily in the shade of

other trees and compete with tree species adapted to fire that need more light. These fires created openings of different sizes and just the right soil conditions for seeds of larch and ponderosa pine to germinate in sunny conditions where they could grow productively. White pine grew in abundance as well, and was one of the more dominant tree species.

This 1933 photo shows evidence of past wildfires that burned in and around the West Gold drainage. On the northwest face of Bernard Peak in the foreground, the vegetation is a patchy mosaic, which was created as fires burned at different times and intensities. In the middleground and background, bare hillsides from large stand-replacing fires can be seen. These variations in fire intensities and patterns over the centuries played a key role in maintaining the diversity of this area. The West Gold drainage spans from left to right in the middle of the photo.

Past Wildfires

In the Gold Creek Watershed, of which West Gold is a part, several very large wildfires burned between the 1850s and the 1930s. Some of these fires were "stand-replacing," which means most of the trees and vegetation were completely burned, elements of wildlife habitat were lost, and soils were exposed. With the lack of vegetation, especially in areas along the streams, water flows would have increased substantially, flushing sediment and debris down the channels, and changing their shape. These fires may have killed fish in the streams, but they did not cause a permanent loss of habitat, as fish are still present today.

Human Uses

In the 1880s, settlements began in the Gold Creek Watershed, first with mining, then the building of homesteads and townsites, and eventually the construction of roads. With the expansion of these developments and the designation of surrounding lands as National Forest, fire protection became a priority.

No mining occurred in the West Gold drainage, but timber harvesting and associated roading have. Much of this harvest activity occurred before stream protection measures were used and resulted in clearcuts throughout the headwaters. Even without stream protection measures, these activities did not cause significant damage to stream channels or fish habitat. Today, these old clearcuts are occupied by healthy stands of blister rust resistant white pine, larch and ponderosa pine.

West Gold Creek Today: A Changing Ecosystem

Increasing Human Use

Current human developments consist of a major powerline corridor through the West Gold drainage, about 28 miles of dirt roads, and the small, unincorporated community of Lakeview, Idaho just outside the drainage on the shore of Lake Pend Oreille. Hunting, sightseeing and snowmobiling draw people to the area, and its close proximity to Coeur d'Alene and Spokane provides convenient access

The Effects of Fire Suppression on Forests and Streams

Since the 1930s, successful fire suppression efforts have caused the forest ecosystem to change from historic conditions by removing fire, which served as a key ecological process. Although fire suppression was publicly supported (and still is in many areas), it resulted in profound changes to many forest ecosystems in the Intermountain west.

In general, many forest stands that used to have a mixture of tree sizes, ages, and species are now less diverse, denser, and dominated by Douglas-fir and other species that used to be kept at lower levels by fires. These tree species are not only competing for the light and growing space of more desirable species; they are also more susceptible to insects and diseases.

Insects and diseases have always been a part of the forest ecosystem. Yet today, some occur at levels way beyond what was typical in the past because they have so many more susceptible trees to invade. White pine blister rust, an introduced disease, has diminished white pine populations in the area. The increased density of trees in the watershed has likely caused much lower stream flows over time, as more trees use up more water. These streams provide spawning habitat for fish like the threatened bull trout and west slope cutthroat trout.

Excessive Fuel Levels in the Project Area. Decades of fire suppression and the increase of dead and dying trees are creating fuel levels that could cause an uncontrollable, severe wildfire.

Why Is A Changing Ecosystem A Problem?

Declining Forest Health

The watershed today is dominated by tree species relatively susceptible to insects and diseases. Trees less susceptible to insects and diseases and better adapted to fire-dependent ecosystems are lacking and continue to decrease in abundance. This shift has resulted in a tremendous loss of diversity and suitable wildlife habitat as forests in the area become more uniform in species, age and size. Where species such as ponderosa pine, larch and white pine used to be more common, providing longer-lived, large, old trees, they are now decreasing in numbers as they become crowded or shaded out.

More Dying Trees and Increasing Fuels

Root disease in Douglas-fir and Grand fir is rapidly expanding, killing trees before they reach maturity, making openings in the forest canopy for more Douglas-fir and Grand fir to regenerate in, which then repeat the disease cycle.

Dead and dying trees add more fuel to the buildup that has resulted from decades of fire suppression. If a wildfire were to start in these fuels on a hot summer day, it would be extremely difficult to suppress.

So why do we want to continue to suppress fires in an area where fire suppression has caused so many of the current problems? Because in this area, it would be too risky to let a wildfire burn so close to human developments.

Risks to Fish Habitat

West Gold Creek provides good habitat for bull trout and westslope cutthroat trout. Although these populations are stable, some road culverts in the West Gold drainage are at risk of contributing sediment to stream habitats. If a severe

wildfire were to occur today, burning most of the vegetation, increased water flows from bared soils could cause these culverts to fail adding substantially more sediment during flood events.

West Gold Creek

Our Purpose and Need for Action

Given the information described above, we believe it is important to actively pursue activities in the West Gold drainage that will improve and help restore ecosystem conditions and processes.

Our Purpose and Need

To improve the health and productivity of terrestrial and aquatic habitats by:

- *Initiating the restoration of desired forest cover, structure, pattern, and species composition across the landscape where they are outside natural or accepted ranges.*
- *Providing for wildlife habitat diversity.*
- *Restoring fire as an ecological process.*
- *Maintaining and improving West Gold Creek's aquatic habitat by reducing existing and potential sediment risks.*

THE WEST GOLD PROJECT PROPOSAL

To achieve the objectives of our purpose and need, we developed a proposed action. It includes:

- **Thinning stands of trees** to provide more growing space for desired species and create less competition for light, water and nutrients. This is referred to as ***selective cutting*** (see next page).
- **Cutting and removing trees** susceptible to insect and disease attacks and reforesting the areas with desired, more resilient tree species that in the long term would provide more diverse forest habitats. This is referred to as ***regeneration cutting*** (see example, next page).

  Logging is the tool that we would use to accomplish these vegetation prescriptions.
- **Using prescribed burning and other fuel treatment methods** to regain the ecological benefits of fire, and to reduce the current high levels of forest fuels, as well as those temporarily created by our cutting activities.
- **Building temporary roads** to accomplish our cutting and burning activities.
- **Improving and repairing the drainage of existing roads** that may be causing sediment to leach into streams, potentially affecting fish habitat. Portions of some gated roads would be removed by restoring the ground to its natural shape benefiting both wildlife and stream habitats. This is referred to as **road decommissioning**.

This "proposed action" is discussed in detail as Alternative B in Chapter II of the Draft SEIS.

Selective cutting example. This dry site ponderosa pine stand was thinned in 1998 along Road 2707 in the West Gold drainage as part of the Gold Yeller project. The photo was taken the following year during prescribed burning of the understory.

Regeneration cutting example. This is a *very open* regeneration cut on Middle Mountain near Clark Fork, Idaho. The degree of canopy openings can vary depending on the type and amount of species present and their state of health. In areas of extensive root disease, openings will already be present. The goal in these areas is to remove most of the Douglas-fir trees and replace them with more resilient species of ponderosa pine, larch or white pine. Light dots in the center of the photo are elk.

Issues and Alternatives

Since the West Gold project was initiated in 1997, we have acquired a lot of information and received a variety of public comments on our proposal. The West Gold project team has used this information and these comments to identify issues (concerns about the effect of the project on resource values). These issues provide the basis for the scientific analysis in the EIS. ***See Chapter II of the Draft SEIS for a more detailed discussion on the issues we have analyzed.***

Analysis Issues

Analysis issues help us to design specific protective measures for resource values and create the basis for measuring the effects of proposed activities on various resource values. These include issues like effects to soils, air quality, rare plants and other resources. ***See Chapter II of the Draft SEIS for more details.***

Key Issues

Key issues help us create "alternatives"--other ways of achieving our objectives. The key issues we identified are:

1) The effects of regeneration cutting and resulting canopy openings on water yield increases, sediment delivery to streams, and aquatic habitat in West Gold and Gold Creeks.

2) The effects of road construction, decommissioning and maintenance activities on water yield increases, sediment delivery to streams and aquatic habitat in West Gold and Gold Creeks.

3) The effects of project activities on the spread of existing weed infestations and introduction of new invaders.

Alternatives Considered

The project team developed the following alternatives based on the key issues. ***See Chapter II for specific details of activities proposed with each alternative.***

Environmental Protection Measures

We believe our proposed activities would have many long-term beneficial effects. However, many people are concerned about short-term negative effects. Therefore, we have developed an extensive list of design features that are incorporated into proposed activities in every alternative specifically to avoid or minimize effects on the environment. The features include measures designed to:

- Minimize effects from temporary roads
- Reduce sediment, protect water and fish habitat
- Keep prescribed burns under control
- Protect air quality
- Protect wildlife habitat
- Protect soils and site productivity
- Protect heritage resources
- Manage roads and access
- Minimize effects of activities over time
- Protect rare plants and their habitat
- Prevent the spread of noxious weeds
- Protect scenery and visual quality

Alternative A – this is the **No Action Alternative**. As required by law, this alternative must always be analyzed in detail. It provides a comparison of effects between selecting a proposal and doing nothing.

Alternative B – this is the **proposed action**. Under this alternative, logging would be used to thin stands of trees and to regenerate forests more resistant to insect and disease attacks. Prescribed burning and other fuel treatment methods would be used to obtain the ecological benefits of fire, to reduce the current high levels of forest fuels, and to clean up fuels created by our cutting activities. Temporary roads would be built to accomplish these activities. Existing roads would be improved and repaired, and portions of some gated roads would be removed by restoring the ground to its natural shape.

Alternative C – Alternative C is identical to B from a vegetation treatment standpoint, but it differs in that there would be **no road construction**. By analyzing this alternative, we can compare effects of not constructing roads with effects of constructing roads on water yield,

sediment, noxious weed spread and costs of the project.

Alternative D – this alternative proposes **mostly selective cutting**, but only in areas where it is an effective tool. Since there are fewer acres of activities, not as many roads are proposed for construction. By analyzing this alternative, we can compare the effects of fewer canopy openings and less road construction on water yield, sediment delivery, and noxious weed spread.

ENVIRONMENTAL EFFECTS

In the FSEIS, Chapter III contains the detailed information about the current condition or "Affected Environment" of each resource we analyzed, and what we predict the effects or "Environmental Consequences" of each alternative will be.

Table 4 in Chapter II of the FSEIS provides a comparison of alternatives with more detailed information and data than what is described here.

Alternative A: No Action

If this alternative were selected, only current management and uses would occur. The health and productivity of forest vegetation and habitats would continue to decrease in areas where Douglas-fir and grand fir are most common, and where insects and diseases are flourishing beyond native levels. The numbers of desirable species such as larch, and ponderosa pine would continue to decline as they become shaded out and as their seed sources are reduced.

This decline in desired species would decrease quality habitat for bird species that prefer large old snags and trees. There would be an abundance of smaller size snags from dying Douglas-fir and grand fir; however, these would tend to rot and fall over soon after they died.

Areas of dead and dying trees would continue to expand, adding more fuels to already dangerous levels. Without any way to reduce these fuels, suppressing an unwanted fire in these areas would become increasingly difficult.

Drainage structures on roads in the watershed would continue to pose a risk of delivering sediment into streams potentially affecting fish habitat. Road densities and uses would remain the same.

Since there would be no activities other than current management and uses, there would be no potential for effects to soils, rare plants, noxious weed spread, or big game habitat.

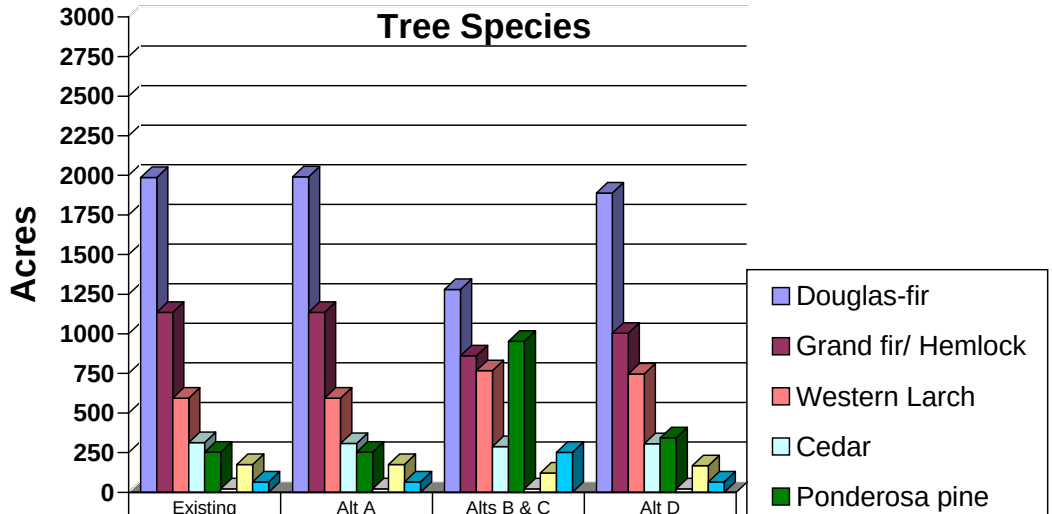
This alternative would do nothing to achieve our objectives, and would not meet Forest Plan standards for promoting forest structures and species that reduce susceptibility to insects and diseases.

Alternative B: Our Proposed Action

If this alternative were selected, proposed cutting, planting and prescribed burning activities would help restore the ecological benefits of fire, increase the variety of tree species and sizes over the long term in the West Gold drainage (figure A), and improve the diversity of forest vegetation and habitats. This would achieve the first three objectives of our purpose and need very well.

Repairing or replacing drainage structures that are at risk of delivering sediment to streams and removing segments of existing roads would achieve the fourth objective of our purpose and need. These measures would reduce or eliminate the risks of sediment delivery in the watershed over the long term. *These activities are also proposed in Alternatives C and D.*

Our models show that creating openings from cutting trees would cause a small increase in water yield (8% above existing levels). Considering the historic range of water yield fluctuations that occurred from large fires, we believe this increase would not be substantial enough to cause unnatural movement of existing materials in West Gold Creek or affect the shape of the main channel. In fact, water yield would remain considerably less than what the stream experienced historically. Consequently, there would be no direct effects to the stream channel,



	Existing	Alt A	Alts B & C	Alt D
Douglas-fir	1,986	1,991	1,280	1,888
Grand fir/ Hemlock	1,135	1,135	861	1,003
Western Larch	594	594	767	747
Cedar	313	308	288	307
Ponderosa pine	253	253	952	344
Nonforest	22	22	22	22
Lodgepole pine	175	175	121	167
White Pine	65	65	252	65

A comparison of each alternative's effect on the diversity of tree species. Note that Alternatives B and C would provide the greatest diversity of tree species, reducing those species most susceptible to insects and root disease, and increasing those better adapted to historic conditions.

fish habitat, or effects downstream to Gold Creek.

Our modeling also predicts that the combination of logging and constructing roads would cause a short-term increase in sediment delivery to West Gold Creek in the first two years but it would not have detrimental impacts to the stream channel or fish habitat. Much of the sediment would likely be transported out of the stream system due to the bedrock-controlled nature of the channel. Sediment levels would return existing levels in about 12 years.

There would be a low to moderate potential for noxious weed spread from ground-disturbing activities and canopy openings. There are no anticipated effects to rare plants or their habitat.

Logging systems are planned and designed to have little impacts to soils and would keep detrimental impacts within required limits. The construction of roads and helicopter landings would result in some irretrievable effects to soil productivity on those sites.

Prescribed burning would result in smoke emissions and some damage to individual trees. To comply with state air quality laws and regulations, all burning activities are conducted only when dispersion levels are acceptable and state approval is granted.

Road construction is proposed in this alternative because better access reduces the costs of logging and fuel treatments, and roads provide control points for equipment during prescribed burning activities.

Alternative C: No Road Construction

If this alternative were selected, it would be identical to B in terms of our prescriptions for cutting, burning and planting, but we would not construct any roads to accomplish this work.

Like Alternative B, it would achieve all of our objectives very well. Its primary differences are apparent in some of its effects and costs.

Without road construction, our models show that creating openings from cutting trees would cause a smaller increase in water yield than Alternative B (6% above existing levels). Like Alternative B, this increase is well within the historic range of water yield fluctuations so there should be no direct effects to the stream channel, fish habitat, or effects downstream to Gold Creek.

Since there is no road construction, Alternative C is predicted to produce less sediment than B, and is expected to have no detrimental impacts. Sediment levels would return to existing levels in about five years.

Without road construction there would be less of a chance of weed spread than in Alternative B, but still a risk. There would also be fewer impacts to soils.

Without road construction, the amount of helicopter logging is greatly increased. This increases the cost of logging and decreases revenues generated from the project in comparison to Alternative B. All other effects would be the same as Alternative B.

Alternative D: Selective Harvest

If this alternative were selected, selective cutting would be the primary method of vegetation treatment. With the exception of one two-acre area, none of the areas proposed for regeneration cutting are included in this Alternative because selective cutting would not effectively achieve our objectives in those stands.

Consequently, only 36% of the cutting prescriptions proposed in Alternatives B and C would occur.

This alternative would not achieve the first three objectives of our purpose and need as well as Alternatives B and C. It would not treat the areas where our worst insect and disease infestations are, where fuels are the heaviest, and where Douglas-fir and grand fir are perpetuating these conditions. The health and productivity of forest vegetation and habitats would only be improved in a small portion of the watershed.

Efforts to reduce sediment risks from roads would still occur as in Alternatives B and C, so the fourth objective of the purpose and need would be achieved at the same level.

There would be substantially less canopy opening and very little road construction. Consequently, effects from proposed activities to most resources would be substantially less than Alternatives B and C.

CONCLUSIONS

Our analysis shows that any activity we have proposed could have some effects during the short term. The magnitude of these short-term effects would be limited by the use of design features and protection measures. In combination with improvements planned in other areas of the Gold Creek watershed, we believe our actions in the West Gold drainage would result in long-term beneficial effects to the entire Gold Creek wateshed.

THE DECISION

The deciding official for this project is **Ranotta McNair**, the Forest Supervisor for the Idaho Panhandle National Forests. She has reviewed all the comments and analysis in the FSEIS. **Her decision is documented in the Record of Decision** and is based on how well the alternatives achieve the Purpose and Need, address public issues, and comply with applicable laws, policies, and regulations.

MINE RECLAMATION AND ROAD WORK IN THE GOLD CREEK WATERSHED

Several management activities have been occurring to restore aquatic portions of the Gold Creek ecosystem. These include aggressive abandoned mine reclamation and stream channel restoration work along Chloride Gulch and Gold Creek, and the reduction of sediment associated with the Kickbush slide.

The Kickbush slide along road 278 was a constant source of sediment prior to repair

Kickbush slide following stabilization and revegetation

In the last three years, over $300,000 has been spent to remove 70,000 cubic yards of mine waste from the Idaho Lakeview mine site in Chloride Gulch, and 2,200 feet of stream channel has been restored.

Stream flowing along the base of a waste pile at the Idaho Lakeview mine prior to reclamation

Restored stream channel at the Idaho Lakeview Mine

Over a million dollars has been allocated for reclamation of the Conjecture mine site in Gold Creek in 2006. More than 100,000 cubic yards of mine waste will be removed or mitigated and over 1,000 feet of stream channel will be restored.

Conjecture mine waste and failed culvert

View of Conjecture mine waste scheduled for cleanup and reclamation in 2006