



Mackenzie Valley Environmental Impact and Review Board

EA0405-002 Canadian Zinc Phase III Drilling

Information Request Responses

August 12, 2005

IR Number: IR0405-002-3
Source: MVEIRB, CPAWS, DCFN/Nahanni Butte
To: Canadian Zinc
DAR Section: 3.0 project response to environmental sensitivity
Terms of Reference Section: C - project response to environmental sensitivity

Preamble

The DAR describes environmental sensitivities that may be encountered and outlines possible responses. In the DAR the developer commits to applying the Prospectors and Developers Association of Canada's Environmental Excellence in Exploration (E3) guide. Similarly, the DAR states that a biologist will be 'engaged' to assess and identify sensitive vegetation and provide guidance to Canadian Zinc on minimizing impacts to vegetation. The DAR does not, however, identify individual measures that may be used and who has the authority and responsibility to decide which mitigation measure is to be applied. The MVEIRB recognizes that the decision which individual measure to use is best left to a qualified individual in the field. However, in order to assess whether a significant adverse residual impact is likely, it is necessary to know what mitigation measures are likely to be employed.

Request

1. Please identify the qualifications for the person or persons who will have the authority and responsibility to decide on mitigation measures or what areas will be avoided. Also include a description of how you intend to ensure that a person (or persons) with the appropriate authority/qualification is available on site during the entire project.
2. Please provide a listing of the mitigation measures that will be at your disposal. Alternatively, highlight the relevant passages in the E3 guide.

Response

1. The person to assist with mitigation measures associated with the terrestrial environmental will be a licensed professional (P.Eng., P.Geo. or R.P.Bio/RPB) as designated by a provincial/territorial professional organization, and will operate under the codes of conduct and professional ethics as stipulated by the governing body of the relevant association. The person will have relevant experience in the resource field and will be familiar with the sensitivities of environmental resources of the area, and methods to avoid and mitigate impacts. Subsequent to the site survey, the person will be available by telephone for the Project Manager, or his designate, to consult with to address any issues that may arise. For the drilling program envisaged, and following receipt of guidance and recommendations from the professional, CZN does not consider it necessary to retain the individual on site during the project.
2. With respect to mitigation measures, CZN has the ability to alter the order that areas are worked in, and from borehole to borehole, to avoid sensitivity associated with non-stationary sources (animals). CZN also has the ability to access many areas using different roads, so an alternative route might be used if there is a particular sensitivity. If there are areas to avoid, or where special care is necessary, the survey by a qualified biologist prior to exploration work will identify these and provide guidance as necessary. Such areas will be identified on a site map, and written instructions will be provided by the biologist on when and how to implement avoidance and mitigation measures. Section 3 of the DAR outlines additional mitigation approaches that can be implemented in response to issues that may arise during exploration work.

IR Number: IR0405-002-4
Source: MVEIRB
To: Canadian Zinc
DAR Section: 5.4 Environmental Monitoring
Terms of Reference Section: E-4 Environmental monitoring

Preamble

The DAR describes efforts to be undertaken by Canadian Zinc to monitor the environment, e.g. water quality. The issue of hiring local residents to serve as environmental monitors during the active project phase was brought up during the scoping sessions MVEIRB held in the Deh Cho. The use of local environmental monitors may be a way to minimize any concerns about the development.

Request

Will Canadian Zinc hire local environmental monitors? If so, please briefly describe the responsibilities and authority environmental monitors would have. Also describe what criteria you would use to select qualified individuals.

Response

CZN would like to hire someone from the local communities to assist with the monitoring of environmental activities associated with the Phase 3 drilling program, and with other projects in progress at the Prairie Creek mine. Suitable individuals will have graduated from secondary school, and will preferably have some related post-secondary education and/or experience. The individual will have a keen interest in the environment, enjoy working outdoors, and will be prepared to work long summer days for extended periods. CZN will endeavour to provide training to the selected individual using its in-house environmental expertise. The individual will be expected to undertake inspections, collect samples, observe conditions and make records, and provide assistance to site operations when called upon. The selected individual will bring any concerns in connection with environmental protection to the attention of the Project Manager who will discuss the concern and take appropriate action. CZN will interview, and request character references for, short-listed applicants and will hire an individual if it is likely they will be able to fulfill the above criteria.

IR Number: IR00405-002-5

Source: Parks Canada

To: Canadian Zinc

DAR Section: Section 5.3

Terms of Reference Section: E-3 (c)

Preamble

Canadian Zinc considers immediate reclamation on specific parts of the road network to be premature... “The ‘poor condition’ of certain road section should not be the deciding factor in determining whether the road should be immediately reclaimed.” The proponent does not provide sufficient information to understand when reclamation will occur.

Request

Please provide criteria that will be used in deciding when reclamation will begin or provide scenarios for different reclamation timing options.

Response

CZN has stated previously that the roads it uses for the Phase 3 drilling will be reclaimed when it is confident that it has no further use for them. Exploration is an iterative process. The areas where CZN is proposing to drill are known to have or are very prospective for the occurrence of mineralization. In the early stages of the drilling program, drilling will seek to confirm the presence of favourable mineralizing structures and mineralization in the various areas. When sufficient work has been completed in a particular area, and no positive indications have been obtained, reclamation can proceed on roads in the area provided they are not access roads to other areas. If positive indications have been obtained, then exploration will continue in that area to successive stages. This explains why the timing of reclamation may differ between areas, and why it is not possible to begin to determine the schedule of reclamation, or the probable magnitude of reclamation at any particular stage of the drilling program, until the program commences and results start to be generated.

IR Number: IR0405-002-6
Source: Parks Canada (modified)
To: Canadian Zinc
DAR Section: Section 5.4 “Monitoring will cease when vegetation has grown sufficiently to be self-sustaining.”
Terms of Reference Section: E-3 (d)

Preamble

More detail is required to assess the adequacy of the proposed monitoring.

Request

Please provide criteria for determining when vegetation is self-sustaining and monitoring will cease and who will be responsible for determining when monitoring will cease.

Request

Re-vegetation will be deemed successful when a minimum of 80% of planted material will have survived one full year. This will be based on inspection of re-vegetated sites to count number of plants in a specified area. The specified area will be selected as being representative of the site being inspected. Field inspection results will be discussed with the professional biologist and a reclamation specialist, and the adequacy of the program will be assessed and a decision made as to when annual monitoring can be suspended, in consultation with the DIAND inspectorate.

IR Number: IR0405-002-7
Source: CPAWS, DCFN/Nahanni Butte (modified)
To: Canadian Zinc
DAR Section: 2.3 Drilling and Drilling Sites
Terms of Reference Section: B-3

Preamble

In previous environmental assessments, e.g. phase II drilling at Prairie Creek mine, or Drybones Bay, the MVEIRB concluded that the proposed type of drilling and associated drill waste disposal per se are not likely to result in significant adverse impacts on the environment. However, these previous assessments involved either permafrost areas with little terrain, or previously disturbed areas in close proximity to the Prairie Creek mine. The proposed development assessed now involves steep terrain with limited soil cover and areas that may not contain permafrost.

Request

1. Please describe what measures will be undertaken to prevent additives in drill water to permeate from the sumps into the environment.
2. How will the chemical composition of the additives (e.g. calcium chloride as a freeze prevention agent) affect permafrost?

Response:

1. The proposed development assessed does not involve any different type terrain than previous assessments. The sumps are constructed with enough capacity to contain the anticipated drill cuttings. If the sumps capacity is nearing maximum drilling will cease until another alternative sump is constructed or the existing one expanded. A hydrocarbon mat will be placed at any outflow area of the sump in order to absorb any floating hydrocarbons escaping the sump. It should also be noted that standard additives used in the normal course of drilling are inert drilling muds.
2. Calcium chloride only affects the immediate area of the drillhole where it is mixed with water and pumped through the drill steel in order to prevent the rods from freezing in the hole. The amount of permafrost encountered in the drilling area is expected to be minimal.

IR Number: IR0405-002-9
Source: CPAWS, Parks Canada (modified)
To: INAC, GNWT, and Canadian Zinc
DAR Section: 5.3 Reclamation
Terms of Reference Section: E-3

Preamble

The developer notes that “a seed mix of native vegetation will be selected to quickly re-establish stable conditions and plant cover”. Based on a search of northern seed suppliers, no “native seed mixes” appear to be available for the Taiga Cordillera Ecozone.

Request

Please research the availability of an appropriate native seed mix for the Taiga Cordillera Ecozone. If available, provide:

1. the source of the seed including supplier information
2. a list of plant species and confirmation that the species are all native to this Ecozone and to the Prairie Creek area.
3. what measures will be used to ensure conditions will be stabilized and no exotic plant species will be introduced to the detriment of the relatively remote, isolated and native Ecozone?
4. the results of similar reclamation techniques in other locations under similar ecological conditions.

Response

CZN has undertaken to have a qualified biologist/plant ecologist inspect the property before drilling commences to perform a number of activities. One of these is a survey of vegetation in the areas where there may be disturbance. The objectives of the survey are to identify the plant species present and determine whether there are any rare species deserving of more focussed protection. Following the survey, and based on the vegetation identified in the survey, the biologist/plant ecologist will also be asked to recommend an approach and a seed mix for reclamation of disturbed areas, in consultation with an experienced reclamation specialist. Therefore, it is premature to investigate the nature and availability of a seed mix for reclamation at this stage, since this would be an outcome of the proposed survey. CZN does not believe this issue is fundamental to the assessment of environmental impacts. There is no doubt that reclamation of disturbed areas can be undertaken, and an appropriate seed mix can be selected and used. CZN has proposed a rational process to do this. CZN believes that it would be more logical to address the requirements for this process at the permit drafting stage. Language can be incorporated into the permit to provide for scrutiny and approval of the proposed seed mix by a qualified reclamation specialist, and to stipulate measures proposed for stabilization.

IR Number: IR0405-002-10
Source: GNWT (modified)
To: Canadian Zinc
DAR Section: 5.3 Reclamation
Terms of Reference Section: E-3

Preamble

The Terms of Reference request Canadian Zinc to "Provide greater detail on the methods that will be employed to re-vegetate sites disturbed by the proposed Drilling Program, as alluded to in Section 2.2.1.2 of the Detailed Project Description. Information regarding a re-vegetation monitoring program and the species constituents of the native seed mix should be provided". Canadian Zinc provides general information on pages 34 and 35 of the DAR stating "A seed mix of native vegetation will be selected to quickly re-establish stable conditions and plant cover. An appropriate level of effort will be exerted in all areas where reclamation will be undertaken in order to achieve pre-determined goals." (p. 34 DAR). However, to assess reclamation success and in turn the potential long-term impacts of the proposed project more detail is required. Examples of re-vegetation efforts elsewhere in northern Canada may prove useful in suggesting appropriate seed mixes, techniques and specific challenges that might be encountered.

Request

Please provide more detail on the overall goals of the re-vegetation program, the methods that will be employed to re-vegetate sites disturbed by the proposed program, the benefits/disadvantages of particular species, seed mixes, seed analysis, site-specific site preparation techniques.

Response

This IR is very similar to IR No. 9, and CZN's response is therefore somewhat similar. Firstly, CZN disagrees that reclamation success needs to be assessed at this point, and that this has any significant bearing on the potential for long-term impacts of the proposed project. Most of the existing roads are over 20 years old, they have not been reclaimed, and no significant environmental impacts related to erosion and sediment production have been noted. Indeed, natural invasion of native vegetation is successfully occurring in some areas. CZN agrees that there should be a regulatory process to ensure that appropriate re-vegetation occurs after the drilling program, but there should be no doubt that re-vegetation can be successfully completed, and, based on the existing roads, environmental impacts are not likely to be significant whether or not this occurs.

The goals of the re-vegetation program are to enable native vegetation to grow back in areas disturbed by the drilling program, and be self-sustaining. The methods that will be employed to re-vegetate the disturbed areas were described on page 35 of the DAR, "For reclamation and re-vegetation of disturbed areas, the process begins with conservation of cleared vegetation and topsoil, if any, at the construction stage. Cleared vegetation is stored for later use either as a sediment control material, or as mulch over replaced and seeded soil. Topsoil, if it is sufficiently developed, is removed separately from the underlying, less fertile subsoil, which at Prairie Creek will likely be weathered rock. For reclamation, after scarifying and contouring the surface, any topsoil removed would be replaced, amended with a fertilizer if necessary, and seeded with a native mix. Mulch may then be placed to stabilize the surface and protect the seed until it has taken root."

As stated in IR No. 9, a qualified biologist/plant ecologist will inspect the property before drilling commences to identify the plant species present. Following the survey, and based on the vegetation identified in the survey, the biologist/plant ecologist will also be asked to recommend an approach and a seed mix for reclamation of disturbed areas. Therefore, CZN believes it is premature to investigate the nature and availability of a seed mix for reclamation at this stage, since this would be an outcome of the proposed survey. CZN's biologist/plant ecologist will refer to examples of re-vegetation efforts elsewhere in northern Canada and consult with an experienced reclamation specialist when considering appropriate seed mixes, techniques and specific challenges that might be encountered.

IR Number: IR0405-002-11
Source: Dehcho First Nations and Nahanni Butte Dene Band
To: Canadian Zinc
DAR Section: 3.0 (areas utilized by fish)
Terms of Reference Section: C

Preamble

The DAR proposes to 'build a new route up the bank...on Prairie Creek to avoid crossing Galena Creek.

Request

Please provide further detail on this route, including the mitigation measures Canadian Zinc will employ to minimize environmental damage (erosion, sedimentation, etc.) on this new proposed route.

Response

CZN has discussed the merits of constructing a new section of road adjacent to lower Galena Creek from the Prairie Creek crossing location with Ernie Watson of Fisheries and Oceans Canada. Both parties agreed that a new road section is desirable to eliminate crossings of Galena Creek in this area. The new section will be built immediately south of Galena Creek on a bench and at the toe of a steep northern slope. The new section will have a moderate grade and will be continued upslope until it intersects a pre-existing road. A thick cover of lowland vegetation will be removed to expose the underlying coarse sediments to construct the new section. Based on observation of conditions associated with the existing road, the material that will be exposed in the new section will not be erodible, and no mitigation measures will be required to avoid erosion and sedimentation. In an event, the adjacent thick vegetation would be an effective filter for any sediment contained in road runoff.

IR Number: IR0405-002-13
Source: GNWT
To: Canadian Zinc
DAR Section: Section 5.4 – Environmental Monitoring
Terms of Reference Section: *Section 4.2 Specific Items, E4 Environmental Monitoring*

Preamble

The Terms of Reference request Canadian Zinc to "Provide a protocol for short and long-term monitoring that addresses sediment and erosion control measures, stream crossings, reclamation and re-vegetation." The information provided by Canadian Zinc on p. 36 of the DAR is a very general discussion of how re-vegetation efforts will be monitored. More detail, however, is required on the proposed monitoring program and how it will insure re-vegetation success to the extent possible.

Request

Please provide more detail on the short and long-term monitoring strategy that will be put in place to address reclamation and re-vegetation of the project footprint, including adaptive strategies to deal with potential difficulties that may be encountered.

Response

As stated in IR 6 above, re-vegetation will be deemed successful when a minimum of 80% of planted material will have survived one full year, and this will be based on inspection of re-vegetated sites and a count of plants in a representative area. Field inspection results will be discussed with the professional biologist and a reclamation specialist, and the adequacy of the program will be assessed and a decision made as to when annual monitoring can be suspended, in consultation with the DIAND inspectorate. Success of re-vegetation is dependent on adequate site preparation prior to planting and selection of appropriate plant materials (in this case seed mixes that are suited to local soil and climate conditions). There is adequate information on high elevation and northern mine site areas to form the basis for plant selection, and for planting procedures. Adaptive strategies for achieving re-vegetation success are not expected to be any different than at other northern or high elevation mine sites. An experienced reclamation specialist will be consulted regarding plant material selection and how re-vegetation is to be achieved. In case the desired success rate is not achieved, CZN will undertake additional work to achieve the intended result, and will monitor in the following years to assure that the overall success rate is achieved.

IR Number: IR0405-002-15
Source: DCFN/Nahanni Butte Dene Band
To: Canadian Zinc
DAR Section: 2.3
Terms of Reference Section: B-1(c)

Preamble

The DPD and the DAR state that the width of the skid-mounted drill rigs is 4 metres. The TOR requires Canadian Zinc to identify areas where road conditions or road alignment is a potential concern. Road width is a factor in determining suitable road conditions. Furthermore, to determine the actual and cumulative effect of the existing and planned road network, it is necessary to account for the width of roads, as well as the length. The widening of roads may result in an increased fragmentation of the landscape, and may place roads in closer proximity to watercourses.

Request

Please clarify if Canadian Zinc will need to widen the existing road network to accommodate the width of the skid-mounted drill rigs.

Response:

Existing roads in the development area were all created by D8 caterpillar tractors which have excavated a minimum 4 metre width to the roads. A number of the roads were previously used for transporting drill rigs without a problem. No, it is not necessary to widen the existing roads to accommodate the drill rigs.

IR Number: IR0405-002-16
Source: Dehcho First Nations and Nahanni Butte Dene Band
To: Canadian Zinc
DAR Section: 2.2

Terms of Reference Section: B-2: Aerial Images

Preamble

The intent of the TOR request was to enable the Review Board to ‘visualize’ the drill site areas and access corridors, and to ‘understand the progress of development’ at the mine site. The historic aerial photos (1964 (?) and 1994) submitted by Canadian Zinc are insufficient for the above purpose and do not provide any detail on current mine site conditions. This information is critical for the assessment of the actual impact of the drilling program and to assess cumulative effects.

Request

As the aerial photos provided are of an inappropriate scale and quality to allow any meaningful analysis, please provide current (2005) 5 metre Resolution satellite imagery of the entire Prairie Creek property. This information is readily available to Canadian Zinc at a nominal cost.

Response

Previously submitted 1:2,000 orthophoto imagery from 1994 provides the basis for all the detailed mapping, sampling, surveying and drilling completed at the site. The last major drilling program in the areas of proposed development was in 1994 and the submitted photos overall represent the area as it is today since no subsequent programs have taken place and little degradation of the roads has occurred. There has also been no significant development at the minesite since 1982. These photos readily show the existing road network and details in less than a 5 meter pixel resolution. Individual trees along with existing roads can be easily discerned. A drilling rig can be seen within the photo in Zone 6. In order to “visualize” the drill site areas in more detail much higher resolution customized imagery would be required at great expense. While the information may be “readily” available its costs are not considered nominal and its usefulness and quality is questionable. With regards to the existing orthophoto the company attaches an electronic file (ortho_property.jpg) 1994 image of the property corridor for general distribution and viewing. Zooming in and out within this file should provide adequate detail for the viewer.

IR Number: IR0405-002-17

Source: DCFN/Nahanni Butte Dene Band

To: Canadian Zinc

DAR Section: 3.0 (areas utilized by fish); 7.1 (aquatic resources and habitat chart)

Terms of Reference Section:

Preamble

Canadian Zinc acknowledges that Bull trout may be present in Prairie Creek near the mine, in Galena Creek, Quartz Creek, and Funeral Creek, all of which have proposed road use within 30 metres.

Request

Request: Please provide any additional existing field studies to confirm the presence of Bull trout, and their habitat and lifecycle requirements, in the above watercourses.

Response

A Bull trout population is reported to exist in lower Funeral Creek, immediately adjacent to the all-season road from the mine to Cat Camp. Previous data indicate that conditions are suitable for the presence of Bull trout in Prairie Creek near the mine and in the mouths of Galena Creek and Quartz Creek, although none were detected in previous field studies.

No new field studies have been conducted regarding the presence of bull trout and their habitat and lifecycle requirements subsequent to the multiple and extensive studies reported in the project description (DPD) and assessment report (DAR). However, no such studies are considered to be necessary. Bull trout are known to be susceptible to elevated suspended sediment loads. The consequence of identification of the presence of Bull trout would be an increased focus on limiting erosion and controlling sediment. CZN has already adopted this increased focus, even though it appears local soils are not erodible and problems from sedimentation are not expected.

IR Number: IR0405-002-18
Source: DCFN/Nahanni Butte Dene Band, CPAWS
To: Canadian Zinc
DAR Section: 4.0
Terms of Reference Section: D

Preamble

In the DAR, Canadian Zinc indicates that the drilling program is not a potentially conflicting land use goal in the Nahanni Watershed. This is incorrect. The Dehcho Land Use Planning Committee has identified the Canadian Zinc's Prairie Creek project as a 'non-conforming' use in a Conservation Zone. However, the Dehcho Land Use Planning Committee has no legal authority to disallow the Canadian Zinc project. *Conservation Zones – Areas having significant ecological and cultural values. Conservation Zones are meant to provide flexible protection to lands of important cultural or ecological value. All development except tourism are prohibited in Conservation Zones. Two of the zones prohibit tourism as well. There are 18 Conservation Zones covering 52% of the Dehcho territory. (DCLUPC: Draft Land Use Plan, June 2005)*

The Dehcho Land Use Planning Committee has also officially acknowledged the Dehcho First Nation's unanimous position of non-support for any mining in the South Nahanni Watershed.

Request

Please provide an updated and clear discussion on how the Canadian Zinc project is incorporated into the Dehcho Land Use Plan and how Canadian Zinc perceives the proposed drilling program as compatible with the goals of a Conservation Zone, the goals of UNESCO World Heritage Site, and the goals of Nahanni National Park Expansion

Response

In reference to the "Draft" Dehcho Land Use Plan, and the identification of the Prairie Creek Redevelopment Project as a "non-conforming" use in a Conservation Zone, please see section **5.3.2 Existing Dispositions, Rights and Interests** of the Draft Plan;

"Subject to applicable regulatory requirements, Acts and Regulations, all existing activities in the Dehcho Planning area are permitted, including development arising from rights existing at the time of Plan approval, even if the activities are not in keeping with the Land Use Zones. These existing uses are allowed to continue as non-conforming activities. Renewal of permits, licenses and authorizations for existing activities are allowed. Holders of dispositions, rights and interests in the Dehcho are encouraged to harmonize their activities with the intent of the surrounding zone wherever possible."

With respect to Canadian Zinc Corporation efforts to harmonize its (diamond drilling) activities with the intent of the "proposed" surrounding zone wherever possible, the company shall undertake its operations as originally stated; use the existing road system where possible, minimize any new (road) spur construction and in areas where the geography is difficult (steepness of slopes) utilize heli-portable drilling.

With respect to the question of compatibility vis-à-vis the drilling program and “the goals of UNESCO World Heritage Site”, it is very difficult to envision any “real” incompatibility given the great distance of the

drilling area from the Park Reserve in terms of potential impact flow (for example, the mine site facilities are located about 43 km upstream from the confluence of the Prairie Creek with the South Nahanni River and 32 km upstream of the point where Prairie Creek crosses the boundary of the Nahanni National Park Reserve).

With respect to the question of compatibility vis-à-vis the drilling program and the goals of Nahanni National Park Expansion, there is no incompatibility as Parks Canada has advised the company that its mineral interests are no longer part of the area being considered for Park expansion and given the measures to be employed to minimize the potential for any negative impacts.

IR Number: IR0405-002-19
Source: MVEIRB (DCFN/Nahanni Butte Dene Band)
To: Canadian Zinc
DAR Section: 6.1
Terms of Reference Section: F-1

Preamble

The DAR does not provide detail on possible economic impacts, positive or negative. The MVEIRB requires information on the proportion of jobs and contract opportunities going to local residents and businesses in order to assess the distribution of impacts and benefits from this development.

Request

Please provide the following information:

- what is the proportion of local hires in relation to the total work force?
- What are the qualifications required and are you aware of local residents with these qualifications?
- are there any opportunities for the delivery of goods and/or services of local business, what proportion of the total volume of contracts would be accessible to local businesses?
- How would jobs and contract opportunities be advertised to local residents?

Response

- The proportion of local hires would depend, among other things, on the efficiency, qualifications, dedication and availability of them. If these and other work factors could be met the proportion of local hires would be very high. A minimum proportion of 30% local employment would be targeted.
- Qualifications vary depending on the position applied for but courses such as WHIMIS, driver and operators licences and standard first aid are mandatory. The company is aware of some local residents with these qualifications through its past employment programs.
- As indicated in the DAR there is always opportunities for local businesses to provide services and support but it must be on a competitive basis with other similar businesses.
- Jobs would be posted in the Fort Simpson Office and faxed to Nahanni Butte Band Office. Any long term positions would be advertised in the local newspapers.

IR Number: IR0405-002-20

Source: GNWT

To: Canadian Zinc

DAR Section: Section 3 – Project Response to Environmental Sensitivity, Areas used by wildlife

Terms of Reference Section: Section 4.2 Specific Items, C Project Response to Environmental Sensitivity

Preamble

The Terms of Reference ask Canadian Zinc to identify how it will modify its Drilling Program in response to environmental sensitivity. In addition Canadian Zinc is asked to provide project alternatives and mitigation measures for any areas where sensitivity criteria are found. Sensitivity criteria include:

- areas frequented or used extensively by wildlife such as food sources, travel corridors, den or nesting sites, mineral licks and natality areas for Dall's Sheep; and,
- vegetation communities that are sensitive to disturbance or have slow recovery rates.

Canadian Zinc states that "at the present time, Canadian Zinc is not aware of specific areas to avoid or what thresholds should be used to determine if and when project activities should be modified to minimize impacts. For these reasons, Canadian Zinc will engage a qualified biologist... "(p. 28 DAR). This is a first step at obtaining the information requested, however more information is required to assess potential impacts.

Request

Please provide information on how Canadian Zinc will modify their program in response to identified areas of environmental sensitivity as outlined below:

- areas frequented or used extensively by wildlife including food sources, travel corridors, den or nesting sites, mineral licks and natality areas for Dall's Sheep that are in the project area; and,
- vegetation communities that are sensitive to disturbance or have slow recovery rates, specifically those areas that have been previously undisturbed

Please provide the specific criteria that will trigger the modifications.

Response

As stated in previous responses, CZN will contract a qualified biologist to undertake pre-exploration investigations of the proposed exploration area. Field surveys will include helicopter surveys, ground surveys and assessing available information from camp personnel as to recent observations of interest. This information will be combined with the results of previous studies (dating back some years) to provide a mapping of potentially sensitive wildlife areas (including raptor nest sites, den sites, sheep natality sites, key movement corridors, key feeding areas, etc.). The biologist will identify especially sensitive plant communities in the proposed exploration area, and will develop strategies for avoidance or mitigation, as the case may be, for the exploration program.

The criteria that will trigger decisions to not enter a specific site or location will be developed by the biologist. It is premature at this time to speculate as to what these will be, as the additional survey work and assessment of new information (or what will be new information at the time) has not been completed. CZN is confident that, if any environmental sensitivities are identified, appropriate mitigation strategies will be available, such that the absence of identification of these at this stage should not be considered an undefined adverse environmental impact. CZN has worked in the area for over a decade, and no significant sensitivities with respect to the local wildlife have occurred over this time.