

Appendix 2 SNF opinion

2022-06-21

Case M 1573-20

Second opinion regarding the basis for Talgas' application for a graphite mine

Amalina Natur- och Miljökonsult has, on behalf of people in the local community in the Vittangi area, carried out a review of a couple of documents regarding Talga's application for a graphite mine at Hosiorinta/Hosiojärvi, i.e. Nunasvaara södra (files 19 and 115).

Amalina Natur och Miljökonsult is a nature conservation consulting company that was established in Luleå in 1999. The company undertakes nature conservation assignments across large parts of Sweden. It is run by Jan Henriksson, who now has over 30 years of experience in nature inventories in Norrbotten. Jan has specialist expertise in forest ecosystems and has carried out many Natural Value inventories according to the Swedish Standard (SIS 2014).

Second opinion on the Natural Value Inventory

One of the supporting materials in the application is a natural value inventory, file number 19. *Natural value inventory 2015-2019 at Hosiorinta (Nunasvaara), Kiruna municipality. On behalf of Talga.*

According to the natural value inventory report, it is made in accordance with "Swedish Standard (SIS 2014) with the addition *Nature value class 4*. It must be carried out 10-11 June 2015. In 2019, a natural value inventory was also carried out along the gravel road that goes to the area.

Amalina states that the Natural Value Inventory is deficient and deviates so much from the requirements in the standard that it can NOT be considered to have been made according to the standard.

The biggest shortcomings are:

- **Too little time for inventory in the field**

The inventory area (for the area inventoried in 2015) is just under 700 hectares. Using two days for field inventory, i.e. 350 ha per day is too little.

- **Missed objects of natural value**

According to point 0.3 of the standard, the purpose of an NVI is "*to identify and delimit the geographical areas in the landscape that are of positive importance for biological diversity and to document and assess these natural values.*" in point 4.3.1 it says: "*The field inventory must include all potential objects of natural value identified during the preparatory work. The inventor must also search the inventory area and look for additional objects of natural value, which may have been overlooked during the preparatory work. Every part of the inventory area must be visited on site, except for areas that can be easily viewed and assessed from a distance or in current aerial photographs and that clearly lack positive significance for biodiversity...*" and "***The field inventory must be so accurate that all geographical areas of positive importance for biological diversity down to the minimum mandatory mapping unit (see table 1) can be identified. These areas must be reported as objects of natural value. All objects of natural value that can be identified from the results of previously carried out relevant inventories must also be demarcated, regardless of size. Smaller items that the contractor discovers and that can be reported without significant additional work must also be reported.***"

In the NVI, 12 natural value objects are reported. Already after Amalina carried out a few minutes of remote analysis (ie map and/or aerial image interpretation) it was established that there were several objects of natural value that were missing, something that was later verified through a couple of short field visits. In total, around 30 relatively large areas that are missing from the NVI have been identified. These are both within the operational area and along the road from the E45 to the investigation area.

What is particularly noteworthy is that, in principle, no objects of natural value have been presented within the operational area itself. This is despite the fact that here, among other things, there are bogs/ swamp forests with no traces of ditches, rich in old trees, dead wood, i.e. environments that are basically completely intact. Neither the lake Hosiojärvi nor the bog immediately north of the lake have been classified as objects of natural value.

Since the NVI has the addition Nature value class 4, in principle all of the following biotopes must always be included as NVOs:

- Bogs/wetlands
- Bogs/ponds/lakes
- Older forest stands
- Sand environments
- Streams/rivers/rivers

- **Deviation regarding conservation species**

According to point 2.16 of the standard, a conservation species is "*species that indicate that an area has natural value or that in itself is of special importance for biological diversity*" and clarified as: "*Conservation species is a collective term for protected species, red-listed species, typical species, responsibility species, signal species and key species. In this standard, however, key species are handled separately and are thus not included in the concept of conservation species.*".

Amalina's assessment is that they focused entirely on protected species and red-listed species in the NVIN. The Norwegian Forestry Agency's signal species do not seem to have been used at all.

- **Too few nature conservation species encountered/ places for nature conservation species** Through the short field visits that were carried out, it was quickly established that there are plenty of growing places for red-listed species that are missing in the NVI.

Four previously undiscovered red-listed species were noted: dark carbonaceous lichen (NT), short-stemmed sedge (NT), white-stemmed blackstem (NT) and blue-grey blackstem (NT) were encountered.

It is noteworthy that the majority of the plant sites that have now been identified are within the operational area.

Amalina Natur og Miljökonsult's assessment that there should be hundreds of undiscovered growing sites for red-listed species within the inventory area.

It should be pointed out here that an in-depth species inventory with a focus on red-listed species was carried out on 27/9 2018 . That inventory must mao be considered insufficient.

- **Missed Natura 2000 habitat**

According to point 4.3.1 of the standard: "*During the field inventory, any Natura 2000 nature types that exceed the minimum mandatory mapping unit (table 1) must be identified, but they do not need to be demarcated*".

In general, there is a lack of information on various Natura 2000 nature types in the NVI. Among other things, Amalina has noted that there are at least the following nature types in the area: 9010 (Western taiga), 7140 (Open bogs and marshes), 7230 (Rikkärr), 3160 (Myrsjöar).

Not least in Lapland, this is of utmost importance, here there are plenty of Natura 2000 nature types outside protected areas. When classifying the biotope value of an object of natural value, which is used to determine the natural value of the area (class 1 - to class 4), the presence of Natura 2000 nature types is one of the assessment bases. Fully approved Natura 2000 nature type means that the area has biotope value at least shall classified as tangible. This in turn means that the area ends up in one of the natural value classes 1, 2 or 3.

Opinion on file attachment 115

During a quick reading of file attachment 115, several details were noted that are not correct. Here are two examples.

Pine piece

Chapter 3.1 states, among other things: "*Of the breeding species that occur... the pine beetle... has strong populations nationally, regionally and locally.*"

On the latest red list, the pine woodpecker is red-listed as vulnerable (VU) due to severe population decline. That the species would have a strong population is not true, although the species still has its strongest stronghold in Torne Lapland, the species is far from common here.

Furthermore, it says "*What these species have in common is that they do not have particularly high requirements for their nesting sites, but accept all kinds of forest and/or wetland areas.*"

On the species' species facts sheet, <https://artfakta.se/naturvard/taxon/pinicola-enucleator-102125> stands:

"Pine woodpeckers breed mainly in old, mossy spruce-dominated coniferous forest with elements of birch and gray alder and usually with a rich field layer in the form of lingonberry and blueberry rice. It occurs from northern Dalarna and north through the inner parts of Norrland, north to northern Norrbotten - Torne Lappmark. The area of regular occurrence has been greatly reduced and 90% of the population now occurs in Norrbotten County. The species is estimated to have declined by 25-75% over the past 30 years, a decline that has continued over the past 10 years. The population's rate of decline is estimated to be greater than at the 2015 red listing" .

And

"During the 20th century, the southern limit of the pine woodpecker's known distribution has continuously moved south. However, there is no direct reason to believe that it would be a real expansion, but the species probably has previously

*escaped attention and simply been overlooked in large parts of the country. It is actually more likely that the species has declined during at least the latter part of the 20th century as a result of increased encroachment by modern forestry, which in many cases has completely devastated **good nesting environments, mainly in the form of primeval coniferous forest stands.***"

This means that pine wood in no way accepts all kinds of forest biotopes, but is more or less tied to natural forests.

Capercaillie

Chapter 3.1 states, among other things: "*Of these 49 species, ... pastures... are not affected by the planned extraction of graphite ... as the biotope does not constitute the species' natural breeding biotope.*"

The species fact sheet states: *The plover is a distinctive conifer bird that mainly occurs in forest areas larger than 300 hectares where there is enough suitable habitat for it to be able to feed throughout the year. The species prefers mature sparse or patchy forest with elements of aspen and a dense field layer of blueberry rice in a mosaic of swamp forests, bogs and other small wetlands.*

*Tjædern occurs mainly in areas with a large proportion of mature, relatively sparse pine forest that is at least 30 years old, and preferably at least 60–70 years old. It avoids larger clearings and other open areas. Swamp forests and marsh edges are very important habitats, especially for the hens and chickens. **The hens raise the chicks in areas with good access to shelter and food in the form of insects, usually in areas with a mosaic of moist blueberry-fir forest, moorland and swamp forests.** However, birds of different sexes and ages use different environments during different parts of the year.*

That there wouldn't be marsh edges and swamp forests suitable for grouse is downright wrong. During a field visit on 2022-06-18, it was established that such areas exist, not least in a stretch in a west-east-northeast direction approximately 200 meters north of Lake Hosiojärvi.

Summary conclusion

The natural value inventory carried out has major shortcomings. The shortcomings are so extensive that our assessment is that it cannot be used as a sufficient basis for the environmental assessment. There are so many unreported objects of natural value and so many undiscovered occurrences of nature conservation species (including red-listed species) that it is not possible to adequately assess any conflicts between natural values and species occurrences against the planned activity.

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