Strasbourg, 19th July 2023 **T-PVS/Files(2023)34**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

43rd meeting
Strasbourg, 28 November – 1 December 2023

New complaint: 2023/2

Alleged damage to protected habitats and species due to logging activities in the Belpau Emerald Network (CH0000028), Switzerland

- COMPLAINT FORM -

Document prepared by
Biofuelwatch (complainant)

Convention on the Conservation of European Wildlife and Natural Habitats

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1. **Please state the reason of your complaint (refer also to the Contracting Party/ies involved and the Articles of the Convention which might be violated)**

Harm to habitats and protected species in Emerald Network **Belpau (**CH0000028**)** caused by forestry/logging activities.

Switzerland

Articles 1.1; **1.2**; **3.1**; **3.3**; **4.1**; **4.2**; **6.b**; **6.c** and **11.2.b**. Please see accompanying annex.

2. **Which are the specific specie/s or habitat/s included in one of the Appendices of the Bern Convention that are potentially affected? (Please include here information about the geographical area and the population of the species concerned, if applicable)**

Habitats that are potentially affected: **N06, particularly C1.1** - Inland water bodies both standing and running, as well as permanent oligotrophic lakes, ponds and pools, represent the Belpau's second most important habitat in terms of area (16%). Significant increases in nitrogen and adverse temperature effects have been noted following logging, with potentially detrimental consequences to aquatic life. Areas surrounding such water bodies that are cleared of trees and bushes are then often invaded by brambles, nettles and neophytes. **N16, particularly G1.6** - Broad-leaved deciduous woodland and *Fagus* woodland represent the Belpau's most important habitat in terms of area (53%). *Fagus sylvatica* is one of the trees most targeted by loggers, including very large trees. Logging is transforming mature woodlands, hedges and copses into increasingly light, patchy, young woodland, as supported by satellite data from Global Forest Watch (which only goes back to 2021; many more trees have been felled in the two years since). Please see the accompanying annex.

Species that are potentially affected: We can find no record of any Management Plan for the Belpau Emerald Network, nor any detailed research on species numbers and populations. The Canton of Bern's website states that the Belpau represents a paradise for animals (and people—"Un paradis pour les animaux et les êtres humains"), but only mentions amphibians, wild bees and butterflies ("les amphibiens, les abeilles sauvages et les papillons"), without providing further details. We therefore assume that, of the 55 Emerald species and further 31 important species listed on the Belpau's Standard Data Form, those most likely to be affected by current logging practices are the aquatic and ground- and cavity-nesting/roosting species as well as slow moving animals such as amphibians and reptiles. These include but are not limited to the following: **1323 - Bechstein's bat (*Myotis bechsteinii*)**; **A233 - Wryneck (*Jynx torquilla*)**; **A238 - Middle spotted woodpecker (*Dendrocopos medius*)**; **Lesser spotted woodpecker (*Dendrocopos minor*)**; **Green woodpecker (*Picus viridis*)**; **A224 - Nightjar (*Caprimulgus europaeus*)**; **A023 - Black-crowned night heron (*Nycticorax nycticorax*)**; **A168 - Common sandpiper (*Actitis hypoleucos*)**; **1337 - European beaver (*Castor fiber*)**; **1220 - European pond terrapin (*Emys orbicularis*)**; **1166 - Great crested newt (*Triturus cristatus*)**; **1193 - Yellow-bellied toad (*Bombina variegata*)**; **Midwife toad (*Alytes obstetricans*)**; **European tree frog (*Hyla arborea*)**; **Edible frog (*Rana esculenta*)**; **Common frog (*R. temporaria*)**; **Common toad (*Bufo bufo*)**; **1903 - Marsh lacewort (*Liparis loeselii*)**; **1016 - Desmoulin's whorl snail (*Vertigo moulinsiana*)**; **1096 - Brook lamprey (*Lampetra planeri*)**; **1044 - Southern damselfly (*Coenagrion mercuriale*)**; **1092 - White-clawed crayfish (*Austropotamobius pallipes*)**. Although not featuring in any Bern Convention Annex, the **Swiss elecampane (*Inula helvetica*)**, which apparently grows in the Belpau, is a plant for which Switzerland bears a high international responsibility. Please see the accompanying annex.

3. **What might be the negative effects for the specie/s or habitat/s concerned?**

Logging in spring disturbs and endangers ground- and tree-breeding birds as well as young mammals, spawning amphibians and reptiles. Winter logging disturbs wildlife and endangers hibernating species. Chippers, tractors and trailers cause additional, periodic and prolonged disturbance.
Thinning activities and the removal of large, old habitat trees deprive cavity-nesting birds and mammals of both roosting sites and foraging habitats.
Heavy machinery results in soil compaction and deep tracks which hamper migrating amphibians and reptiles and increases their risk of predation.
Logging near water bodies as is currently being practised around ponds and streams on the left bank of the River Aare, can lead to diesel pollution, eutrophication, sedimentation, increased water temperatures and evaporation rates, posing a direct threat to several protected freshwater species. Repeated logging along virtually the entire left bank of the River Aare in the "Untere Belpau" section is depriving wildlife of food and cover (please see the map on page 3 of the accompanying annex).
Thinning interventions increase the risk of windthrow and heat stress to the remaining vegetation, and reduce the buffering effect of the canopy resulting in significant temperature fluctuations as well as in the spread of undesirable brambles, nettles and neophytes, leading to ecosystem impoverishment.
Logging undertaken for biomass energy indiscriminately harvests whole trees, whether healthy, diseased or dead, and deprives the reserve of deadwood, one of Switzerland's richest but rarest habitats. An ideal deadwood concentration of 20m3 per hectare is suggested for amphibians, for example, well above the average of 1m3/ha (p.38) on the Swiss Plateau. Diseased and damaged trees are also regularly removed for "public safety" reasons, but so too is most windthrow. When piles of branches are purposefully left for wildlife, they consist largely of "waste wood" twigs and branches and not the large diametre assortments that would most benefit insects and fungi.
The piles of trunks and large branches left to dry out *in situ* risk creating ecological traps by attracting insects, birds and small mammals which are then disturbed or destroyed when the wood is chipped.

4. Do you know if potentially affected species or habitats also fall under the scope of other international Conventions, (for instance: RAMSAR, CMS, ACCOBAMS, Barcelona Convention, etc) or if the area has been identified as a NATURA 2000/Emerald Network, UNESCO site? Are there pending procedures within another international institution?

The Belpau is an Emerald Network site (CH0000028) and does not fall within the scope of other relevant international conventions.

5. Have you attempted to address this issue with the relevant local and national authorities? Please describe. Are there any pending procedures at national level regarding the object of your complaint?

On 4 April 2023, Biofuelwatch contacted Ambassador Perrez, Head of the International Affairs Division at the Swiss Office for the Environment (FOEN), and Mr Romang, Head of Division of the Biodiversity and Landscape Division with its concerns. Mr Romang's response on 8th May 2023 stated that the Swiss government designates Emerald Network sites but takes no responsibility for their management or monitoring, which are devolved to the cantons. We consider this incompatible with the Bern Convention. We do not believe that any national procedures are pending.

6. Any other information (existence of an Environmental Impact Assessment (EIA), size of projects, maps of the area, etc) (for large files, please add a separate annex document, as mentioned in the above instructions)

Please refer to the accompanying annex for more information.

ANNEX

1. Articles of the Convention which might be violated

Articles 1.1 & 1.2 - Endangered and vulnerable species are being threatened by increasingly intensive logging practices through both disturbance and habitat deterioration.

Article 3.1 & 3.3 - Despite federal assurances that Emerald species and habitats must in no way be harmed ("Les espèces et les habitats Émeraude" "ne doivent être en rien menacés"), the federal government has delegated the responsibility for managing and monitoring Emerald Network sites to the cantons. The Belpau Emerald Network site is located entirely within the canton of Bern, yet neither the Canton's website nor its official list of nature reserves mention the Belpau Emerald Network, or its importance in terms of endangered European species. Public cantonal and federal communication relating to the Belpau Emerald site is lacking. We found no signposts mentioning the Emerald Network in the Belpau, although the overlapping, much larger Aarelandschaft Thun-Bern nature reserve is signposted.

Article 4.1 & 4.2 - As of 2020, Switzerland had set aside barely 1.6% of its territory as Emerald sites. Moreover, cantonal legislation governing Emerald sites *per se* seems to be lacking and it is our understanding that such sites are only protected if they overlap with official communal, cantonal or federal reserves which do benefit from existing national legislation and protection instruments. It would appear that 88% of the Belpau is protected by cantonal legislation ("Il est en outre protégé en très large partie (88%) par un décret cantonal"), but intensive logging across the site is greatly impacting habitats, removing old habitat trees and deadwood, causing eutrophication of waterways, evaporation of water bodies, soil compaction and deep tracks, as well as increasing windthrow, especially in radically thinned areas.

Article 6.b & 6.c - Trees and bushes have been cleared around ponds, depriving beaver of both food and cover and exposing their lodges to public footpaths. Removal of old habitat trees is threatening various bat and cavity nesting species, many of which are listed in Annex II. We are unaware of any monitoring of the impacts. Moreover, logging occurs regularly across the entire site throughout the nesting period and during amphibian spawning times. We are unaware of any meaningful efforts to prevent wildlife, including protected species, being disturbed or even killed as a result.

Article 11.2.b - Neophytes including Buddleia (*Buddleia davidii*) and Canadian goldenrod (*Solidago canadensis*) which often appear in logged areas, are not being controlled.

2. Information on the impacts of logging on the species concerned

1323 - Bechstein's bat (*Myotis bechsteinii*) is one of the Belpau's 2 Emerald mammal species. This Annex II species is listed as VU by IUCN, with populations decreasing worldwide and is threatened by logging and wood harvesting. Logging in winter when bats are hibernating (November to March) often results in the death of the disturbed animal or colony. The Swiss Red List (VU) notes that logging, especially of habitat trees, is particularly problematic because *M. bechsteinii* nests almost exclusively in cavities, especially in woodpecker nests, found in old trees which also provide it with the required foraging habitat. Forest "rejuvenation" and thinning operations to promote light forests create "unfavourable" conditions since this bat depends on dense oak and beech forests. Bat colonies use many different tree cavities within their territory and females change their roosts every 2.7 days on average. Research has shown that the minimum requirement for Bechstein's bat (and its associated woodpeckers—see below) ranges from 20 (DBH>50 cm) to 10 (DBH>70 cm) large deciduous trees bearing deawood structures per hectare. Yet guidelines for the "Obere Belpau" Forest Reserve section of the Belpau (please see map on page 3) advocate leaving just 5 dead trees per hectare, and current logging practises are leaving less and less dead and old trees across the entire Emerald Network site. Spared trees consist mostly of Scots pine (*Pinus sylvestris*) and oak (*Quercus robur*), which seem increasingly to be succumbing to heat stress and disease.

Closed-canopy, single layered, mature forests are also invaluable to various species of woodpecker, all of which are listed in Annex II. The Belpau counts four, namely: **A233 - Wryneck (*Jynx torquilla*)**, with

1,000-2,500 pairs in Switzerland and which breeds in the reserve, often in old woodpecker nests and **A238 - Middle spotted woodpecker (*Dendrocopos medius*)**, with 1,700-2,100 pairs in Switzerland, both Emerald species and both listed as NT; as well as the **Lesser spotted woodpecker (*Dendrocopos minor*)** and the **Green woodpecker (*Picus viridis*)**, both listed as of LC in Switzerland. Like *M. becksteinii*, these species require old trees in which to nest and all but the latter require dense forests in which to find food.

Other likely impacted Emerald bird species include, but are by no means limited to: **A224 - Nightjar (*Caprimulgus europaeus*)** with 40-50 pairs in Switzerland in 2013-16, considered a rare breeder and a migrant, ground-nesting and Annex II species; **A023 - Black-crowned night heron (*Nycticorax nycticorax*)**, annex II, breeding in only two sites in Switzerland and recorded sporadically in the Belpau; **and A168 - Common sandpiper (*Actitis hypoleucos*)**, ground-nesting, with some 100 pairs in Switzerland and apparently nesting in the Belpau. All three are listed as EN on the Swiss Red List. Logging, especially along watercourses, affects all these bird species. For facts and figures, see vogelwarte.ch.

1337 - European beaver (*Castor fiber*), the Belpau's second Emerald mammalian species and listed under Annex III, has recovered in Switzerland from CR to LC. The population was estimated to be 2,800 individuals in 2015 from a low of 350 in 1993, but logging activities in the Belpau are reducing both its cover and food.

1220 - European pond terrapin (*Emys orbicularis*). Annex II species, listed NT (IUCN) and as CR (Swiss Red List). The species was considered almost extinct in Switzerland but, following reintroductions, it has been documented in 16 cantons, mostly on the Swiss Plateau, with Geneva representing a stronghold of some 300 individuals. The Belpau is believed to possibly host a small number of these reptiles but recent studies seem to be lacking. *E. orbicularis* requires high quality water and is easily disrupted by human interference.

Of the 10 amphibian species found in the Belpau, two are Emerald Annex II species and both are listed as EN (Swiss Red List), namely: **1166 - Great crested newt (*Triturus cristatus*)**, once widespread on the Swiss Plateau but now the rarest newt north of the Alps, occurring in only 150 sites/128 km2 and **1193 - Yellow-bellied toad (*Bombina variegata*)**, whose numbers are steadily declining throughout Switzerland and whose young can travel several kilometres to colonise new habitats. Research has shown that these toads also require many pools and interlinking populations to thrive. The **Midwife toad (*Alytes obstetricans*)** and **European tree frog (*Hyla arborea*)**, both Annex II species, are also listed as EN in Switzerland. Other important species found in the Belpau include the **Edible frog (*Rana esculenta*)**, **Common frog (*R. temporaria*)** and the VU **Common toad (*Bufo bufo*)**. All these slow-moving amphibians are particularly vulnerable to winter and spring forestry interventions (November - March), as well as to the periodic chipping of woodpiles stored within the reserve (for up to 9 months of the year, September - May).

Logging along watercourses and ponds, which greatly increases the risk of water evaporation, sediment delivery, eutrophication and pollution from diesel and oil, also endangers other Emerald species such as: **1903 - Marsh lacewort (*Liparis loeselii*)**, listed in Annex II and as VU Swiss Red List, currently found in just 3 sites in the canton of Bern, with a further 8 having disappeared; **1016 - Desmoulin's whorl snail (*Vertigo moulinsiana*)**, EN (Swiss Red List), found in just 64 sites in Switzerland; **1096 - Brook lamprey (*Lampetra planeri*)** listed in Annex III and EN by the Swiss Red List, which migrates kilometres upstream in spring and which is highly sensitive to waterway obstructions and water contamination; **1044 - Southern damselfly (*Coenagrion mercuriale*)**, which is "threatened with extinction", listed under Annex II and deemed of "high national priority", and is only found in 10 small, fragmented regions in Switzerland, below 700 m above sea level, 6 of which are on the Swiss Plateau. Pollution of water bodies by agricultural/forestry activities is one of the main threats to this damselfly, according to the IUCN. **1092 - White-clawed crayfish (*Austropotamobius pallipes*)**, an Annex III species, listed by both the Swiss Red List and IUCN as EN, with a high national priority, is found almost exclusively in the western half of the country where it exists in fragmented populations. This crayfish requires high quality water, restored to a near-natural state or unused or gently managed strips along rivers and streams. Although not an Emerald species, the **Swiss elecampane (*Inula helvetica*)**, VU, is classified as an important plant for which Switzerland has a high international responsibility. The Canton of Bern harbours 20 existing populations with 12 having already

disappeared. It is particularly vulnerable to eutrophication and competition from other plants particularly brambles which often multiply following sylvicultural interventions.

Finally, curiously both **1088 - Cerambyx longicorn (*Cerambyx cerdo*)** and **1083 - Stag beetle (*Lucanus cervus*)** are depicted on a rare information panel sighted within the Belpau Emerald Network despite the facts that neither features in the Emerald - Standard Data Form and that the former appears to be already extinct in the Canton of Bern, proof, if proof were needed, that research is lacking.

6. Links, maps, photos and documents

While there doesn't seem to be a Management Plan for the Emerald Network Belpau, a Forest Management Report (Waldnutzung 'Obere Belpau' Grundlagen für eine Mittelwaldbewirtschaftung) was published in 2010 for the Upper Belpau (in German only). The website of the Department of Economy, Energy and Environment of the Canton of Bern also lists (in French and German) other measures taken in the "Obere Belpau" and the "Hintere Au", largely to "let in light". Logging is indeed increasing throughout the 436 hectare reserve, especially along the left bank of the River Aare, but is most intensive in the 24.8 hectare "Obere Belpau" forest reserve which claims to be returning the forest to a coppice with standards forest ("Mittelwald"), see inset below.

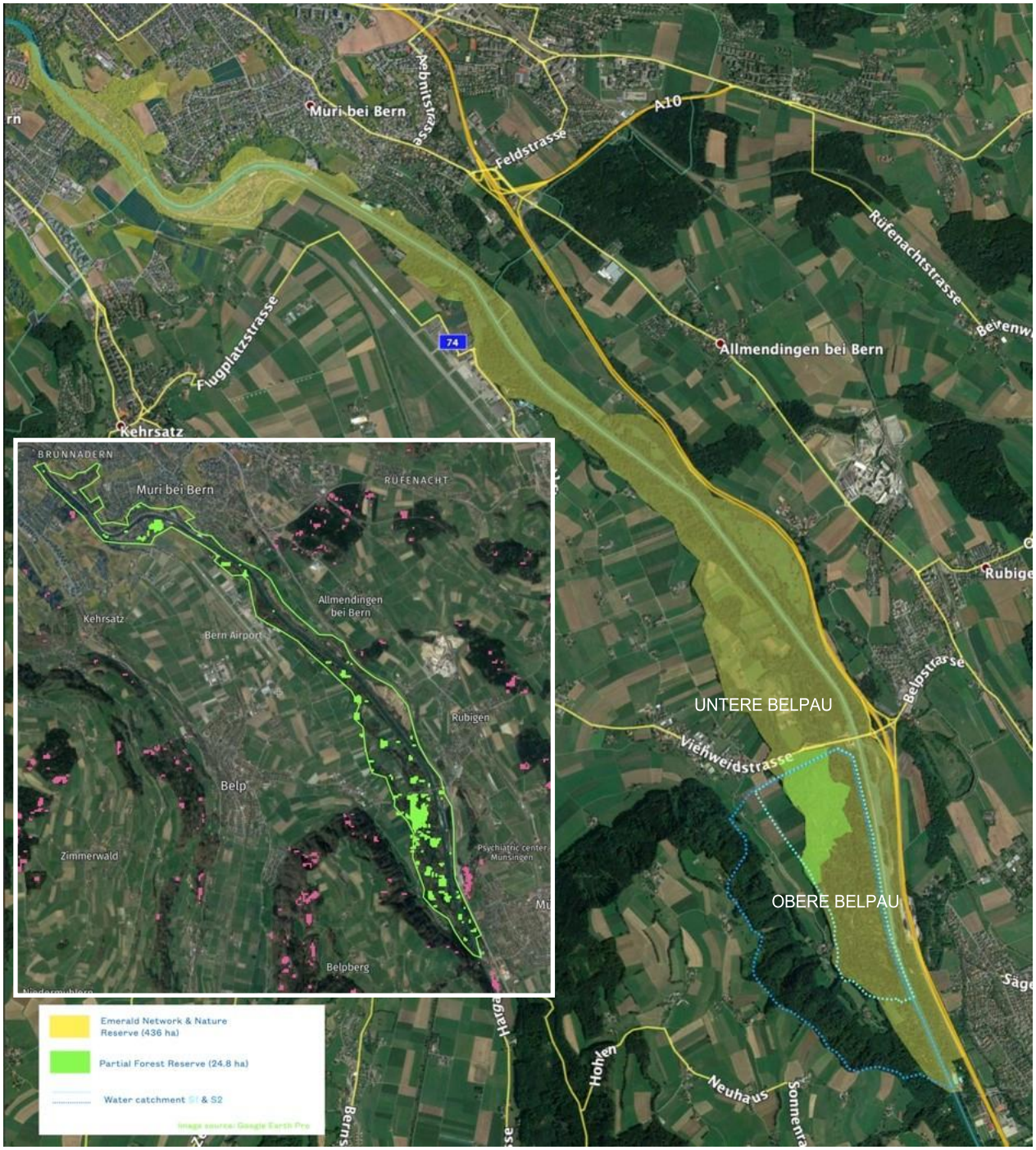

Image source: map - Google Earth Pro; outline - Sites Emeraude, Federal Office for the Environment (FOEN) and tree cover loss up to 2021 - Global Forest Watch (loss in the Belpau in light green).

Much of the Belpau occupies land belonging to the Burgergemeinde Belp which is committed to delivering 10,000 m3 of woodchips yearly, according to its website. The above-mentioned 2010 Forest Management Report for the "Obere Belpau" admits that the production of valuable wood is not a priority here. Rather there is a shift to energy wood production ("Die Wertholzproduktion ist hierbei allerdings nicht prioritär Vielmehr findet eine Verlagerung zu Energieholzproduktion statt."). The Canton of Bern's website states additionally that large trees are sold as quality timber ("bois de qualité") and that fast growing pioneer species are coppiced for energy wood. Regardless of how the extracted wood is used, the reserve is being

logged on an industrial scale, with trees extracted and stored throughout the Emerald site and not just in the "Obere Belpau" and the "Hintere Au", as claimed on the above cantonal website. This is confirmed by the photos below (exact location curtesy of What3words). The species most targetted include ash (*Fraxinus excelsior*), Norway spruce (*Picea abies*) and beech (*Fagus sylvatica*), but some Oak (*Quercus robur*) and Scots pine (*Pinus sylvestris*) are also being felled. Logging occurs over the winter months and into spring. For the last two years, substantial interventions have coincided with local amphibian migrations, namely in the second half of February in 2022 in the "Obere Belpau" and at the end of March 2023 in the "Untere Belpau". Mobile chippers, tractors and trailers then return periodically for up to 9 months of the year (September to May) to shred woodpiles left to dry out all over the site. On 4 May 2022, for example, 11 full trailer-loads were chipped from different locations within the Emerald site, which equates to 22 tractor/trailer round-trips, without counting the additional movements of the 32-tonne Albach Diamant 2000 chipper, depriving the reserve's inhabitants of some 268 m3 of wood. Many more photos available.


23 February 2022 - all this wood was burnt, some was left almost a year to dry out *in situ*
https://what3words.com/deeply.paraded.maximum


29 December 2022
https://what3words.com/perfect.glares.castle


18 March 2023
https://what3words.com/sweeter.above.bucks


30 March 2022
https://what3words.com/this.basher.drop


Evaporation - 29 December 2019
https://what3words.com/required.nimbly.embodied


27 March 2021 - Eutrophication
https://what3words.com/captive.brass.reeling


2 March 2023 - Windthrow
https://what3words.com/chin.magma.eyelid


29 December 2019 - Tracks/soil compaction
https://what3words.com/vest.cosmetic.pokers

Chipping very large trees (arrow) - 23 February 2021
https://what3words.com/trouser.searches.beside

"Letting in light" - 27 March 2021
https://what3words.com/guises.secondly.unrealistic

Frog fences & signs along neighbouring Seftigenstrasse while logging was ongoing inside the Belpau - photos taken on 24 February 2022 & 31 March 2023 - https://what3words.com/visions.student.sunset

Norway spruce habitat tree - 5-22 February 2022
https://what3words.com/spider.tells.targeted

Chipping 11 tractor/trailer-loads - 4 May 2022
https://what3words.com/ideas.shortage.freed

Removing food and cover including hazel (*Corylus avellana*) favoured by beaver - 18 March 2023 https://what3words.com/careful.leap.minus