

Appendix 5 – Tabular summary of information on resources of protected species of plant, fungus and animals in the area of Task and its surroundings

This appendix to the Environmental Management Plan (EMP) for Task *2A.1/1 Construction of "Boboszków" – a dry flood control reservoir on Nysa Kłodzka River* includes a summary of information on resources of protected species of plants, fungi and animals in the area of Task and its surroundings.

Table 1. Specification of protected plant species within the Task area

No.	Name	Protection status	Regional/national Red List assessment	Population resources (individuals or area)	No of stands	Location
Vascular plants						
1.	Stemless carline thistle <i>Carlina acaulis</i>	Partial protection	none / none	tens	5	sparsely on dry meadows and turfs
2.	Western marsh orchid <i>Dactylorhiza majalis</i>	Partial protection	none / none	tens	1	moist meadow on the left slope of the Nysa Kłodzka valley
3.	Martagon lily <i>Lilium martagon</i>	Strict protection	LC / none	several	1	riparian forest at the Nysa Kłodzka river
4.	Eggleaf twayblade <i>Listera ovata</i>	Partial protection	none / none	several	2	moist meadows on the slopes of the Nysa Kłodzka valley
5.	True oxlip <i>Primula elatior</i>	Partial protection	none / none	several hundred	15	scattered on entire area, in majority in riparian forests at the Nysa Kłodzka river
6.	Spring snowflake <i>Leucoium vernalis</i>	Partial protection	NT / VU	several thousand	4	plentifully in riparian forests at the Nysa Kłodzka river
7.	February daphne <i>Daphne mezereum</i>	Partial protection	none / none	more than ten	2	1) in deformed oak-hornbeam forest, 2) in deciduous forest at the erosion gully outflow to the Nysa Kłodzka nearby road bridge

No.	Name	Protection status	Regional/national Red List assessment	Population resources (individuals or area)	No of stands	Location
8.	Autumn crocus <i>Colchicum autumnale</i>	Partial protection	LC / none	several hundred	2	1) moist meadow and herb fringe communities at small watercourse on the left slope of the river valley. 2) pasture of agritourist farm at the bottom of the right slope of the valley
9.	European silver fir <i>Abies alba</i>	Brak	NT / none	~10	1	at the Nysa Kłodzka riverbed at the northern boundary of the Task
Bryophyte						
10.	Large white-moss <i>Leucobryum glaucum</i>	Partial protection	none / none	several m ²	1	in the spruce culture in the north-east part of the Task area
11.	Tree moss <i>Climacium dendroides</i>	Partial protection	none / none	tens of m ²	1	moist meadow on the eastern slope of the Nysa Kłodzka valley
12.	Common Striated Feather-moss <i>Eurhynchium angustirete</i>	Partial protection	none / none	tens of m ²	2	in the riparian forests at the Nysa Kłodzka riverbed
13.	Springy turf-moss <i>Rhytidiadelphus squarrosus</i>	Partial protection	none / none	several ha	5	fresh and moist meadows in the Nysa Kłodzka valley and its tributaries, sparse
14.	Pointed Spear-moss <i>Calliargonella cuspidata</i>	Partial protection	none / none	several hundred m ²	2	moist meadows nearby the Nysa Kłodzka riverbed and on the slope of its valley
15.	Bog groove-moss <i>Aulacomnium palustre</i>	Partial protection	none / none	tens of m ²	1	moist meadow on the eastern slope of the Nysa Kłodzka valley
16.	Red-stemmed feathermoss <i>Pleurozium schreberii</i>	Partial protection	none / none	tens of m ²	1	in the spruce culture in the place of projected passage P5

No.	Name	Protection status	Regional/national Red List assessment	Population resources (individuals or area)	No of stands	Location
17.	Common Tamarisk-moss <i>Thuidium tamariscinum</i>	Partial protection	none / none	tens of m ²	2	moist meadow at the gully outflow and in the forest in the eastern part of the Task area
18.	Broom forkmoss <i>Dicranum scoparium</i>	Partial protection	none / none	tens of m ²	2	in forests east of the dam and near of the projected passage P5
19.	Squirrel-tail Moss <i>Leucodon sciuroides</i>	None (rare species)	none / none	one patch	1	trunk of willow in the north-east part of the Task
<u>Red List assessment:</u> LC – least concern, NT – near threatened, VU – vulnerable						

Table 2. Specification of protected species of invertebrates within the Task area

No.	Name	Protection status	Habitat size / area	Distribution within the Task area
1.	Large copper <i>Lycaena dispar</i>	OS, DsII, DsIV	2 patches: 0.4 ha and 0.6 ha	meadows along the Nysa Kłodzka river and their vicinity
2.	Dusky large blue butterfly <i>Maculinea nausithous</i>	OS, DsII, DsIV	2 patches: 0.4 ha and 0.6 ha	potential habitats on meadows with large copper
3.	Scarce large blue butterfly <i>Maculinea teleius</i>	OS, DsII, DsIV	2 patches: 0.4 ha and 0.6 ha	potential habitats on meadows with large copper
4.	Buff-tailed bumblebee <i>Bombus terrestris</i>	OC	NDA	commonly within the habitat area with herbaceous vegetation
5.	Burgundy snail <i>Helix pomatia</i>	OC	NDA	commonly in moist areas and at the beds of watercourses
<u>Protection status:</u> OS – Strict protection, OC – Partial protection, DsII – Annex II of the Habitats Directive, DsIV - Annex IV of the Habitats Directive NDA – no data available, widespread species				

Table 3. Specification of protected fish species within the range of impact of the Task

No.	Name	Protection status	Size [individuals]	Average size [individuals/100m ²]
1.	European bullhead <i>Cottus gobio</i>	OC, DsII	10	0,8 ¹⁾ /1,8 ²⁾
2.	Alpine bullhead <i>Cottus poecilopus</i>	OC	38	9.5
3.	River trout <i>Salmo trutta fario</i>	R	205	63.1
<p><u>Protection status:</u> OC – partial protection of species, R – protection period/dimension, DsII -- Annex II of the Habitats Directive <u>Average size:</u> ¹⁾ juvenile individuals, ²⁾ adults</p>				

Table 4. Specification of protected species of amphibians and reptiles within the Task area

No.	Name	Protection status	Size	Distribution within the Task area
1.	Common frog <i>Rana temporaria</i>	OC	single individuals	in forest at the bottom of slope on the left bank of the Nysa Kłodzka river and on the area of alder forest and riparian forest at the left river bank, on plots No 306/2, 81/3)
2.	Smooth newt <i>Lissotriton vulgaris</i> (<i>Triturus vulgaris</i>)	OC	1	in forest on the left bank, on plot No 306/3
3.	Alpine newt <i>Triturus alpestris</i>	OC	2	nearby the Nysa Kłodzka river, on plot No 306/6
4.	Common toad <i>Bufo bufo</i>	OC	single adults	in forest at the bottom of slope on the left bank of the Nysa Kłodzka river, on plot No 306/2
5.	Grass snake <i>Natrix natrix</i>	OC	1	in sparse trees on the right bank of the Nysa Kłodzka river, on plot No 63
<p><u>Protection status:</u> OC – partial protection of species</p>				

Table 5. Specification of protected species of birds within the Task area

No.	Name	Protection status	Number of breeding pairs [p.] or non-breeding individuals [ind.]	Habitat character
1.	Black stork <i>Ciconia nigra</i>	OS, Dpl	1 p.	B
2.	Montagu's harrier <i>Circus pygargus</i>	OS, Dpl	1 ind.	r
3.	Common buzzard <i>Buteo buteo</i>	OS	2-3 p.	B
4.	European honey buzzard <i>Pernis apivorus</i>	OS, Dpl	1 p.	B, f
5.	Eurasian sparrowhawk <i>Accipiter nisus</i>	OS	1 p.	B
6.	Northern goshawk <i>Accipiter gentilis</i>	OS	1 p.	B
7.	Common kestrel <i>Falco tinnunculus</i>	OS	1-2 ind.	f
8.	Common quail <i>Coturnix Coturnix</i>	OS	1-2 p.	B
9.	Stock dove <i>Columba oenas</i>	OS	1 p.	B
10.	Common wood pigeon <i>Columba palumbus</i>	G	NDA	B
11.	Common cuckoo <i>Cuculus canorus</i>	OS	NDA	B
12.	Common kingfisher <i>Alcedo atthis</i>	OS, Dpl	1 ind.	f
13.	Black woodpecker <i>Dryocopus martius</i>	OS, Dpl	1 p.	B
14.	Great spotted woodpecker <i>Dendrocopos major</i>	OS	NDA	B
15.	Eurasian wryneck <i>Jynx torquilla</i>	OS	3 p.	B
16.	Eurasian skylark <i>Alauda arvensis</i>	OS	NDA	B
17.	Barn swallow <i>Hirundo rustica</i>	OS	NDA	B
18.	Common house martin <i>Delichon urbica</i>	OS	NDA	f
19.	Meadow pipit <i>Anthus pratensis</i>	OS	1-2 p.	B
20.	Tree Pipit <i>Anthus trivialis</i>	OS	NDA	B
21.	White wagtail <i>Motacilla alba</i>	OS	NDA	B
22.	Grey wagtail <i>Motacilla cinerea</i>	OS	1-2 p.	B
23.	Eurasian wren <i>Troglodytes Troglodytes</i>	OS	NDA	B
24.	White-throated dipper <i>Cinclus cinclus</i>	OS	1 p.	B
25.	Dunnock <i>Prunella modularis</i>	OS	NDA	B
26.	European robin <i>Erithacus rubecula</i>	OS	NDA	B
27.	Whinchat <i>Saxicola rubetra</i>	OS	NDA	B
28.	Song thrush <i>Turdus philomelos</i>	OS	NDA	B

No.	Name	Protection status	Number of breeding pairs [p.] or non-breeding individuals [ind.]	Habitat character
29.	Mistle thrush <i>Turdus viscivorus</i>	OS	NDA	B
30.	Fieldfare <i>Turdus pilaris</i>	OS	NDA	B
31.	Common blackbird <i>Turdus merula</i>	OS	NDA	B
32.	Garden warbler <i>Sylvia borin</i>	OS	NDA	B
33.	Eurasian blackcap <i>Sylvia atricapilla</i>	OS	NDA	B
34.	Common whitethroat <i>Sylvia communis</i>	OS	NDA	B
35.	Locustella neavia <i>Locustella neavia</i>	OS	1-2 p.	B
36.	Willow warbler <i>Phylloscopus trochilus</i>	OS	NDA	B
37.	Common chiffchaff <i>Phylloscopus collybita</i>	OS	NDA	B
38.	Wood warbler <i>Phylloscopus sibilatrix</i>	OS	NDA	B
39.	Goldcrest <i>Regulus regulus</i>	OS	NDA	B
40.	Common firecrest <i>Regulus ignicapilus</i>	OS	NDA	B
41.	Spotted flycatcher <i>Muscicapa striata</i>	OS	NDA	B
42.	Great tit <i>Parus major</i>	OS	NDA	B
43.	Coal tit <i>Periparus ater</i>	OS	NDA	B
44.	Eurasian blue tit <i>Cyanistes caeruleus</i>	OS	NDA	B
45.	European crested tit <i>Lophophanes cristatus</i>	OS	NDA	B
46.	Willow tit <i>Poecilla montana</i>	OS	NDA	B
47.	Marsh tit <i>Poecilla palustris</i>	OS	NDA	B
48.	Long-tailed tit <i>Aegithalos caudatus</i>	OS	NDA	B
49.	Eurasian nuthatch <i>Sitta europaea</i>	OS	NDA	B
50.	Eurasian treecreeper <i>Certhia familiaris</i>	OS	NDA	B
51.	Red-backed shrike <i>Lanius collurio</i>	OS, Dpl	6 p.	B
52.	Eurasian jay <i>Garrulus glandarius</i>	OS	NDA	B
53.	Common raven <i>Corvus corax</i>	OC	70 ind.	f
54.	Common starling <i>Sturnus vulgaris</i>	OS	NDA	B
55.	Orioles <i>Oriolus oriolus</i>	OS	2-3 p.	B
56.	Common chaffinch <i>Fringilla coelebs</i>	OS	NDA	B
57.	Common Linnet <i>Carduelis cannabina</i>	OS	NDA	B

No.	Name	Protection status	Number of breeding pairs [p.] or non-breeding individuals [ind.]	Habitat character
58.	European goldfinch <i>Carduelis carduelis</i>	OS	NDA	B
59.	European greenfinch <i>Carduelis chloris</i>	OS	NDA	B
60.	Eurasian siskin <i>Carduelis spinus</i>	OS	NDA	B
61.	Yellowhammer <i>Emberiza citrinella</i>	OS	NDA	B
<p><u>Protection status:</u> OS – strictly protection of species, OC – partial protection of species, G – game species with protection period, DpI – species from Annex I of the Birds Directive, <u>Size:</u> p – breeding pairs, os – non-breeding individuals, NDA – no data available, common species, not counted <u>Habitat character:</u> B – breeding species, r – species rarely appearing on this area, f – species feeding on this area</p>				

Table 6. Specification of protected species of land mammals within the Task area.

No.	Name	Protection status	Size	Distribution within the Task area
1.	Eurasian otter <i>Lutra lutra</i>	OC, DSII	1 pair /family	on the Task area
2.	Woodland hedgehog <i>Erinaceus sp.</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
3.	Alpine shrew <i>Sorex alpinus</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
4.	Common shrew <i>Sorex araneus</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
5.	Eurasian pygmy shrew <i>Sorex minutus</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
6.	Mediterranean water shrew <i>Neomys anomalus</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
7.	Water shrew <i>Neomys fodiens</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
8.	Lesser white-toothed shrew <i>Crocidura suaveolens</i>	OC	NDA	in the Nysa Kłodzka valley and in the valleys of its tributaries
<p><u>Protection status:</u> OC – partial protection of species, DSII - Annex II of the Habitats Directive <u>Size:</u> NDA - no data available</p>				

Table 7. Specification of protected bat species within the Task area

No.	Name	Protection status	Distribution
1.	Greater mouse-eared bat <i>Myotis myotis</i>	OS, DsII, DsIV, LC/ none	across entire Task area
2.	Natterer's bat <i>Myotis nattereri</i>	OS, DsIV, LC/ none	across entire Task area
3.	Daubenton's bat <i>Myotis daubentonii</i>	OS, DsIV, LC/ none	across entire Task area
4.	Serotine bat <i>Eptesicus serotinus</i>	OS, DsIV, LC/ none	across entire Task area
5.	Northern bat <i>Eptesicus nilssonii</i>	OS, DsIV, LC/NT	across entire Task area
6.	Western Barbastelle <i>Barbastella barbastellus</i>	OS, DsII, DsIV, NT/NT	across entire Task area
<p><u>Protection status:</u> OS – strict protection of species, DsII– species from Annex II of the Habitats Directive, DsIV – species from Annex IV of the Habitats Directive</p> <p><u>Assessment according to the IUCN/Polish Red List of animals:</u> LC – least concern, NT – near threatened</p>			