

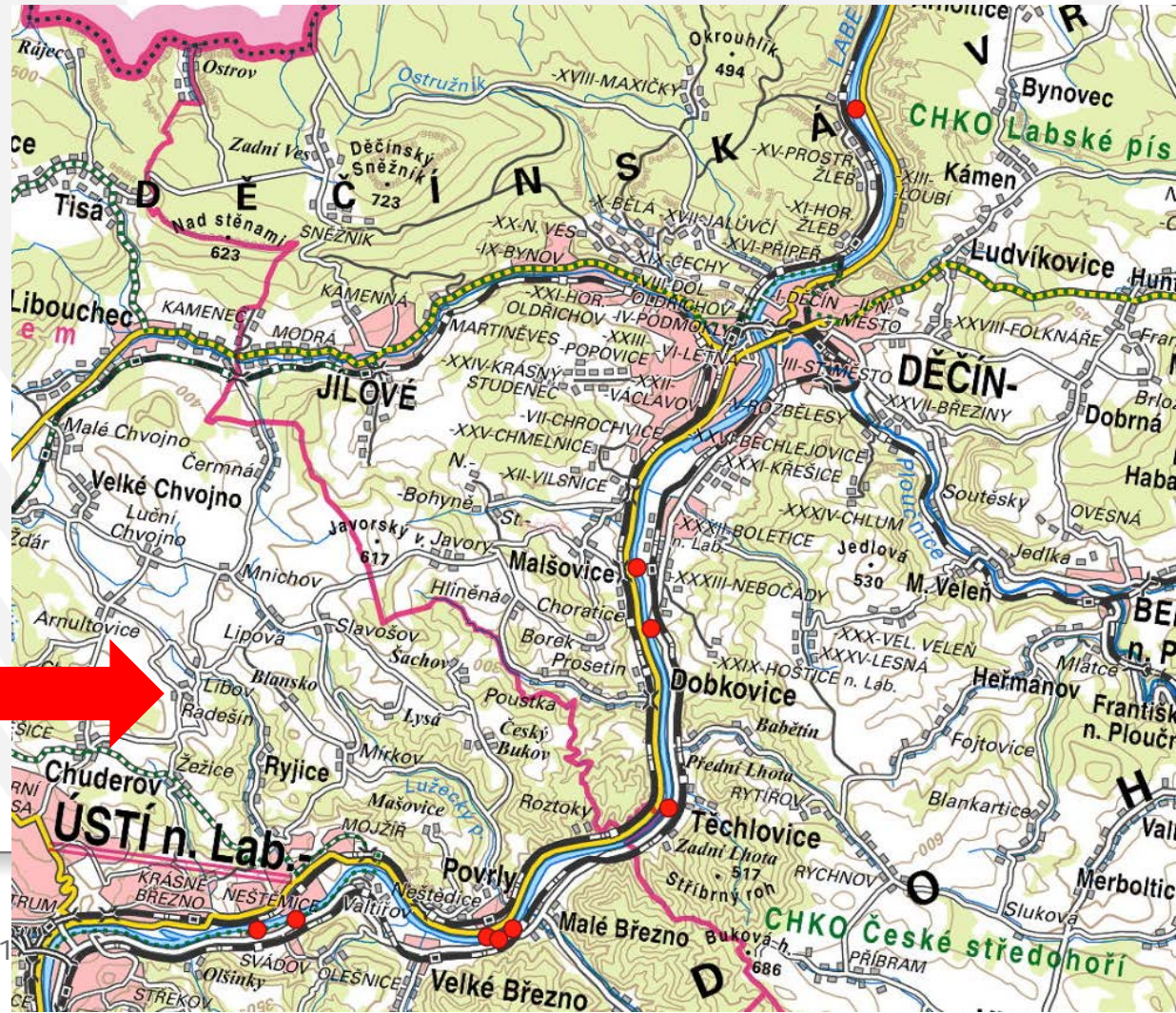
The Elbe, Povrly, Malé Březno Pilot Remediation of Localities on the Elbe

13.04.2021

Study „ Importance of Bílina river as a historical and current source of pollution for sediment management in the Elbe river basin“ – 2013

18 localities were analyzed between Ústí nad Labem and Hřensko

9 of these are important localities of contaminated sediments



Feasibility study of remediation of contaminated Elbe sediments of selected localities on the Elbe - 2017

3 localities in detail

Special area of conservation (SAC)
PORTA BOHEMICA

Significant area of **European Beaver** occurrence

Atlantic Salmon

Stag beetle

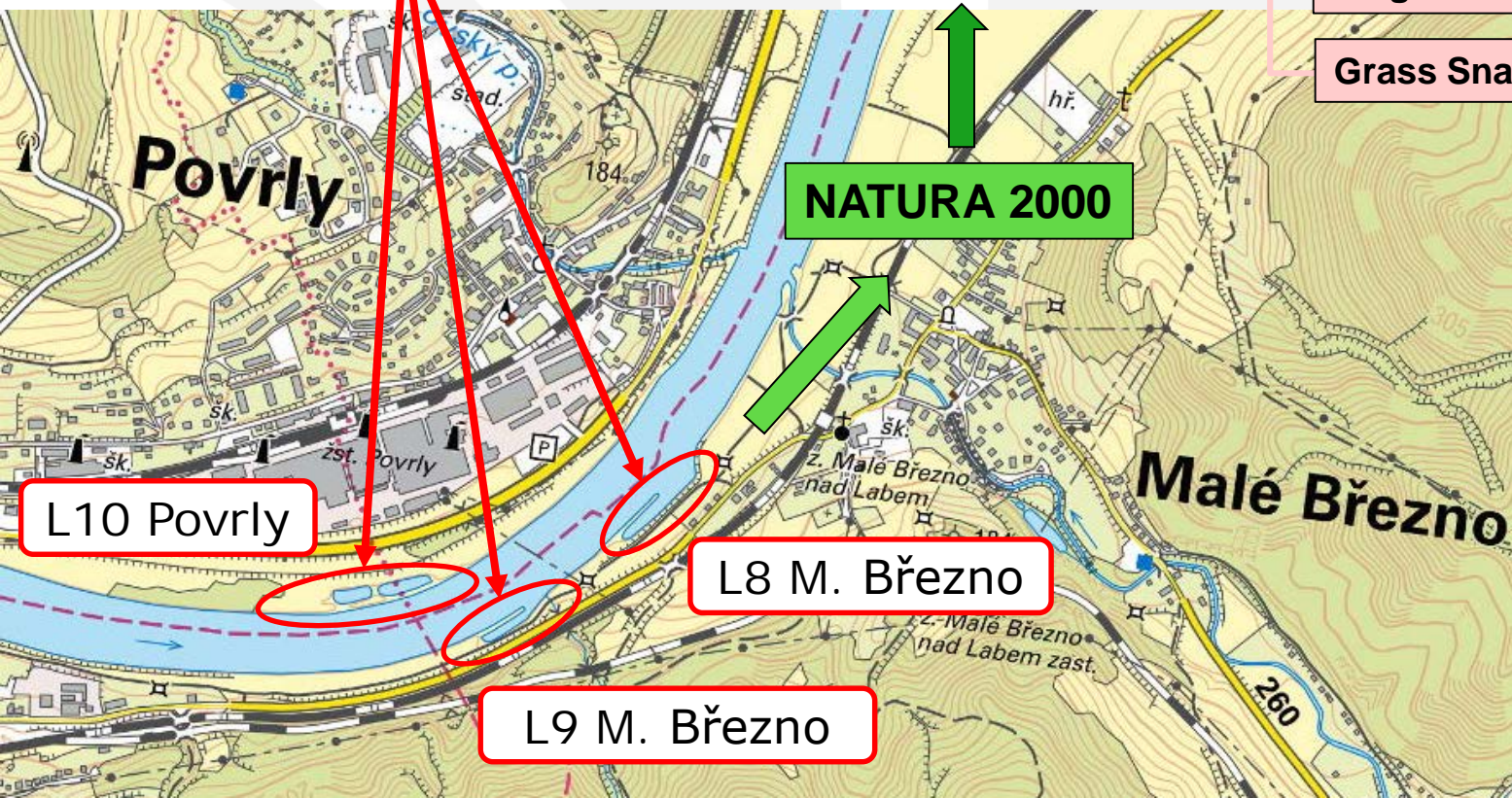
Grass Snake

NATURA 2000

L10 Povrly

L8 M. Březno

L9 M. Březno



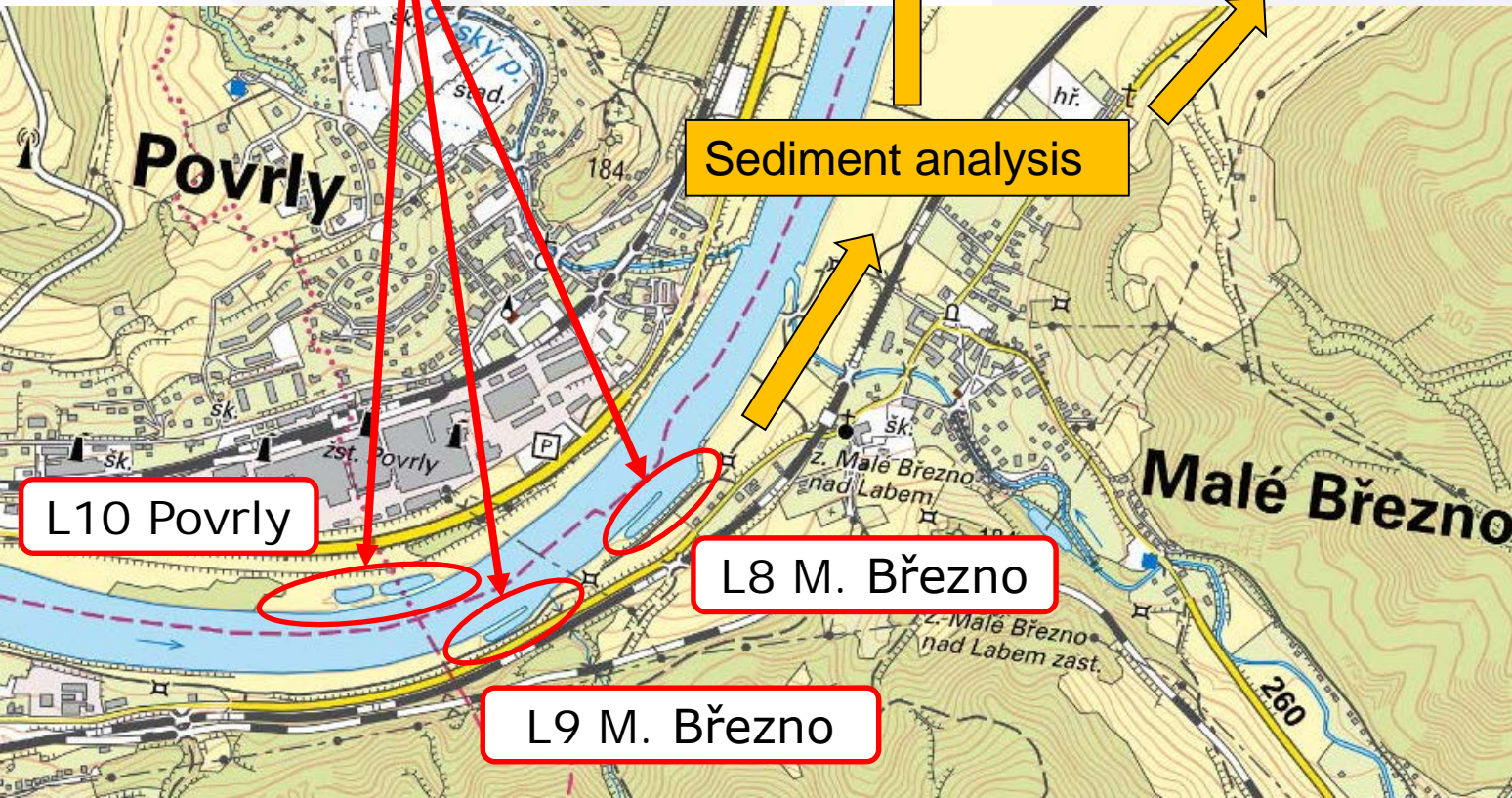
Feasibility study of remediation of contaminated Elbe sediments of selected localities on the Elbe - 2017



3 localities in detail

Study
3 analyses on each locality

Project documentation
- 2 analyses of L10 Povrly
- 3 analyses of L9 M. Březno
- 1 analysis of L8 M. Březno



L10 Povrly

According to the sediment analysis, it **exceeds** the limit values of ICPER tab. T-A2-3-2 (ICPER concept for sediment management)

L8 Malé Březno

According to the sediment analysis, it **does not exceed** the limit values of ICPER tab. T-A2-3-2 (ICPER concept for sediment management)

L9 Malé Březno

According to the sediment analysis, it **exceeds** the limit values of ICPER tab. T-A2-3-2 (ICPER concept for sediment management)

ICPER concept for sediment management - tab. T-A2-3-2

Datum odběru		23 10 2019	19 12 2019	19 12 2019	19 12 2019	23 10 2019	23 10 2019	19 12 2019	23 10 2019	23 10 2019	18 07 2019	18 07 2019	18 07 2019	6 06 2019	6 06 2019	19 12 2019	19 12 2019	Limit
Místo odběru		L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L9 M. Březno	L8 M. Březno	L10 Povří	L10 Povří	L10 Povří	L10 Povří	
Zn	mg/kg	502.0	515	359	509	454.0	411.0	438	635.0	1 020.0	875.0	964.0	249.0	1 150.0	1 250.0	157.0	273.0	800.00
Ni	mg/kg	45.0	41	29	38	44.0	38.0	38	47.0	63.0	59.0							5.0
Pb	mg/kg	90.0	101	100	157	81.0	83.0	99	114.0	253.0	196.0							7.0
As	mg/kg	28.0	36	36	49	30.0	29.0	31	48.0	140.0	117.0							40.0
Cu	mg/kg	91.0	97	79	112	86.0	81.0	83	112.0	199.0	166.0							160.00
Hg	mg/kg	1.8	3	3														0.47
Cd	mg/kg	3.6	4	2														2.30
Cr	mg/kg	96.0	104	98														2.0
PCB 28	µg/kg	2.9	16	4														20.00
PCB 52	µg/kg	7.3	21	5														2.0
PCB 101	µg/kg	11.0	20	11														20.00
PCB 118	µg/kg	3.7	6	3														2.0
PCB 138	µg/kg	32.0	45	34	45	78.0	47.0	36	73.0	37.0	32.0	43.0	19.0	85.0	34.0	7.4	43.0	20.00
PCB 153	µg/kg	38.0	53	43	53	100.0	55.0	48	94.0	50.0	44.0							20.00
PCB 180	µg/kg	36.0	41	43	43	100.0	53.0	49	73.0	38.0	33.0							20.00
p,p-DDE	µg/kg	63.0	29	490	120	34.0	61.0	165	21.0	100.0	130.0							6.80
p,p-DDD	µg/kg	84.0	99	1 100	1 200	93.0	210.0	400	230.0	1 900.0	1 500.0	3 700.0	76.0	43.0	39.0	11.0	34.0	3.20
p,p-DDT	µg/kg	230.0	330	1 100	920	145.0	335.0	710	110.0	330.0	240.0	1 200.0	140.0	81.0	53.0	70.0	340.0	3.00
PAU suma 5	µg/kg	3 042.0	3 162.0	3 852.0	7 340.0	3 413.0	2 821.0	1 399.0	2 227.0	5 891.0	5 267.0	6 465.0	1 180.0	1 489.0	902.0	3 886.0	1 648.0	2 500.00
anthracen	µg/kg	410.0	1 020	1 070	3 970	883.0	397.0	213	407.0	4 120.0	6 450.0	7 940.0	91.0	188.0	295.0	2 690.0	406.0	310.00
fluoranthen	µg/kg	1 840.0	2 030	2 110	4 390	1 760.0	1 510.0	698	1 100.0	2 620.0	3 500.0	4 370.0	539.0	806.0	150.0	3 350.0	1 270.0	250.00
b(a)pyren	µg/kg	769.0	769	964	1 780	902.0	699.0	308	501.0	1 220.0	1 240.0	1 570.0	243	361.0	491.0	1 090.0	433.0	600.00

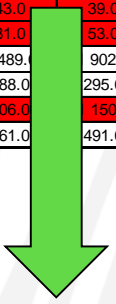
DANGER

Significant area of **European Beaver** occurrence

Atlantic Salmon

Stag beetle

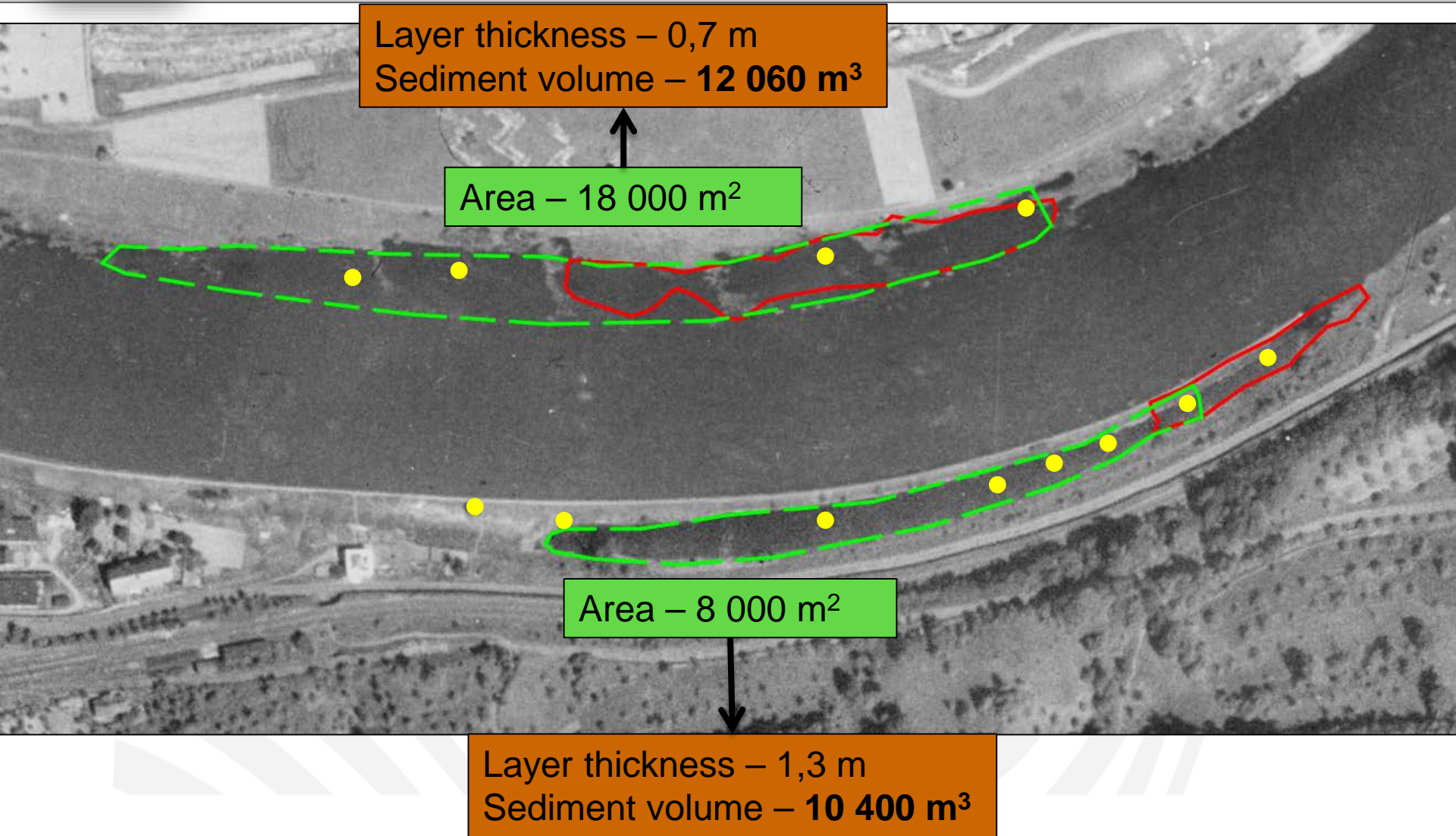
Grass Snake



Environmental protection



Necessary sediment disposal in a landfill for hazardous waste



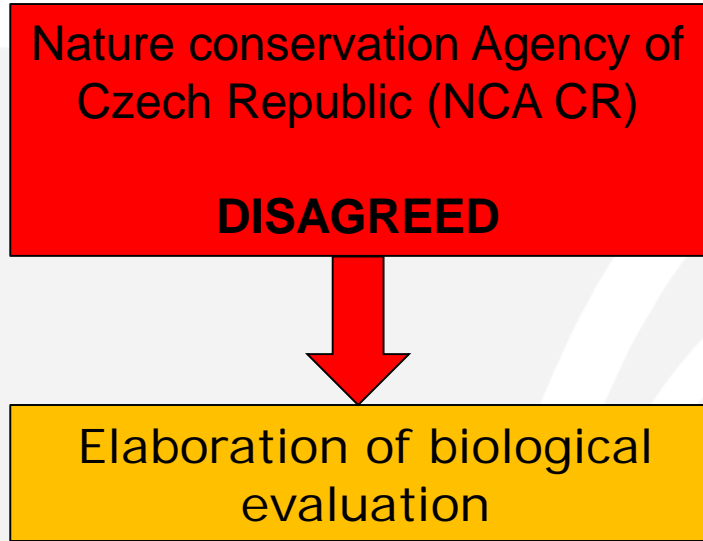
Layer thickness – 0,7 m
Sediment volume – 12 060 m³

Area – 18 000 m²

Area – 8 000 m²

Layer thickness – 1,3 m
Sediment volume – 10 400 m³

Administration offices
AGREED on the original
area range



- Elaboration of biological evaluation – expected **07/2021**
- Elaboration of project documentation for remediation of contaminated localities – expected **08/2021**
- Discussion with NCA CR – expected **12/2021**
- Discussion of a new area range suggestion with administration offices – expected **04/2022**
- **Expected date of realization – 2023–2024**



THANK YOU FOR YOUR ATTENTION

Ing. Petr Martínek

martinekp@pla.cz