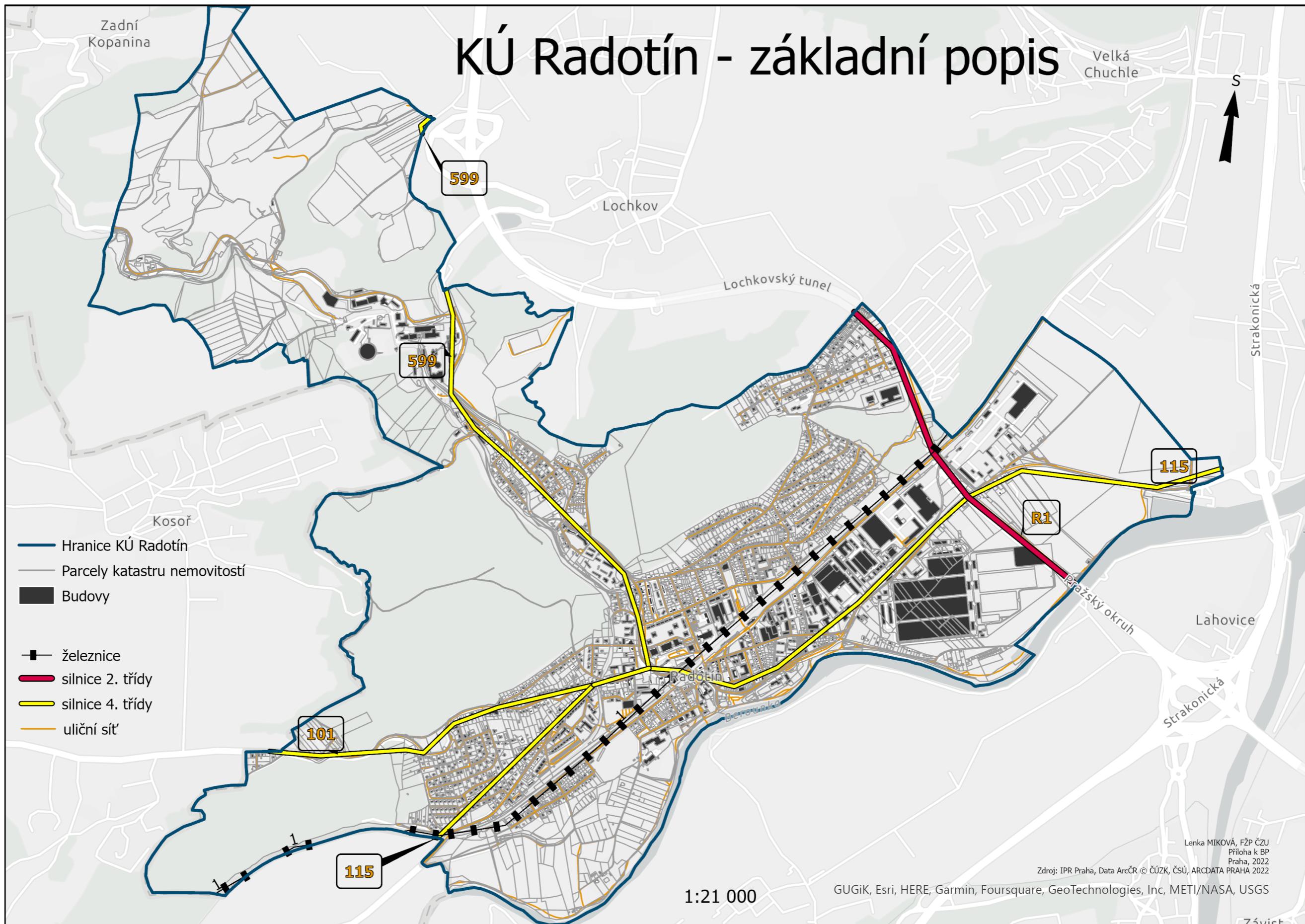


Příloha 1: Základní popis oblasti KÚ Radotín z pohledu dopravy a zástavby.



Příloha 2: Model znázorňující práci s daty v Pythonu.

-*- coding: utf-8 -*-

Generated by ArcGIS ModelBuilder on : 2023-03-06 09:56:49

```
import arcpy
```

```
from sys import argv
```

```
def BP(Attributes_To_Join="ALL", Output_Type="INPUT", Cellsize_10_="10",
Build_raster_attribute_table=True): # BP
```

To allow overwriting outputs change overwriteOutput option to True.

```
arcpy.env.overwriteOutput = False
```

Check out any necessary licenses.

```
arcpy.CheckOutExtension("3D")
```

```
arcpy.CheckOutExtension("spatial")
```

```
arcpy.CheckOutExtension("ImageAnalyst")
```

```
KATASTRALNI_UZEMI_P = "KATASTRALNI_UZEMI_P"
```

```
RAD_MZCR_Ln = "RAD_MZCR_Ln"
```

```
RAD_IPR_Ln = "RAD_IPR_Ln"
```

Process: Create Fishnet [10x10] (Create Fishnet) (management)

```
RAD_Fishnet = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_Fishnet"
```

```
RAD_Fishnet_label = arcpy.management.CreateFishnet(out_feature_class=RAD_Fishnet, origin_coord="-751549,69 -1055107,6", y_axis_coord="-751549,69 -1055097,6", cell_width=10, cell_height=10,
number_rows=None, number_columns=None, corner_coord="-746115,65 -1050699,78", labels="LABELS",
template="-751549,69 -1055107,6 -746115,65 -1050699,78 PROJCS["S-JTSK_Krovak_East_North",GEOGCS["GCS_S-JTSK",DATUM["D_S-JTSK",SPHEROID["Bessel_1841",6377397.155,299.1528128]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTED["Krovak"],PARAMETER["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Pseudo_Standard_parallel_1",78.5],PARAMETER["Scale_Factor",0.9999],PARAMETER["Azimuth",30.28813975277778],PARAMETER["Longitude_Of_Center",24.83333333333333],PARAMETER["Latitude_Of_Center",49.5],PARAMETER["X_Scale",-1.0],PARAMETER["Y_Scale",1.0],PARAMETER["XY_Plane_Rotation",90.0],UNIT["Meter",1.0]]",geometry_type="POLYGON")[0]
```

Process: Clip Fishnet label (Clip) (analysis)

```
RAD_Fishnet_label_Clip = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_Fishnet_label_Clip"
```

```
arcpy.analysis.Clip(in_features=RAD_Fishnet_label, clip_features=KATASTRALNI_UZEMI_P,
out_feature_class=RAD_Fishnet_label_Clip, cluster_tolerance="")
```

Process: Clip Fishnet (Clip) (analysis)

```
RAD_Fishnet_Clip = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_Fishnet_Clip"
```

```
arcpy.analysis.Clip(in_features=RAD_Fishnet, clip_features=KATASTRALNI_UZEMI_P,
out_feature_class=RAD_Fishnet_Clip, cluster_tolerance="")
```

Process: Erase MZCR (Erase) (analysis)

```
erase_MZCR = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\erase_MZCR"
```

```
arcpy.analysis.Erase(in_features=KATASTRALNI_UZEMI_P, erase_features=RAD_MZCR_Ln,
out_feature_class=erase_MZCR, cluster_tolerance="")
```

```

# Process: Erase IPR (Erase) (analysis)
erase_IPR = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\erase_IPR"

arcpy.analysis.Erase(in_features=KATASTRALNI_UZEMI_P, erase_features=RAD_IPR_Ln,
out_feature_class=erase_IPR, cluster_tolerance="")

# Process: Merge (Merge) (management)
erase_IPR_MZCR = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\erase_IPR_MZCR"

arcpy.management.Merge(inputs=[erase_MZCR, erase_IPR], output=erase_IPR_MZCR,
field_mappings="ID \"ID\" true false false 40 Text 0
0,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,ID,0,40,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,ID,0,40
;ID_2 \"ID_2\" true false false 40 Text 0
0,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,ID_2,0,40,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,ID_2
,0,40;TYPPPD_KOD \"TYPPPD_KOD\" true false false 7 Text 0
0,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,TYPPPD_KOD,0,7,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,TYPPPD_KOD,0,7;KATUZE_KOD \"KATUZE_KOD\" true false false 6 Long 0
6,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,KATUZE_KOD,-1,-
1,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,KATUZE_KOD,-1,-1;Shape_length \"Shape_length\" true true
false 0 Double 0,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,Shape_length,-1,-
1,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,Shape_length,-1,-1;Shape_area \"Shape_area\" true true false 0
Double 0,First,#,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_MZCR,Shape_area,-1,-
1,E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\clip_IPR,Shape_area,-1,-1", add_source="NO_SOURCE_INFO")

# Process: Erase MZCR_erase (Erase) (analysis)
RAD_MZCR_correct = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_MZCR_Ln_Erase"

arcpy.analysis.Erase(in_features=RAD_MZCR_Ln, erase_features=erase_IPR_MZCR,
out_feature_class=RAD_MZCR_correct, cluster_tolerance="")

# Process: Intersect (MZCR) Ln (Intersect) (analysis)
MZCR_Ln_Fishnet = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_MZCR_Ln_Fishnet"

arcpy.analysis.Intersect(in_features=[[RAD_Fishnet_Clip, ""], [RAD_MZCR_correct, ""]],
out_feature_class=MZCR_Ln_Fishnet, join_attributes=Attributes_To_Join, cluster_tolerance="",
output_type=Output_Type)

# Process: Polygon to Raster (MZCR Ln) (Polygon to Raster) (conversion)
RAD_MZCR_Ln_Raster = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_MZCR_Ln_Raster"

arcpy.conversion.PolygonToRaster(in_features=MZCR_Ln_Fishnet, value_field="DB_High",
out_rasterdataset=RAD_MZCR_Ln_Raster, cell_assignment="CELL_CENTER", priority_field="NONE",
cellsize=Cellsize_10_, build_rat=Build_raster_attribute_table)

# Process: Erase IPR_erase (Erase) (analysis)
RAD_IPR_correct = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_IPR_Ln_Erase"

arcpy.analysis.Erase(in_features=RAD_IPR_Ln, erase_features=erase_IPR_MZCR,
out_feature_class=RAD_IPR_correct, cluster_tolerance="")

# Process: Intersect (IPR) Ln (Intersect) (analysis)
IPR_Ln_Fishnet = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\IPR_RAD_Ln_Fishnet"

arcpy.analysis.Intersect(in_features=[[RAD_Fishnet_Clip, ""], [RAD_IPR_correct, ""]],
out_feature_class=IPR_Ln_Fishnet, join_attributes=Attributes_To_Join, cluster_tolerance="",
output_type=Output_Type)

# Process: Polygon to Raster (IPR Ln) (Polygon to Raster) (conversion)
RAD_IPR_Ln_Raster = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_IPR_Ln_Raster"

```

```

arcpy.conversion.PolygonToRaster(in_features=IPR_Ln_Fishnet, value_field="DB_HI",
out_rasterdataset=RAD_IPR_Ln_Raster, cell_assignment="CELL_CENTER", priority_field="NONE",
cellsize=Cellsize_10_, build_rat=Build_raster_attribute_table)

# Process: Minus (Minus) (3d)

RAD_MZ_IPR = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_MZ_IPR"

with arcpy.EnvManager(scratchWorkspace=r"D:\\Skola\\BP\\GIS\\SHM_Praha\\SHM_Praha.gdb",
workspace=r"D:\\Skola\\BP\\GIS\\SHM_Praha\\SHM_Praha.gdb"):

    arcpy.d3d.Minus(in_raster_or_constant1=RAD_MZCR_Ln_Raster,
in_raster_or_constant2=RAD_IPR_Ln_Raster, out_raster=RAD_MZ_IPR)

    RAD_MZ_IPR = arcpy.Raster(RAD_MZ_IPR)

# Process: Raster to Point (Raster to Point) (conversion)

RAD_Rozdil_B = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_Rozdil_B"

with arcpy.EnvManager(outputMFlag="Disabled", outputZFlag="Disabled"):

    arcpy.conversion.RasterToPoint(in_raster=RAD_MZ_IPR, out_point_features=RAD_Rozdil_B,
raster_field="Value")

# Process: Raster to Polygon (Raster to Polygon) (conversion)

RAD_Rozdil_P = "E:\\Skola\\BP\\GIS\\BP\\BP.gdb\\RAD_Rozdil_P"

with arcpy.EnvManager(outputMFlag="Disabled", outputZFlag="Disabled"):

    arcpy.conversion.RasterToPolygon(in_raster=RAD_MZ_IPR, out_polygon_features=RAD_Rozdil_P,
simplify=Build_raster_attribute_table, raster_field="Value",
create_multipart_features="SINGLE_OUTER_PART", max_vertices_per_feature=None)

if __name__ == '__main__':

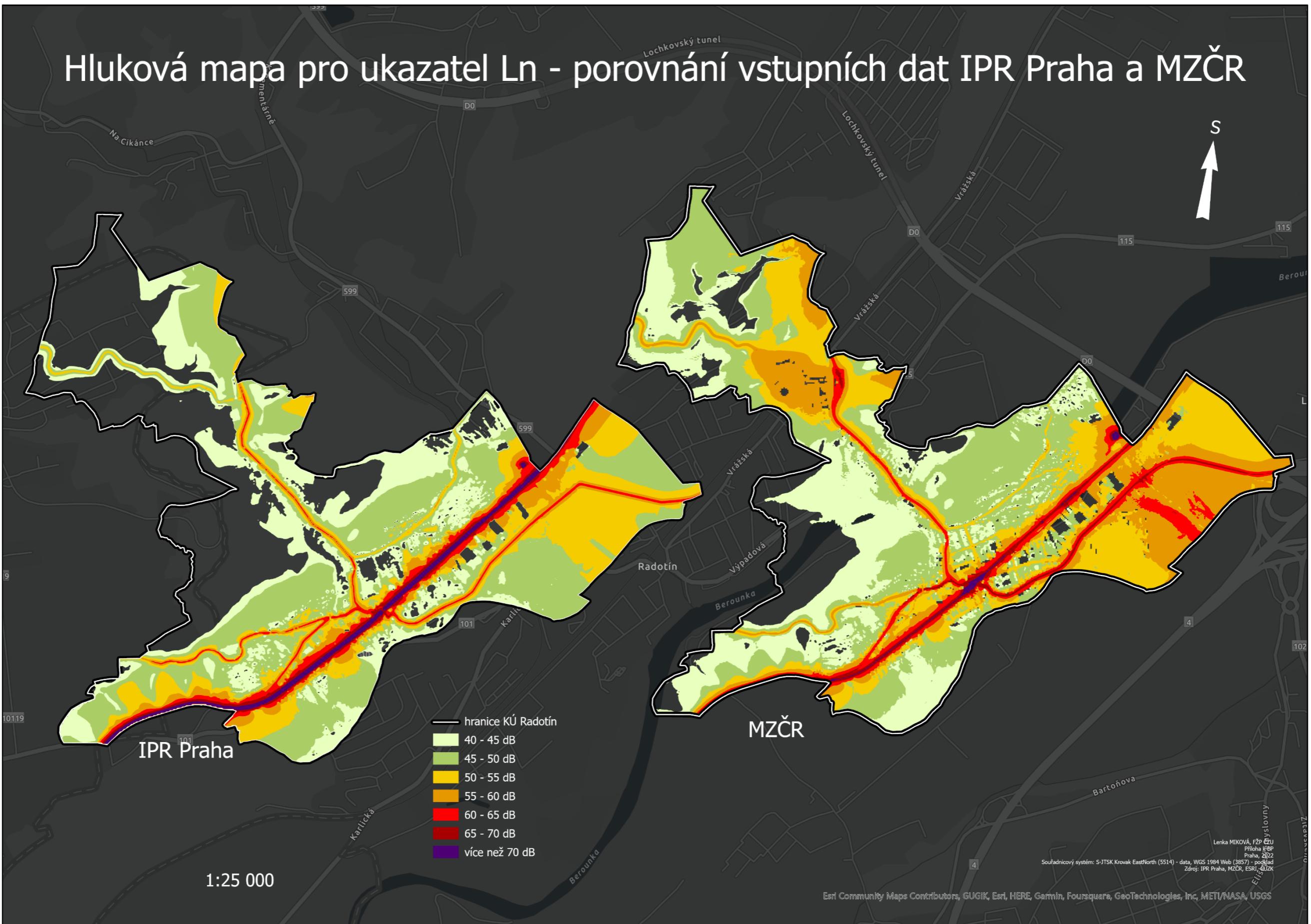
    # Global Environment settings

    with arcpy.EnvManager(scratchWorkspace=r"E:\\Skola\\BP\\GIS\\BP\\BP.gdb",
workspace=r"E:\\Skola\\BP\\GIS\\BP\\BP.gdb"):

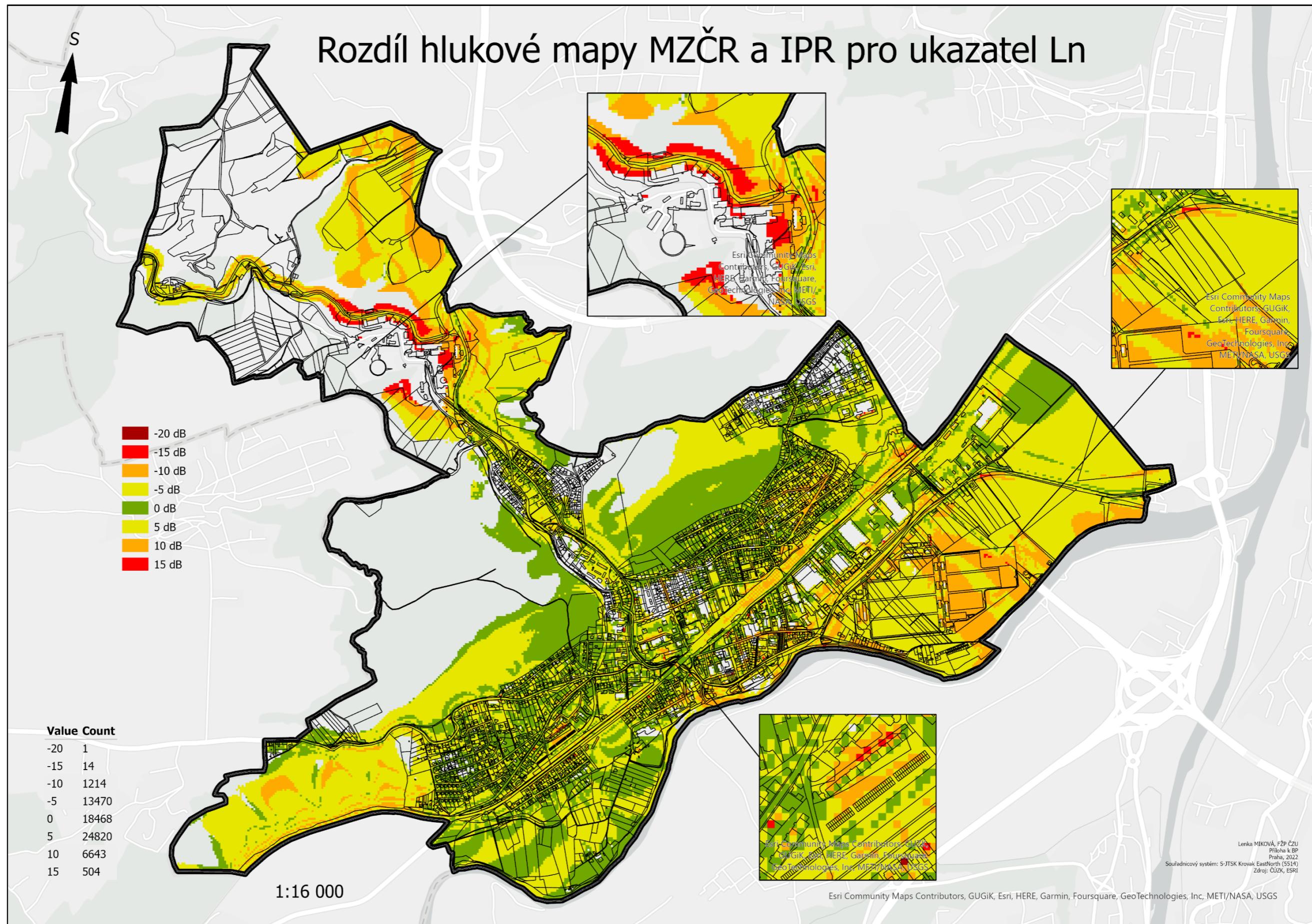
        BP(*argv[1:])

```

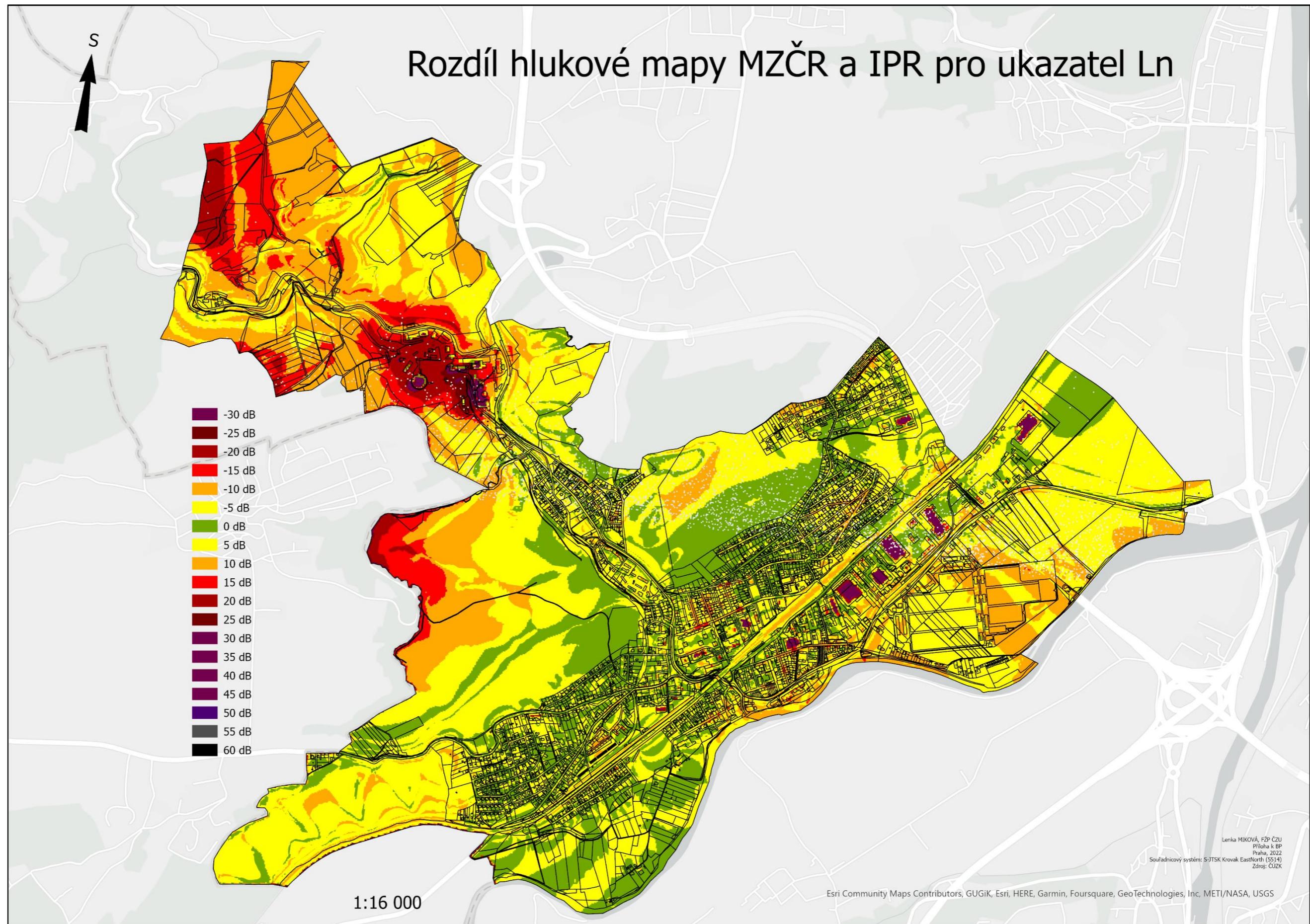
Příloha 3: Hluková mapa pro ukazatel L_n (porovnání vstupních dat IPR Praha a MZČR ve shodných hlukových intervalech).



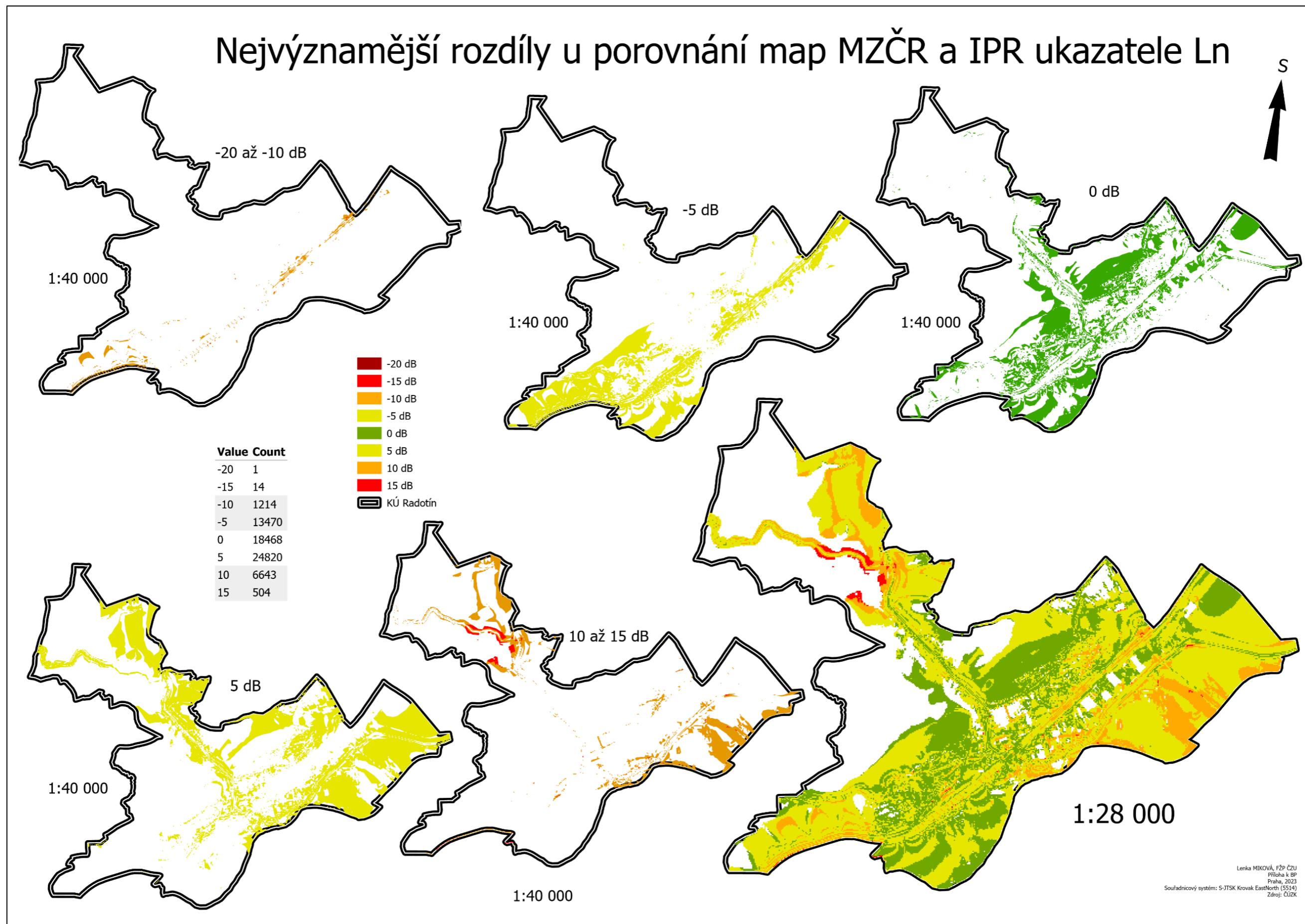
Příloha 4a: Rozdíl u hlukových map MZČR a IPR pro ukazatel L_n – varianta ořezu.



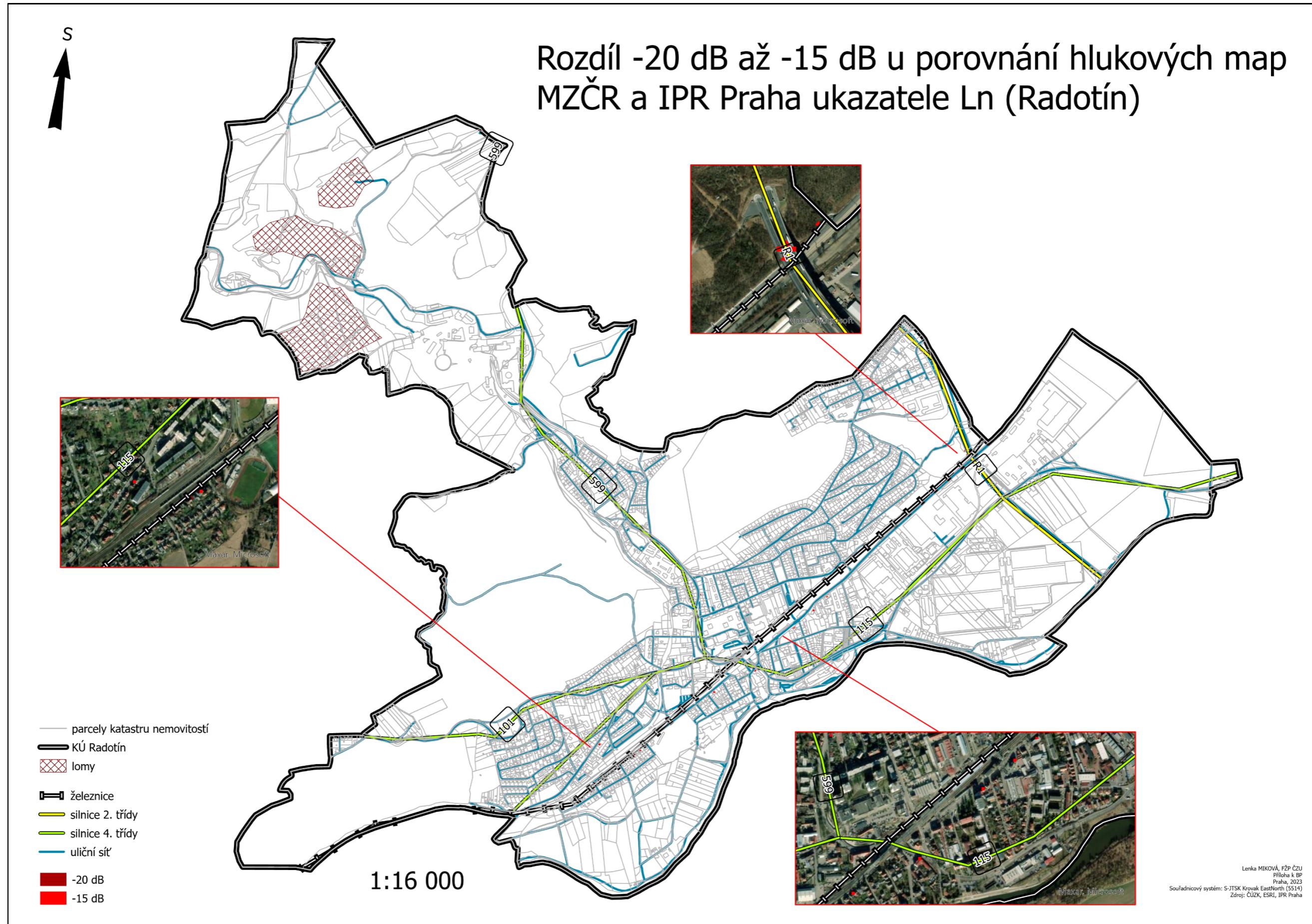
Příloha 4b: Rozdíl u hlukových map MZČR a IPR pro ukazatel L_n – varianta doplnění intervalů na celé území.



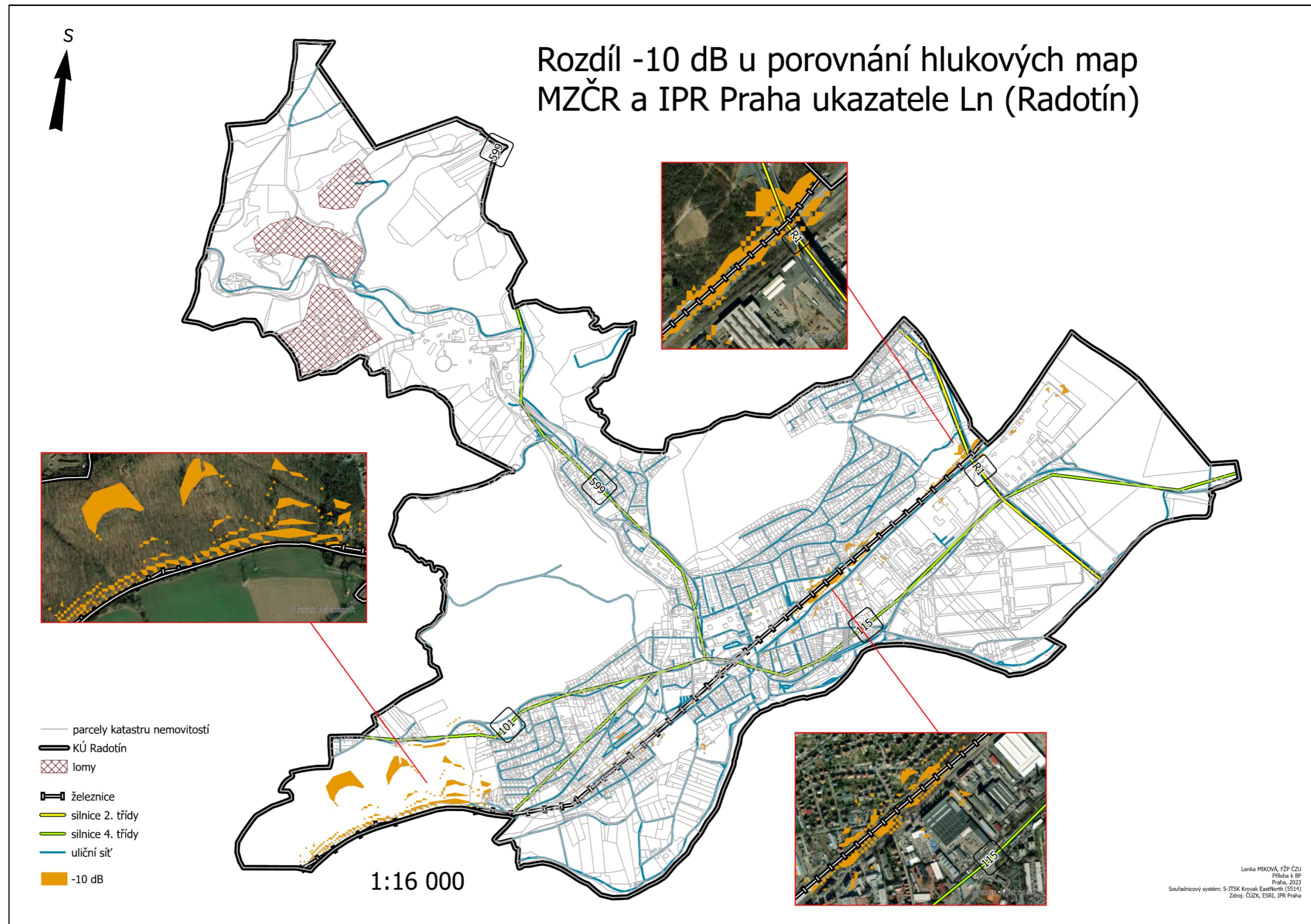
Příloha 5a: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n – varianta s ořezem.



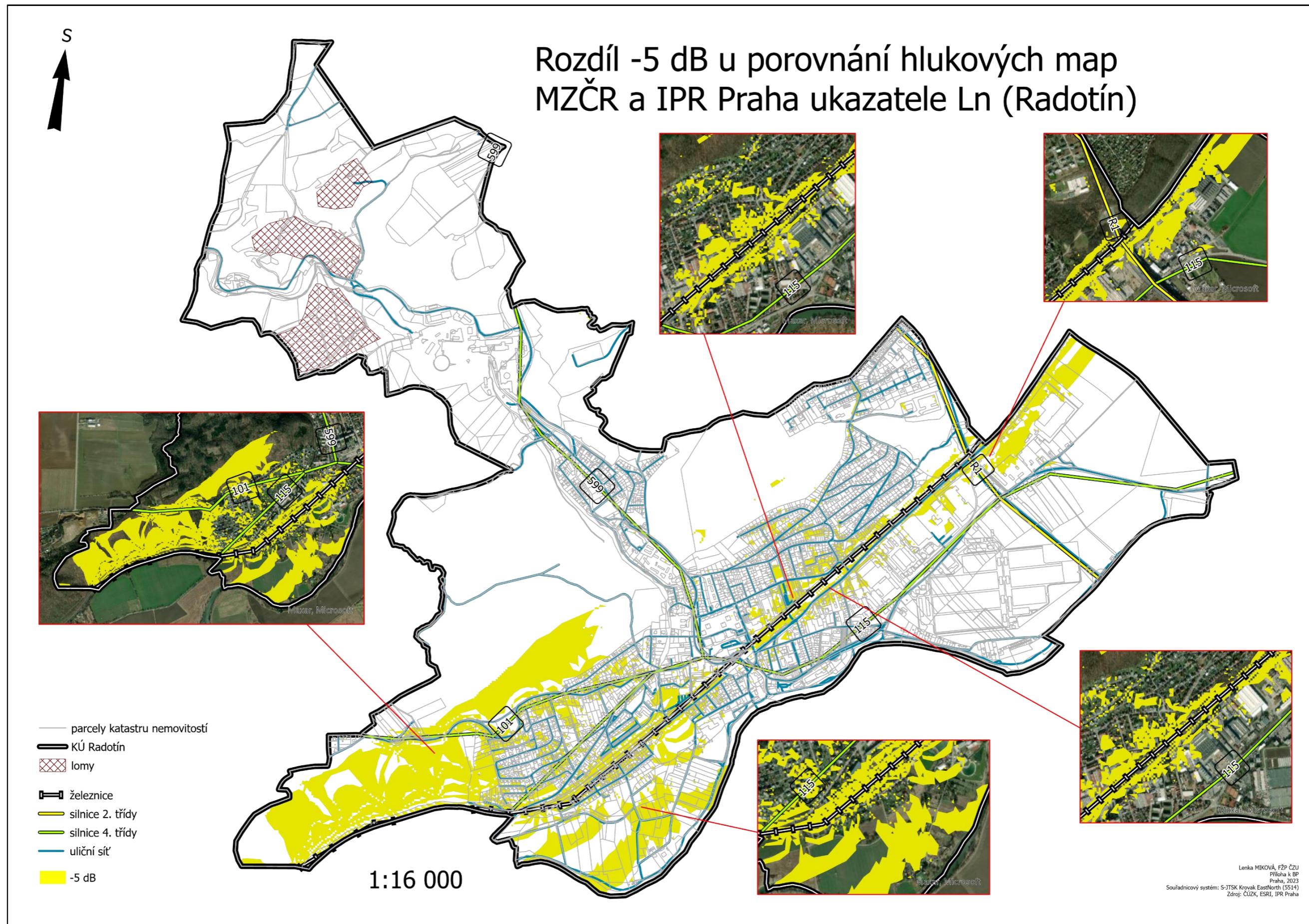
Příloha 5b: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl -20 dB až -15 dB).



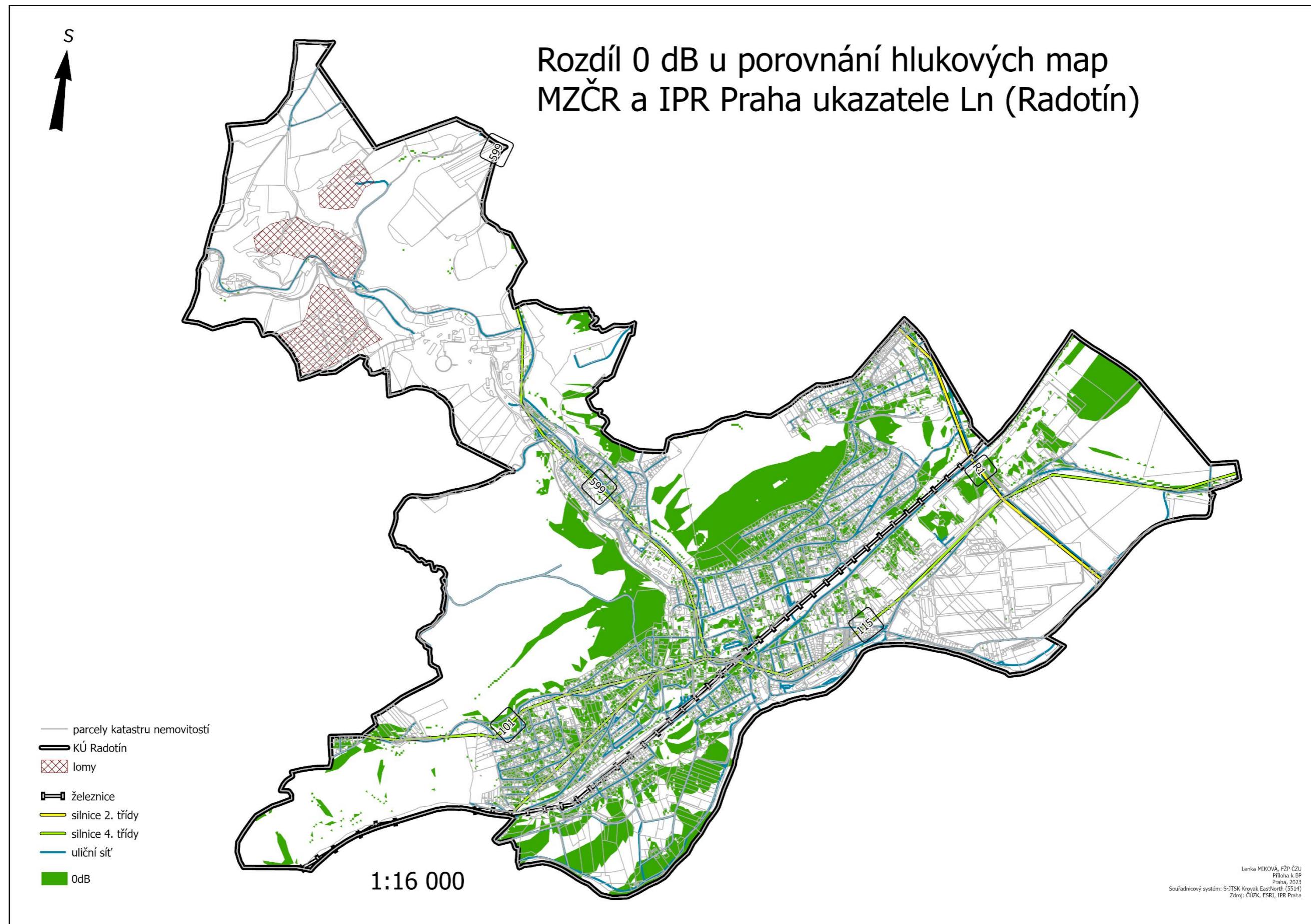
Příloha 5c: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl -10 dB).



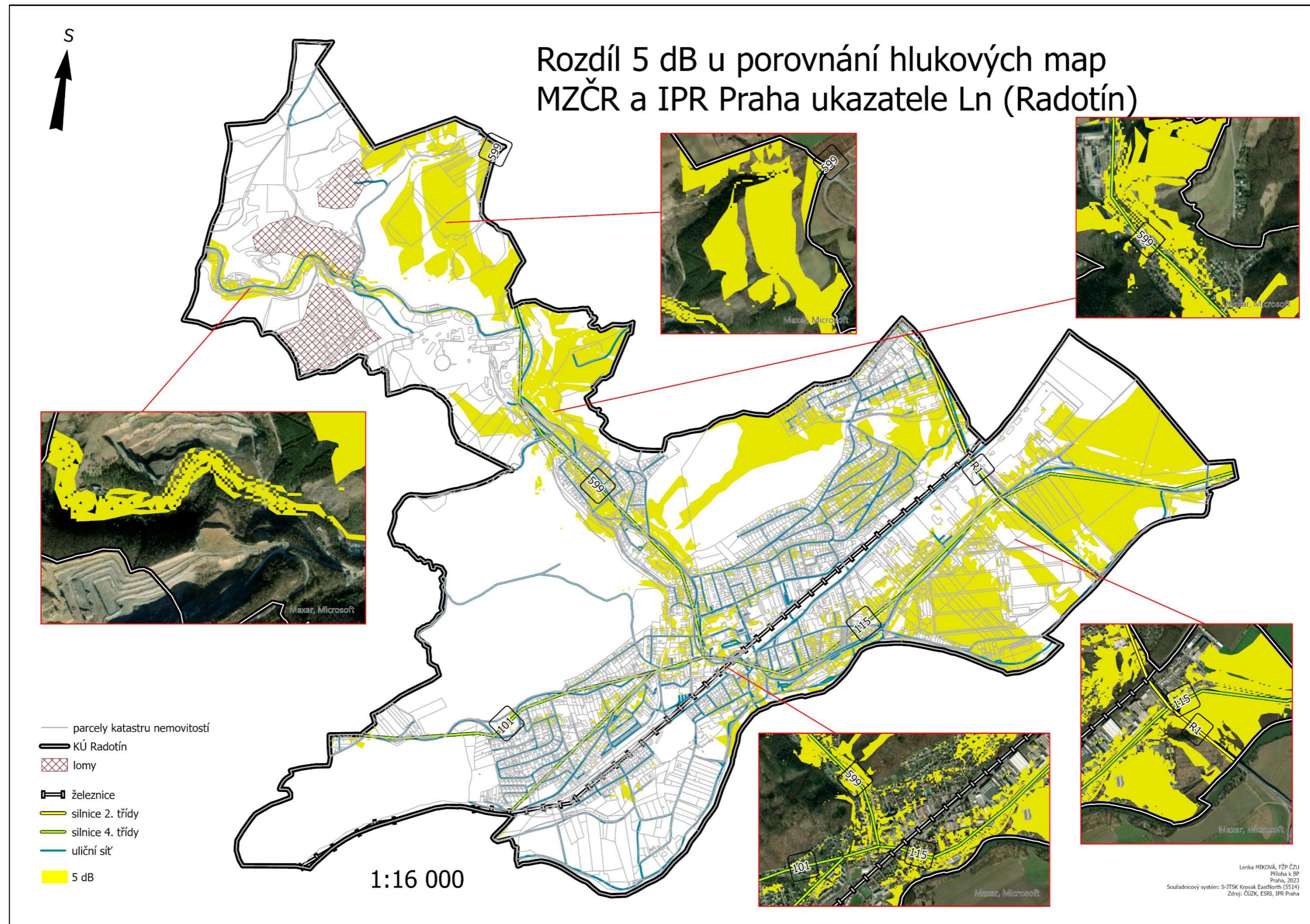
Příloha 5d: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl -5 dB).



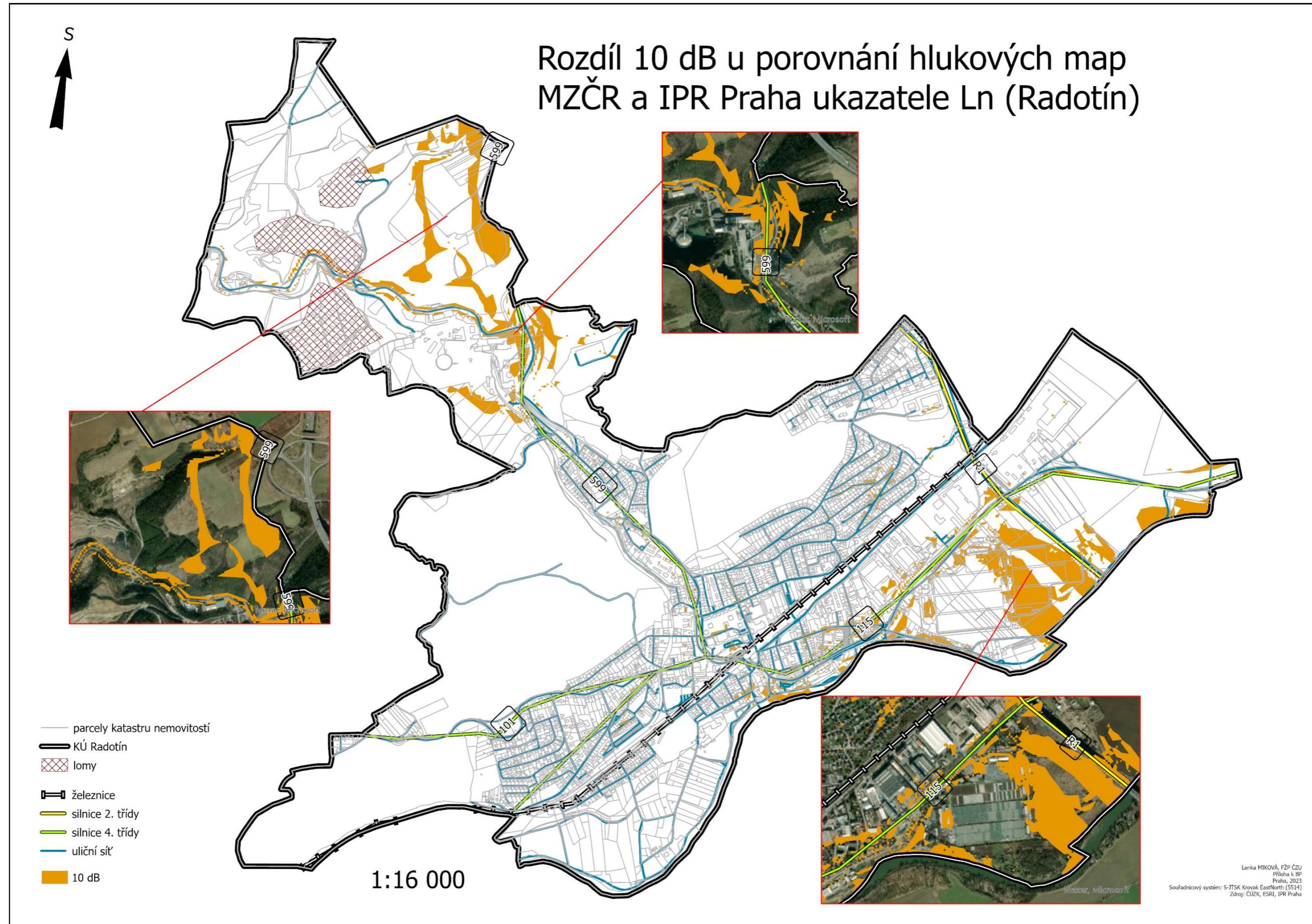
Příloha 5e: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl 0 dB).



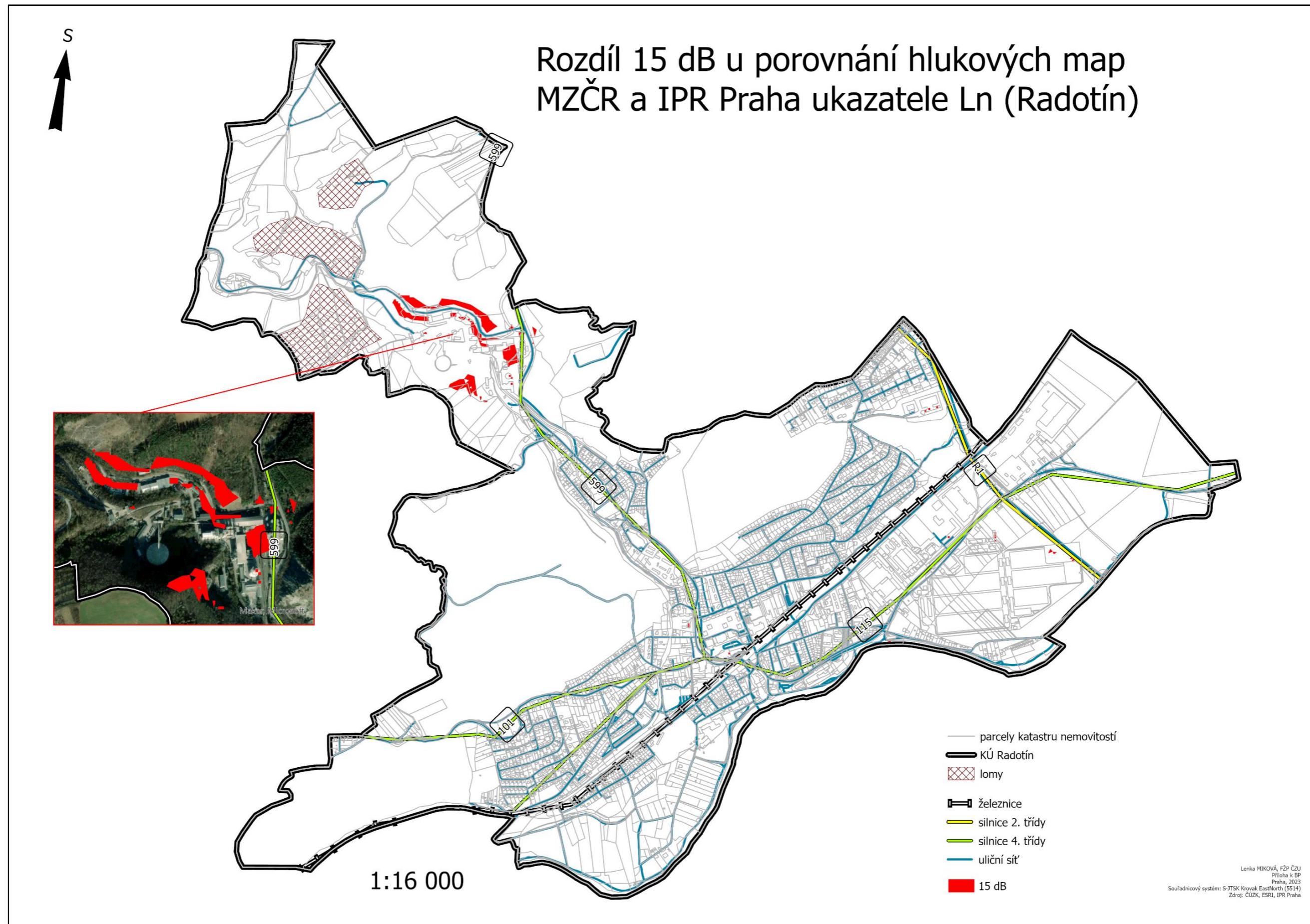
Příloha 5f: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl 5 dB).



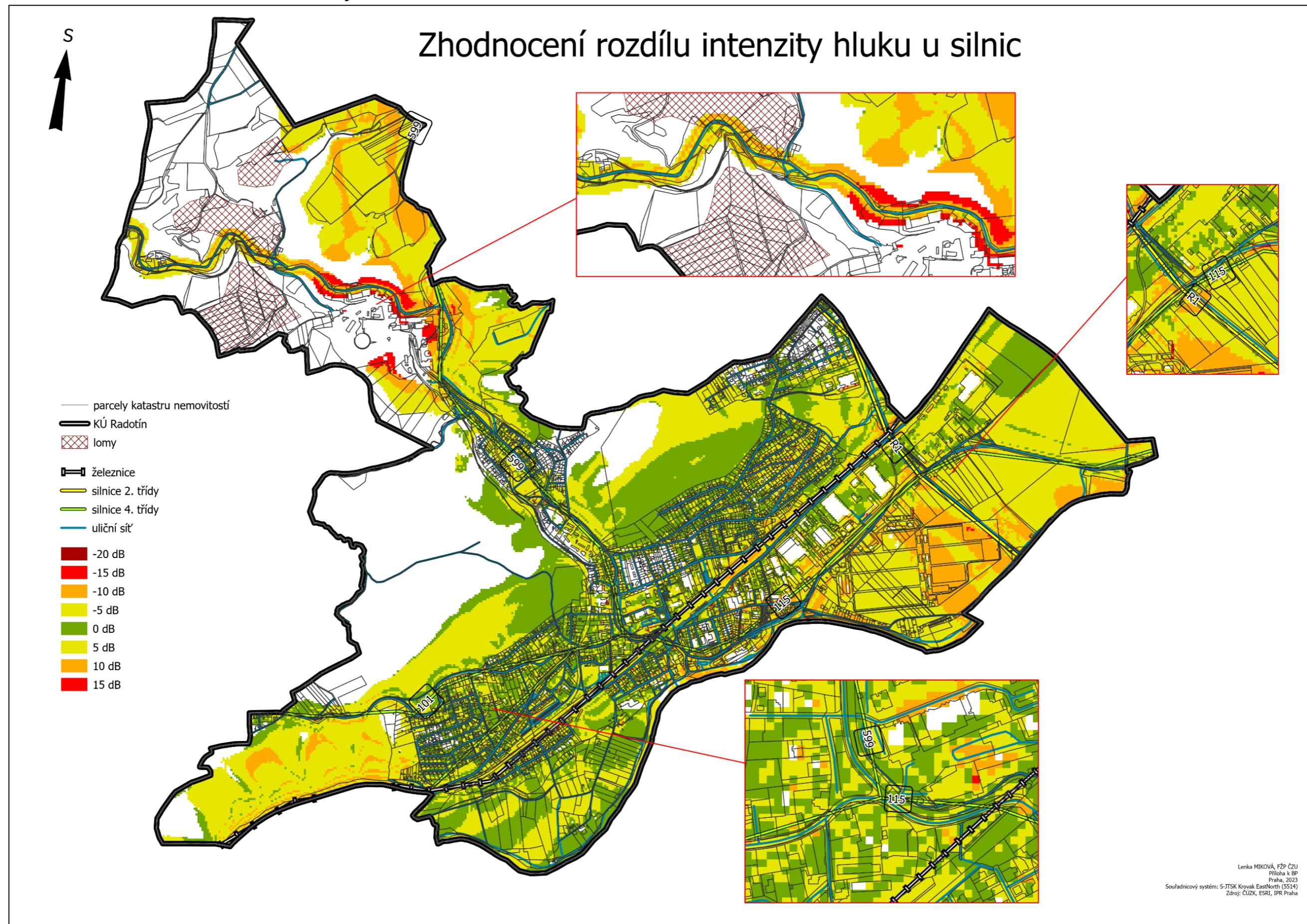
Příloha 5g: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl 10 dB).



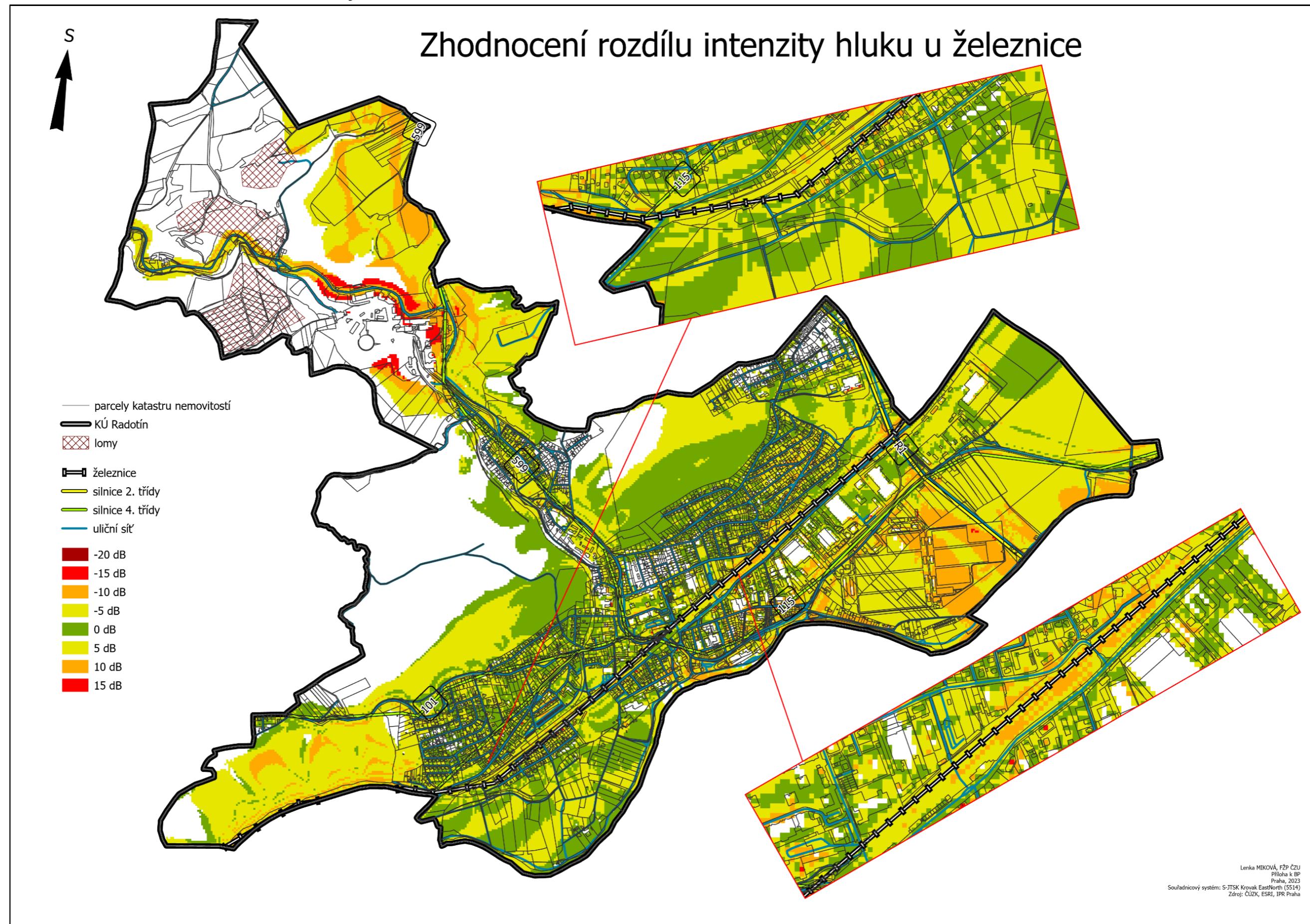
Příloha 5h: Rozdíly u porovnání hlukových map MZČR a IPR pro ukazatel L_n (rozdíl 15 dB).



Příloha 6a: Zhodnocení rozdílu intenzity hluku u silnic.



Příloha 6b: Zhodnocení rozdílu intenzity hluku u železnice.



Příloha 6c: Zhodnocení rozdílu intenzity hluku u zastavěných oblastí.

