

Biodiversity GIS Training

Interactive Mapping Exercise

August 2013

Exercise 1

SITUATION

You are performing an environmental assessment in the Kopanong Local Municipality.

QUESTIONS

Are there any protected areas in this municipality? If you answered yes, list the names of each protected area.

Are there any threatened ecosystems in this municipality? If you answered yes, list the names and status of each threatened ecosystem.

HINT

Use the Municipal Biodiversity Summaries and Plan Index tool.

Exercise 2

SITUATION

You have been working with the “NBA benthic and coastal habitat map” dataset. After using the identify tool you notice the following fields:

- Topozone
- Toposubz
- Expgeol
- Biogeog

What do these fields mean?

HINTS

Refer to the associated metadata sheet found on the map overview page.

Exercise 3

SITUATION

You are a volunteer for the Reef Atlas Project. You have found and recorded the x, y coordinates of various reefs. Your job will be to upload these coordinates to the BGIS website and create a map.

HINTS

The file has been saved on your C drive as: **reefs.dbf**. Open the file in excel and scrutinize the information. See if there are any coordinates that don't make sense.

Convert the *.dbf file to *.csv format.

Open the benthic and coastal habitat threat status interactive map.

Use the "Add CSV file" tool to upload this information to the BGIS website.

Zoom in and out. Does your information make sense?

Use the "print map" tool to create a low resolution jpeg of your map.

Exercise 4

SITUATION

You have been hired by WeLoveToMine Corporation to determine the biodiversity status of a particular site. The mining company would like to mine the area for diamonds.

The details of the site are:

Coordinates of the four corners of the site

Latitude	Longitude
-34.8157	20.5408
-34.8340	20.9559
-35.0509	20.9810
-35.0350	20.9810

HINTS

Copy and paste the coordinates into excel, save *.csv file.

Open the Mining and Biodiversity Guidelines interactive map. (Go to BGIS> Maps > National> Mining Guidelines - 2013 > Mining and biodiversity guidelines)

Use the "Add CSV file" tool.

Use one of the drawing tools to connect the four coordinates and create the outline of the mining site.

If there are any sensitive features on your mining site, add the following text to your map, "Not suitable for mining". If there aren't any sensitive features, add the following text, "Mining may proceed."

Create a map with a legend of your assessment.

Refer to the associated guideline document for an explanation of the four mining categories.

Exercise 5

You have been hired by WeLoveToMine Corporation. The corporation has given you a shapefile indicating the location of 5 prospecting sites. Your job is to determine the threat status at each of these points.

HINTS

The file has been saved on your C drive as: **prospecting.shp**

Use the "Add Shapefile" tool. Select both the both the prospecting.shp and prospecting.prj files.

Exercise 6

SITUATION

You have been hired by TurbinesAreUs Corporation to determine the biodiversity status of a particular site. The company would like to establish a wind farm on a specific land parcel.

The details of the site are:

Central coordinates

26° 36' 16" S

25° 40' 32" E

TASK

Your job as the environmental consultant is to provide a general overview of the affected area.

- What is the main vegetation type? Is there any endemic flora associated with this vegetation type?
- Is the ecosystem status considered endangered, critically endangered or vulnerable?
- Are there any significant landscape features or rare or endangered plants in the area? Critical Biodiversity Areas? Ecological Supporting Areas?
- What is the condition of the river or wetlands (if present)?
- Share your assessment of the landscape with the rest of the class.

HINTS

Start by opening an interactive map. (Go to the BGIS home page, click on the maps tab and then select one map from the dropdown list).

Find the land parcel.

Switch on the vegetation base map and use the identify tool to determine vegetation type and associated pdf description.

Switch various layers on and off to determine the biodiversity status of the land.

If there are any sensitive features on your land parcel, add the following text on your map, "Not suitable for wind farming". If there aren't any sensitive features, add the following text, "Wind farming may proceed."

Save your map.

Create a hardcopy map (low resolution) showing the biodiversity status of the land parcel.