Accessible Nature - Capacity

Accessible Nature occurs where greenspace or semi-natural habitats give health and well being benefits to people through regular access for walking, cycling or jogging.



METHODS: Accessible Nature Capacity values per habitat are inferred from available literature. Values are estimates of "perceived naturalness" from public surveys, via photo interpretation. High values represent areas where habitats have a higher "perceived naturalness" score at both the site, and local, scale. Therefore larger continuous blocks of more natural habitat types will have higher scores than smaller isolated sites of the same habitat type. Default local search neighbourhood values are used, but can be modified by the user. (Default = 300 m)

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3) Date: 04/07/2017

- 20 40
- **—** 1 20



Air Purification - Capacity

Air Purification occurs where habitats help to intercept or absorb airborne pollutants produced from road traffic.



METHODS: Air Purification values per habitat are inferred from available literature. Values are estimates of potential Air Purification ability per habitat type. High values represent areas where habitats have a predicted higher capacity to intercept or absorb airborne pollutants. This is based on habitat type and structure. Habitat age and management are not included. Values are calculated within a local search neighbourhood (Default = 200 m). Habitat capacity is assumed to be cummulative, scores are summed within the neighbourhood. Both higher scoring habitats, and wider / larger areas of habitat lead to larger mapped capacity scores.

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3) Date: 04/07/2017

Carbon Storage - Capacity

Carbon storage occurs in vegetation and soil



METHOD: This toolkit maps the estimated amount of carbon stored in different ecosystem or habitat types. Carbon storage values are taken from available literature. Values are estimates of typical storage levels per habitat type. Soil type is assumed to be typical of the mapped habitat. Soil types are not separately mapped from soil data. Habitat age and management is not considered. High values represent high carbon storage levels per unit area. Carbon storage values are calculated from the data used within the attribute link table in the BaseMap models. Carbon storage values may link to mapped habitat types at different hierarchy levels (Phase 1 Habitat, Broad Habitat or Habitat Class)

LIMITATIONS: Care should be taken in map interpretation for certain habitats where it is known that certain soil types occur, such as deep peat, or where plantation woodlands or improved grasslands occur on deep peat. In such situations the capacity will reflect the current dominant habitat type. Running an alternative scenario analysis with such habitat restored or converted to blanket bog or marshy grassland would show the higher storage capacity in such habitats. EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3) Date: 04/07/2017







Capacity Scores 80 - 100 60 - 80 40 - 60

20 - 40 1 - 20





Education and Knowledge - Capacity

Areas where young people can benefit from the education and knowledge opportunities of diverse semi-natural habitats.



METHODS: Education and knowledge capacity is mapped by illustrating the number of broad habitat types that occur in a nearby local area (5 mins walk / 300 m). This map reflects the range of habitat types that are available in a local area for formal or informal study. Areas with a mix of habitats are assumed to offer opportunities for study, reflection and knowledge. The "unrestricted" capacity is shown, for areas which are likely to be accessed by the public. Thresholds are applied to limit the area of mapped capacity. Defaults are applied, but can be varied with custom settings. Local search distance = 300 m, Minimum education site size = 5,000 m (0.5 ha), Minimum number of Broad Habitats present = 2

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3) Date: 04/07/2017

Green Travel routes are linear travel networks with a high cover of green infrastructure where people may benefit from a safer, calmer or more aesthetically pleasing travel route.



METHODS: This map reflects how "natural" habitat types are along linear travel networks. The model uses perceived naturalness scores. Routes are identified from Sustrans cycle routes, Public footpaths /Core paths and all pavements and paths mapped by OS MasterMap data. Informal footpaths and any paths not digitised within these data will not be idenified on the map. In rare cases paths and pavements will be mapped within private estates or industrial areas where no public access is permitted. Thresholds are applied to limit the area of mapped capacity. Defaults are applied, but can be varied with custom settings. Defaults are: Minimum linear route length = 2,000 m, Minimum area of travel route and buffer =

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.





(version 3.3)

1:43,000

2 Km



Local Climate Regulation - Capacity

Local climate regulation reflects the ability of different ecosystems and habitats to absorb or intercept sunlight and reflected heat, controlling local temperatures & reducing the urban heat island effect



Ν

0

1:43,000

METHODS: Local climate regulation values per ecosystem / habitat are inferred from available literature. These are based on the area coverage of woodland habitats. Habitat age and management is not considered. Thresholds are applied to limit the area of mapped capacity. Defaults are applied, but can be varied with custom settings. Defaults: Local search distance = 200m

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.





(version 3.3)

40 - 60 20 - 40 1 - 20

2 Km



Noise Regulation - Capacity

Noise regulation capacity reflects the ability of different ecosystems and habitats to absorb noise pollution.



0

1:43,000

2 Km

METHODS: Noise regulation values per ecosystem / habitat are inferred from available literature. These are estimated typical values. Habitat age and management is not considered. Analysis is conducted at short and local scales to give capacity scores based on habitat type and patch size. Default short scale distance = 30 m. Default local scale distance = 100 m

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3)

40 - 60 20 - 40 1 - 20



Pollination - Capacity

Pollination capacity reflects the ability of different ecosystems to support wild pollinators, using an estimate of likely visitation by pollinators.



METHODS: Habitat types such as grassland and linear and edge habitats are identified that are likely to support wild pollinators. Distance from pollinator habitat is used to indicate the potential visitation likelihood by wild pollinators. A maximum travel distance of ~700 m is used within the mapping. Beyond this distance from a pollinator source habitat there is expected to be no capacity for pollination. Edge habitat is identified as 20 m into woodland habitats.

LIMITATIONS: The method used only considers habitat type and distance. No information on habitat area or habitat quality is included. The presence of any large areas of "unknown" or "unclassified" habitats in the BaseMap will have low capacity in this map. EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3)

- 20 40

1:43,000

— 1 - 20



Water Purification - Capacity

Areas where vegetation may help to purify water and reduce pollution impacts before reaching watercourses.



0

1:43,000

METHODS: Water Purification values per ecosystem are inferred from available literature, based on surface roughness and slope type. Habitat age and management is not considered.

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



(version 3.3) Date: 04/07/2017

- ____ 40 60
- ____ 20 40

2 Km

1 - 20

