

Habitat_Evaluation_Model



Tags

Habitat Evaluation Model, HEM, Conservation, MSCP, target species, indicator species, biodiversity

Summary:

To accomplish stated MSCP biological objectives, a model was developed for prioritizing critical biological resource areas within the 566,000-acre study area in southwestern San Diego County. In the absence of adequate and systematically-collected biological data for the entire study area, the model uses biological and physical data relating to the potential presence of 93 target species (listed, rare, and/or indicator species) and to factors that contribute to high biodiversity. Four habitat evaluation procedures were performed, using a Geographic Information System (GIS) (Figure 4-3). The first procedure identifies key habitat areas for California gnatcatchers by categorizing coastal sage scrub with regard to patch size, elevational distribution, and slope gradient. The second procedure evaluates areas with rare habitats, high species, and species proposed for listing (excluding the gnatcatcher, which is addressed in the first procedure). The fourth analysis identifies potential wildlife corridors.

Feature Type: Polygon

Number of Records: 149098

Publication Date: 2008-06-18

Date of Data (Temporal Period Extent): 2008-06-18

Extent: San Diego County

Extent in Longitude Latitude

North 33.511674
West -117.597988 **East** -116.080068
South 32.530161

Extent in the item's coordinate system

North 2129804.100047
West 6150763.740027 **East** 6613463.740005
South 1775304.099867

Description:

The Habitat Evaluation Model is designed to give a composite assessment of numerous environmental variables indicating the relative sensitivity or proxy of diversity for an area of land. Because the majority of conservation in the USofA is legislated and designed around individual species recovery or protection, with relative small amounts of attention being paid to habitat values, this model in many areas bridges the gap between individual species conservation goals and the conservation goals of many sensitive species and subsequently functional parts of ecosystems. See the object model for a heuristic of the model inputs. This was originally raster based with 100ft cells that has since been dissolved and converted into a ArcINFO cover and shapefile.

Geoprocessing Methodology: This entry explains the process behind joining the south county habitat evaluation model (HEM) results with the north county and east county HEM results. Because there is some overlap, it was necessary to erase some of one coverage prior to merging the two datasets. Final joined coverage name: /projects/mscp/HEM/hem_joindis The ERASE command was used to clip out the overlap between the two coverages. It was determined that the north county HEM was more robust therefore, it was used to erase the overlap from the south county HEM coverage so that the data from the north county HEM is represented in the overlap areas. Disparity between model result classes forced a generalization of the two agricultural classes in the north county HEM. In the resultant merged datasets the two agricultural classes (intensive and extensive agriculture) were aggregated into one agricultural class so that it would match that of the south county HEM. The original north county HEM data should be used for any analysis. After applying the ERASE command, the two coverages were joined using the MAPJOIN command. It was chosen because it recreates topology in the output coverage. In order to simplify the output coverage the DISSOLVE command was applied using the item "desc_mrg" as the dissolve item so that adjacent polygons with the same class would be dissolved.

Credits:

County of San Diego, Planning & Development Services, LUEG-GIS Service

Use Limitation:

None - However consider the model results serve as a tool for use in regional planning and for prioritizing lands for conservation and management. Ideally, development should be discouraged in the Very High Values areas and minimized in the High Values areas. However, the model results are not intended to replace site-specific field survey data and evaluations. Rather, they provide a regional perspective for site-specific biological assessments. Site-specific verification of biological resources (or lack of biological resources) is needed before land use decisions for sites are finalized.

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Topics and Keywords

Topic Categories: Environment Planning Cadastral

Themes:

Habitat Evaluation Model, HEM, Conservation, MSCP, target species, indicator species, biodiversity, environment

Places:

County of San Diego, California

Resource Details:

Status: Completed
Type: Vector
Update Frequency: Not Planned
Next Update: Not specified

Spatial Reference System:

Type: Projected
Reference: GCS_North_American_1983
Projection: NAD_1983_StatePlane_California_VI_FIPS_0406_Feet
Identifier: 2230
Codespace: EPSG
Version: 5.3(9.0.0)

Contacts:**Point of Contact**

Gary Ross, Senior GIS Analyst
Planning & Development Services, LUEG-GIS Service
5510 Overland Ave, Suite 310
San Diego, California. 92123

Gary.Ross@sdcounty.ca.gov
(858) 248-5629

Distributor

SanGIS
510 Overland Ave, Suite 230
San Diego, California. 921213
SanGIS
webmaster@sangis.org
Phone: (858) 874-7000

Distribution Ordering Instructions:

Data can be downloaded in shapefile format from the SanGIS Data Warehouse at <https://rdw.sandag.org/Account/Login>

Refer to SanGIS website (www.sangis.org) to obtain further information on mapping and data extraction services available from SanGIS.

Fields:

Overview:

Potential presence of 93 target species (listed, rare, and/or indicator species) and to factors that contribute to high biodiversity.

GRIDCODE is Coded Value of DESC_

DESC is Description relating to the potential presence of 93 target species (listed, rare, and/or indicator species) and to factors that contribute to high biodiversity.

__FID (OID)

Internal feature number.

Shape (Geometry)

Feature geometry.

ID (Double)

Internal unique number

GRIDCODE (Double)

GRIDCODE is Coded Value of DESC_ (description field) from original raster analysis relating to the potential presence of 93 target species (listed, rare, and/or indicator species) and to factors that contribute to high biodiversity. Coding preserved following dissolve and Shapefile conversion.

0, No Data
 1, Developed
 2, Agriculture
 3, Low
 4, Moderate
 5, High
 6, Very High

DESC_ (String)

DESC is Description relating to the potential presence of 93 target species (listed, rare, and/or indicator species) and to factors that contribute to high biodiversity. GRIDCODE is the coded value of these descriptions

0, No Data
 1, Developed
 2, Agriculture
 3, Low
 4, Moderate
 5, High
 6, Very High

Shape_Area (Double)

Area of feature in internal units squared.

SHAPE_LEN (Double)

Metadata Last Update: 2023-02-13

Regional GIS Data Warehouse (RGDW) Publication Stylesheet 1.4