Chihuahuan Desert Rapid Ecoregional Assessment

Detailed Modeling Guide Document

Aquatic-Wetland Ecological System

2018

Background

The purpose of this document, and all REA detailed modeling guide documents, is to provide a GIS person with the background necessary to understand, answer questions, re-run and modify models used within this REA. All known information and experience related to performing quality control and re-running the models for this section of this REA are documented here. BLM contact information is below.

Toolbox Title: CHD_CE_Aquatic.tbx

Model Package Description: Esri 10.4 geoprocessing models and documentation relating to the Aquatic Toolbox within the BLM 2012 Chihuahuan Desert (CHD) Rapid Ecoregional Assessment (REA). This model package contains 7 models.

Overview

A group of spatial models that combines National Hydrography Datasets (flowlines and waterbodies) for NM and TX and extracts data for the Chihuahuan Desert REA Analysis Extent, calculates the current distribution of Large River-Floodplain Systems for the Chihuahuan Desert REA, assesses the current distribution of Lowland- and Montane-Headwater Stream Systems for the Chihuahuan Desert REA, analyzes the current distribution of Playa and Playa Lakes for the Chihuahuan Desert REA, estimates the current distribution of Springs and Emergent Wetlands for the Chihuahuan Desert REA, evaluates the current distribution of Springs and Emergent Wetlands for the Chihuahuan Desert REA, and determines the distribution of mountain and riparian recharge zones for the Chihuahuan Desert REA.

Toolbox Contents

Model: CHD_AE_A_NHDPrep
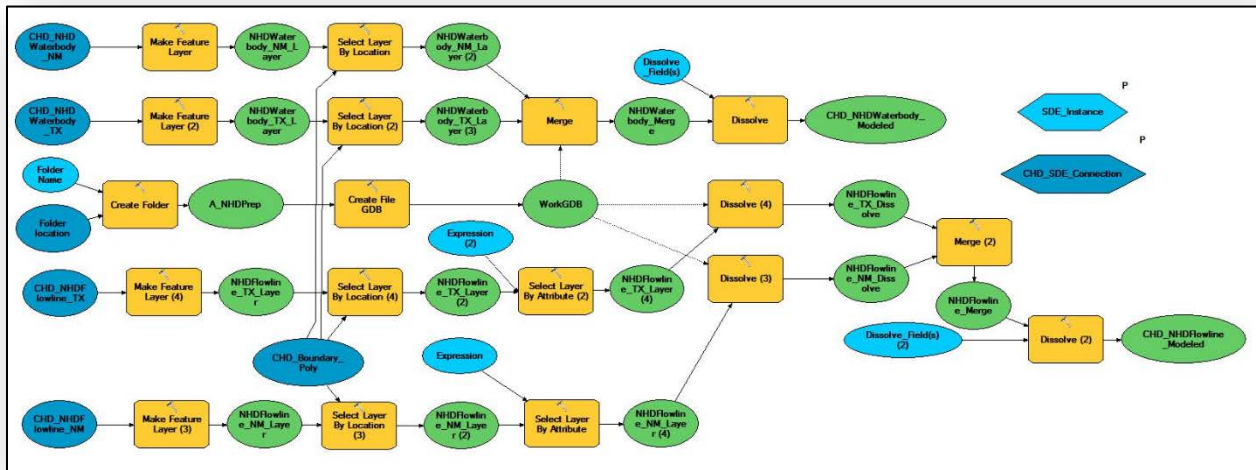
Description

A geoprocessing model that combines National Hydrography Datasets (flowlines and waterbodies) for NM and TX and extracts data for the Chihuahuan Desert REA Analysis Extent.

Model Details/Notes:

- Temporal Reference: Current
- Associated Management Questions: A & B
- Custom scripting used within this model: No
- Sensitive data involved in the model: No
- Dependencies: This model does not depend on any derived intermediates to run. This model creates intermediates necessary for other models to be able to run.
- Modeling Environment: Esri Modelbuilder
- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.
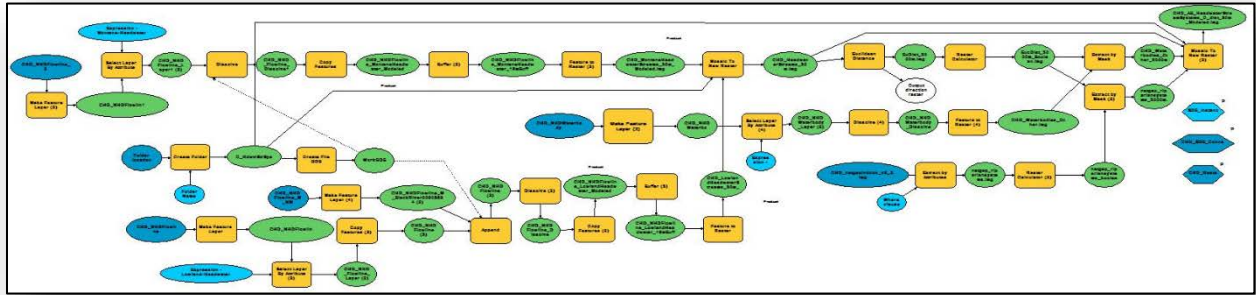
Model: CHD_AE_B_LargeRiverFloodplainSystems
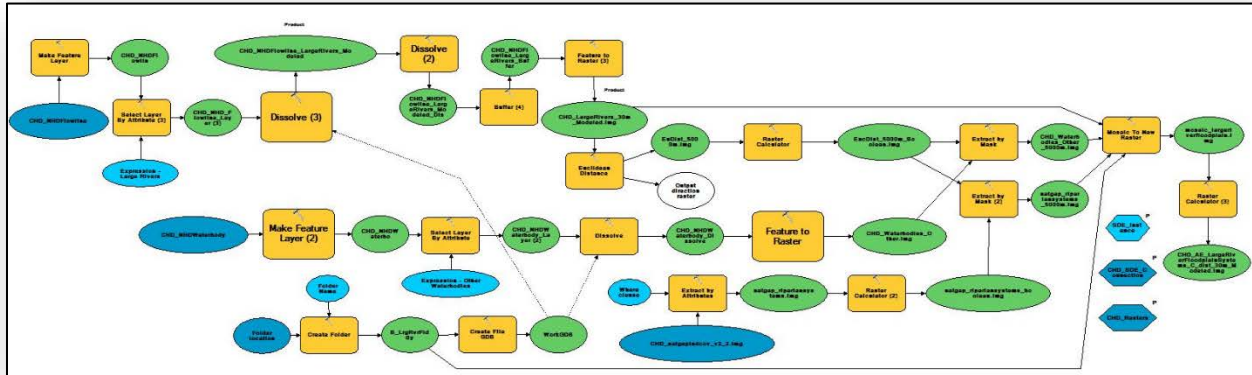
Description

A geoprocessing model that estimates the current distribution of Large River-Floodplain Systems for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Current

- Associated Management Questions: A

- Custom scripting used within this model: No

- Sensitive data involved in the model: No

- Dependencies: This model does depend on derived intermediates to run.

- Modeling Environment: Esri Modelbuilder

- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.
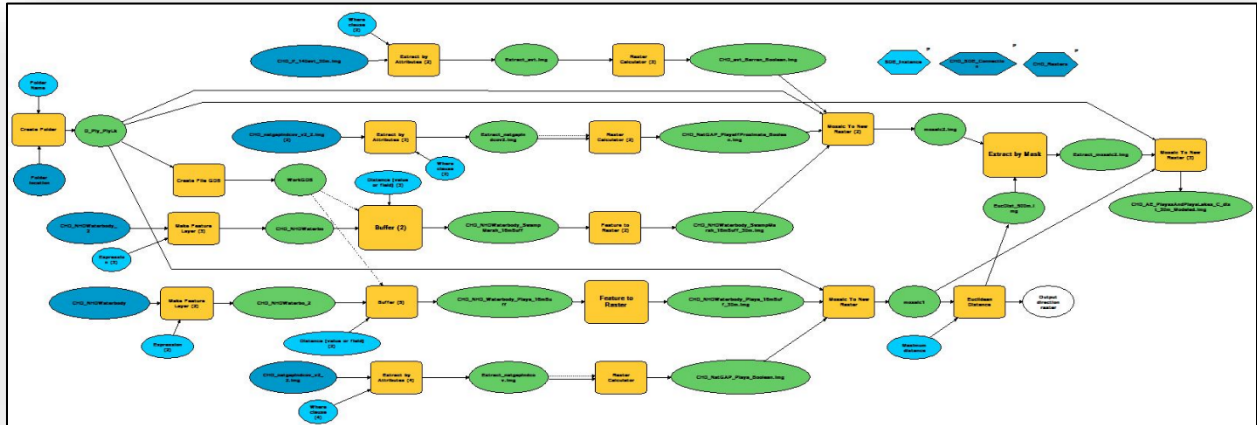
Model: CHD_AE_C_HeadwaterStreamSystems

Description

A geoprocessing model that estimates the current distribution of Lowland- and Montane-Headwater Stream Systems for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Current
- Associated Management Questions: A
- Custom scripting used within this model: No
- Sensitive data involved in the model: No
- Dependencies: This model does depend on derived intermediates to run.
- Modeling Environment: Esri Modelbuilder
- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.
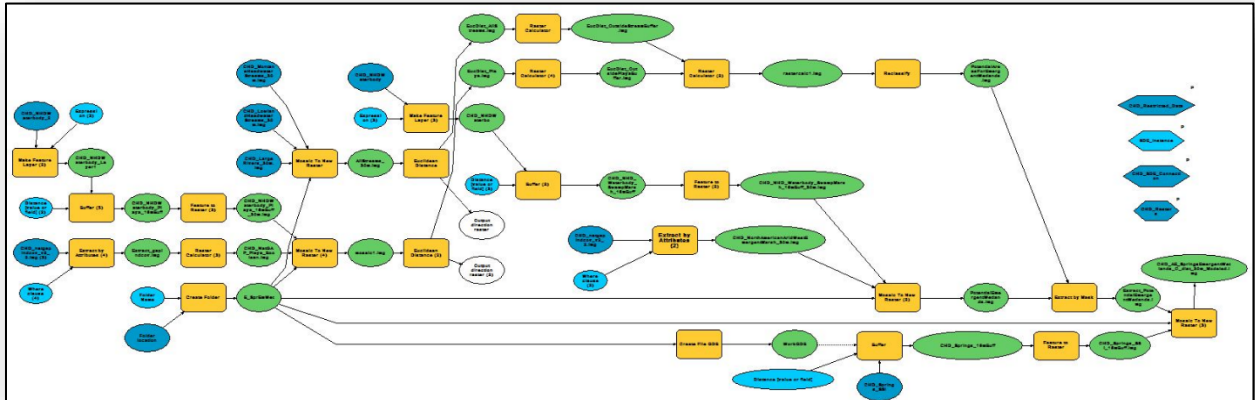
Model: CHD_AE_D_PlayaAndPlayaLakes

Description

A geoprocessing model that estimates the current distribution of Playa and Playa Lakes for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Current
- Associated Management Questions: A
- Custom scripting used within this model: No
- Sensitive data involved in the model: No
- Dependencies: This model does depend on any derived intermediates to run.
- Modeling Environment: Esri Modelbuilder
- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.

Model: CHD_AE_E_SpringsEmergentWetlands

Description

A geoprocessing model that estimates the current distribution of Springs and Emergent Wetlands for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Current

- Associated Management Questions: A

- Custom scripting used within this model: No

- Sensitive data involved in the model: Yes

- Dependencies: This model does depend on any derived intermediates to run.

- Modeling Environment: Esri Modelbuilder

- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.

Model: CHD_AE_F_RiparianHabitatChange
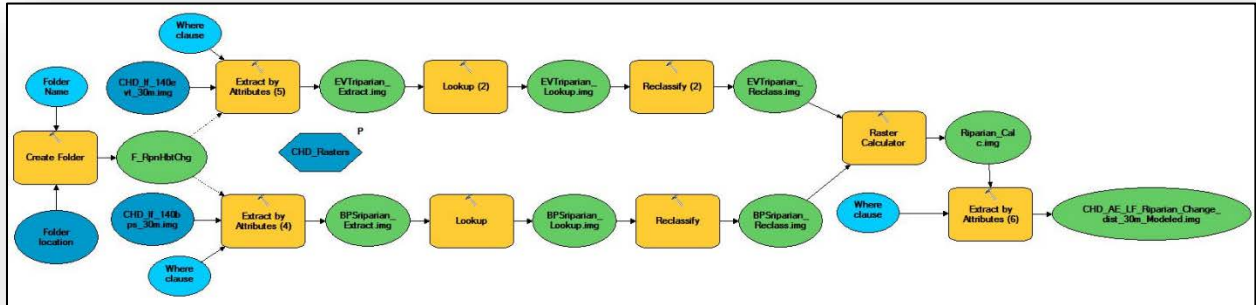
Description

A geoprocessing model that compares the historic and current distribution of riparian habitat for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Historic & Current
- Associated Management Questions: B
- Custom scripting used within this model: No
- Sensitive data involved in the model: No
- Dependencies: This model does not depend on any derived intermediates to run.
- Modeling Environment: Esri Modelbuilder
- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.

Model: CHD_AE_G_RechargeZones
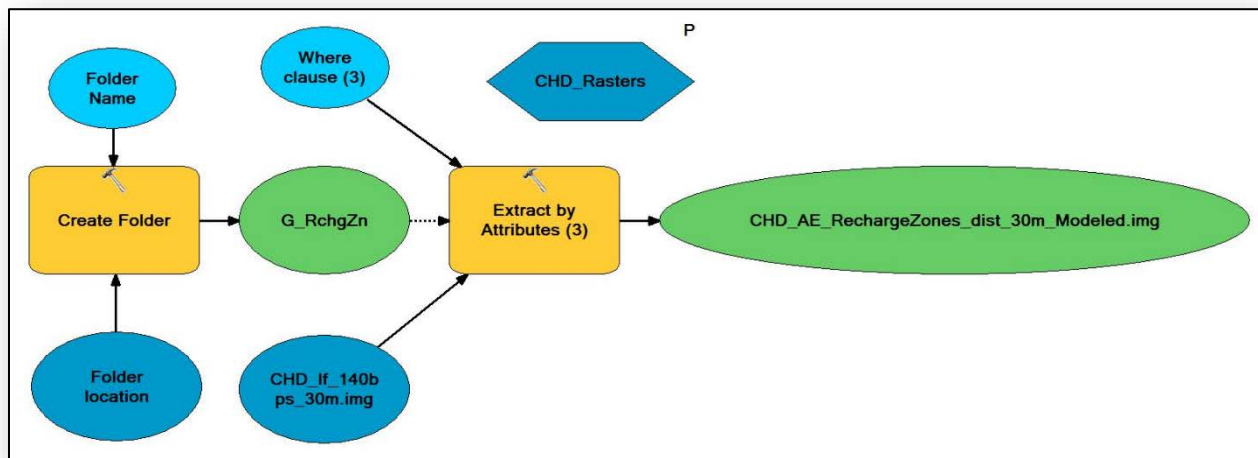
Description

A geoprocessing model that estimates the distribution of mountain and riparian recharge zones for the Chihuahuan Desert REA.

Model Details/Notes:

- Temporal Reference: Current
- Associated Management Questions: 9
- Custom scripting used within this model: No
- Sensitive data involved in the model: No
- Dependencies: This model does not depend on any derived intermediates to run.
- Modeling Environment: Esri Modelbuilder
- This model utilizes variables (replace the path shortcuts to input/intermediate/output datasets using the hexagon variables.) This model has been re-run, edited, and verified by the BLM NOC REA data team.

Contacts:

Bureau of Land Management, Resource Programs Data Coordinator, OC-530;
blm_oc_rea_data_portal_feedback_team@blm.gov