Coho watershed hydrologic resilience dataset

A Data Management Plan created using DMPTool

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Template: U.S. Geological Survey (USGS)

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1. Project and Contact Information

USGS Pacific Coastal Fog Project: Mapping hydrologic resilience of coho watersheds to climate change

Western Geographic Science Center

Map hydrologic resilience for Central California Coast Coho Salmon Recovery Plan watersheds by combining two datasets: fog and low cloud cover and baseflow. Using the derived maps conduct hydrologic resilience assessments for the 28 coho populations in the 299 subwatersheds prioritized for restoration and abatement activies under the Recovery Plan.

2016-09-01

2018-02-01

http://www.westcoast.fisheries.noaa.gov/protected_species/salmon_steelhead/salmon_and_steelhead_listings/coho/central_california_coast_coho.html

Alicia Torregrosa

Question not answered.

2. Plan and Acquire

The two datasets used to derive the hydrologic resilience metrics are both available at the California Climate Commons: fog and low cloud cover (http://climate.calcommons.org/datasets/summertime-fog) and subsurface recharge (http://climate.calcommons.org/dataset/2014-CA-BCM)

The thematic subsets of data that will be used from the(http://climate.calcommons.org/datasets/summertime-fog) are the decadal average fog and low cloud cover data the coeffiecient of variation. The thematic subset of the (http://climate.calcommons.org/dataset/2014-CA-BCM) are the historic 1981- 2010 and future 2011- 2069 recharge under 4 global climate models (MIROC, GSM. GFDL, and CSM) and temperature for the same periods and from same models. The spatial subset for all thematic subsets is northern CA (from Oregon border to Santa Cruz). Analyses use the shapefile provided by http://www.westcoast.fisheries.noaa.gov

n/a

2 Megabytes

static

yes

3. Describe/Metadata and Manage Quality

One new dataset will be produced that is a merger of 3 subsets as described above

ArcGIS raster joined to an MS Excel spreadsheet file

The following steps are in ArcGIS 1) subwatersheds from the CCC Coho Recovery Plan Prioritization Map that have core, phase 1 or phase 2 ranks form the base layer for further analysis; 2) data from Fog and Low Cloud Cover, BCM temperature, and recharge for historic and future are joined into subwatershed attribute file; 3) analyses are conducted to summarize combinations of all data.

Metadata is embedded into the ArcGIS file as an associated xml file.

FGDC

QA/QC includes 1) assessing final subwatershed polygons to ensure slivers are not incorrectly influencing the summary results; 2) checking each summary calculation with checksum methods; and 3) submitting the final calculations. maps, and summary to technical review

4. Backup/Secure and Preserve

in-house server

backups performed in-house on RAID system and copies sent off-site to colleagues

The data are in ArcGIS format and will be uploaded to the ESRI Arc Online platform

Data will become part of the PLOS One online repository as Supplemental Information associated with the publication

The up front publishing costs, that will be paid by the USGS WGSC, will cover housing the supplemental information (e.g. GIS shapefile embedded with ancillary data).

5. Publish and Share

PLOS One website

No restrictions

N/A

Publication titled "Hydrologic resilience from summertime fog and watershed recharge: coho salmon recovery planning with an eye to the future"

On the USGS Sciencebase

When the results are published the manuscript and supplemental data will recieve a DOI.