

# Ancillary Data for OPERA Dynamic Surface Water Extent from Harmonized Landsat Sentinel-2 product (Version 1)

*This document describes the ancillary datasets required to reproduce the OPERA\_L3\_DSWX-HLS\_V1 collection and where to download them.*

## Landcover Map

**Name:** Copernicus Global Land Service Land Cover 100m (v3.0.1)

**Description:** The Copernicus Global Land Service Land Cover Layers (CLCL) collection 3 at 100m provides publicly available annual land cover classification through 23 classes at a global scale with 100 m of spatial resolution. The Landcover map is stored as a single GeoTIFF file to be used with all DSWx-HLS processing jobs.

**URL:** <https://zenodo.org/records/3939050>

## Worldcover Map

**Name:** ESA WorldCover 10m v100

**Description:** ESA WorldCover 10m. Broader land cover classes with finer spatial resolution (10m) used to refine 100m Copernicus Land Cover. The full Worldcover map is stored as a set of numerous GeoTIFF files, which may be indexed via a GDAL .VRT (Virtual Dataset) file included with the full map.

**URL:** <https://zenodo.org/records/5571936>

## Digital Elevation Model (DEM)

**Name:** Copernicus Digital Elevation Model (30m)

**Description:** The SAS uses a project-specified DEM for processing based on the Copernicus DEM 30 meters (GLO-30 DEM). The DEM is the same as prepared for The NASA-ISRO Synthetic Aperture Radar mission, referred to as the NISAR-DEM. The full DEM is stored as a set of numerous GeoTIFF files, which may be indexed via a GDAL .VRT (Virtual Dataset) file included with the DEM.

**URL:** <https://doi.org/10.5270/ESA-c5d3d65>

## **Shoreline Shapefile**

**Name:** Global Self-consistent Shoreline Database (v2.3.7)

**Description:** The SAS uses the National Oceanic and Atmospheric Administration (NOAA) Global Self-consistent, Hierarchical, High-resolution Shorelines (GSHHS) shoreline shapefile to apply an ocean masking to the DSWx-HLS WTR-1, WTR-2, WTR, BWTR, CONF, and BROWSE layers.

**URL:** <https://www.ngdc.noaa.gov/mgg/shorelines/shorelines.html>