



Karla Lake - GREECE

Flood - 18/12/2023

P04 - Flood Delineation



Cartographic Information

1:65.000 Full color A1, 300 dpi resolution

0 1.25 2.5 5 km

Grid: WGS 1984 UTM Zone 34N map coordinate system
 Tick marks: WGS 84 geographical coordinate system

Legend

- | | |
|----------------------------------|----------------------------------|
| General information | Hydrography |
| Area of Interest | Stream |
| Administrative boundaries | Reservoir |
| Municipality | River |
| Transportation | Canal |
| Highway | Estimated water depth (m) |
| Primary Road | 0.0 - 1.0 |
| Secondary Road | 1.0 - 2.0 |
| Long-distance railway | 2.0 - 3.0 |
| Airfield runway | 3.0 - 4.0 |
| Facilities | Dam |
| Dam | |

Consequences within the AOI		Unit of measurement	Total	Total in AOI
Flooded area		km ²	9815.88	9815.88
Estimated population		Number of inhabitants	~650	~8900
Transportation	Roads	km	178.49	1361
	Railways	km	0.00	18
	Airfields	ha	152.90	176.20
Facilities	Sport and recreation constructions	ha	0.00	12.92
	Dams	ha	4.23	24.35
	Constructions for mining or extraction	ha	0.00	8.51
	Power plant constructions	ha	6.21	77.00

Map Information

In September 2023, Thessaly Region, Greece, was hit by extended floods due to heavy rainfall. After three months, an area north-west of Karla lake is still flooded. The CEMS Risk and Recovery Standard has been activated to get a delineation product of the flooded area for the planning of the necessary recovery measures.

The present map shows the flood extent and water depth in the area of Karla Lake (Greece). The thematic layer has been derived from post-event satellite image by semi-automatic approach.

The calculated geometric accuracy (RMSE) is 20 m or better, from native positional accuracy of the input satellite image.

This product is based on visual interpretation of recognizable items on very high resolution optical imagery. The assessed thematic accuracy value is 97.5%, assessed following the Quality Control methodology described in the Final Report (see <https://emergency.copernicus.eu/mapping/list-of-components/EMSN184>).

Relevant date records (UTC)

Event	Date	Situation as of	Date
Event	05/09/2023	Situation as of	18/12/2023
Activation	20/12/2023	Map production	05/01/2024

Data sources

Pre-event image: Sentinel-2A/B (2023) (acquired on 31/08/2023 at 09:15 UTC, GSD 10.0 m, approx. 0.0% cloud coverage in AoI). All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

Post-event image: Sentinel-1A/B (2023) (acquired on 18/12/2023 at 04:31 UTC, GSD 10 m). All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2023), Wikimapia.org, GeoNames 2015, Global Administrative Areas (2012), refined by the producer.
 Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2015.

Digital Elevation Model: ©National Environmental Agency. All rights reserved.

Disclaimer

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Delivery formats are Layered Geospatial PDF and vector (GDB and GeoJSON).

Map produced by Ithaca released by e-GEOS (TPoC).

For the latest version of this map and related products visit <https://emergency.copernicus.eu/EMSN184>
pro-ems-riskrecoverymapping@ec.europa.eu
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