

**EMSR861 - AOI28**  
**Storm Kristin and Flooding**  
**in Central Portugal and Andalusia Spain**  
**HUELVA**

**Situation as of 03/02/2026 06:27 UTC**  
Delineation - Overview map 01



**Flooded area**  
EO-based 458.9 ha  
Model-based 2,865.3 ha

**Potentially affected population**  
~ 1,710

**Potentially Affected Built-up and Transportations**

**Railway**  
2.9 km

**Road**  
25.3 km

**Built-Up**  
22.1 ha

Estimated flood depth (m)	Facilities
Below 0.50	Long-distance pipelines or lines
0.50 to 1.00	Local pipelines or lines
1.00 to 2.00	Power plant
2.00 to 4.00	Sport and recreation constructions
<b>General Information</b>	Dump Site
Area of Interest	Water or Aquatic infrastructure
Detail map	<b>Transportation</b>
<b>Built-Up Area</b>	Residential
Non residential	Highway
School, university and research buildings	Main road
Hospital or institutional care buildings	Local road
<b>Hydrography</b>	Track
Lake, River	Railway
	Helipad

**Event:** On 26 January 2026 at 18:00, Storm Kristin is reported to have affected central Portugal (Coimbra, Castelo Branco and Peniche) and a river overflow is forecast to affect the Guadalquivir River Basin in the provinces of Granada, Jaén and Córdoba (Andalusia, Spain). The event is on-going and spreading, with storm-related damage reported to affect buildings, infrastructure, transport networks and utilities in central Portugal, and flooding expected to affect buildings and infrastructure in the Guadalquivir floodplains, including urban areas, in Andalusia. Copernicus EMS Rapid Mapping is requested to provide storm and flood extent and damage assessment emergency mapping for subsequent analyses, and to improve understanding of the Guadalquivir basin's response to this type of event.

**Data sources and analysis:** Pre-event image: Sentinel-2 ( 2025 ) ( acquired on 28/11/2025 at 11:14 UTC, resolution 10 m ).  
Post-event image: Sentinel-1 ( 2026 ) ( acquired on 03/02/2026 at 06:27 UTC, resolution 20 m ).  
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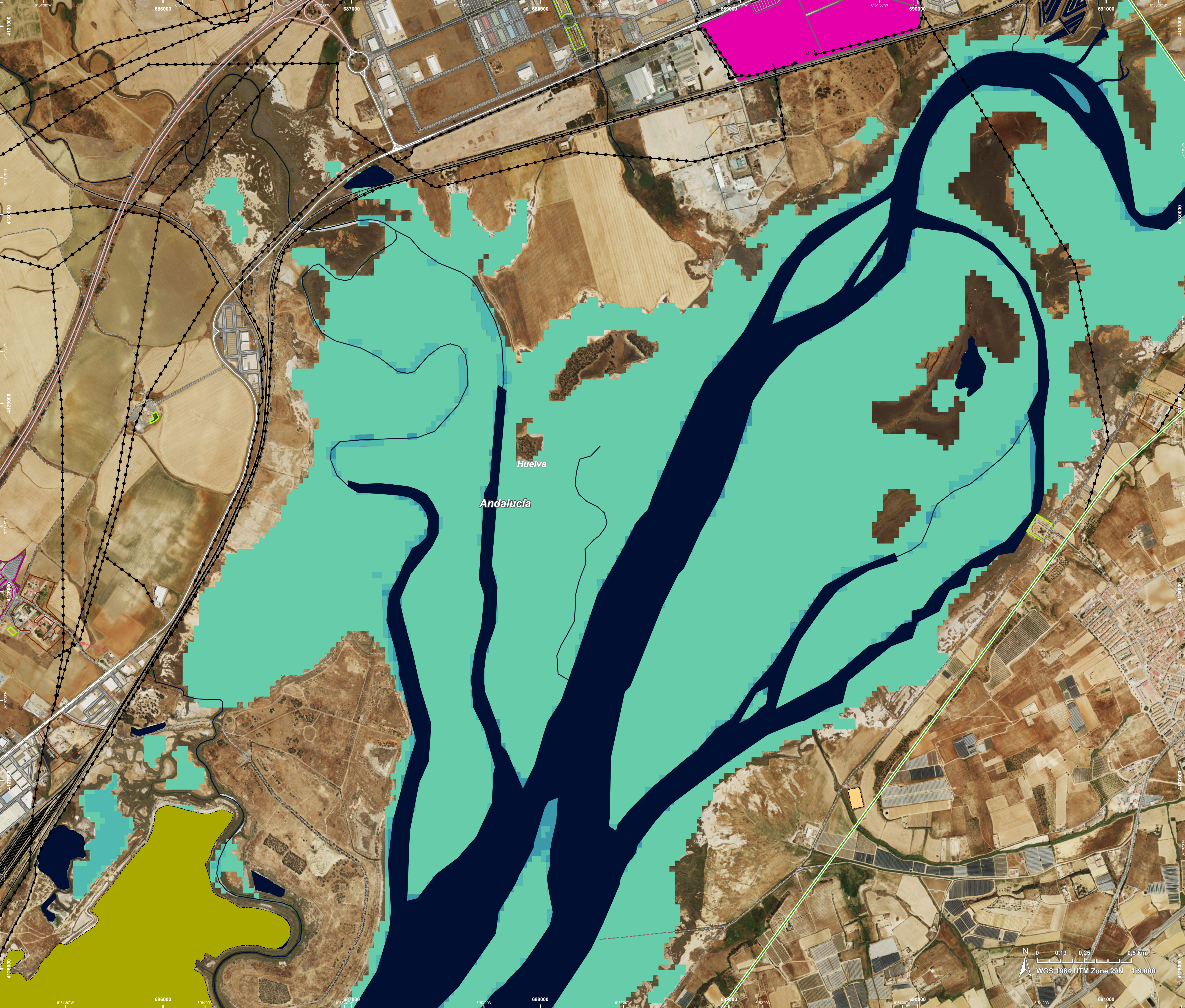
The thematic layer has been derived from post-event satellite image using a semi-automatic approach. Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

The flooded area corresponds to the water observed in the most recent satellite imagery, excluding the permanent water.  
An extrapolated flood extent is generated by integrating observed flood areas with a Digital Terrain Model (DTM). The model's accuracy and spatial coverage depend on DTM resolution and quality, enabling the prediction of potentially flooded areas in regions with limited visibility in imagery, such as urban and forested zones.

Map produced by ITHACA released by e-GEOS on the 04/03/2026.

Details on this activation and service conditions available through the QR code or at the link: <https://mapping.emergency.copernicus.eu/activations/EMSR861>





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Delineation - Detail map 02



- | Estimated flood depth (m)                | Facilities                         |
|--|------------------------------------|
| Below 0.50                               | Long-distance pipelines or lines   |
| 0.50 to 1.00                             | Local pipelines or lines           |
| 1.00 to 2.00                             | Power plant                        |
| <b>General Information</b>               | Sport and recreation constructions |
| Area of Interest                         | Dump Site                          |
| <b>Built-Up Area</b>                     | Water or Aquatic infrastructure    |
| Residential                              | <b>Transportation</b>              |
| Non residential                          | Highway                            |
| Hospital or institutional care buildings | Main road                          |
| <b>Hydrography</b>                       | Local road                         |
| Lake, River                              | Track                              |
|  | Railway                            |

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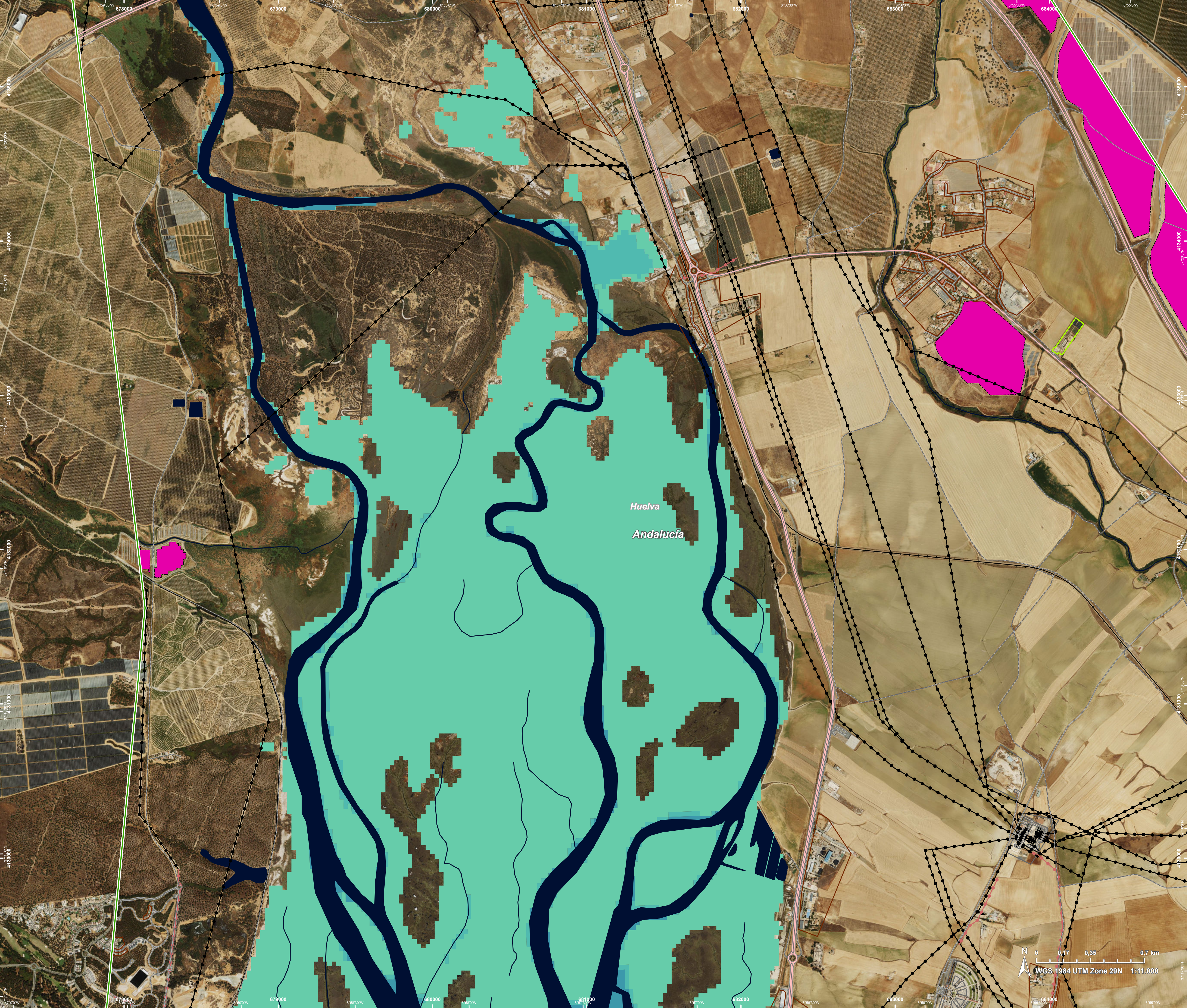
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**Situation as of 03/02/2026 06:27 UTC**  
Delineation - Detail map 03



- | Estimated flood depth (m)  | Facilities                         |
|----------------------------|------------------------------------|
| Below 0.50                 | Long-distance pipelines or lines   |
| 0.50 to 1.00               | Local pipelines or lines           |
| 1.00 to 2.00               | Power plant                        |
| <b>General Information</b> | Sport and recreation constructions |
| Area of Interest           | <b>Transportation</b>              |
| <b>Built-Up Area</b>       | Highway                            |
| Residential                | Local road                         |
| Non residential            | Track                              |
| <b>Hydrography</b>         | Railway                            |
| Lake, River                |                                    |

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Consequences within the AOI

				LATEST IMPACT		
		Unit of measurement		Imagery-based observation*	Model-based output	Imagery- and Model-based results
Crisis information	Flooded area	ha		458.9	2,865.3	3,324.2
	Maximum of all extents**	ha		458.9	2,865.3	3,324.2

				POTENTIALLY AFFECTED		TOTAL POTENTIALLY AFFECTED	Total in AOI
Estimated population		Inhabitants	No.	~ 10	~ 1,700	~ 1,710	~ 160,000
Assets	Built-up	Residential Buildings	ha	0	6.1	6.1	967.7
		Office buildings	ha	0	4.8	4.8	7.5
		Industrial buildings	ha	0.2	10.0	10.3	639.6
		School, university and research buildings	ha	0	0	0	55.8
		Hospital or institutional care buildings	ha	0	0	0	10.5
		Other non-residential buildings	ha	0	0.9	0.9	44.0
		Cemetery	ha	0	0	0	1.7
			ha	0	0	0	0.1
	Transportation	Helipad	ha	0	0	0	0.1
		Highways	km	0	3.4	3.4	134.0
		Primary Road	km	0	2.5	2.5	20.8
		Secondary Road	km	0	1.2	1.2	53.6
		Local Road	km	0	11.2	11.2	362.7
		Cart Track	km	0	7.1	7.1	209.9
		Long-distance railways	km	0	2.9	2.9	74.9
			km	0	0	0	0.1
	Facilities	Settling Basin	ha	0	0	0	9.7
		Power plant constructions	ha	0	1.5	1.5	187.1
		Sport and recreation constructions	ha	0	7.0	7.0	181.7
		Other civil engineering works not elsewhere classified	ha	13.6	31.5	45.2	464.3
		Long-distance pipelines, communication and electricity lines	km	1.0	8.1	9.0	200.8
		Local pipelines and cables	km	0	0.03	0.03	7.0
	Land use	Coastal wetlands	ha	443.5	2,643.4	3,086.9	5,194.0
		Other	ha	13.9	188.7	202.6	4,751.0
		Arable land	ha	1.2	4.8	6.0	4,269.7
		Shrub and/or herbaceous vegetation association	ha	0.2	2.8	3.1	495.2
		Permanent crops	ha	0	1.6	1.6	585.6
		Pastures	ha	0	23.5	23.5	677.5
		Heterogeneous agricultural areas	ha	0	0.1	0.1	585.9
		Forests	ha	0	0.4	0.4	111.2
			ha	0	0.4	0.4	111.2

\* Corresponds to the water observed in the most recent satellite imagery, excluding permanent water  
\*\* Corresponds to the geographic union (and NOT the sum) of all Crisis Information extents.

**Disclaimer:**  
Full disclaimer and other helpful information available in the online manual:  
<https://mapping.emergency.copernicus.eu/about/rapid-mapping-manual/>  
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**Data Access:**  
All data displayed on the map(s), as well as Land Use - Land Cover layer(s), are available in the Crisis Information Package and the Base Layer Package (for reference data). The table above is available in editable format in the Crisis Information Package. All products and data are also available for download on the portal.

**Estimated Population:**  
Estimated population is based on Copernicus Global Human Settlement Layer (GHSL) dataset. Additional population datasets and analysis are available in the summary table.

**Data Sources:**  
Base Vector Layers: OpenStreetMap © OpenStreetMap contributors (2026); Wikimapia.org; GeoNames 2015; © EuroGeographics, © TurkStat. Source: European Commission – Eurostat/GISCO, 2024.  
Corine Land Cover (CLC) 2018.

Inset Maps: Natural Earth 2023; HydroLAKES 2016 by HydroSHEDS;  
© EuroGeographics, © TurkStat. Source: European Commission – Eurostat/GISCO, 2024.

Digital Elevation Model:  
FABDEM (ForestAndBuildingsremovedCopernicusDEM) removes building and tree height biases from the Copernicus GLO 30 Digital Elevation Model (DEM) (Airbus, 2020).

