

Republic of Turkey

The Ministry of Forestry and Water Affairs

Istanbul Urban Flash Flood Early Warning System

Presented by

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DATA REQUIREMENT AND DATA AVAILABILITY 14-15 August, 2017 İstanbul



World Meteorological Organization
(WMO)



Hydrologic Research Center
(HRC)



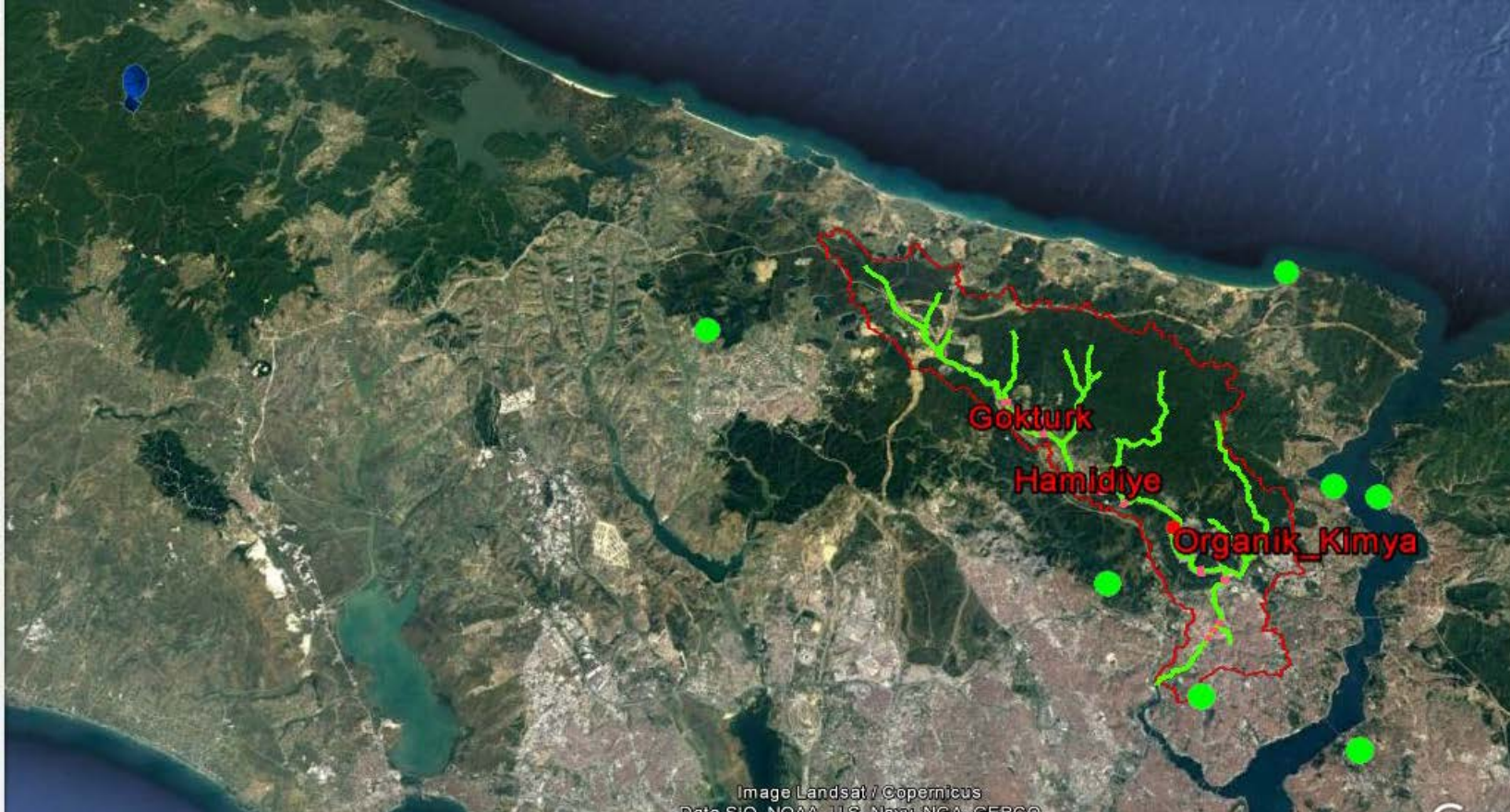
National Oceanic and Atmospheric
Administration (NOAA)



U.S. Agency for International
Development (USAID)

AKOM
AFET KOORDINASYON MERKEZİ

Provided Data



Hourly precipitation and temperature data of 7 AWOS around the basin were provided from 2012 to 2017. In addition, precipitation data in minutes from three AKOM precipitation stations in the basin were shared with HRC. Istanbul RADAR is 35-60 km away from the basin. There have been RADAR data in the FFGS model since 2012.

Provided Data

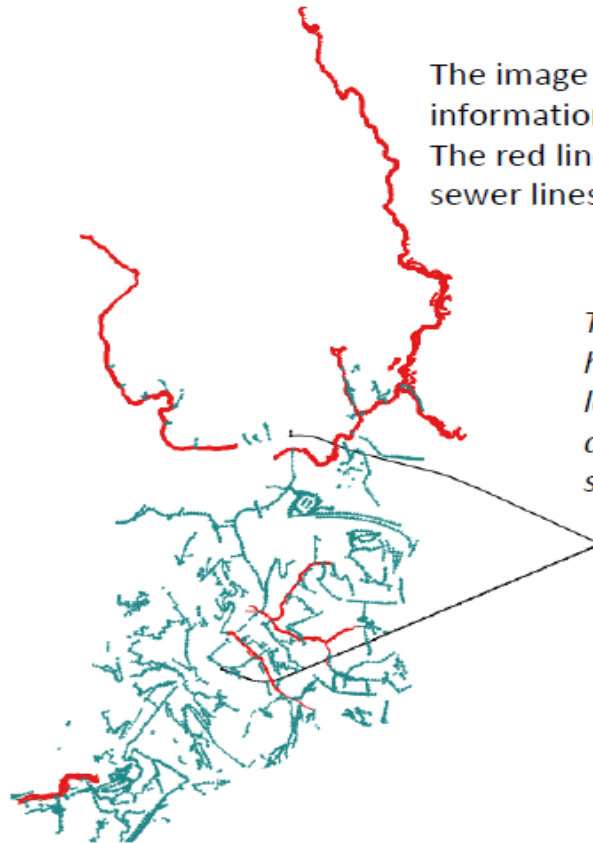


The radar level meter data of the three AKOM stations in the basin were shared with the HRC.

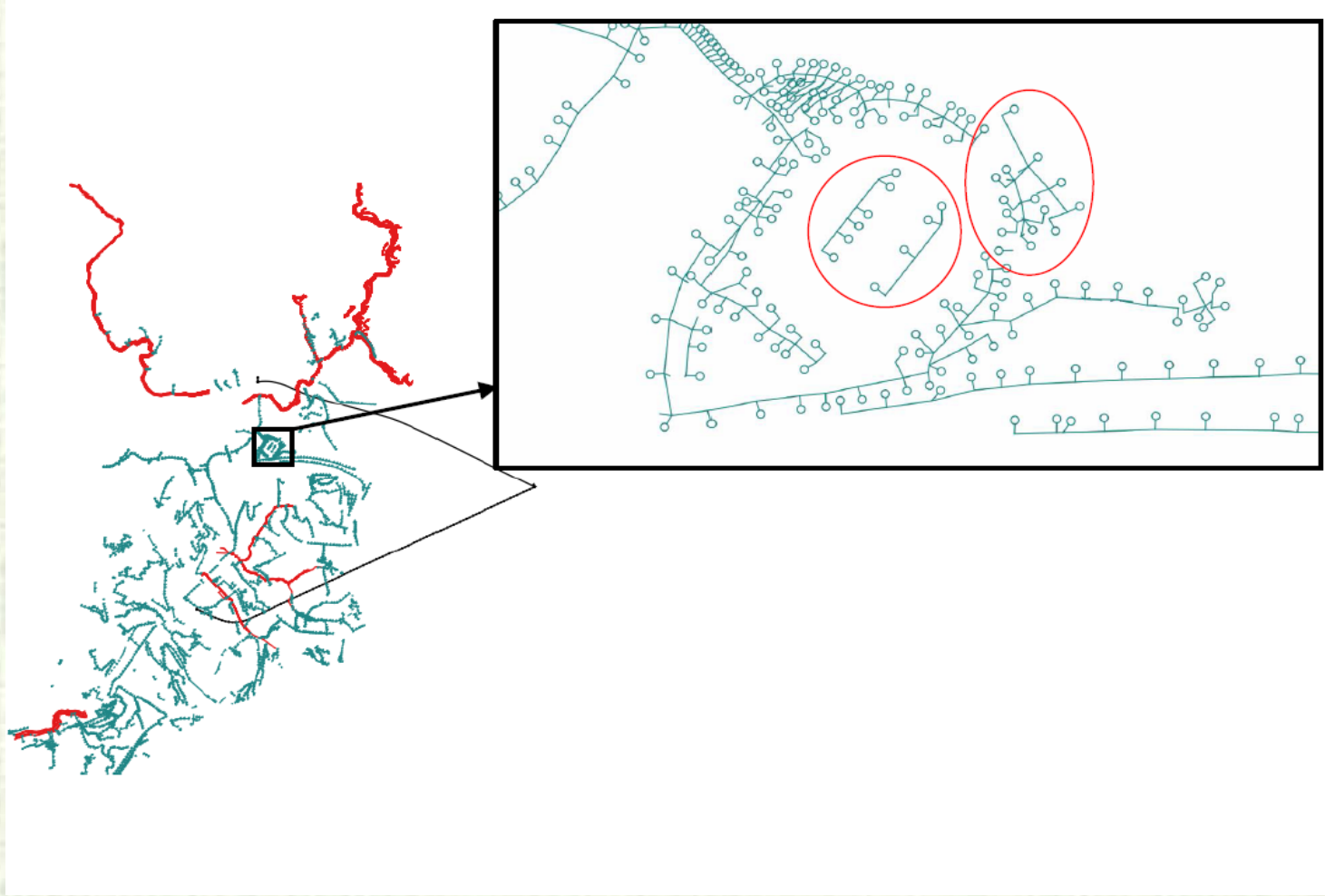
Data

Urban Flash Flood Early Warning – Demonstration Data Received for Cendere Basin: (1) Sewerage Information

The image on the right shows the content of the sewerage information provided in CAD format (dwg and DGN files). The red lines indicate streams; blue/gray lines indicate storm sewer lines, and the black lines indicate a waste water tunnel.

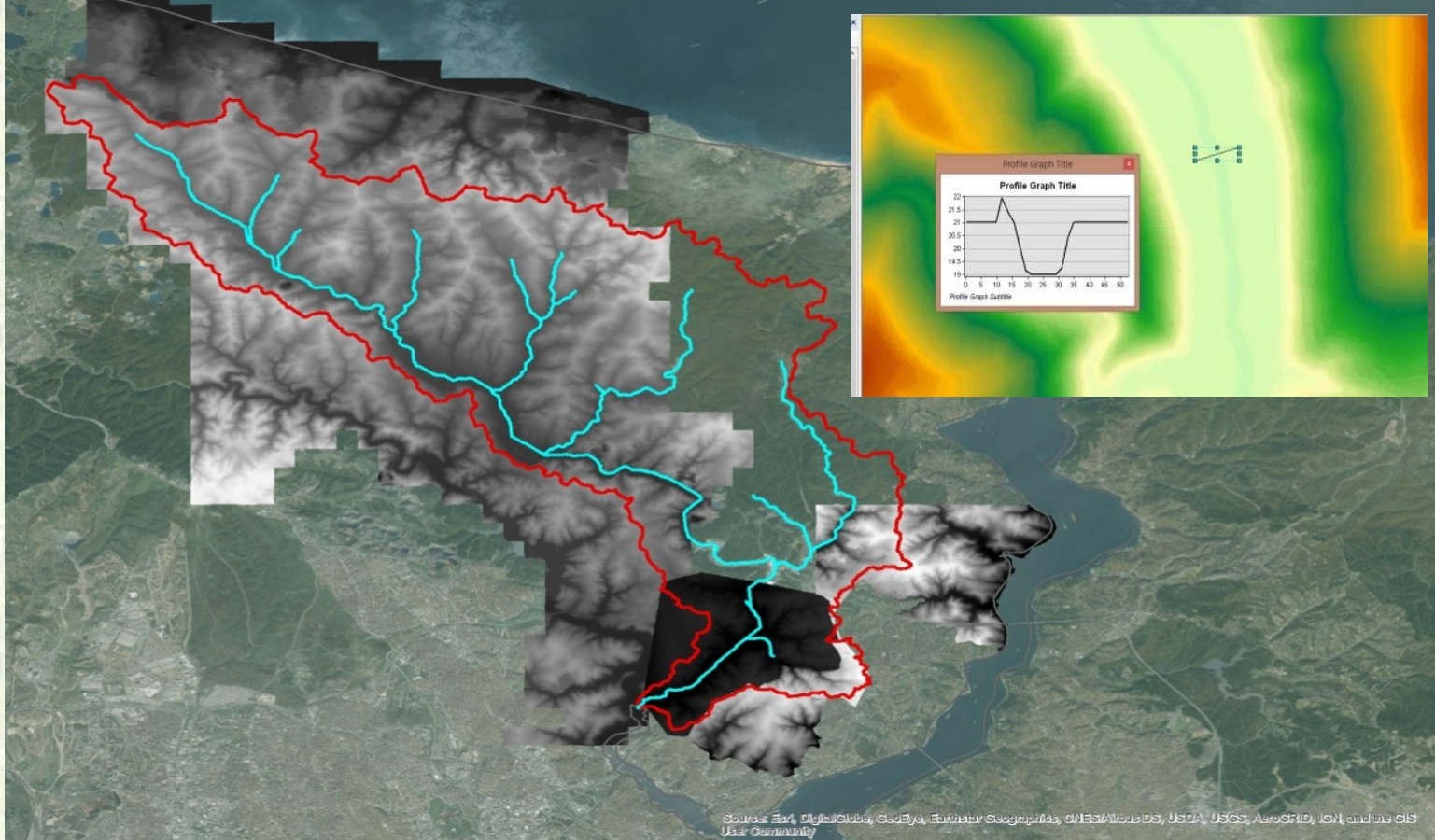


This information is not geo-referenced. HRC staff has used the identifiable features to generally locate this information with other existing spatial datasets such as the FFGS stream network and subcatchments.



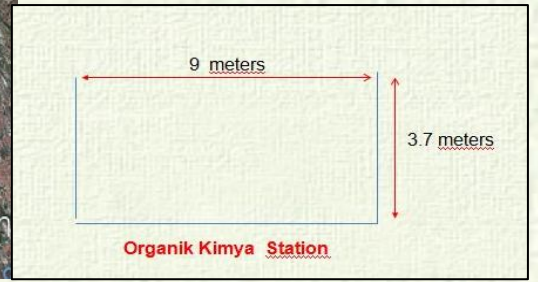
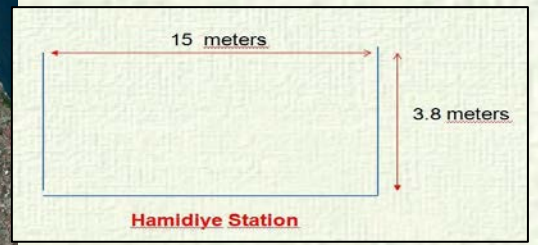
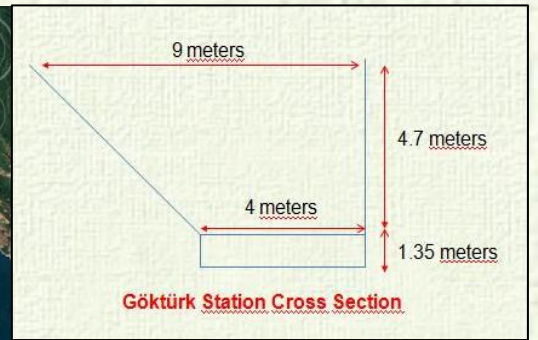
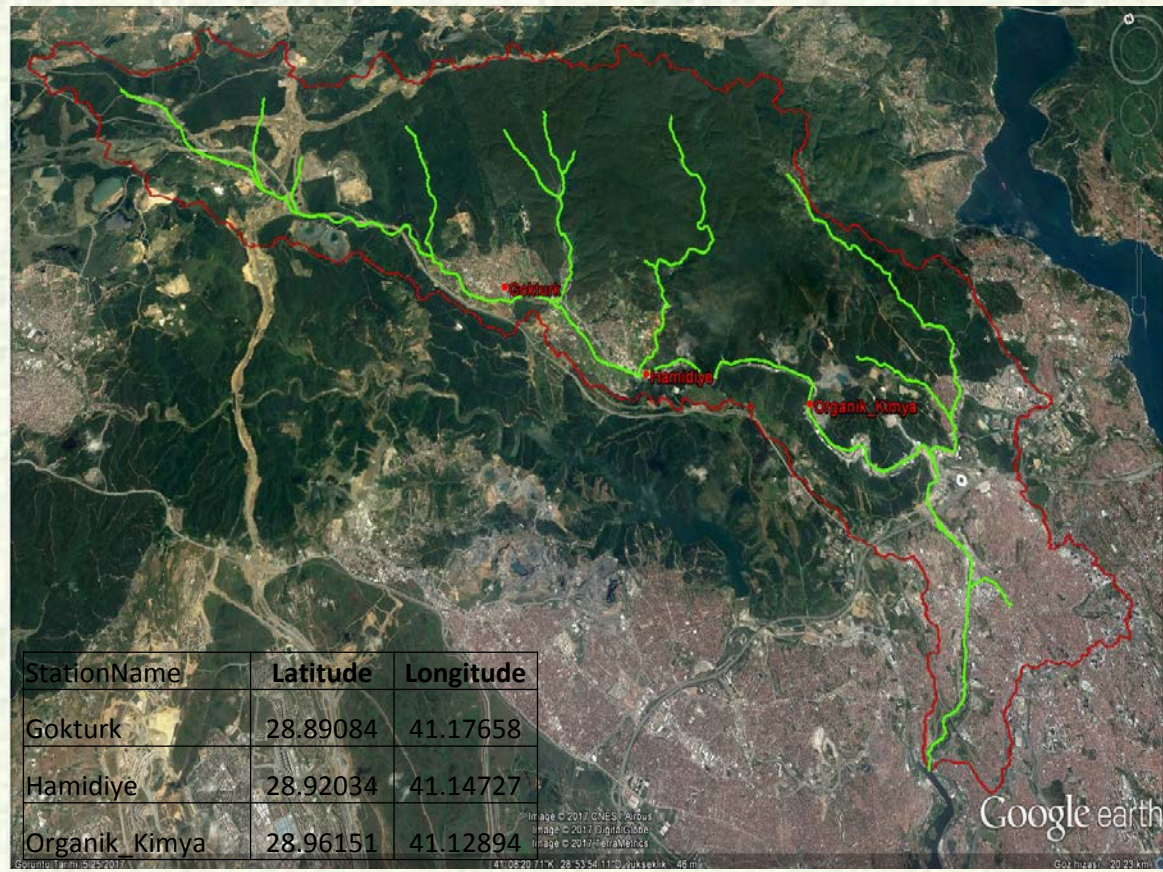
The image shows a close-up view of one section of the full image.

DEM Data



Even though 2-m DEM data is missing in some parts, it is quite useful.

Cross Sections



StationName	Latitude	Longitude
Gokturk	28.89084	41.17658
Hamidiye	28.92034	41.14727
Organik Kimya	28.96151	41.12894

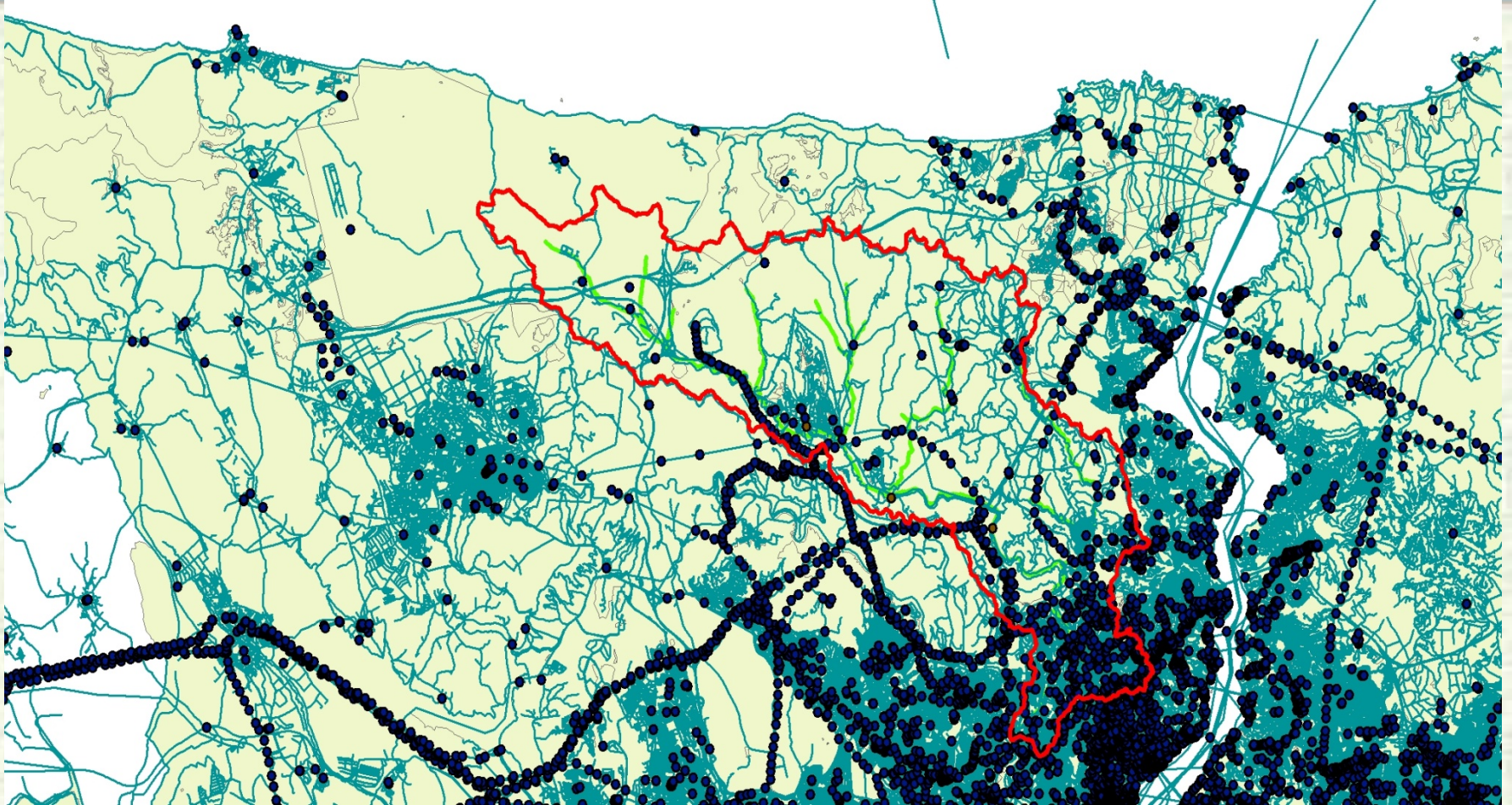
Cross sections of 3 radar and level station in Cendere Basin were shared with HRC.

Cross Sections



Cross sections taken at 13 different points and their coordinates on Cendere were sent to HRC. Total number of cross sections taken at the basin is 16. 8

OpenStreetMap Data



Data for Istanbul has been downloaded from openstreetmap.com site which provides free field data and shared with HRC via server. There are all point, line, and polygon layers in Istanbul in the data.

AKOM Precipitation Data Information

CENDERE AKOM ▶ YAGIS ▶ YAGIS

Ad	Değiştirme tarihi	Tür	Boyut
GOKTURK.dat	24.7.2017 10:07	DAT Dosyası	52,443 KB
HAMIDINE.dat	24.7.2017 10:09	DAT Dosyası	42,354 KB
ORGANIK KİMYA.dat	24.7.2017 10:14	DAT Dosyası	48,419 KB

Precipitation Data File

Station Name

Date

Hour-Minute

Precipitation Amount (mm)

GOKTURK.dat - Not Defteri

Dosya Düzen Biçim Görünüm Yardım

07/24/2017 10:07:26

GOKTURK - DAKIKALIK_YAGIS_MIKTARI

```
"1/1/2014 12:01:00 AM" - (0.0)
"1/1/2014 12:02:00 AM" - (0.0)
"1/1/2014 12:03:00 AM" - (0.0)
"1/1/2014 12:04:00 AM" - (0.0)
"1/1/2014 12:05:00 AM" - (0.0)
"1/1/2014 12:06:00 AM" - (0.0)
"1/1/2014 12:07:00 AM" - (0.0)
"1/1/2014 12:08:00 AM" - (0.0)
"1/1/2014 12:09:00 AM" - (0.0)
"1/1/2014 12:10:00 AM" - (0.0)
"1/1/2014 12:11:00 AM" - (0.0)
"1/1/2014 12:12:00 AM" - (0.0)
"1/1/2014 12:13:00 AM" - (0.0)
"1/1/2014 12:14:00 AM" - (0.0)
"1/1/2014 12:15:00 AM" - (0.0)
"1/1/2014 12:16:00 AM" - (0.0)
"1/1/2014 12:17:00 AM" - (0.0)
"1/1/2014 12:18:00 AM" - (0.0)
"1/1/2014 12:19:00 AM" - (0.0)
"1/1/2014 12:20:00 AM" - (0.0)
"1/1/2014 12:21:00 AM" - (0.0)
"1/1/2014 12:22:00 AM" - (0.0)
```

The data obtained from AKOM was provided to HRC with the necessary explanations in English after being reviewed by TSMS employee.



**Thank you for your
attention!**