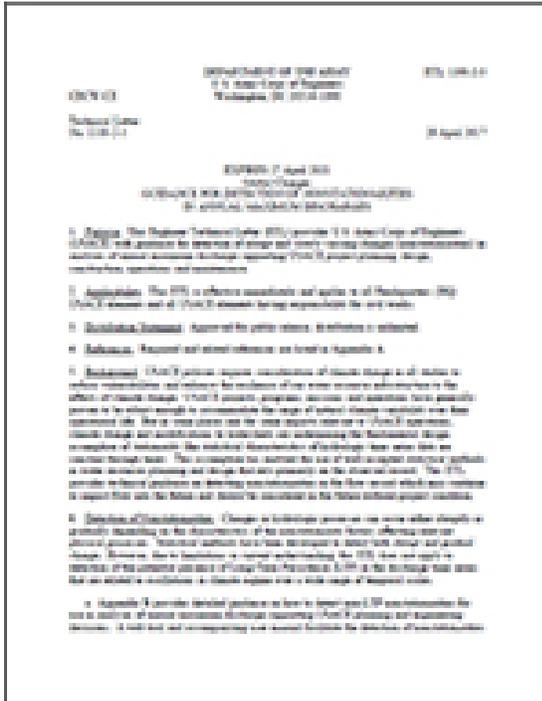


# USACE Publishes new ETL on Guidance for the Detection of Nonstationarities in Annual Maximum Discharges



ALEXANDRIA, VIRGINIA. In late April, the U.S. Army Corps of Engineers (USACE) published an [Engineer Technical Letter \(ETL\)](#) on [Guidance for Detection on Nonstationarities in Annual Maximum Discharges](#). This ETL follows a public Nonstationarity Detection Tool launched in March of 2016. The tool can be accessed by clicking [here](#).

Stationarity, or the assumption that the statistical characteristics of hydrologic time series data are constant through time, enables the use of well-accepted statistical methods in water resources planning and design in which future conditions rely primarily on the observed record. However, recent scientific evidence shows that in some places, and for some impacts relevant to the operations of USACE,

climate change and human modifications of the watersheds are undermining this fundamental assumption; these impacts are resulting in abrupt and slowly varying changes, or nonstationarities.

This ETL provides USACE with guidance for detection of these nonstationarities in analyses of annual maximum discharge supporting USACE project planning, design, construction, operations and maintenance. Due to limitations in current understanding, this ETL does not apply to detection of the potential presence of Long-Term Persistence (LTP) in the discharge time series that are related to oscillations in climate regime over a wide range of temporal scales.

## Learn More:

- [Guidance for Detection on Nonstationarities in Annual Maximum Discharges](#)
- [Nonstationarity Detection Tool](#)
- [Nonstationarity Detection Tool Manual](#)
- [Digital Library Link](#)