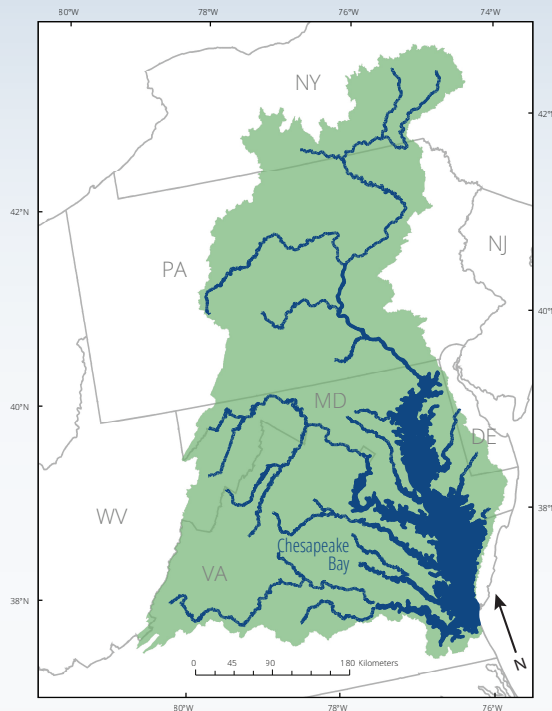


CHESAPEAKE BAY WATERSHED STREAM HEALTH

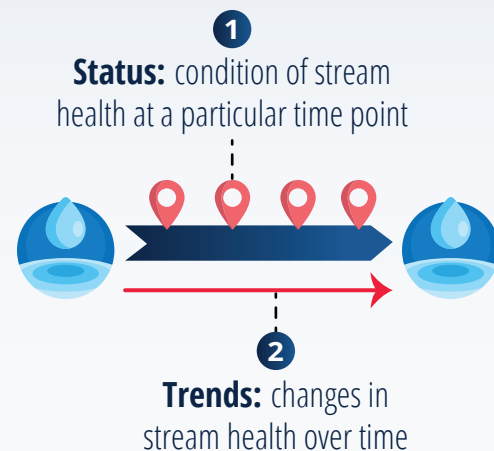
Analysis of the Status and Trends in Seven Key Indicators

Chesapeake Bay watershed, USA,
is home to over **18.4 million**
people and a diverse range
of plants and animals

**The diversity of stream
ecosystems is changing with
changes in population, land
use, and climate**



To understand how stream
health is changing and the
factors causing these changes,
we need to track:



The United States Geological Survey recently launched an initiative tracking the status of and trends in seven key indicators of stream health:

Water flow

Flow of freshwater in streams, which affects salinity,
nutrient, sediment, and contaminant levels

Water quality

Nitrogen, phosphorus, and
suspended sediment loads,
which affect the health of
biological aquatic
communities

Water temperature

Key for regulating rates of metabolic activity of
aquatic organisms and stream productivity

Hydromorphology

Interaction of flow, sediment, geomorphology,
and vegetation, creating stream forms and habitat
supporting diverse biological communities

Toxic contaminants

Presence of chemical pollutants in
streams, which results in at least
partial impacts to more than 80%
of Bay tidal waters

Salinity

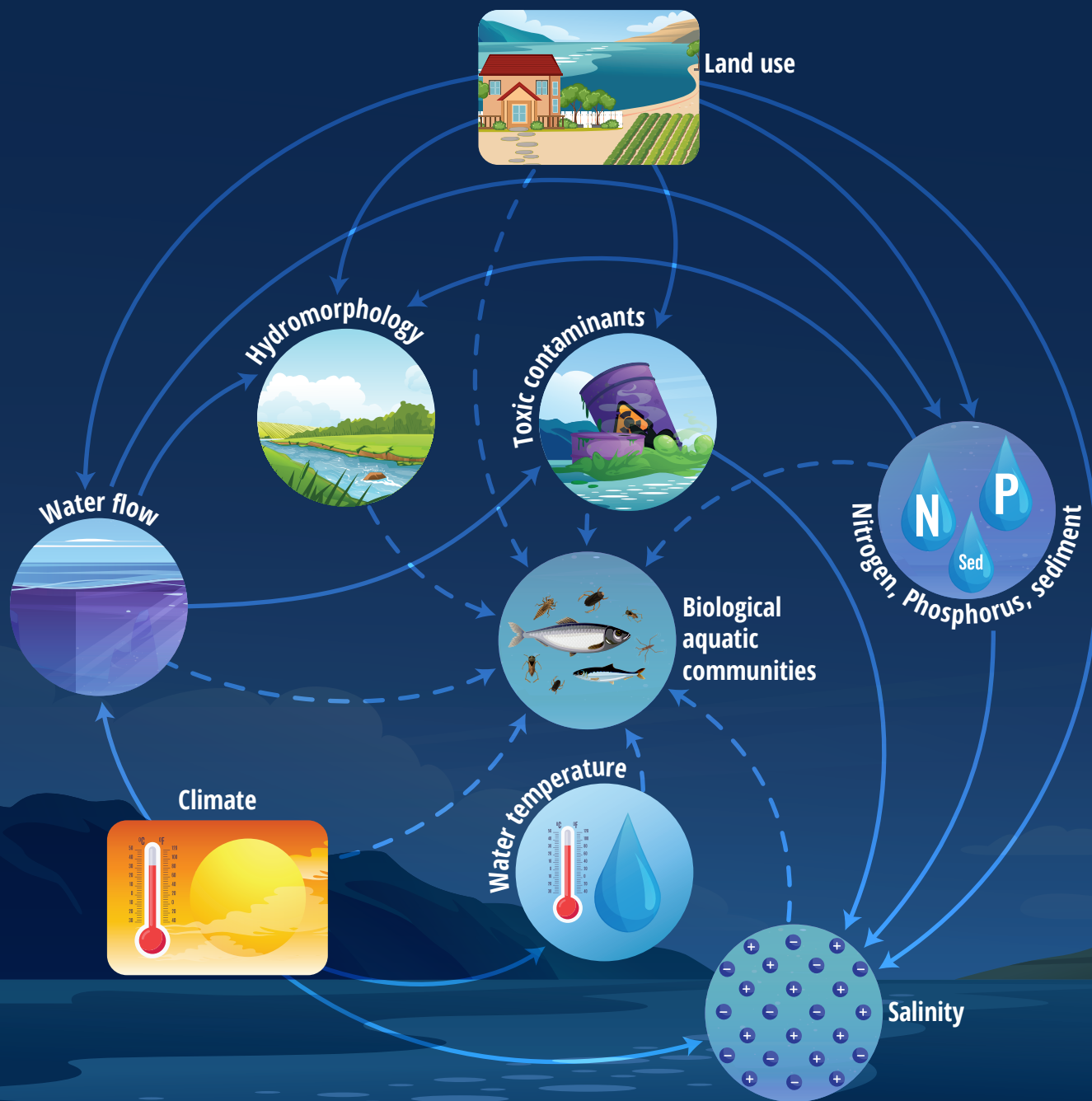
An indicator of dissolved ion
concentrations in water, an
increase in which can harm
biological aquatic communities
which are adapted to live in
freshwater

Biological aquatic communities

Crucial indicators of the
ecosystem health that also
provide ecosystem services
such as recreational
fisheries



There is a complex interplay among the seven indicators of stream health



Studying these indicators and interactions among them can help identify how and to what extent biological communities are responding to changes in the instream, landscape, and climate conditions across the watershed

Information on the status and trend results can be accessed through the Chesapeake Bay Status and Trends web portal:



Interactive web-based tools



Newsfeeds



Reports



Interactive data stories



Tracking Status and Trends in Seven Key Indicators of Chesapeake Bay Stream Health
<https://www.usgs.gov/CB-status-trend>

Austin and others, 2022

