

DRAFT: ONE-STOP SHOP FOR ROUTING STREAMFLOW

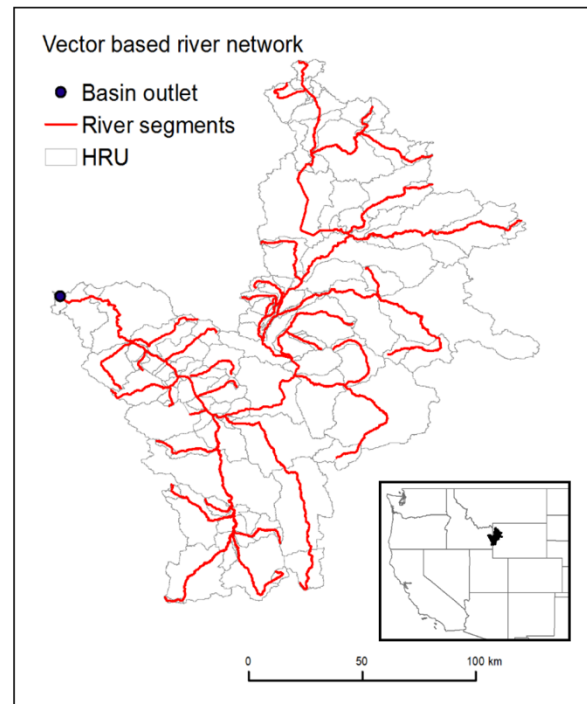
USACE has supported development of a streamflow routing model, call mizuRoute, for simulating streamflow at locations important for infrastructure design and operations.

WE'VE MADE GREAT PROGRESS:

BUILT MIZURROUTE, A MULTI-METHOD, CONTINENTAL-DOMAIN ROUTING MODEL which efficiently routes streamflow from any distributed hydrologic model and a variety of different routing approaches.

IMPROVED ACCURACY OF RIVER REPRESENTATIONS by including more details about a river's length and size (vector information), providing a more efficient and physically realistic alternative to gridded representations that will lead to more accurate streamflow.

DESIGNED A FLEXIBLE SOFTWARE PACKAGE that can be quickly applied to any time period or desired location in the entire river network to address specific user needs. It currently produces values at 54,000 river segments across the contiguous United States based on the USGS Geospatial Fabric dataset's Hydrologic Response Units (HRUs) (see figure for example).



MOVING FORWARD:

GENERATE STREAMFLOW FOR NATIONWIDE CLIMATE CHANGE IMPACT STUDIES underway at the National Center for Atmospheric Research. These future streamflow projections, catered to locations important for infrastructure design and operations, will be available to water managers and planners to better understand and adapt to future change.

USE MIZURROUTE IN A DIVERSITY OF APPLICATIONS that build a stronger foundation for hydrometeorological analyses. Designed to run simulations in parallel, mizuRoute is well-suited to simulate streamflow for hydrologic model evaluation, calibration, and future climate projections.

ADD GREATER FUNCTIONALITY TO MIZURROUTE. The current framework provides a foundation for future advances such as the ability to track water for use in water quality evaluations (e.g., streamflow temperature) or implementation of more dynamical routing for improved simulations in flat regions.

Read more at <web link to the 2 pager, which will have links papers/datasets>