

Hydrology Program Core Goals

1. Improve the quality of physical inputs and forcings, e.g. QPE, QPF, temperature, snow, evapotranspiration, soil conditions, burn data, etc.
2. Improve river forecasts by improving hydrologic models (Note: “river forecasts” include water supply forecasts)
3. Improve forecasts of fast response hydrologic events
4. Improve river forecast and warning services based on the effect of dam failures
5. Improve hydrologic forecasts impacted by reservoirs and regulation
6. Improve model connections / routing between model simulations (includes coastal effects)
7. Improve flood forecast inundation maps (Static, Dynamic)
8. Quantify the uncertainty of our forecast information
9. Generate and disseminate information to and for our users
10. Provide, then improve, gridded water resource data production capability
11. Provide, then improve, water quality forecasting capability
12. Disseminate hydrometeorological data to the field (e.g. HADS).
13. Software refresh – enhance the usability and/or internal workings of existing software
14. Allow the hydrology community to more fully participate in research to operations (e.g. CHPS)
15. Archive information required to support the Hydrology Program now and in the future
16. Verify our forecast and uncertainty information
17. Provide science and software training on Hydrology Program applications throughout the research to operations cycle.
18. Inform customers of our information and services, assess their satisfaction, and incorporate comments and feedback into Hydrology Program planning
19. Improve the efficiency and effectiveness of Hydrology Program management, including an understanding of logistical measures
20. Update and maintain the nation’s precipitation frequency estimates
21. Define and coordinate Hydrology Program requirements with other NOAA programs and federal water partners