

Appendix A

National Hydrography Requirements and Benefits Study Business Uses

Business Uses	Examples of Mission Critical Activities
BU 1 - River and stream flow management	Monitoring river flows, runoff, groundwater, and streamflow simulation, stormwater management
BU 02 - Natural resources conservation	Conservation engineering, soils mapping, wetlands mapping and characterization, assessment of biological carbon stocks
BU 03 - Water resource planning and management	Management of drinking water sources, water rights administration
BU 04 - Water quality	Fate and transport of contaminants, pollution risk mitigation
BU 05 - River and stream ecosystem management	Aquatic habitat management, stream restoration, fisheries management
BU 06 - Coastal zone management	Coastal mapping and modeling, coastal hazards mitigation, tsunami modeling, land use and environmental planning
BU 07 - Forest resources management	Forest inventories, forest resource management, sustainable timberlands, forest species distribution modeling, forest conservation, watershed protection, harvest planning, haul road construction, silvicultural treatments, post-fire management
BU 08 - Rangeland management	Preservation and management of rangeland, rangeland stewardship, rangeland mapping and characterization
BU 09 - Wildlife and habitat management (off-stream)	Conservation planning for wildlife refuges, conservation of critical habitats, management of diverse migratory bird habitats
BU 10 - Agriculture and precision farming	Reducing harmful runoff by site-specific application of fertilizer and pesticides, irrigation water use management
BU 11 - Geologic resource assessment and hazard mitigation	Detailed hydrologic modeling to understand and mitigate landslide
BU 12 - Resource mining	Regulation and permitting of coal mining activities, reclamation of coal mining areas, monitoring of post-mining conditions
BU 13 - Renewable energy resources	Hydropower, offshore wind power, tidal

Business Uses	Examples of Mission Critical Activities
BU 14 - Oil and gas resources	Pipeline and road route selection, facility siting to mitigate seismic hazards, regulatory compliance.
BU 15 -Flood risk management	Flood risk analysis and floodplain mapping, emergency management, levee safety, flood forecasts, hydrologic and hydraulic modeling
BU 16 - Sea level rise and subsidence	Mapping and modeling and forecasting the effects of sea level rise, population and economic vulnerability assessments
BU 17 - Wildfire management, planning and response	Understanding, modeling and predicting fire behavior, protection of terrestrial ecosystems, fire-fighting estimations
BU 18 - Homeland security, law enforcement, and disaster response	Infrastructure and border protection, coastal search and rescue, population dynamics, drinking water protection
BU 19 - Marine and riverine navigation and safety	Coastal and bathymetric mapping, identification of hazards to navigation, sediment management at coastal navigation projects
BU 20 - Infrastructure and construction management	Design and placement of water supply and wastewater treatment facilities, storm water management, bridge design
BU 21 - Urban and regional planning	Land development and zoning, municipal mapping of building footprints and impervious surfaces, parks and transportation planning
BU 22 - Health and human services	Health emergency response, habitat modeling and disease prevention, drinking water protection, public health and safety, prevention of waterborne diseases
BU 23 - Real estate, banking, mortgage, and insurance	Assessment of risk for natural hazards to inform insurance policy rates and the determination of mandatory insurance
BU 24 - Education K–12 and beyond	Understanding and continental-scale climate change impacts, land cover monitoring, development of military training simulators
BU 25 - Recreation	Development of recreational facilities such as rafting, trails and fishing areas, location-based products and services