LANDSCAPE-LEVEL MINIMUM FLOWS DEVELOPMENT METHODS IN THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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The Southwest Florida Water Management District (District) is one of five water management districts in Florida, including all or part of 16 West-Central Florida counties. The District's mission is to protect water resources, minimize flood risks, and ensure the public's water needs are met. To address this mission, District activities can be grouped into four major categories: water supply, water quality, natural systems, and flood protection. Because numerous impacts that occur in the upstream landscape affect the downstream environment, most of the District's natural resource management activities address multiple categories.

This is true for the establishment of minimum flows for flowing systems. The District is required by state law to establish minimum flows for flowing waters within its boundary, which along the Gulf Coast, is from southern Levy County through Charlotte County. Minimum flows are defined as "the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area." They protect water resources and are used for water supply planning and water use permitting.

The District is constantly improving its minimum flows development methods. Its approach to developing minimum flows typically evaluates habitats at the landscape level. The amount of habitat available in the absence of ground and surface water withdrawals is determined, and changes in habitat as a result of flow reductions in the river, spring run, or springs due to withdrawals is evaluated. Examples of habitats that are evaluated to protect from significant harm when developing minimum flows include instream habitat for numerous groups of fish and benthic macroinvertebrates, inundated floodplain wetlands habitat, low-salinity habitat critical to many flora and fauna in estuaries, habitat for estuarine fish and nekton, and thermal refuge habitat in coastal springs systems for the Florida manatee (*Trichechus manatus latirostris*) and Common Snook (*Centropomus undecimalis*).

PRESENTER BIO: Ms. Rouse Holzwart is a lead ecologist with more than 35 years of experience as an aquatic ecologist designing, managing, and participating in an extensive variety of projects in both the regulatory and research arenas. The majority of her project work has been on aquatic ecosystems in Florida.