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Title: TAPE Beyond 20 – Raising the Bar for Stormwater Treatment

For over two decades, Washington State's Technology Assessment Protocol – Ecology (TAPE) program has been one of the nation's leading programs for evaluating stormwater treatment technologies. Developed by the Washington State Department of Ecology, TAPE provides a nationally recognized, science-based, and peer-reviewed process to assess the effectiveness of emerging technologies in removing pollutants, such as sediment, metals, and nutrients, before they reach our streams, lakes, and marine waters.

Since its launch in 2002, TAPE has approved more than 35 systems for use in Washington State – helping ensure systems deliver the intended water quality benefit and providing permittees with confidence that the systems they select and install will help them achieve and maintain permit compliance. Its rigorous, transparent process is trusted by both municipalities and manufacturers, allowing for innovation while safeguarding public investments and environmental health.

A 2024 update to the program added a new requirement to address a long-standing challenge: maintenance. While TAPE has always focused on pollutant removal performance, it recently expanded to better assess the hydraulic capabilities and maintenance requirements of approved systems. This update recognizes that even the best technology fails without proper maintenance, but more importantly, proper maintenance requires an achievable and predictable maintenance cycle. The goal of the recent update is to provide permittees and other end-users with a clearer picture of the level and frequency of maintenance a system requires to ensure it delivers the anticipated performance year after year.

Looking beyond Washington and the Pacific Northwest, the TAPE program has been referenced and recognized by other states and municipalities for years, and it is now being used as the foundation for a national program – the Stormwater Testing and Evaluation of Products and Practices (STEPP) program. A national-level program can accelerate the acceptance and use of proven technologies in areas with robust stormwater programs and build momentum in regions that are still developing their stormwater programs. Until the STEPP program is firmly established and proven sustainable, TAPE will continue to lead – refining, improving, and ensuring the program meets the unique needs of the Pacific Northwest.