That Ditch May Not Be a Ditch

The roadside used to be fairly simple. It was curbed in the urban areas, with storm pipe and inlets under foot, and it was ditched in the rural areas, with an occasional bit of rip rap. Storm pipe and ditches were all about making water go away before they caused problems with the roadway.

A little before the turn of the century (we can start using that term, right?), stormwater management began to graduate from quantity control (flood control) only to a dual mandate that include water quality management as well. At first, these (often called) best management practices (BMPs) were elements of site designs for residential, commercial, and institutional development. But we quickly saw the opportunity to apply these to roadway runoff to combat some of the associated pollutants, such as oils, grease, heavy metals, suspended solids, and so on.

Skip ahead a bit and you will more routinely see stormwater BMPs as part of roadway design. Infiltration trenches, bioretention swales, curbside rain gardens, and even simple tree wells are becoming part of both the urban and rural landscape and some are more obvious than others. The problem, in part, is that we don't always clue in the folks who will maintain those roadside areas for the next 20-30 years.

There may be roadside grass areas planted with a specific collection of grasses and wildflowers intended to be mowed only occasionally or not at all in order for them to be effective. Maintenance folks need to know that because if you are a hammer, everything looks like a nail, and sitting on a mower it all looks like grass.

There may be an infiltration trench (that looks a LOT like a ditch) with augmented soil on top of a stone and perforated pipe layer and if they don't know better, maintenance folks will scoop all that out and send it to a landfill, wondering who buried all this pipe. Well, no one told them.

Bioretention swales, rain gardens, or bioretention basins may be designed to specifically depend upon certain native species that have been planted and, again, maintenance folks may disrupt those elements if we don't loop them in.

So as these elements become part of our roadside design, make sure to transfer that knowledge to the maintenance folks and even bring their expertise into the process early on for a more sustainable solution.