



Web Forum 3: Stormwater Program Organizational Structure
Questions and Answers
March 17, 2016
11:00 am – 12:30 pm (EST)

Did EPA issue any form of consent order on Nevada DOT as a result of the initial audit? If so, was this the lightning rod that spurred the need for a beefed-up program?

I wouldn't call it a lightning rod so much as a cattle prod that spurred the need for a beefed-up program. For the past five years, we have been in negotiations with EPA. It was very painful the first few years, but I think as we moved along, and really put together a plan to get the program into compliance, I was surprised with the constructiveness of that process. We got a draft consent decree that clearly laid out what EPA was looking for. We were negotiating with them in order to refine that list of requirements. However, it's been a beneficial process. We haven't quite got the consent decree signed because it's not finalized yet, but we already have a clear idea about what EPA is looking for and we're moving ahead. We aren't waiting for that final signature to take place. We are moving ahead and building the program, and already have been meeting some of the requirements that we anticipate will be in that agreement when it is finalized.

Does the Florida DOT street sweeping program require a certain type of sweeper? For example a mechanical broom versus high efficiency sweeper.

The short answer is no. I don't think we have a specific type of sweeper specified, but we've generally found that obviously vacuum sweepers are more effective at removing the fine particulates, which is where the nitrogen and phosphorus removal occurs, so that's encouraged. However, many of our sweeping activities, as with many of our activities, are done through maintenance contracts or asset maintenance contracts, and it's ultimately up to the contractor to provide the types of machines that they use.

Do any of you use collaborative watershed based methods to plan stormwater treatment facilities instead of designing water quality facilities on a project-by-project basis?

Nick Tiedeken (Minnesota Department of Transportation or MnDOT) replied that they generally do it on a project-by-project basis. It tends to be more cost effective for us rather than trying to go through the watershed and retrofit. Project by project has worked out pretty well, and our regulators now are okay with that.

Fred Noble (Florida Department of Transportation or FDOT) replied that theirs is a little different. The state regulatory program has historically required treatment on a project-by-project basis, and sometimes we've found that this isn't the most efficient or effective approach. A few years ago, we were able to get legislative change that allowed and encouraged more collaboration. We are currently involved in and continue to seek out opportunities to do regional treatment and partnerships with local governments and other entities. We are now beginning to go in the direction of regional treatment where we can, as opposed to the cookie cutter, project-by-project approach.

Does anyone have a sample finance plan to implement the requirements of the MS4 or consent decrees that they would be willing to share?

Dave Gaskin (Nevada Department of Transportation or NDOT) says that we are figuring it out as we go. An initial augmentation to the budget was received from our legislature that is getting us through the first year, but we're really in the process right now of working with the districts and finding out how much it's going to cost to meet our requirements. Therefore, we are developing it as we go. We don't have a finance plan that would be beneficial at this point.

For the permits that MnDOT has to get from the watershed organizations, do the permits add to or preclude the need for other local and state permits?

We have to get our state permits, which have certain conditions. The watershed districts are over and above that, and they may not be consistent with the state NPDES permits. For instance, we have an infiltration requirement in the NPDES construction permit for one inch of runoff, and some of the watershed districts have a 1.1 inch. They may have a different threshold or smaller threshold for the triggers for some of those things. The NPDES construction permit for example is a one acre disturbed soil area threshold. Some of the watershed districts require permits for as little as 5,000 to 10,000 square feet of disturbance.

With a decentralized organization, how do you obtain statewide buy in for the environment or environmental issues?

I think that has been one of the positives of having a strong leadership role in the Central Office. We can work very closely with our regulatory counterparts in the state DEP and the water management districts. Lots of communication during routine meetings and discussions with the DEP and the water management districts about various issues and work closely with them. The short answer is a lot of communication and face time with the regulators.

Can you talk about your impaired waters rule or similar, and how it affects your DOT?

As mentioned during my presentation, Florida (DEP) developed a rule to make a determination on when water bodies were impaired, including science-based criteria on how that approach is performed. It doesn't apply only to the DOT obviously, but the determination is made water body by water body. One thing we have done since it is a rigorous process, we are involved in reviewing the approaches to make those determinations, and we offer feedback to our Florida DEP as they develop each iteration of their impaired waters list.

How often is the staff trained in your state, and who trains the staff?

In Arizona, our permit specifies that staff need to be trained either when they are hired or as their duties change, and then refreshed every three years for certain activities under the permit. Right now, all of our training is done online because when the classes were developed, we did not have staff available to go out

and train employees. We needed it to be available to anyone at any time. We now have an environmental trainer, and he is in the process of updating those classes to ensure that the requirements discussed in the classes conform to the new permit. As time permits and in the meantime, the Stormwater Coordinator is training staff on the new requirements.

In Nevada, we have a similar program to the one described in Arizona. We have a stormwater trainer and a training manager in our organization. Many different training modules that are focused on the level of detail that is needed for the position of each employee. Every employee receives general training and then as they get more involved and their job description expands, then they get more detailed training. We also have a contractor training for the contractors that work with us on building projects.

In Minnesota, our training is offered through the University of Minnesota and we provide staff to help. The training and recertification are required every three years.

In Florida, we have a similar program to the one described in Arizona. We have a computer based training program. Currently, we have an illicit discharge module, and we are probably going to develop a spill response module soon. The districts require routine training within the district offices and operations centers that they provide. We also have a rigorous erosion and sediment control inspector training program that is operated through the state DEP, as well as private trainers across the state. This training is required for staff involved in our construction projects.

Does Florida maintain stormwater facilities on trails with goals of improving quality and controlling quantity? What kinds of trail maintenance activities are performed?

Florida DOT is involved in funding some trail facilities throughout other parts of the agency. Generally, if we construct a facility that involves creating impervious surface, then per the environmental resource permit regulations in Florida, we would be required to install stormwater treatment for the impervious surface that addresses water quality and quantity. More typically, those facilities are built for or on behalf of a local government or another entity, and usually the maintenance responsibility is turned over to the entity that is ultimately operating the facility. We don't typically maintain those facilities unless we retain ownership, but if we did, we would maintain it just as we maintain our other stormwater BMPs under the normal maintenance program.

Is the soil infiltration calculator available in the public domain?

It will be available, but it is not quite ready yet.

During the introduction, TMDL is noted as one of several DOT stormwater program elements and the stormwater octopus tentacles. Who within the organization should be responsible for implementing TMDL requirements?

In Arizona, the Water Resources group is tasked with leading the coordination within the agency to get comments on the impacts to the different groups. Largely, its everyone within the agency that has the responsibility. FDOT mentioned in his presentation that the TMDL Task Force is a cross functional group. This is important because it provides feedback from the groups who will be affected by the TMDLs.

Do you have a specification or example of intergovernmental agreements for local projects administered by the DOT?

I'm not aware that Florida has a specification or a specific template. Each project is unique and every opportunity is unique, so there is no boilerplate approach that would work in those situations. Each situation is so different and the stakeholders are so different, such as local governments, a group of local governments, or other state or federal agencies. We do have some statutory language that encourages collaboration and regional partnerships.

Good to hear about Nevada's experience and how the Nevada legislature took action to give NDOT the resources and authority to build stormwater compliance into its program. Can you elaborate on what steps or changes you made, or are making, to improve the culture within the organization?

A key part of that is our approach to integrate stormwater into all the different divisions and activities throughout the department, just to avoid having a siloed, standalone stormwater program. We really wanted the program to be part of the normal business practice from design and planning through construction and maintenance, all the way through all the activities that NDOT performs. As we go through the higher level processes, like strategic planning, five year planning, and my work in the executive management of the department, we can make sure that stormwater is included and is maintained as a priority within the department. That it's not relegated to a small nuisance program.

How is Florida DOT's realignment perceived by the regulators? Was moving NPDES, MS4, TMDLs, and BMAP coordination from Environmental Management to Maintenance much better on regulatory compliance, and how does this affect project delivery, on post-construction for example?

From the regulator's perspective, they are not concerned about how FDOT organizes itself and implements its program. From a specific perspective, it has been a positive experience because it gives us the ability to act as a liaison to the regulatory agencies. My position being located within the Central Office and the leadership from our NPDES permitting program over in our state DEP also being located in Tallahassee allows me to communicate frequently with our state regulators. This is a positive. From the compliance perspective, it hasn't had a real significant affect. In terms of how it affects project delivery, the MS4 areas are largely addressing your existing facilities rather than being on the front end at construction. It hasn't really affected project delivery.

Do any of the state DOTs require the contractors to develop the project SWPPP, or does the DOT project team design the SWPPP and oversee the contractor's implementation of the SWPPP?

In Arizona, our specifications for the contractor actually state that they will develop the SWPPP, but it is with oversight from our resident engineer. They ultimately have control over that project, so they can make any changes or recommendations to the SWPPP. It must be approved before our contractor can file their NOI with our regulator. Throughout the entire process, our resident engineer and staff on the project have that input into the project. Right now, it is not with the project team, but it is with the contractor.

In Florida, our specifications currently require the contractor to develop an erosion control plan, and then submit that to the agency. It becomes part of the SWPPP, which FDOT is still responsible for under our current procedures. However, we're in the process now of changing this so that the contractor will be fully responsible for implementing the SWPPP.

With the organizational structure at Minnesota DOT, is there a QA/QC component where the DOT has an internal group responsible for overall oversight for the two different MS4 programs? For example, does OES, or another group, help verify Metro as being managed properly?

We work very closely together. There is no real oversight by the central office to get after Metro if we feel they are not operating appropriately. However, they do everything appropriately, and we try to learn from each other. We do not have oversight built into the program. The big oversight is when EPA audited our Metro district, and that created some changes.

How often do you sweep a particular site, and what do you do with the sweeping material?

In Florida, our DEP has specific requirements on how we dispose of sweeping material. A regulatory memo was issued several years ago. In some instances, they can be beneficially reused to fill in erosional areas, but in other cases, they have to be disposed of in a landfill. It just depends on what's contained in the material, and we follow the DEP guidance. In terms of frequency, sweeping frequency becomes more of an issue as we move into asset maintenance type contracting. We have stopped specifying frequencies of sweeping, and have started and will be requiring the sweeping contractors to ensure that we are meeting our commitments in terms of pounds of nitrogen and phosphorus removal we have to make. They have to sweep at a frequency that would meet our requirement. We have some contracts that have frequencies specified. Typically, its monthly, but its different from place to place.

At the beginning, it was noted that this presentation and the two previous presentations will be online. Will you share the web link again?

See www.environment.transportation.org, which is the website for the Center for Environmental Excellence. Yes, this presentation will be posted on this website.

What is the catalyst for creating a balanced engineer/science-based program, and what is that balance within the water quality program?

In Nevada, we have worked with EPA quite a bit on program improvements. Not just putting a stormwater program in place and letting it coast, but performing quantitative and qualitative water quality assessments and monitoring to demonstrate that the actions we are taking are meeting our goals and having tangible benefits. We needed several senior-level scientists in our organization to help us with this assessment and monitoring. The Department of Transportation organization only had professional engineers in the upper level positions, so it was hard to get a senior scientist. This required making changes in the Human Resources department to allow for different types of positions in those senior positions.

When does your permit require you to conduct water quality monitoring?

In Arizona, we are required to do monitoring at construction sites if it impacts an impaired or an outstanding Arizona water. Regarding the MS4 permit, we are required to do monitoring statewide at six sites for wet weather and at a couple of our maintenance yards that provide a representative sample of what could be coming off of our maintenance yards. The maintenance yards must be within a proximity to an outstanding water as well.

In Nevada, our monitoring is based on priority. For example, in the Lake Tahoe basin, there is a detailed TMDL with many requirements. We have an extra layer of monitoring there because of the sensitivity to the lake and the nature of the conditions. We try to spread that out as appropriate throughout the state,

looking at sensitive and impaired waters, and prioritizing based on the importance of certain areas versus others.

In Florida, we have a TMDL prioritization requirement in our Phase I permits right now that requires monitoring. Otherwise, we typically participate through joint participation agreements with local governments on ambient monitoring programs. We don't conduct those ourselves. As far as construction, we aren't currently required to do water quality monitoring as part of our construction permit.