

These comments are my own, and do not necessarily represent the official position of the Norfolk District, or the Army Corps of Engineers.

It's appropriate that my talk today is given in Richmond – Richmond, one of the two warring capitals during the Civil War. Forty or fifty years ago if I had used that term 'Civil War' a lot of Virginians would have assumed I was a Yankee. To true Southerners it was the War Between the States. Or, in genteel conversation it was sometimes referred to as "The Late Unpleasantness." Civil War - there's nothing civil about a civil war. Families torn asunder, brother fighting brother. At the end of the day it was often hard to tell the victor from the vanquished. For schoolchildren the battles are just names on a map, dates they dread to memorize. But for many whose families joined the fight, these struggles still live in the blood. When the roll is called, when the history is read, the names still evoke, and they still provoke.

Salem Church ... Sandy River ... Beaverdam Swamp ... Ware Creek ... Lake Gaston ... Spring Hollow ... Po River ... James River ... Hunting Run ... King William ... Rocky Pen Run ...

Those of you who know your Civil War history know, of course, these weren't battles in that 1860s war. Instead that was my marginally clever segue into talking about a different kind of civil war involving battles that occurred over the past 40 years, and some that still rage – water wars. There wasn't any blood spilled in these battles, but plenty of blood boiled. Mercifully, the Civil War ended after four years, whereas some of these water supply permit applications dragged on three or four times longer. Why? Why is it that our biggest, most divisive, and most prolonged fights, are over water supply projects?

I will talk with you for the next few minutes about some of the reasons these projects are so difficult from the perspective of the Corps' Regulatory Program. I will also draw some contrasts between projects that went fairly well and others that went very badly. Finally I will give you my ideas for minimizing future strife.

Laws have to be obeyed and regulations have to be followed, but nobody benefits from a 10- or 15-year permit process. I can say that as a Regulator manager I get nothing out of it. On average, each of my staff project managers processes over 100 permit applications per year, and the average processing time is about a month. A large and controversial water supply project is like a black hole that sucks up my project manager's time for the duration, and as that duration stretches beyond one year, or five years, or ten years, it affects our ability to do our jobs for the other 4000+ applicants each year. As for me, I firmly believe that putting projects through the Regulatory process often adds value in terms of environmental protection, as Congress intended, but overly lengthy reviews yield only the most diminishing of returns. As for the utility directors in this room, if you all see any added benefit from a 10-year permit review process versus a 1-year process, you've kept it a well guarded secret.

So what can be done? Each of these named projects I listed a few minutes ago was and is unique, so generalizations are somewhat risky. Having acknowledged that, it behooves us to try to learn from history. One of the most obvious reasons these projects are different from other permit applications is that these are generally very big projects; big in many different ways.

Tens or hundreds of millions of dollars ... tens of millions of gallons per day ... millions of people ... hundreds of acres of wetlands ... dozens of miles of streams.

Let me focus on the last two: wetlands and streams. As a category, water supply reservoirs represent by far the largest commitment of wetland and stream resources of any projects we see in the Regulatory Program. The King William Reservoir, the Ware Creek Reservoir, the Beaverdam Swamp Reservoir, the Po River Reservoir, and the Sandy River Reservoir were the five largest wetland impacts proposed in Virginia since the Clean Water Act has been in effect. I can only think of one or maybe two non-reservoir projects that even come within 100 acres of as much impact as any of those.

So, with that as a framework, let's first talk about the importance of accurate forecasting in water capacity planning and its relationship to the ability to move a project through the Federal permitting process. Frankly, my perception is that what we see in water supply permits that are first submitted to us is a subconscious, if not a conscious, tendency to be very generous when projecting demand, and to overdesign capacity in order to build in an extra safety factor. Perhaps that's because no utility director wants the taps to go dry on his or her watch. Perhaps that's because some applicants think they need to throw out a straw man for the Federal agencies to hack apart before getting around to talking about what they really need. But most or all of you here know what happens when big projects need Federal permits. Projects that may cause significant impacts on the quality of the human environment require EISs. The National Environmental Policy Act requires that an EIS, an Environmental Impact Statement, must be prepared for such projects. An EIS almost always adds at least two years to the permit process, and most often more. EISs must address Purpose and Need as well as Alternatives. These are tied together because the extent of the need for additional water supplies is directly related to the range of feasible alternatives that can satisfy that need.

NEPA and other laws and regulations require an examination of other alternatives that also meet the purpose and need. Alternatives that would be rejected in the search for a 40 MGD water supply may well be practicable if the deficit is really only 20 MGD. Many of the projects I named earlier, including Prince Edward County's Sandy Reservoir project, Virginia Beach's Lake Gaston Pipeline, Spotsylvania County's Po River Reservoir, Henrico County's James River withdrawal, and Newport News' King William Reservoir all provoked significant battles over what the "real" water supply deficit actually was. Those disagreements dragged our permit process out months or years, depending on the project. Now I know, and you know, that none of us really knows with any precision how much additional potable water a locality is actually going to need in 40 years. Even if we could magically look into the future to find out the service area population 40 years hence, that still leaves debate over such things as conservation, drought restrictions, and acceptable risk. Knowing that these battles will occur, a prudent utility should probably ask itself early on if it wants to spend the time and resources holding out for a Cadillac water supply solution that might take over a decade to be permitted, if indeed it is ever permitted, or opt instead for a Ford or Chevy solution that might or might not last as long, but would likely be permitted in a year or two.

Another regulation worth mentioning is the 404(b)(1) Guidelines, that allow us to permit only the least environmentally damaging practicable alternative. We pay a lot more than lip service to

this requirement; we have to. That regulation has been around since 1980 and it's not going away any time soon, because it works. It's not often pretty and it's not always painless, but it does accomplish its goal of balancing environmental protection and socioeconomic practicability. In some cases we have been able to reduce impacts by hundreds of acres while still arriving at a project that meets the applicant's needs.

Spotsylvania County pursued the Po River Reservoir, with 312 acres of wetland impact, for five years before being persuaded to join with Fredericksburg in constructing the Hunting Run Reservoir instead. Doing so avoided 300 of the 312 acres of wetlands and still met their needs. Hunting run was permitted in less than two years.

Newport News' original King William Reservoir would have destroyed 653 acres of wetlands. Although that permit process was tortuous, the ultimate configuration of the reservoir avoided 250 acres of wetlands and still satisfied the projected regional need.

What does this mean in practical terms to a county or city? One obvious point is that, all things being equal, small wetland impacts result in a faster permit process than large wetland impacts. Spotsylvania's Hunting Run Reservoir is one example, with 400 acres of pool and only 11 acres of wetlands. Stafford County's Rocky Pen Run is another example. A 570 acre impoundment with less than 15 acres of wetlands, it took only four years to permit. The Cobbs Creek Reservoir, a partnership among Cumberland, Henrico, and Powhatan Counties, will be an 1107 acre impoundment with only 32 acres of wetland impacts. It will likely be permitted in a couple of months, after only 2 years of permit review. By way of contrast, Prince Edward County's Sandy Reservoir, with over 250 acres of wetland impacts, took nine years to permit as a dry (flood control) dam only, and another six years for an act of Congress to allow to be filled.

Another point is that a lot of time and money can be saved in some cases by looking outside your own political boundaries. Geography and topography may mean all likely reservoir sites in your county would involve loads of wetlands, but there might be sites in your neighboring counties with far less wetland acreage, and a partnership might make a lot of sense. Closely related to that is the benefit of proposing a project that is a regional plan, or is part of a regional plan. Under special Congressional legislation, the Norfolk District was funded in the late 1970s to conduct a water supply study for Southeastern Virginia. The recommended plan for Southside Hampton Roads, released in the early 1980s, was a pipeline to Lake Gaston. There was no Federal money for construction, but Virginia Beach applied for a permit in 1983 for a similar variant to the pipeline alternative that had been identified in the regional study. Because of the groundwork that had been laid by the regional study, the permit process was tremendously shortened and they received a permit in less than a year. Granted, committed opposition from (mostly) the State of North Carolina tied the project up in litigation for years, but that was due to geopolitical factors unrelated to the regional study itself. Newport News also benefited from styling their King William Reservoir to be a regional plan for meeting the long term needs of Northside Hampton Roads. That didn't shorten their permit process at all, but is substantially contributed to EPA's not vetoing their permit. EPA had earlier vetoed the permit for James City County's Ware Creek Reservoir in part because of the significant acreage of wetlands that would be sacrificed to primarily meet just one county's water needs. Although King William

Reservoir's wetland impacts were similar to Ware Creek's, EPA was able to rationalize them since that project would satisfy the region's needs.

I'd like to close by suggesting that there is a window of opportunity that's open right now, with DEQ's water supply plan requirements. It would be a real shame in my opinion if all that this effort accomplishes is the minimal amount of work necessary for a county or city to satisfy DEQ's requirement, ending up in a hundred or so individual plans that are developed without regional or statewide buy-in, and that address the kinds of permitting process realities I've been talking about only by hoping that they somehow go away. If that happens the lesson of history will have been ignored, and the same battles and wars we've fought over the past 40 years will be refought over the next 40 years. Coordination between Planners and Regulators, and consideration of Planning and Regulatory concerns will help. A beautiful plan that can't get built is only a pipe dream and a waste of time. Regionalization will also help, including regional plans that encompass entire river basins. I carry more water supply war scars than most of you here, but I remain an optimist. I know you're all smart people, and smart people learn from the mistakes of others. Learn well, please.

Thank you.