East-Central Florida Water Supply

Planning Initiative: Phase II
Introduction

After the difficult process of agreeing to agree, stakeholders must then undertake the difficult process of maintaining and carrying out their agreements. It is in this stage that many agreements fall apart. Agreements made with the best of intentions fall apart due to lack of planning in the implementation phase. In this study, we will look at the East-Central Florida Water Supply Planning Initiative’s second phase. We will examine the role a regional consensus plays in the continuation of the agreement, at the success of the implementation of the agreement, and at the facilitative role of one of the stakeholders and how it effects the nature of the agreement.

Nature of the Dispute

Florida is one of the fastest growing states in the nation, and Central Florida is one of the fastest growing regions in the state. With this increase in population comes an increased demand on natural resources, including freshwater supplies. The Floridan Aquifer is one of the largest and most plentiful aquifers in the state. It extends from the southern tip of the state to parts of southern Alabama, Georgia, and South Carolina. The majority of the state gets its fresh water here, and this is especially true in East-Central Florida, where freshwater supplies are derived almost exclusively from groundwater sources. This aquifer system is linked hydrologically to countless springs, wetlands, lakes, and rivers.

Growing demand from agricultural, commercial, industrial, municipal, and private users has threatened the sustainable use of groundwater. If consumption of this resource were to go unchecked, problems such as saltwater intrusion, a lowering of the water table, and a serious reduction in flow of our springs, streams, and rivers could occur.
Water is a regional resource, and its shortage would be a regional problem, so the solving of this potentially disastrous problem would require a regional perspective.

In 1997, a bill passed through the legislature that made it the responsibility of the Water Management Districts to determine if there was enough supply to meet demand for the next 20 years. The St. Johns River Water Management District (SJRWMD) determined in 2000 that East-Central Florida would outstrip its supply in 2006 to 2007. This created a sense of urgency to develop new sources or face a water shortage with serious economic and environmental consequences. Also contributing to the sense of urgency was a desire to avoid a litigious situation, as Tampa Bay had failed to do. Bay area communities had spent years and millions of dollars in litigation creating a web of lawsuits over the use of water. The initiative was created out of fear of a dispute, instead of an actual dispute.

The East-Central Area includes all of Brevard, Volusia, Orange, and Seminole counties as well as portions of Lake, Marion, Polk, Sumter, Osceola and Flagler counties. The parties can be divided into three types: users, regulators, and interest groups. The users include utility companies (both government and privately owned), local governments, and self suppliers (including agricultural) (June, 2003). The regulators in this case could be the Federal Environmental Protection Agency, the Florida Department of Environmental Protection, the Water Management Districts (St. Johns River, South Florida, and South West Florida), Regional Planning Councils, and the local governments (June, 2003). The special interest groups could be environmental groups seeking tougher regulations, taxpayer groups seeking low rates, or developers and agricultural interests
who want a plentiful supply (June, 2003). The presence of all of these stakeholders and their differing interests adds to a complicated and technical issue.

The substance of the problem is how to provide enough potable water to a growing population with increasing demands without causing environmental harm. Water supply, population growth, and environmental degradation are all regional issues that can only be addressed with a regional approach.

Case History

Phase I

After SJRWMD came out with its dire prediction in 2000 of a serious water shortage in 2006, there was widespread concern across the region. Two meetings were initiated and hosted by Orange County Chairman Richard T. Crotty. These meetings were held on January 31, 2002 and February 28, 2002. As a result of these two meetings, there were several points agreed upon:

- need for equitable distribution of costs, control, and management
- need for engagement in partnerships between local government and public supply utilities
- need for long-term planning by all operators
- need to protect the Aquifer from indiscriminate withdrawals
- individual efforts were doomed to failure
- cooperation was preferable to legislation
- imminent threat to the environment and action needed to be taken soon
After these meetings, interviews were conducted by the Florida Conflict Resolution Consortium (FCRC) which was retained to ensure that the process stayed on-track. These individual interviews conducted with local government officials across the region served to explore the problem more fully and help define its boundaries. In addition, three subregional meetings were held to: identify priority water supply issue areas (meeting 1), draft statements of these priorities (meeting 2), and to develop strategies for Phase II: Implementation (meeting 3). As a result of these subregional meetings, a Water Supply Agenda was developed, identifying six issue areas:

- develop new water supplies
- increase use of reclaimed water
- enhance aquifer recharge using reclaimed water
- link land use and water supply
- enhance intergovernmental coordination
- increase water conservation

In the next phase of the Initiative, the stakeholders were charged with developing strategies to address these six issues. (SJRWMD, 2002)

**Phase II**

Phase II consists of three rounds of subregional meetings. Each subregion meets three times to discuss options, to share information, and to develop partnerships. The six subregions are: Volusia, Brevard, Northern Lake/Seminole/northern Orange/Marion, and Southern Lake/Southern Orange/Osceola/ portion of Brevard. (SJRWMD, 2003)

**Round I**
The first meeting of Phase II of the Initiative focused on the creation of new water supplies, reuse of reclaimed water, and conservation. Specifically, the generation of new sources other than groundwater was to be concentrated on, since groundwater resources are finite, and the new resources were to be from a sustainable supply. At the meeting, SJRWMD presented seven proposed water supply projects. These included both taking water from surface sources (St. Johns River, Ocklawaha River, and Taylor Creek Reservoir) and three seawater demineralization sites. After the presentation of these possible options, participants were encouraged to ask questions. (SJRWMD, 2003)

Some of the first questions asked were questions concerning how the options were generated, and how the service areas for each option were calculated. SJRWMD responded that in order to get cost estimations, a service area had to be defined. Each project’s service area could be re-defined, and the calculations would be made available at future meetings. At the Volusia County meeting, there were several questions of a technical nature about Advanced Storage and Recovery, a process in which fresh water is pumped into a saline aquifer just below an impermeable layer, at a time when fresh water is in excess at the surface (rainy summer season). The differing densities of the two types of water allow the fresh water to form a bubble under the impermeable layer, and be withdrawn later at a time of water shortage. The ASR process is very complicated and is only well understood by hydrogeologists. In answering these questions, SJRWMD was very brief and simplistic. As a technical facilitating agency, it is a question as to whether they were being necessarily vague, and not bogging down the meeting with a lengthy explanation, or hiding behind a veil of technical information. In implying that the process was too complicated for the participants to understand, they could have been creating a
sense that there were some things that were over the participants’ heads. If the participants believe this, and grow complacent, they could be giving the SJRWMD a power over the cooperative process. In the future, all the WMD would have to say is that the issue was too complicated, and push through any rule or process that they wanted without having to deal with any dissent from the participants. This would put too much power into the hands of the SJRWMD. (SJRWMD, 2003)

In the South Lake County, South Orange County, Osceola and portion of Brevard County meeting the participants asked some questions about the minimum flow levels for the proposed surface water projects, and the disposal issues for the brine that desalinization would create. Also brought up were several plans that were being developed by Volusia County and a local Water Authority created by some local governments. These participants were encouraged to turn over their plans to the SJRWMD so that they could be incorporated into the District’s Regional Plan. The SJRWMD added that its role is to act as a regulator and a planning agency, not as a water supplier. The local governments are responsible for funding and developing the water supply. SJRWMD said that it would be willing to help local governments find funding and provide some funding themselves for projects that have been identified through planning and are in the regional plan. Groups should identify plans and move toward implementation. In order to solve the problem as a region, efficiently and economically, intergovernmental coordination and the sharing of information are critical in solving the water supply issues. (SJRWMD, 2003)

In these meetings, the subjects of Reclaimed Water and Water Conservation were dealt with only briefly. Reclaimed Water was deemed not plentiful enough to make a
dent in solving the problem, and the conservation issue was dealt with mostly through a landscape ordinance. There were committee meetings on developing a model landscape ordinance, its effectiveness, and cost effectiveness set for July to September and stakeholders were encouraged to attend, with the final draft of the ordinance set for November 2003. (SJRWMD, 2003)

Round II

The second meeting of Phase II of the Initiative focused on the link between land use and water supply planning, and additional evaluations of water supply project alternatives were presented. SJRWMD also discussed several construction contract operations, ranging from a Design/Bid/Build, where the owner develops all financing and assumes all risks to a Design/Build/Own/Operate/Transfer where the owner commits to a unit price and then assumes all risk. The facility is then transferred to the owner after 30 years, at a savings of 20 to 30%. (SJRWMD, 2003)

In order to link land use planning and water supply planning, the 1997 Legislature required the Water Management Districts (WMD) to perform water supply assessments to identify if sources could meet demand for the next 20 years, and further required them to develop water supply plans for regions that do not have sufficient sources. In 2002 Senate Bill 1906 went further and linked local comprehensive plans to Regional Water Supply Plans (RWSP). Comprehensive plans must now include a Water Supply Facility Work Plan, which identifies capacity to meet demand for the next 10 years. In addition, these work plans must take into consideration and be in compliance with the WMD’s RWSP. The original deadline for these plans, required of groups with water supply responsibilities, was January 1, 2005 for those in the water caution areas, which includes
parts of East-Central Florida. Other governments had to submit a letter by that same date explaining where their water supply was coming from, and all others address in their Evaluation and Assessment Report (EAR). The deadline has since been postponed until December 2006 in order to allow the updates to the RWSP come out first in 2005. This will allow the work plans to be in compliance with the updated RWSPs. (SJRWM, 2003)

As one might expect, the majority of the questions at the sub-regional meetings centered on the Work Supply Plans – what would go into them and about logistics. The questions at all the regional sub-meetings were very specific, and the answers were more vague than at the previous meeting. For example, one attendee at the Volusia subregional meeting asked how the Work Plans would be coordinated with the WMD RWSP when it was always changing. SJRWM responded that the seven previously proposed projects would be included. The one thing that was made clear to the sub-regions was that it was imperative to work with the WMD to prepare an efficient and acceptable Work Plan. Local governments were encouraged to provide work plans that would project further than 10 years, preferably be consistent with the WMD’s RWSP. The WMD also would provide guidelines concerning what should go into the report, as well as presenting 5 case studies of communities that had already completed the Work Plans under the District’s guidance. (SJRWM, 2003)

At this point, the ‘collaborative process’ that the stakeholders had entered into more resembles a series of small meetings hosted by the SJRWM where local governments get to ask questions about the latest water policies. The District’s responses to the specific questions regarding the proposed projects (the original seven and the five
proposed by various local governments) were glossed over and answers like ‘that would be case-specific’ were given. Two points that SJRWMD was not vague on were the fact that demand would outstrip groundwater supply by 2006 to 2007, and that after 2027, projected demands would exceed the identified capacities and the only available supply left would be the Atlantic Ocean, maintaining a sense of regional emergency. (SJRWMD, 2003)

Round III

The focus for Round three Phase II meetings was tailored for each subregion based upon their particular needs and feedback received in the two previous meetings. There were some common themes in all the meetings: summarizing of the proposed projects for additional supply and the updating of other initiatives related to key issues. In the Volusia sub-regional meeting, there were additions to the proposed alternative water supply projects, an update on the Regional Aquifer Management Project (RAMP), and an update on the landscape ordinance. SJRWMD provided planning level costs for projects, although not all project variations will be included in the RWSP, because this could restrict funding flexibility. The RAMP project is any project of initiative that increases the sustainable quantity of fresh groundwater available able to be withdrawn from existing and proposed sources without creating adverse environmental impacts. For example, this could include things like water systems interconnections and Aquifer recharge enhancement. The update to the landscape ordinance stated that the developed ordinances would be location-specific, in order to meet each community’s specific needs. These ordinances are ultimately up to the local government to develop, adopt, and enforce. (SJRWMD, 2003)
The Brevard Subregional meeting focused on a review of the Technical Committee Meeting held on September 26, 2003 and on recommendations for moving forward. The Technical Committee Meeting was held with representatives from utilities in Brevard and Orange Counties to share information and discuss and identify opportunities for local governments to work together to develop future supplies. This allowed groups to explore specifics, and generate recommendations for moving forward. These recommendations included a meeting between SJRWMD/Orange County Utilities/Orlando Utility Company to discuss and identify differences in their hydrological models and resolve them, a second meeting of the Technical Committee to discuss the specific plans and possible partnering. It was also suggested to the elected officials that they ask their planners for status updates on the work plans. SJRWMD also asked for feedback on the role that they should play in this subregion. (SJRWMD, 2003)

The Lake, Orange, Seminole, Osceola, and portion of Brevard subregion was way behind the other two subregions in the development of their plans. In the third meeting, the focus was on a wide range of topics: intergovernmental coordination, summary of proposed projects, status of reclaimed water, conservation, linking land use and water supply, and the next steps that should be taken. There were updates on the projects that had been proposed at the previous two meetings, on reclaimed water projects (including some RAMP-type projects, some conservation programs, and a review of the Water Supply Facilities Work Plans. The next steps proposed by SJRWMD included prioritizing projects, developing scopes and schedules for feasibility investigations, implementing feasibility investigations, and continuing support of the Water Authority of Volusia project, which includes plans like cost sharing and a unitary rate. The District also stated
that they believe it was time to focus more on addressing the specific issues of each county individually. In general, this subregional meeting seemed to focus more on details, such as reclaimed water and conservation, than on the larger issues of ensuring the development of new supplies. Reclaimed water and conservation are not going to provide enough water for the future – only the development of a new, sustainable supply can do that. (SJRWMD, 2003)

The questions at all the meetings were very specific in regards to the plans, but this time around the WMD was able to answer them in more detail. In general, in the third round of meetings, the WMD only played a large part in the subregions that were still in the development stages. The WMD are not in the business of supplying water, just regulating those who do. SJRWMD appears to be trying to help those communities who are behind in their plan development, but those who are further along seem to have less need for their guidance. (SJRWMD, 2003)

Outcomes

There are several outcomes to the efforts made so far under Phase II of the Initiative. These include possible supply plans, seawater desalinization, reclaimed water, conservation plans, and a definitive link between land use and water supply planning. These are expansions of the Agenda developed in Phase I of the Initiative. With these outcomes, Phase II has been successful – its specific goal was to develop plans of action for the carrying out of the objectives developed in Phase I – develop new water supplies, increase use of reclaimed water, enhance aquifer recharge using reclaimed water, increase water conservation, link land use and water supply planning, and enhance
intergovernmental coordination. All of these issues need to be addressed in order to
develop a sustainable water supply.

Phase II started strong with the SJRWMD presenting several options it had
developed in order to create an adequate enough supply to meet future demands, but did
not limit the local governments to these plans only. Any ideas that the local governments
had were encouraged to be explored, so that they could receive assistance in funding
from the WMD and be included in the RWSP. Although lagging slightly in the second
meetings with the issue of the Work Supply Plans, SJRWMD sustained its advisory
position in the third round of meetings.

Conclusions

The continuation of this agreement was facilitated by a technical agency – the
SJRWMD. This agency has a stake in the outcome of the agreement in that they a
responsible for ensuring that there is an adequate water supply, and is in charge of
enforcing restrictions on water use. Having this interest in the facilitation could be both
good and bad. It is good in the way that it aids the stakeholders in unraveling a highly
technical and complex issue. It is bad in that it offers an opportunity for a group with
vested interests to dominate what is supposed to be a cooperative decision-making
process. In fact, most of the meetings held consisted of presentation made by the WMD,
followed by question-and–answer periods from the other stakeholders. This does not
resemble a cooperative process. At the third meeting, however, the subregions that were
further along in their development of water supplies relied less on the WMD’s than those
who were still in the development phase.
In general, the choice of SJRWMD as a facilitator was a good one. If the District can refrain from unduly influencing the outcome, they could provide valuable guidance to the region’s efforts. Having a regional agency preside over the negotiations helps to keep the focus on a regional level and ensures that the agreement both proceeds forward and stays together.
References

