

**The Tennessee Advisory Commission  
on Intergovernmental Relations**

# TACIR



# 1

Suite 508  
226 Capitol Blvd. Building  
Nashville, TN 37243-0760  
Phone: (615) 741-3012  
Fax: (615) 532-2443  
[www.state.tn.us/tacir](http://www.state.tn.us/tacir)

**MINUTES OF THE  
TENNESSEE ADVISORY COMMISSION  
ON INTERGOVERNMENTAL RELATIONS  
June 11, 2008**

**MEETING CALLED TO ORDER**

The Tennessee Advisory Commission on Intergovernmental Relations met in Legislative Plaza room 16 at 1:11 p.m., Chairman Representative Randy Rinks presiding.

**Present 18**

County Mayor Rogers Anderson  
Mayor Tommy Bragg  
Mr. Charles Cardwell  
Mayor Sharon Goldsworthy  
Mayor Brent Greer  
County Executive Jeff Huffman  
Mr. John Johnson  
Alderman Bob Kirk  
County Mayor Kenny McBride  
Comptroller John Morgan<sup>1</sup>  
Ms. Leslie Newman  
Senator Mark Norris  
Representative Gary Odom  
Representative Randy Rinks  
Mayor Tom Rowland  
Mr. Tommy Schumpert  
Senator Jim Tracy  
Representative Larry Turner

**Absent 7**

Ms. Paula Davis  
Representative Craig Fitzhugh  
Senator Rosalind Kurita  
Senator James Kyle  
Senator Randy McNally  
Representative Jason Mumpower  
County Executive Hank Thompson

<sup>1</sup> Ethel Detch represented John Morgan.

## **1. Call to Order and Approval of December 2007 Minutes**

Vice Chairman Tom ROWLAND called the meeting to order at 1:11 p.m. and asked for approval of the minutes. Mr. Bob KIRK made a motion to adopt the minutes. The motion was seconded by Mr. Charles CARDWELL. The minutes were approved.

## **2. Introduction of New Members**

Vice Chairman ROWLAND introduced the new Commission members: Carroll County Mayor Kenny MCBRIDE and Commissioner Leslie NEWMAN, Department of Commerce & Insurance.

## **3. Presentation by Mr. Cliff LIPPARD, Associate Executive Director of TACIR, on Work Program for FY 2009**

Mr. Cliff LIPPARD presented TACIR's 2009 work program for Commission approval. Mr. LIPPARD began by noting that the work program was formatted the same as it has been for the last several years with two sections: one outlining proposed projects for the fiscal year 2009, the second detailing major accomplishments for fiscal year 2008. Mr. LIPPARD discussed each of the categories listed in the section on proposed projects.

The first category listed was that of Commission meetings. Mr. LIPPARD noted that Commission meetings are critical to TACIR's work, serving as a forum to present and discuss research, and for Commissioners to establish or modify work priorities.

The second category listed was on studies of proposed legislation referred by the General Assembly. Mr. LIPPARD informed the Commission that there is one new bill that was referred to TACIR during the past session, SB 3934/HB 3863. This bill was signed into law on May 28<sup>th</sup> and has been chaptered as PC 1057. He gave a brief summary of PC 1057, noting that it establishes a separate account in the local government fund to be known as the "county revenue partnership fund." Revenues will only be allocated to this fund from revenues apportioned to the state general fund. There will be no revenue allocated to the fund in fiscal years 2008 or 2009. Once revenues are allocated to the county revenue partnership fund, they will not exceed the amount distributed to municipalities from the state sales tax. Revenues allocated to the fund will be distributed to counties or metropolitan governments based upon their population's proportion to the aggregate state population. Section 2 of PC 1057 directs TACIR to

*Thoroughly study and evaluate the provisions of this act and related policy matters and shall report its findings and recommendations to*

*the finance, ways, and means committees of the senate and the house of representatives on or before June 30, 2010.*

Mr. LIPPARD noted that the category on legislative studies also discusses the nine election bills that were referred to TACIR in 2008 and the two water/wastewater authority bills that were referred in 2007. He stated that most of TACIR's work on the election bills is complete, having been addressed in two reports, *Trust but Verify* and *Keeping the List*. Mr. LIPPARD went on to say that the TACIR staff is continuing to study two of the election bills, SB 1040/HB 1929 and HJR 41, and also intends to complete the analysis of the two water/wastewater authority bills in fiscal year 2009.

Mr. LIPPARD directed the Commission to the category on providing research support based on TACIR initiative or requests from the General Assembly, the executive branch, and local government. He asserted that this is the most valuable service TACIR provides. This service encompasses TACIR's role in providing data, research, and analytical assistance, on demand, as needed, in a timely manner. Mr. LIPPARD noted that the support can be as simple as answering a question from a legislator over the phone and as complex as preparing a detailed analysis for the review of a committee. He went on to say that as valuable as this service is, it is difficult to plan for. Mr. LIPPARD commented that the nature of the beast is that TACIR often does not know well in advance what information may be required. It requires a good deal of flexibility and research robustness. TACIR regularly monitors certain committees, such as State and Local Government, and Finance, Ways, and Means to help anticipate information needs. TACIR also works closely with other organizations, especially the Comptroller's Office of Research and Education Accountability, to ensure that the Commission is augmenting rather than duplicating their research efforts. TACIR has also entered into a working relationship with Fiscal Review, where they have started requesting TACIR staff opinions on bills with intergovernmental characteristics or potential local government impacts. Mr. LIPPARD commented that this spirit of flexibility and cooperation is vital to TACIR's other work as well, particularly in this time of limited resources. As an example, he mentioned TACIR's continuing collaboration with the state's universities on various projects.

Mr. LIPPARD explained that the remainder of the 2009 project list is divided by research category. He noted that some of the listed projects are very specific, where others are intentionally less so. Mr. LIPPARD said that TACIR keeps some of the project descriptions vague in order to allow for the flexibility to adjust the projects as priorities and the policy environment shift over the year. He highlighted select projects from the project list, to include

- TACIR's continuing role in preparing the county level fiscal capacity model, which is still being used, in conjunction with the new CBER model, in the Basic Education Program model;

- TACIR's involvement with the group studying potential changes to PC 1101;
- the expanded data opportunities emerging from TACIR's management of the public infrastructure needs inventory;
- the Forum on Tennessee's Future, a consortium of highly regarded Tennesseans TACIR intends to convene in order to identify and describe the ten most challenging trends facing public policy makers in our state;
- fiscal reports on topics including the property tax, tax increment financing, and economic impact studies;
- continued efforts to expand analysis of county profiles to better understand the policy implications of local fiscal and economic conditions across the state;
- the study of regional initiatives and approaches to government modernization; and
- the intent to study transportation issues related to growth, development, and infrastructure.

Mr. LIPPARD also noted that the Commission has improved its administrative functions through participation with the state's Shared Services Solutions program. He concluded by directing the Commission to the list of accomplishments for 2008, noting that the illegal immigration and regionalism studies would not be completed by the June 2008 date shown in the accomplishments. Senator NORRIS made a motion to approve the work program. The motion was seconded by Vice Chairman ROWLAND.

#### **4. Presentation by Dr. Harry GREEN, Executive Director of TACIR, on Fiscal Capacity for BEP 2.0**

Dr. Harry GREEN discussed the history of TACIR's fiscal capacity model and how it came to be used in the calculation of Basic Education Program (BEP) funds. He pointed out the legislature had adopted this county model to apply to school systems, which are not all county-wide systems. He noted that the General Assembly had a difficult time agreeing on a standard to use to determine fiscal capacity and was not inclined to change it once a standard was adopted. The model was changed only to correct or improve it.

Dr. GREEN discussed the differences between the TACIR model and the Center for Business and Economic Research (CBER) model recently adopted by the General Assembly. A combination of the two is now used. Fiscal capacity results generated by both models for Fiscal Year 2009, as well as the combined fiscal capacity index used for BEP calculations, were provided to the Commissioners. He noted that TACIR had generated other models similar to that used by CBER.

Mayor HUFFMAN asked a few questions about how much an economic downturn affects fiscal capacity in each model. Dr. GREEN replied that the effect

depends on how the variables interact. Each county is assigned a percent of total fiscal capacity, which means that overall fiscal capacity (100%) does not change, though each county's share may change. If some county shares go up, others must go down to offset it.

**5. Presentation by Ms. Libby THURMAN, Senior Research Associate at TACIR, on *Illegal Immigration: Impact on Tennessee***

Ms. Libby THURMAN stated that she would be providing a progress report on an upcoming TACIR staff report. The report's title will be *Illegal Immigration: Impact on Tennessee*. Ms. THURMAN stated that the report seeks to quantify the effect of illegal immigration on the state by estimating costs imposed and tax revenue generated by this population. Ms. THURMAN stated that Tennessee has not historically been a state heavily populated by immigrants, but that is no longer the case. She stated that from 1990 to 2000, the state's immigrant population increased over 135%, in both the legal and illegal sectors.

Ms. THURMAN stated that since Tennessee is not a state accustomed to large influxes of immigrants the recent growth in this population may be more acutely felt. She stated that there is no official data on the number of illegal immigrants in the United States or in individual states and that all figures are estimates. The Pew Hispanic Center estimated that by 2005, there were between 100,000 and 150,000 illegal immigrants residing in Tennessee.

Ms. THURMAN said that state and local governments are typically the jurisdictions charged with providing services to illegal immigrants, but they also have the least authority and flexibility in terms of offsetting costs. Ms. THURMAN stated that the number of immigration-related bills introduced by state legislators nationwide has significantly increased. The number of bills introduced in 2007 was almost triple the number of bills introduced in 2006. Tennessee legislators introduced fifty bills in the 2007-2008 legislative session, seven of which became law.

Ms. THURMAN reported on two Tennessee specific illegal immigration studies published recently. The first was published by the Tennessee Comptroller of the Treasury; the second was published by the Federation for American Immigration Reform (FAIR). Ms. THURMAN pointed out that these studies drew vastly different conclusions, one reason for that is that FAIR's report included second-generation immigrants in cost estimates.

Ms. THURMAN stated that TACIR's pending report seeks to expand upon the findings of the Comptroller's report. She said that TACIR's report includes a systematic evaluation of methodologies used in sixteen other studies, with the ultimate goal of developing a methodology to estimate Tennessee costs and revenues. She stated that she will present this report to Commissioners at the September 2008 TACIR Commission meeting.

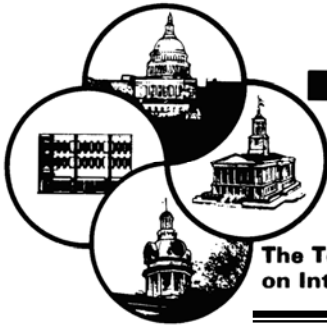
Vice Chairman ROWLAND asked whether the previous studies focused specifically on Hispanics, and he noted that some Tennessee regions have large contingents of other ethnicities. Ms. THURMAN stated that most studies do not make ethnicity distinctions, though some do provide limited demographic information on the population. Dr. GREEN stated that staff could disaggregate the numbers of each nationality and include that information in the report. Senator TRACY stated that English Language Learner (ELL) costs are significant and that his district has discussed this. He also requested a copy of the FAIR report. Ms. DETCH clarified that the reason the Comptroller's report omitted second-generation immigrant children is that based on the United States Constitution, these persons are U.S. citizens. She said the state does not have the authority to alter this. Dr. GREEN commented that children born to illegal immigrants are potentially a long term fiscal problem for the country. He also stated that until recently, the federal government has been noticeably absent from the illegal immigration debate. He stated that states and counties have virtually been on their own, what he terms "fend for yourself federalism."

**6. Presentation by Dr. Rose NACCARATO, Senior Research Associate at TACIR, on Progress Report on the Election Study**

Dr. Rose NACCARATO informed the Commission that the Tennessee Voter Confidence Act, which reflected many of staff's recommendations from Phase I of its elections study, was signed by the Governor in early June. She reported on progress in Phase II and the topics that staff has covered or still intends to cover. She discussed the bills that were sent to TACIR for study and pointed out which have been addressed by completed reports and which reports would address those remaining. She discussed the main subjects of election bills that staff did not intend to include in the study and asked if the Commissioners had any specific areas that they wished to include.

Vice Chairman ROWLAND asked how citizenship would be determined if it were required at registration. Dr. NACCARATO explained that either citizenship or legal residence must be proved now to get a driver's license in Tennessee and that it would be a small matter to change licenses so that they reflected which had been shown. If this were done, then a driver's license could serve the purpose. This is what was done in Arizona, the only state to require proof of citizenship at registration. Vice Chairman ROWLAND pointed out that they used to put birthplace on the driver's license but stopped some time ago. He also commented that people who had voted at the same location for a long time might be offended if asked for identification. Senator NORRIS asked for a draft copy of staff's latest report *Keeping the List*. Dr. GREEN asked if the Commissioners had any direction to offer in the ongoing election study, but they did not.

Chairman RINKS adjourned the meeting at 2:16 p.m.



# TACIR

The Tennessee Advisory Commission  
on Intergovernmental Relations



Suite 508  
226 Capitol Blvd. Building  
Nashville, TN 37243-0760  
Phone: (615) 741-3012  
Fax: (615) 532-2443  
[www.state.tn.us/tacir](http://www.state.tn.us/tacir)

---

**MINUTES OF THE  
TENNESSEE ADVISORY COMMISSION  
ON INTERGOVERNMENTAL RELATIONS  
June 12, 2008**

**MEETING CALLED TO ORDER**

The Tennessee Advisory Commission on Intergovernmental Relations met in Legislative Plaza room 16 at 8:37 a.m., Chairman Representative Randy Rinks presiding.

**Present 16**

County Mayor Rogers Anderson  
Mr. Charles Cardwell  
Ms. Paula Davis  
Mayor Sharon Goldsworthy  
Mayor Brent Greer  
County Executive Jeff Huffman  
Mr. John Johnson  
Alderman Bob Kirk  
County Mayor Kenny McBride  
Comptroller John Morgan  
Ms. Leslie Newman  
Representative Gary Odom  
Representative Randy Rinks  
Mayor Tom Rowland  
Mr. Tommy Schumpert  
Representative Larry Turner

**Absent 9**

Mayor Tommy Bragg  
Representative Craig Fitzhugh  
Senator Rosalind Kurita  
Senator James Kyle  
Senator Randy McNally  
Representative Jason Mumpower  
Senator Mark Norris  
County Executive Hank Thompson  
Senator Jim Tracy

## **1. Call to Order**

Chairman Randy RINKS called the meeting to order at 8:37 a.m.

## **2. Growth Policy for the Next Decade**

### **➤ Progress Report on PC 1101: Working Group Update**

#### **a. Presentation by Mr. Bill TERRY, Planning Consultant, TACIR**

Mr. Bill TERRY stated PC 1101 passed 10 years ago. There were five purposes spelled out in the statute, and the PC 1101 group had been reviewing to what extent these goals have been met. The establishment of the urban growth boundaries had largely eliminated most of the disagreements over annexations. There is some concern that the 15 year hold harmless provision on local option sales taxes and beer taxes has created a disincentive for annexation. Because any new municipal incorporation would have to establish a property tax, this may also act as a disincentive for any area to incorporate.

Many of the growth plans consist of only a map showing simple boundaries, without any type of a long range plan, plan of services, or implementation process. There is no way you can match the timing of services with the occurrence of new growth. The statute only requires plans of services for municipal annexations and does not address plans of service in connection with the timing of development per se. Minimizing urban sprawl is the most ambitious goal of the statute. Simply adopting a growth plan map at the county level is unlikely to address the issues of urban sprawl without some type of long range plan that also addresses infrastructure. PC 1101 would likely have to be more strongly linked to the provisions of Title 13 to attempt to address fostering compact development patterns.

Water supply is also increasingly becoming an issue. There is still a lot of development occurring in rural parts of the state where there is not a reliable source of water. These areas also tend not to have any effective planning in place. These are areas that could and should be addressed through PC 1101.

Mr. JOHNSON asked about the 15 year hold harmless provision for tax revenues for education. His understanding was that 50% of the tax revenues are reserved for education regardless of where it is collected in the county, and the portion of the local option sales tax that is preserved for 15 years from the time of annexation can be used for any purpose. Mr. TERRY concurred that was the case.

Mayor ANDERSON asked if county governments would get any type of notification when revenue loss might occur on an annual basis. Comptroller MORGAN replied that the Department of Revenue goes through a separate



calculation of the tax generated by businesses identified as being part of an incorporation, and that could easily be identified.

**b. Presentation by Mr. Dan HAWK, Administrator, Community Development, Tennessee Department of Economic and Community Development**

Mr. Dan HAWK said there are many success stories across the state where communities took the PC 1101 planning process seriously. The Department of Economic and Community Development (ECD) made a number of decisions as to how they would treat the growth plans. The strategy was for the Local Government Planning Advisory Committee (LGPAC) to approve the growth plans as they were submitted if they were consistent with the requirements in the statute. Many communities may have studies and plans locally, but these were not submitted to LGPAC with the growth plans. The minimum requirements were a map showing the boundaries of the municipalities, the urban growth boundaries (UGBs), planned growth areas (PGAs), and the rural areas (RAs).

The time frame for developing these plans was too short. Many of the coordinating committees seemed to use the process to negotiate where annexations might occur and not to determine the costs of growth or what type of growth made sense.

By June 30, 2001, all but three counties had complied with the provision to submit a map meeting the minimum requirements. The remaining counties that went through either mediation or arbitration followed right after. If cities and counties went into mediation and came to an agreement on a plan, LGPAC made a decision to accept the agreement. For the one county that could not agree on a plan (Fayette County), a plan was imposed by the administrative law panel, but that was the only one.

Sixteen counties have now amended their growth plans. Hamblen County has amended its plan three times. The amended plans have been placed on the state's GIS base map system. The local governments have either used their own resources or used the Department of Local Planning's technical assistance, and this has improved the accuracy of the maps submitted. In all 16 cases, the amendments were used to make rational changes to their growth plans.

At the end of 2001, ECD's grants and loans division looked at compliance before grants were awarded. The policy changed in 2003 with the Bredesen administration. At this point all a community has to have on file is a growth plan and a Joint Economic and Community Development Board (JECDB) as approved by LGPAC to be in compliance. There is no quality assurance in this process because the law does not specify that. Not being able to evaluate quality makes it hard to push growth management forward in the state.

The law was intended to be flexible for local governments to deal with their own growth issues. In addition, the law was intended to have a comprehensive growth management process that looked at all elements of public services, costs, and land allocation but he said that it has not been done in his view. In East Tennessee because of several lawsuits the tack that many counties took was to define all of the county beyond UGBs as PGAs with the exception of some public space.

With the JECDBs, about 25 counties requested to have an existing organization designated as sufficiently similar. They have done what an economic and community development organization should do. They have looked at costs, the growth of the community, and where they should be putting their resources. Mr. HAWK said ECD does not have a good idea of how well those JECDBs formed by inter-local agreements are doing. Their experience was that most communities are simply trying to comply with the statute so that they do not run afoul of the grant requirements.

Dr. GREEN asked if the intent of the legislation has been achieved, and if these organizations are important in their communities. If not, what should be done to empower them if anything? Mr. HAWK replied that the majority of organizations are interested in doing the right thing for the local governments, but they have very little direction. The development districts and ECD tried to provide assistance. The high growth communities see some value in getting the key leaders together and having some vision for the planned environment, but they have limited resources and do not get very far. In rural areas they focus more on health service, water quality and things like that. Mr. HAWK said that in his estimate less than 40% of the counties take an active role through their JECDB, and many of those are driven by economics rather than community development.

Mayor GOLDSWORTHY asked if part of the issue was a lack of authority when it comes to actually getting things done when they do not have much authority. Mr. HAWK concurred. He said the JECDBs do not have the authority to issue bonds or to direct money through the board. The intent of the board is to bring all of the executives that have control over resources together to coordinate those resources between local governments and even look beyond their own county to get regional cooperation.

**c. Presentation by Mr. Sam EDWARDS, Executive Director/Legal Counsel, Greater Nashville Regional Council (GNRC)**

Mr. Sam EDWARDS said that some people felt that the membership of the coordinating committees was weighted in favor of the cities. There is also a concern about the requirement in the law for the largest non-municipal utility district be on the coordinating committee but did not specify who that would be. In many instances that ended up being AT&T, but he said he did not think that was the intent. The coordinating committees are still vital since any amendment

has to go through them, so we should look at whether the composition is proper after 10 years or whether it should be changed in some fashion.

The key to the process of amending the growth plans is the question of whether we did it right the first time. Mr. EDWARDS said that in his opinion we did not do it right the first time. The map is not the plan. As others have stated, Section 106 details the studies that need to take place in order to justify where you put your UGBs, PGAs and RAs which are just as important. By not including a planning document that has those studies in it, we have done nothing more than draw lines on a map and that is not planning. Anytime we have the approval of a growth plan, the law needs to be clear that those studies have to be part of the growth plan that is submitted and approved. Cities and counties can use those studies to have the other jurisdictions justify their proposed growth plan areas. It is a checks and balances system that was not utilized very well, and it needs to be emphasized more in any amendments.

There should be some kind of schedule for revising the growth plans in areas where there is significant growth occurring. All land use decisions are supposed to be consistent with the plan. This means that the plan has to be handy and has to be looked at. The law was designed to trust local governments to comply, and they have largely done so, but the degree to which they have done so has varied widely. The law allows the growth plans to have land use elements. The process for adopting land use elements should be simplified.

Regional planning is controversial for both the cities and counties. PC 1101 was to plan for where growth should occur. Without the proper tools for the cities to implement the plan in the UGB, you have done nothing more than drawn a line on a map. It has made it hard for a city to have the right to do planning within the UGB.

There is also the issue of extra-territorial zoning, allowing the city to have zoning rights outside of its city limits but inside of its UGB. Mr. EDWARDS said he felt that the cities should have that zoning power. He suggested looking at pulling together those plans on a regional basis beyond the limits of a single county.

Mayor HUFFMAN asked if the authority to approve extra-territorial planning or zoning lies with the county or with LGPAC. Mr. EDWARDS replied that the authority is with LGPAC to create regional planning commissions. There have been less than 10 expanded to the limits of their UGBs.

Vice Chairman ROWLAND asked if the county members on the regional planning commission had to be elected county commissioners. Mr. EDWARDS replied that they only had to reside outside of the city.

Mayor GOLDSWORTHY asked if they had to have members on their planning commission from their reserve areas. Mr. EDWARDS said that the situation in

Shelby County is different from the rest of the state and is covered by a private act.

Mr. JOHNSON asked about membership requirements for the rest of the state. Mr. EDWARDS replied that you can have a municipal regional planning commission up to the limits of the UGB. You petition LGPAC to create a municipal regional planning commission. The regional planning commission has all the planning authority in that region. They can develop a plan and adopt subdivision regulations with county approval. They also have zoning authority if the county does not have zoning. The subdivisions have the power to create roads as part of subdivision, but the county will still have control over the roads. Mr. HAWK stated that local planning is currently promoting the idea of joint regional planning commissions where you can have a planning commission that is planning for both city and county.

Commissioner NEWMAN asked if zoning decisions have to be consistent with the plans. Mr. EDWARDS replied that they do now with the passage of new legislation this past session requiring it.

Mayor ANDERSON said that the panel has not addressed the issue of property rights. If a property is not annexed by a city they should still have the right to develop their property as they see fit. He said we also have to look at the impacts of growth on our school systems. Mr. EDWARDS said that the intent is to try to give local governments some of the tools they need to manage growth. The laws have always been permissive rather than required activities.

Mr. EDWARDS said that regarding the JECDBs, some of them have performed very well, but some have not. There was a special intent section in the bill for these boards that said that the state wanted the local governments in each county to sit down and work cooperatively. They are created by inter-local agreements which give you a lot of flexibility. If people are saying that they need more direction, the PC 1101 working group can take a look at that.

Mr. TERRY closed by saying his own bias was that any city or county that adopts and engages in the comprehensive planning process under PC 1101 makes better decisions than those that do not. This is just a summary of the work group and it is still in progress. The next step is to get opinions and suggestions from other groups. TML has already made some suggestions and others will as well. He said they would continue working on this until the September commission meeting.

### **3. Future Challenges for State and Local Government**

#### **➤ Water Panel Discussion**

##### **a. Presentation by Ms. Patty COFFEY, Planning Branch Chief, U.S. Army Corps of Engineers**

Ms. Patty COFFEY from the U.S. Army Corps of Engineers spoke about the Corps planning activities in the Nashville district. The Corps is a water resources agency that works along watershed boundaries. The Nashville district maintains the Cumberland and Tennessee River watersheds, about 59,000 square miles and almost 1,200 river miles that are commercially navigable. They maintain the locks on those rivers. They have 10 multi-purpose projects on the Cumberland River, 6 are in Tennessee. The Nashville district has 9 hydropower plants and 14 locks on the Tennessee River. They have about 5.2 million acre feet of flood storage; this is above and beyond what is normally behind their dams. Lake Cumberland in Kentucky has a capacity of over 6 million acre feet behind that dam and it is the largest east of the Mississippi River. The Center Hill dam is about a 2 million acre foot dam, which gives you an idea of the scale of their operations.

The Corps works cooperatively with TVA, their sister federal agency along the Tennessee River. The Corps has the navigation functions. They also provide planning assistance to the states, but funds have not been recently appropriated by congress for conducting those.

Dr. GREEN asked if she had any comments about the abundance or scarcity of water in the southeast over the next 20 or 30 years. Ms. COFFEY replied that the Corps has been anticipating some of these problems for some time and worked with Senators Frist and Alexander on some legislation to study these issues. The Corps charges for water from its tributary reservoirs, but does not charge for water for the run of the river. Dr. GREEN asked if there would be enough water in the southeast to satisfy the demand given the amount of growth over the last 25 years. Ms. COFFEY said that there would not be enough water without good, smart growth planning using regional approaches. She stated that many areas appear to be growing without any control. There are some areas where there just is not enough water.

Vice Chairman ROWLAND asked if there had been any shortages like Lake Lanier in the Atlanta area. Ms. COFFEY responded that she had not seen anything to that extent in Tennessee. She said there have been problems in the southern portion of the Cumberland Plateau like Orme and Mountain City in Tennessee. Parts of western North Carolina also had some real water shortages because a lot of the rain that fell in the area of the Smoky Mountains fell on the western side in Tennessee but not much on the Carolina side. Representative

ODOM asked about the Kentucky water resources planning process. Ms. COFFEY said she was not familiar with it.

Chairman RINKS asked who receives the water assessments that the Corps conducts. Ms. COFFEY replied that the approval of the reports is made by the Corps division office in Cincinnati, but the plans are made available on their website. Chairman RINKS asked if anyone enforces or carries out any recommendations in the plan. Ms. COFFEY said that ideally the Corps works with the state to do regional planning. The Corps has also worked with individual areas, like in Giles County. The Corps prefers to address these issues by watersheds rather than by political boundaries. When recommendations are made in a report, the Corps is already looking at what is in the overall public interest. Seventy-five percent of the funds for these projects often come as federal funds, our recommendation should be in the overall public interest which is often larger than individual communities.

Mr. JOHNSON asked what she meant when referring to smart growth. Ms. COFFEY replied that she was referring to instances where communities allow hillside clearances for new development that often result in things like increased water runoff and siltation of streams and erosion of the land. Less of those types of problems are visible when subdivisions are designed more village-like with lots of green space and clustering of homes. Clustering of industrial uses is also something that can result in greater efficiencies on providing water lines. This also helps to reduce storm water runoff and problems due to flooding.

**b. Presentation by Dr. Randy GENTRY, Director, Institute for a Secure and Sustainable Environment (ISSE), UT**

Dr. Randy GENTRY spoke about the context of drought and recent water problems in Tennessee. He stated that the conditions from last year are continuing to affect us now even though rainfall is returning to more normal levels. Rainfall in the Tennessee valley is at 81% of normal for 2008, hydro production is only at 51% of normal. So while rainfall is close to normal, the streams are not receiving normal flows because the soils are still dry. He presented NASA maps, which show drought conditions incorporating a number of different parameters. These maps show southeastern and eastern Tennessee still experiencing severe drought as an extended long term representation. It would take 18 inches of rain or so above our normal rainfall to end the drought in three months time; this would be living in a tropical area. Dr. GENTRY said this is because we are entering what is usually our dry portion of the year. Looking at stream flow data we see that less than 10% of the flows historically have been lower than the current conditions in some of those streams. He stated that conditions are getting better this year, but we still have an extended aggravated response.

The eastern United States is based upon a riparian doctrine, which means that you have the right to use any water on or next to your land. The western United States is governed by a prior use or appropriation doctrine, which means that ownership rights to water are bought or given to someone. Many parts of the eastern U.S. are moving more to an appropriation driven scenario. An example is a dispute between South Carolina and North Carolina over the Catawba River. The U.S. Supreme Court has decided to hear this case and has appointed a federal judge from San Francisco as a special master. They will begin appropriating water from the river by a finding of facts from all of the parties. There is also a Georgia-Tennessee border dispute, where the intent is over resources, and the Tennessee-Mississippi ground water dispute.

Some of our regional planning challenges include the scale of the planning window: 10, 20, or 50 years? This means what kind of water storage will be necessary for use in the dry times. We may have to consider ground water storage, including things like abandoned mines. We may also need to consider binding long term agreements which may be difficult to negotiate whether inside of Tennessee or with entities outside of Tennessee. We know that there are concerns about population growth and future economic vitality, but we will need to include climate variability in that analysis. We know there is a potential for drought to continue, but even if precipitation trends remain steady and the delivery mechanism for that rain changes, that will affect our ability to store water.

**c. Presentation by Mr. Paul SLOAN, Deputy Commissioner, Tennessee Department of Environment and Conservation (TDEC)**

Mr. Paul SLOAN gave his department's perspective on the recent drought: what their forward look is, what steps they would like to take, and what some of their responses were to the drought. Even in the face of the recent drought and the stresses it has placed on the system, Tennessee is blessed with an abundance of water that is unrivaled by some other states. Together with the Cumberland and Tennessee River basins which cover about 70% of our landscape and the aquifer resources in west Tennessee, we have been blessed with more than many states. Our policy challenge is to coordinate the resources we have, such as the Corps and others, to improve the way in which we align these water resources sustainably with the current needs we have and the future needs we project in 50 years, if not further. The drought did not give us the luxury of taking the long view. Given that the drought was the worst we have experienced in 150 years, we have managed pretty well. Last year our department co-hosted weekly meetings at TEMA with our resource agencies to monitor and support communities across the state. The group consisted of TDEC, the Department of Agriculture, the Farm Bureau, TWRA, ECD, TEMA, the Tennessee Association of Utility Districts, TVA, NOAA, the Army Corps of Engineers, Fish and Wildlife,

and the Environmental Protection Agency. The group prepared weekly reports and monitored those public water systems that were experiencing problems.

Statewide we had 25 systems serving approximately 300,000 people who were required to implement mandatory conservation measures and 35 systems that implemented voluntary conservation measures serving 500,000 people. We had only one system that totally failed (Orme). One reason we did not have a worse impact on our water systems was that much of the ground work had been laid previously. Mr. SLOAN said that a great deal of credit is owed to the local governments and local utilities, and counties and cities, that worked together when it was really necessary and the inter-connectivity that has been required.

Under the Water Resource Information Act we have formed a group of experts from across the state called the Water Resources Technical Advisory Committee (TAC). This group has met twice to help inform us and be a resource in developing policies. In the recent budget cycle we lost a \$2 million fund that would have helped us do water resource planning, but we are still moving forward in working with the TAC to develop an update of our state drought management plan.

There were three bills under consideration this past year by the General Assembly, and they were consolidated into a single bill, the Drinking Water Access bill. Essentially this bill was proposed for water systems serving over 100 people to do three plans: a water supply plan for their system, a drought emergency plan, and a conservation plan. It reaffirmed TDEC's authority to develop guidance criteria for those plans and to develop regional plans for those at-risk areas facing water shortages. It also would have created or authorized a drinking water and access fund that could have been funded as funds were available to assist communities in making capital investments consistent with regional plans. As our communities across the state grow and the demands for water increase, we are seeing in a number of communities where water supplies that used to be sufficient are no long adequate to meet future needs. As communities hit that wall, they are looking for other sources or they are looking to continue to draw from existing sources that do not have the capacity to provide the water long enough to justify the capital investment or the stress on the other uses of the water source.

In developing policies to meet the challenges ahead, all aspects have to be taken into consideration or we will have very poor solutions. We are very conscious of the network of aquatic systems and aquatic environment that is one of the most bio-diverse in the country. We also have world class fisheries and these have to be balanced against all of the other water needs we have for industrial and drinking water supply needs. Going forward we are continuing to focus on these integrated plans. We also include an emphasis on helping systems better optimize their existing plans. This includes water leakage which is a problem in



many systems. We will also be looking at source protection and well head protection. Interconnectivity will continue to be encouraged.

Representative TURNER asked if there was any consideration being given to converting sea water. Mr. SLOAN replied that there was none in Tennessee. Mr. JOHNSON asked what type of oversight the state was providing for storm water management. Mr. SLOAN and Ms. COFFEY replied by discussing several of the techniques that could be used to reduce pavement and promote percolation of runoff into the earth to reduce the amount of water collected in detention ponds. Mr. SLOAN added that enforcement of the MS4 permit governing storm water run off was the responsibility of the local government. Mayor GOLDSWORTHY commented that in her community they were looking at more dense urban development models like zero lot line development and new urbanism that calls for more pavement and major storm water detention facilities. Vice Chairman ROWLAND asked if there was any effort being made by the state to encourage recycling of water at car washes. Mr. SLOAN replied that these were not in place now. Dr. GENTRY added that anything that we do that mimics the natural hydrology of the system is going to be better. Tennessee has great ground water systems as well as surface water systems, but they are very different. Anything that can be done to recycle water will be a cost savings for utility providers.

➤ **Oil Panel Discussion**

**a. Presentation by Dr. Bruce TONN, Program Leader, Environmental Sustainability, ISSE, UT**

Dr. Bruce TONN said that the United States annually consumes around 100 quadrillion BTUs of energy. Industry is the largest consumer followed by transportation. About 34% of our energy is imported and most of that is oil. The imports peaked around 1977, went down, and then have increased tremendously over the past few decades.

The Energy Information Administration (EIA) publishes energy forecasts annually. EIA forecasts energy usage through 2030. EIA is forecasting a rise in liquids. The term liquids now includes not only oil but also natural gas and tar sands. Coal use is projected to increase. Nuclear energy use is projected to increase somewhat. Non-hydro renewables and hydropower is projected to be fairly flat over the next twenty years.

The transportation sector will be the biggest consumer of energy by 2030. The industrial sector will be the second largest consumer. There will be an increase in use in the residential and commercial sector, but not a tremendous increase.

World demand for energy is an important issue. In 2004, the world consumed about 450 quadrillion BTUs. By 2030, EIA forecasts that will increase to about

702 quadrillion BTUs. The developed countries' use is expected to remain flat. The largest increase in energy consumption will be in the developing world. The consumption of oil, coal, and natural gas is expected to rise steeply over the next twenty years worldwide.

Some people believe in Hubbert's peak. The Hubbert's peak theory is that there will be a peak in oil production. Even if the drop in oil production levels off there is still a problem given the world demand for oil.

Most of the large discoveries happened before 1950. There have not been large discoveries of oil since the early 1980's. We are still discovering new supplies of oil but not at the rate we were before. Production is outstripping the supply of new oil resources. Gas prices will likely remain high and might continue to rise over the long term.

There are substitutes for oil and gasoline. Corn ethanol is an option. There are environmental concerns about the production of corn for ethanol and its impact on food prices. Some are concerned that there is a low energy return with corn ethanol. Cellulosic ethanol has a lot of promise but it is not commercially viable yet. Biodiesel is not a grand solution because there is a limited demand. Hydrogen is an option but there are major questions about how to build infrastructure to supply hydrogen to vehicles. There are technology issues such as how do you build a tank for hydrogen to keep the hydrogen in your car without it escaping into the atmosphere. Plug-in hybrids may be available soon. We are waiting for better battery technology to increase the energy density of the battery so you can go further on a charge.

Sprawl has contributed to our energy situation. U.S. population between 1990 to 2001 increased 14% but our vehicle trips increased 21%. Vehicles miles traveled increased 35%. Person trips increased 35%. Trip length has increased 11%. This is an indication of sprawl. A lot of trips are for family and personal reasons not just work. Nationally, very few people use public transportation.

There are several potential state level solutions. These include improving mass transit and ride sharing and changing regulations relating to working at home. Tennessee has more control over an all electric future than other scenarios because Tennessee controls its electric system. The state might want to consider what an all electric scenario might be for Tennessee. A lot of economic development opportunities exist to develop new technologies which could be spun off into businesses that could serve the state of Tennessee.

Chairman RINKS announced that tab 8, Potential Effects of the Economy on State and Local Governments' Fiscal Health, would be addressed at the September meeting.

#### **4. Set Next Meeting Date**

Chairman RINKS called for an agreement on the date for the next meeting. After some discussion, Chairman RINKS announced that the meeting would be set for Tuesday and Wednesday, September 16-17.

Chairman RINKS adjourned the meeting at 12:13 p.m. Lunch was served in the Legislative Plaza cafeteria.