

**Tennessee Valley Authority  
Regional Resource Stewardship Council  
September 24 -25, 2014  
Meeting Minutes**

The Tennessee Valley Authority (TVA) Regional Resource Stewardship Council (RRSC or Council) convened for the first meeting of its eighth term at 8:00 a.m. EST on Wednesday, September 24, 2014, at the Brasstown Valley Resort, 6321 U.S. 76, Young Harris, Georgia.

Council members attending:

Russ Townsend, Chair	Mike Ball	Gregory Cable
Phil Hazle	Mike Hommrich	Mitch Jones
Jean Kellems Elmore	Avis Kennedy	C. Adam Kinser
Brad Kreps	Tom Littlepage	Gary Myers
W.C. Nelson III	Rhonda Rice	

Designated Federal Officer: Dr. Joseph Hoagland  
Facilitator: Lee Matthews

Appendix A identifies the TVA employees, members of the public, and others who attended.  
Appendix B is the agenda for the meeting.

Appendix C is the Formal Council Advice provided by the Council.

Copies of the presentations given at the meeting can be found at <http://www.tva.gov/rrsc/>.

The majority of the meeting was devoted to presentations by TVA staff about the current status of the Reservoir Operations Study (ROS) and answering questions asked by Council. Council members asked clarifying questions about and offered individual suggestions on certain aspects of the ROS. Formal Council Advice was also provided by the Council at this meeting.

**1. Welcome and Introductions**

- a) Mr. Matthews welcomed the Council and reviewed meeting protocols and provided a safety moment.
- b) Dr. Hoagland welcomed the Council and summarized the purpose of the meeting which was to reflect upon and review the ROS and provide advice to TVA on the tenth anniversary of the ROS.
- c) Russ Townsend, Chair, welcomed the Council. He recognized two long-term Council members, Mark Hommrich and George Kitchens, who are leaving and thanked them for their service. Mr. Hommrich thanked the Council and TVA for the opportunity. Mr. Kitchens was unavailable to attend the meeting, and TVA will follow-up to personally thank Mr. Kitchens for his service. Mr. Townsend also announced that he will be stepping down as Chair of the Council, but that he will serve on the Council. He stated that he appreciated the opportunity to serve in this role. TVA thanked Mr. Townsend for his service as Chair.

## 2. Designated Federal Officer's Report and RRSC Meeting Protocols

### a) DFO Report

Dr. Hoagland provided updates about Trout Hatchery funding. There have been public meetings and wide variety of discussions about possible options. He will provide any new updates to the RRSC at the next meeting. He also thanked the Council for its input at the last Council meeting. There is a renewed focus on TVA stewardship opportunities and the Council's input has helped guide that direction. He announced that there will be a brief presentation about floating houses, and TVA will provide more information to the Council at an upcoming meeting about the issue. Floating houses impact the environment in a multitude of ways, and these issues are not always easy to address.

### b) RRSC Protocols (Presentation can be found at [www.tva.gov/rrsc](http://www.tva.gov/rrsc))

Kendra Mansur, attorney from TVA's Office of the General Counsel, highlighted the importance of this first meeting of the eighth term and she thanked the Council, on behalf of TVA, for its participation on past terms and for its participation in this current term. She reiterated that the Council complies with the Federal Advisory Committee Act and regulations. She remarked the recommendations of the Council are greatly appreciated by TVA. She discussed voting protocols and quorum issues, and complemented the Council on its balanced membership and achievements.

## 3. Floating Houses Presentation (Presentation can be found at [www.tva.gov/rrsc](http://www.tva.gov/rrsc))

Holly Oswalt, Specialist from Process Performance, TVA's Natural Resources, presented TVA's concerns associated with floating houses. She was accompanied by James C. Adams, Manager, Recreation Agreements, TVA's Natural Resources, who also answered questions about the issue. Ms. Oswalt explained that TVA is reviewing its management and oversight of floating houses and non-navigable houseboats to address existing issues and manage and regulate the structures. TVA is conducting an environmental review under the National Environmental Policy Act (NEPA), and five public scoping meetings have already occurred throughout the Tennessee Valley. More information can be found at <http://www.tva.gov/floatinghouses/index.htm>. The Council was extremely engaged in this presentation and followed up with several questions and comments.

Russ Townsend, Chair, inquired about the level of review under NEPA. TVA explained that decision is currently to be determined. TVA intends to have a draft available next year, engage the public at more public meetings and update this Council at its next meeting.

Mitch Jones remarked that TVA is doing a good job sorting through this complicated issue. He noted that enforcement is the key to addressing this problem. He recommends that TVA and the United States Army Corps of Engineers (Corps) continue to work together to address this issue so that the policy can be consistent. He said that one of the major hurdles is that it is difficult to determine what kind of structure it is and what regulations apply. Is it a boat or is it a house? Mr. Jones commented that the recent electrocution deaths across the country at marinas were due to homeowners not taking care of equipment properly, and that safety should be of paramount concern.



Avis Kennedy agreed that the Corps and TVA need to work together and provide a consistent response to the extent possible. She notes that Congress has charged the Corps and TVA with different responsibilities, and each agency has to follow the laws enacted for its specific mission. She pointed out that there are some critical differences that could impact these discussions, but that continued partnership would be beneficial.

Tom Littlepage asked upon which reservoirs these floating houses are concentrated and if there are any in Alabama. He also inquired about state law and its applicability to regulate the environmental concerns, and whether the structures are associated with a specific kind of ownership. TVA responded that there are approximately 900 of these structures located on Norris Reservoir; 475 of these structures located on Fontana Reservoir; 100s of these structures located on several other reservoirs, and a few reservoirs only contain a few floating houses. A map of the reservoirs and location of identified floating houses is located on TVA's website. TVA stated that there are different governmental authorities who regulate these types of structures, and it can be confusing for the public to identify who is the appropriate agency to contact. If the structure is anchored to the bottom of the reservoir, then TVA's 26a jurisdiction is triggered. Approximately 99% of these structures are associated with a marina. Mr. Littlepage stated that this issue is a good opportunity for the Council to review. He recommends that TVA works with local power companies and others to collect data and evidence on the effects. Data could include accidents/incidents that occur due to poor anchoring, poor electrical or other equipment and discharge issues. Mr. Littlepage also asked who assumes the risks for varying water levels such as in an extreme drought or flood for these type of structures. TVA responded that any type of land use license or 26a permit specifically note that varying water levels could occur.

Rhonda Rice inquired about the level of public involvement. TVA responded that in addition to the publication of the Notice of Intent in the Federal Register, TVA has held five public meetings on this issue. One of those meetings had over 100 attendees, several had between 30-40 attendees, and one meeting had only a few people.

**4. Dam Safety Presentation** (Presentation can be found at [www.tva.gov/rrsc](http://www.tva.gov/rrsc))

David Bowling, General Manager, TVA River Operations, provided the Dam Safety presentation. There are 142 structures in TVA's Dam Safety inventory. TVA is currently undertaking Dam Safety initiatives. TVA provides Dam Safety governance and oversight, and works with other local and federal agencies to incorporate appropriate responses.

**5. Rivers Operations Presentation** (Presentation can be found at [www.tva.gov/rrsc](http://www.tva.gov/rrsc))

TVA staff, David Bowling, Kelie Hammond, Manager, Hydrology & Hydraulics, Flood Risk & Water Supply; James Everett, Manager, River Forecast Center Operations Support presented. The topics included TVA's Integrated Reservoir System, ROS History and Overview, ROS in 2004, ROS Successes and Climatic Extremes. TVA maintains an integrated river system that provides multiple benefits for navigation, water supply, flood-damage reduction, recreation, power generation, and water quality. The ROS has allowed TVA to effectively manage extreme droughts and floods as well as provide a balanced response over the last ten years.



Russ Townsend, Chair, inquired about whether the ROS addresses cultural resources issues in times of droughts and floods, in particular, and whether there needs to be any adjustments in the ROS. TVA responded that the ROS does incorporate cultural resources issues.

Mike Ball commented that there competing special interests and that to be fair to everybody, you have say “no” to everybody at some point or another. He recommends that the best way to communicate is with clear, simple, concise communication on a frequent basis. He suggested more types of communication with the press such periodic river level reports to press outlets and media coverage on local television stations. He recommended more of a narrative on operating strategy so that the public and interest groups can understand the complex nature of balancing the river system, even if they do not agree with the balance. TVA stated that it appreciated these suggestions and it is working on its communications strategy. TVA has made strides recently in its external communications.

Greg Cable and Mitch Jones inquired about safety measures at dams and wanted to know how TVA protects its operations and facilities. TVA responded that for every dam, TVA has emergency action plans with at least two scenarios - sunny day failure and worst case flood inundation area. If there are changes to dam operations, those changes are distributed and reviewed with local officials and Emergency Management Agencies. TVA regularly evaluates dam safety.

Mark Hommrich asked to what extent power generation takes precedent over river operations. TVA responded that TVA does not sacrifice navigation or flood control for power generation. TVA meets power demands and adjusts its river operations to assist in times of unusual events without sacrificing river operation objectives.

Mitch Jones commented that it will be challenging to find the right balance in the future and what TVA has done in the past is remarkable. He asked how long TVA anticipates the drawdown to take on Chatuge Reservoir. TVA responded that it anticipates removing bridge piers in mid-October and completion in January.

Jean Kellems Elmore commented that everything cycles and flexibility is important. In the past, she commented that the public was concerned with drought and then with flooding. She noted that there is a lot of planning and balancing that TVA undertakes, and that is important for the public to understand all of these factors. To highlight the importance of a balanced river system, she remarked that, “If you do not take care of the water, the water will take care of you.”

Avis Kennedy wanted to know if there was a formal hierarchy of objectives in the ROS. TVA responded that there was not. She also asked about the extent to which TVA has to operate for navigation depth far downstream. TVA replied that in the 2012 drought in upper Mississippi, the Tennessee and Cumberland River provided approximately 40 percent of the flow and helped to keep navigation open. Ms. Kennedy also wanted to know whether TVA could add aquatic ecology to the objectives in the ROS.

Brad Kreps asked about TVA’s announcement to retire some coal plants and the effect that would have on river operations in the production of power. TVA responded that the Integrated



Resource Plan (IRP) includes using existing hydro resources and places an emphasis on efficiency, renewables, and constructing gas plants.

Tom Littlepage informed the Council that National Oceanic and Atmospheric Administration (NOAA) is coming online in Tuscaloosa, Alabama and has a 24-7 operating center. He wanted to know how TVA defines a normal period. TVA responded that when looking at system planning, TVA is looking at a tighter range (more recent history). Mr. Littlepage commented there is less tolerance of risk. Even though TVA can explain reasons for flooding due to extreme weather conditions and there were prevention of catastrophes, the public is still concerned. Mr. Littlepage stated that one of the real benefits of ROS is that it provided an opportunity for TVA to reach out to the public and obtain feedback on what people perceive versus the reality. He suggested that TVA periodically go back throughout the Tennessee Valley and explain to the public how TVA operates a multi-use system that incorporates policy decisions, flexibility, impacts of de-rating thermal plants, and risks of operating a robust, varied system.

Gary Myers asked whether TVA has a report card to rate itself. TVA responded that it does and that it has over 10,000 minimum commitments every year, and TVA tracks those every day. TVA also tracks tributary balancing weekly. On TVA's website for ROS, TVA shares information about how it is meeting its targets. TVA feels confident about meeting its targets, and when it does not, TVA has a good reason for doing so. Gary commented that when he worked at TWRA beginning in 1974, he worked with a lot of TVA Natural Resources staff. He said many of those staff have retired and have not been replaced. TVA responded that in the late 1990s, Congressional appropriations for stewardship activities were phased out. In that process, TVA had to assess critical stewardship activities, and a part of the reason the RRSC was formed was to make sure that TVA sustains critical stewardship activities. TVA recognizes the importance of what it does, but it also has to balance the fact that utility rate payers pay for it.

Will Nelson inquired about fluctuations of water in the river and asked whether capacity has changed throughout the years with sedimentation in the lakes or erosion of shoreline. TVA responded that TVA has level storage tables and that TVA evaluates the levels. Overall, TVA stated that sedimentation and erosion are not significant due to large volume of water in the system. TVA has participated in shoreline stabilization projects also. Mr. Nelson commented that he appreciates the careful balancing of the river system by TVA, and that TVA should continue to inform the public about the scope of what TVA handles. He recommended that more information be shared with the public. If the ROS could be tweaked in the future after meeting its other important objectives, he would appreciate higher reservoir levels during the winter.

Will Nelson and Brad Kreps inquired whether TVA is facing any big challenges in the future with the ROS. TVA responded that informing the public about its balanced operations and meeting continued demands are challenges. TVA remarked that as times change, TVA must adapt to supply reliable power and balance river operations. Twenty years ago on a 98 degree day, some people would have wanted TVA to keep the lights on by running hydro, but more and more, those decisions impact other types of users of the river today. Every year, it becomes more complex to balance all the competing factors. When TVA makes one decision, it impacts the needs of other groups and objectives.



TVA then adjourned for lunch and the field trip.

## **6. Day 2 Welcome and Discussion of Advice Questions**

Dr. Hoagland and Mr. Matthews welcomed the Council to the second day of the first meeting of the eighth term. TVA stated that it looked forward to hearing from the Council. Council commented on the amount of great information presented yesterday. The Council participated in discussions to formulate its advice and asked further clarifying questions about the ROS.

During discussions, the Council collectively agreed that the ROS is working. The Council stated that there are small nuances that could be changed, but the approach has been very effective. The fundamental answer from the Council is that the ROS is working as intended. The ROS is a living process that is both specific and flexible at the same time. The Council commented that it is not asking TVA to redo the ROS, but TVA should continue to put forth a concerted effort to provide the right balance and initiate any small improvements that can be made and provide opportunities to the public to understand TVA's activities better.

Council members wanted to know how TVA makes daily decisions to balance the objectives. TVA responded that with the competing interests occurring on a daily basis, TVA makes river system decisions through a collaborative process. TVA's River Operations meets on a daily basis to discuss whether this is a "normal" day or an extreme weather event and TVA evaluates all program interests and discusses its options. TVA regularly engages TVA's Office of the General Council. ROS is not a manual, but it is an Environmental Impact Statement (EIS) that was written and approved by TVA's Board of Directors. In the ROS, there are some concrete objectives, but there are also flexible parameters. TVA remarked that it depends on what is happening on any given day as to which objective may take priority. TVA responded that agricultural flooding is considered a flood control operation. For TVA, it becomes a question of how TVA handles and allocates flood storage. From a priority list, protecting human life comes before protecting crops.

Council confirmed that TVA is continuing to manage the conditions that impact Endangered Species and aquatic species. TVA responded that it does monitor conditions impacting species. TVA manages water quality. TVA provides agencies like United State Fish and Wildlife Service (USFWS) and other local and state agencies a balanced approach so that those agencies can manage the resources in the rivers.

Council confirmed that from a navigation perspective, the ROS has worked fairly well. Occasionally, there were a few hard spots that have been successfully resolved. TVA and Navigation folks communicate often and work through these issues well.

Council members wanted to know about climate change and impacts in the ROS and whether TVA worked with local climate control personnel at other agencies. Council communicated that climate change is not a dramatic impact that TVA is suddenly going to experience. TVA should have a process to deal with variability changes, reduction in inflows, and other things that could slowly impact operations to a significant level. TVA responded that TVA has a Climate Adaptation Plan that incorporates all of TVA's operations and identifies risk and opportunities relative to a changing climate. TVA has based this plan on the 3<sup>rd</sup> National



Climate Assessment that models climate change and related impacts. The modeling in this recent Assessment shows the Valley to be in an area with more modest changes in temperature and moisture, relative to other region and points out that increasing variability is likely.

The Council wondered if there was a way to add objectives to showcase that TVA is a lot greener than some might think and that TVA's balanced objectives already include aquatic ecology. TVA could highlight aquatic species by including it as an objective and also highlight TVA actions that mitigate cultural resource issues.

Council inquired if TVA benchmarked itself against other utility providers. TVA does use benchmarking as a guide. For TVA's Dam Safety Program, TVA uses three comparisons closest to it – the Bureau of Reclamation, Federal Energy Regulatory Commission, and United States Corps of Engineers. TVA also participates in groups nationwide such as Certified Energy Auditor in Training (CEAIT). TVA has prepared benchmarking studies with it. Most similar to TVA is Electric de France, and it is not a one to one ratio because of the different constraints, operating objectives, and expectations. In the United States, Bonneville Power Administration is probably most similar to TVA, but it is safe to say that TVA is very unique.

Council stressed that communication is something that TVA should continue to address. Council remarked that TVA is very good at solving problems. TVA needs to inform the public, through social media and other media outlets, about the many good things TVA does including how well it manages the river. Council recommends that TVA gear its communications to the people that are normally not vocal. As priorities shift, TVA should give the public more information about those changes.

#### **7. Public Comment Period**

No members of the public provided comments.

#### **8. Council Formal Advice Questions**

The Council deliberated and finalized its advice. The Council formally moved to adopt the Formal Council Advice attached herein as Exhibit C. The Council unanimously approved the Formal Council Advice at 10:45a.m.

#### **9. Closing Comments**

Dr. Hoagland thanked the Council for its efforts and advice. He said that the meeting was very productive and generated great ideas. TVA will finalize the minutes for the meeting and submit it for Chair approval. TVA informed the Council about the option to attend a tour at Blue Ridge Electric Cooperative at the conclusion of meeting. The next meeting of the Council is tentatively scheduled for April 8-9, 2015, with the location to be determined. The meeting concluded with a safety moment by Dr. Hoagland. The meeting adjourned at 10:55 a.m. EST.

**Minutes Approved:** Approval by e-mail for September 24, 2014 **Date:** December 2, 2014  
**Russ Townsend, RRSC Chair**

**Minutes Approved:**  **Date:** 12/18/2014  
**Joe Hoagland, Acting RRSC Chair for September 25, 2014**

**Appendix A**  
**Non-Council Meeting Attendees**

<b>TVA</b>			
Dr. Joseph Hoagland – DFO	Lee Matthews – Facilitator	James C. Adams	Mike Bradley
David Bowling	James Everett	Kelie Hammond	Rebecca Hayden- Morgan
Beth Keel	Kendra Mansur	John Myers	Holly Oswalt
Jessica Stone	Elizabeth Upchurch	Van Wardlaw – Executive Vice President and Chief External Relations Officer and interim Senior Vice President, Shared Services	

<b>Members of the Public</b>	
None	

<b>Others</b>
Sylvia Whitehouse – TVA Office of the Inspector General



**Appendix B**  
**Meeting Agenda**  
**8<sup>th</sup> Term Regional Resource Stewardship Council (RRSC)**  
**September 24 - 25, 2014**  
**Brasstown Valley Resort, Young Harris, Georgia**

**Day 1 – September 24**

<b>8:00</b>	<b>Welcome</b> - <i>Joe Hoagland, Designated Federal Officer (DFO)</i>
<b>8:10</b>	<b>Introductions, Recognitions, Agenda Review-</b> <i>Russ Townsend, RRSC Chair; Lee Matthews, Facilitator</i>
<b>8:20</b>	<b>DFO Briefing-Hoagland; Kendra Mansur, Attorney</b> <ul style="list-style-type: none"> <li>• <i>8<sup>th</sup> Term Renewal Update</i></li> <li>• <i>Trout Update</i></li> <li>• <i>Recap Feb 2014 Meeting</i></li> </ul>
<b>8:40</b>	<b>Natural Resource Stewardship: Floating Houses Update –</b> <i>Holly Oswalt, Specialist, Process Performance</i>
<b>9:20</b>	<b>Dam Safety Management Update –</b> <i>David Bowling,</i> <i>General Manager, River Management</i>
<b>9:35</b>	<b>Advisory Session Topic and Discussion Questions -</b> <i>Matthews</i>
<b>9:45</b>	<b>Break</b>
<b>10:00</b>	<b>River Operation –</b> <i>Tom Barnett, Sr. Manager, River Forecast Center; Kelie Hammond, Manager, Hydrology &amp; Hydraulics, Flood Risk &amp; Water Supply; James Everett, Manager, River Forecast Center Operations Support</i> <ul style="list-style-type: none"> <li>• <i>About the Reservoir Operations Study (ROS)</i></li> <li>• <i>Objectives and Successes-10 years</i></li> <li>• <i>ROS Guidance &amp; Extreme Conditions</i></li> <li>• <i>Challenges</i></li> </ul>
<b>11:30</b>	<b>Safety Discussion and Recap-</b> <i>Matthews</i>
<b>11:45</b>	<b>Lunch –</b> <i>Cedar Knob Room</i>
<b>12:45</b>	<b>Load vans/depart for marina</b>
<b>1:15</b>	<b>Field Trip</b>
<b>5:00</b>	<b>Adjourn –</b> <i>Hoagland</i>
<b>6:00 - 8:00</b>	<b>Dinner-</b> <i>Overlook Room, Brasstown Valley Resort</i>

**8th Term Regional Resource Stewardship Council (RRSC)**  
**September 24 - 25, 2014**  
**Brasstown Valley Resort, Young Harris, Georgia**

**Day 2 – Sept 25**

<b>7:30</b>	<b>Breakfast</b> – <i>Main Dining Room</i>
<b>8:00</b>	<b>Recap Day 1-</b> <i>Matthews/Hoagland</i>
<b>8:30</b>	<b>Discussion and Council Advice</b>
<b>9:30</b>	<b>Public Comment Session</b>
<b>10:30</b>	<b>Council Discussion and Advice (continued)</b>
<b>11:30</b>	<b>Wrap up and Adjourn -</b> <i>Hoagland</i>
<b>11:45</b>	<b>Lunch</b> – <i>Main Dining Room</i>
<b>12:15</b>	<b>Tour- Blue Ridge Mountain Electric Membership Corporation (BRMEMC) Building-</b> <i>Matthew Akins, GM of BRMEMC</i>
<b>1:15</b>	<b>End of Tour</b>



**Appendix C**  
**Formal Council Advice**

**Regional Resource Stewardship Council**

**Advice Statement, September 25, 2014**

**Approved unanimously by RRSC**

**1. Does TVA's Reservoir Operations Study (ROS) approach still balance the objectives in an optimal manner across the Tennessee Valley?**

- Yes, the ROS approach is successful. It allows for flexible operation that has managed the effects of weather extremes while accommodating different demands. Enhanced communication and public education regarding the balancing and the general functioning of the system is appropriate. We appreciate the benchmarking efforts for continuous improvement that showcase TVA as a leader in river operations.
  - Continue to avoid complacency and improve operations by practicing adaptive management to optimize operations and to address challenges that may come in the future (development; climate extremes; water supply and use pressures such as inter basin transfer).

**2. Within this operating framework do you have recommendations?**

- Continue to use social media to show the positive value provided. We appreciate the current social media approach. Incorporate social media in event communications. Proactive communication helps mitigate and manage crises. Build relationships with local media outlets that can prove to be helpful in emergencies or other events.
- Communicate that the ROS is no longer a study, but an on-going decision management process.
- Provide greater public education about the overall river system, including the connected river system, hydropower, navigation, flood control, aquatic ecology, recreation, water supply, and the unique opportunity that we have in the Tennessee Valley. Also, provide public education about the flexibility and complexity of day to day decision making.
- Work with federal, state and local governments on what is occurring and what is affecting operations in the Valley.

- Continue to engage local Emergency Management Agencies and first responders especially in safety analysis discussions.

**3. Are there other objectives that should be considered and prioritized?**

- Balance the operations to optimize the value - priorities vary due to conditions.
  - Underscore aquatic ecology as a major component of TVA's water quality objective. Consider elevating that beneficial aspect to help increase awareness that TVA is an environmental steward.
  - The RRSC supports staff efforts to continue to mitigate impacts to Cultural Resources.
- Target more communications to the less vocal majority.
  - Capitalize on opportunities to communicate with various audiences through appropriate media outlets (including social media, printed material, Local Power Companies, newsletters, etc.).