
Tennessee River Basin Network Meeting

August 6-7, 2019

Lake Guntersville State Park, Guntersville State Park

Post-Meeting Summary

The Tennessee River waters coursed below Guntersville State Park during the 5th annual meeting Tennessee River Basin Network (TRBN) meeting on August 6-7, 2019. Over 62 participants and speakers representing 42 organizations attended and recognized the achievements of fellow Network attendees while surrounded by the beautiful lands and waters of northern Alabama. This summary provides an overview of what took place and shared ideas and direction for the ongoing success of the Network.

The Network goals for the meeting reflected consistency with prior years to:

- Engage with new people and new partnerships
- Glean new knowledge and identify collective priorities for action, and
- Celebrate Network achievements

Participants selected TRBN's goals for 2019 through an action planning process that designated four key areas for implementing priorities with greatest support as follows:

- **Seeking and securing funding for the TRBN Network** and general support
- **Addressing the threat of microplastics**
- **Developing the Web site and presence** by engaging with TRBN partners
- **Integrating social media across the TRBN**

The Steering Committee will discuss and determine the structure for TRBN partners to elevate solutions for these 2019 priorities along with the existing priorities related to governance and strategic planning, leverage of the *Hidden Rivers* film and promotion of targeted local messaging, and the Report Card tracking.

More details on the program and results are below.

Meeting Outcomes

The Tennessee River Basin Network (TRBN) continues to mature. The sustained combination of the annual TRBN meeting and year-round leadership has built a foundation for deeper and broader engagement. Despite a smaller overall attendance, the northern Alabama location brought new voices to the table, along with familiar faces. Of significance are:

- the **updates to the governance of the TRBN and a dedicated steering committee that connect and engage on basin-wide shared priorities**, including **selecting the new steering committee leadership** with Shannon O’Quinn serving as president, Kat Diersen as Vice President, Elizabeth Smith as Secretary, and Hayley Wise as treasurer. Just two years ago, the TRBN was getting its first introduction to a governance structure and now the group is transitioning to new leadership.
- Gillian Bee’s **presentation on the year’s steering committee outcomes**, including refinement of the vision, mission, goals, and governance document, as well as the communications growth through the ongoing newsletter, and an update on Network funding efforts.
- TRBN participants’ choice for the **next two meeting sites: Chattanooga in 2020 and western North Carolina for the 2021 meeting.**
- the selection of **three priority areas** to focus on in 2019-2020—
 - 1) **funding the TRBN infrastructure,**
 - 2) **focusing on the threat of microplastics** to the Basin, and
 - 3) **continuing to develop the Web site for better communications.**
- the continuing **commitment to leverage the impact of the *Hidden Rivers* film** and ongoing distribution and messaging
- on-going efforts to **work on improving the Report Card** river health criteria

The TRBN continues to build and refine its internal and external infrastructure, prompting engagement from new and traditional partners. One challenge is sustaining this engagement, but recent fundraising will help as the organization considers broader opportunities and results including the possible creation of a 501(c)(3) to support success. More details are in the report that follows.

Summary of Meeting Sessions and Awards

Day 1:

Shannon O'Quinn of the Tennessee Valley Authority provided the welcome kick-off, followed by Kendra Briechele of The Conservation Fund, the meeting facilitator, who outlined the meeting goals and laid the groundwork for the program.

Session 1: Keynote: Alabama Action – Protecting Place through Partnerships

Dr. Patrick O'Neill, Geological Survey of Alabama (retired), shared his life's work, highlighting Alabama's success through collaborative efforts to manage, recover, restore, and monitor aquatic habitats and the species that rely on them. He pointed to the many environmental challenges—from sedimentation to contested water supplies—and the need to protect water resources through collaborative efforts and strategic use of tools. In particular, he highlighted the use of Strategic Habitat Units (SHUs) to prioritize and focus conservation activities and funding that helps result in reintroductions and habitation restoration, precluding the need to list, delist, or down-list species from the ESA.

Session 2: Sustaining the TRBN: An Update on TRBN Achievements

As mentioned in Meeting Outcomes above, Gillian Bee, Clemson University, Landscape Conservation Fellow, came fresh out of the morning's Steering Committee meeting with updated information on governance, the committee's progress throughout the year, funding efforts, and TRBN's Web presence. The success is apparent both from the development of the governance documents, as well as the high "open rate" of the TRBN e-newsletter, 32%—compared to the industry average of 21%. The session also provided an interactive vote of TRBN's priorities, which helped prepare for the priority-setting discussion in Session #6. Finally, the session guided participants' input for next year's location (back to Chattanooga!) and for the 2021 site (western North Carolina).

Session 3: Network Members Celebrate Success: Success Stories

This panel session provided four on-the-ground success stories of TRBN implementation and stewardship with two examples each from the Communication and Outreach Community of Practice (CoP) and from the Science and Management CoP.

1) *Jason Meador, Aquatic Program Monitor, Mainspring Conservation Trust*, shared his work in increasing environmental and conservation education in priority watersheds, while underscoring the growth from reaching 1,000 youth and adults in 2013 to over 3,000 in 2018. The environmental education is focused more on school kids, while a broader focus on people of all ages supports conservation education. Jason engages kids through science, by teaching them about biodiversity, getting kids into the creeks, and exposing them to the “wild aquarium”. Through the Shade Our Streams program, Jason screened a video of Mainspring’s work with property owners to adopt low impact changes such as riparian buffers, shading, and native plants to reduce sediments and run-off for better water quality.

2) *Steve Lindeman of the Nature Conservancy of Virginia* highlighted his work to enhance recreational, economic, and conservation opportunities in the Clinch River Valley--(CRV), one of the most biologically diverse areas in North America. Crossing Virginia and Tennessee, the CRV Initiative is focused on protecting land, nurturing the Clinch River State Park, and creating access for people to experience the Clinch, in hopes of engaging people to serve as stewards of the resources. This includes strengthening communities by using economic development as a conservation and community development tool—revitalizing downtowns, marketing the region, and supporting entrepreneur development, along with promoting environmental education. The Initiative has resulted in funding for Park staff, evidence of \$3.5 million/year in economic impact, and successful outreach to legislators who appropriated ~\$5 million for land acquisition and development, and ongoing strong community support.

3) *As director of the Nature Conservancy’s Freshwater Programs, Jason Throneberry* works to protect and restore large-scale upland forests to support better water quality in Alabama and surrounding states. His work is based on biodiversity, use of strategic habitat units, and the input of federal, state, and private partners. Jason highlighted a few priority watersheds and the impact of protection, including the Paint Rock Watershed—a system with relatively intact rivers and forest land that support aquatic biodiversity, yet face ecological stressors ranging from excess sediments, incompatible forest and agricultural practices, hydrological alteration, and aquatic organism passage. Using a series of strategies—ranging from assessment, protection, restoration, collaboration, and landowner outreach—has resulted in protection of 40,000 acres of headwaters and forests along with 40 restoration projects plus additional efforts to address the unique needs for urban and rural practices.

4) Dr. Amy Turner, along with her Sewanee Headwaters Initiative colleagues, Dr. Kristen Cecala and Kevin Fouts, have been managing the health of headwater streams, investigating stream systems, and filling data gaps. Their initiative is focused on 13,000 acres of forest habitat in Sewanee, TN at the University of the South, with the intent to support research and outreach on water quality and climate change that will have a significant connection to the public in their community and regionally across the Tennessee River watershed. They tailor their programs to the range of local, regional, student, and academic communities from experiential learning and outreach for kids to grant funding and field support for academic sources.

Evening Program: Awards Ceremony and Celebration with Evening Showcase

Bucky Edmondson, Director of Natural Resources at TVA and **Shannon O'Quinn** recognized the achievements of both the TRBN's Science and Management and the Communication and Outreach Communities of Practice.

- Dr. John McFadden, Senior Fellow of the Tennessee Environmental Council, was recognized as the TRBN 2019 Science & Management Winner for his enduring commitment for environmental protection and water quality.
- Casper Cox, Tennessee's regional representative of the North American Native Fishes Association was acknowledged as the 2019 Education & Outreach Winner for conservation of aquatic biodiversity in the Tennessee River Basin.

Perhaps most importantly, both expressed unbounded joy and curiosity for working in aquatic health and biodiversity.

Evening Speaker: A Vision for the Future of TRBN

A Geological History of the Lower Tennessee River Basin: 300 Million Years of Changes Along Its Southern Course.

Dr. Jim Lacefield, retired professor of Biology and Earth Sciences at the University of North Alabama and author of *Lost Worlds in Alabama Rocks*, provided an engaging evening program on the geological, geomorphological, and biological/genetic evidence for the Tennessee River Basin's remarkable history of changes in course and landscape settings and how these changes helped promote the region's present-day biodiversity.

Day 2

Session 4: Volkswagen and the TRBN: Engaging Industry to Seek Common Goals

Kaye Fiorello, Environmental Compliance Specialist for Volkswagen Chattanooga, bridged the two Communities of Practice. Kaye works with schools and youth to educate them about Volkswagen's environmental compliance requirements, their outcomes for species biodiversity, and their efforts to increase educational access.

Having a non-traditional partner participate in the program allowed TRBN participants to better understand the potential and the importance of strategically engaging business. Kaye shared the reasoning for VW's decision to locate in Chattanooga—as a city that had transformed from choking on incredible air pollution to one that is globally-recognized for its commitment for sustainability and quality of life. VW actively sought a brownfield site for its plant location and led the site's clean-up and restoration. The company also restored and protected wetlands, introduced native plantings, installed silt protection and stormwater capture, and protects endangered flora and fauna. The site supports 80 acres of conservation land that is home to 167 species of birds, including 7 on the IUCN Red lists. VW seeks to go beyond compliance: with an ongoing focus on climate change, CO2 neutrality, and biodiversity.

Session 5: Cultivating Action – Brief Reports for Looking Ahead

Jeremy Monroe of Freshwaters Illustrated provided an update on the impact of the *Hidden Rivers* film and ideas for the 2020 screening season. This includes screening the film on a scaled basis (that is, rates differ for cities, towns, rural areas), creating a promotional kit for hosts, creating a classroom version with curriculum, activities, and workshops, and fundraising for PBS screening and others. He's also getting ready to promote Casper Cox's upcoming *Hidden Rivers Snorkeling Guidebook*, as well as the Tennessee River Basin Report Card.

Brad Collett, director of the Tennessee River Project at the UT School of Landscape Architecture, will spearhead the cross-pollination of the *Report Card*. Since its creation in 2016, he and the University of Maryland Center for Environmental Science collaborators will continue to set up discussions on how to improve the River's "C" grade. Promotion will include using social media and website content strategy, creating an advocacy guide, identifying key take-aways and talking points, developing curriculum modules, showcasing at TRBN presentations and exhibits, and partnering with Hidden Rivers on screenings.

Session 6: Cultivating Actions – Collective Priorities for TRBN (2019-2020) - Thoughts for Ongoing Initiatives

Kendra Briechle, course facilitator and manager of community and economic development at The Conservation Fund, led the process for small groups pursuing strategies to address the four priority areas selected by the TRBN on Day 1. See Meeting Outcomes Summary on page 2 and the Summary of Priority Projects below.

APPENDIX

Summary of Priority Projects

Group 1: Microplastics

The overall goal is to reduce micro-plastics, particularly by keeping plastics out of streams. The micro-plastics group asked themselves what is the extent of the problem? what education/awareness is needed? and what actions are needed? Under the extent the group asked three key questions:

1. What do we know currently?
2. What research is going on?
3. What research gaps exist?

From there the group noted the need to increase knowledge and research by asking relevant questions including:

- What is the effect on natural communities?
- What is the effect on humans?
- What are the sources, the delivery system?
- Are there hot spot sources?
- Is there a tributary study?
- What do stormwater associations know and how are they involved?

And potential actions, including

- **Identifying target audience and messages**
- **Focusing on education and actions by targeting and engaging audiences, including stores, citizens, decisionmakers, connecting with other consortia**

working on the issues (such as Terracycle NJ) and **reaching out to businesses**, such as contacting Kroger **to find out how they changed from plastic to paper.**

- Creating a **need for people to change behavior** by identifying and communicating how microplastics impact people
- **Creating a marketing plan, identifying who is working on education campaigns, and connecting** with them

Group 2: Social Media

The second group focused on integrating social media, including the need to diversify the Network and use number of clicks on various sources as a measure of success. Jana Archer of TVA is serving as the new Web site host. The following ideas were provided:

1. **Fund Web pages:**
 - a. Provide free Web sites
 - b. Link videos instead of host if bandwidth issues
2. **Create links:**
 - a. Map projects (show locations)
 - b. Create keep the TN River Beautiful page
 - c. Update partners' links!
 - d. Create calendar of events (partners submit)
 - e. Link platforms together
 - f. Show diversity in our outreach (get photos)
3. **Use platforms:**
 - a. Include Facebook/Twitter/IG links on Facebook (create accounts)
 - b. Identify who keeps platforms updated
 - c. Engage students and volunteers

From this the group suggested **creating a task force** or steering committee for engagement. **Proposed social media task force** would include:

- Lizzie: she's ready for anything!
- Jana: has Web page and GIS experience
- Elizabeth: has social media experience
- Haley: has social media experience and target audiences and funding
- Gillian: network
- Rachel: is a plan-maker extraordinaire
- Luke: fast learner, takes direction well
- Shannon: resources

Group 3: Fundraising 1

Two groups formed to focus on fundraising ideas. Group 3 cited its **goal for creating a financially stable and sustainable TRBN** through the following actions:

1. Maintain Web site funding
2. Maintain coordinator position
3. Reduce load on TVA
4. Explore creation of a 501(c)(3) nonprofit
5. Develop a business plan

Other ideas included:

1. Involving organizational leadership
2. Ensure that leadership is invited to participate
3. Explore registration fee for TRBN meetings
4. Set higher meeting participation goals (increase participant base)

Group 4: Fundraising 2

The goals of the second Fundraising groups are as follows:

1. **Support Coordinator position:** explore having each state contribute a small percentage of funds for position. (SARP has successfully done this in the past.)
2. **Engage in partnerships:** position could involve partnerships from federal, state, county and nonprofit support.
3. **Pitch pocket:** aquatic biodiversity and water quality given many partners share interest in these issues. Will need to share agenda and mission statement.
4. **SWAP** (State Wildlife Action Plan): identify how TRBN benefit these.
5. **Create partner report to show conservation accomplishments.**
6. **Action items:** pitch pocket (*Hidden Rivers* and *Report Card*)
 - a. Create Web site/data clearinghouse (such as on microplastics)
 - b. Need for steering committee to accomplish
 - c. Share how TRBN is unique on geographic scale
 - d. Provide Network support

The group further highlighted key questions and ideas to address them:

- **How do we support partners?**
 - Platform for networking
 - Outreach to rural communities and spread ideas
 - Work on regional scale

- **Who needs to lead initiative?**
 - Steering Committee, heavily focus on aquatic diversity and wildlife
 - Need for non-traditional partners (Wahacker, Google, Amazon, VW)
 - Bridge gap between industry and environmental groups and use neutral facilitator
 - “Think globally, act locally”
 - Public relations for private industry
 - Diversify funds for “true” sustainable partnerships (TVA is only one funding currently)

Assessment of TRBN Evaluation Responses

The Conservation Fund provided a Meeting Evaluation, summarizing comments shared here. Sixty-two participants attended the workshop, representing 47 organizations. Of these, 21 participants completed the Evaluation tool, with greatest response from non-profit organizations at 9. Eight represented the Communications and Outreach Community of Practice (CoP) and 13 were from the Science and Management CoP.

Most Valuable Parts of Meeting

Overall, **participants most valued the networking opportunities**, which provided new ideas for partnerships and leveraging connections. In fact, participants noted the high number of new contacts they connected with—some as many as ten. Participants also cited **learning opportunities such as the success stories**, the overall network, Report Card, and projects. The **value of having non-traditional partners** participate in the program was also broadly supported. A few participants noted **support for the closing workshops that promoted connectivity across specific priority projects**.

How to Improve Meeting

In the future, participants suggested:

- Engaging more non-traditional partners
- Adding more time to do work together

- Holding meetings on the program goals in advance of the TRBN meeting
- Reaching out to groups working in the Upper TRB
- Asking everyone to invite one new partner
- Engaging state agencies in more on-the-ground projects to help facilitate recovery of sub-watersheds
- Highlighting a report from the new French Broad River Partnership
- And regarding logistical details: Improving sound system; securing a better screen; using a smaller room; reducing use of Styrofoam and plastic

Most Significant Information Received from the Meeting

The evaluations suggested many program elements, ranging from deeper understanding of programs, the participation of non-traditional partners (esp. VW and their actions for wetland health) and the geology of the Tennessee River session, the Tennessee RiverLine project, the SHU data for Alabama and Tennessee, and the Report Card.

What Was Missing

- More time for presenters
- Recycling
- Input from other non-traditional partners such as private landowners and industry projects
- More in-depth examples of stream restoration projects

How are Participants Better Able to Engage

- Finding common goals and developing deeper engagement for partnerships
- Encouraging Hidden Rivers screenings
- Better understanding of the network, including Web site and data collection opportunities
- Understanding grant opportunities and funding opportunities

Are You Willing to Support the Network and, if so, How?

- Providing data and networking
- Raising awareness of TRBN in the Upper TRB

- Helping to make connections with watershed needs and agencies/ organizations able to address those needs
- Sharing facilitation skills, expertise and time
- Supporting Website task force
- Supporting TVA Funding; grant writing experience; Website experience; GIS guru; concise writing skills; experienced presenter; MS Office expert
- Sharing experiences & successes for reporting purposes

Suggestions for Meeting Additions

Participants reflected a good representation of conservation professionals, a mix of federal, state, and other agencies, nonprofits/NGOs, industry/businesses, consultants, etc. while noting the need for more non-traditional partners in the meeting. Specific participant suggestions included:

- More commercial interests, private sectors, industry
- Inclusion of legislators
- Recycling organizations (e.g. Green Steps of Chattanooga)
- Participation of the Tennessee Riverkeeper
- More green businesses
- Boone Watershed Partnership to represent ETN remediation efforts with small watershed group; East TN State University Geoscience Department
- Environmental justice, faith community, Blessed Earth TN, Blessed Earth National
- Having a directors-type luncheon

Speakers were all given strong reviews, from 4.1 to 4.6 out of a 5-point scale.

Final suggestions and notes included:

- Great meeting. Nice diversity of attendees.
- More on-the-ground projects through partnerships (like VW talk)
- Dr. Lacefield's talk was interesting but late hour was hard
- Charge small fee (\$25-\$50) for TRBN meeting
- Consider shortening time for concentrated priority sessions
- Allow more time to "make things" and less time with presentations
- Keynote should be more relevant to the mission.
- Have better A/V

Participation Profile

Shifting to the summary of overall registration, at the baseline level the 2019 meeting saw a drop in overall number of participants but a slight increase in number of organizations and about a 10% increase in new attendees. Such changes were anticipated given the move to Alabama and Guntersville’s more rural location.

<u>2018</u>	<u>2019</u>	<u>Difference</u>
86 Attendees	62 Attendees	- 20 Attendees
46 Organizations	47 Organizations	+ 1 New Organization
~ 40% New attendees	~ 50% New attendees	~ 10% New Attendees

The attendance statistics provide additional data highlighted here in text and graphs:

- 1) **Past Participation:** overall annual participation trends
- 2) **Organization Type:** participant composition (with 41% of participants representing non-profits, 23% federal, and 18% state government, 9% other, and 9% business);
- 3) **Geographic Focus:** stepping down from Middle Tennessee River Basin, to the Upper Basin, and Lower Basin, and including people from other geographies
- 4) **Taxa or Group(s):** percent of people working on aquatic and terrestrial taxa
- 5) **Participants Area of Work:** percent of overall job types

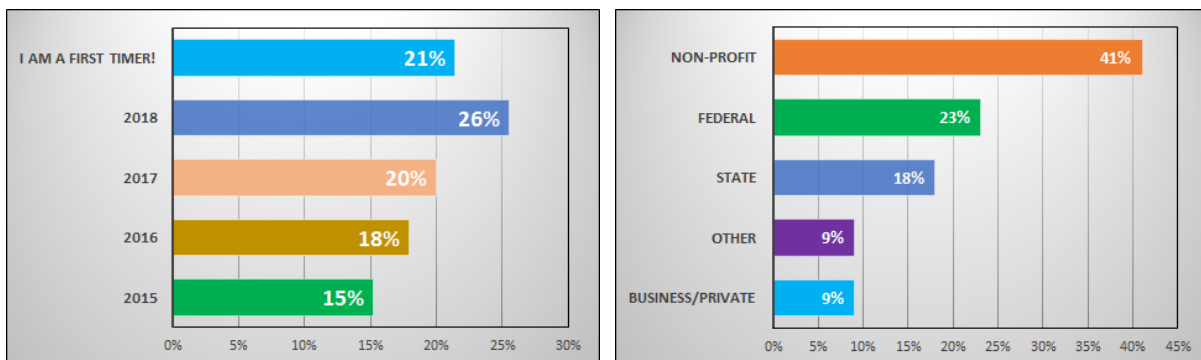


Figure 1 and 2: Participation (1) and Organization (2)

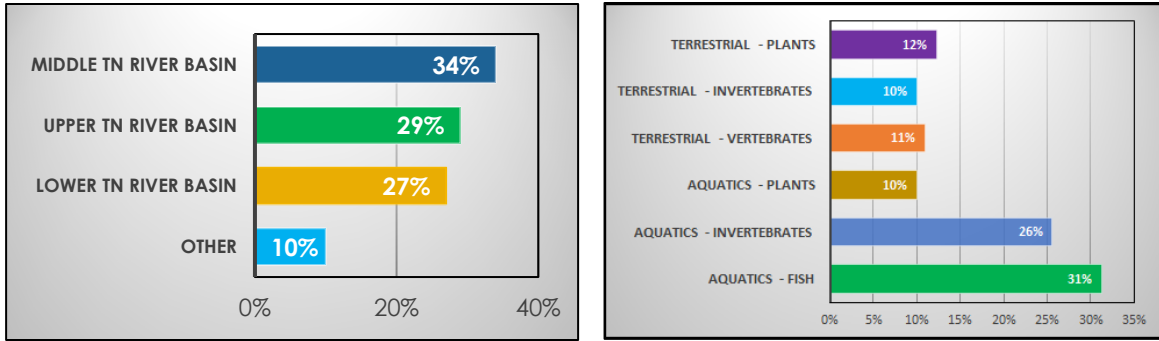


Figure 3 and 4: Geographic Focus (3) and Taxa or Group(s) (4)

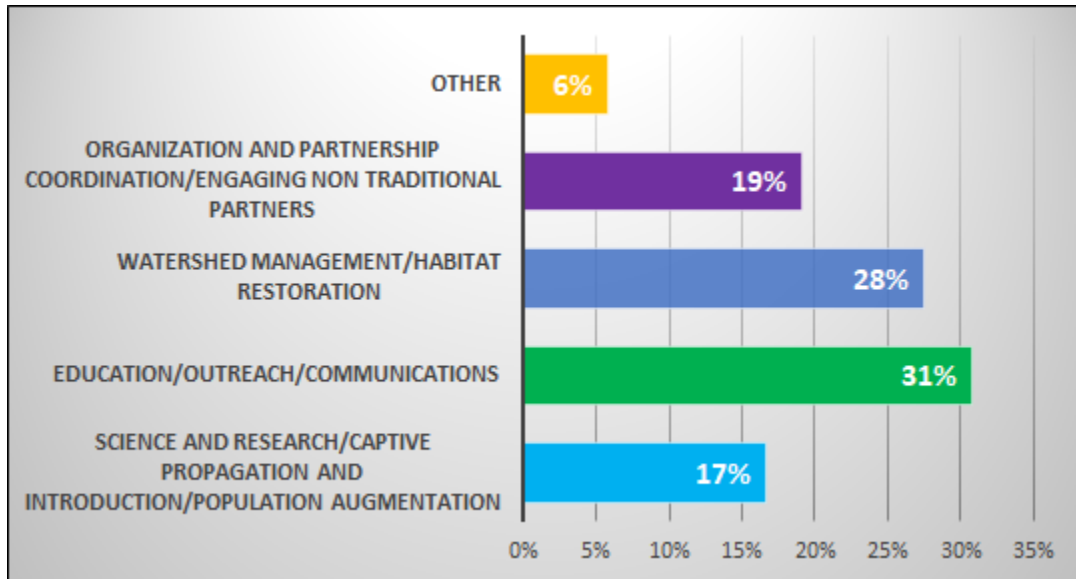
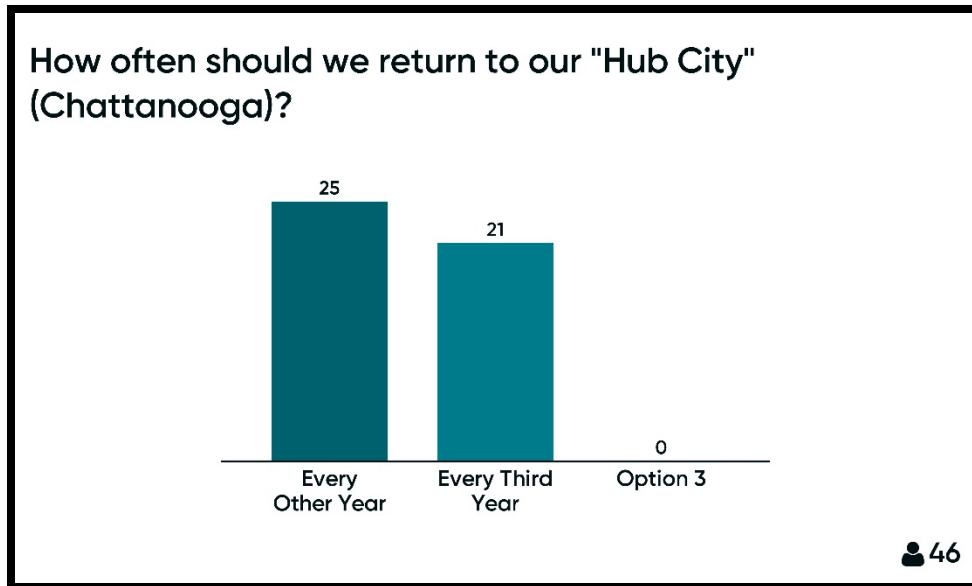


Figure 5: Area of Work

Polling about future regional meeting sites indicated a slightly higher support for holding the meeting in Chattanooga (a 54% majority) versus every third year (at 46%).



Finally, participants voted for the location of the 2020 meeting venue, selecting Western North Carolina (58.7%), with Southwest Virginia (21.7%) and the Western Basin (19.6%) trailing behind.

