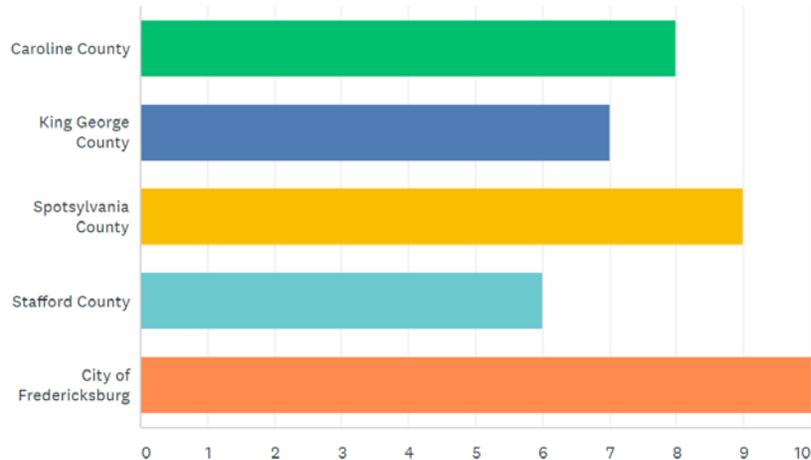


GWRC Member and Stakeholder Environmental Survey Results

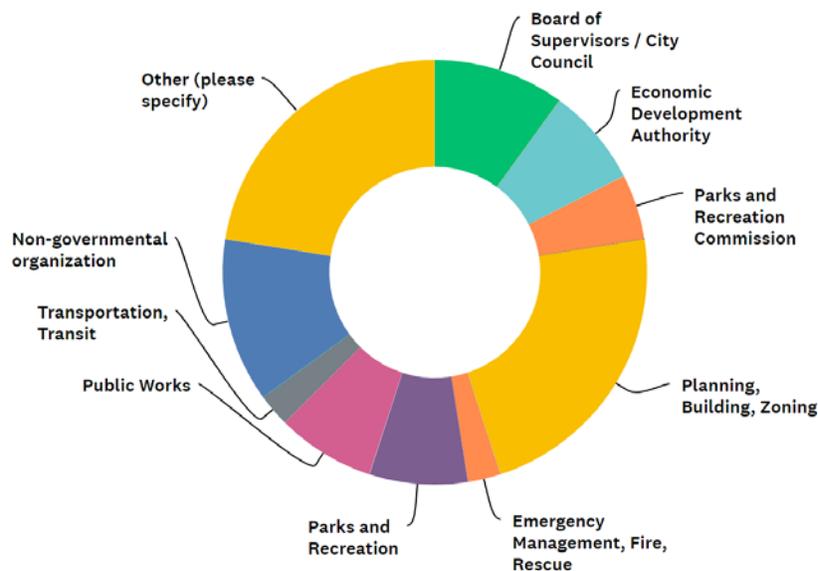
1. To ensure we have good representation across the region, please select the affiliation of your role. If multiple or none, select your location of residence or select the location you most prefer to visit.

Answered: 40 Skipped: 0



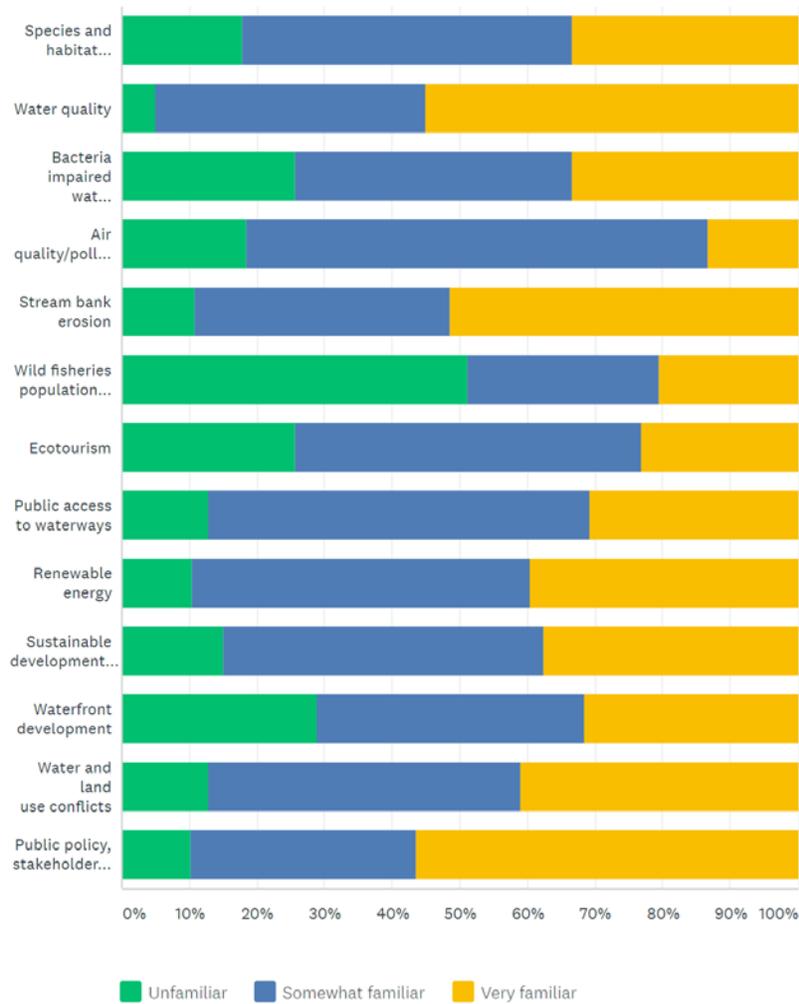
2. To ensure we have good representation, please select the option that best describes your role. Please respond to the remainder of the survey according to the role you selected.

Answered: 40 Skipped: 0



3. Please rate your familiarity with the following topics

Answered: 40 Skipped: 0

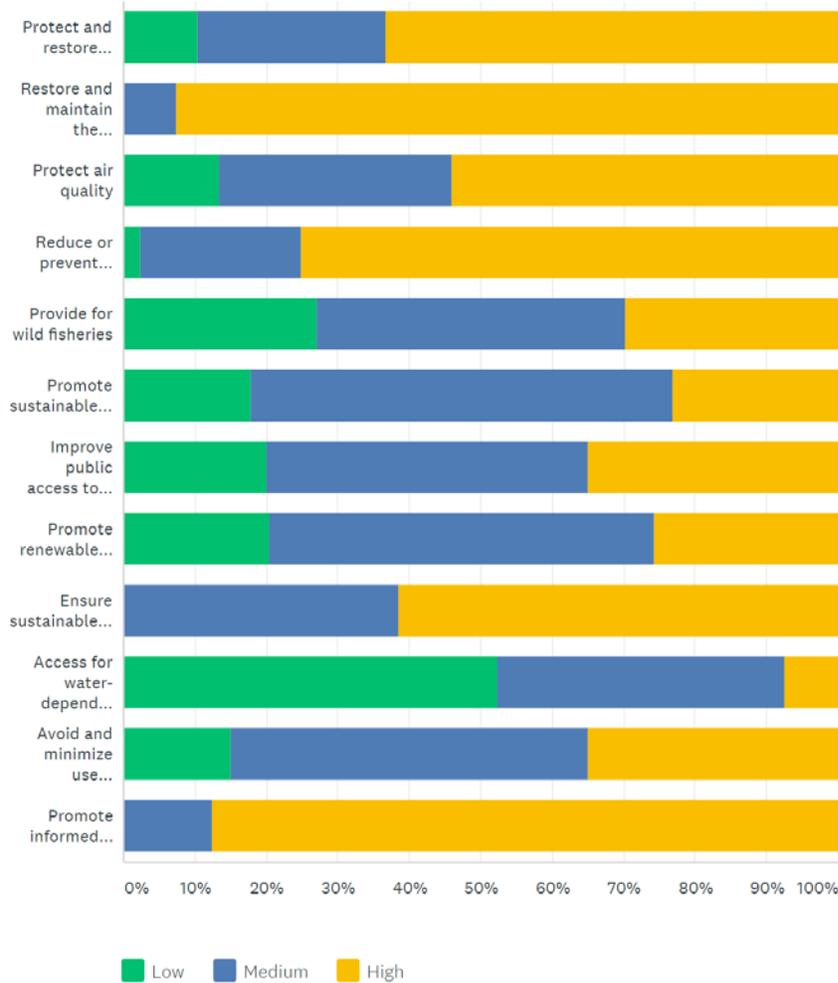


Rows are:

- Species and habitat protection or restoration
- Water quality
- Bacteria impaired water quality
- Air quality/pollution
- Stream bank erosion
- Wild fisheries population dynamics
- Ecotourism
- Public access to waterways
- Renewable energy
- Sustainable development practices
- Waterfront development
- Water and land use conflicts
- Public policy, stakeholder engagement, and decision-making

4. What priority should GWRC’s environmental management plan give each of these state goals to address our regional needs?

Answered: 40 Skipped: 0



Rows are:

- Protect and restore resources, habitats, and species
- Restore and maintain the surface water quality
- Protect air quality
- Reduce or prevent streamline erosion
- Provide for wild fisheries
- Promote sustainable ecotourism
- Improve public access to waterways
- Promote renewable energy production
- Ensure sustainable development
- Access for water-dependent development
- Avoid and minimize use conflicts
- Promote informed decision-making

5. What are the top environmental management **opportunities** for the region? What **actions** are needed to address those opportunities? (Responses are unedited)
- a. Water Quality/Surface Water improvement to protect the Rappahannock River. Need to focus on agricultural pollution (reduce fertilizers) and Erosion/Sediment Control (from construction/development). Every time it rains, the Rappahannock Rivers turns to mud.
 - b. Opportunity for outreach and education, with emphasis on IMP & MCM approaches. Providing for ALL environmental issues that the region faces. This type of approach would reach more of the area's audience, thus more participation and the opportunity to promote/educate on other environmental topics that effect the region. Environmental stewardship should apply in all areas in that arena.
 - c. Climate Change. Renewable energy. Policies that will help reduce car emissions (less traveling, more electric vehicles).
 - d. Stream protection including headwater and channel buffers. These protections will also promote wildlife connective habitat routes.
 - e. Emphasize education on environmental cohabitation - being a steward of environmental resources. - pollution control - using established trails - avoiding needless destruction of wildlife habitats and vegetation. - Maintain, monitor, and designate fire safe zones or pits to avoid wildfire. Avoid green energy projects or development that are susceptible to negligence for sustainment. If it can't do it on its own then is it truly, "green?"
 - f. The GWRC is rich in knowledge about environmental aspects of the region and already have a host of such things as comprehensive plans, ordinances, green infrastructure studies, Chesapeake Bay WIP exercises, habitat and species data bases. The issue is mustering the stakeholder consensus, political leadership and financial resources to take the obvious actions that are on the table.
 - g. Development that doesn't depend on automobiles. Trail system that connects the region.
 - h. Opportunities to conserve working forests in large acreages in majority of the area. Actions: Multi-agency efforts to promote smart growth at regional and local level, targeted conservation, and education of local leadership.
 - i. Open land and water quality education
 - j. Keeping our rivers safe Preserving an acceptable level of air quality by preserving trees. Actions such as limiting and being selective about where to build
 - k. Forest health, working land retention, economic development within these sectors and carbon sequestration. A comprehensive approach to provide balance. A healthy working landscape can help achieve multiple goals listed in survey above. Air quality, outdoor recreation, water quality, carbon, renewable energy, healthy fisheries etc.
 - l. TMDLs, both CB and local watersheds.
 - m. Retaining existing natural lands. -Conservation Easements -TDR and PDR programs -Targeting specific lands
 - n. Protecting and valuing the Rappahannock as an environmental and scenic resource, balancing needs of habitat, water resource and recreational/tourist draw. A more regionally-coordinated

plan to protect and enjoy this resource. Regional trails development- great potential exists for lowering VMT through safe, convenient trail network. Needs regional vision and cooperation.

- o. Rappahannock Watershed Improvement projects
- p. Improve the river and water resource 'sense-of-stewardship' to promote commerce / eco-tourism and stem / restore eroded stormwater channels. May warrant review of drainage 'velocity/volume' standards. Perhaps structure permitting / development with 'options' such that if a particular lesser standard is implemented then the 'tithe' will be applied to resource improvement / eco-tourism...
- q. Water management for existing waterways. Promote good practices for citizens and developers. Encourage preservation of existing habitats. Promote conservation through education about existing issues and plans.
- r. Redevelopment that minimizes the need for stormwater management solutions, fossil fuels, and single-vehicle transport. We need a regional commitment to these goals and a playbook to help us determine how we can take the concrete steps necessary to achieve these goals.
- s. Forest and Land Conservation/Preservation, Sustainable Development
- t. Water quality enhancement and smart growth that limits dependence on vehicles.
- u. water quality, erosion control, ecotourism, sustainable development. More/better LID designs, Renewable energies
- v. Develop connected open space with public access.
- w. 1) Forest retention and riparian buffet reforestation to enhance local and Ches Bay surface water quality. 2) Enhanced on-site septic system management to reduce fecal coliform bacteria and nitrogen pollution of local and state surface waters
- x. Densifying development around public transit to minimize impervious surfaces and to reduce CO2 emissions.
- y. Low impact development that integrates development into the existing landscape needs to be fine-tuned and improved, and we need more conservation easements on forests.
- z. Balancing regulation current and future with the ability of localities to pay for them. Over regulation
- aa. Manage Runoff from roads into creeks and rivers. Gasoline, oils and salt destroys the quality of the water and health of the ecosystem.
- bb. Everything seems to be functioning by crossing fingers and hoping for the best, so everything.
- cc. Chesapeake Bay connections Ecotourism
- dd. (1) Continued campaigns to reduce residential fertilizer overuse. Encourage everyone to move away from lawns mostly of grass. (2.) Strong continued effort to continue to maintain and improve the Chesapeake Bay (3.) Continue to explore renewal energy...knowing the future of energy is multi-faceted not relying on any one source.
- ee. Identify a regional greenways plan and funding towards implementation
- ff. Health of our rivers. Reduce erosion and stormwater runoff pollution

6. What are the top environmental management **challenges** for the region? What **actions** are needed to address those challenges? (Responses are unedited)
- a. Protecting the Rappahannock River. The point sources are regulated and getting better, however; we're not getting good traction & control with our nonpoint source activities.
 - b. Funding. Outreach/Education.
 - c. Runoff and pollution in our rivers. Stronger regulation on agriculture and large construction projects.
 - d. Human population density. It is time to promote higher density village settings, including business and residential use. At the same time, by-right suburban development needs to be curtailed. Other financially desirable incentives should be developed to protect open space from owner development.
 - e. Pollution. Partner with local colleges, organizations, and community to establish and adopt pollution control measures. Continue attempts to educate young people on the majestic and mystical properties of our environment. Invite community businesses or able citizens to sponsor totally awesome animal and nature movie nights. There are soooo many and the kids love them.
 - f. Environment and natural resource protection are not given the priority and resources to achieve even reasonable goals. This challenge is funding debates, inadequate budgets as well as a silo management of resources. The first item can be addressed with enhanced and robust stakeholder groups forming to work across lines of defense (environment protection conflicts with economic development). The second item is the creation of a "blended finance" approach to tackling environmental goals.
 - g. Impact on ground water; consider regional use of surface water. Traffic and transportation, transit, encourage on-demand taxi service. Outdoor recreation, parks and greenways.
 - h. Rapid growth throughout the area causing forestland fragmentation, reduction of open space, and water quality/quantity concerns. Actions are the same as above.
 - i. Sustainable development
 - j. Transportation over crowded highways. Develop more high paying jobs in or near rural areas discourage traveling by imposing fees for outer state travelers. Increase the number of affordable and luxury transits services
 - k. Working lands retention.
 - l. CB TMDL/WIP. Fully coordinated and normalized ESC, SWM, CGP, and CBPA programs would help free up staff resources to achieve WIP objectives.
 - m. Losing existing natural lands to expanding development and closing loopholes that benefit only developers -Stricter local gov't application of existing policies and ordinances -Working with land conservationists to find funding -Provide land owners with the knowledge
 - n. The top environmental management challenge is cultural and is implemented through outdated zoning practices encouraging sprawl. Localities need to move forward with new best practices for development.
 - o. Funding

- p. Funding
- q. Overcoming the cultural 'gotta develop this area' despite the inherent, imminent environmental repercussions. Just look at the compromised [acid sulfate / steep slopes] soils and densities pursued by developers and allowed by localities. Complacency may also be a challenge. Conversely, another challenge is balancing the necessary economic driver of development and the unrealistic expectations of the enviro-'mental'-ist.
- r. Population spread is the greatest threat. Waterways and animal habitats should be identified to citizens in general, political entities and developers. Publish a simple assessment of condition for these elements (green, yellow, red) to educate the public.
- s. Lack of regional cooperation and a lack of urgency on the part of certain lawmakers
- t. Rampant development leading to degradation of water quality, wildlife habitat, and quality of life
- u. Water Quality.
- v. Politics, Lack of state funding, no regulation support.
- w. Provide strong enforcement of existing laws.
- x. 1) Local govt plan and ordinance amendments to endorse forest retention and riparian buffet restoration. Promote EDA as agent to advocate and broker forest retention carbon offsets 2) Tackle backlog of deferred maintenance of septic systems, especially near bacteria-impaired streams and for low-income and moderate-income households. Local govt empower GWRC to work with VDH and VDEQ to pursue septic management assistance grants.
- y. Sprawl, sprawl, sprawl.
- z. It is too expensive for small businesses to meet environmental requirements. Engineered site plans don't do much to improve water quality, and DEQ paper-work inspections are not the best way to protect environmental resources. I would like to see state-funded restoration projects instead of unfunded mandates to localities.
- aa. Aquafier recharging area. WHIPIII and its impact on localities. Big price tag.
- bb. Challenges are to get people to understand the urgency of environmental management. Actions include: Tons of education, and overcoming reticence to change, and the general apathy people have to giving a damn.
- cc. Run off and industrial waste management
- dd. Water quality Public perception Renewable energy
- ee. (1.) Challenge: Balancing economic growth with environmental protection. Action: Develop short course (2-3 hr) that every developer whose development is deemed to have enough of a potential environmental impact must take and sign pledge to help protect the environment. Too many boots on the ground developers leave environmental impact to someone else...it's frequently someone else's problem. Engagement could help.
- ff. Rate of growth and developer desire for greenfield properties
- gg. Sediment pollution due to erosion and poor stormwater management is the leading impairment in the region followed by ecoli bacteria, nutrient pollution, loss of forest resources, and inadequate support for local programs like CBPA, ENS, VSMP. We need to improve state ENS regulations to

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keep up with climate change, expand LID ordinances outside of the City of Fredericksburg, increase local funding for voluntary stormwater management, get DEQ to kickstart the local TMDL development/IP process for ALL our locally impaired streams (this will make the region eligible for 319 \$), and get the state to provide more resources for CBPA to localities. Need stormwater utility fees. Also Spotsylvania County should be a MS4 and have required nutrient and sediment reductions.

hh. River health especially since we cannot control what is upstream from us.

ii. GOOD WATER QUALITY. STUDY AND IMPLEMENT CORRECTIVE MEASURES

7. What are the top 3-5 environmental management topics you would like to see GWRC address in **special projects**? (Responses are unedited)
- a. Protect the water quality of the Rappahannock River and supporting subwatersheds. Reduce man-made sediment/runoff issues.
 - b. Funding, flooding, education/outreach.
 - c. Climate change. Pollution in our waterways. Restore habitats.
 - d. Forestry management. Water resource protection. Solar installations on business, residential, and government agency spaces. This includes awning-like installations over on-grade parking areas as the covering of asphalt will reduce solar heating.
 - e. I think the current projects are fine. Waterways, bike/walking trails that help direct foot traffic is good. Leaving sign markers that explain and educate the community on native or local flora & fauna is great for homeschool groups, scouting and like organizations and other interested parties. It's a zoo in our backyard!!!!
 - f. 1. Getting the GWRC to endorse a stakeholder group and process to break down uninformed positions. 2. Making green infrastructure discussions more about win-win. A healthy environment can save costs, create a more sustainable economy (higher property values) support the green environment that goes with the new job market. 3. Make meeting WIP III goals a Rappahannock Basin wide effort. Using the RRBC and NGO's and planning districts to have a coordinated plan. We should not be waiting for DEQ to force outcomes and let the MS4 jurisdictions hang out there. Headwaters to Baywaters planning.
 - g. Transportation/transit. Regional trail system for transportation and recreation. Move a major federal agency to the area. Teleworking, high-speed internet regionally available.
 - h. Forestland conservation Increasing riparian buffer establishment to support water quality and coastal resilience. Reducing impacts of invasive species (eg Emerald Ash borer) Increasing urban tree canopies and urban tree management.
 - i. Sustainable development water quality rural preservation
 - j. Transportation Water quality control Air quality control
 - k. Urban forests canopy, (development and retention) Working lands Afforestation Healthy forest initiatives
 - l. 1. coordination of ESC, SWM, CGP, CBPA programs. 2. WIP III. Regional sharing of ideas, program requirements, etc.
 - m. -Implement new technologies to address environmental issues, which would greatly reduce time and money spent
 - n. Relationship between zoning/ land use and transportation as it relates to sprawl, overbuilding highway capacity, percentage of impermeable surface.
 - o. Stream restoration, habitat management, sustainable development
 - p. Localities understanding the necessary \$\$\$ for MS4 implementation relative to Bay Action Plan and reduction of N, P, and S. Same relative to localities understanding 'voluntary' WIP reductions need to be blended into routine and effect the desired N, P, S reductions. Devise 'easy'

mechanisms for non-MS4 localities for participate in POC reductions. Inform the general public that there are actions that need to be implemented to achieve reductions and [bite my lip] that there may be such ting as 'incidental' erosion from development that, so long as it doesn't leave the site, isn't the end of the world.

- q. Stormwater management Pedestrian-friendly redevelopment Green space protection/restoration
- r. (1) Making sure local regulatory environment is up to date, streamlined and efficiently addresses issues. (2) Better understanding of roles within various organizations and their limits. (3) Procedurally where do endangered species analysis and protection requests fit in the development review process...what resources are consulted and what are the expectations? (4) Identify the specific environmental problem areas by type and location in each locality and identify substantive tasks to rectify.
- s. Forest Conservation/Land Preservation ordinances/policy, limit development to established envelopes, habitat restoration
- t. Water quality Renewable energy Walkability/green transportation
- u. Better site design, water quality & quantity, LID, resources for education, funding sources.
- v. 1. Monitor water quality and quantity through the establishment of a network of stream gages.
- w. Changing zoning to allow denser development, developing meaningful public transit to lessen auto dependency.
- x. Take the lead on area-wide restoration projects. Work with Soil and Water conservation districts to address the largest pollution source in rural localities. Line up funding sources for feasibility studies.
- y. Figure out recharge areas of aquafier. Is there a cap on development do to environmental impacts and nutrient limits on Rivers.
- z. Runoff from public roads into streams.
- aa. Trash disposal, air quality, waterway pollution, climate change
- bb. Public access to waterways. Curb waterfront development that causes restrictions to the public.
- cc. Sustainable growth Renewable energy Environmental justice
- dd. (1.) Development on and along the Chesapeake Bay (2.) Road recycling paving (3.) Reducing grass lawns, replacing with gardens and natural types (4.) Development projects to leave more natural trees rather than clear cutting for new development
- ee. - Best Practices for tree canopy requirements - Enhanced East Coast Greenway planning - Additional Grant funding for projects on the ground
- ff. 1) LID ordinance expansion to all counties in PD16. 2) Feasibility/Timeline of TMDL development/IP for local bacteria impairments 3) Regional riverfront trail plan
- gg. Protecting riverfront property. Permeable parking lots.
- hh. ENERGY RESOURCES WITH THE WIND AND SOLAR

8. What can GWRC do to **enable your locality** to have a greater impact on environmental management? (Responses are unedited)

- a. Great job Denise, please keep coordinating. Thanks for your patience & flexibility. It's important we all stayed linked together in support of CZMA, Rappahannock River, and Chesapeake Bay (WIP3).
- b. Get the public to support environmental issues, only then will participation and other opportunities arise to address issues and provide support to resolve those issues and concerns. Then practices would be easier to implement and manage, more funding opportunities could arise, greater community support would evolve.
- c. Our MS4 program can benefit from shared community outreach and education.
- d. I think this is already happening at some level. The question is with what sincerity are we talking about. If the county isn't that involved or responsive to you; perhaps there is a reason. Maybe they don't think your body is serious enough about helping or maybe it's a simple matter of personality differences or that it seems overly complicated to collaborate? I don't really know but this is a reflection of my own past experiences when dealing with others.
- e. 1. Take leadership in Item 7 suggestions above. 2. Be a clearinghouse and coordination mechanism 3. Create and convene stakeholder groups.
- f. Understand the requirements of the regulations, and the rationale behind them.
- g. Education and focus on environmental topics
- h. Extend affordable transits service
- i. Provide resources, opportunities and financial support.
- j. Help push policy changes to implement some of the tools discussed in the green infrastructure plan.
- k. Training on environmental best practices
- l. Public outreach and funding
- m. Communicate about grants and partnerships.
- n. Keep on encouraging the locality staff to better understand how to achieve the 'goals' rather than have / listen to staff 'make excuses' about why one can't perform...
- o. Presentations to the Board of Supervisors showing near and longer term focus areas.
- p. Education for the region Presentations that demonstrate the fiscal impact of not acting immediately
- q. Presentation of locality specific information and mitigation recommendations that may be pursued. Potential management of or leadership on some of these regional issues.
- r. \$ and technical assistance
- s. Help with the funding of various environmental studies.

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- t. help us get more staff
- u. Work with supervisors and senior County staff to help set County objectives and priorities.
- v. Support smart zoning.
- w. Coordinate and host useful training seminars.
- x. Grant's and ways to pay for regulations. Also making sure we are not overregulated.
- y. Little that is not already covered by the RRBC.
- z. Education and information.
- aa. Collaborative projects
- bb. Environmental mixers for builders/developers and reduce grass lawns mixers for everyone
- cc. Assist with securing grant funding for staff positions
- dd. Develop model stormwater utility fee
- ee. Assist in finding grants for improved environmental projects.

9. On what environmental management topics can GWRC support your locality **with research, planning, or a forum** for coordination and facilitation? How can GWRC support your locality **by providing educational information, technical advice, or scientific tools**? (Responses are unedited)
- a. Please continue to coordinate with all state/federal land holders. for example, do we have rep from US Navy, Dahlgren (king George)?
 - b. ALL
 - c. Stream restoration in an urban environment.
 - d. Visit the relevant commissions or committees and ask? Then follow up and creat opportunity for dialogue at times when those people are available. The current meetings occur during normal business hours. Most committee members conduct county business on a voluntary basis and have to take time off to participate in the GWRC meetings. This assumes they work locally and can accommodate adjustments to their schedules. I know it is hard to find a time for everyone but if you want attention from these people you may need to push these meetings to a time near or just after dinner hours.
 - e. 1. Continue help the GWRC parties connect the dots. The overwhelming myriad of meetings, workshops, websites is too much for any organization to sort out. 2. Perhaps a GWRC Environmental Newsletter.
 - f. One example, fora regional trail system, we will need to encourage landowners to grant easements through their property or along the edges of their property. What is the best practice to go about this?
 - g. Keep doing what you have been doing
 - h. Educational information and technical advice.
 - i. Technical assistance in identifying WQ improvement projects.
 - j. -Working with developers on establishing healthy growth and what that exactly means and how it can be achieved. -Continued water quality studies of local tributaries
 - k. Providing a forum for regional coordination
 - l. Forum for coordination. scientific tools.
 - m. Offer education to higher ups/decision makers so that they can make informed decisions.
 - n. Development and population expansion are creating significant changes in the quality of life and the value of preserved outdoor environments.
 - o. Transportation network
 - p. threatened and endangered species. point and non-point source pollution. what are the local deficiencies or what need is not being met effectively and what about local policy or codes may be the roadblock?
 - q. GWRC can help the county coordinate with DEQ to better understand and administer Ches. Bay act regulations.

- r. all
- s. It may be helpful to coordinate on environmental issues such as open space preservation with other municipalities within the GWRC in an open forum format.
- t. Sharing environmental data.
- u. Localities get bogged down in day-to-day business, and we all repeat the same ideas. Are there out-of-the box solutions we're not considering? Can GWRC act as a think-tank to propose novel solutions?
- v. Recharge zone mapping aquafier.
- w. Send financial assistance to RRBC rather than duplicate work. Only one group needs to lead this and they have the experts in the room
- x. All aspects. Town halls, training seminars, information dissemination
- y. Get university students involved
- z. Fill in the gaps for projects that localities can't get to due to staffing constraints
- aa. TMDL Development for locally impaired stream sections. Opportunities for increased ENS regulation. Model LID ordinance and stormwater utility fee for applicable jurisdictions.
- bb. stormwater management, runoff, erosion.