



# Let's Talk Rivers

## Deliberative Forum Guide

### How should we meet the challenges of increasing demands on our nation's rivers?

#### Big challenges faced by rivers in America:

- **Conflict surrounding river management:** Increased use and differences in opinion in terms of river management have led to growing tensions among users, stakeholders, and managers in many areas.
- **Complexity of water laws and designations:** Laws, policies and regulations surrounding water are among some of the most complex and controversial in our nation. This can make river planning and management processes incredibly difficult to understand and communicate with the general public in a timely fashion.
- **Increased pollution and waste in rivers:** Waterways can carry and distribute pollution and waste on vast scales, impacting both ecosystems and human communities along the way, compromising habitat, drinking water and other critical river provisions.
- **Impacts of development on rivers:** A growing human population means increased development in many areas. Development that occurs near or along rivers can pose a number of threats to the health of wildlife within these ecosystems. It is crucial in further planning and development processes to consider the potential impacts to rivers.
- **Impacts of changing climate conditions on rivers:** Climate change could increase the severity of many challenges already faced by our rivers, including accelerated erosion, increased water temperatures, timing and magnitude of spring run-off, increased waste and pollution, habitat degradation, magnitude and frequency of flooding, drought and number of other factors.
- **Increased use of rivers:** River recreation, industry and business are all growing simultaneously, creating a sharp rise in river use. The complexity of these demands on rivers can lead to their overuse and degradation, as well as to conflicts among user groups, stakeholders and local communities.

## Option 1: Strengthen and support rivers by promoting healthy communities

Rivers are a public good which provide drinking water, recreational pursuits, mental well-being, and spiritual renewal for communities. Rivers also provide much of the world's drinking water. We should ensure people access to rivers for the sake of exercise and mental health. Communities should come together more cohesively to strategize and plan for their future water and river needs. Communities should be engaged with their rivers; helping to steward, monitor conditions, and collect timely data. **But**, this focus on human health and community engagement could infringe upon private property rights and inspire a climate of unwanted community watchdogs.

### Examples of What Could be Done

Utilize technology to provide and maintain reliable sources of clean drinking water for communities. This may involve using technologies to reduce the amount of pollution and waste that makes its way into rivers. This would lead to healthier overall communities and simultaneously provide jobs through the development, implementation and maintenance of these systems.

Engage local residents as community scientists to help monitor and identify pollution problems. Local community members help collect data and provide current status observations on and along their river.

Encourage and help communities develop planning frameworks and infrastructure for addressing rising flood levels or storm surges that could threaten people's homes, businesses, and lives. This would ensure increased levels of human safety and help build stronger, more resilient communities.

Use incentives to encourage stewardship of rivers and their corridors by residents, government agencies, and business. By implementing an incentive program, (e.g. conservation easements) individuals and communities may be more likely to engage in proven river health practices in their communities.

Support communication and collaboration among river users, managers, and stakeholders to build adaptive, resilient communities. Organize and facilitate meetings to provide opportunities for meeting and discussing concerns, strategies, and plans addressing people's water needs and those of the river ecosystem.

Develop adaptive community-based river education programs. These can be used to encourage public engagement with rivers, river research, decision-making and management decisions. Education may also cause voluntary conservation actions that protect rivers.

### Some Trade-Offs to Consider

This can be expensive and have unintended consequences. The use of technology to address issues of pollution and waste sometimes provides a temporary "solution" while failing to change behaviors causing the problem in the first place. While technology can be a useful aid in mitigating waste and pollution, it may fail to prompt the cultural shift needed to keep rivers clean in the long run.

This could create unwanted community watchdogs. This could cause conflict among users and/or between local community members and other entities or agencies.

Planning processes and infrastructure development could lead to decreased personal freedom and violation of property rights. In some situations, these mitigation strategies may offer little protection from catastrophic flooding due to extreme weather and changing climate.

Incentive programs allow the managing entity to choose winners and losers. This could favor those whose livelihoods already support best practices while opposing those who do not. Incentives may also create dependence upon the reward without working to permanently change underlying harmful behaviors.

Planning can be difficult with limited information and may not be all that effective. Differences in beliefs and opinions on river uses can lead to conflict and may polarize opposing groups. It may prove difficult to obtain an accurate representation of all user groups and concerns. Without a plan for the information collected, this type of interaction might not produce tangible results.

River education may only reach a demographic of people who are predisposed to care about the issues being studied, supported or opposed. Relying on voluntary action is also a slow and uncertain pathway to protecting water resources.

## Option 2: Support our livelihoods and economies

Rivers are a resource and a commodity. They are essential to our livelihoods and quality of life. We should allow rivers to be utilized by people and business as they need them. River management should be informed largely by markets values and rivers should be managed primarily for their economic potential. **But** treating rivers as a commodity may prioritize the economic potential of rivers over their health and role as a vital part of ecosystems.

### Examples of What Could be Done

Create and enforce policies and regulations (local and regional) that prioritize human recreational access and industrial use of rivers. In the interest of meeting all users' needs, this would support human activities and development on and nearby rivers.

Employ management practices allowing for and encourage a wide variety of uses of and on the river. These uses may include industry, agriculture, commercial and private recreation.

Decommission or relax strict river and water protection policies (e.g. Wild & Scenic Act, Clean Water Act, Safe Drinking Water Act, etc.) granting more access and use to business, industry, and other utilitarian uses of rivers. This would provide financial security to the wide variety of economies that depend on rivers to not only survive, yet expand and grow.

Encourage the creation and expansion of river-related jobs (recreation-based jobs, freight transporters, water diversion technicians, hydroelectric power operators, etc.). By supporting the industries that rely on rivers, we are supporting the utility of the rivers themselves.

Promote river-based tourism and recreation through ensured access and viral marketing. Utilize proven marketing tools and encourage social media to promote river-based recreational activities and use. This could also prompt an increase in river-based economic development.

Support renewable energy industry through development and maintenance of dams and hydroelectricity generation. Continue to utilize strategies which lessen the environmental impacts of dams (e.g. fish ladders, etc.) while still harnessing their economic benefits. This could provide economic security.

### Some Trade-Offs to Consider

This could impact the population and economic growth of communities if limitations are imposed on access and use of rivers.

This could cause difficulty in managing users' conflicting desires, needs, and conditions resulting in more regulations. Also increased unregulated use could promote overuse of rivers and compromise overall river health.

This could have detrimental repercussions in terms of river and human health. This could promote a culture of viewing rivers purely as utilities and infrastructure. Also, outdoor recreation and clean water bring a range of economic benefits of their own, so this would be prioritizing some forms of economic benefit over others. This may also disproportionately benefit some uses and user groups over others.

By focusing on the creation of river-related jobs, we may promote the utility-based value of rivers over their ecological value. This could cause conflict and may curb river conservation initiatives.

Increased river use could lead to the trend of "loving places to death" or using them to the point of degradation. Promoting tourism and recreation may also adversely affect the success of other river-based industries.

There is a growing culture of dam-removal in the USA which may heavily conflict with promoting dams as a viable source of energy production. Dams have also been shown to have significant effects on river ecosystems which may be difficult to mitigate, even with the latest technology.

## Option 3: Support the integrity of natural river ecosystems

Rivers are the life force of most ecosystems. Human communities are dependent on healthy ecosystems and therefore, protecting river ecosystems should be highly prioritized. Many public water delivery systems, industrial systems, and recreational uses work against the ecological integrity and health of river systems rather than with them. Despite some efforts, rivers and river corridors (riparian areas) often get short-changed and we need to work to change this. **But** this approach may involve changes that impinge on personal choices and freedom and commit resources to environmental protection at the expense of more immediate human and economic development needs.

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### Examples of What Could be Done

Ensure that enough water is kept in rivers and streams to support natural areas and wildlife. Prioritize the health of rivers in the interest of supporting the overall health of ecosystems.

Implement restoration projects along river corridors (riparian areas) that have been negatively impacted by human development. By restoring river corridors and riverfront property to a healthier state, a more natural riparian habitat could be reestablished.

Support and implement systems that will help people to protect rivers through their personal actions. Empower people on an individual and grass-roots level by providing information about what they can do to support river health.

Mandate strict controls on pollutants and implement land-use regulations that minimize polluted runoff from developed areas and farms. These policies will hold river users, industries, and local landowners more accountable for their actions and practices.

Sharply reduce carbon emissions to slow the rate of climate change and occurrences of extreme weather that significantly alter river ecosystems. Support ongoing research in the field of climate change impacts on river.

Limit development to match available water supplies and protect river corridors, critical habitat, and environmentally sensitive areas. Use policies and regulations to implement these limitations on a local scale.

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### Some Trade-Offs to Consider

When there is not enough water to go around (e.g. population increases, drought, etc.), this could be a disadvantage to human communities and business. It may be extremely difficult to change the current water rights system and provide rights to rivers by taking them away from humans.

While restoration can be extremely effective, there is the possibility for unintended consequences, particularly when we assume we know how something should be. Some restorative efforts could infringe upon personal property rights and may adversely affect property values.

This could come across as infringing upon personal freedom and may not work to change values in the long run, even though it may change attitudes in the short term. Being told what to do or even what could be done may not be received well and could spark conflict between users, managers and community members.

Regulations can be expensive to meet and enforce, putting an extra burden on businesses and interfering with local control. This could spark a strong opposition to any river-conservation related practice and/or regulation, further polarizing different user and interest groups.

The dramatic actions required to counter the worst effects of climate change could harm the economy and infringe on personal freedom. This option may not be viable to make changes as quickly as they need to be made in some cases of river protection.

This would impinge on personal and corporate freedoms and property rights. Prioritizing habitat and river health over human livelihoods could lead to increased conflict among conservation groups, river users, and managers.