[Working Title:] ENVIRONMENT 2045: Future Directions for Environmental Progress and EPA's Role

A project of American University in partnership **with the EPA Alumni Association**

[Long version of project description, with detailed questions]

NOTE:

This "long version" of the project description is intended primarily for the members of the focus groups. It includes everything in the 2-page "short version" plus a series of detailed questions under the description of each focus group that attempt to capture the many ideas expressed in the brainstorming sessions held on March 26, 27 and 28, 2018 and comments by the Association's Board of Directors and the project committee. Note that some of the questions are repeated because they apply to more than one focus group. These questions and suggestions are intended to get the focus groups started and are not intended to constrain the focus groups.

As the "Guidance for Focus Groups" document notes, "The project committee recognizes that comprehensively addressing all of the questions already listed (and others that will surely surface as the project evolves) would be virtually impossible, given available time and resources, and that therefore the emphasis of the focus group effort should be on prioritization and imagination, and not on comprehensiveness."

While there are unique questions for each focus group, there are also some common questions that all focus groups should ask, as relevant and appropriate in each case:

- *How would the ideas play out in particular programs (e.g., air, water), in the regions and for other stakeholders?*
- *What would be the general implications for the environment?*
- *What would be the general implications for EPA staffing/budget?*
- *Would new legislation be necessary?*
- *What are the priorities?*
- *What are EPA's relevant strengths and weaknesses?*
- *What are EPA's opportunities and challenges?*

Over a span of nearly five decades the U.S. Environmental Protection Agency has overseen dramatic improvements in air, water, land, and other areas that have resulted in enormous benefits to public health and the natural environment. At the same time EPA programs and our understanding of health and environmental science have evolved significantly. At the same time, new challenges have emerged. EPA has become an enormously consequential institution, often leading the world in promoting environmental progress. As EPA's 50th anniversary approaches in 2020, the country can celebrate much progress. It is also a very appropriate time to consider the challenges of the future.

This project looks a quarter century beyond EPA's 50th anniversary -- past many of today's contentious issues, past EPA's current capacity and strengths/weaknesses, past incremental changes and past the current legislative framework -- to a future time in which we hope that many points of view can come together around a shared vision for the environment. Over the years, EPA has adapted to developments in science and technology, societal priorities, and has pioneered new, more efficient approaches to regulation. How it changes in the future is important. The environment affects everyone, meaning that it is a shared interest, not a special interest. If we look sufficiently ahead it should be possible to articulate widely shared interests in future directions for environmental progress and protection and EPA's role and thereby contribute to public dialogue.

The project is being conducted by the American University (AU) Center for Environmental Policy in partnership with the EPA Alumni Association (EPAAA). Our EPAAA Board has agreed to work with AU to develop a survey by which the Association will tap the vast expertise of its 1700+ members, especially on what works and what doesn't. The results will be used in planning a multi-stakeholder conference sponsored by AU and EPAAA in the Spring of 2019 featuring former EPA administrators and other prominent experts. Further workshops outside Washington may follow, involving many other parties.

EPAAA members have helped identify three themes that such a project and survey might address. To make the survey of members as meaningful as possible, EPAAA is now asking members to participate in one or more of five focus groups listed below. Each will explore some broad topics and options for next steps. Participation will entail a series of 2 two-hour conference calls in May and June (representing a four-hour commitment by each volunteer).

Themes and Focus Groups

Theme 1: What will be the future challenges for achieving environmental progress?

Focus Group 1: Future Environmental Challenges

Over the past 50 years our environmental priorities have changed, both through progress made in reducing some of the worst problems while other challenges have grown in importance as our scientific understanding of problems has improved. This group will consider major trends in the US and internationally, including such areas as the economy, transportation and settlement patterns, potential technological developments, and emerging science. The group will ask what the priority/emerging risks to human health and the environment will be and which will be the most challenging to address. For example, the group could examine domestic and global resource use, the effects of changes to climate, weather patterns and floodplains (including indirect effects on infrastructure, such as the effects that flooding will have on sewer systems), the changing requirements for climate change adaptation work and for emergency response and recovery, the need to integrate programs to address climate change with other programs that address the same sources, and the nexus between the environment and public health, habitat destruction and low-level toxins.

Detailed questions

- How is the comparative risk or severity of environmental problems likely to change?
- What "new" problems should EPA be anticipating?
- How will climate change affect the environment directly in the next 25-50 years and how will it alter the dimensions of other environmental problems?
- Will the role of emergency response and recovery continue to increase? What will be the effect on agency resources? What steps can the agency take to shift from ongoing emergency response and recovery to planning or mitigation of such emergencies especially those that take out state/local infrastructure?
- As climate change becomes an increasing threat and technology develops to mitigate climate change, what role will EPA play in assessing and preventing adverse effects from technology intended to mitigate or adapt to climate change (e.g., solar geoengineering)?
- What environmental changes are anticipated with more frequent catastrophic events e.g., less fresh water, which means preventing pollution is no longer sufficient?
- What should EPA be doing to anticipate and address additional "new" problems? With whom should it be consulting?
- How will megatrends (e.g., population growth, settlement patterns, trade, technology) change the mix/severity/priority of environmental problems that EPA must address)?
- How should EPA think about priority environmental problems in light of environmental justice concerns?
- How should EPA frame environmental problems generally and address the relationships between them?
    - To what extent should EPA be thinking of environmental problems in terms of life cycles (cradle-to-grave or cradle-to-cradle)?
    - How should/could EPA focus on groups of pollutants in multiple media vs. focusing on individual pollutants in single media?
    - How should environmental problems be thought of in the context of sustainability problems (environmental, economic, social problems)?

- How should EPA's role be imagined in the context of different environmental problems and priorities? Should EPA hand off some issues to others and focus on other issues? If so, which ones and what laws would have to change?
- How will EPA engage with the rest of the world regarding new environmental issues with global impacts?
- Are markets changing to drive environmental improvements and if so, how can these trends be encouraged and taken advantage of in EPA's work?

Theme 2: What should be the model by which the U.S. and EPA address future challenges for achieving environmental progress?

<u>Focus Group 2: The "Environmental System" and EPA's Role</u>

The challenge of achieving environmental progress is and will be about much more than EPA. It is about a system in which states and other public (including Federal) and private actors also play very important roles. Ideally, this system should reflect a general societal consensus. In turn, EPA's specific role should reflect how the agency can best contribute to the overall enterprise. This group will examine the strengths and weakness of the current system and examine alternative systems or models that might work well in addressing future challenges. For example, the group might address the fact that a major aspect of EPA's work has been to set and enforce standards. This approach has evolved, and it has been suggested that it should continue to evolve, towards (1) encouraging innovation, environmental problem-solving, resilience and sustainability, and (2) intelligently incorporating other societal goals and aspirations such as energy security, a strong economy and social justice without compromising the need for environmental protection. In order that EPA can have the support of all major parts of the population, as it had when it was formed, any modified or new system should address the future needs of all parties as fully as possible.

<u>Detailed questions</u>

- How should EPA promote shared understanding of environmental problems?
- Is there a framework for thinking about EPA's general approach that would move the conversation away from tearing down vs. rehabilitating the "old" EPA and help "reset" the dialogue on environmental protection, not constrained by existing statutes, thinking about change in a positive way?
    - How can EPA really make it easier for entities to protect the environment and have this be widely known? How can EPA be a facilitator of innovation?
    - How can environmental programs contribute to economic growth/vitality/jobs, P2 (vs. control at point source), reuse/recycling, sustainability?
    - How can choice/personal freedoms (vs. command & control and telling people what they can't do) be built into a solid plan to improve the environment? Where can flexibility be built in?
    - Would ceding more responsibilities to regional, state and local entities be helpful? What laws would have to change?
    - Where do EPA and environmental protection currently have bipartisan support and why?
    - Would it help to think about forming a Department of Environment with an organic act that includes improved, more consistent decision making criteria?
- Should EPA be stressing the public health implications of environmental issues more than it has, and if so, how? Air has done this best.
- Should EPA have more statutory flexibility to devote its resources where it can maximize protection and benefits (e.g. control highest risks)?
- Should EPA be a more active partner in addressing response and recovery in large scale disasters, such as wide-scale flooding after a hurricane?
- Should EPA have a more formal role in Federal land use and transportation planning activities?
- How should environmental justice concerns be better built into EPA's framework/approach? What is EPA's role in addressing complex environmental justice issues?

- Should EPA have a more robust strategy for prevention of pollution so that problems are not created in the first place?
- How can we improve the public dialogue and understanding to rebuild broad, bipartisan support for environmental protection? What is the role for environmental education? What else can EPA do?
    - What can EPA do to ensure that all people are heard and to assure them that it is tuned into their concerns?
    - How can EPA help the public understand the benefits of environmental protection?
    - How can EPA help the public understand the agency's role in financing critical local infrastructure (e.g., wastewater)?
    - How should EPA rethink public communication? Focus on seriousness of problems, especially where they are not visible. Focus on substance, not PR.
- How ought the provision of information to the public through "right to know" evolve and become a bigger part of the public dialogue? What should be the role of citizen science in this context?
- How should EPA use social media, especially to reach millennials?
- How do all of the agencies of the Federal government that have or can have a positive or negative impact on the environment organize themselves as a whole to address these future challenges (not just shuffling boxes)?
- How can we make the most of what we have learned over the past 50 years that has worked and has not worked at EPA?
- Identify where EPA and environmental protection currently have or had in the past bipartisan support and discuss what helped this happen.
- How might one depoliticize EPA? Would this be desirable? Should EPA maintain its political organization or is it time to de-politicize environmental protection and have appointees appointed for specific terms similar to some other public health/consumer agencies?

Focus Group 3: EPA's Relationship with States and Other Public and Private Actors

This group will examine the continuously shifting Federal-State and Tribal partnerships and relations with other public and private actors. For example, it could address how EPA can best partner with the states, how the states can help EPA, whether states should have stronger or weaker roles in different programs and the implications for EPA management, and whether more flexible approaches are needed to deal with state differences. The group might also examine the roles EPA should play at various levels from global to local, how EPA-Tribal relationships might evolve, how EPA can best work with other federal, state and local agencies, industry, NGO's and the public to integrate environmental progress into their policies and programs, how multi-scale planning for critical issues (e.g., climate) can be best accomplished, how EPA should adjust to the evolving scene in terms of trade agreements, inter-continental pollution, and the role of worldwide corporations, and how EPA can best encourage or assist businesses to improve the environment.

Detailed questions

- Re: EPA and States:
  - What is the current state of EPA-state relationships? Is there an ideal state?
  - How do we improve the EPA-state partnership? What about a stronger state role?
  - Does a stronger state role imply a stronger role for EPA regional leadership working with states?
  - How can EPA best help the states without being heavy handed? What are/should be the relative roles of money, technical assistance and national regulations?
  - Do we need flexible regulations to deal with state differences?
  - How should EPA respond to the states' plea for "full partnership" now given the degree of delegation to states under each of the programs?
  - Does the current state of EPA-state relationships change depending on the statute involved? How have the relationships changed over the years – what made it better or worse?
  - Do we need the same staffing in the Regions (and HQ) now that many of the states have very strong programs?
- Re: EPA and Tribes:
  - How should the EPA-Tribal relationships evolve?
  - Given the status of tribes as domestic sovereigns and with our trust responsibility to them, how do we make sure we are living up to our obligations under the treaties that were signed long ago?
  - With tensions between states and tribes in many situations, how can we serve to reduce those tensions and create a positive partnership?
- Re: EPA and other countries around the globe:
  - What role should EPA play as a global environmental leader?
- Re: EPA and communities:
  - How can EPA best support regional and local environmental planning?
  - How should EPA help communities be resilient and prepared for the future?
  - How can EPA best help communities with issues that are (a) in their control, (b) in their sphere of influence, or (c) out of their control?
  - Given the increasing capacity of many medium sized and large cities to deal with climate change, sustainability, and general environmental issues, what can we do to help enhance their ability to deal with and solve the problems they face?
  - How should cities/local governments fit into the "environmental system"?

  - To what extent does EPA need to continue to be the safety net when states/local governments fail?
- Re: EPA and other agencies:
  - How can EPA work better with other federal, state and local agencies to integrate environmental improvement into their policies and programs? What are some examples?
  - How can multi-scale planning for avoiding and dealing with impacts of critical issues such as climate be best accomplished?
  - Does multi-scale planning and better data collection and use mean a larger Federal role? Would leveraging technology to automate input and analysis of data from regulated entities result in a need for an increased or decreased Federal role?
  - In these relationships, what has worked and not worked and how can that knowledge be incorporated into future plans?
- Re: EPA and business:
  - How can EPA better help businesses protect the environment and encourage /incentivize the regulated community to improve environmental protection with minimal need for regulations?
  - How can we better engage the private sector to leverage each other's strengths to improve the environmental enterprise?
  - Since EPA was formed, an environmental industry has come into being. How can EPA work with these industries to keep abreast of the latest technology to encourage solutions and to be flexible enough to adopt newly developed solutions quickly?
- Re: EPA and citizens, NGOs
  - How can EPA best encourage environmental education at all levels [general public, K-12, elementary and high school, universities]?
  - How can we better engage the NGO community to leverage each other's strengths to improve the environmental enterprise?

Theme 3: What will EPA need to do its job?

Focus Group 4: Science, Technology and Data

Science, technology and data have been cornerstones of environmental progress and all of EPA's work. This group could focus on specific issues of science EPA will have to address, EPA's role as a trusted source on exposure and risk, how EPA should strengthen its science function generally, how EPA should leverage technology, how EPA can improve data collection and analysis and use information technology (including social media) to support all parties, how public trust in EPA's science can be enhanced, and how EPA can best harness research done outside the agency, including citizen science.

Detailed questions

- What specific science, technology and data challenges will EPA have to meet to protect the environment and public health?
- How should EPA strengthen its science function generally?
- What science should EPA be doing to anticipate and address additional "new" problems? With whom should it be consulting?
- How should EPA work with groups who are skeptical of generally accepted science?
- How can EPA improve data collection and analysis to support all stakeholders?
- In the past, EPA often had too little data; technology often means an incredible amount of data is available; how should such data be managed to determine risk?
- Could technology be used to collect real time data for specific entities and use it to evaluate risk and issue site specific real time requirement as the information changes?
- Can technology (artificial intelligence) be used to explain how to comply or to self-monitor and implement requirements? If such data is collected and used automatically, what impact would this have on federal/state/local regulatory programs.
- Can technology help EPA to move towards providing solutions to problems versus regulatory/enforcement mode?
- How ought the provision of information to the public through "right to know" evolve and become a bigger part of the public dialogue?
- How can EPA best harness the power of citizen science?
- What are the megatrends that EPA must address?
- How should EPA best encourage and use new technology for measurement of substances in the ambient environment and other diverse environmental changes?
- Should there be an independent environmental statistics organization?
- As EPA recruits new scientists, what emphasis should be placed on building and maintaining strong laboratories, identifying the need for and funding of research to be done by others, finding ways to incorporate technology and scientific advances occurring outside of the agency, and analysis of the body of science to support the rest of EPA's decision-making functions?
- With the expectation that the state of the science and technology will change over the coming decades, what current skills would need to be retained and what new ones should be fostered?
- How should EPA improve methods for risk assessment? Should the methods be more or less conservative?
- Should EPA move towards more uniform risk assessment across all statutes? Should statutes have same criteria re risk and what constitutes unacceptable risk? Will advances in technology allow better assessment of risk across all media rather than the current statute specific risk assessments?

Focus Group 5: EPA Tools, Processes, Culture and Resources

The tools and processes that EPA uses and how the agency will be set up and resourced to do its work are critical. This group could examine how to enhance and modernize regulatory and other decision-making systems to keep up with the accelerating pace of technological and social change, how best to organize the agency to address the issues of the future, how EPA could operate best with enhanced or diminished levels of budget/staffing, what culture and skill mix EPA staff will need in the future, and whether new legislation and/or an organic environmental statute might be helpful.

Detailed questions

- How can we improve EPA decision making systems to keep up with the accelerating pace of technological and social change (reference to Tom Friedman)?
- What should EPA do to protect and enhance the integrity of enforcement? How should permits and enforcement use new technologies, including big data, drones and advanced monitoring? What other enforcement innovations should be considered?
- How can EPA better integrate permitting processes, at least for the way we relate to the regulated entities? How might EPA automate aspects of permits? How might EPA simplify permits for small sources?
- What should be the role of market mechanisms/positive incentives as well as negative incentives (e.g. liability)?
- How can we improve cross-media communication/management/strategies, especially at the Office Director level?
- Is the organization of the agency right for the issues of the future?
- How should EPA organize its climate functions (mitigation, adaptation, infrastructure)?
- How could EPA operate best with enhanced or diminished levels of budget/staffing?
- What skill mix will EPA staff need in the future?
- How should/could EPA focus on groups of pollutants in multiple media vs. focusing on individual pollutants in single media?
- How useful would an organic environmental law be? What problems might it pose (e.g. rewriting regulations based on any new (coordinated) decision criteria)?
- In what aspects, if any, are the current laws, which were largely enacted in the 1970's and 1980's an impediment to addressing the challenges the agency will face in the future?
- Are more of the problems of the future going to deal with land use and transportation planning and should the Agency have more authority in this area?
- What has worked and what has not over the past 50 years and what are the implications for the future nature of EPA?
- There has always been talk of "regulatory streamlining." Is this an issue that should be dealt with as EPA changes to meet the challenges of 2045?