**EPA Plan - Response to OMB's M-21-06 Guidance for Regulation of Artificial Intelligence Applications**

**1. Authorities Directing or Authorizing Agency Regulation of AI Applications.** List and describe any statutes that direct or authorize your agency to issue regulations specifically on the development and use of AI applications.

EPA has no explicit statutory authority to issue regulations on the development and use of AI applications.

**2. Active Collections of AI-Related Information.** List and describe any of your agency's collections of information approved by 0MB under the Paperwork Reduction Act that relate directly to the design, development, deployment, and operation of AI applications in the private sector, including if there are any statutory or regulatory restrictions on the use or sharing of this information.

EPA has no approved or requested information collections related to the design, development, deployment, and operation of AI applications in the private sector.

**3. AI Use Case Priorities.** Informed by stakeholder engagement, list and describe AI applications that are within your agency's regulatory authorities.

EPA has not identified any AI applications for use outside of the Federal government that are within EPA’s regulatory authority. Various EPA component offices have used AI and ML in research projects and data analysis, including issuing cooperative research grants for projects that will use AI and/or ML or investigate potential applications for AI and/or ML. As EPA studies AI and ML, it will work with various stakeholders – including researchers, co-regulators, industry, and environmental and public health organizations -- to better understand how AI and ML may be used by EPA and external parties to enhance the attainment of EPA’s mission to protect human health and the environment. For example, of particular interest in the regulation of chemicals and pesticides is the potential to use AI to mimic human behaviors that could affect exposure to chemicals. EPA’s Center for Computational Toxicology and Exposure (CCTE) has conducted AI-related research and supports Communities of Practice composed of hundreds of stakeholders from over 50 public and private sector organizations (ranging from EPA, other federal agencies, industry, academic institutions, professional societies, nongovernmental organizations, environmental non-profit groups, state environmental agencies and more) who have an interest in using advances in computational toxicology and exposure science to evaluate the safety of chemicals.

A recently convened ad hoc committee of the National Academies of Sciences, Engineering, and Medicine will identify emerging scientific and technological advances from across a broad range of disciplines that EPA’s Office of Research and Development (ORD) should consider in its research planning to support EPA’s mission for protecting human health and the environment. In addition, the committee will recommend how ORD could best take advantage of those advances to meet current and future challenges during the next 10-20 years. In carrying out its study, the committee will consider EPA’s mission, strategic planning documents, and current initiatives, as well as other broader topics including data science along with artificial intelligence and machine learning.

EPA sponsors E-Enterprise to provide collaborative leadership among environmental co-regulators. Through a shared governance model, environmental leaders at US EPA, States, and Tribes are using E-Enterprise to deliver better results, often with lower costs and less burden, for the benefit of the public, the regulated community, and government agencies. At its 2020 national meeting, E-Enterprise conducted a webinar on machine learning and predictive analytics in environmental protection, featuring renowned experts from two institutions that have partnered with environmental agencies on these topics: the University of Chicago Energy and Environment Lab, and The Regulation, Evaluation, and Governance Lab (RegLab) at Stanford University. The webinar included case studies in using predictive analytics to help agencies target resources for environmental inspections where they could do the most good, and a discussion on machine learning, implementation challenges, use cases, and collaborative development opportunities for the environmental protection community.

**4. AI Regulatory Barriers**. Informed by stakeholder engagement, list and describe existing processes, policies, or regulations that inhibit development or commercialization of AI applications within your agency's authority.

EPA has not identified any existing processes, policies, or regulations that inhibit development or commercialization of AI applications within its authority. EPA will continue its outreach on AI and ML with the various stakeholder described above to identify barriers to the development or commercialization of AI applications within its authority.

**5. Planned Regulatory Actions Concerning AI Applications**. List and describe any planned or considered regulatory actions and provide, to the extent possible, information about the agency's consideration of the principles and approaches described in 0MB Memorandum M-21-06.”

EPA currently has no planned regulatory activity related to AI. EPA has begun work on AI strategies, beginning with technical architecture and internal governance requirements. Over time, this work will be broadened out to include the higher level principles and approaches described in OMB Memorandum M-21-06, including encouraging innovation and growth of AI within the Agency and as a possible part of its regulatory and non-regulatory programs. EPA will be guided by the principles of public trust and public participation, scientific integrity and information quality, risk assessment and management, consideration of benefits and costs, flexibility, fairness and non-discrimination, disclosure and transparency, safety and security, and interagency cooperation.