

ENVIRONMENTAL BUSINESS JOURNAL®

Strategic Information for a Changing Industry

REPRINT

Environmental Industry Outlook 2021

Environmental Business International Inc.

POTOMAC-HUDSON ENGINEERING SEES 2021 AS A YEAR OF TRANSITION; BENEFITS FROM 3 DECADES OF FEDERAL SERVICES & TECHNOLOGY FOCUS ON INFORMATION

Potomac-Hudson Engineering Inc. (PHE) is a Small Business provider of innovative environmental, planning, and technology services to the nation's defense, energy, and infrastructure sectors. Founded in 1988, PHE has provided clients with superior quality and innovative compliance, planning, management, and sustainability support. With experience and capabilities rivalling some of the largest environmental firms in the world, PHE offers the responsiveness and attention to detail afforded by a small business. PHE is headquartered in the National Capitol Region (Rockville, MD) and maintains offices in Pennsylvania, Michigan, California, and New Jersey. PHE primary service lines include: Environmental Compliance, Management, and Sustainability; Environmental Planning and National Environmental Policy Act (NEPA) Documentation; Site Characterization and Remediation. PHE's staff of 40 scientists and engineers are cross trained with a broad range of technical capabilities spanning multimedia compliance, planning and impact analysis, engineering studies and analyses, reporting and permitting, and regulatory interface. PHE offers a well-rounded team of experts with a thorough understanding of federal, state, and local regulatory requirements and experience in all 50 states and around the world.

Fred Carey, President, has 29 years of experience providing environmental analysis, environmental compliance, and facility siting and planning consulting services to federal and private sector clients. Mr. Carey's experience includes study and analysis of critical environmental and human health issues related to various types of energy actions involving advanced battery manufacturing; clean coal power generation; carbon capture and storage; combined heat and power systems; renewable energy technologies; high voltage transmission lines; hazardous material pipelines; and power plant siting.

Chris Fafard, Principal, has 32 years of consulting experience, including 25 years with PHE. He currently leads environmental management and compliance services in PHE's Rockville, Maryland office, primarily for Navy, Marine Corps, and U.S. Coast Guard clients. Mr. Fafard has supported environmental compliance and management projects for DoD clients for more than 30 years for headquarters and activity-level components, including direct support to over 70 DoD installations and regional activities.

Robert Naumann, Principal, has 22 years of environmental consulting experience and is currently a Senior NEPA Project Manager involved in overseeing the development and execution of NEPA documents, often requiring aggressive schedules, and covering highly controversial topics. He is responsible for leading environmental analysis tasks, developing analysis framework, and providing NEPA technical expertise in a diverse array of environmental planning and ecological studies for state, federal, local, and private programs.

Samir Qadir, Associate-Principal, has over 15 years of environmental consulting experience including greenhouse gases, climate change and resiliency, NEPA document development, environmental and sustainability program support, EMS implementation and auditing, and environmental compliance support. He has supported the preparation of environmental analysis documents for the Department of State, US Army, and Department of Energy as lead analyst for greenhouse gases and climate change; provided programmatic support to multiple federal cli-

ents on EMS, solid and hazardous waste, and EPCRA; provided compliance, P2, and EMS support to Marine Corps, Navy, and Coast Guard facilities; and conducted compliance audits at over 30 federal and state facilities. Prior to joining PHE, Mr. Qadir carried out environmental performance assessments for private sector firms in India as part of a joint project between the Government of India and the United Nations Development Program.

EBJ: PHE calls itself an innovative environmental, planning and technology consulting firm. In which ways has innovation served as a differentiator from competitors?

PHE: Our company was originally founded with the goal of leveraging the experience and skills of our staff to provide high value solutions and responsive services to our clients. We have achieved this goal through an organizational structure that leverages technology and ensures our principals and seasoned staff are actively engaged in supporting our clients. Our culture promotes applying our experience and technology to develop novel approaches and solutions that will add value to our services and benefit the client.

We foster open communication and collaboration among our practice areas to inspire new ideas and approaches, and provide a robust environment for staff to develop, grow, and innovate. As result, we offer high-level expertise and services in an extremely nimble and responsive way. This differentiator has earned PHE a reputation as a go-to firm for executing complex and challenging projects with aggressive schedule requirements and has resulted in PHE being selected to provide environmental support for many high-profile, national priority initiatives.

EBJ: Why has PHE specialized on NEPA support services, and what type of clients do you serve?

PHE: Congress created NEPA to ensure federal agencies consider the environ-

mental impacts of their actions and decisions. Through the NEPA process, Federal agencies are required to systematically assess the environmental impacts of their proposed actions and consider alternative ways of accomplishing their missions, which are less damaging to and protective of the environment. NEPA also provides an important pathway for public involvement and stakeholder collaboration.

PHE has specialized in NEPA services since our founding in 1988. NEPA support services, principally the preparation of Environmental Assessments and Environmental Impact Statements, require a multi-disciplinary team and are often critical path items that need to be completed for our clients to meet mission critical requirements. These requirements can relate to facility siting and construction, military operations and training, transportation infrastructure, power generation and distribution, technology demonstration, as well as other actions. PHE's expertise in navigating the NEPA process, the breadth of our technical capabilities, and demonstrated ability to meet often compressed and aggressive schedules positions the firm as an effective operator in this space.

PHE serves a broad range of clients in the area of NEPA support as a result of an accumulation of experience and expertise over time. Our early experience involved the preparation of NEPA documents for various branches of the DoD for military construction, operations, and training re-

quirements, for the US General Services Administration (GSA) Public Building Service for the siting and construction of federal facilities, and the VA for the siting and construction of National Cemeteries. PHE continues to provide NEPA support services to these clients to this day.

Over time we expanded our NEPA client base to include all branches of the DoD, providing nationwide NEPA services to the Army and Navy, the US Department of Energy, the US Army Corps of Engineers, the Department of State, the Department of Justice, and industrial and energy sector clients. Significant current clients are characterized as follows:

Department of Defense

PHE has supported DoD and all its component services for over three decades and has a deep awareness of military needs and unique aspects of military projects and activities. This includes the role of NEPA in military readiness and critical project timelines tied to congressional funding, the important relationships between an installation and surrounding communities, the impact of the military mission on the environment, and the important biological and cultural reserves military installations often preserve in otherwise developed environments. Through three different nationwide contracts with the US Army Environmental Command, we have performed a wide range of NEPA services to the Army. This support has included

NEPA documentation and supporting biological, cultural, and waste studies for facilities construction, new equipment fielding, utilities and housing privatization, land acquisition, land disposal, net-zero initiatives, and programmatic-level documents for routine military maintenance and training actions.

PHE has also held regional contracts with the US Navy providing NEPA support for energy infrastructure projects at Navy installations in the southwest, facility construction projects at Marine Corps installations, and military training operations at installations and for aircraft training routes. Our Air Force experience include preparing over 50 NEPA documents for projects at Air Force installations for military construction and operations.

Department of Energy

PHE has continuously held nationwide NEPA support contracts with the DOE since 2004. Through these contracts we supported DOE on a variety of large and complex initiatives, that often were subject to strict deadlines and aggressive schedules. These projects have included preparing the environmental documentation for: Yucca Mountain; National Nuclear Security Sites; commercial-scale power plants (such as the FutureGen Project, a proposed near-zero emission coal fueled power plant); and a variety of novel technology demonstration projects related to biofuels, advanced battery manufacturing, wind turbines, and carbon sequestration.

In addition, PHE has supported industrial and energy sector clients seeking funding support from DOE for the advancement of new technologies. We remain well positioned to support this sector due to the technical expertise we have

Environmental Business Journal® (ISSN 0145-8611) is published by Environmental Business International, Inc., 4452 Park Blvd., #306, San Diego, CA 92116. © 2021 Environmental Business International, Inc. All rights reserved. This publication, or any part, may not be duplicated, reprinted, or republished without the written permission of the publisher.

To order a subscription, call 619-295-7685 ext. 15 or visit us online at ebionline.org/ebj. A corporate electronic subscription with internal reproduction license and access to data files starts at \$1,250 and allows up to five registered users with rates increasing in five user increments. Discounted corporate subscriptions are available for firms with under 100 employees.

Editor in Chief, **Grant Ferrier**
Research Director, **Laura Carranza**
Writers **George Stubbs & Jim Hight**

Federal Analyst, **Andrew Paterson**
Managing Editor, **Lyn Thwaites**
Research Analyst, **Anika Rohlfe**

EDITORIAL ADVISORY BOARD

Andrew Paterson, Chairman; **James Strock**, Founder, Serve to Lead; **Steve Maxwell**, TechKnowledge Strategic Group; **P.S. Reilly**, President, NextGen Today; **Dr. Edgar Berkey**; **Paul Zofnass**, Environmental Financial Consulting Group

*Reprint excerpted from
Environmental Business Journal®
"Environmental Industry Outlook
2021" edition.
Reprinted with permission from
Environmental Business Inter-
national Inc. All rights reserved.
© 2021 EBI Inc.
www.ebionline.org.*

gained from supporting these initiatives, and our knowledge of DOE requirements.

Department of State

Because of our experience supporting projects involving large-linear components for electrical transmission and hazardous liquid pipelines, and climate change related qualifications, PHE was selected to provide NEPA support for several large pipeline projects that were seeking Presidential Permits, including the expansion of Enbridge's Line 67 and Keystone XL Pipeline. Leveraging experience and expertise from our support of DOE, we developed a comprehensive approach for life-cycle analysis for greenhouse gases (GHGs) and a risk-based analysis to evaluate the potential for effects on sensitive resources from accidental releases.

Regarding GHGs, PHE used the most current available, published studies from academic, government, and industry sources as well as state-of-the-art models to develop GHG emissions estimates. PHE also developed a GIS methodology that was applied to model the risk-based accidental release analysis. Federal courts have recognized the thoroughness of analysis for both the GHG and accidental release approaches developed by PHE. We remain well positioned to provide support to projects involving hazardous liquids and projects that require life cycle GHG analysis and reviews.

Furthering our relationship with the Department of State, PHE was retained to prepare a study on environmental concerns related to the decommissioning of nuclear power plants in the Great Lakes Region, on behalf of the International Joint Commission. The study provided information on decommissioning practices at nuclear power plants and the associated hazards and environmental risks, including the on-site storage of radioactive waste.

The age of the nuclear power plant fleet in the U.S. and economic considerations suggest that several nuclear plants are likely to stop operating in the coming decades. Thus, decommissioning activities will likely increase, and related issues such as challenges of long-term storage of radioactive waste may be drawn to the forefront

of public debate. Despite the recent and projected decline in nuclear generation, it is worth noting that nuclear power is receiving renewed attention as a source of carbon-free energy, due to the rising urgency and need to address global climate change. We intend to keep a close watch on both emerging nuclear technology and decommissioning activities.

GSA Public Building Service (PBS)

Since the early 1990s, PHE has been providing NEPA and due diligence support to the GSA PBS, covering a wide range of actions including facility construction, tenant relocation, and property disposal. Our working relationship with GSA has occurred through a variety of pathways including indefinite delivery, indefinite quantity (IDIQ) contracts with various regional offices.

PHE has provided environmental support for a variety of projects for GSA including the construction of facilities for Federal Courthouses, the Internal Revenue Service, the Federal Bureau of Investigation, the Department of Homeland Security, the Department of Veterans Affairs, and the expansion of two Centers for Disease Control Campuses in Atlanta. Through our experience and understanding of technical aspects of siting and operating federal facilities, we have continued to provide value-added services to GSA PBS, and will continue to focus on supporting this client.

EBJ: What are some of the outstanding Federal EMS and sustainability programs that you have implemented?

Environmental Management Systems

EMS establishes management principles and serves as the organizing framework of any environmental program, allowing agencies and facilities to systematically identify their most significant challenges and priorities, establish goals, and take action to close gaps and achieve their objectives. EMS follows a plan-do-check-act approach, widely recognized as the basis for many successful business management systems, including quality management and safety and health management.

Reprint excerpted from Environmental Business Journal® "Environmental Industry Outlook 2021" edition. Reprinted with permission from Environmental Business International Inc. All rights reserved. © 2021 EBI Inc. www.ebionline.org.

PHE provided foundational EMS support to many federal agencies since the late 1990s including the US Navy and the US Marine Corps. We recognized early on that tailoring an EMS to unique characteristics of each organization could help our clients achieve their environmental goals with the greatest cost-effectiveness, stretching limited taxpayer dollars.

PHE has been instrumental in developing the Marine Corps' EMS framework, tailoring the international EMS standard (ISO 14001:2004) framework to Marine Corps specific culture, organization, and resource availability. Initial headquarters-level EMS development work led to installation-level implementation, training, and review and improvement, worldwide since 2005. With potential shifts in Marine Corps policy and priorities on the horizon, we anticipate a new wave of installation level EMS development in the near future and are prepared to help.

Our Marine Corps EMS clients also include the Marine Forces Reserve (MARFORRES), for whom we have developed EMS and environmental compliance guidance for nationwide implementation. As a centrally managed distributed organization, MARFORRES maintains centers of excellence responsible for oversight of environmental compliance at reserve centers nationwide. Reserve center personnel are responsible for environmental compliance as a collateral duty. Our MARFORRES environmental management work has thus been characterized by the development of tools and systems to extend the reach of environmental SMEs while ensuring the facility personnel have what they need to ensure compliance.

In parallel with Marine Corps EMS development, PHE developed the Navy's ini-

tial agency-wide EMS program, including development of EMS policy and guidance documents as well as implementation support at facilities worldwide.

Other key EMS clients have included the U.S. Mint, GSA Federal Acquisition Service, and the DLA's Defense Energy Support Center (now Defense Energy). Overall, PHE has supported facility-level EMS implementation at over 75 federal facilities worldwide.

Sustainability

Since the early 2000s, we have been providing sustainability support to our clients in responding to a range of policy drivers, including a series of Executive Orders and other laws and regulations. Sustainability aims to improve the triple bottom-line, by encouraging organizations to prioritize and support environmental and societal benefits along with profit.

We have helped federal facilities and agencies implement sustainability programs including most recently at Marine Corps Base Camp Lejeune, where we provided over 5 years of ongoing support to develop the base's Strategic Sustainability Performance Plan (SSPP). The SSPP established targets and objectives to help meet overarching federal sustainability goals greenhouse gas emissions reductions, energy and water conservation, toxics reduction, stormwater impacts mitigation, and sustainable acquisition.

Initially, we found that sustainability programs faced resistance because sustainability goals typically go beyond traditional "environmental" programs and involve areas such as facilities maintenance, supply and contracting, training, operations, and finance. Furthermore, sustainability benefits, fiscal or otherwise, may be realized within functions across the organizational chart, and can be hard to quantify without cross-functional coordination. We found that it is essential to the success – and to communication of that success to leadership and other stakeholders – to get buy-in from all these affected parts of an organization early on before the program really gets underway.

Climate Change

PHE has supported several programs related to climate change and greenhouse gas reduction through our DOE work. These programs have included the preparation of programmatic documentation for the DOE's Carbon Sequestration Program and initiatives to advance **carbon capture and storage** technologies at both, the pilot-scale and commercial scale. As part of our support in these areas, we have provided environmental and climate change analysis for energy facilities proposing carbon capture technology and geologic sequestration, as well as use of carbon for enhanced oil recovery. As there were no regulatory drivers or other incentives to reduce carbon emissions, these initiatives were largely driven by federal funding opportunities or loan guarantees that were available to private industries and institutions. We believe that a framework will soon emerge to place a cost on carbon emissions (i.e., a carbon fee) that will drive future growth for carbon reduction technology.

Additionally, we have supported greenhouse gas emissions and climate change impact analyses for several large infrastructure projects for the Department of State and other federal agencies, discussed earlier under our NEPA services. PHE continues to be highly engaged in this area, with a focus on growing our internal capabilities and offering expertise to our client base as climate related issues and needs continue to emerge.

EBJ: Please describe the technology consulting services that PHE provides.

PHE: Our business model has always been to leverage technology to the benefit of our clients. Our consulting services in this area have largely been focused on and around managing and processing large data sets, and ensuring environmental information is readily available to our clients so they can effectively manage their programs. PHE was instrumental in developing several systems for the Marine Corps for managing environmental program data across installations and developing IT tools for evaluating and managing regulatory compliance throughout the Marine Corps. PHE has also applied cloud-based

technology for integrating and managing large teams, to streamline records management and configuration control for large documents.

PHE leverages our IT and GIS capabilities to add value for clients through increased efficiency on a variety of projects. We have developed tools and solutions for assessing and managing large sets of public comments (up to several hundred thousand) received on controversial NEPA projects. These solutions have been applied to projects related to export of natural gas from the United States, the import crude oil through cross-border pipelines, and the siting and construction of commercial scale power plants.

We have used GIS technology to produce geographic heat maps reflecting comment submissions so that our clients understand the level of project interest in different communities. For communicating risk from hazardous liquid pipelines, we developed a GIS methodology to assess resource specific risks for various accident scenarios along several hundred miles of pipelines and railroad corridors. This analysis provided stakeholders and decision-makers with comparative information for evaluating the relative risks of the project and alternatives.

PHE works with our clients to identify and evaluate technologies that are environmentally friendly, reduce pollution, and provide cost savings. We have provided these services for the Navy and Marine Corps, recommending environmentally preferable parts washers, oil/water separators, coolant or solvent recovery/recycling systems, as well as other P2 technologies. More recently, we have been evaluating technologies to reduce the impact and costs of waste bilge water at federal facilities.

*Reprint excerpted from
Environmental Business Journal®
"Environmental Industry Outlook
2021" edition.
Reprinted with permission from
Environmental Business Inter-
national Inc. All rights reserved.
© 2021 EBI Inc.
www.ebionline.org.*

ties, including the use of fixed and mobile/portable treatment systems.

In support of site investigation and restoration services, we are also using several innovative technologies to gather and analyze site data. Examples include use of unmanned aerial vehicles (drones) to visualize site features, potential underground structures, and areas of potential contamination not visible to ground level observers; use of smart weather stations and remote transducers in groundwater monitoring wells to support real-time, remote correlation of rainfall, groundwater, and free product transport in the water table; and application of no-purge groundwater sampling methodology – using passive diffusion bags to collect discreet samples at multiple intervals at fractures within a 300 foot open borehole – to identify sources of highest contaminant concentration in complex karst geology.

EBJ: What trends will define the Environmental Industry in 2021?

PHE: We see 2021 as a transition year, as the country emerges from pandemic restrictions, and the Biden administration begins to promulgate its agenda through form of Executive Orders, shifts in regulatory focus, an emphasis on climate change, and proposed new legislation for infrastructure. The administration provided a clear signal of its **commitment to climate change and focus on renewable energy** by revoking the previous administration's Keystone XL Presidential Permit and halting new oil and natural gas leases on public lands or offshore waters. These actions will likely result in decreasing demand for environmental support, such as permits and environmental studies related to fossil fuel activities on public lands.

It is apparent that **resiliency and adaptation initiatives** will continue to see growth, as local communities begin to look more forcefully at these issues. This growth may be accelerated if increased federal emphasis on climate change results in additional funding opportunities. We also anticipate that federal agencies will target resiliency and climate adaptation initiative for increased funding, to better allow communities to withstand the effects of

climate change that are already underway and likely to continue in the immediate future.

Recent catastrophic events that have been exacerbated by climate change include drought and wildfires, sea level rise, increasing intensity of hurricanes and storm surge, and extreme temperature events straining the energy grid. An emphasis on resiliency and adaptation will also influence the future planning and siting of infrastructure and for overall master planning efforts, which could have implications for NEPA and other planning services.

Curbing greenhouse gas emissions is another priority area for the Biden administration, which announced on April 22, 2021, that it will seek to cut carbon emissions in half by 2030 to mitigate intensifying effects of climate change. While policy and funding will drive climate change related services in the federal, state, and local government markets, we believe the prospect for a price on carbon emissions will also push the commercial and industrial sectors to look at reducing their carbon footprints. Actual legislation that put a price on carbon (e.g., in the form of a carbon fee) would likely result in significant shifts in this space as diverse stakeholders would have financial incentives to reduce carbon emissions and pursue low carbon technologies. Under such a scenario, we would expect to see a significant increase in primary services such as GHG inventories and organization-specific climate action plans, as well as related services that would arise from shifts in energy and transportation solutions.

It is also likely that an **infrastructure bill** will be passed at some point this year. While we do not know what the ultimate dollar value of such a bill will be, the focus of proposed legislation does provide some insights into where priorities lie – transportation (e.g., roads, bridges, public transport, airports, rail, etc.), housing unit renovations, schools, and water infrastructure. Consequently, we anticipate growth in the market for environmental services that support infrastructure development and renovation. However, these outcomes may not be realized until later this year or

in 2022, depending on when and what is passed.

The current and prior administrations and Congress have strongly emphasized **emerging contaminants**, particularly per- and polyfluoroalkyl substances (PFAS), as a priority. PFAS compounds are bioaccumulative and environmentally persistent, have been widely used in commercial applications since the 1950s, and have been linked to a series of human health harms, including cancer, kidney disease, and birth and developmental disorders. During the current Congressional session (2019-2021), Congress has used the National Defense Authorization Act (NDAA) and other government-wide appropriations bills to adopt PFAS-related programs and provisions.

The most recent NDAA and appropriations processes and the many pieces of stand-alone PFAS legislation that have been recently introduced highlight four legislative focal areas: (1) enhanced detection and research; (2) new regulatory mandates; (3) cleanup assistance; and (4) exposure to PFAS contamination at or near military installations (*State Energy & Environmental Impact Center, NYU*). As further research is done, more regulations regarding PFAS will be enacted, and more funding will be authorized for PFAS-related investigation and mitigation.

PHE has begun sampling groundwater and drinking water for PFAS analysis for our clients. Sampling for PFAS is a delicate, deliberative process due to the very low levels of detection and the ubiquitous nature of PFAS in the environment. PHE personnel have received training specific to PFAS sampling. In addition, PHE has begun to include PFAS-related aspects as part of our multimedia compliance audit

*Reprint excerpted from
Environmental Business Journal®
“Environmental Industry Outlook
2021” edition.
Reprinted with permission from
Environmental Business Inter-
national Inc. All rights reserved.
© 2021 EBI Inc.
www.ebionline.org.*

program, focusing on fire suppression systems for aircraft and vessels.

Finally, an observation from the environmental industry: we anticipate a continuation of trends that we have seen over the past several years, especially in the federal market. For example, we expect to see continued **increased collaboration and teaming among environmental consulting firms** as the government continues to release solicitations, including small business set asides, with very broad scope of services requiring a broader team. We have seen this both in small business opportunities that are pursued by teams with multiple partners including large businesses, and unrestricted large business opportunities where multiple large firms form Joint Ventures to show the necessary capacity and depth of capabilities.

EBJ: PHE provides support in the many sectors. How do you expect demand to change within those sectors?

ENERGY

The energy sector is likely to continue its focus on expanding renewable energy generation, including offshore wind energy along the mid-Atlantic coast. An expansion in wind projects, both on- and off-shore, will likely be accompanied by an increase in accompanying environmental studies, impact analyses, and permit processes. After the recent weather-related grid failures in Texas, it is also likely that the energy sector will renew its focus on resiliency, smart grid technologies, and infrastructure upgrades.

As efforts to combat climate change take hold, electric power generation in the US will need to shift rapidly to low-carbon technologies. President Biden recently committed to reducing US greenhouse gas emissions by 50 percent or more by 2030, and the power sector will need to be a key component of any efforts to achieve these goals. In addition, the President's infrastructure plan calls for significant investment in American energy infrastructure. However, it is unclear whether these commitments and plans will translate into congressional action. Therefore, the next year or two could be critical in defining priori-

ties that will affect the energy sector over the next decade.

DEFENSE

The defense sector will likely continue to focus on improving and replacing existing infrastructure assets, as well as consolidating its footprint through Base Realignment and Closure (BRAC) initiatives. We anticipate that funding for defense real property and infrastructure-related actions will likely increase over the next year or two, which will in turn lead to a corresponding upturn in the demand for environmental services.

DoD has always recognized the threat posed by climate change and has conducted several studies and planning initiatives to better understand these threats and identify response actions. With the increased focus on climate change at the federal level, it is likely that defense agencies will address climate change more explicitly in their plans and strategies.

Finally, the topic of PFAS will likely continue to receive significant attention and funding at DoD, as military agencies gradually begin to transition from studying existing PFAS contamination towards taking action to contain and clean up these chemicals.

INFRASTRUCTURE

As discussed earlier, we anticipate changes in this area will be driven largely by the passage of some version of the White House' infrastructure plan. Congressional action will be key, so we will be watching closely as these events unfold over the coming weeks and months. We would expect an increase in demand for environmental planning and related services in the various infrastructure sectors that receive federal funding.

EBJ: In which other ways is the Biden administration reverting actions taken during the prior administration that have an impact on the environmental industry?

PHE: Some of the actions taken and policies adopted by the Biden administration that reverse the prior administration's

policies include:

New climate change priorities represent the most dramatic shift in policy between the two administrations. President Biden has committed to reducing US GHG emissions and engaging with the world on the issue of climate change, including rejoining the Paris Accord. Executive Orders passed to date make it clear that climate change is a national priority for this administration. If broad measures are implemented to tackle greenhouse gas emissions and climate change, we will likely see a corresponding increase in the demand for services such as GHG accounting, environmental studies and impact analyses, permitting, and related support that PHE is very well positioned to provide.

The president has reversed other decisions made by the previous administration, such as revoking a permit for the Keystone XL pipeline and pausing oil and gas leasing and exploration in the Arctic National Wildlife Refuge and generally on federal lands. These, and similar, actions will likely shift industry focus to renewable energy sources by limiting access to additional reserves of oil and gas supplies.

The president has also asked federal agencies to pause implementation of regulations passed under the prior administration, pending review to determine whether they should be revised. This includes several environmental regulations, such as rules for safe drinking water and changes to how NEPA is implemented. It is likely some of the past administration's changes will be reversed, tightening environmental regulations on industry and for federal actions, and resulting in an uptick in demand for environmental services.

Reprint excerpted from Environmental Business Journal® "Environmental Industry Outlook 2021" edition. Reprinted with permission from Environmental Business International Inc. All rights reserved. © 2021 EBI Inc. www.ebionline.org.

EBJ: Please describe additional ways in which the new administration will impact the work you do in what areas?

NEPA Support Services

The new administration will likely take a fresh look at the prior administration's July 2020 revision to the NEPA regulations. While some of the priorities in the 2020 revisions focused on streamlining and refining agency roles and responsibilities; other revisions limited the extent of analysis and placed limitations on the public involvement components of NEPA. It is likely that the Biden administration will continue the emphasis on agency engagement throughout the NEPA process and require more robust public involvement in the process. It is also likely that the administration will re-examine the way that effects are analyzed in the NEPA document.

This may include requiring consideration of cumulative impacts and impacts not directly within the agency's control, and a renewed emphasis on greenhouse gas and climate change effects. Another likely area of focus is environmental justice and equity, which is something PHE considers to be part of the NEPA process. We may see new guidelines and tools that affect how we do environmental justice and equity analyses.

Environmental Compliance and Management

The continued focus on emerging contaminants will drive demand for environmental services among compliance, investigation, and restoration service providers. US EPA continues to develop regulation of PFAS, including intent to designate PFAS as CERCLA hazardous substances, to develop drinking water standards for PFOA and PFOS, and to consider regulation of PFAS in wastewater discharges. Promulgation of these regulatory drivers will create significant demand for environmental services, including potential development and implementation of management plans, sampling and analysis, source control and mitigation, as well as the development and evaluation of alternate fire suppression technologies.

The Biden administration has also identified other environmental compliance priorities. The administration has indicated a plan to return the "national compliance initiatives" back to "enforcement initiatives" and emphasize the importance of a strong federal enforcement program. While EPA will likely not change its enforcement focus in the short-term, PHE anticipates a gradual increase in the number of federal-led cases focused especially on heavy industry and in states considered to be lax on enforcement. PHE anticipates an increased environmental industry demand for compliance assurance and corrective action services.

The administration is also indicating a focus on advancing vapor intrusion (VI) investigations. Vapor intrusion occurs when volatile contaminants in the subsurface migrate into the occupied space of overlying buildings. The EPA is focused on increasing awareness, enforcement, and guidance regarding VI, including establishing a 4-step evaluation process to assess vapor intrusion, increased attention for collection and evaluation of indoor air and sub-slab soil gas samples, and developing a specific framework for deciding when cleanup and/or mitigation is necessary. The administration is also likely to refocus attention on wetland permitting and management. Enforcement actions under Section 404 of the Clean Water Act declined noticeably under the prior administration. PHE anticipates a renewed focus and increased enforcement for Section 404 permitting under the current administration. We are also tracking renewed action on the definition of "waters of the U.S.," which impacts federal regulation of wetlands and overall land development. The definition is expected to be clarified and expanded beyond its current status.

Finally, although most federal agencies and facilities have mature EMSs at this stage, we anticipate that most agencies will continue to maintain their EMSs but not make a lot of change. However, we are tracking emerging policy shift in at least one DoD component, which may drive a new round of facility-level EMS adjustments. One area where EMS could expand is if agencies decide to use this framework to implement broader sustainability/cli-

mate change related initiatives. For example, we see some interest in energy management systems, which use an EMS-like approach to manage an organization's use of energy, and ultimately see a natural application of EMS principals in a notional sustainability management system.

Sustainability Services

Climate change is likely to be the big driver of sustainability related initiatives over the next few years. We anticipate a continued focus on energy and greenhouse gas emissions, as well as other areas like waste management, toxics, and land use and conservation. Potential demand in the federal sector includes a new emphasis on development and implementation of climate action plans, driven by recent Executive Orders. Federal agencies are likely to start examining their greenhouse gas emissions more closely, driving demand for services such as greenhouse gas inventory and reporting as well as associated services such as building energy efficiency improvements, renewable energy projects, and water conservation. Federal agencies will also likely start to look at implementing climate adaptation and resilience strategies, both within their operations and more broadly within the communities that they serve. It is likely that demand for all these climate-related services will also increase within state and municipal governments, and possibly within the private sector as well.

EBJ: 2021 will be a year of transition. How will this transition look like at PHE? Will operations be reconfigured again? In which ways?

PHE: Our firm's longevity has withstood numerous challenges in the industry including rapidly changing priorities and

*Reprint excerpted from
Environmental Business Journal®
"Environmental Industry Outlook
2021" edition.
Reprinted with permission from
Environmental Business Inter-
national Inc. All rights reserved.
© 2021 EBI Inc.
www.ebionline.org.*

regulations in the federal government, economic slowdowns, and government shutdowns. As in the past, we will continue to be engaged in industry events, training opportunities, and keep a pulse on our client's current and upcoming needs. We will continue to explore partnerships with other firms to both grow as a firm and to expand the quality of our services to our current and new clients.

EBJ: How would you describe PHE's culture? What challenges have you had since employees are working remotely? What are you doing as a company to preserve culture?

PHE: We are highly focused on providing value and responsive services to our clients and has an employee-oriented culture that nurtures individual growth, offers opportunities, and provides a supportive work environment. Our culture attracts and retains highly talented professionals and provides a working environment in which individuals can thrive. We believe

that people will perform at their best when they are able to work hard together (and have fun) in an environment where they are respected and offered opportunities to grow.

PHE has always emphasized a flexible work environment, including policies for remote work. As such, we were quite well positioned for the sudden transition to full-time remote work that occurred as a result of the pandemic. PHE has heavily invested in our corporate infrastructure and IT systems to allow our staff to collaborate seamlessly across offices, including video conferencing and cloud-based collaboration tools. As a result, we were able to smoothly transition to remote work with little disruption. Our primary challenges were related to travel restrictions which delayed certain project work, limited client interaction, and prevented in-person company events that foster comradery. To counter the lack of face-to-face

events, we held a variety of virtual events to provide opportunities for staff to work together and socialize.

Moving forward, we will continue to evaluate and adjust our policies as needed to allow employees to work remotely, in a way that makes sense for them and for the company. However, we understand that it is important for staff and teams to have some level of regular face-to-face interactions and will focus on ensuring that we can strike the right balance between remote and in-office work. We are very well positioned to maintain our company culture and a sense of cohesion as we head into the brave new, increasingly digital future. ■

*Reprint excerpted from
Environmental Business Journal®
"Environmental Industry Outlook
2021" edition.
Reprinted with permission from
Environmental Business Inter-
national Inc. All rights reserved.
© 2021 EBI Inc.
www.ebionline.org.*