

Report of the Environment and Energy Transition Advisory Committee

Submitted to Governor-elect Phil Murphy and Lieutenant Governor-elect Sheila Oliver

January 1, 2018

EXECUTIVE SUMMARY

The Environment and Energy Transition Advisory Committee proposes that the Governor-elect consider the following recommendations to accomplish these priorities:

I. Priority: A clean energy future for New Jersey

NJ's economic future, and the quality of life of its residents, depends on the ability of our state to transform its power system. To achieve the Governor's goal of 100% clean energy by 2050, the committee believes that an essential step is for the Governor to jumpstart NJ's most promising new clean energy industry – offshore wind. Specifically, he should commit to the nation's largest offshore wind solicitation of 1,100 MW of electric power to bring new companies and jobs to NJ. Other urgent actions include stabilizing the state's solar market and utilizing 100% of the Clean Energy Fund to advance energy efficiency, grow the clean-energy economy, and drive down carbon emissions. Innovative financing options such as a State Green Bank and Green Bonds, which have been successfully used in NY and CT, should also be considered. The Governor should also transform the utility business model and regulatory framework to a performance and outcome-based system that includes a price on carbon. Finally, the Governor should utilize the recent Volkswagen (VW) settlements and the signing of the multi-state Memorandum of Understanding (MOU) on Zero Emissions Vehicles to serve as a springboard for the electrification of the state's transportation system.

II. Priority: Confronting climate change

To address the crisis of climate change, the committee recommends that the Governor rejoin the Regional Greenhouse Gas Initiative (RGGI) and support strengthening the program. NJ should commit to the goal of reducing greenhouse gas emissions consistent with the goals of the Paris Climate Agreement and become the 16th state to join the U.S. Climate Alliance. The Governor should launch a similar partnership effort with NJ local governments to reduce pollution. The committee also recommends the Governor launch a "Coastal Resiliency Initiative," including identifying best practices and updating key environmental laws, such as CAFRA, to address the threats posed by climate change. He should reinstate the DEP Office of Climate Change, and end the State's embargo on climate science. Additionally, he should direct the DEP and DOE to work with stakeholder groups to advance statewide climate literacy programs in schools and promote "Green STEM" initiatives.

III. Priority: Addressing environmental justice disparities

The committee recommends that the Governor address the disproportionate impacts of pollution and contamination with a comprehensive environmental justice (EJ) initiative by executive order that includes an Interagency EJ Task Force staffed with a Senior Advisor. Each agency should consider EJ issues in all of their actions, including analyzing cumulative impacts to reduce health disparities, and creating new initiatives to improve these communities' quality of life (open space, clean energy, walkways and bike paths). The Governor should dedicate a substantial portion of RGGI proceeds and the VW settlements to fund these initiatives. He should also launch a "Get the Lead Out" initiative that directs state agencies to coordinate efforts to reduce childhood lead exposure.

IV. Priority: Protecting New Jersey's water and natural resources

The committee recommends that the Governor launch an aggressive and comprehensive initiative to upgrade the state's aging water infrastructure, including drinking, waste, and storm water. A critical component of this plan should be strengthening the state's stormwater regulations and other key environmental and planning rules, to harness natural systems or

"green infrastructure" to the maximum extent possible. The committee recommends that the Governor identify and pursue multiple financing strategies to address this issue, including consideration of a "pay as you go" approach with new revenue streams, bonding, and other creative financing strategies that prioritize asset management, and reward performance. Special attention should be paid to the public health threats posed by drinking water contamination.

The committee also recommends that the Governor reverse environmental rollbacks in DEP rules, and remediate toxic waste sites. He should ensure the State advances new environmental protections—potentially through a new Water Supply Plan—and renew the state's commitment to open space, fish and wildlife protections, and parks (especially in urban areas), including opposing the further privatization of Liberty State Park. The state needs to steer growth and more importantly state policies and investments toward urban and near-urban areas. At the same time, our state's natural treasures should be protected for all NJ residents, including the Highlands, Pinelands, the NJ shore and the Delaware River. He should also aggressively pursue natural resource damage cases and ensure settlement funds remediate local impacts. Finally, our ocean resources need unwavering protection from fossil fuel exploration and development.

REPORT

I. PRIORITY: ACHIEVING 100% CLEAN ENERGY BY 2050

New Jersey's national leadership on energy efficiency, solar, offshore wind, and other clean energy technologies was lost over the last eight years. These programs reduce costs and pollution, create well-paying jobs, and make our energy system more reliable and sustainable.

In sharp contrast, Governor Murphy has committed to an aggressive clean energy program. To achieve his goals, the State needs to harness the power of both public and private sectors. While government regulations and mandates are needed to create a clean energy future and protect public health, the state also needs to partner with businesses and local government to leverage private investment and harness new clean energy technologies—many of which are outside the "regulated market" and available at local stores.

i. Recommendation: Putting New Jersey on the path to achieving 100% clean energy

The Energy Master Plan (EMP) is the guiding document that outlines New Jersey's strategy for the use, management, and development of energy resources. The most recent EMP was released by the Board of Public Utilities (BPU) in 2011 and updated in 2015. This Plan needs to be substantially updated to reflect the goals and priorities of the Murphy Administration and help identify how to achieve them. The committee recommends that the Governor direct state agencies to begin updating the Energy Master Plan, with the goal of 100% clean energy by 2050.

NJ has fallen behind other states over the last eight years in harnessing the state's offshore wind resources. Considering NJ's natural advantages of having some of the best offshore wind resources in the world and its proximity to one of the nation's most congested and expensive electric load centers-NJ can become the dominant offshore wind player in the critical Mid-Atlantic market. By becoming a national leader in offshore wind the Governor can drive significant private investment, job growth, and pollution reduction. The committee recommends the Governor jump-start this industry by committing to the nation's largest offshore wind solicitation of 1,100 MW of electric power. The State should issue rules to advance offshore wind projects and establish a 3,500 MW goal by 2030. A range of mechanisms, including BPU orders, should be considered to help reach this goal. The administration should begin the development of an Offshore Wind Strategic Plan that engages stakeholders and focuses on: achieving scale to reduce costs, job growth, supply-chain businesses, workforce development, data collection, and appropriate siting of facilities. It also must ensure comprehensive planning and interaction with stakeholders, to address potential areas of concern including impact on wildlife, fish, birds, and habitat. In addition, we recommend convening a summit with NY and other nearby states, to coordinate the development of federal waters off our coast.

New Jersey was once the "solar capital of the east." Unfortunately, we have lost substantial ground despite the fact that solar prices have significantly dropped. However, experts predict that the state solar market will soon collapse due to restrictions put in place by Governor Christie (creating the so-called "solar cliff"). To support needed solar expansion, the committee recommends that the new administration ensure the continued expansion of the industry, while developing a long-term path for growth. The administration should also work to ensure that New Jersey regains its status as a national leader in solar energy production and job creation. We recommend a specific focus on advancing community solar projects (which should include

providing benefits directly to low-income housing) to reduce costs and ensure that all consumers benefit.

To achieve the 100% by 2050 clean energy goal, the State needs to harness the power of the public and private sectors. While government regulations and mandates are needed to create a clean energy future and protect public health, the state also needs to partner with businesses and local government to leverage private investment and harness new clean energy technologies— many of which are outside the "regulated market" and available at local stores. The committee recommends two key strategies:

First, the administration should set an energy-savings goal and promote investments in energy efficiency (including combined heat and power), with a focus on low-income households and communities of color. Energy-efficiency goals (including appliance standards) should also be detailed in the Energy Master Plan.

Second, the Governor should direct the BPU to transform the utility business model and regulatory framework into a performance and outcome-based system that harnesses both utilities and non-regulated companies to drive key goals.¹

Numerous infrastructure proposals—including oil by rail, natural gas pipelines, and electric transmission lines—have been permitted in recent years or are pending throughout New Jersey. The committee recommends that the Governor require these projects demonstrate whether there are market-based, cost-effective and clean alternatives (to delay or avoid the project). The committee recommends that the DEP use its full authority under the Clean Water Act and state regulations when reviewing these projects, and reject permits that do not meet the strict standards. Special attention should be focused on New Jersey's ecologically sensitive areas including the Pinelands and Highlands and our marine environment.

New Jersey's building codes are outdated. The committee recommends that the Governor direct the appropriate agencies to update the state's outdated building codes. This should include ways to promote healthy buildings to reduce air pollution and lead poisoning and advance other goals such as reducing peak-energy use. Peak-energy use is a critical issue that can be reduced through a variety of approaches, including demand response, smart grid, building energy management systems, renewable energy requirements (either grid-tied or distributed), battery storage, and the reduction of plug load.

Under the Christie Administration over \$1.5 billion was diverted from the state's clean energy fund to fill budget shortfalls. The committee recommends the Governor utilize 100% of the clean energy fund to advance energy efficiency, grow the clean-energy economy, create clean-energy jobs and drive down carbon emissions. A portion of RGGI revenues could also be dedicated for these purposes. To advance these initiates, the state should consider innovative financing options such as a State Green Bank and Green Bonds which have been successfully used in NY and CT to leverage private investment. Additionally, other mechanisms to support clean jobs should be

¹ These goals include: (1) protecting ratepayers, especially low-income, by driving down costs (e.g., reducing peaking costs, increasing total system efficiency) and adopting new technologies that make the grid more sustainable, (2) empowering customers to control their energy choices with competitive offers for new energy products and services, (3) making energy efficiency the state's first energy resource, (4) creating a 21st Century "smart, bidirectional, and resilient electric grid" that avoids unnecessary new power lines, increasing the use of distributed energy resources and demand response as a resource, and the electrification of transportation (EVs) and efficient home heating, (5) increasing the use of renewable energy in support of the Governor 's 100% clean energy by 2050 goal, (6) supporting the Governor's goal of 600MW of energy storage by 2021 and 2000MW of storage deployed by 2030, and (7) setting a "social cost of carbon" price that guides the government's decisions.

considered, including incentives to entice clean-energy companies to locate and/or stay in New Jersey and establishing preferences (for example, when bidding for government projects) for materials sourced from within New Jersey or the United States.

ii. Recommendation: Creating a 21st century clean and accessible transportation system

To create a 21st century clean and accessible transportation system, the new administration should prioritize NJ Transit as a critical clean-energy and environmental strategy. The committee suggests that the Governor seek opportunities to clean and electrify the state's transportation system. To leverage the strength of the Northeast regional market, the committee also recommends that the Governor sign the eight-state Memorandum of Understanding on zero emissions vehicle deployment, and explore regulatory programs to enable electric vehicle expansion, including specific utility tariffs. We recommend that he announce a plan to use a substantial portion of the Volkswagen settlement funds to support electrification and diesel emissions reductions, especially at the ports. Additional programs should be considered for emissions reduction opportunities, including participation in the regional Transportation and Climate Initiative.

II. PRIORITY: RESPOND TO THE THREAT OF CLIMATE CHANGE THROUGH AGGRESSIVE MITIGATION INITIATIVES AND ENACTING RESLIENCY AND ADAPTATION STRATEGIES

Climate change is one of the greatest threats facing our state, today and in the future. Unfortunately, the Trump Administration has taken steps to stop U.S. participation in the Paris Climate Agreement and the EPA Clean Power Plan. New Jersey must step forward to fill this leadership vacuum by working to reduce emissions and to mitigate the impacts of climate change.

i. Recommendation: Reduce global warming emissions across all sectors

A decade ago, New Jersey took important initial steps by passing the Global Warming Response Act. However, the Christie Administration failed to implement key components of the Act and reversed important policies including NJ's participation in the Regional Greenhouse Gas Initiative (RGGI), a successful cap-and-trade agreement to reduce carbon pollution in the Northeast. By withdrawing from RGGI, it is estimated that New Jersey has lost about \$130 million in revenues. The committee recommends that one of the Governor's first acts should be to rejoin RGGI, with a portion of the revenues dedicated to emissions reduction programs in low-income communities and communities of color.

The Global Warming Response Act set a mandate of reducing Greenhouse Gas emissions (GHG) by 80% by 2050. As of 2012, New Jersey had achieved about 22% of this important goal, but currently lacks any strategies to meet the larger emission goals. The committee recommends that the incoming administration utilize the energy master planning process to identify existing gaps in the implementation of the Global Warming Response Act and develop a comprehensive strategy for achieving targeted emissions reductions. This should include reporting and establishment of interim targets. In addition, the administration should make an early and public commitment to restoring New Jersey's climate leadership by joining the United States Climate Alliance and signing the "We Are Still In" declaration.

The Christie Administration has demonstrated its lack of commitment to addressing the causes and impacts of climate change in a number of significant ways, including an unofficial "embargo" on climate science and by eliminating the Office of Climate Change and Energy

at the DEP. The committee recommends that the Governor reinstate the Office of Climate Change. He should lift the state's "embargo" on climate science and work with Rutgers and other universities on sharing information about climate change. Science-based decision making across state government should be reinvigorated, including the updating of websites and other state resources to properly inform the public about climate change and its risks.

ii. Recommendation: Make New Jersey resilient to the impacts of climate change

While pursuing emissions reductions, New Jersey must also focus on strategies to protect our state from the effects of climate change, including flooding, extreme weather, and temperature rise.

The committee recommends that the Governor launch a "Coastal Resiliency Initiative" and convene expert climate change leaders to recommend actions to strengthen NJ's coastal management programs, considering climate change, sea level rise, and the need to reduce vulnerability and increase resiliency of both the natural and built communities. A critical component of this initiative should include updating key environmental laws, such as CAFRA, to address the threats posed by climate change. To promote coastal resiliency, the committee recommends that the Governor utilize Blue and Green Acres programs to increase resiliency, reducing flooding, and recover the function of estuaries to improve fisheries and habitat restoration and protection. In addition, the new administration should establish a clearinghouse to gather best practices from other states and input on climate resiliency from around the state and the country, and use that expertise as a basis for successful community engagement, planning, and recommendations for new policies and legislation. Finally, the DEP should re-examine its administrative ban on shellfish research, restoration, and education programs, and include input from all stakeholder groups.

This initiative should also provide guidance on incorporating the latest science on climate change impacts into all state planning and decision-making processes. It should evaluate using a percentage of RGGI revenues for carbon sequestration projects, such as salt marsh restoration. This initiative should consider promoting nature-based adaptation solutions, such as stream restoration, reforestation, and dam removal.

When federal funds are available to support storm recovery and response, New Jersey must fight for every dollar in federal disaster relief and mitigation support, practice transparency in awarding funds, and ensure that all decisions are made to maximize the public interest. The committee recommends that the Department of Community Affairs undertakes a prompt review of the State's Rehabilitation, Reconstruction, Elevation and Mitigation program to improve support for homeowners and address significant remaining issues from Superstorm Sandy, including claw backs and contractor fraud.

Over the last eight years, the state has not partnered with local governments and school boards to leverage and maximize their spirited commitment to environmental protection, climate action, and sustainability. Other states such as NY (resilient communities), have specific recognition programs to channel this "can do" and local practical approach to global and national problems. The Governor should conduct a roundtable discussion with county and local government officials, school board members, and NGOs to advance partnerships on key issues such as climate-change mitigation and adaptation, water systems, environmental education, and waste reduction. This initiative could include asking these stakeholders to commit to local goals with specific local actions that could help meet larger statewide goals. Additionally, to ensure the long-term success of these programs and position our students for leadership in the clean-energy economy, DEP and DOE should work with the NJ School Board Association, the New Jersey Education Association, environmental education

organizations, and other stakeholder groups to advance climate literacy and promote "Green STEM" initiatives.

III. PRIORITY: TO ADDRESS ENVIRONMENTAL JUSTICE AND HEALTH DISPARITIES IN NEW JERSEY'S LOW-INCOME COMMUNITIES AND COMMUNITIES OF COLOR

Since the passage of several key environmental laws in the 1970s, many strides in environmental protections have taken place to improve public health. However, there are many low-income communities and communities of color who are overburdened with air and water pollution and hazardous chemical storage and exposure—leading to disproportionate health impacts (including asthma and other respiratory ailments).

The committee recommends that the Governor promote environmental justice as a core principal. The goals of these recommendations are to promote equity and inclusion across all departments and programs, promote environmental justice, and reduce the environmental and health hazards that disproportionately impact low-income and communities of color.

i. Recommendation: Create an Office of Equity and Environmental Justice

In order to ensure EJ becomes a critical principle of the new administration, the committee recommends that the Governor issue an executive order creating an Office of Equity and Environmental Justice. The committee recommends that this include appointing a Senior Environmental Justice Advisor, who would direct an open public process with the EJ Task Force and host roundtables throughout the state for meaningful engagement with stakeholders on environmental concerns and solutions. The committee recommends that the Governor direct each agency to consider EJ issues in all their actions, including cumulative impacts, reducing health disparities, improving the quality of life in EJ communities (i.e. access to open space, clean energy alternatives, walkable/bikeable streets and public health benefits).

The committee also recommends that the Senior EJ Advisor develop protocols for meaningful stakeholder engagement processes, data collection, and data sharing, for all agencies. The Governor and his staff should consider potential federal grants and private foundations as a source of funding to provide resources and technical support to assist individuals and organizations who historically have not been able to participate equitably in such processes (e.g. City of Portland, Oregon's Climate Equity initiative).

This Senior EJ Advisor should also draft guidance to incorporate EJ principals into the State Energy Master Plan and other priority initiatives. Relevant agencies should be required to issue annual updates. In conjunction with other agencies, this Advisor should develop plans to reduce health disparities such as high incidence of asthma and elevated childhood blood lead levels in EJ communities.

Finally, the state should align EJ principals with this administration's workforce development initiatives. The state needs to incorporate opportunities to train or retrain local workers though certified programs at NJ Community colleges and other institutions - on solar and wind installation jobs, toxic site remedial work, electric vehicle repair/mechanics and other innovative opportunities.

ii. Recommendation: Reduce air and water pollution in environmental justice communities

The health and environmental impacts of increased air pollution within EJ communities is a major public health concern. Within the first 100 days, the committee recommends that the Governor direct state agencies, partnering with academic institutions, to develop a plan for an air emissions reduction program in urban areas. This should include a comprehensive emission reduction plan at NJ's ports, which includes electrification of vehicles, equipment, and ships in port. The committee recommends that the Governor push to increase the NY/NJ Port Authority Port Division's budget to establish community and diesel mitigation programs. The State should also seek to re-establish the Port Authority's ban of pre-2007 engine trucks on a fast-track timeline. Additional funding could include the Volkswagen settlement, and ongoing funding could be maintained through a combination of RGGI and other environmental funds.

Many of our low-income and communities of color have multiple sources of pollution and threats to their health. To fully understand and develop plans to reduce emissions and public health threats, the committee recommends that the Governor direct the DEP to immediately update and resurrect the EJ Screening Tool, which will help identify these areas with severe pollution loading and cumulative impacts. The DEP should then release maps identifying overburdened communities. The Senior EJ Advisor should task agencies to evaluate mechanisms to direct resources to these areas to reduce pollution. They should identify key gaps that require new protections and funding (using indicators such as pollution burden and health disparities), and target assistance—including funding (such as RGGI revenues), public hearings, additional resources, and enforcement actions—to these areas.

The Senior EJ Advisor should develop Environmental Justice Benefits Policy/Guidance to ensure that agencies (e.g. DEP) fully consider low-income and disproportionately-impacted communities before taking a final action on new or modified permits (as done in Newark and other states), and consider support legislation which would codify environmental justice considerations (i.e. cumulative impacts, health impact analysis, EJ areas of concern).

Finally, there are over 5,000 facilities in New Jersey that utilize hazardous chemicals and many of them are concentrated in EJ communities. It is critical to protecting public safety that these facilities develop effective Emergency Response Plans. The federal Emergency Planning and Community Right to Know Act (EPCRA) requires that citizens be allowed to review these plans, which must be updated annually. However, these provisions have not been enforced. Therefore, the committee recommends that the DEP be directed to notify all facilities subject to EPCRA to file and report compliance by January 1, 2019.

iii. Recommendation: Launch a statewide "Get The Lead Out" initiative to reduce lead poisoning

Childhood lead poisoning and exposure remains a significant problem in New Jersey. New Jersey's old housing stock still poses a significant risk, especially from lead paint. Old drinking water systems also pose a risk. We recommend that the Governor issue an executive order to direct agencies to coordinate efforts to reduce incidence of childhood lead poisoning and provide improved services for children already affected. This should include updating the NJ Strategic Plan for Healthy Homes and revising the NJ Annual Lead Surveillance Report to be more transparent with maps and cumulative data on population effects.

This effort should include Children and Family Services staff receiving the latest training on lead poisoning and should work with clients to address issues. The Department of Education should enable children with lead levels ≥ 5 ug/dL to be enrolled in the federally funded Child

Find that provides services for those with special needs. We should explore opportunities to leverage additional CHIP (Children's Health Insurance Program) funding to protect lowincome children from lead. Specifically, the State should pursue a Health Services Initiative (HSI) to secure enhanced federal funds for lead abatement activities, including lead exposure testing, prevention, and abatement—as several other states have done. Finally, New Jersey should require that the Department of Education and DEP review the most recent reports on public and charter school testing protocols and compliance with the US EPA's Lead and Copper Rule.

IV. PRIORITY: PROTECT NEW JERSEY'S PRECIOUS NATURAL RESOURCES

The protection of our open spaces, water resources, unique ecosystems, and ocean environment has been either neglected or actually rolled back during the past administration. We must act aggressively to preserve and protect our natural resources and quality of life.

i. Recommendation: Water resources protection

New Jersey's drinking water supplies face a number of serious threats including contamination from dangerous chemicals. The committee recommends that the Governor immediately direct the NJDEP and NJDOH to evaluate and address the threat from drinking water contamination including Perfluorinated Compounds (PFCs), related PFC chemicals, and other pollutants. The State should identify hot spots, consider pursuing Natural Resource Damages and other legal actions and create a comprehensive plan to address contamination. The state should also adopt standards and Health-Based Maximum Contaminant Levels (MCL) for water quality recommended by the Drinking Water Quality Institute for PFCs and related chemicals. In addition, the committee also recommends that he revitalize efforts to protect our largest sources of drinking water including the Highlands, Pinelands, and Passaic and Raritan Rivers and Delaware River Watershed.

New Jersey's aging and failing water infrastructure is one of the most significant challenges facing our state, resulting in combined sewer overflows that result in raw sewage in our waterways, water main breaks, and localized flooding. NJ's water infrastructure is in urgent need of improvements. The committee recommends that the Governor launch an aggressive and comprehensive initiative to upgrade the state's aging water infrastructure, including drinking, waste, and storm water. A critical component of this plan should be strengthening the state's stormwater regulations and other key environmental and planning rules to harness natural systems or "green infrastructure" to the maximum extent possible. From simple and low-cost solutions, such as increasing rain gardens, green (vegetative) and blue roofs (holding tanks), and planting trees, to more sophisticated systems (e.g. nonstructural solutions), the goal is the same: divert, retain, and treat stormwater. Such actions have multiple benefits to the community from improving quality of life, to increasing climate change resiliency and reducing pollution.

While regulations and planning tools should be prioritized, according to the U.S. EPA the State needs to spend a combined \$25 billion over the next 20 years on its wastewater, stormwater, and drinking-water infrastructure to ensure reliability and keep up with demand. The good news is that a significant investment into the state's water infrastructure will create jobs and economic activity. The U.S. Bureau of Economic Analysis has found that every \$1 spent on water infrastructure leverages another \$2.62 in annual economic activity. The committee recommends that the Governor identify and pursue multiple financing strategies to address this issue, including consideration of a "pay as you go" approach with new revenue streams, bonding, and other creative financing strategies that prioritize asset management,

and reward performance. Many other states could be models, including CT, NY, MA, CA and cities such as Philadelphia. Some creative financing ideas that should be specifically explored include: the federal Water Infrastructure Finance and Innovation Act (New Jersey did not submit an application to this \$2 billion fund), Environmental Impact Bonds (DC Water issued bonds with a "Pay for Success" model, in which payment to the private sector by the public entity is based on measured outcomes), and waste-to-energy programs (converting bio-solids into energy and selling the energy).

We also urge the Governor to support legislation that allows for the creation of local and regional stormwater utilities and subsequent user-fee collection, to support infrastructure and management, as well as "Sewage Right to Know" which requires reporting of sewage discharges and development impact fees. Finally, we urge the Governor to work with USEPA to meet the 2020 deadline for CSO "long-term control plans" with strong "alternative analysis" processes. Other suggestions include: as with other municipal boards, require cleanwater orientation for first-term officials, review water and wastewater licensing requirements and consider a retiree status license and allowing greater reciprocity between states.

The Christie Administration rolled back essential clean water protections, while at the same time, failed to address current threats to our water quality and quantity. The committee recommends that Governor Murphy freeze all pending DEP rule proposals, including Freshwater Wetlands, Coastal Zone Management, and Coastal Area Facility Review Act (CAFRA) rules, until they can be thoroughly reviewed to ensure strong environmental protections are in place. He should order the DEP to review all water regulations that have been weakened over the last 8 years and reverse any rollbacks to those protections including groundwater, Flood Hazard Act and Water Quality Management rules, the Waiver Rule, Highlands Septic Density rules, and Surface Water Quality standards. He should direct the DEP to revise Water Allocation rules, begin to prepare Total Maximum Daily Loads (TMDLs) for all unaddressed water bodies and strengthen anti-degradation designations for water bodies, and adopt long-awaited reforms to the rules governing pumping of the aquifers - to ensure truly sustainable levels of withdrawals. In addition, a list of potential C1 stream and corridor classifications (the highest level of protection under the Clean Water Act) was created approximately 8 years ago but not has seen no advancement. The DEP should be directed to move forward on these designations, placing a priority on those that will protect drinking water.

Additionally, the Governor-elect should direct the NJDEP to update the state Water Supply Plan and ensure that it targets investments to address the state's sewage, drinking water, and other critical infrastructure which needs significant upgrading, especially in the state's urban core, and include reducing lead exposure.

ii. Recommendation: Preserving our open spaces

New Jersey continues to lose critical open space. It is estimated that New Jersey will be deemed 'fully built out' in the next 30 years. The committee recommends that the Governor utilize 100% of constitutionally dedicated open-space funds for their intended purpose. We recommend that the Governor request a review of the distribution of open-space funding over the past 8 years—from the Garden State Preservation Trust, NJDEP Green Acres Program, State Agricultural Development Committee, and the NJ Historic Preservation Trust. The Governor should also request reports of appropriations, expenditures, and acres preserved, by municipality, to ensure that an equitable distribution of the State's funding has occurred.

We recommend that the Governor initiate a comprehensive planning process for the management of state and other public lands to better protect the State's rare animals, plants and critical habitats, and other natural, scenic, historic, and recreational resources.

The committee suggests that the Governor announce a halt to these efforts to privatize our only state urban park. Additionally, the development of Capital City State Park should be announced, using CBT, Natural Resource Damage settlement funds, and NJ Environmental Infrastructure Trust funding. The committee also recommends that the new Administration review the current plan to deck over Route 29, to ensure that this strategy is the most viable and effective design to reconnect the Capital Complex to the Delaware River. Additionally, DEP should prioritize creating additional urban parks, in places like Camden, Paterson, and Newark.

An additional strategy to protect natural resources is to aggressively pursue Natural Resource Damage (NRD) claims. These cases can help fund needed environmental restoration and protection projects. The committee recommends that the DEP Commissioner and the Attorney General work together to aggressively pursue NRD cases, enforcement, and other litigation against polluters. NRD monies should be directed at the communities impacted and surrounding areas.

iii. Recommendation: Smart growth and urban planning

The state's development pattern has shifted. Companies and millennials want to locate and reside in "livable cities," not as much in new office parks and "mac-mansions" in rural areas. The State needs to steer growth and more importantly state policies and investments toward these urban and near-urban areas. The committee recommends that the next planning process should be both more ambitious and less specific than the state land-use plans of the past. An effective state planning process would engage the public, but not be so onerous that it cannot get implemented within an appropriate time period. It should go beyond aspirations of protecting open space, and envision sustainable and just outcomes for housing, education, energy, transportation, and the environment. The Committee recommends that the next governor should consider it to be an evolving set of guiding principles for directed and equitable growth. Preliminary steps could include filling the open seats on the State Planning Commission with committed, proficient, and diverse members and convening regular, transparent meetings. Many additional steps toward this goal are detailed in the Urban Growth Transition Report.

The committee recommends that the Governor call on the appropriate agencies to update and improve the state's key planning initiatives and regulations, including the State Plan, CAFRA rules, Shore Protection Master Plan, and stormwater management.

National studies have determined that about 25% of housing demand in the near future will be for residences within a half mile of train stations. The committee recommends that the Governor direct technical assistance to communities that are working to develop Transit Oriented Development (TOD) areas, which prioritize redevelopment around rail stations and incorporate green infrastructure, green streets and parks. This recommendation, which is consistent with the suggestions of the Urban Growth Transition Committee, will catalyze the development of healthy, walkable communities.

iv. Recommendation: Protecting our ocean and coast

Coastal tourism in New Jersey generates over \$22 billion annually, however no laws currently protect our ocean from harmful proposals for oil and gas development. The committee recommends that the Governor should express vehement opposition to exploration, development, and extraction for fossil fuels off the shores of New Jersey.

NJ beaches remain a top destination for millions of our state's residents. Despite decades of lawsuits, all too often the public does not have access to the shore. Due to new beach development and some municipalities creating obstacles to full access, this problem has gotten worse over the last eight years. The committee recommends that the DEP maximize its permitting and regulatory authority to ensure beach access. In addition, the state should consider encouraging municipal public access planning, requiring that all publicly funded projects provide access, and studying alternate sources of access, operation, and maintenance funding.

Plastic waste continues to plague our communities with litter and extra solid waste. In addition, some of this plastic ends up in our waterways and ocean causing serious harm to wildlife and natural areas. The committee recommends that the Governor support municipalities that want to impose fees or bans on plastic bags. Pilot waste-reduction programs could also be initiated for local food businesses.

v. Recommendation: Preserving unique and treasured areas & historic sites

All of NJ's natural resources are important, from backyards to local parks to preserved farmland. The state has a specific responsibility to protect areas that have unique characteristics such as the Highlands, which provides drinking water for over five million people, or the Pinelands, which is designated as a U.S. Biosphere Reserve by UNESCO. The committee recommends that the Governor ensure NJ's natural treasures including the Shore, Barnegat Bay, Highlands, Pinelands, Delaware River Watershed, Sourlands, Delaware Bayshore (including Cape May), the Palisades, and Meadowlands receive special attention and if necessary, extra protections. For the areas that already have legal protections, the committee recommends that the Governor appoint people to these entities consistent with their conservation mission and respect their independence to protect these critical resources. For areas that don't have special legal protections are needed.

Due to the unique circumstances of the Delaware River watershed which borders Pennsylvania's fracked natural gas resource, the committee recommends that the Governor support a ban on fracking for natural gas in New Jersey as well as the storing of fracking waste, and use all his authority with the Delaware River Basin Commission to ban fracking in the entire Delaware River Watershed.

New Jersey also needs to protect historic buildings and landscapes to protect the fabric of our communities. The committee recommends that the Governor consider supporting legislation to create a Historic Preservation Tax Credit to incentivize the preservation and restoration of our historic sites as opposed to demolishing them in favor of new construction.

vi. Recommendation: Protecting public health

New Jersey has the greatest number of Superfund toxic waste sites in the country. The committee recommends that the Governor oppose any effort to undermine the Superfund program. He should urge the Trump Administration to continue or expedite the current cleanups underway, without weakening remedial plans. He should direct the DEP to support the listing of the Hackensack River on the National Priorities List (Superfund list).

New Jersey's Licensed Site Remediation Professionals (LSRP) program was created to address the enormous backlog of toxic sites needing remediation in our State. The committee recommends that the DEP thoroughly review this program. The DEP should be directed to conduct this review, with input from stakeholders, to address some of the program's shortfalls and make improvements where necessary to ensure public health is protected, and assist in moving through the remedial action process more swiftly and efficiently.

The DEP Science Advisory Board (SAB), created to provide research and discussion for sound, science-informed decision making, has languished under the Christie Administration. The committee recommends that the DEP Commissioner meet with the SAB and determine how best to revive it and utilize its expertise.

The Christie Administration worked to undermine important environmental safeguards for New Jersey by passing Executive Orders 1 and 2 which, respectively, made it extremely difficult for the State to pass more stringent regulations than the federal government and ordered a freeze on numerous proposed regulations and rules. The committee recommends that the Governor repeal the relevant parts of these executive orders.

vii. Recommendation: Improving New Jersey's urban environment

Green infrastructure improves residents' quality of life, and increases economic activity and property values. The committee recommends that the Governor encourage urban green-infrastructure projects, including urban forestry and street tree plantings which help to cool neighborhoods during hot summer days, as well as pollinator, pocket, and rain gardens to ameliorate flooding and reduce flows into Combined Sewer systems. He should also promote and implement walkable/bikeable communities to help get people around without automobiles.

Aside from staffing, funding for green infrastructure—including parks, land preservation, urban forestry, raingardens, and other storm water system investments—can be derived from the Corporate Business Tax through the Green Acres Program, NJ Environmental Infrastructure Trust, Natural Resource Damage Claims, Supplemental Environmental Projects and the Clean Energy Fund. Additionally, millions of dollars in federal grant funding pass through the NJDOT for Complete Streets and Bike trail projects. This funding needs to be processed more efficiently to get more projects done.

viii. Recommendation: Protecting New Jersey's fish and wildlife populations and habitat

The committee recommends that the DEP use the best available science to make decisions with an eye towards ensuring a sustainable natural environment that provides long-term benefits for our state and its residents, wildlife, habitat, and water. Revegetation of stream corridors, improved management of public lands and the state's deer population, removal of dams blocking fish migration, and ecological restoration of beaches and salt-marshes have all been shown to make significant contributions to the environment of New Jersey. The committee recommends that the Governor partner with and leverage the significant resources

of other collaborators including local government, non-profit organizations and for-profit corporations.

Sadly, some of our rarest and most important wildlife species have declined to near extinction and have been ignored for many years. Over the past 8 years, the Endangered and Nongame Species Advisory Committee (ENSAC) has approved and submitted seven separate and important approved species status update lists, ready for the DEP to publish in the NJ Register, so that the various declining species could gain various levels of protection. Unfortunately, none of the seven lists have been moved forward. The committee recommends that these updates be reviewed by the DEP and decided on as soon as possible.

Unfortunately, New Jersey's fisheries management has been short-sighted and reduced the economic viability of our marine fisheries. Over the last eight years, DEP has evaluated each species independently of all others using a "single species" management approach. Beach replenishment, sand mining, non-point source pollution, overdevelopment, climate change, and many other factors impact the abundance of fish available for recreational and commercial fishing. New Jersey ranks near the top of the states for the number of people who fish, while remaining near the bottom of funding for fisheries management on the East Coast. The committee recommends that the Governor support science-based policies that result in "an abundant fishery" (or optimal yield) rather than "maximum sustainable yield." Annual catch limits should include strong accountability measures. The committee also recommends that New Jersey adopt an ecosystem management approach. This is particularly important for forage species like Atlantic menhaden.

As with fisheries management, DEP plays a critical role in managing NJ's Black Bear population. The committee recommends that the DEP convene multiple roundtable discussions with local communities and all stakeholders with the mission of identifying nonlethal approaches to managing the black bear population. Strategies could include improving educational programs (e.g. not feeding bears, securing garbage, and removing bird feeders) and enforcement of existing laws. The DEP should also review all available black bear data—including nuisance complaints, population numbers and distribution, and enforcement actions-and research worldwide best management practices. The committee recommends that the DEP issue a report on the result of the roundtable discussions and research to the Governor to inform his call for a bear hunt moratorium. While black bear population management has become a high profile wildlife management issue, deer overpopulation is a public health concern (Lyme disease, car accidents, etc.) that has resulted in serious environmental damage as well. The committee recommends that the DEP Commissioner review the Fish and Game Council's authorization of the enclosed foothold trap to determine if it is inconsistent with legislation that banned steel-iaw leghold traps in 1984. The State should actively support the humane treatment of all animals.

Last but not least, the committee recommends that the Governor address the severe decline in pollinators across NJ and the nation by creating a Pollinator Recovery Plan. Such a plan should be led by the DEP and supported by other state agencies, universities, non-profit organizations, municipal leaders, and commissions. The Plan should focus on species restoration, habitat protection, impacts of climate change, and pollinator/hive collapse, and should include a review of the use of neonics and other pesticides that impact wildlife and human health.

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The Governor, Lieutenant Governor, and the entire senior transition team staff greatly appreciate the immense amount of work, participation and expertise that all our co-chairs, committee members and deputy directors who staffed each committee provided since the transition began in November. This hard work and positive energy about how New Jersey can once again become a national leader has resulted in a robust set of recommended priorities and actions for the incoming administration to consider. As with any collaborative endeavor, many recommendations and opinions were expressed and debated during the committee meetings and the drafting of the reports by co-chairs, committee members, and Deputy Directors. The final reports may contain recommendations that do not reflect the concurrence of all co-chairs or committee members, nor of the organizations they represent. These reports are purely advisory and do not reflect the positions of the Governor-elect or any other elected official.