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**Comments on
Inland Flood Protection Rule
NJDEP Docket No. 08-22-10
Submitted to the New Jersey Department of
Environmental Protection (NJDEP)**

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New Jersey Future (NJF) appreciates the thoughtful approach and prioritization of key rulemaking in the NJ PACT process. Thank you to the New Jersey Department of Environmental Protection (NJDEP or “The Department”) for proposing this phase of New Jersey Protecting Against Climate Threats (NJ PACT). The [Inland Flood Protection Rule](#) will begin to address climate change impacts in the context of New Jersey’s critical infrastructure.

NJF is in strong support of the Inland Flood Protection rule changes and supports the shift toward requiring the use of updated precipitation models to design our homes, roadways, stormwater management systems, and other critical infrastructure. Addressing our riverine flooding became more evident in the wake of Tropical Storm Ida. Ida, the [second deadliest](#) natural disaster event to impact New Jersey in the past century, clearly demonstrated that New Jersey’s stormwater infrastructure was not built to convey such high volumes of rainfall, and that our homes, businesses, and roadways are extremely vulnerable to flooding.

We are in support of the proposed changes to the Stormwater Management rules and Flood Hazard Control Area rules to address our infrastructure’s shortcomings and ensure that new and rebuilt infrastructure is resilient to climate change. We appreciate the time the NJDEP has invested in providing information and soliciting input on the proposed changes. We especially appreciate the issuance of a courtesy copy of the rule change to allow for a thorough review of these significant changes to the design of our infrastructure.

Recommendations

While we are in strong support of the rule proposal, we have closely reviewed the proposed language to better understand if the outcomes of its implementation will be equitable and will result in implementation of resilient, nature-based solutions. There are several areas of the proposal that we feel could be improved to achieve such outcomes. We have the following comments and recommendations for the rule areas impacted by this first phase of NJ PACT.

Stormwater Management Rules (N.J.A.C 7:8)

We strongly support requiring the use of the precipitation change factor tables to calculate recharge and runoff requirements for stormwater management systems. We also support the discontinuation of use of the Rational and Modified Rational methods for stormwater calculations.

- **Potential Unintended Consequences.** One potential area of concern is the unintended consequences of scaling up stormwater management requirements. We are concerned about the potential for gray infrastructure taking prominence over green infrastructure to meet the expanded requirements.
 - We believe several accompanying resources and program areas would need to be updated to ensure that this rule results in more nature-based solutions, rather than an over-reliance on gray infrastructure. Standards and manuals including Residential Site Improvement Standards (RSIS), NJDEP's Best Management Practices (BMP) Manual, and other resources for municipalities and design engineers to utilize will need to be updated.
 - Providing a plan of action and stakeholder engagement around these support documents would be very helpful. Providing guidance and improved training to ensure green infrastructure is the first line of defense would help ensure that we do not revert back to relying on gray infrastructure to manage stormwater.

- **Stormwater Planning.** Resilience planning is an important tool for reducing the negative effects of climate change. Municipal and regional stormwater management plans can identify areas and infrastructure vulnerable to climate change and propose actions to mitigate those vulnerabilities. Some communities may not have the capacity and/or expertise to develop resilience actions even though the effects of climate change require immediate action.
 - We recommend NJDEP provide sample language and recommended resilience actions that communities might include in their municipal and regional stormwater management plans by publishing model stormwater management plans with detailed guidance. To accompany the rule change, the Department should provide guidance on incorporating climate change in stormwater management plans. Some municipalities may opt to save on costs by updating their stormwater ordinances and stormwater management plans at the same time.

- **Public Transportation Entity Exception.** The Department is proposing a new defined term for "public transportation entity" distinguishing municipalities, counties, and state and federal highway agencies from other public entities. The rule outlines exceptions for these agencies. If a preferred alternative has been determined or an equivalent planning milestone has been reached, the new rules may not apply.
 - The department should expand upon what an equivalent planning milestone and other exceptions includes and what the process for approval would be.
 - These entities should be encouraged to implement BMPs including green infrastructure into their roadway designs. As counties and local governments undergo Vision Zero planning, bike and pedestrian enhancement planning and

implementation, there are many opportunities to design complete and green streets. We recommend that municipalities and counties are removed from this new definition of public transportation entity.

Flood Hazard Area Control Rules (N.J.A.C 7:13)

NJF strongly supports the proposed Design Flood Elevation (DFE) that raises riverine flood elevation mapped by NJDEP by two feet. We agree that the existing factor of safety is not sufficient to address the impacts of climate change and without it, our infrastructure is at risk. This additional factor of safety will help protect new and rebuilt infrastructure throughout our inland areas of the state. These proposed amendments will also result in an increase in the land area of New Jersey that is subject to the requirements of the rules, better reflecting actual flood risk.

- **Mapping.** One of the overarching purposes of this rulemaking is to better understand areas of our state that are at significant risk of flooding. Method 6 states that where an applicant disagrees with the available flood mapping or state or federal flood mapping is not available, an applicant can calculate the flood hazard area (FHA) design flood elevation (DFE) and floodway limits using their own hydrologic and hydraulic analyses.
 - While we recommend that site specific data is used, it would be useful to know the plan of action around mapping these newly defined areas of risk, especially for projects that utilize Method 6 and calculate their own flood elevations.
 - NJDEP should delineate the expansion of regulated FHAs and the mapping information should be publicly available. Updated publicly available mapping will also help localities as they assess the impact of the rule change on their local land use controls and plan for climate change through their climate vulnerability assessments, hazard mitigation plans, and other long-range planning efforts.

- **Endorse a Design Guide.** The way our state’s homes, roadways, and other infrastructure are designed is changing with the enactment of these rules. To acknowledge this change, how development and urban and suburban design varies across the state, and in anticipation of NJ Resilient Environments and Landscapes (REAL), the next phase of NJ PACT regulatory reforms impacting coastal communities, wetland areas, and redevelopment, the state should issue or endorse a design manual to guide future development. For different types of structures and projects, it is important to have flexibility around achieving the required DFE. This can be achieved through setbacks, elevating key infrastructure, wet and dry floodproofing, or a combination of these methods.
 - A design manual endorsed by the state would help achieve this flexibility and would help ensure the build out of place-based and flood resistant structures. For example, the [Waterfront Edge Design Guidelines](#) (WEDG) provides a set of guidelines to create resilient, ecological, and accessible waterfronts.

- **Public Transportation Entity Exception.** The Department is proposing a new defined term for “public transportation entity” distinguishing municipalities, counties, and state

and federal highway agencies from other public entities. The rule outlines exceptions for these agencies. We would like to better understand the implications of the exceptions and how the department is defining planning milestones, benefits of compliance, and other parameters.

- One of the exceptions states that if a preferred alternative has been determined or an equivalent planning milestone has been reached, the new rules do not apply. Another section in the flood hazard rules cites prohibitively high construction costs or costs that exist proportionally high compared with the benefit of strict compliance as a potential exception. The Department should clearly define an equivalent planning milestone and other exceptions and what the process for approval would be. Additional information regarding the parameters for a cost benefit analysis for compliance should be provided. It is important to define what the cost of inaction would be.
- Exempting public roadways from the new requirements does not address the level of risk currently facing our roadways and accompanying infrastructure. This exception is contradictory to the purpose of this regulatory change effort and will leave miles of roadway and users vulnerable to flooding. Raising homes and leaving roadways at risk does not ensure the safety of New Jerseyans. At the very least, we recommend that the definition is narrowed to federal and state transportation entities.
- Many state roads are evacuation routes. The Department should consider this while the rule change is being implemented and during future phases of the NJ PACT rulemaking process.

In addition to the recommendations provided, we request the Department to consider the following:

- **Local Adoption.** The Department should clarify when municipalities will be required to update their local ordinances. There will be a second phase of NJ PACT that will impact these rule areas further. Updating ordinances includes several steps and sometimes requires consultant support, therefore, it would be helpful to know what the state is thinking for local updates.
- **Mapping.** Method 6 states that where an applicant disagrees with the available flood mapping or state or federal flood mapping is not available, an applicant can calculate the flood hazard area design flood elevation and floodway limits using their own hydrologic and hydraulic analyses. The Department should confirm that any applicant can utilize Method 6, or state that this method is limited to areas that were previously not considered in the flood hazard area and now are considered flood-prone.

Overall, we are in strong support of the proposed changes to the Stormwater Management rules and Flood Hazard Control Area rules to incorporate the latest climate science to ensure new development is resilient to flooding. Thank you for your consideration of our recommendations and questions. We look forward to next steps during this iterative process of enhancing the resilience of New Jersey's infrastructure.