Community Solar Energy Pilot Program Application Form

Section A: Application Form Requirements, Instructions, Terms and Conditions

The following Application Form is intended only for entities submitting a community solar project for consideration by the New Jersey Board of Public Utilities ("Board" or "BPU"). Projects selected by the Board will be approved for participation in the Community Solar Energy Pilot Program, pursuant to the rules at N.J.A.C. 14:8-9.

This Application Form is valid only for the following Program Year and Application Period:
Program Year 1, Application Period 1
Application Period Opens: April 9, 2019 at 9:00 A.M.
Application Period Closes: September 9, 2019 at 5:00 P.M.

I. Minimum Qualification Requirements

The Community Solar Energy Pilot Program is open to projects that meet the following minimum requirements, and the full requirements defined in N.J.A.C. 14:8-9 (available for reference at the following link: http://njcleanenergy.com/files/file/R_2019%20d_021%20(51%20N_J_R_%20232(a)).pdf).

1. The proposed community solar project must be located in the electric service territory of an Electric Distribution Company ("EDC") in the State of New Jersey.
2. Existing solar projects may not apply to requalify as a community solar project. An existing solar project, as defined in N.J.A.C. 14:8-9.2, means a solar project having begun operation and/or been approved by the Board for connection to the distribution system prior to February 19, 2019. Projects having received a subsection (t) conditional certification from the Board prior to February 19, 2019 should refer to section B. XIII. Special Authorizations and Exemptions for additional information.
3. The Board will not consider Applications for EDCs to develop, own, or operate community solar project(s).
4. The Board will not consider Applications for projects sited on preserved farmland, as defined in N.J.A.C. 14:8-9.2.
5. The Board will not consider Applications for projects exceeding the capacity limit for individual community solar projects, set at 5 MW as defined in N.J.A.C. 14:8-9.4(g).

II. Instructions for Completing the Community Solar Energy Pilot Program Application Form

1. Each solar project applying to participate in the Community Solar Energy Pilot Program requires the submission of an individual Application Form. Do not apply for more than one (1) project per Application Form. There is no limit to the number of Application Forms that can be submitted by any one Applicant (see the definition of an "Applicant" in section A. III. Terms and Conditions).

2. Complete sections B and C, and Appendix A in full. All questions are required to be answered, unless explicitly marked as optional. All attachments are required, unless explicitly marked as optional. All attachments must be attached to the end of the Application Form, therefore forming a complete application package. Note that attachments marked as optional will be considered if included, but their absence will not penalize an Application.
3. Original signatures on all forms and certifications of this Application Form are required. The certifications contained in section C must be notarized.
4. Specific exemptions are identified throughout the Application Form which apply only if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals ("RFP"), Request for Quotations ("RFQ"), or other bidding process. If this is the case, the Applicant must include a letter describing the proposed bidding process, and the Applicant should complete all sections of the Application Form based on the project as it will be designed in the bidding process. The Applicant must further commit to issuing said RFP, RFQ, or other bidding process within 90 days of the proposed project being approved by the Board for participation in the Community Solar Energy Pilot Program (see section B. XIII. Special Authorizations and Exemptions).

III. Terms and Conditions

General Terms and Conditions

1. The "Applicant" is defined as the entity that submits the Community Solar Energy Pilot Program Application Form (for example, an Applicant may be a project developer, project owner, project operator, property owner, contractor, installer, or agent thereof).
2. Prior to completing the Application Form, the Applicant must carefully review the rules at N.J.A.C. 14:8-9, and any other rules, regulations, and codes applicable to the design, construction, and operation of a community solar project in New Jersey. All Applications must be in compliance with all local, state and federal rules, regulations and laws.
   Furthermore, submission of an Application Form does not obviate the need for compliance with all applicable local, state, and federal laws and regulations at any time during the design, construction, operation, and decommissioning of a community solar project including, but not limited to, regulations by commissions such as the New Jersey Highlands Council and the New Jersey Pinelands Commission.
3. By submitting an Application, the Applicant acknowledges notice on behalf of all project participants that the information included in the Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47:1A-1 et seq. Aggregated information may be used by the Board and/or other state, federal, county, regional or local agencies in reports and evaluations, and the geographic location may be used to update Geographic Information System ("GIS") mapping. Applicants may identify sensitive and trade secret information that they wish to keep confidential by submitting them in accordance with the confidentiality procedures set forth in

N.J.A.C. 14:1-12.3. Furthermore, the Applicant understands that the list of approved community solar projects will be published on the Board of Public Utilities website.

4. Amendments or supplements to the Community Solar Energy Pilot Program Application Form will be made available via the New Jersey Clean Energy Program ("NJCEP") website at www.njcleanenergy.com. This Application Form may be modified for future Application Periods at any time without prior notification.

Evaluation of Applications and Approval of Projects

5. Only Applications that are administratively complete by the close of the Application Period will be considered for participation in the Community Solar Energy Pilot Program during that Program Year. An application will be deemed administratively complete if: 1) All questions are completed, except those explicitly marked as optional, 2) All required attachments are included (see Appendix B for a checklist of required attachments), and 3) All required signatures are included. Applicants will be notified if an Application is deemed administratively incomplete. An incomplete Application may be amended and resubmitted during the following Application Period without advantage or disadvantage.
6. The Applicant may be required to supplement the information provided in the Application Form upon request from the Board or Board Staff.
7. Following the close of the Application Period, each Application will be reviewed and evaluated by a dedicated Evaluation Committee.
8. In reviewing each application, Board Staff may consult with the New Jersey Department of Environmental Protection ("NJDEP"), the New Jersey Department of Agriculture, or other state agencies and consultants as are relevant to the Application. Any information marked and submitted as confidential will be treated as such by the receiving agency, and used for the sole purpose of evaluation.
9. The criteria for evaluation of Applications are presented in Appendix C (Evaluation Criteria). Projects must score a minimum 30 points total in order to be considered for participation in the Community Solar Energy Pilot Program. Projects that score above 30 points will be presented to the Board for approval for participation in the Community Solar Energy Pilot Program in order, starting with the highest-scoring project and proceeding to the lowest-scoring project, and until the allocated program capacity for that Program Year is filled.

   The allocated program capacity for Program Year 1 is 75 MW. At least 40% of program capacity (i.e. at least 30 MW) will be allocated to LMI projects.
10. Board Staff may reject Applications that are incomplete at the close of the Application Period, that are not in compliance with the rules and regulations established in N.J.A.C. 14:8-9, or that do not meet a minimum standard for selection, as set forth in this Application Form.

Milestones and Follow-Up for Approved Projects

11. Should the proposed community solar project be approved by the Board for participation in the Community Solar Energy Pilot Program, such approval will be contingent on the project being constructed and operated as was proposed in its Application.
    Furthermore, pursuant to the rules at N.J.A.C. 14:8-9.3(c), approved projects are expected to begin construction within 6 months of their approval by the Board, and are expected to become fully operational within 12 months of their approval by the Board. Extensions may be granted by Board Staff at its discretion, based on its assessment of the specific circumstances of each project approved.
    In order to monitor compliance, approved projects will be required to submit updates to the Board:
    a. Prior to the beginning of construction, the Applicant must provide evidence that commitments in the following categories have been met: project location, community and environmental justice engagement, other benefits.
    b. Prior to applying for permission to operate ("PTO"), the Applicant must provide evidence that commitments in the following categories have been met: siting (other than location), all permits received.
    c. Prior to applying to the EDC for allocation of bill credits, the Applicant must provide evidence that commitments in the following categories have been met: product offering, subscriber type, geographic limit within EDC service territory.
    If the approved project fails to be completed as proposed in the Application, and the Applicant fails to remediate the failure or provide an equivalent modification within a reasonable timeframe, the project may be penalized up to and including a withdrawal of the permission to operate in the Community Solar Energy Pilot Program.

Special Considerations for Project Siting

12. Unless the proposed community solar facility is located on a rooftop, parking lot, or parking structure, the Applicant must meet with the NJDEP's Office of Permit Coordination and Environmental Review ("PCER") to determine what permits may be required and to identify other potential issues. More information is available at: http://www.nj.gov/dep/pcer. The Applicant must have completed the NJDEP Permit Readiness Checklist and submitted said Checklist to NJDEP PCER prior to submitting the Application to the Board (see section B. VIII. Permits). The Permit Readiness Checklist is available at the following link: https://www.nj.gov/dep/pcer/introcklist.htm.
13. Special attention should be paid when siting a project on a landfill, a brownfield, or an area of historic fill. For reference, NJDEP's *Guidance for Installation of Solar Renewable Energy Systems on Landfills in New Jersey* can be found at the following link: https://www.nj.gov/dep/dshw/swp/solarguidance.pdf.
14. The Applicant should review the environmental compliance history at the proposed site and the various operations that were conducted there. Satisfaction of all outstanding NJDEP regulatory

compliance obligations, if applicable, will be required prior to applying for permission to operate. The Applicant should identify any outstanding compliance and enforcement issues associated with the property on which the proposed project is to be sited and resolve them accordingly before submitting the Post Construction NJDEP Compliance Form, if applicable.

15. If the proposed project is sited on Green Acres preserved open space, as defined in N.J.A.C. 14:8-9.2, or on land owned by NJDEP, the Applicant must receive special approval for the project from NJDEP prior to submitting the Application to the Board, and attach proof of approval to their application package (see section B. VII. Community Solar Facility Siting).

Submitting an Application

Applications must adhere to all of the following instructions for submission. Applications must be received no later than 5:00 P.M. on the date of the close of the Application Period in order to be considered.

Mail or hand-deliver the original complete Application package plus three copies of the complete Application package to:

New Jersey Board of Public Utilities
44 South Clinton Avenue, 7th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350
Attn: Office of Clean Energy
Community Solar Energy Pilot Program Application Package

In addition, submit an electronic version of the complete Application package to both of the following email addresses: communitysolar@njcleanenergy.com and board.secretary@bpu.nj.gov.

Questions and Further Information

Please address all questions pertaining to the Application Form to communitysolar@njcleanenergy.com.

Additional guidance and Frequently Asked Questions will be available on the NJCEP website at: http://njcleanenergy.com/renewable-energy/programs/community-solar.

Section B: Community Solar Energy Project Description

Instructions: Section B must be completed in its entirety. Any attachments should be placed at the end of the Application package.

I. Applicant Contact Information

Applicant Company/Entity Name: AC Power 2, LLC
First Name: Annika Last Name: Colston
Daytime Phone: 646-370-4588 Email: annika@acpowered.com
Applicant Mailing Address: 465 Grand St. Suite 5
Municipality: New York City County: New York Zip Code: 10002

Applicant is: ☑ Community Solar Project Owner ☑ Community Solar Developer/Facility Installer
☐ Property/Site Owner ☐ Subscriber Organization
☐ Agent (if agent, what role is represented) _____

II. Community Solar Project Owner

Project Owner Company/Entity Name *(complete if known)*: AC Power 2, LLC
First Name: Annika Last Name: Colston
Daytime Phone: 646-370-4588 Email: annika@acpowered.com
Mailing Address: 465 Grand St. Suite 5
Municipality: New York City County: New York Zip Code: 10002

III. Community Solar Developer

This section, "Community Solar Developer," is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a RFP, RFQ, or other bidding process. In all other cases, this section is required.

Developer Company Name *(optional, complete if applicable)*: AC Power, LLC
First Name: Annika Last Name: Colston
Daytime Phone: 646-370-4588 Email: annika@acpowered.com
Mailing Address: 465 Grand St. Suite 5
Municipality: New York City County: New York Zip Code: 10002

The proposed community solar project will be primarily built by:
☐ the Developer ☑ a contracted engineering, procurement and construction ("EPC") company

If the proposed community solar project will be primarily built by a contracted EPC company, complete the following *(optional, complete if known)*:
If the EPC company information is left blank and the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program, the Applicant must inform the Board of the information below once the EPC company becomes known.

EPC Company Name *(optional, complete if applicable)*: _____
First Name: _____ Last Name: _____
Daytime Phone: _____ Email: _____
Mailing Address: _____
Municipality: _____ County: _____ Zip Code: _____

IV. Property/Site Owner Information

Property Owner Company/Entity Name: Robert T. Winzinger Inc.
First Name: Audrey Last Name: Winzinger
Daytime Phone: [redacted] Email: [redacted]
Applicant Mailing Address: [redacted]
Municipality: [redacted] County: [redacted] Zip Code: [redacted]

V. Community Solar Subscriber Organization *(optional, complete if known)*

If this section, "Community Solar Subscriber Organization," is left blank and the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program, the Applicant must inform the Board of the information below once the Subscriber Organization becomes known.

Subscriber Organization Company/Entity Name *(optional, complete if applicable)*: [redacted]
First Name: [redacted] Last Name: [redacted]
Daytime Phone: [redacted] Email: [redacted]
Mailing Address: [redacted]
Municipality: [redacted] County: [redacted] Zip Code: [redacted]

VI. Proposed Community Solar Facility Characteristics

Community Solar Facility Size (as denominated on the PV panels):
3.75 MW AC 5 MW DC

Community Solar Facility Location (Address): Pearce Rd
Municipality: Egg Harbor Township County: Atlantic Zip Code: 08234
Name of Property *(optional, complete if applicable)*: _____
Property Block and Lot Number(s): Block 1504, Lots 1-9

Community Solar Site Coordinates: -74 36' 36' Longitude 39 26' 24" Latitude

Total Acreage of Property Block and Lots: 22 acres
Total Acreage of Community Solar Facility: 14 acres

Attach a delineated map of the portion of the property on which the community solar facility will be located. In the electronic submission, two copies of the delineated map should be provided: 1) as aPDF document, and 2) as a design plan in drawing file format (.dwg) or as a shapefile (.shp), in order to facilitate integration with Geographic Information System (GIS) software.

EDC electric service territory in which the proposed community solar facility is located: *(select one)*

☑ Atlantic City Electric ☐ Jersey Central Power & Light
☐ Public Service Electric & Gas ☐ Rockland Electric Co.

Estimated date of project completion* *(The Applicant should provide a good faith estimate of the date of project completion; however, this data is being collected for informational purposes only.)*: November (month) 2020 (year)
Project completion is defined pursuant to the definition at N.J.A.C. 14:8-9.3 as being fully operational, up to and including having subscribers receive bill credits for their subscription to the project.

The proposed community solar facility is an existing project* ..... ☐ Yes ☑ No

If "Yes," the Application will not be considered by the Board. See section B. XIII. for special provisions for projects having received a subsection (t) conditional certification from the Board prior to February 19, 2019.

*Existing project is defined in N.J.A.C. 14:8-9.2 as a solar project having begun operation and/or been approved by the Board for connection to the distribution system prior to February 19, 2019.

VII. Community Solar Facility Siting

1. The proposed community solar project has site control* ..... ☑ Yes ☐ No
   If "Yes," attach proof of site control.
   If "No," the Application will be deemed incomplete.
   *Site control is defined as property ownership or option to purchase, signed lease or option to lease, or signed contract for use as a community solar site or option to contract for use as a community solar site.

2. The proposed community solar facility is located, in part or in whole, on preserved farmland* ..... ☐ Yes ☑ No
   If "Yes," the Application will not be considered by the Board.

*Preserved farmland is defined in N.J.A.C. 14:8-9.2 as land from which a permanent development easement was conveyed and a deed of easement was recorded with the county clerk's office pursuant to N.J.S.A. 4:1C-11 et seq.; land subject to a farmland preservation program agreement recorded with the county clerk's office pursuant to N.J.S.A. 4:1C-24; land from which development potential has been transferred pursuant to N.J.S.A. 40:55D-113 et seq. or N.J.S.A. 40:55D-137 et seq.; or land conveyed or dedicated by agricultural restriction pursuant to N.J.S.A. 40:55D-39.1.

3. The proposed community solar facility is located, in part or in whole, on Green Acres preserved open space* or on land owned by the New Jersey Department of Environmental Protection (NJDEP) ..... ☐ Yes ☑ No
   If "Yes," the Applicant must attach special authorization from NJDEP for the site to host a community solar facility. The Board will not consider Applications for projects located, in part or in whole, on Green Acres preserved open space or on land owned by NJDEP, unless the Applicant has received special authorization from NJDEP and includes proof of such special authorization in the Application package.
   *Green Acres preserved open space is defined in N.J.A.C. 14:8-9.2 as land classified as either "funded parkland" or "unfunded parkland" under N.J.A.C. 7:36, or land purchased by the State with "Green Acres funding" (as defined at N.J.A.C. 7:36).

4. The proposed community solar facility is located, in part or in whole, on land located in the New Jersey Highlands Planning Area or Preservation Area ..... ☐ Yes ☑ No

5. The proposed community solar facility is located, in part or in whole, on land located in the New Jersey Pinelands ..... ☑ Yes ☐ No

6. The proposed community solar facility is located, in part or in whole, on land that has been actively devoted to agricultural or horticultural use and that is/has been valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L. 1964, c.48 (C. 54:4-23.1 et seq.) at any time within the ten year period prior to the date of submission of the Application ..... ☐ Yes ☑ No

7. The proposed community solar facility is located, in part or in whole, on a landfill ..... ☑ Yes ☐ No
   If "Yes," provide the name of the landfill, as identified in NJDEP's database of New Jersey landfills, available at www.nj.gov/dep/dshw/lrm/landfill.htm: Winzinger Egg Harbor

8. The proposed community solar facility is located, in part or in whole, on a brownfield ..... ☐ Yes ☑ No
   If "Yes," has a final remediation document been issued for the property? ..... ☐ Yes ☐ No

If "Yes," attach a copy of the Response Action Outcome ("RAO") issued by the LSRP or the No Further Action ("NFA") letter issued by NJDEP.

9. The proposed community solar facility is located, in part or in whole, on an area of historic fill ..... ☐ Yes ☑ No
   If "Yes," have the remedial investigation requirements pursuant to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-4.7 been implemented? ..... ☐ Yes ☐ No
   Has the remediation of the historic fill been completed pursuant to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-5.4? ..... ☐ Yes ☐ No
   If the remediation of the historic fill has been completed, attach a copy of the Response Action Outcome ("RAO") issued by a Licensed Site Remediation Professional ("LSRP") or the No Further Action ("NFA") letter issued by NJDEP.

10. The proposed community solar facility is located on a parking lot ..... ☐ Yes ☑ No

11. The proposed community solar facility is located on a parking deck ..... ☐ Yes ☑ No

12. The proposed community solar facility is located on a rooftop ..... ☐ Yes ☑ No

13. The proposed community solar facility is located on a canopy over an impervious surface (e.g. walkway) ..... ☐ Yes ☑ No

14. The proposed community solar facility is located on the property of an affordable housing building or complex ..... ☐ Yes ☑ No

15. The proposed community solar facility is located on a water reservoir or other water body ("floating solar") ..... ☐ Yes ☑ No

16. The proposed community solar facility is located on an area designated in need of redevelopment ..... ☐ Yes ☑ No
    If "Yes," attach proof of the designation of the area as being in need of redevelopment from a municipal, county, or state entity.

17. The proposed community solar facility is located on land or a building that is preserved by a municipal, county, state, or federal entity ..... ☐ Yes ☑ No
    If "Yes," attach proof of the designation of the area as "preserved" from a municipal, county, or state entity.

18. The proposed community solar facility is located, in part or in whole, on forested lands ..... ☐ Yes ☑ No

Construction of the proposed community solar facility will require cutting down one or more trees ..... ☐ Yes ☑ No

If "Yes," estimated number of trees required to be cut for construction: _____

19. The proposed community solar facility is located on land or a building owned or controlled by a government entity, including, but not limited to, a municipal, county, state, or federal entity ..... ☐ Yes ☑ No

20. Are there any use restrictions at the site? ..... ☑ Yes ☐ No

If "Yes," explain the use restriction below and provide documentation that the proposed community solar project is not prohibited.

The site requires a Modified Closure Plan, currently under review by the DEP, which explicitly allows for solar as an acceptable use (see attached).

Will the use restriction be required to be modified? ..... ☑ Yes ☑ No

If "Yes," explain the modification below.

Modified closure plan.

21. The proposed community solar facility has been specifically designed or planned to preserve or enhance the site (e.g. landscaping, land enhancements, pollination support, stormwater management, soil conservation, etc.) ..... [redacted] Yes [redacted] No

If "Yes," explain below, and provide any additional documentation in an attachment.

[redacted]

VIII. Permits

1. The Applicant has completed NJDEP Permit Readiness Checklist, and submitted it to NJDEP's PCER ..... ☑ Yes ☐ No

If "Yes," attach a copy of the completed Permit Readiness Checklist as it was submitted to NJDEP PCER.

If "No," the Application will be deemed incomplete. Exception: Applications for community solar projects located on a rooftop, parking lot, or parking structure are exempt from this requirement.

2. The Applicant has met with NJDEP's PCER ..... ☑ Yes ☐ No
   If "Yes," attach proof of a meeting with NJDEP PCER.
   If "No," the Application will be deemed incomplete. Exception: Applications for community solar projects located on a rooftop, parking lot, or parking structure are exempt from this requirement.

3. Please list all permits, approvals, or other authorizations that will be needed for the construction and operation of the proposed community solar facility pursuant to local, state and federal laws and regulations. Include permits that have already been received, have been applied for, and that will need to be applied for. The Applicant may extend this table by attaching additional pages if necessary. These include:
   a. Permits, approvals, or other authorizations from NJDEP (i.e. Land Use, Air Quality, New Jersey Pollutant Discharge Elimination System "NJPDES", etc.) for the property.
   b. Permits, approvals, or other authorizations from NJDEP (i.e. Land Use, Air Quality, NJPDES, etc.) directly related to the installation and operation of a solar facility on this property.
   c. Permits, approvals, or other authorizations other than those from NJDEP for the development, construction, or operation of the community solar facility (including local zoning and other local and state permits)

   An Application that does not list all permits, approvals, or other authorizations that will be needed for the construction and operation of the proposed community solar facility will be deemed incomplete.
   If a permit has been received, attach a copy of the permit.

Permit Name & Description	Permitting Agency/Entity	Date Permit Applied for *(if applicable)* / Date Permit Received (*if applicable)*
Amended Closure Plan	NJ DEP	Applied 6/2019
Stormwater Permit	NJDEP	
Soils Permit	Cape-Atlantic Soil Conservation District	
Site Plan Approval	Egg Harbor Township	
Construction Permit	Egg Harbor Township	
County Planning Board Approval	Atlantic County Planning Board	
Pinelands COF	Pinelands Commission	Applied 6/2019
Wetlands and Flood Zone Delineation	NJ DEP	

4. The Applicant has consulted the hosting capacity map of the relevant EDC and determined that, based on the capacity hosting map as published at the date of submission of the Application, there is sufficient capacity available at the proposed location to build the proposed community solar facility ..... ☑ Yes ☐ No
   If "Yes," include a screenshot of the capacity hosting map at the proposed location, showing the available capacity.
   If "No," the Application will be deemed incomplete.

IX. Community Solar Subscriptions and Subscribers

1. Estimated or Anticipated Number of Subscribers *(please provide a good faith estimate or range)*: [redacted]

2. Estimated or Anticipated Breakdown of Subscribers *(please provide a good faith estimate or range of the kWh of project allocated to each category)*:
   Residential: [redacted] Commercial: [redacted]
   Industrial: [redacted] Other: _____ (define "other": _____)

3. The proposed community solar project is an LMI project* ..... ☑ Yes ☐ No
   *An LMI project is defined pursuant to N.J.A.C. 14:8-9 as a community solar project in which a minimum 51 percent of project capacity is subscribed by LMI subscribers.

4. The proposed community solar project will allocate at least 51% of project capacity to residential customers ..... ☑ Yes ☐ No

5. The proposed community solar project is being developed in partnership with an affordable housing provider: ..... ☑ Yes ☐ No
   If "Yes," attach a letter of support from the affordable housing provider.

6. An affordable housing provider is seeking to qualify as an LMI subscriber for the purposes of the community solar project ..... ☐ Yes ☑ No
   If "Yes," estimated or anticipated percentage of the project capacity for the affordable housing provider's subscription *(provide an estimate or range)*: _____

   If "Yes," what specific, substantial, identifiable, and quantifiable long-term benefits from the community solar subscription are being passed through to their residents/tenants?

Additionally, the affordable housing provider must attach a signed affidavit that the specific, substantial, identifiable, and quantifiable long-term benefits from the community solar subscription will be passed through to their residents/tenants.

7. This project uses an anchor subscriber *(optional)* ..... ☐ Yes ☑ No
   If "Yes," name of the anchor subscriber *(optional)*: _____
   Estimated or anticipated percentage or range of the project capacity for the anchor subscriber's subscription: _____

8. Is there any expectation that the account holder of a master meter will subscribe to the community solar project on behalf of its tenants? ..... ☐ Yes ☑ No
   If "Yes," what specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription are being passed through to the tenants?

   Additionally, the account holder of the master meter must attach a signed affidavit that the specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription will be passed through to the tenants.

   If "No," please be aware that, if, at any time during the operating life of the community solar project the account holder of a master meter wishes to subscribe to the community solar project on behalf of its tenants, it must submit to the Board a signed affidavit that the specific, identifiable, sufficient, and quantifiable benefits from the community solar subscription will be passed through to its tenants.

9. The geographic restriction for distance between project site and subscribers is: *(select one)*
   - ■ No geographic restriction: whole EDC service territory
   - ■ Same county OR same county and adjacent counties
   - ■ Same municipality OR same municipality and adjacent municipalities

   Note: The geographic restriction selected here will apply for the lifetime of the project, barring special dispensation from the Board, pursuant to N.J.A.C. 14:8-9.5(a).

10. Product Offering: *(The Applicant must also complete and attach one or more product offering form(s) found in Appendix A. See Appendix A for exemptions.)*
    The subscription proposed offers guaranteed or fixed savings to subscribers …….. ■ Yes ■ No
    If "Yes," the guaranteed or fixed savings are offered as:
    - ■ A percentage saving on the customer's annual electric utility bill
    - ■ A percentage saving on the customer's community solar bill credit
    - ☐ Other: _____

    If "Yes," the proposed savings represent:
    - ■ 0% - 5% of the customer's annual electric utility bill or bill credit
    - ■ 5% - 10% of the customer's annual electric utility bill or bill credit
    - ■ 10% - 20% of the customer's annual electric utility bill or bill credit
    - ■ over 20% of the customer's annual electric utility bill or bill credit

    The subscription proposed offers subscribers ownership or a pathway to ownership of a share of the community solar facility …… ☐ Yes ☑ No
    If "Yes," include proof of a pathway to ownership of a share of the community solar facility offered to the subscribers in Appendix A.

11. The list of approved community solar projects will be published on the Board's website. Additionally, subscriber organizations have the option of indicating, on this list, that the project is currently seeking subscribers.
    If this project is approved, the Board should indicate on its website that the project is currently seeking subscribers …… ☑ Yes ☐ No
    If "Yes," the contact information indicated on the Board's website should read:

Company/Entity Name: AC Power Contact Name: Annika Colston
Daytime Phone: 646-370-4588 Email: annika@acpowered.com

Note: it is the responsibility of the project's subscriber organization to notify the Board if/when the project is no longer seeking subscribers, and request that the Board remove the above information on its website.

X. Community Engagement

1. The proposed community solar project is being developed by or in collaboration* with the municipality in which the project is located …… ☑ Yes ☐ No
   If "Yes," explain how and attach a letter of support from the municipality in which the project is located.
   *Collaboration with the municipality should include, at minimum, one or more meetings with relevant municipal authorities and clear evidence of municipal involvement and approval of the design, development, or operation of the proposed community solar project.

AC Power has met with the Egg Harbor Township Planner and discussed the benefits this project could offer to the Township and its residents. These discussions included conversations on how the project could be developed to best serve the community. The Township has recognized the opportunity presented by this project with the attached letter of support.

2. The proposed community solar project is being developed in collaboration* with one or more local community organization(s) ..... ☑ Yes ☐ No
   If "Yes," explain how and attach a letter of support from the local community organization(s).
   *Collaboration with a local community organization should include, at minimum, one or more meetings with the relevant local community organization(s) and clear evidence of the local community organization's involvement and approval of the design, development, or operation of the proposed community solar project.

[redacted]

3. The proposed community solar project was developed, at least in part, through a community consultative process* ..... ☑ Yes ☐ No
   If "Yes," please describe the consultative process.
   *A community consultative process should include, at minimum, one or more opportunities for public intervention and outreach to the municipality and/or local community organizations.

AC Power has met with the Township and reached out to several community development organizations. The Township facilitated an introduction to two affordable housing groups, one of which supplied a letter of support.

XI. Project Cost

1. Provide the following cost estimates and attach substantiating evidence in the form of charts and/or spreadsheet models:

Applicants are expected to provide a good faith estimate of costs associated with the proposed community solar project, as they are known at the time the Application is filed with the Board. This information will not be used in the evaluation of the proposed community solar project.

Net Installed Cost (in $)	[redacted]
Net Installed Cost (in $/Watt)	
Initial Customer Acquisition Cost (in $/Watt)	
Annual Customer Churn Rate (in %)	

Annual Operating Expenses (in c/kWh)	[redacted]
LCOE (in c/kWh)	

2. Pursuant to N.J.A.C. 14:8-9.7(q), "community solar projects shall be eligible to apply, via a one-time election prior to the delivery of any energy from the facility, for SRECs or Class I RECs, as applicable, or to any subsequent compensations as determined by the Board pursuant to the Clean Energy Act."

For indicative purposes only, please indicate all local, state and federal tax incentives which will be applied to if the proposed community solar project is approved for participation in the Community Solar Energy Pilot Program:

The project will apply for federal ITC grant as well as any state incentives.

XII. Other Benefits

1. The proposed community solar facility is paired with another distributed energy resource:
   a. Micro-grid project ..... ☐ Yes ☑ No
   b. Storage ..... ☐ Yes ☑ No
   c. Other *(identify)*: _____ ..... ☐ Yes ☑ No

2. The proposed community solar facility provides grid benefits (e.g. congestion reduction) ..... ☑ Yes ☐ No
   If "Yes" to any, please explain how and provide supporting documents.

   As a form of distributed generation, this Community Solar project will provide grid benefits as described in the attached paper. Because the grid benefits paper is lengthy, it is included only in the original package and the electronic submission. It has not been included as part of the 3 hard copies.

4. The proposed community solar project will create temporary or permanent jobs in New Jersey ..... [redacted] Yes [redacted] No
   If "Yes," estimated number of temporary jobs created in New Jersey: _____
   If "Yes," estimated number of permanent jobs created in New Jersey: _____

5. The proposed community solar project will provide job training opportunities for local solar trainees ..... [redacted] Yes [redacted] No
   If "Yes," will the job training be provided through a registered apprenticeship? .... [redacted] Yes [redacted] No

If "Yes," identify the entity or entities through which job training is or will be organized (e.g. New Jersey GAINS program, partnership with local school):

[redacted]

XIII. Special Authorizations and Exemptions

1. Is the proposed community solar project co-located with another community solar facility (as defined at N.J.A.C. 14:8-9.2)? ..... ☐ Yes ☑ No
   If "Yes," please explain why the co-location can be approved by the Board, consistent with the provisions at N.J.A.C. 14:8-9.

2. Does this project seek an exemption from the 10-subscriber minimum? ..... ☐ Yes ☑ No
   If "Yes," please demonstrate below (and attach supporting documents as relevant):
   a. That the project is sited on the property of a multi-family building.
   b. That the project will provide specific, identifiable, and quantifiable benefits to the households residing in said multi-family building.

3. Specific sections throughout the Application Form are identified as optional only if: 1) the Applicant is a government entity (municipal, county, or state), and 2) the community solar developer will be selected by the Applicant via a RFP, RFQ, or other bidding process. Has the Applicant left those specific sections blank? ..... ☐ Yes ☑ No
   If "Yes," attach a letter describing the proposed bidding process. The Applicant must further commit to issuing said RFP, RFQ, or other bidding process within 90 days of the proposed project being approved by the Board for participation in the Community Solar Energy Pilot Program. The Applicant will be required to provide the information contained in those optional sections to the Board once it becomes known.

4. Has the proposed community solar project received, in part or in whole, a subsection (t) conditional certification from the Board prior to February 19, 2019? ..... ☑ Yes ☐ No
   If "Yes," the project may apply to participate in the Community Solar Energy Pilot Program if it commits to withdrawing the applicable subsection (t) conditional certification immediately if it is approved by the Board for participation in the Community Solar Energy Pilot Program. Attach a signed affidavit that the Applicant will immediately withdraw the applicable subsection (t)

conditional certification if the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program.

Section C: Certifications

Instructions: Original signatures on all certifications are required. All certifications in this section must be notarized.

Applicant Certification

The undersigned warrants, certifies, and represents that:

1) I, Annika Colston (name) am the President (title) of the Applicant AC Power 2 (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____ Date: 9.5.19

Print Name: Annika Colston

Title: President Company: AC Power

Signed and sworn to before me on this 5th day of September, 2019

_____

Signature

Nina E Sussman

Name

NINA E SUSSMAN
Notary Public, State of New York
No. 01SU6337719
Qualified in New York County
Commission Expires February 29, 2020

Project Developer Certification

This Certification "Project Developer / Installer" is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process. In all other cases, this Certification is required.

The undersigned warrants, certifies, and represents that:

1) I, Annika Colston (name) am the President (title) of the Project Developer AC Power (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____ Date: 9.5.19

Print Name: Annika Colston

Title: President Company: AC Power

Signed and sworn to before me on this 5th day of September, 2019

_____

Signature

Nina E Sussman

Name

NINA E SUSSMAN
Notary Public, State of New York
No. 01SU6337719
Qualified in New York County
Commission Expires February 29, 20 20

Project Owner Certification

The undersigned warrants, certifies, and represents that:

1) I, Annika Colston (name) am the President (title) of the Project Owner AC Power 2 (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
4) The system proposed in the Application will be constructed, installed, and operated in accordance with all Board policies and procedures for the SREC Registration Program or subsequent revision to the SREC Registration Program, if applicable; and
5) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
6) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____ Date: 9.5.19

Print Name: Annika Colston

Title: President Company: AC Power

Signed and sworn to before me on this 5th day of September, 2019

_____

Signature

Nina E Sussman

Name

NINA E SUSSMAN
Notary Public, State of New York
No. 01SU6337719
Qualified in New York County
Commission Expires February 29, 2020

Property Owner Certification

The undersigned warrants, certifies, and represents that:

1) I, Audrey Winzinger (name) am the Vice President (title) of the Property Block 1504 Lots 1-9 (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
2) The information provided in this Application package pertaining to siting and location of the proposed community solar project has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
3) My organization or I understand that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
4) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: Audrey Winzinger Date: 8-14-19

Print Name: Audrey Winzinger
Title: Vice President Company: Robert T. Winzinger Inc

Signed and sworn to before me on this 14th day of August, 2019

Signature

Name

WILLIAM K. CHALLENDER
Commission # 2334691
Notary Public, State of New Jersey
My Commission Expires
September 20, 2020

Subscriber Organization Certification *(optional, complete if known)*

The undersigned warrants, certifies, and represents that:

1) I, Sam Place (name) am the Business Development Manager (title) of the Subscriber Organization PowerMarket (name) and have been authorized to file this Applicant Certification on behalf of my organization; and
2) The information provided in this Application package has been personally examined, is true, accurate, complete, and correct to the best of the undersigned's knowledge, based on personal knowledge or on inquiry of individuals with such knowledge; and
3) The community solar facility proposed in the Application will be constructed, installed, and operated as described in the Application and in accordance with all Board rules and applicable laws; and
4) My organization understands that certain information in this Application is subject to disclosure under the Open Public Records Act, N.J.S.A. 47-1A-1 et seq., and that sensitive and trade secret information that they wish to keep confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.; and
5) My organization acknowledges that **submission of false information may be grounds for denial of this Application, and if any of the foregoing statements are willfully false, they are subject to punishment to the full extent of the law, including the possibility of fine and imprisonment.**

Signature: _____ Date: 09/05/19

Print Name: Sam Place

Title: Business Development Manager Company: PowerMarket

Signed and sworn to before me on this 5th day of September, 2019

Samuel Tse

Signature

Name

Samuel Tse
Notary Public - State of New York
No. 01TS6357989
Qualified in Kings County
Commission Expires May 1, 2021

Appendix B: Required Attachments Checklist

Note that this list is for indicative purposes only. Additional attachments may be required, and are identified throughout this Application Form.

Required Attachments for all Applications	Page	Attached?
Delineated map of the portion of the property on which the community solar facility will be located.	p.7	☑Yes ☐ No
For electronic submission only: copy of the delineated map of the portion of the property on which the community solar facility will be located as a PDF and in drawing file format (.dwg) or as a shapefile (.shp).	p.7	☑Yes ☐ No
Proof of site control.	p.8	☑Yes ☐ No
Copy of the completed Permit Readiness Checklist as it was submitted to NJDEP PCER, if applicable.	p.11	☑Yes ☐ No
Proof of a meeting with NJDEP PCER, if applicable.	p.12	☑Yes ☐ No
A screenshot of the capacity hosting map at the proposed location, showing the available capacity.	p.12	☑Yes ☐ No
Substantiating evidence of project cost in the form of charts and/or spreadsheet models.	p.16	☑Yes ☐ No
Certifications in Section C.	p.19-23	☑Yes ☐ No
Product Offering Questionnaire(s).	p.24	☑Yes ☐ No

Required Attachments for Exemptions	Page	Attached?
The Applicant is a government entity (municipal, county, or state), and the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process: ⇨ Attach a letter from the Applicant describing the bidding process	p.6, p.19	☐Yes ☑ No
The proposed community solar project is located, in part or in whole, on Green Acres preserved open space or on land owned by NJDEP. ⇨ Attach special authorization from NJDEP for the site to host a community solar facility.	p.8	☐Yes ☑ No
The proposed community solar project has received, in part or in whole, a subsection (t) conditional certification from the Board prior to February 19, 2019. ⇨ Attach a signed affidavit that the Applicant will immediately withdraw the applicable subsection (t) conditional certification if the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program.	p. 19	☑Yes ☐ No

Appendix C: Evaluation Criteria

The Evaluation Criteria chart below lists the various categories that the Board will consider in evaluating project Applications. Projects must score a minimum 30 points total in order to be considered for participation in the Community Solar Energy Pilot Program. Projects that score above 30 points will be awarded program capacity in order, starting with the highest-scoring project and proceeding to the lowest-scoring project.

Evaluation Criteria	Max. Points
Low- and Moderate-Income and Environmental Justice Inclusion Higher preference: LMI project	30
Siting Higher preference: landfills, brownfields, areas of historic fill, rooftops, parking lots, parking decks Medium preference: canopies over impervious surfaces (e.g. walkway), areas designated in need of redevelopment No Points: preserved lands, wetlands, forested areas, farmland Bonus points for: landscaping, land enhancement, pollination support, stormwater management, soil conservation	20 Max. possible bonus points: 5
Product Offering Higher preference: guaranteed savings >10%, flexible terms* Medium preference: guaranteed savings >5% No Points: no guaranteed savings, no flexible terms* *Flexible terms may include: no cancellation fee, short-term contract	15
Community and Environmental Justice Engagement Higher preference: partnership with municipality, partnership with local community organization(s), partnership with affordable housing provider Medium preference: letter of support from municipality, project owner is a government and/or public and/or quasi-public entity, project owner is an affordable housing developer	10
Subscribers Higher preference: more than 51% project capacity is allocated to residential subscribers	10
Other Benefits Higher preference: Provides local jobs/job training, demonstrates co-benefits (e.g. paired with storage, micro-grid project, energy audit, EE measures)	10
Geographic Limit within EDC service territory Higher preference: municipality/adjacent municipality Medium preference: county/adjacent county No Points: any geographic location within the EDC service territory.	5

Section D: Appendix

Appendix A: Product Offering Questionnaire

Complete the following Product Offering Questionnaire. If there are multiple different product offerings for the proposed community solar project, please complete and attach one Product Offering Questionnaire per product offering.
Applicants are expected to provide a good faith description of the product offerings developed for the proposed community solar project, as they are known at the time the Application is filed with the Board. If the proposed project is approved by the Board, the Applicant must notify the Board and receive approval from the Board for any modification or addition to a Product Offering Questionnaire.

Exception: This "Product Offering Questionnaire" is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process.

This Questionnaire is Product Offering number [redacted]_ of [redacted]_ (total number of product offerings).

[redacted]

1. Community Solar Subscription Type *(examples: kilowatt hours per year, kilowatt size, percentage of community solar facility's nameplate capacity, percentage of subscriber's historical usage, percentage of subscriber's actual usage)*:
   [redacted]

2. Community Solar Subscription Price: *(check all that apply)*
   - [redacted] Fixed price per month
   - [redacted] Variable price per month, variation based on: [redacted]
   - [redacted] The subscription price has an escalator of [redacted] % every [redacted] *(interval)*

3. Contract term (length): [redacted] months, or [redacted] years OR [redacted] month-to-month

4. Fees
   - [redacted] Sign-up fee: [redacted]
   - [redacted] Early Termination or Cancellation fees: [redacted]_
   - [redacted] Other fee(s) and frequency: [redacted]

5. Does the subscription guarantee or offer fixed savings or specific, quantifiable economic benefits to the subscriber? ..... [redacted] Yes [redacted] No
   If "Yes," the savings are guaranteed or fixed:

- [ ] As a percentage of monthly utility bill
- [ ] As a fixed guaranteed savings compared to average historic bill
- [ ] As a fixed percentage of bill credits
- [ ] Other: _____

6. Special conditions or considerations:

[redacted]

Section D: Appendix

Appendix A: Product Offering Questionnaire

Complete the following Product Offering Questionnaire. If there are multiple different product offerings for the proposed community solar project, please complete and attach one Product Offering Questionnaire per product offering.
Applicants are expected to provide a good faith description of the product offerings developed for the proposed community solar project, as they are known at the time the Application is filed with the Board. If the proposed project is approved by the Board, the Applicant must notify the Board and receive approval from the Board for any modification or addition to a Product Offering Questionnaire.

Exception: This "Product Offering Questionnaire" is optional if: 1) the Applicant is a government entity (municipal, county, or state), AND 2) the community solar developer will be selected by the Applicant via a Request for Proposals (RFP), Request for Quotations (RFQ), or other bidding process.

This Questionnaire is Product Offering number [redacted]__ of [redacted]____ (total number of product offerings).

[redacted]

1. Community Solar Subscription Type *(examples: kilowatt hours per year, kilowatt size, percentage of community solar facility's nameplate capacity, percentage of subscriber's historical usage, percentage of subscriber's actual usage)*:
   [redacted]

2. Community Solar Subscription Price: *(check all that apply)*
   - [redacted] Fixed price per month
   - [redacted] Variable price per month, variation based on: [redacted]
   - [redacted] The subscription price has an escalator of [redacted] % every [redacted] *(interval)*

3. Contract term (length): [redacted] months, or [redacted] years OR [redacted] month-to-month

4. Fees
   - [redacted] Sign-up fee: [redacted]__
   - [redacted] Early Termination or Cancellation fees: [redacted]_
   - [redacted] Other fee(s) and frequency: [redacted]_____

5. Does the subscription guarantee or offer fixed savings or specific, quantifiable economic benefits to the subscriber? ..... [redacted] Yes [redacted] No
   If "Yes," the savings are guaranteed or fixed:

- [x] As a percentage of monthly utility bill
- [x] As a fixed guaranteed savings compared to average historic bill
- [x] As a fixed percentage of bill credits
- [ ] Other: _____

6. Special conditions or considerations:

[redacted]

PROJECT DESCRIPTION

Egg Harbor Community Solar Project

The Egg Harbor Community Solar project, located in Egg Harbor Township, is a proposed 5 MW project on a properly closed landfill owned by Robert T Winzinger Inc. (Winzinger). AC Power has built a strong relationship with Winzinger, having developed a 1.6 MW facility on Winzinger's Delanco landfill which came online in July 2019. Based on this past experience, we are looking forward to continuing this relationship and helping give Winzinger's landfills a second useful life.

This project is a unique opportunity because the site is located in an Opportunity Zone and adjacent to the Atlantic City airport which is an area of focus for redevelopment. This project would aim to qualify for opportunity zone funding and would fit well with the redevelopment goals of the area by bringing clean renewable energy to businesses and residents.

AC Power began developing the Egg Harbor Community Solar project in 2017 with initial due diligence with DEP, Pinelands and ACE. In 2018, the Team submitted a subsection (t) SREC application and received its approved BPU Board Order in April 2019. While 15-year SRECs under the subsection (t) program is extremely attractive for this project the Community Solar program would be better because the Project could sell electricity to subscribers at a discount to the retail rate which is more attractive than selling at the wholesale spot market. The revenue from the Community Solar project will help offset the higher installation costs associated with solar on landfill projects. AC Power would withdraw its subsection (t) approval if awarded the community solar project.

AC Power prepared and submitted a modified closure plan application to the DEP in early 2019 and is awaiting final approval. In addition to the standard local and state permitting, this project is in the Pinelands, and therefore needs to satisfy the requirements of the New Jersey Pinelands Commission. Thanks to our diligent work to address the Commission's questions and needs, we have gained their respect as a knowledgeable and trustworthy solar developer. Although we are still working towards final approval, AC Power's President Annika Colston was asked to present an overview of the Community Solar program to the Commission, as well as provide commentary about our experiences developing solar projects in the Pinelands to help inform the Commission's approach to solar permitting.

The Pinelands and Egg Harbor Township have been extremely supportive of the project and have even agreed to modify the zoning to support development of solar on landfills consistent with NJ Statute NJSA 40:55D-66.16. The project expects to receive its certificate of filing in September 2019 and will go before the Egg Harbor Planning Board for approval thereafter.

While AC Power secured 15-year legacy SRECs for this project, we have been inspired by the ideals of the Community Solar program and have chosen to pursue the opportunity to develop it as a community solar facility. As such, working with the community is an important part of our development process. Due to our ongoing work with the Township, including efforts to rezone the site to facilitate the development process, the Township is familiar with this project.

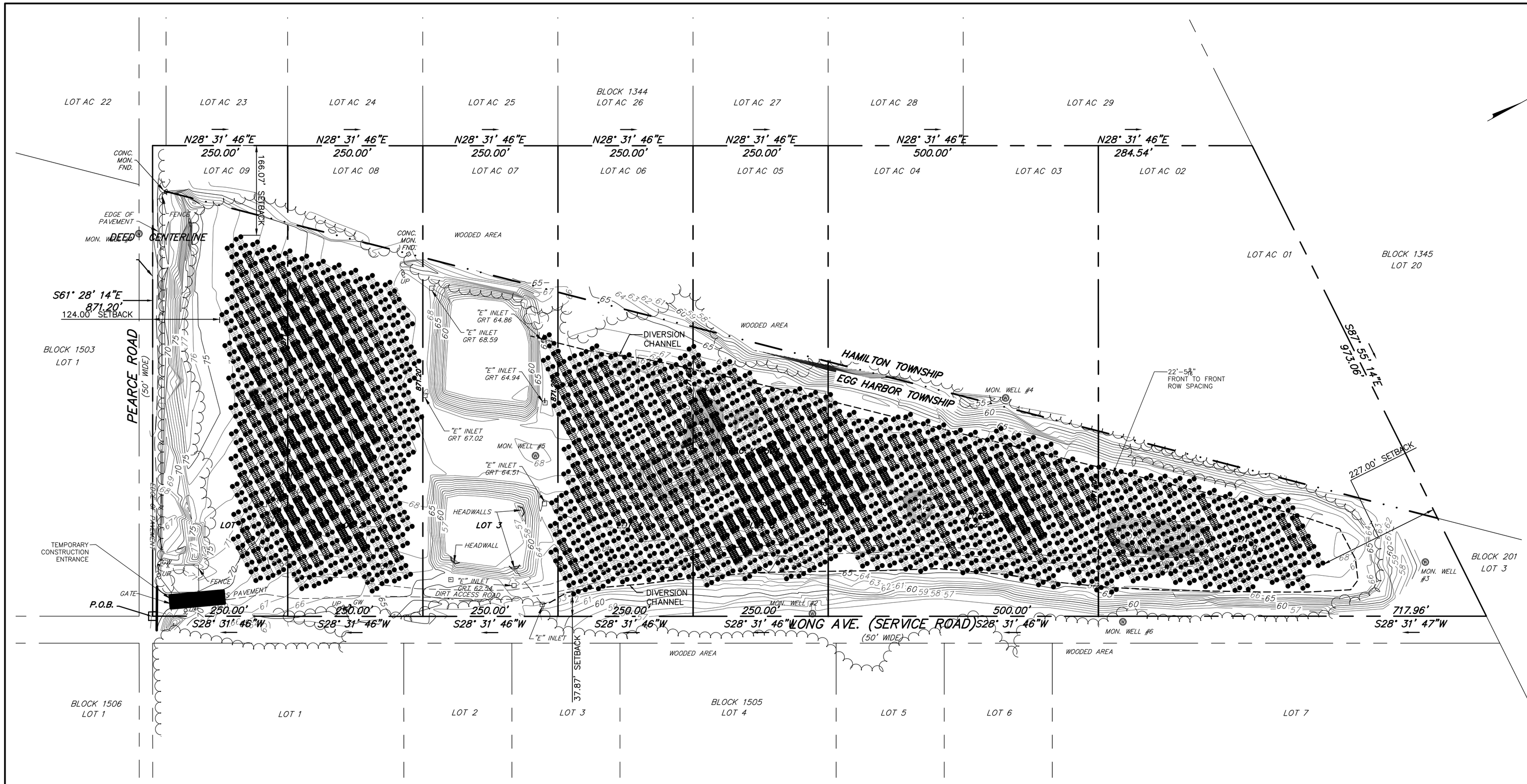
In addition to the typical permitting procedures, AC Power has also engaged the Township in a dialogue to earn their support on the decision to offer the array as a community solar project as reflected in their attached letter of support.

[redacted]

Furthermore, we have been actively engaged in reaching out to local groups with deep roots in the community, such as the United Way, Mental Health Association in Atlantic County, the Arc Atlantic County, and Patcong Creek Foundation. Unfortunately, we have not yet been able to discuss this project with the right people at these groups to gain their support. However, we look forward to the opportunity to re-engage with those groups should this project be selected.

We believe that the process and the product of the Egg Harbor Solar site embody the ideals envisioned by the Community Solar program, and encourage you to give it strong consideration for inclusion as one of the projects in the inaugural program year.

DELINEATED MAP



PROJECT INFORMATION:
FILE PATH: G:\Projects\ACPW\00011\Plans\
FILE NAME: ACPW0011_SHT04_SITE.dwg
LAST SAVE DATE: Tuesday, 21 May 2019, 11:09AM
LAST SAVE BY: KCipolla

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EGG HARBOR TOWNSHIP ZONING REQUIREMENTS
Block 1506, Lots 1-9 - Residential Growth (RG-S) Zoning District

ITEM	REQUIRED/PERMITTED PERMITTED	EXISTING	PROPOSED	STATUS (C/V/W)	ORDINANCE SECTION
Land Use		Landfill	Solar Field	V	225-48
Lot Requirements:					
Min. Lot Area	6,500 SF	1,961,193 SF (45 Ac.)	1,166,125 SF (27 Ac.)	C	225-7
Principal Setbacks and Height:					
Min. Lot Width	60 Ft.	871 Ft.	793 Ft.	C	225-7
Min. Front Yard					
(a) State Right-of-Way	35 Ft.	N/A	N/A	C	225-7
(b) County Right-of-Way	25 Ft.	N/A	N/A	C	225-7
(c) Township Right-of-Way	25 Ft.	N/A	124 Ft.	C	225-7
Min. Side Yard	5,15 agg.	N/A	38 Ft.	C	225-7
Min. Rear Yard					
(a) County Right-of-Way	50 Ft.	N/A	N/A	C	225-7
(a) Rear Lot Line	25 Ft.	N/A	227	C	225-7
Accessory Structure					
(a) Rear Yard	5 Ft.	N/A	N/A	C	225-7
(b) Side Yard	5 Ft.	N/A	N/A	C	225-7
Max. Building Height					
(a) Principle Structure	30 Ft.	N/A	N/A	C	225-7
(b) Accessory Structure	15 Ft.	N/A	N/A	C	225-7
Minimum Distance Between Builcings	50 Ft.	N/A	N/A	C	225-7
Maximum Impervious Coverage	45%	0%	3%	C	225-7
Variances/ Waivers					
V(1) Use Variance					

NOTES:

1. THE PREFERRED METHOD OF SOLAR PANEL SUPPORT RACK INSTALLATION IS IN-GROUND POTS, AS A DIRECT DRIVEN I-BEAM OR C-CHANNEL, HELICAL PILE, OR SCREW PILES. THE FINAL DETERMINATION OF THE SUPPORT TYPE WILL BE BASED ON THE RESULTS OF ONSITE, IN-SITU GEOTECHNICAL TESTING. IN THE EVENT THAT THE IN-SITU GEOTECHNICAL TESTING YIELDS POOR RESULTS, THE SOLAR PANEL RACKING SYSTEM WILL BE MOUNTED ON CONCRETE FILLED BALLAST TUBS.
2. CONTRACTOR SHALL RE-ESTABLISH EXISTING DIVERSION CHANNELS AS NEEDED. DIVERSIONS SHALL BE A TRAPEZOIDAL CHANNEL, 3-FOOT BOTTOM WIDTH, 12" DEEP WITH 3:1 SCALE SIDE SLOPES.

LEGEND

- 2 Span Purlin (Orange) Length: 7'-7¾"
- 3 Span Purlin (Pink) Length: 9'-11⅝"
- 4 Span Purlin (Red) Length: 13'-3½"
- 7 Span Purlin (No Color) (Notched) Length: 23'-7 1/16"
- 9 Span Purlin (Light Green) (Notched) Length: 30'-2 13/16"
- 11 Span Purlin (Dark Blue) (Notched) Length: 36-10 9/16"

100' 50' 0 100' 200'
1" = 100'

NO.	DATE	REVISIONS	BY	CHKD

A. MAXWELL PETERS, P.E.
PRINCIPAL ENGINEER

DATE: 05-21-2019
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 44169

AC POWER 2, LLC
PROPOSED GROUND-MOUNTED SOLAR ARRAY
PEARCE ROAD
BLOCK 1504, LOTS 1-9
EGG HARBOR TOWNSHIP, ATLANTIC COUNTY, NEW JERSEY

SITE LAYOUT PLAN

T&M AND ASSOCIATES
YOUR GOALS. OUR MISSION.
200 CENTURY PARKWAY, SUITE B
MT. LAUREL, NJ 08054
TEL 856-722-6700
FAX 856-722-0175

NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION 24GA27987500

OFFICES LOCATED IN:
CALIFORNIA, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA

DESIGNED BY	AMP
CHECKED BY	AMP
DRAWN BY	KEC
DATE	05-21-2019
SCALE	1" = 100'
PROJ. NO.	ACPW-00011
DRAWING	STE
SHEET	4 OF 6

PROOF OF SITE CONTROL

PERMIT READINESS CHECKLIST

Updated 10/11/16

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF PERMIT COORDINATION AND ENVIRONMENTAL REVIEW

PERMIT READINESS CHECKLIST

FOR PCER OFFICE USE ONLY

DATE RECEIVED ___ PRC ID NUMBER ___

Completion of this form will assist the Department in determining what permits might be needed to authorize a project and to insure that all appropriate programs attend a pre-application meeting. Please fill out the below form as completely as possible, noting any areas you are not sure of and including any information about the project and the site that might help the Department determine the permitting needs of the project.[1]

1. Please complete the following questions if applicable and return to the Department with a **1 to 2 page narrative description of project, its function, and its benefits; as well as a site plan, maps, aerial photos, GIS shape files, etc.**

A. GENERAL INFORMATION

1. Name of Proposed Project **Egg Harbor Community Solar**

2. Consultant/Contact Information (if any) **Same as applicant information below**

3. Name/Address of Prospective Applicant Annika Colston
   Address/tel./fax **465 Grand St. Suite 5, New York, NY, 10002**
   646-370-4588 (office); 917-544-3258 (cell)
   Company Name **AC Power 2, LLC**
   Address/tel./fax **Same as above**

4. Does the project have any existing NJDEP ID#s assigned? i.e., Case number, Program Interest (PI)#, Program ID#? **The NJDEP Landfill List includes the following NJDEP-associated IDs:**
   - **Solid Waste ID: 0108D**
   - **New Solid Waste ID: 0108000019**
   - **CSL ID: NJL900001405**
   - **Solid Waste Interest Program ID: 133467**

[1] Please be advised that this form is not a permit application. To receive authorization, approval, or a permit to conduct regulated activities, a formal application must be filed and a formal permit or authorization issued by the appropriate Bureau within the Department prior to the conduct of regulated activity. This form is used solely for the Department's preliminary review and discussion of this project to determine what permits or authorizations may be needed to conduct the proposed activity. Any guidance offered to the applicant during this process is not binding on the Department or the applicant and a final response can only be rendered through the actual issuance of permits, approvals, or authorizations.

B. PROPOSED PROJECT LOCATION

Street Address/munic. **Pearce Rd. Egg Harbor Township**
County **Atlantic** Zip Code **08234**
Block No. **1504** Lot _No. **1-9**
X Coordinate in State Plane (project centroid) **457,208.31**
Y Coordinate in State Plane (project centroid) **223,257.24**

C. PROPOSED ACTIVITY DESCRIPTION AND SCHEDULE

1. Project Type: **X** New Construction ___ Brownfield Redevelop. **X**
   Alternative Energy ___ Other (Please describe) **PV Solar under the Community Solar program**

   a) Estimated Schedule: Date permits needed or desired by, beginning construction date; construction completion, and operation of facility date: **Assuming Community Solar project award in November 2019, Permits needed by May 2020, at which point construction will begin. Construction completion and project operation by November 2020.**

   b) Funding Source: Is any Federal Funding being used for this project? **No**
   State Funding over 1 million dollars? **No**
   Is funding secured at this time? **Yes** Is funding conditional? **No** If so, on what?

   c) Is the project contingent on receiving the identified funding? **No**
   If yes, explain **N/A**

   d) What DEP permits do you think you need for this project? (The Department will confirm this through the PRC process). **Solid Waste Landfill Disruption Permit/Amended Closure Plan;**

2. For additional guidance on Department permits, please refer to the Permit Identification Form (PIF) which will be forwarded upon request. The PIF does not need to be filled out or submitted to the Department.

   a) Which Department(s), Bureau(s), and staff have you contacted regarding your proposed project? **Bureau of Solid Waste Permitting, Division of Solid and Hazardous Waste**

   b) Are there any Department permits that will need to be modified as a result of this project. Please explain and identify the project reviewer of the permit to be modified. **THE MODIFIED CLOSURE PLAN HAS BEEN SUBMITTED TO DEP AND IS BEING REVIEWED BY RAM SHAH.**

   c) Please identify any pre-permit actions or modifications you have applied for or obtained from the Department or other state agencies for this project:

   1) Water Quality Management Plan consistency _____
   2) Highlands Consistency _____
   3) Wetland Delineation (LOI) _____
   4) Tidelands Conveyance _____
   5) Flood Hazard Jurisdiction or determinations _____
   6) Water Allocation _____
   7) Site Remediation RAW, Remedial Action Permit – Soil and or Groundwater, NJPDES Discharge to Ground Water, NJPDES Discharge to Surface Water, No Further Action Response Action Outcome _____

8) Landfill Disruption Approval _____
9) Landfill Closure Plan **Yes**
10) Other **PINELANDS**

3. Please submit this Permit Readiness Checklist form, completed to the extent possible, electronically to Ruth.Foster@dep.nj.gov and Megan.Brunatti@dep.nj.gov and one (1) copy via mail[2] with the following items if available:
   (a) The completed Permit Readiness Checklist; **(included)**
   (b) A description of the proposed project;
   (c) Any overarching regulatory or policy call(s) or guidance that the Department must make or make known prior to the receipt of the application to determine the project's feasibility, regulatory, or review process. **(none we are aware of at this time)**
   (d) USGS map(s) with the site of the proposed project site boundaries clearly delineated (including the title of the USGS quadrangle sheet from which it was taken)[3]; **(not included)**
   (e) Aerial photos/GIS information regarding the site; **(not included)**
   (f) A site map including any known environmental features (wetlands, streams, buffers, etc[4]); **(see included site plan)**
   (g) Site plans to the extent available; **(included)**
   (h) Street map indicating the location of the proposed project; **(see included site plan)**
   (i) Any other information that you think may be helpful to the Department in reviewing this project.
   (j) List of any local or regional governments or entities, their historical involvement in this project or site, identification of conflicts with DEP rules; with contact names and information whose attendance/input would be helpful in facilitating this project, ie Soil Conservation Districts, health departments, local zoning officials, etc.

D. The following are questions by Program to guide the Department in its determination of what permits may be needed to authorize this project. If the questions do not apply to the proposed project please indicate N/A. Please include any other information you think may be helpful for the Department to determine which permits are needed.

WATER AND WASTE WATER INFORMATION

DEP Safe Drinking Water Program (609) 292-5550
http://www.nj.gov/dep/watersupply/

Is the project located within an existing water purveyor service area? If yes, which one? **No**

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[2] Submit to: New Jersey Department of Environmental Protection
Office of Permit Coordination and Environmental Review
P.O. Box 420, Mail Code 07J
Trenton, New Jersey 08625
Street Location: 401 East State Street, 7th Floor East Wing
Telephone Number:(609) 292-3600
Fax Number: (609) 292-1921

[3] USGS maps may be purchased from NJDEP, Maps and Publications, P.O. Box 420, Trenton 08625-0420; (609) 777-1038

[4] NJGIS information

Will the project affect any land or water controlled by a Water Supply Authority or water purveyor in New Jersey? If so, please identify and explain. **No**

Does the purveyor have adequate firm capacity and allocation to support project demand? **N/A**

Do water pipes currently extend to the project location? NO

If not, is it located within a franchise area? NO

Does the project have an approved Safe Drinking Water main extension permit? **N/A**

Will the project affect any land or water controlled by a Water Supply Authority or water purveyor in New Jersey? If so, please identify and explain. **No**

DEP Water Allocation Program (609) 292-2957
http://www.nj.gov/dep/watersupply

Is the project seeking a new ground water allocation or modification? If yes, does the project have all necessary well location and safe drinking water permits? **No**

Is the project located within an area of critical water supply concern? **No**

Will this project have the capability to divert more than 100,000 gallons per day from a single source or a combination of surface or groundwater sources? **No**

Will this project draw more than 100,000 gallons per day of ground or surface water for construction or operation? **No**

WATER POLLUTION MANAGEMENT ELEMENT

DIVISION OF WATER QUALITY

Non-Point Pollution Control (609) 292-0407
http://www.nj.gov/dep/dwq/bnpc_home.htm

The **Bureau of Non-Point Pollution Control** (BNPC) is responsible for protecting and preserving the state's groundwater resources through the issuance of NJPDES Discharge to Groundwater Permits and is responsible for permitting industrial facilities and municipalities under NJPDES for discharges of stormwater to waters of the State.

Groundwater Section (609) 292-0407

This Program does not issue NJPDES-DGW permits for remediation operations.

The following definitions should be used to assist in identifying discharge activities:
Subsurface disposal system is any contrivance that introduces wastewater directly to the subsurface environment, such as, but not limited to: septic systems, recharge beds, trench systems, seepage pits, and dry wells.
Injection/recharge wells are constructed such that they are deeper than they are wide, receive effluent via gravity flow or pumping, and include dry wells and seepage pits.

Overland flow is the introduction of wastewater to the ground surface, over which the wastewater travels and eventually percolates or evaporates.
Industrial wastewater is any wastewater or discharge which is not sanitary or domestic in nature, including non-contact or contact cooling water, process wastewater, discharges from floor drains, air conditioner condensate, etc.

1. Will the project/facility have a sanitary wastewater design flow which discharges to groundwater in excess of 2,000 gallons per day? **No**
2. Will the project/facility generate a discharge to groundwater of industrial wastewater in any quantity? **No**
3. Will the project/facility involve the discharge to groundwater by any of the following activities or structures, or include as part of the design any of these activities or structures? **No**

Please indicate which:
Upland CDF (Dredge Spoils) Spray Irrigation _____
Overland Flow Subsurface Disposal System (UIC) _____
Landfill Infiltration/Percolation Lagoon _____
Surface Impoundment _____

Please specify the source of wastewater for every structure identified above (e.g., sanitary wastewater to a subsurface disposal system or non-contact cooling water to a dry well): **N/A**

Please specify lining materials for each lined structure identified as being used by the proposed project and give its permeability in cm/sec (e.g., 8-inch thick concrete lined evaporation pond at 10-7 cm/sec): **N/A**

Does your project/facility include an individual subsurface sewage disposal system design for a facility with a design flow less than 2,000 gallons per day which does not strictly conform to the State's standards? **N/A**

Does your project involve 50 or more realty improvements? **N/A**

DEP Pretreatment and Residuals program (609) 633-3823

Will the project involve the discharge of industrial/commercial wastewater to a publicly owned treatment works (POTW)?
If yes, name of POTW: _____**No**_____
Volume of wastewater (gpd): __**N/A**_____

Will/does this project involve the generation, processing, storage, transfer and/or distribution of industrial or domestic residuals (including sewage sludge, potable water treatment residuals and food processing by-products) generated as a result of wastewater treatment. If so, please explain.
No

Stormwater Program (609) 633-7021
http://www.njstormwater.org/
http://www.state.nj.us/dep/dwq/ispp_home.html

Will your site activity disturb more than one acre? **Yes**

Will any industrial activity be conducted at the site where material is exposed to the rain or other elements? **No**

Does your facility have an existing NJPDES permit for discharge of stormwater to surface groundwater? YES

Is your facility assigned one of the following Standard Industrial Classification (SIC) Codes?_____
(To determine your SIC Code see the box "Industry Code" on your New Jersey Department of Labor Quarterly Contribution Report.

Surface Water Permitting (609) 292-4860
http://www.nj.gov/dep/dwq/swp.htm

Will this wastewater facility discharge to Surface Water? **N/A** Yes/No _____

If yes, state the name of the proposed receiving stream **N/A**

Describe the proposed discharge of wastewater to Surface Water **N/A**

If no, how is the wastewater proposed to be discharged (e.g., to be conveyed to another STP, Publicly Owned Treatment Works, etc. **N/A**

MUNICIPAL FINANCE AND CONSTRUCTION ELEMENT

Treatment Works Approvals (609) 984-4429
http://www.nj.gov/dep/dwq/twa.htm

Will this project include the construction, expansion or upgrade of a domestic or industrial wastewater treatment facility or an off-site subsurface disposal system that generates more then 2,000 gallons per day? **No** If yes, explain **N/A**

Will the project result in a construction design of more than 8000 gallons of water discharge per day? **No**

Office of Water Resources Management Coordination (609)777-4359

http://www.state.nj.us/dep/wrm

Sewer Service

Is the project in an approved sewer service area for the type of waste water service needed? **N/A**
If yes, what is the name of the sewer service area? **N/A**

Has this project received endorsement from the appropriate sewer authority with adequate conveyance and capacity? **N/A**

Do waste water pipes currently extend to the project location? **N/A**

Is the project consistent with and in an area covered by an up to date Wastewater Management Plan? **N/A**

Will an amendment to the existing WQMP be required to accommodate this project? **N/A**

If tying into an offsite treatment plant, is the capacity and conveyance system currently available? **N/A**

What is the volume of wastewater that will be generated by the project? **0**

DEP Land Use Regulation (609) 777-0454
http://www.nj.gov/dep/landuse

Does the project involve development at or near, or impacts to the following; describe the type and extent of development in regards to location and impacts to regulated features:

SOLAR FACILITY WILL ONLY BE INSTALLED ON THE CAP AND IN FORMERLY DISTURBED AREAS. IT WILL NOT REMOVE TREES OR ENCORACH ON THE WETLANDS.

Water courses (streams) **South Branch of Absecon Creek**

State Open Waters? **No**

Freshwater Wetlands and/or freshwater wetland transition areas? **Yes, there is a small wetland adjacent to the site.**

Flood Hazard areas and/or riparian buffers **Yes**

Waterfront development areas **No**

Tidally Flowed Areas NO

Bureau of Tidelands Management: http://www.nj.gov/dep/landuse/tl_main.html

The CAFRA Planning Area? http://www.state.nj.us/dep/gis/cafralayers.htm

`DEP NATURAL AND HISTORIC RESOURCES

Green Acres Program (609) 984-0631
http://www.nj.gov/dep/greenacres

Does the project require a diversion of State property or parkland, lease of same, lifting of a Green Acres of Land Use deed restriction, or work within an existing easement? **No** Will any activity occur on State owned lands? **No** If so please describe. **N/A**

Does the project require a diversion of property funded with federal Land and Water Conservation Funding? **No**. If so, please describe **N/A.**

Does the project include activities that are under the jurisdiction of the Watershed Property Review Board? If so, please describe. _____ Has the Watershed Property Review Board made a jurisdictional determination? _____

Division of Parks and Forestry: State Park Service 609-292-2772

Is the temporary use of State lands administered by the New Jersey State Park Service required for pre-construction, construction and/or post construction activities? If so, please describe.

Division of Parks and Forestry: State Forestry Services (609) 292-2530
http://www.nj.gov/dep/parksandforests/forest

Forest clearing activities/No Net Loss Reforestation Act
Will construction of the project result in the clearing of ½ acres or more of forested lands owned or maintained by a State entity**?** **No**
If so, how many acres? **N/A**

Division of Parks and Forestry: Office of Natural Lands Management (609) 984-1339
http://www.nj.gov/dep/parksandforests/natural/index.html

Is the project within a State designated natural area as classified in the Natural Areas System Rules at N.J.A.C. 7:5A? **No**
If so, please describe. **N/A**

State Historic Preservation Office – SHPO (609) 292-0061
http://www.state.nj.us/dep/hpo/index.htm

Is the site a Historic Site or district on or eligible for the State or National registry? **No**
Will there be impacts to buildings over 50 years old? **No**
Are there known or mapped archeological resources on the site? **No**

Dam Safety Program (609) 984-0859
http://www.nj.gov/dep/damsafety

Will the project involve construction, repair, or removal of a dam? **No**
If so, please describe **N/A**

Fish and Wildlife (609) 292-2965
http://www.nj.gov/dep/fgw

Will there be any shut off or drawdown of a pond or a stream? **No**

Threatened and Endangered Species Program

Are there records of any Threatened and Endangered species, plant, or animal in this project area? NO

Will the proposed development affect any areas identified as habitat for Threatened or Endangered Species? NO

SITE REMEDIATION PROGRAM (609) 292-1250
http://www.nj.gov/dep/srp/

Office of Brownfield Reuse (609) 292-1251

Is the project located on or adjacent to a known or suspected contaminated site? **No**
http://www.nj.gov/dep/srp/kcsnj/

Is the project within a designated Brownfield Development Area? **No**
http://www.nj.gov/dep/srp/brownfields/bda/index.html

Has a No Further Action, Response Action Outcome, or Remedial Action Permit been issued for the entire project area? **No**

If not, what is the current status of remediation activities? **N/A** Please include remedial phase, media affected and contaminant(s) of concern.

Name of current SRP Case Manager or Licensed Site Remediation Professional and Preferred Identification (PI) Number **N/A**

Is the applicant a responsible party for contamination at the property? **N/A**

Is the project located on a landfill that will be redeveloped for human occupancy? **No** If yes, is there an approved Landfill Closure Plan? **N/A**

Dredging and Sediment Technology (609) 292-1250

Does the project involve dredging or disposing of dredge materials? **No**

SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM (609) 633-1418
http://www.nj.gov/dep/dshw/

Does the project receive, utilize, or transport solid or hazardous wastes? **No**

Will the project involve the disposing of hazardous Substances per 40 CFR part 261 and NJAC 7:26? **No**

Will the project include operation of a solid waste facility according to N.J.A.C. 7:26-1-et seq.? **No**

Is the project a solid waste facility or recycling center? **No**

Is the project included in the appropriate county Solid Waste Management Plan? **N/A** Explain _____

AIR QUALITY PERMITTING PROGRAM
http://www.nj.gov/dep/aqpp

Will activity at the site release substances into the air? **No**

Does the project require Air Preconstruction permits per N.J.A.C. 7.27-8.2©1? **No**

Will your project require Air Operating permits (N.J.A.C. 7:27--22.1)? **No**

Will the project result in a significant increase in emissions of any air contaminant for which the area is nonattainment with the national ambient air quality standards (all of NJ for VOC and NOx; 13 counties for fine particulates), thereby triggering the Emission Offset Rule at NJAC7:27-18? **No**

Will the project emit group 1 or 2 TXS toxic substances listed in NJAC 7:27-17? **No**

Will the project emit hazardous air pollutants above reporting thresholds in NJAC7:27 8, Appendix 1?
No
Will the project result in stationary diesel engines (such as generators or pumps) or mobile diesel engines (such as bulldozers and forklifts) operating on the site? If so, which?
No

RADIATION PROTECTION AND RELEASE PREVENTION (609) 984-5636
www.state.nj.us./dep/rpp

Will the operation receive, store or dispose of radioactive materials? **No**

Will the operation employ any type of x-ray equipment? **No**

DISCHARGE PREVENTION PROGRAM (DPCC) (609) 633-0610
www.nj.gov/dep/rpp

Is this a facility as defined in N.J.A.C. 7:1E in which more than 20,000 gallons of Hazardous substances other then petroleum or greater than 200,000 gallons of petroleum are stored? **No**

TOXIC CATASTROPHE PREVENTION ACT (TCPA) (609) 633-0610

HTTP://WWW.STATE.NJ.US/DEP/RPP/BRP/TCPA/INDEX.HTM

Is this a facility that handles or stores greater than a threshold amount of extraordinarily hazardous substances as defined in N.J.A.C. 7:31? **No**

Bureau of Energy and Sustainability (609)633-0538
http://www.nj.gov/dep/aqes/energy.html
http://www.nj.gov/dep/aqes/sustainability.html

GREEN DESIGN (609) 777-4211

Have you incorporated green design features into this project? Examples of green design features may include: renewable energy, water conservation and use of low impact design for stormwater.

Yes_____ ~~No~~_____

Will this project be certified by any of the following green building rating systems? **No**

New Jersey Green Building Manual? _____
http://greenmanual.rutgers.edu/

US Green Building Council's LEED (Leadership in Energy and Environmental Design)? _____
http://www.usgbc.org/

ASHRAE Standard 189.1? _____
http://www.ashare.org/publications/page/927

National Green Building Standard ICC 700-2008? _____
http://www.nahbgreen.org

USEPA's ENERGY STAR? _____
http://www.energystar.gov/index.cfm?c=business.bus_index

INNOVATIVE TECHNOLOGY (609) 292-0125

Is an environmental and energy innovative technology included in this project? □ Y **X** N

Is this technology used for manufacturing alternative fuels? □ Y **X** N
- If yes, what is the non-fossil feedstock(s) used for manufacturing the fuels?
□ Biomass □ Municipal Solid Waste □ Other Non-Fossil Feedstocks

-What will be the primary use of the manufactured alternative fuels?
□ CHP System □ Micro Turbine □ Fuel Cells

For other innovative technology type, what is the proposed application?
X Energy □ Site Remediation □ Drinking Water □ Wastewater

For other innovative energy systems, what is the source of energy?
X Solar □ Wind □ Tidal/Wave □ Hydroelectric □ Geothermal

Is there independent third-party performance data for the technology? **X** Y □ N

Has the technology been verified by an independent third-party entity? **X** Y □ N

Is this technology in use at any other location at this time? **X** Y □ N
- If yes, please provide location **They are standard PV arrays**_____

DEP COMPLIANCE AND ENFORCEMENT

Does the applicant have outstanding DEP enforcement violations, and if so, what is the status? **No**

If yes, please identify the case, case manager, program, and phone number. **N/A**

Does the proposed project facilitate compliance where there is a current violation or ACO? **N/A**

COMMUNITY ENGAGEMENT (609)292-2908

The Department is committed to the principles of meaningful and early community engagement in the project's approval process. The Department has representatives available who could discuss community engagement issues with you and we encourage this communication to take place at the earliest possible time.

(a) What community groups and stakeholders have you identified that may be interested in or impacted by this project? **None at this time**

(b) How have you or will you engage community and stakeholders in this project? Please supply individuals or stakeholder groups contacted or who have been identified for community engagement. **We intend to work with local community groups to make sure that the savings offered by this project are accessible to the community members who are most in need.**

(c) What are the potential impacts of this project on the community? **No negative impacts are associated at this time.**

(d) How do you intend to mitigate these potential impacts? **N/A**

(e) What are the community concerns or potential concerns about this project? **Unknown at this time**

(f) How do you intend to address these concerns? **Unknown at this time**

(g) As part of this project, do you plan to perform any environmental improvements in this community? If yes, describe. **Yes. Specific improvements have yet to be determined, as a number of possibilities are under consideration.**

Please provide the Department with an additional 1 to 2 page narrative description of the project, focusing on its function and its local/regional environmental, social, and economic benefits and impacts. Also, what sensitive receptors are present and how might they be affected by this project?

GENERAL

Is the project subject to:

Highlands Regional Master Plan – Planning or Preservation Area? **No**
http://www.nj.gov/dep/highlands/highlands_map.pdf

Pinelands Comprehensive Management Plan? **YES**
http://www.state.nj.us/pinelands/cmp/

D&R Canal Commission Standards **No**
http://www.dandrcanal.com/drcc/maps.html

Delaware River Basin Commission **No**
(609) 883-9500
http://www.state.nj.us/drbc/

US Army Corp of Engineers review? **No**

PROOF OF DEP MEETING

From:	Foster, Ruth
To:	Annika Colston; Nolan, Katherine; Jones, Christopher; Hill, Erin; Baratta, Meghan; Foster, Ruth
Cc:	Tavo True-Alcala
Subject:	090619 revised NJDEP comment Egg Harbor Twp Pearce Road Community Solar Project
Date:	Friday, September 6, 2019 12:36:15 PM
Attachments:	image001.png Permit Readiness Checklist Egg Harbor SENT.pdf

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We offer the revised Land use comment for the above project and revised contact for additional consultation and guidance from SHPO.

From: Foster, Ruth
Sent: Thursday, September 5, 2019 5:04 PM
To: Annika Colston <annika@acpowered.com>; Nolan, Katherine <Katherine.Nolan@dep.nj.gov>; Jones, Christopher <Christopher.Jones@dep.nj.gov>; Hill, Erin <Erin.Hill@dep.nj.gov>; Maresca, Vincent <Vincent.Maresca@dep.nj.gov>; Foster, Ruth <Ruth.Foster@dep.nj.gov>; Brunatti, Megan <Megan.Brunatti@dep.nj.gov>
Cc: Tavo True-Alcala <Tavo@acpowered.com>
Subject: 090519 NJDEP comment Egg Harbor Twp Pearce Road Community Solar Project

The Office of Permit Coordination and Environmental Review received the attached PRC for a proposed Pearce Road solar facility at Pearce Road (Block 1504, Lots 1-9) in Egg Harbor Township, Atlantic County. Solid Waste Landfill closure program and Pinelands Commission will be included in review

The NJDEP offers the following comments on the Egg Harbor Pearce Road Community Solar project:

RE: Egg Harbor Pearce Road Community Solar Project
Pearce Road, Block 1504, Lots 1-9
Egg Harbor Twp., Atlantic County

The Office of Permit Coordination and Environmental Review (PCER) distributed the project information to various programs within the Department for the proposed Community Solar project located at the above address. Below are preliminary comments of possible permits and action items this project may require (but not limited to) based on the information that was submitted on August 15, 2019 and comments received by PCER office to date: *** this is neither a comprehensive nor a technical summary ****

Land Use : Christopher Jones: Christopher.Jones@dep.nj.gov or (609) 984-6216

According to the information submitted, flood hazard area and riparian zones are present.

The placement of solar panels and associated equipment within areas regulated pursuant to the Flood Hazard Area Control Act may be authorized under Permit-By-Rule 30, N.J.A.C. 7:13-7.30 provided the following conditions are met:

1. No panels and associated equipment are placed in a floodway;
2. The existing ground elevation is not raised in any floodway or fluvial flood hazard area;

3. Except for vertical support poles, all panels, cross-bracing, and other structural components, and all associated equipment are elevated to at least one foot above the flood hazard area design flood elevation. This permit-by-rule does not authorize the placement of solar panels that rely on ballast systems or concrete foundations for support;
4. No disturbance is located within 25 feet of any top of bank, unless the project lies adjacent to a lawfully existing bulkhead, retaining wall, or revetment along a tidal water or impounded fluvial water; and
5. Any clearing, cutting, and/or removal of riparian zone vegetation is limited to actively disturbed areas.

In addition, regulated activities authorized under a permit-by-rule shall not constitute a major development, as defined in the Stormwater Management rules at N.J.A.C. 7:8-1.2. See N.J.A.C. 7:13-6.7(c).

The property is located within the jurisdiction of the Pinelands Commission. If there are any proposed discharges of fill into wetlands subject to the Pinelands Comprehensive Management Plan (CMP) and is eligible for a Freshwater Wetlands General Permit, the Pinelands Commission shall review the discharge under the CMP and the Freshwater Wetlands Protection Act Rules. If any discharge requires an Individual Freshwater Wetlands Permit, the Pinelands Commission shall review the discharge under the CMP and the Division of Land Use Regulation shall review the application under the Freshwater Wetland Protection Act Rules.

Christopher Jones, Manager
Bureau of Urban Growth & Redevelopment
(609) 984-6216

Fish and Wildlife: Kelly Davis: Kelly.Davis@dep.nj.gov at (908) 236-2118 or or Joseph.Corleto@dep.nj.us. at (609) 292-9451

The DFW has completed its review of the proposed Egg Harbor Community Solar Project on Pearce Road in Egg Harbor Township, Atlantic County and offer the following comments.

According to Landscapes project 3.3 it appears the majority of the 9 parcels is valued at R4 and R5 for a variety of Federal and State Listed T/E species. Projects that impact property valued at R5 require additional consultation with the US Fish and Wildlife Service (USFW) prior to construction. The DFW did not see documentation the applicant consulted with the USFW service.

The DFW relies on the NJDEP Office of Natural Lands Management, Natural Heritage Program (NHP) for location and protective comment on floral threatened and endangered species. The DFW did not see any documentation within the proposal the applicant contacted the NHP for a complete list of the threatened and endangered species within the project vicinity. Without this information our review would be incomplete.

Although the applicant provided specific information about where they plan to install the solar panels, the DFW is concerned about potential impacts to a variety of Federal and State T/E species and would require additional consultation with the applicant and the NJ Endangered Non-game Species Program before implementing the project.
If you have any questions regarding the comments please feel free to contact me at (609) 292-9451 or at **Joseph.Corleto@dep.nj.us.**

State Historic Preservation Office: Meghan Baratta at Meghan.Baratta@dep.nj.gov and (609) 292-1253

Based on information presented , it does not appear that there are any impacts to any historic or archaeological features. However, please confirm with the SHPO office if any additional surveys are required prior to construction or if proposed project is subject to formal regulatory review. Please contact SHPO for additional regulatory guidance and comment.

Solid Waste: Ram Shah

I reviewed the proposed project. They indicated in their checklist that they need to obtain a Solid Waste Landfill Disruption Permit/Amended Closure Plan. Please note that the Department has received an application entitled "Amendment to the Closure Plan" dated June 2019 prepared by T&M Associates on behalf of AC Power2, LLC (the applicant).

This landfill has been properly closed. The Division will modify the closure and post-closure plan approval to include the landfill solar project. The landfill is located within Pinelands and as such, it will require an approval from the Pinelands commission.

Ram Shah, Environmental Engineer 3
Division of Solid & Hazardous Waste
Bureau of Solid Waste Permitting
P: (609) 984-4610
Ram.shah@dep.nj.gov

Bureau of Energy and Sustainability (Solar): Erin Hill: Erin.Hill@dep.nj.gov or (609) 633-1120

- The Community Solar Energy Pilot Program Application window opened April 9, 2019 and closes September 9, 2019 https://www.bpu.state.nj.us/bpu/pdf/boardorders/2019/20190329/8E%20-%20Community%20Solar%20Energy%20Pilot%20Program%20Application%20Form.pdf
- The proposed array is located on Urban Lands & Managed Wetland in Maintained Lawn Greenspace which are identified as "indeterminate" per the Solar Siting Analysis.
- Visit the BES solar siting webpage & NJ Community Solar Siting Tool https://www.state.nj.us/dep/aqes/solar-siting.html

Stormwater: Eleanor Krukowski (Eleanor.Krukowski@dep.nj.gov)

- Construction projects that disturb 1 acre or more of land, or less than 1 acre but are part of a larger common plan of development that is greater than 1 acre, are required to obtain coverage under the Stormwater construction general permit (5G3). Applicants must first obtain certification of their soil erosion and sediment control plan (251 plan) form their local soil conservation district office. Upon certification, the district office will provide the applicant with two codes process (SCD certification code and 251 identification code) for use in the DEPonline portal system application. Applicants must then become a registered user for the DEPonline system and complete the application for the Stormwater Construction General Authorization. Upon completion of the application the applicant will receive a temporary authorization which can be used to start construction immediately, if necessary. Within 3-5 business days the permittee contact identified in the application will receive an email including the application summary and final authorization.

Pinelands Commission: Brian Szura – (609) 894-7300
The Pinelands Commission issued the attached comment on July 1, 2019

Thank you again for this opportunity to comment on the project. Should circumstances or conditions be or become other than as set forth in the information that was recently provided to the NJDEP, the comments and regulatory requirements provided above are subject to change and may no longer hold true. Statements made within this email are not indicative that the NJDEP has made any decisions on whether the proposed project will be permitted.

Please review the comments that were provided. If you would like to work with the programs directly, we just ask that you keep Permit Coordination copied on any correspondence so we may update our records. This email shall serve to satisfy the Community Solar application requirement that the Applicant has met with PCER.

If you have any additional questions, please do not hesitate to call me.

Ruth W. Foster, PhD., P.G., Director
New Jersey Department of Environmental Protection
Office of Permit Coordination and Environmental Review
Mail Code 401-07J
401 East State Street – PO Box 420
Trenton, NJ 08625
Office # 609-292-3600
Fax # 609-292-1921
Ruth.Foster@dep.nj.gov

From: Annika Colston <annika@acpowered.com>
Sent: Wednesday, August 7, 2019 3:12 PM
To: Foster, Ruth <Ruth.Foster@dep.nj.gov>; Brunatti, Megan <Megan.Brunatti@dep.nj.gov>
Cc: Tavo True-Alcala <Tavo@acpowered.com>

Subject: [EXTERNAL] EHT Permit Readiness Checklist
Importance: High

Hi Megan – Please find attached the Permit Readiness Checklist and supporting documentation for EHT Winzinger solar project.

Thank you
Annika

Annika Colston
President and Founder
AC POWER
465 Grand Street Suite 5
NY, NY 10002
T: 646.370.4588 C: 917.544.3258

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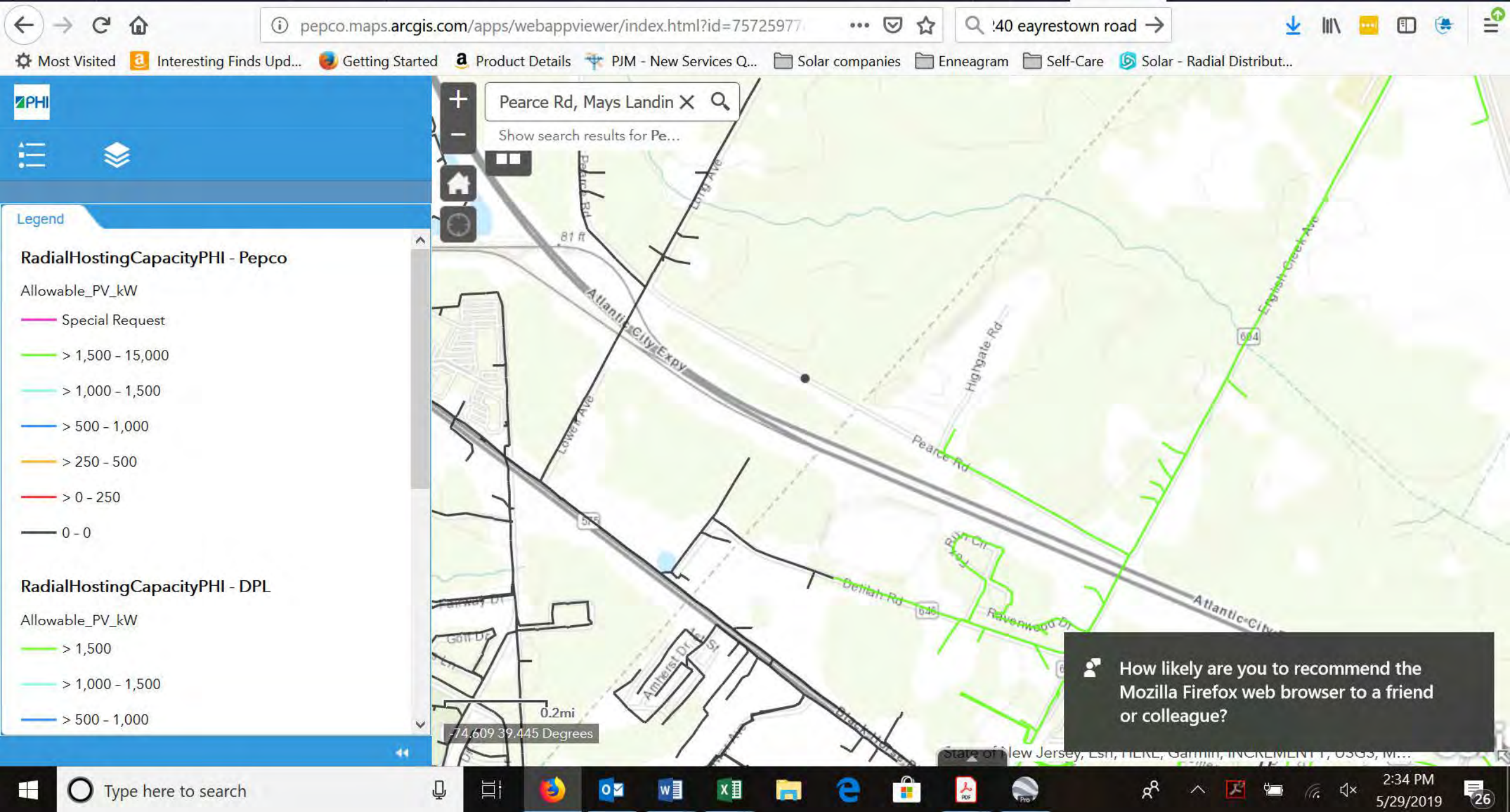
SCREENSHOT OF CAPACITY HOSTING MAP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Most Visited
Interesting Finds Upd...
Getting Started
Product Details
PJM - New Services Q...
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Type here to search
2:34 PM
5/29/2019

SUPPORTING DOCUMENTATION FOR MODEL

LETTERS OF SUPPORT

Township of Egg Harbor
3515 BARGAINTOWN ROAD, EGG HARBOR TOWNSHIP, NJ 08234-8321

TOWNSHIP COMMITTEE
Paul W. Hodson, Mayor
Laura Pfrommer, Deputy Mayor
Joe Cafero
Frank Balles
Andrew W. Parker, 3rd

Administrator
(609) 926-4027 • 926-4002 Fax

Building Inspections
(609) 926-4122 • 926-4003 Fax

Finance
(609) 926-4094 • 926-4108 Fax

Fire
(609) 926-4070 • 926-4003 Fax

Information Technology
(609) 926-4037 • 926-4135 Fax

Municipal Court
(609) 926-4195 • 926-4001 Fax

Parks & Recreation
(609) 272-8120 • 272-8151 Fax

Planning Board
Board of Adjustment
(609) 926-4093 • 926-4011 Fax

Police
(609) 927-5200 • 926-4004 Fax

Public Works
(609) 926-3838 • 926-0638 Fax

Tax Assessor
(609) 926-4083 • 926-4005 Fax

Tax Collections
(609) 926-4079 • 926-4090 Fax

Township Clerk
(609) 926-4085 • 926-4104 Fax

Township Committee
(609) 926-4088 • 926-4002 Fax

Zoning
(609) 926-4048 • 926-4003 Fax

www.ehtgov.org

August 14, 2019

Ms. Aida Camacho-Welch, Board Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 7th Floor
PO Box 350
Trenton, NJ 08625-0350

Dear Ms. Camacho-Welch:

Re: Community Solar Application

I am writing to express the Township's support for AC Power's proposed plan to develop a 2.5 MW Community Solar facility on the Winzinger landfill located on Pearce Road within our Township. AC Power has worked with the Township to explain the benefits the project will have for our residents and has been receptive to comments from staff and Township residents on how to make this project as community oriented as possible.

The Township would be proud to be among the leaders in New Jersey pushing towards the State's 50% renewable energy by 2030 goal and supporting this project. We recognize that not only will this project support New Jersey's electric grid with clean, renewable energy, but also provide an opportunity for our residents and local businesses to secure this energy at discounted rates. The project will explicitly set aside a large portion of its output for low- and middle-income residents, who often face a high-energy burden in addition to other economic challenges.

We are excited by the opportunity to support AC Power's efforts to bring this project to fruition. If the project is selected under the Community Solar Pilot Program, AC Power will follow all local planning and zoning requirements prior to proceeding with construction of the project.

Very truly yours,

Peter J. Miller
Township Administrator

Michaels
COMMUNITIES THAT *lift* LIVES

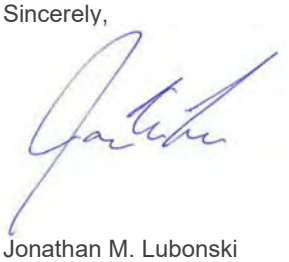
August 30, 2019

To Whom It May Concern:

The Michaels Organization is an affordable housing provider that develops, owns, and manages properties across New Jersey, including in Egg Harbor Township, Atlantic County, New Jesrey. We have discussed with AC Power their plans to develop a Community Solar project within Egg Harbor Township and to offer its benefits to the members of the community. In particular, we have discussed their intentions to develop their project for the benefit of low- and moderate-income residents. We believe that this plan has the potential to offer a welcome opportunity for our residents to choose to acquire solar energy from the project and save on their electric bills.

As a strong believer in providing opportunities for those who need it most, the Michaels Organization recognizes the positive financial and social impact that AC Power's Egg Harbor Community Solar project could provide our tenants and the community at large. We are happy to offer our support for this project, and encourage the BPU to accept this application.

Sincerely,



Jonathan M. Lubonski
Vice President of Development

SUBSECTION (t) AFFIDAVIT

AC POWER · 465 Grand Street Suite 5 New York, NY 10002 · Tel: (646) 370-4588 · www.acpowered.com

September 4, 2019

New Jersey Board of Public Utilities
44 South Clinton Avenue, 7th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350

Attn: Office of Clean Energy Community Solar Energy Pilot Program Application Package

To whom it may concern:

On behalf of AC Power, LLC and AC Power 2, LLC, I swear that AC Power will immediately withdraw the applicable subsection (t) conditional certification for AC Power 2 if the proposed project is approved by the Board for participation in the Community Solar Energy Pilot Program.

Warm regards,

Annika Colston
Member

On 9/5, 2019 before me, Nina E Sussman, Notary Public in and for said county, personally appeared Annika Colston, (signer/witness) who has/have satisfactorily identified him/her/themselves as the signer(s) or witness(es) to the above-referenced document.

Notary Public Signature

NINA E SUSSMAN
Notary Public, State of New York
No. 01SU6337719
Qualified in New York County
Commission Expires February 29, 2020

Print Nina E Sussman

My commission expires: February 29, 2020

OTHER SUPPORTING DOCUMENTATION

State of New Jersey
THE PINELANDS COMMISSION
PO BOX 359
NEW LISBON, NJ 08064
(609) 894-7300
www.nj.gov/pinelands

PHILIP D. MURPHY
Governor
SHEILA Y. OLIVER
Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman
NANCY WITTENBERG
Executive Director

July 1, 2019

Andrea DeBernardis (via email)
AC Power 2, LLC
465 Grand Street, Suite 5
New York, NY 10002

Re: Application # 1988-1252.005
Block 1504, Lots 1 - 9
Egg Harbor Township

Dear Ms. DeBernardis:

This letter is in response to an application we received on May 23, 2019 for a proposed ground mounted solar energy facility on the above referenced parcel. I apologize for the delay in responding to your submission.

There are freshwater wetlands located on and within 300 feet of the parcel. The submitted plan contains a note on Sheet #2 indicating "(w)etlands as shown taken from NJDEP Geoweb," however no wetlands are depicted on the plan. Both the Pinelands Comprehensive Management Plan (CMP) and Egg Harbor Township land use ordinances require up to a 300 foot undisturbed buffer to wetlands. For this application, all development must be located no closer to wetlands than the extent of the existing landfill.

Note that the submitted application form indicates the parcel contains 22 acres, while tax records indicate that the parcel contains 26.54 acres. The table on Sheet 4 of the submitted plan indicates that the parcel contains 45.02 acres (1,961,193 square feet).

The parcel is located in Egg Harbor Township's RG-5 zoning district which is a residential zoning district. The proposed solar energy facility use is not a principal permitted use in the RG-5 zoning district. The CMP provides that any municipal use variance or other municipal approval which authorizes a nonresidential development in a zone in which the approved nonresidential development is not otherwise permitted requires the use of Pinelands Development Credits (PDCs). For parcels containing over 20 acres, the maximum number of PDCs would be required based upon maximum residential build out of the site.

The Egg Harbor Township land use ordinances permit a maximum residential density in the RG-5 zoning district of 7.5 dwelling units per acre. The ordinances require that 20% of all units be "affordable" housing units, and require the use of PDCs for 25% of all "market rate" units. For this

application, assuming that the parcel contains 26.54 acres as indicated in the tax records, a total of 199 dwelling units (7.5 dwelling units per acre x 26.54 acres) would be permitted. The maximum number of market rate units (20% of the 199 units would be affordable units = 39 units) would be 160 dwelling units. Pinelands Development Credits would be require for 25% of those units, or for 40 of the dwelling units. Therefore, 10.0 PDCs would be required for the proposed solar energy facility development (1.0 PDCs = 4.0 dwelling units) prior to Commission issuance of a letter advising that any local or county permit or approval could take effect.

Please submit the following additional information to complete the application:

1. Please clarify the acreage of the parcel.

2. Indicate whether activities associated with the existing Class B recycling facility will continue once the solar energy facility has been installed.

3. Please clarify whether there is ongoing site remediation on the parcel. If there are ongoing site remediation activities, please provide the NJDEP regulatory status of the remediation.

4. Please indicate whether a NJDEP landfill deed notice was previously filed on the parcel. If so, please provide a copy of same and secure a written determination from the NJDEP as to whether the proposed development is consistent and permitted by the deed notice.

5. A revised plan which indicates the correct size of the parcel. In addition, all freshwater wetlands on and within 300 feet of the parcel must be depicted on the plan and the source of the wetlands mapping must be noted. The maximum wetland buffer must be depicted on the plan, and a note must be placed on the plan indicating that "No development, including clearing and land disturbance, is permitted in wetlands or wetland buffers."

6. A revised plan which depicts any offsite infrastructure (e.g. utility poles) proposed to serve the proposed solar energy facility.

7. Sheet five of the submitted plan proposes a seed mixture that includes Autumn bentgrass. The Landscaping and Revegetation guidelines of the CMP (N.J.A.C. 7:50-6.23-6.26) recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. Please revise the plan to utilize Fescue species, Smooth bromegrass, Reed canary grass, Little bluestem, Deertongue, Red top or Switch grass as a substitute for Autumn bentgrass.

For your convenience, application submissions consisting of letter or legal sized documents and electronically notarized application forms may now be submitted via email to AppInfo@njpines.state.nj.us. Large reports, plans, checks, and items that have a manually applied seal (i.e., plot plans, manually notarized items, etc.) must still be submitted as hard copies.

Please include your application number on any submitted information. Within 30 days of receipt, the Commission will review and respond in writing to any submitted information. No further review of the application will occur until the information requested in this letter is submitted.

If you have any questions, please contact the Regulatory Programs staff.

Sincerely,

Brian P. Szura
Environmental Specialist

c: Annika Colston (via email)

PREPARED FOR:

AC Power 2, LLC
465 Grand Street, Suite 5
New York, NY 10002

PREPARED BY:

T&M Associates
200 Century Parkway, Suite B
Mt. Laurel, NJ 08054
856.722.6700

STORMWATER MANAGEMENT REPORT

"EGG HARBOR LANDFILL" LOCATION
PEARCE ROAD
BLOCK 1504, LOT 1-9
EGG HARBOR TOWNSHIP, ATLANTIC COUNTY, NJ

T&M PROJECT NO. ACPW-00011
May 16, 2019

Maxwell Peters, P.E.
Principal Engineer
NJ License No. 24GE04416900

David J. Domen, P.E.
Principal Engineer
NJ License No. 24GE04562100

TABLE OF CONTENTS

Page

APPENDICES

1. Maps & Exhibits
    - USGS Quadrangle Exhibit
    - Aerial & Tax Maps
    - Township of Egg Harbor Tax Map 15
    - FEMA Map
    - NRCS Soil Survey Map
    - NOAA Rainfall Depth Data
    - Rainfall Distribution Map

    - Drainage Area Exhibits

INTRODUCTION

Purpose of Report

The purpose of this report is to present the criteria and methods utilized in the design of the stormwater management facilities and the storm sewer collection system for the project known as the Egg Harbor Solar array located on the existing Egg Harbor Landfill in Egg Harbor Township, NJ. This report has been prepared in conjunction with plans titled "Proposed Ground-Mounted Solar Array, Egg Harbor Solar, LLC, Block 1504, Lots 1-9", dated May 07, 2019, and addresses the stormwater management requirements per N.J.A.C. 7:50 (Pinelands Comprehensive Management Plan).

Project Location

The total site contains ±26.09 acres and is known as Block 1504, Lots 1-9 as shown on Tax Map 15 of Egg Harbor Township, Atlantic County, New Jersey. The site contains the capped Egg Harbor Landfill, located at the northeastern corner of the intersection of Pearce Road and Long Avenue (Service Road) in Egg Harbor Township, Atlantic County, New Jersey. The project site is currently designated as Tax Map Block 1504, Lots 1-9 Egg Harbor Township, Atlantic County, New Jersey.

The site is located within the Pinelands Management Area (#5, Regional Growth Area).

A site location map has been provided in the Appendix of this report for reference.

Hydrologic Methodologies

The following parameters were utilized in the design of the stormwater management system:

Water Quality – The increase in impervious cover is due to the solar panel footings. Since this type of impervious coverage does not generate runoff that requires treatment, no water quality treatment is proposed.

Water Quantity – The increase in impervious coverage caused by the solar panel footings is being directed to the two (2) existing basins, which will contain the increase in stormwater run-off. See the Water Quantity section in this report for additional information.

Groundwater Recharge – Storage is provided onsite for the increase in stormwater runoff from the increase in impervious coverage during the 10-year storm event, as required by NJAC 7:50. See the Groundwater Recharge section of this report for additional information.

LAND USE & DRAINAGE PATTERNS

Land Use

The site currently contains the Egg Harbor Landfill. A ground-mounted solar array is proposed on a portion of the closed Landfill. This use will allow for the beneficial use of the Landfill area to generate renewable solar energy.

Topography and Soils

The site topography within the landfill footprint slopes to the edges where runoff is collected by various discharge pipes located along the perimeter of the site. The topography outside of the landfill footprint slopes to the various discharge pipes located along the perimeter of the site.

The following soil types are mapped within the landfill area:

Symbol	Description	Slopes	HSG
DocBO	Downer loamy sand	0%-5%	A
MumA	Mullica sandy loam	0%-2%	A/D
PHG	Pits, sand and gravel	N/A	A
SacBO	Sassafras sandy loam	2%-5%	B

The soil types were determined by the NRCS Web Soil Survey. A copy of the Soil Survey has been provided in the Appendix for reference.

Drainage Areas

The existing stormwater run-off is directed towards the two (2) existing basins that are currently on site. The high point at the site is along the front of Pearce road, which directs the water away from the road and towards the two (2) existing basins. The site also contains an existing diversion channel, which directs the stormwater run-off from the landfill towards the two (2) existing basins. There are other various high points on the site, however, they will be demolished for the solar arrays to be properly placed. The demolition of these high points or hills, currently existing on the site, will not affect the stormwater run-off due to the diversion channels that are currently on site.

Refer to the Appendix for exhibits that depict the drainage area.

STORMWATER DESIGN

Water Quantity

The proposed solar array will consist of a ground-mounted array with the panels supported on concrete drums. Each drum has a diameter of 4.33' (area of 14.75 SF). There is a total of 2,806 drums, which results in an increase in impervious coverage of 41,382 SF (0.95 acres).

The run-off from the landfill site is directed to diversion channels along the landfill perimeter, and the diversion channels direct the stormwater run-off to two onsite infiltration basins which are capable of storing the entire run-off volume up to the 10-year storm event. Therefore, the existing site discharge rate is zero for all storm events within the landfill area.

Under the proposed conditions, the solar panel footings will create an impervious coverage of 41,382 SF (0.95 acres). The increase in run-off caused by the solar footings for all storms up to the 100-year event will be conveyed to and stored within the two onsite basins, which will provide infiltration within 72 hours after the storm event.

There will be no off-site runoff from the project area, therefore, it is reasonable to state that the post-development stormwater run-off hydrograph for the 2, 10 & 100 year storm events will not exceed the pre-development hydrographs, and the proposed solar array will meet the water quantity requirements of N.J.A.C. 7:50-6.84(a)6ii(1)

See Appendix 2 for supporting calculations.

Groundwater Recharge

The proposed solar array will cause a slight increase in impervious coverage (0.95 ac) due to the ground-mounted supports. The Pinelands CMP recharge standards at N.J.A.C. 7:50-6.84(a)6iii(1) require that for all major developments, the total runoff volume generated from the net increase in impervious surfaces by a ten (10) year storm shall be retained and infiltrated onsite.

The runoff precipitation for the 10-year storm is 5.16", and the 0.95 acres of new impervious surface will generate 0.396 ac-ft (17,250 CF) of stormwater runoff. The soil in this area is mapped as PHG (pits, sand and gravel) and DocBO (downer loamy sand), which is considered an PHG-A and DocBO-A soil with a high infiltration rate. The two (2) existing infiltration basins, currently on site, have a spillway elevation of 67.0 and 68.0. The proposed concrete drums would account for the peak run-off elevation to be approximately 59.0 for both existing basins.

See Appendix 2 for supporting calculations.

Soil Erosion and Sediment Control

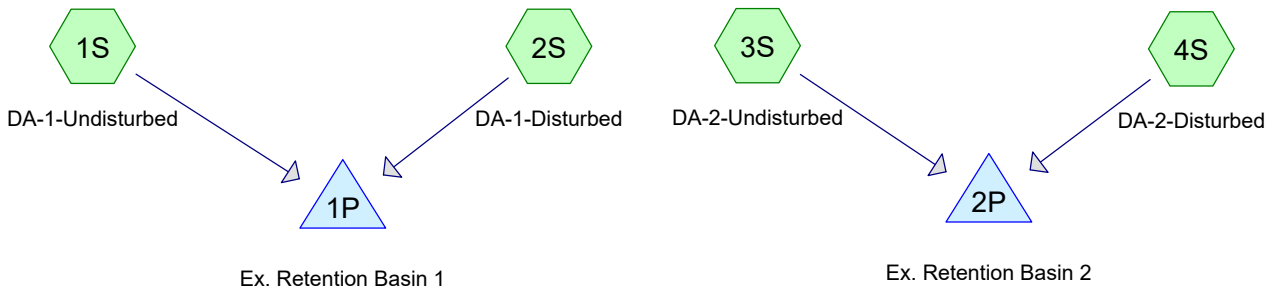
The project has been designed to meet all soil erosion and sediment control criteria including provisions for the prevention of soil erosion during construction, as shown on the Soil Erosion & Sediment Control plan and detail sheets.

CONCLUSION

In conclusion, the proposed development has been designed in accordance with N.J.A.C. 7:50 for water quantity, water quality and groundwater recharge. The proposed stormwater management design will safely convey all developed runoff from the project.

G:\Projects\ACPW\00011\Calculations & Reports\Stormwater 2019-05\ACPW00011 Stm Report.doc

Appendix 1
Existing Conditions Analysis



Subcat Reach Pond Link

Routing Diagram for ACPW00011_Pre Stormwater Calculations
Prepared by {enter your company name here}, Printed 5/6/2019
HydroCAD® 10.00-19 s/n 07212 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.840	30	Meadow, non-grazed, HSG A (1S, 3S)
0.950	98	Unconnected pavement, HSG A (2S, 4S)
19.790	**33**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
19.790	HSG A	1S, 2S, 3S, 4S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
19.790		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
18.840	0.000	0.000	0.000	0.000	18.840	Meadow, non-grazed	1S, 3S
0.950	0.000	0.000	0.000	0.000	0.950	Unconnected pavement	2S, 4S
19.790	**0.000**	**0.000**	**0.000**	**0.000**	**19.790**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Undisturbed Runoff Area=8.670 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=487' Tc=34.5 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment2S: DA-1-Disturbed Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>3.03"
Flow Length=487' Tc=52.9 min CN=98 Runoff=0.42 cfs 0.114 af

Subcatchment3S: DA-2-Undisturbed Runoff Area=10.170 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=565' Tc=55.2 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment4S: DA-2-Disturbed Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>3.02"
Flow Length=565' Tc=55.2 min CN=98 Runoff=0.46 cfs 0.126 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=57.60' Storage=4,923 cf Inflow=0.42 cfs 0.114 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=57.33' Storage=5,487 cf Inflow=0.46 cfs 0.126 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 0.240 af Average Runoff Depth = 0.15"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Undisturbed

[45] Hint: Runoff=Zero

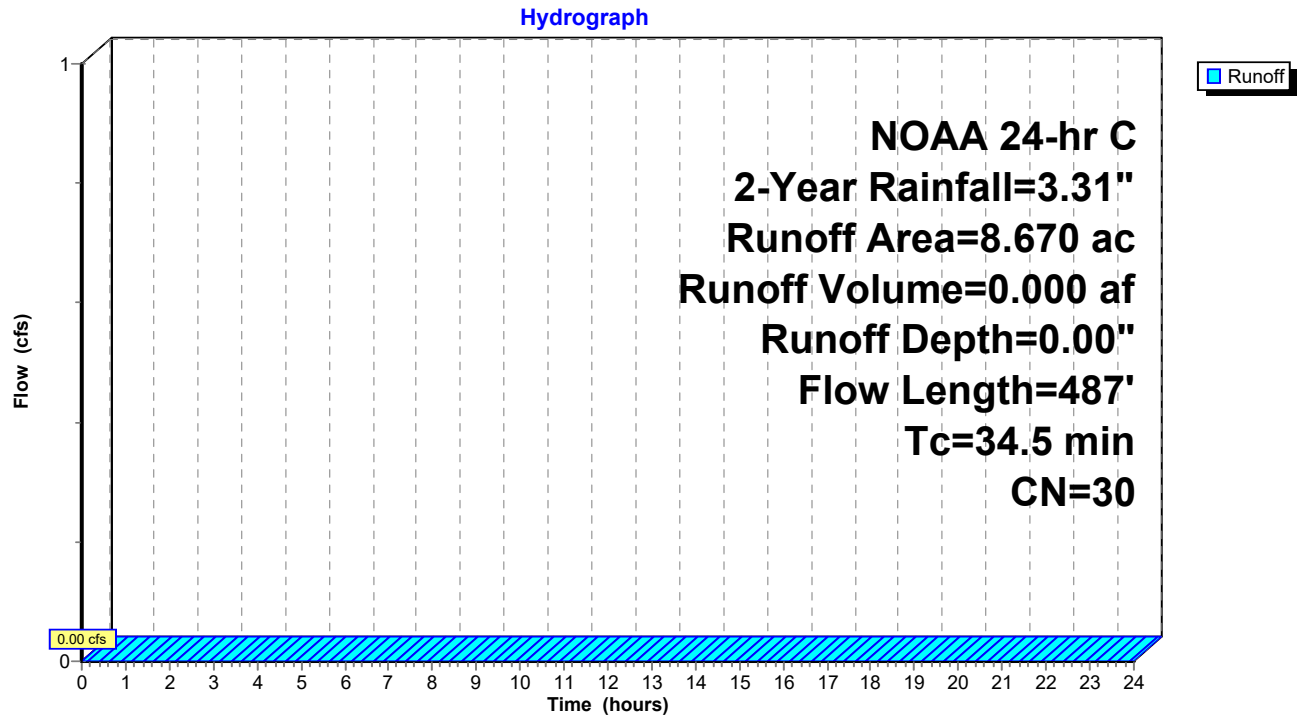
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Undisturbed



Summary for Subcatchment 2S: DA-1-Disturbed

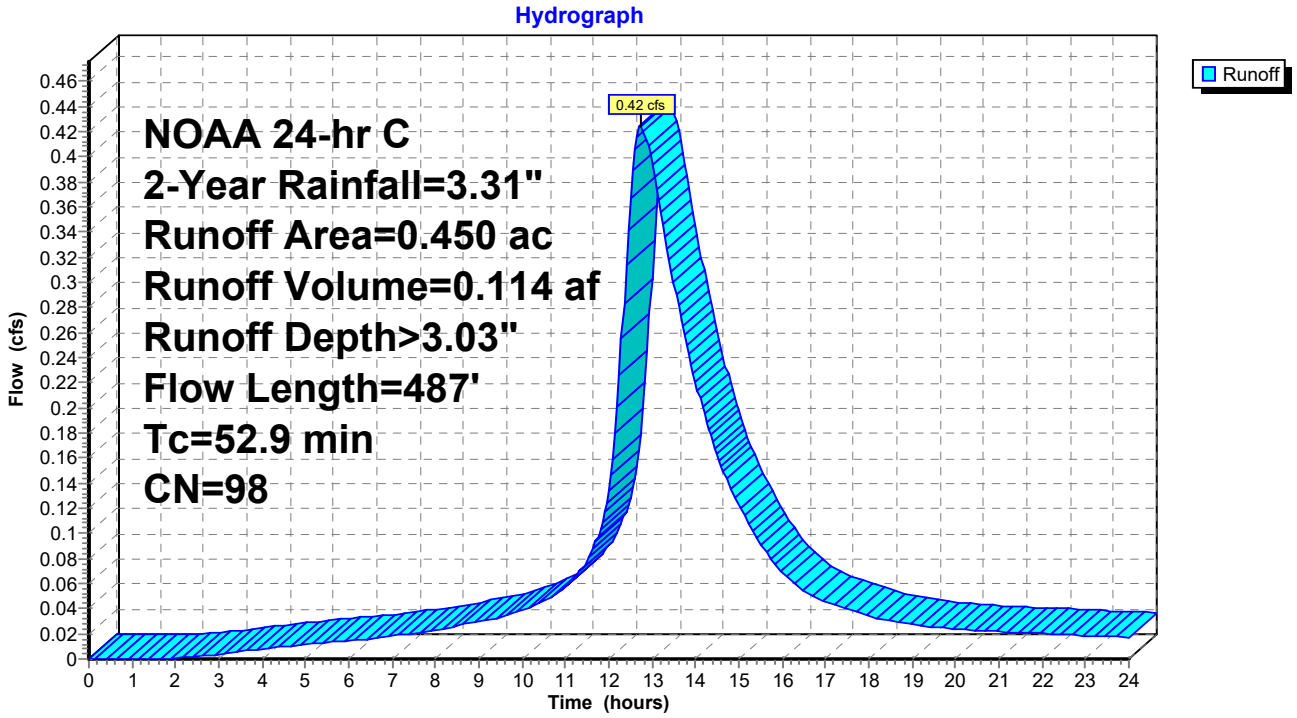
Runoff = 0.42 cfs @ 12.72 hrs, Volume= 0.114 af, Depth> 3.03"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Disturbed



Summary for Subcatchment 3S: DA-2-Undisturbed

[45] Hint: Runoff=Zero

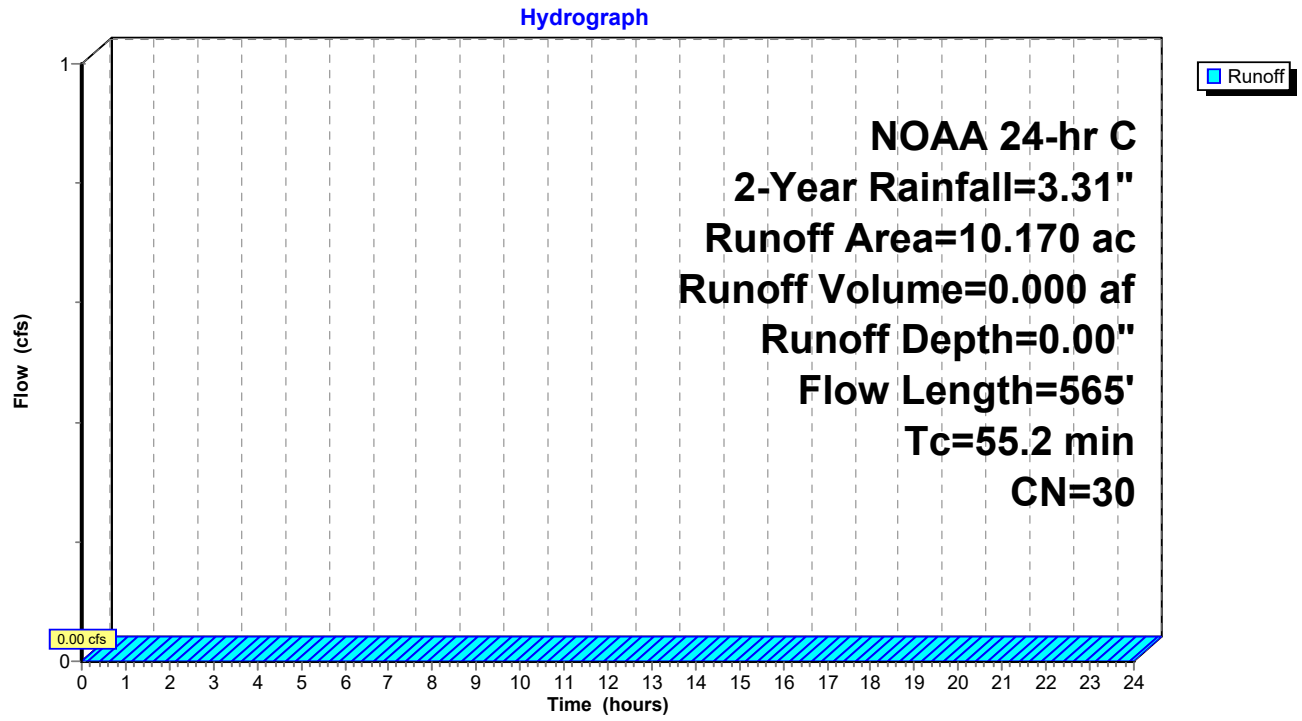
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Undisturbed



Summary for Subcatchment 4S: DA-2-Disturbed

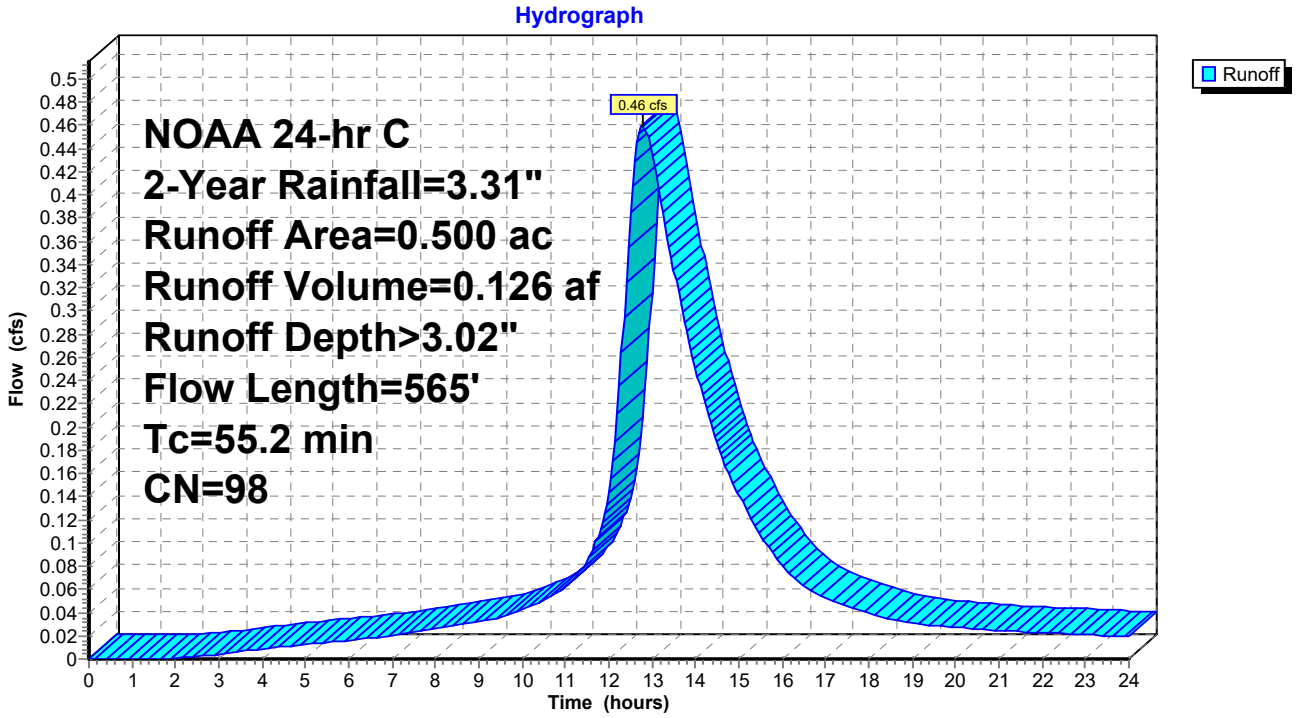
Runoff = 0.46 cfs @ 12.77 hrs, Volume= 0.126 af, Depth> 3.02"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Disturbed



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 0.15" for 2-Year event
Inflow = 0.42 cfs @ 12.72 hrs, Volume= 0.114 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

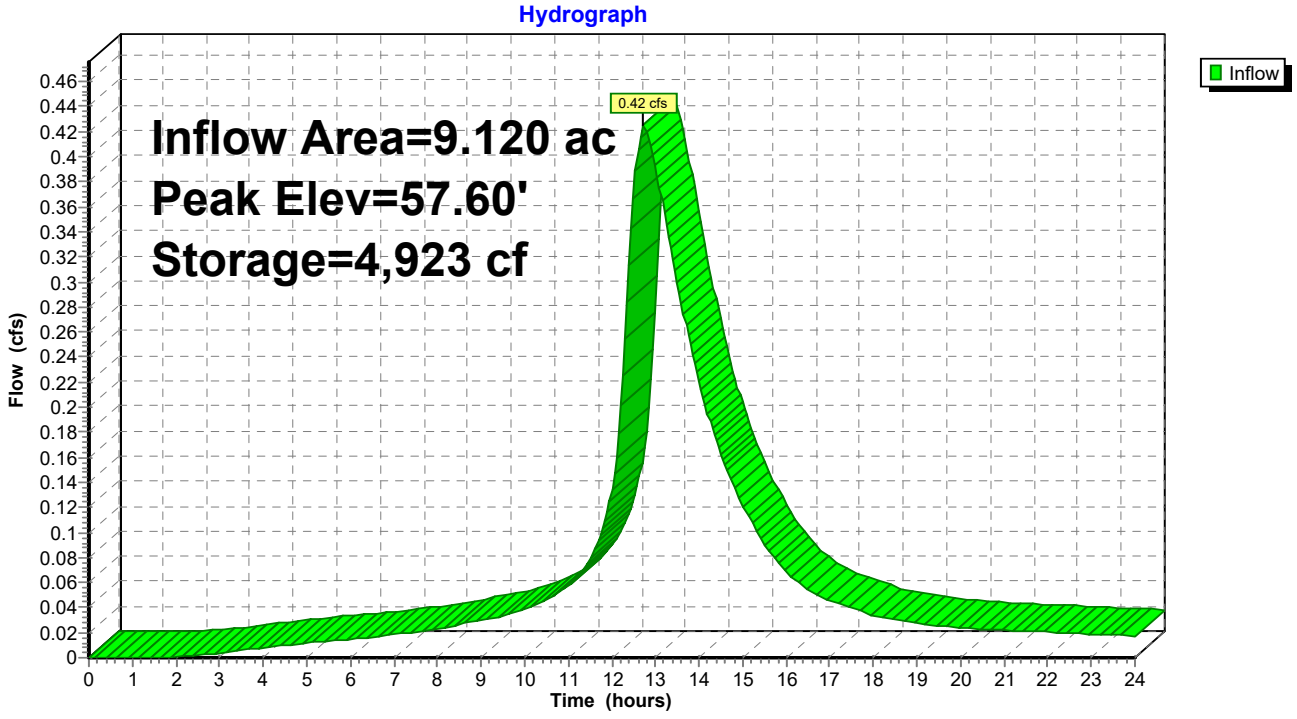
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.60' @ 24.00 hrs Surf.Area= 15,852 sf Storage= 4,923 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.14" for 2-Year event
Inflow = 0.46 cfs @ 12.77 hrs, Volume= 0.126 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

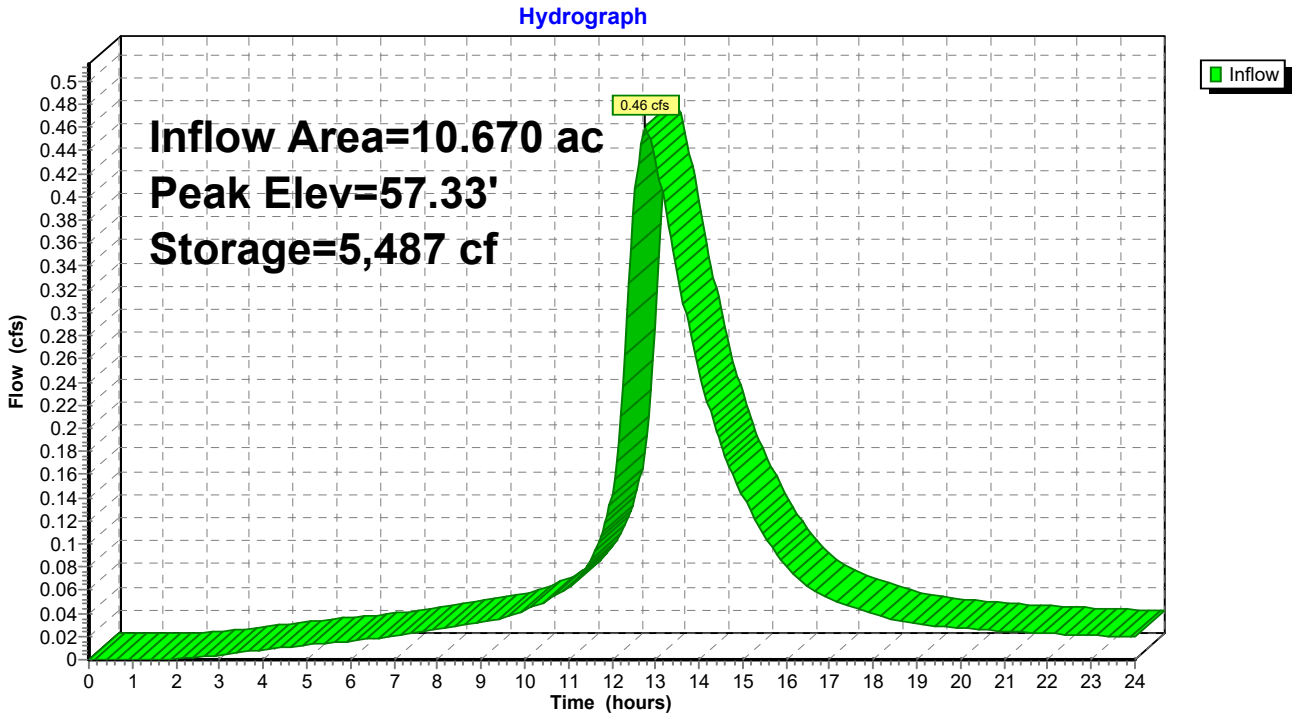
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.33' @ 24.00 hrs Surf.Area= 17,255 sf Storage= 5,487 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Undisturbed Runoff Area=8.670 ac 0.00% Impervious Runoff Depth>0.01"
Flow Length=487' Tc=34.5 min CN=30 Runoff=0.02 cfs 0.006 af

Subcatchment2S: DA-1-Disturbed Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>4.85"
Flow Length=487' Tc=52.9 min CN=98 Runoff=0.67 cfs 0.182 af

Subcatchment3S: DA-2-Undisturbed Runoff Area=10.170 ac 0.00% Impervious Runoff Depth>0.01"
Flow Length=565' Tc=55.2 min CN=30 Runoff=0.02 cfs 0.006 af

Subcatchment4S: DA-2-Disturbed Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>4.84"
Flow Length=565' Tc=55.2 min CN=98 Runoff=0.72 cfs 0.202 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=57.78' Storage=8,158 cf Inflow=0.67 cfs 0.188 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=57.53' Storage=9,051 cf Inflow=0.72 cfs 0.208 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 0.396 af Average Runoff Depth = 0.24"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Undisturbed

[73] Warning: Peak may fall outside time span

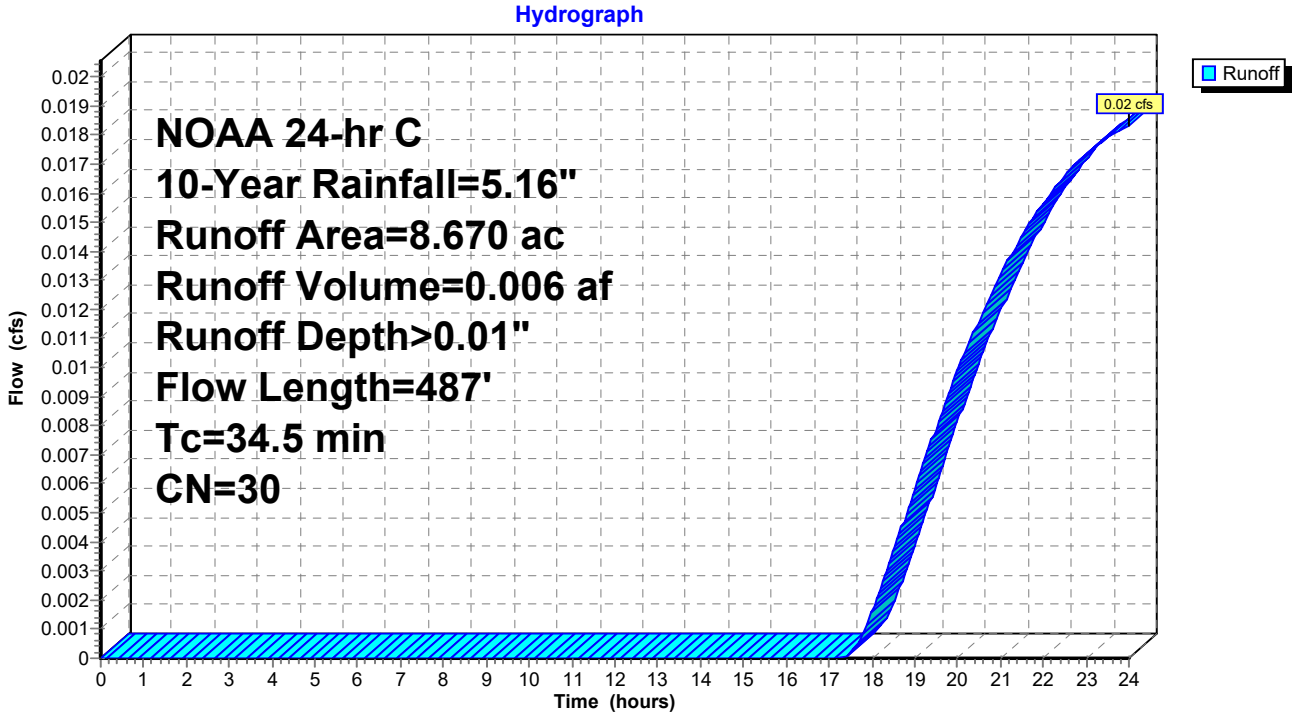
Runoff = 0.02 cfs @ 24.00 hrs, Volume= 0.006 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Undisturbed



Summary for Subcatchment 2S: DA-1-Disturbed

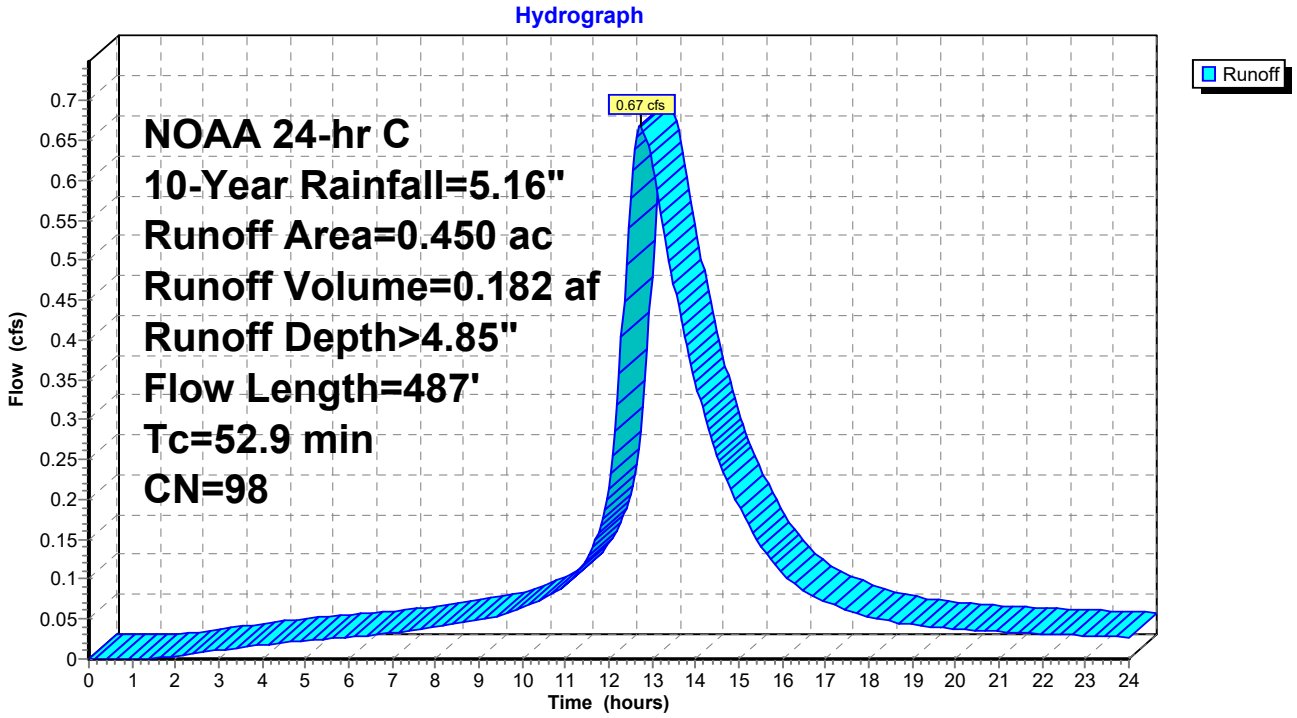
Runoff = 0.67 cfs @ 12.72 hrs, Volume= 0.182 af, Depth> 4.85"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Disturbed



Summary for Subcatchment 3S: DA-2-Undisturbed

[73] Warning: Peak may fall outside time span

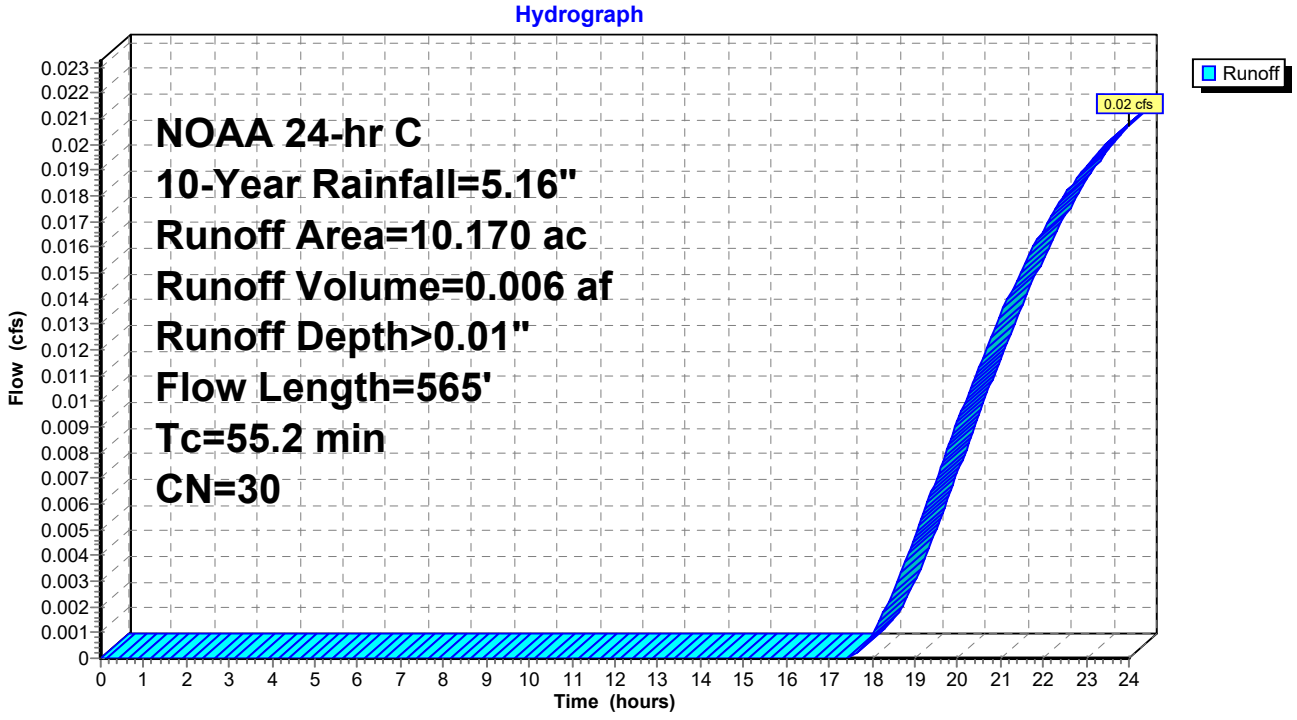
Runoff = 0.02 cfs @ 24.00 hrs, Volume= 0.006 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Undisturbed



Summary for Subcatchment 4S: DA-2-Disturbed

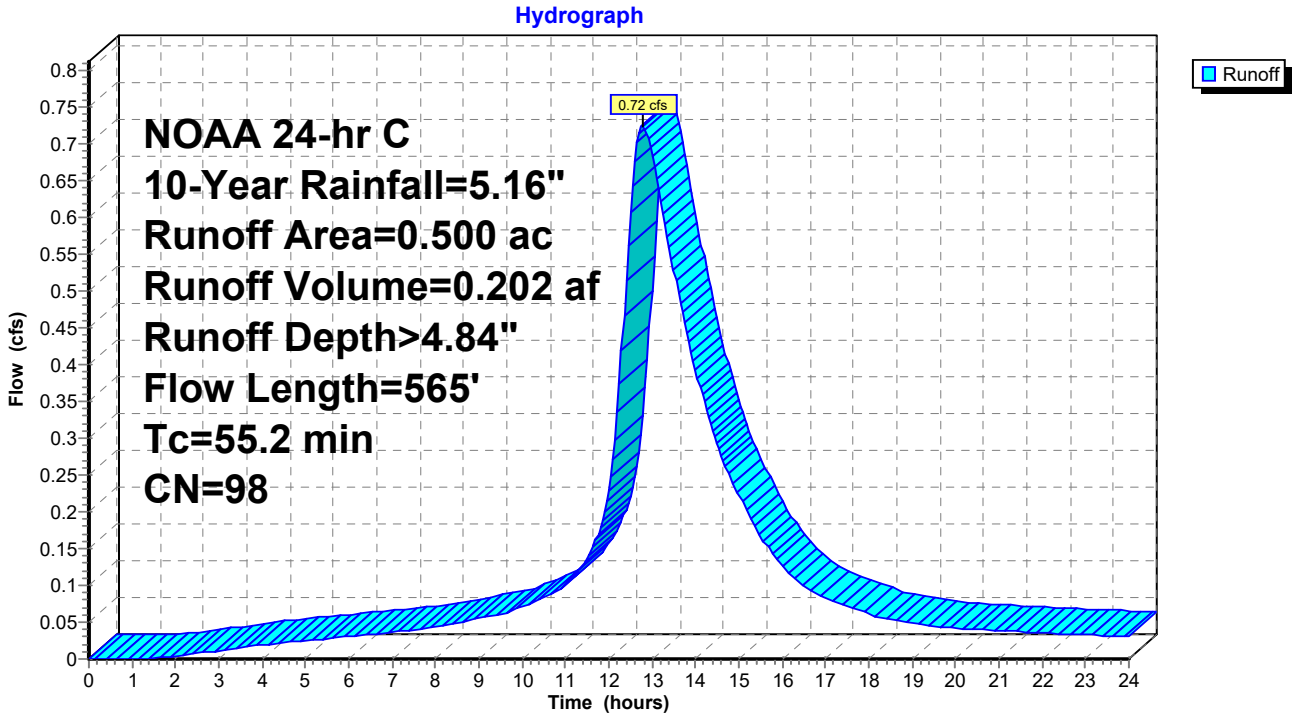
Runoff = 0.72 cfs @ 12.77 hrs, Volume= 0.202 af, Depth> 4.84"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Disturbed



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 0.25" for 10-Year event
Inflow = 0.67 cfs @ 12.72 hrs, Volume= 0.188 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

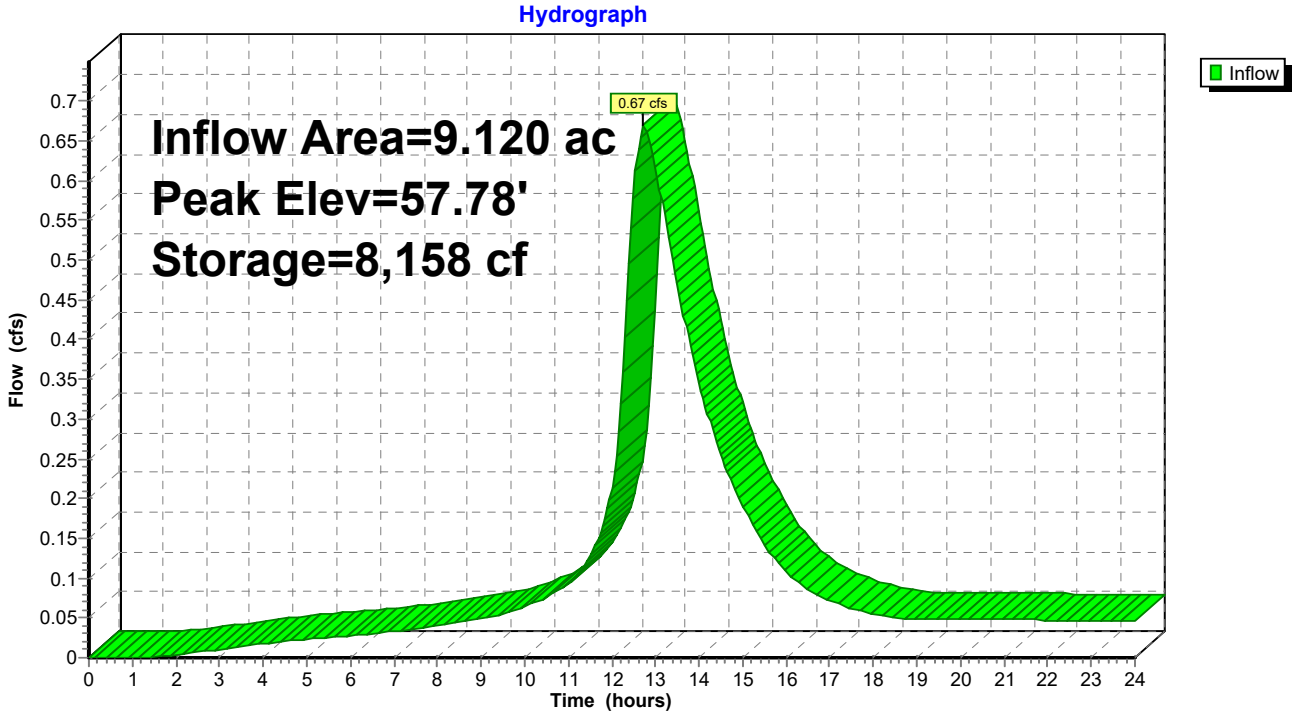
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.78' @ 24.00 hrs Surf.Area= 20,402 sf Storage= 8,158 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.23" for 10-Year event
Inflow = 0.72 cfs @ 12.77 hrs, Volume= 0.208 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

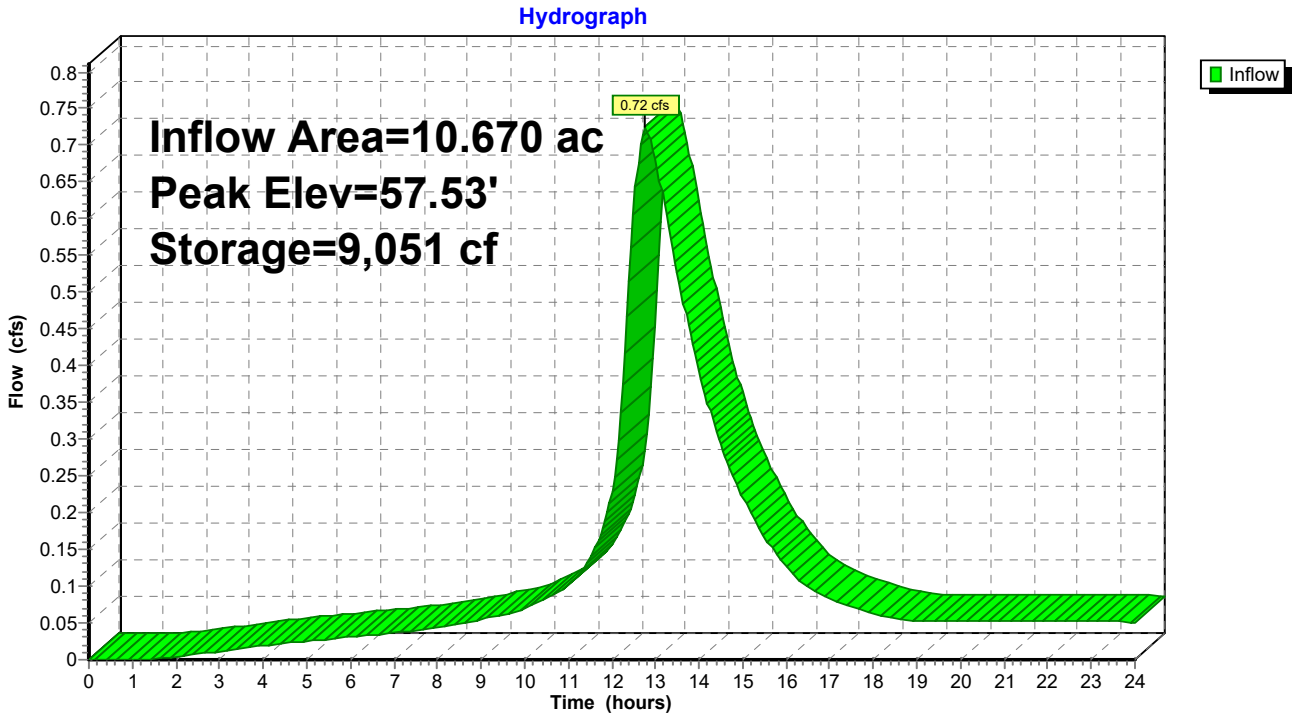
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.53' @ 24.00 hrs Surf.Area= 17,962 sf Storage= 9,051 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Undisturbed Runoff Area=8.670 ac 0.00% Impervious Runoff Depth>0.63"
Flow Length=487' Tc=34.5 min CN=30 Runoff=1.10 cfs 0.453 af

Subcatchment2S: DA-1-Disturbed Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>8.53"
Flow Length=487' Tc=52.9 min CN=98 Runoff=1.16 cfs 0.320 af

Subcatchment3S: DA-2-Undisturbed Runoff Area=10.170 ac 0.00% Impervious Runoff Depth>0.61"
Flow Length=565' Tc=55.2 min CN=30 Runoff=1.05 cfs 0.518 af

Subcatchment4S: DA-2-Disturbed Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>8.52"
Flow Length=565' Tc=55.2 min CN=98 Runoff=1.26 cfs 0.355 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=58.76' Storage=33,612 cf Inflow=2.15 cfs 0.772 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=58.98' Storage=37,988 cf Inflow=2.04 cfs 0.873 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 1.645 af Average Runoff Depth = 1.00"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Undisturbed

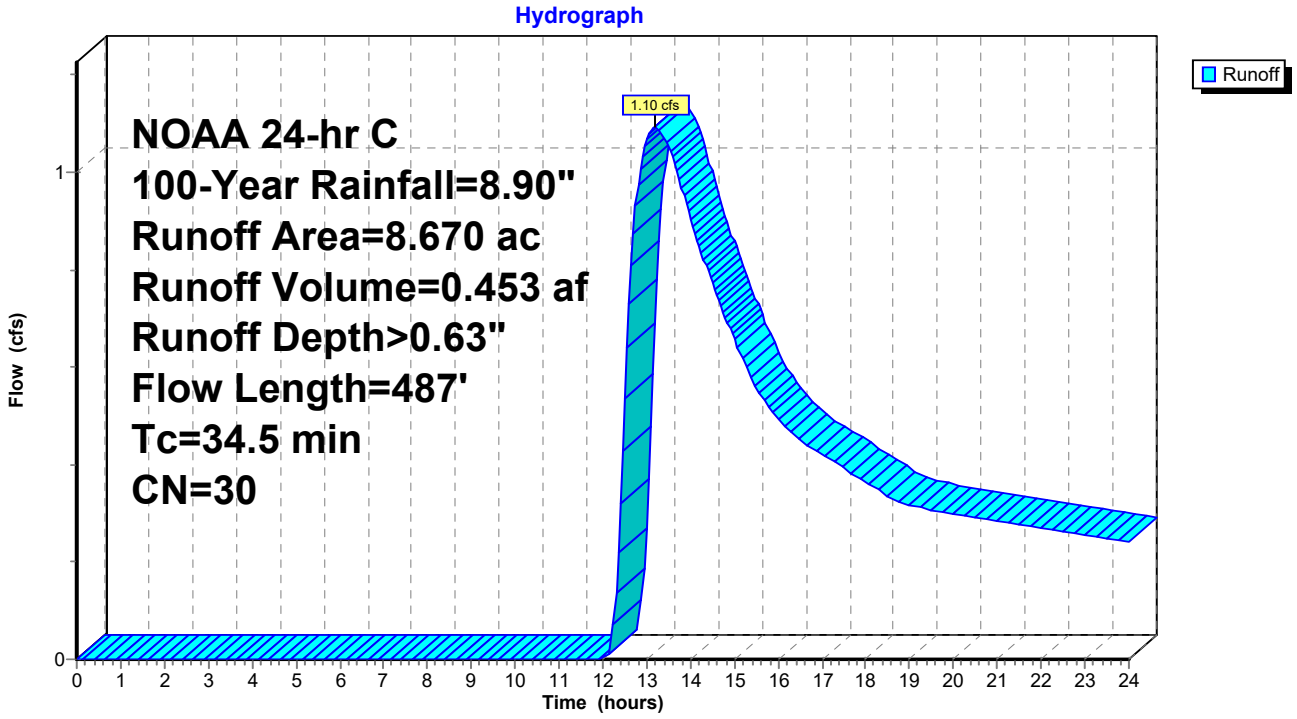
Runoff = 1.10 cfs @ 13.21 hrs, Volume= 0.453 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Undisturbed



Summary for Subcatchment 2S: DA-1-Disturbed

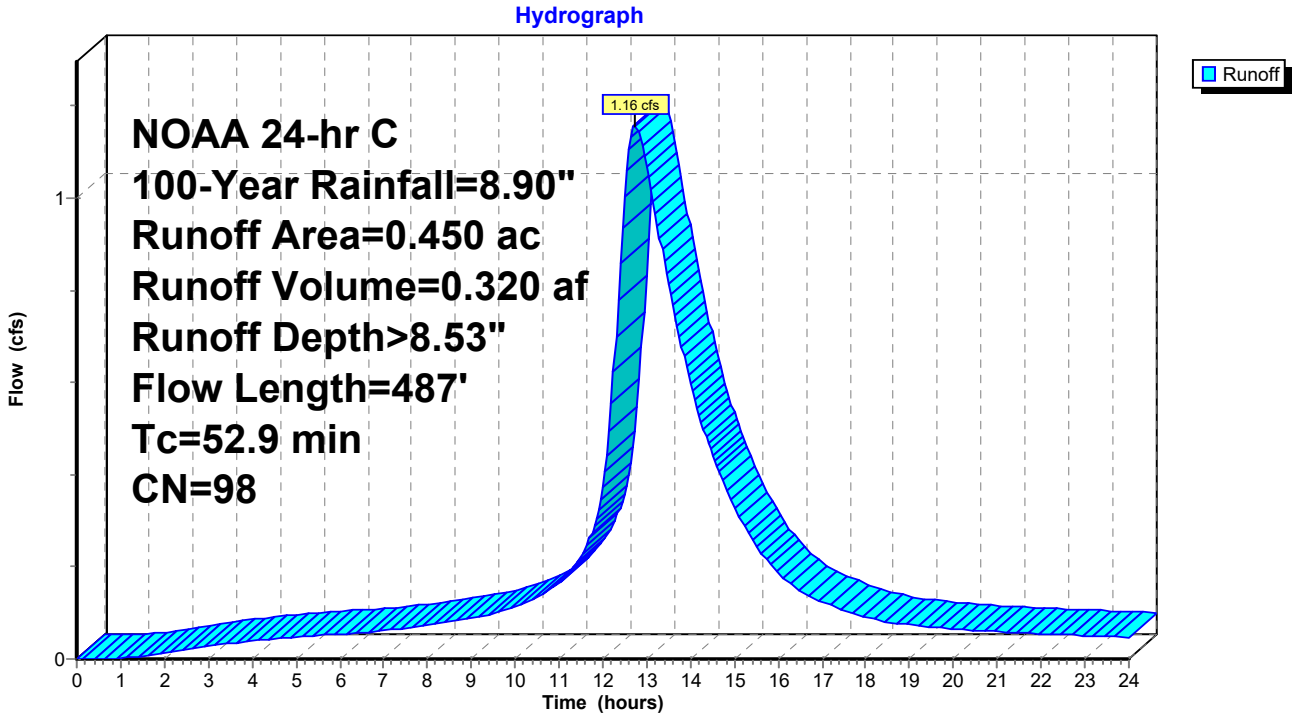
Runoff = 1.16 cfs @ 12.72 hrs, Volume= 0.320 af, Depth> 8.53"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Disturbed



Summary for Subcatchment 3S: DA-2-Undisturbed

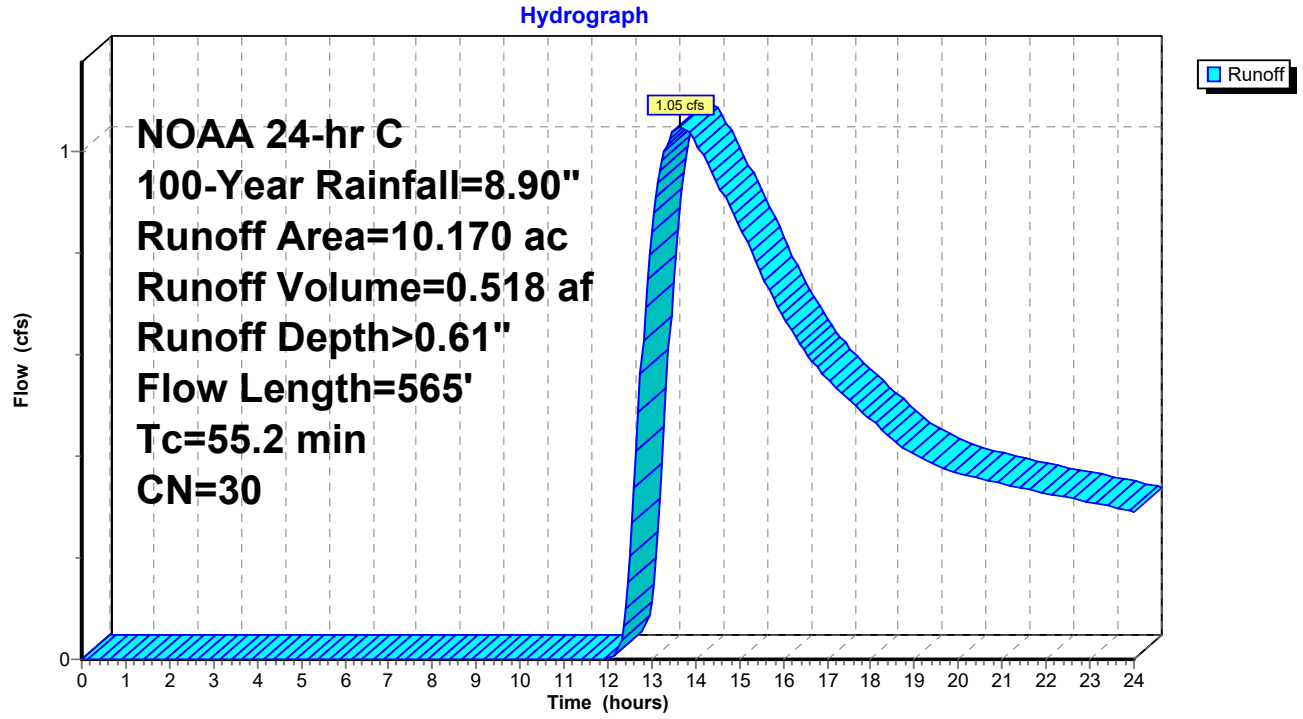
Runoff = 1.05 cfs @ 13.65 hrs, Volume= 0.518 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Undisturbed



Summary for Subcatchment 4S: DA-2-Disturbed

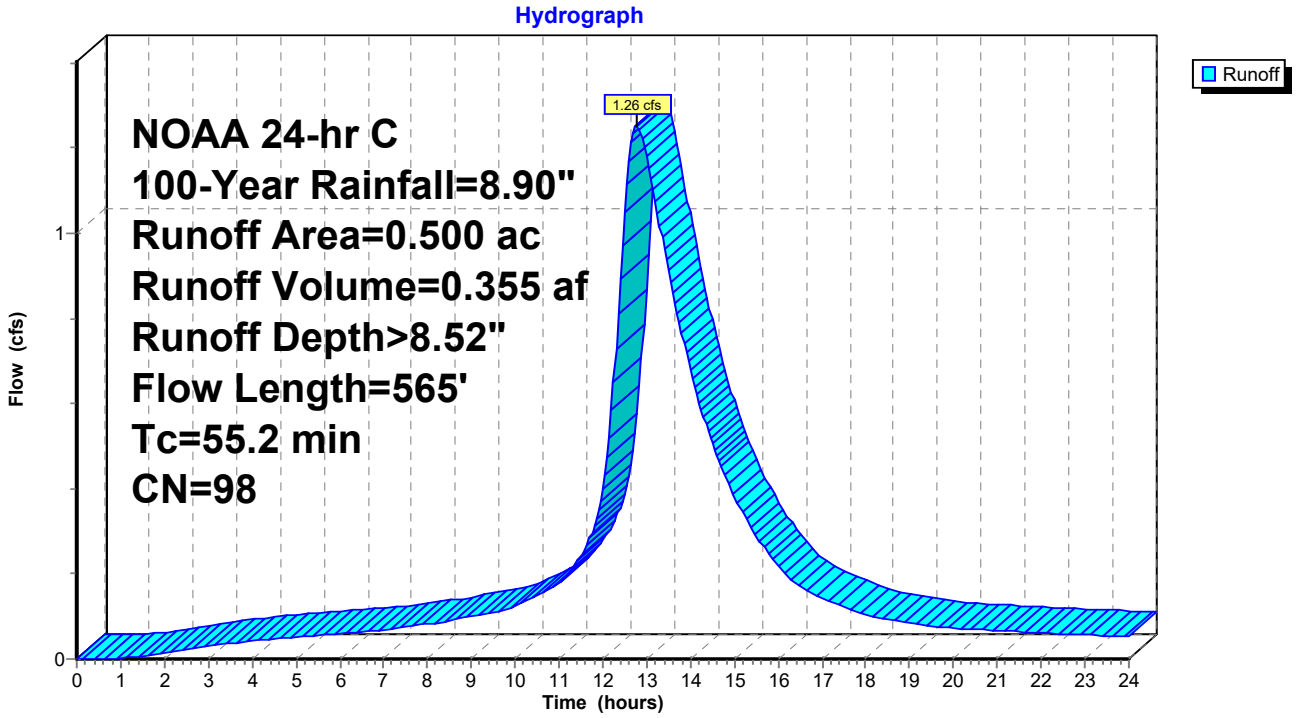
Runoff = 1.26 cfs @ 12.77 hrs, Volume= 0.355 af, Depth> 8.52"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Disturbed



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 1.02" for 100-Year event
Inflow = 2.15 cfs @ 12.92 hrs, Volume= 0.772 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

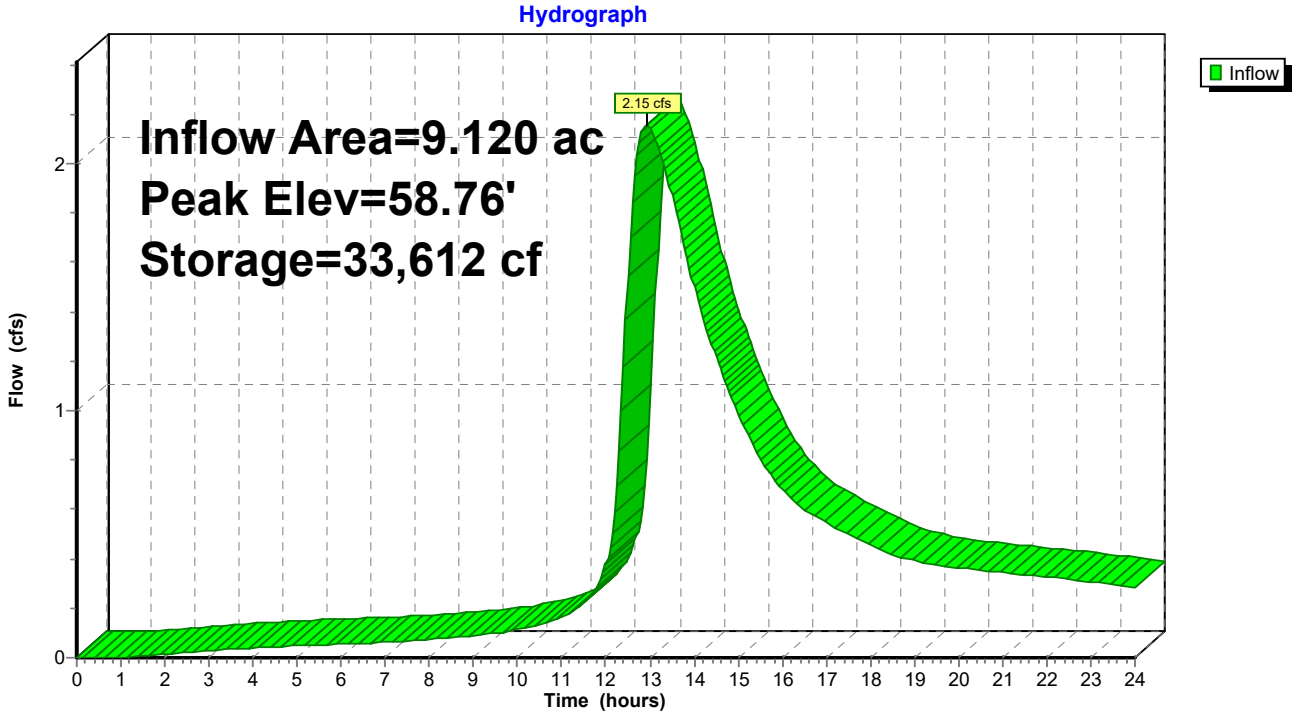
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 58.76' @ 24.00 hrs Surf.Area= 27,499 sf Storage= 33,612 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.98" for 100-Year event
Inflow = 2.04 cfs @ 13.13 hrs, Volume= 0.873 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

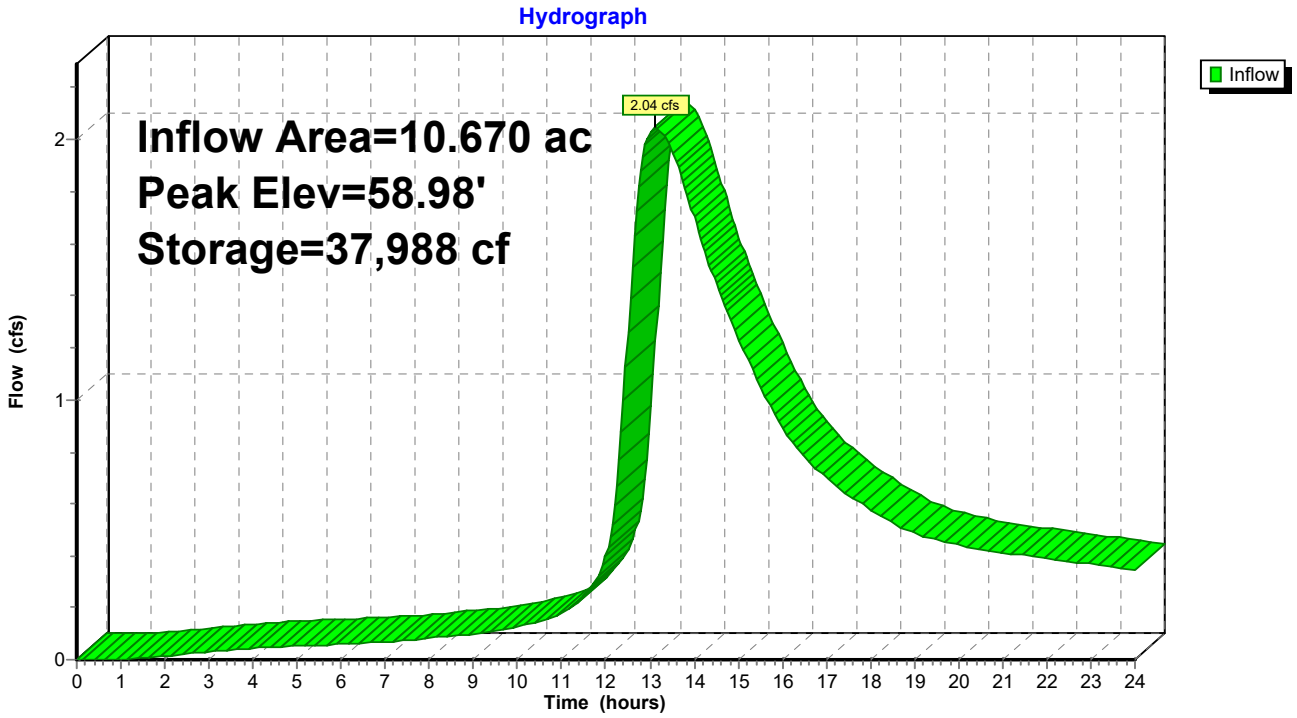
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 58.98' @ 24.00 hrs Surf.Area= 21,506 sf Storage= 37,988 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

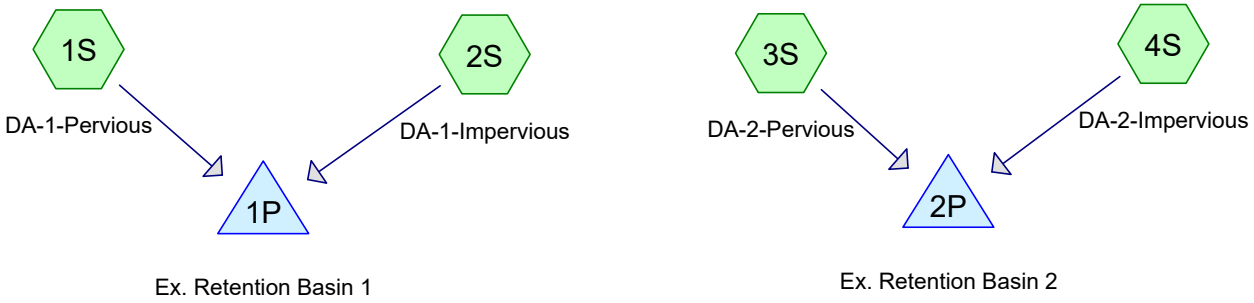
Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



Appendix 2
Proposed Conditions Analysis



Subcat Reach Pond Link

Routing Diagram for ACPW00011_Post Stormwater Calculations
Prepared by {enter your company name here}, Printed 5/6/2019
HydroCAD® 10.00-19 s/n 07212 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.840	30	Meadow, non-grazed, HSG A (1S, 3S)
0.950	98	Unconnected pavement, HSG A (2S, 4S)
19.790	**33**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
19.790	HSG A	1S, 2S, 3S, 4S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
19.790		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
18.840	0.000	0.000	0.000	0.000	18.840	Meadow, non-grazed	1S, 3S
0.950	0.000	0.000	0.000	0.000	0.950	Unconnected pavement	2S, 4S
19.790	**0.000**	**0.000**	**0.000**	**0.000**	**19.790**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Pervious Runoff Area=8.670 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=487' Tc=34.5 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment2S: DA-1-Impervious Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>3.03"
Flow Length=487' Tc=52.9 min CN=98 Runoff=0.42 cfs 0.114 af

Subcatchment3S: DA-2-Pervious Runoff Area=10.170 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=565' Tc=55.2 min CN=30 Runoff=0.00 cfs 0.000 af

Subcatchment4S: DA-2-Impervious Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>3.02"
Flow Length=565' Tc=55.2 min CN=98 Runoff=0.46 cfs 0.126 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=57.60' Storage=4,923 cf Inflow=0.42 cfs 0.114 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=57.33' Storage=5,487 cf Inflow=0.46 cfs 0.126 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 0.240 af Average Runoff Depth = 0.15"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Pervious

[45] Hint: Runoff=Zero

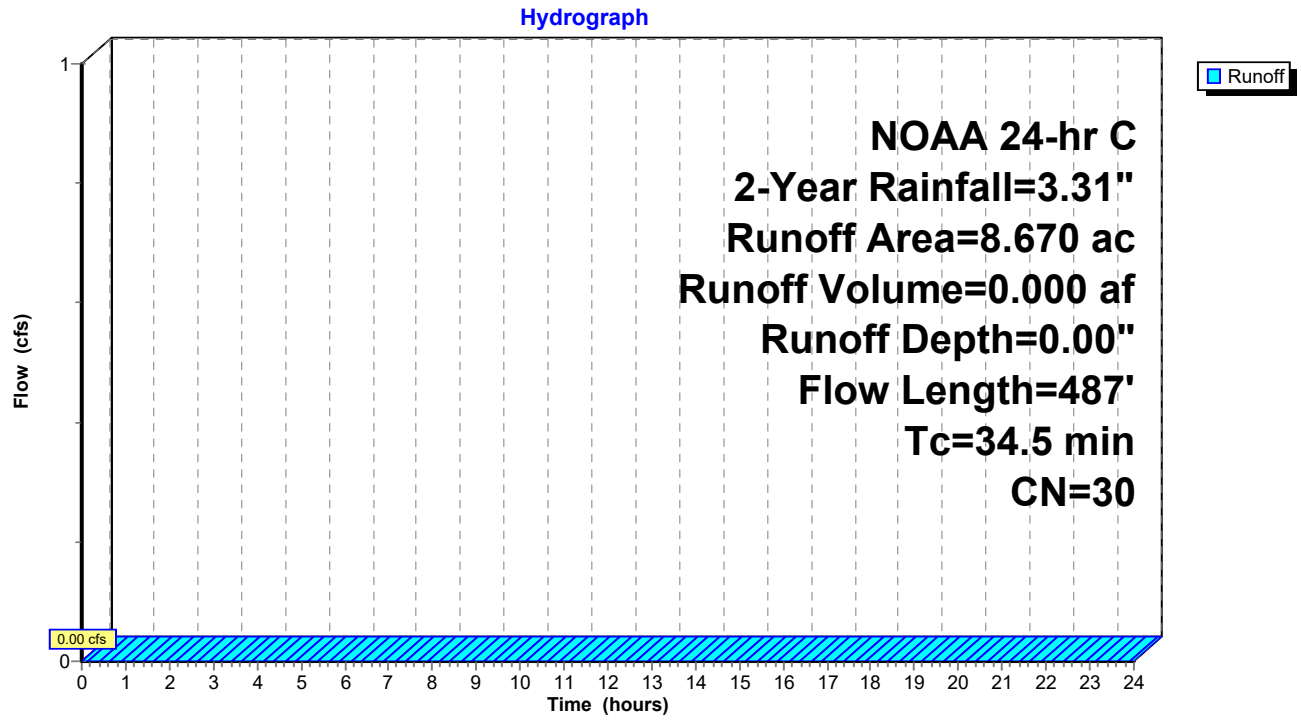
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Pervious



Summary for Subcatchment 2S: DA-1-Impervious

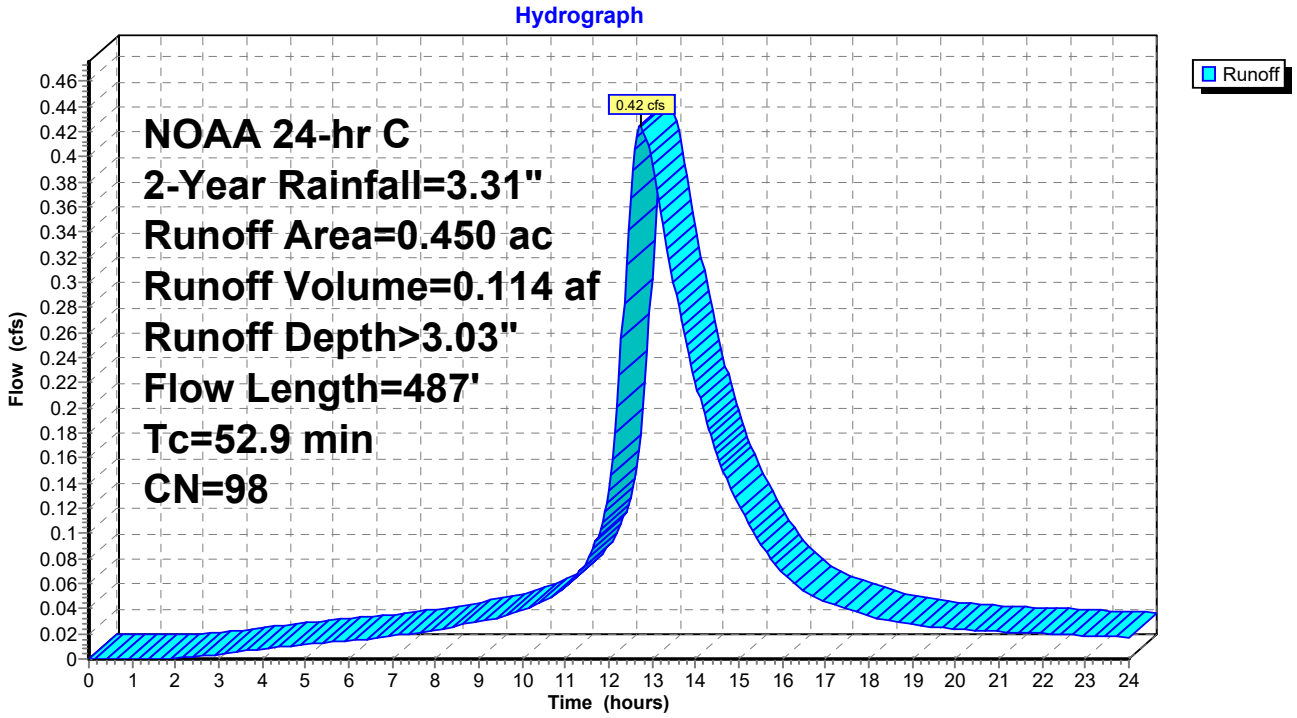
Runoff = 0.42 cfs @ 12.72 hrs, Volume= 0.114 af, Depth> 3.03"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Impervious



Summary for Subcatchment 3S: DA-2-Pervious

[45] Hint: Runoff=Zero

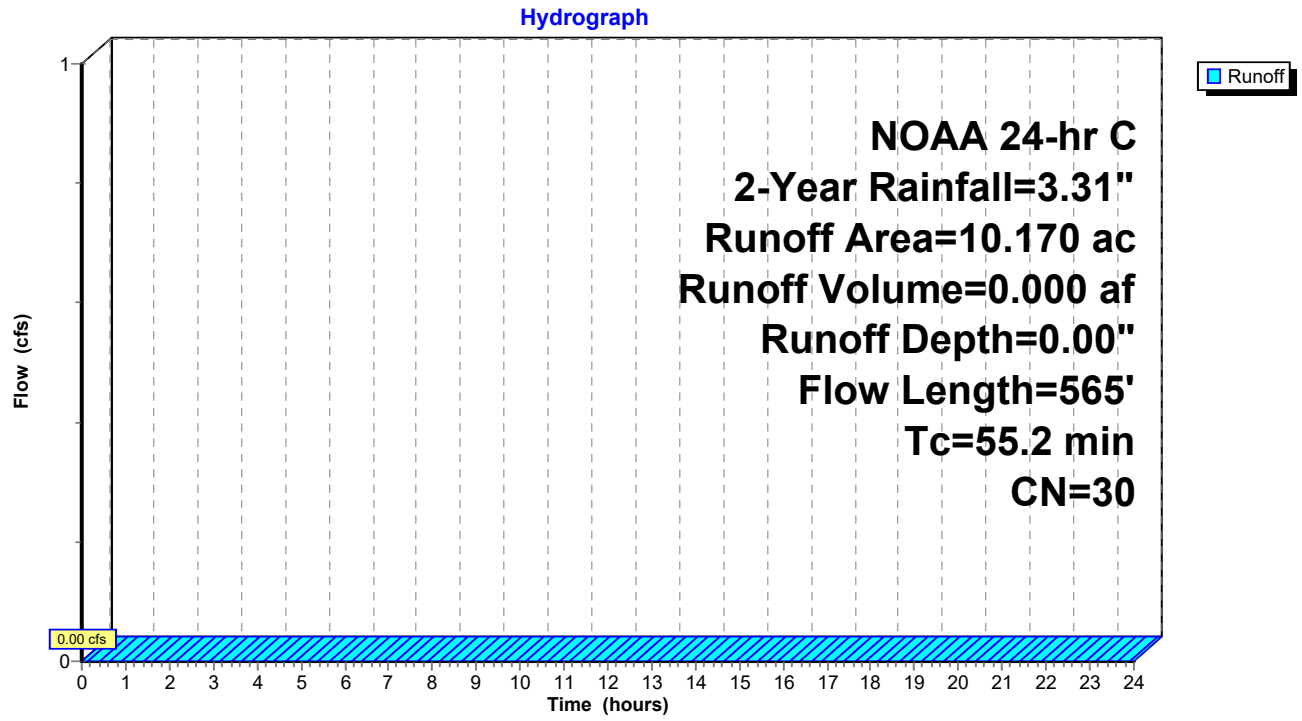
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Pervious



Summary for Subcatchment 4S: DA-2-Impervious

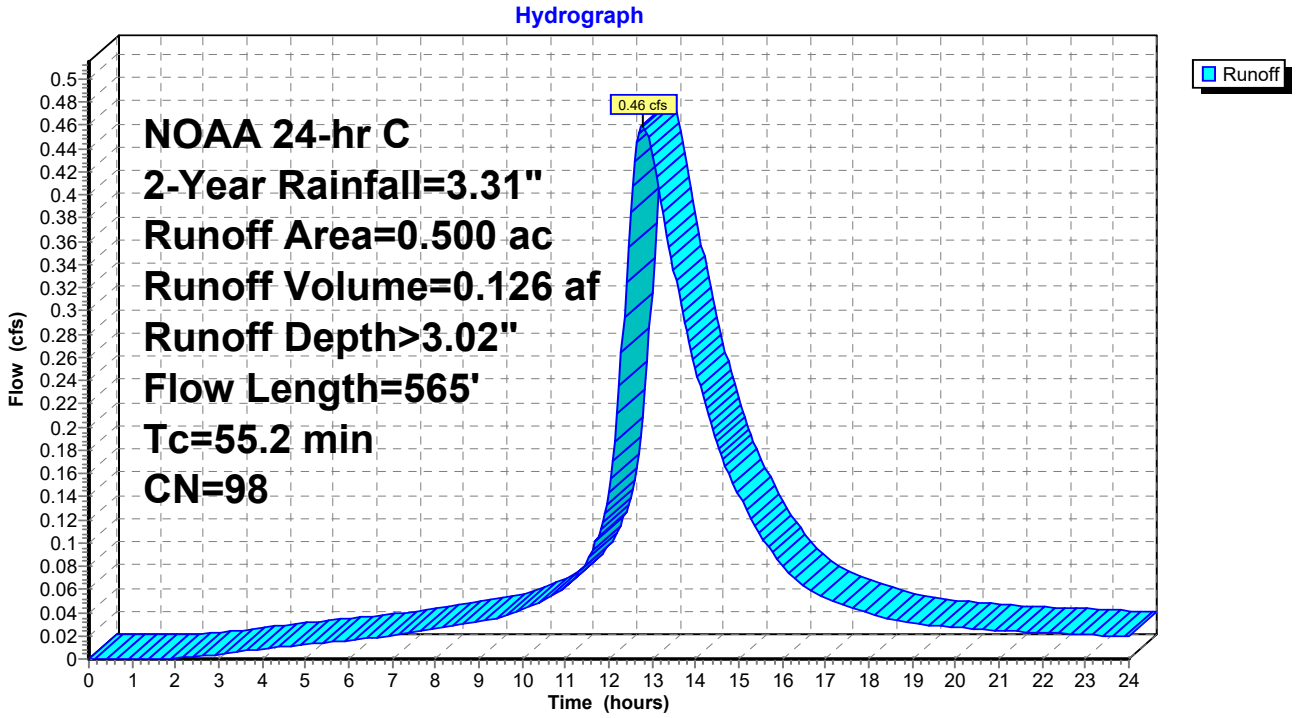
Runoff = 0.46 cfs @ 12.77 hrs, Volume= 0.126 af, Depth> 3.02"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 2-Year Rainfall=3.31"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Impervious



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 0.15" for 2-Year event
Inflow = 0.42 cfs @ 12.72 hrs, Volume= 0.114 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

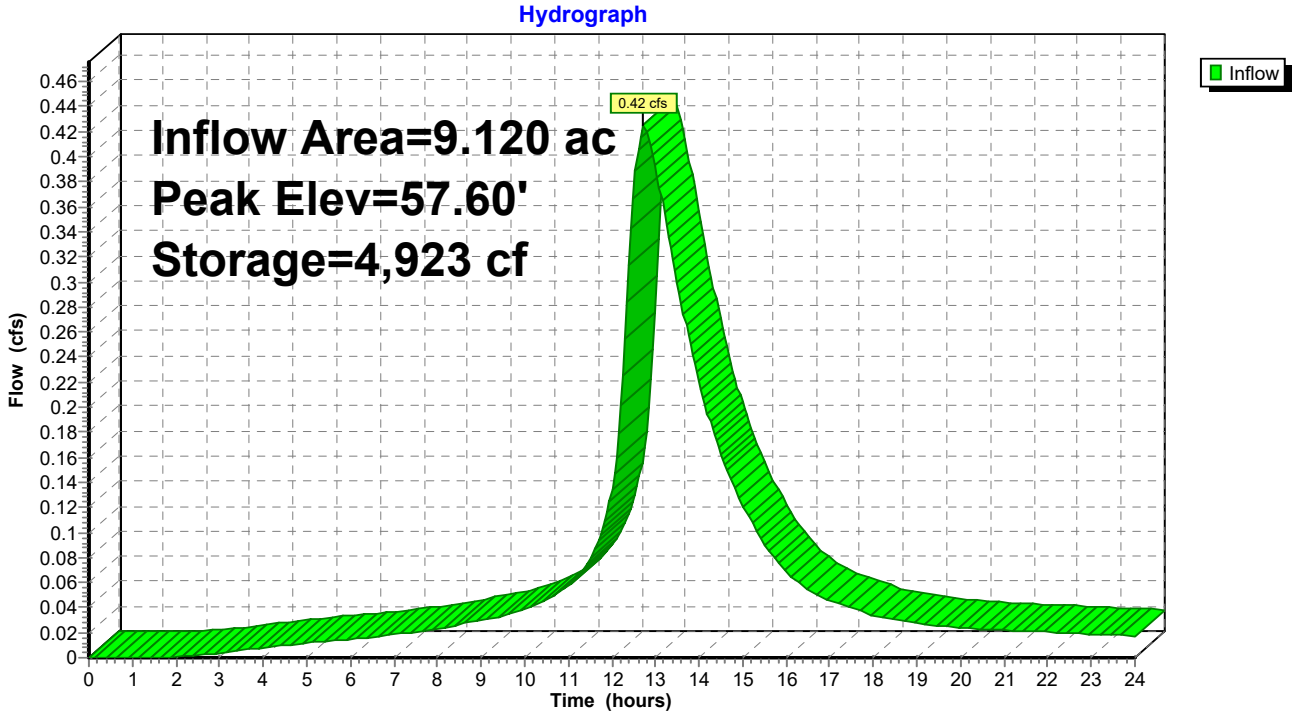
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.60' @ 24.00 hrs Surf.Area= 15,852 sf Storage= 4,923 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.14" for 2-Year event
Inflow = 0.46 cfs @ 12.77 hrs, Volume= 0.126 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

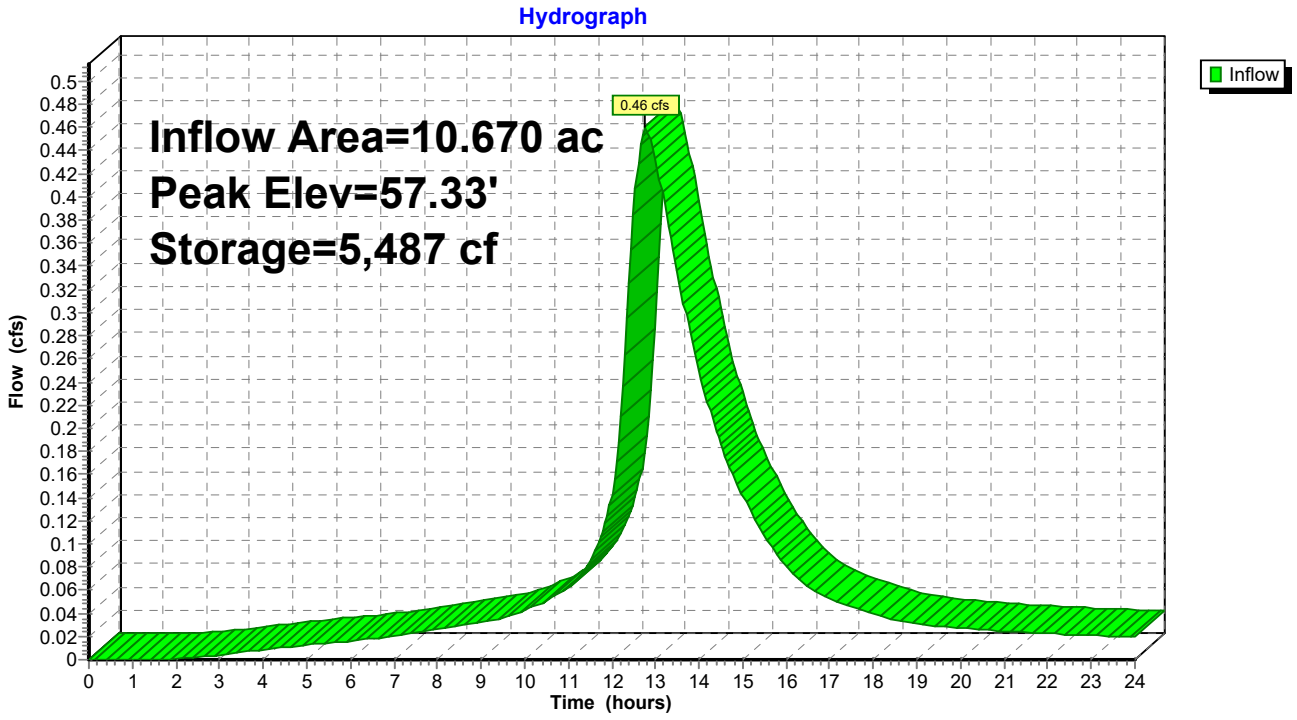
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.33' @ 24.00 hrs Surf.Area= 17,255 sf Storage= 5,487 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Pervious Runoff Area=8.670 ac 0.00% Impervious Runoff Depth>0.01"
Flow Length=487' Tc=34.5 min CN=30 Runoff=0.02 cfs 0.006 af

Subcatchment2S: DA-1-Impervious Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>4.85"
Flow Length=487' Tc=52.9 min CN=98 Runoff=0.67 cfs 0.182 af

Subcatchment3S: DA-2-Pervious Runoff Area=10.170 ac 0.00% Impervious Runoff Depth>0.01"
Flow Length=565' Tc=55.2 min CN=30 Runoff=0.02 cfs 0.006 af

Subcatchment4S: DA-2-Impervious Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>4.84"
Flow Length=565' Tc=55.2 min CN=98 Runoff=0.72 cfs 0.202 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=57.78' Storage=8,158 cf Inflow=0.67 cfs 0.188 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=57.53' Storage=9,051 cf Inflow=0.72 cfs 0.208 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 0.396 af Average Runoff Depth = 0.24"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Pervious

[73] Warning: Peak may fall outside time span

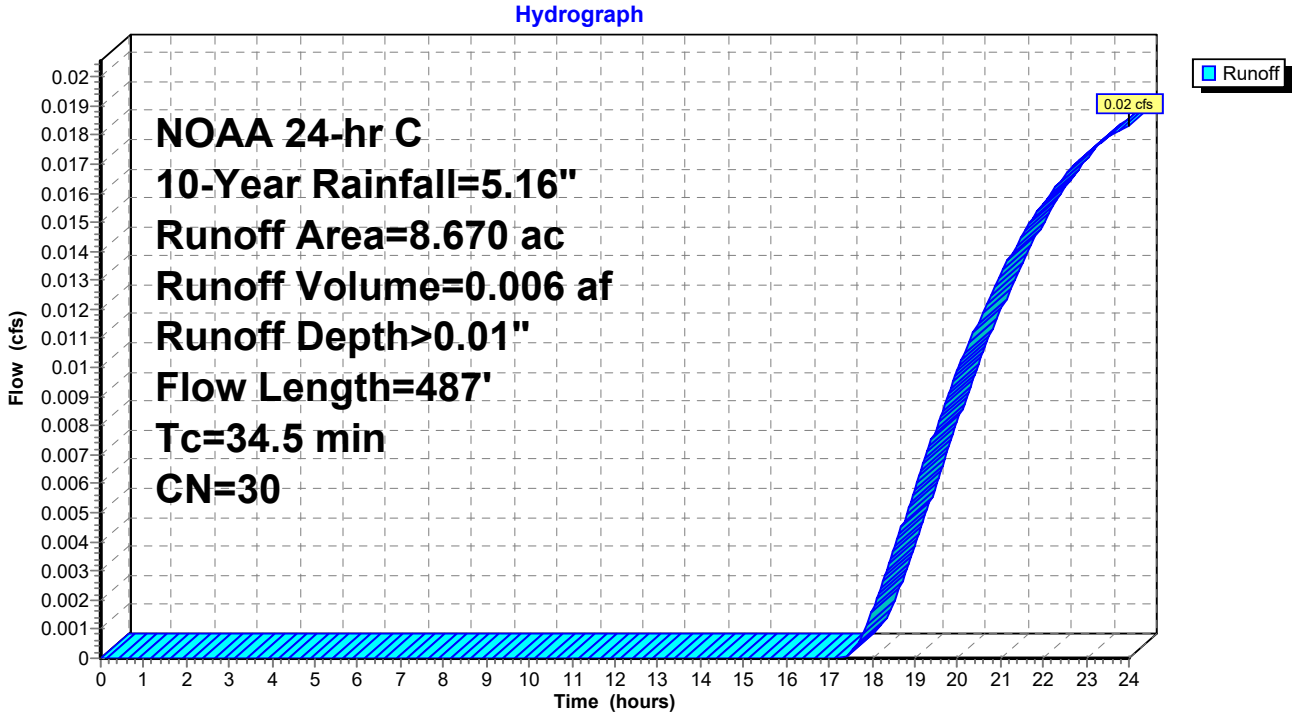
Runoff = 0.02 cfs @ 24.00 hrs, Volume= 0.006 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Pervious



Summary for Subcatchment 2S: DA-1-Impervious

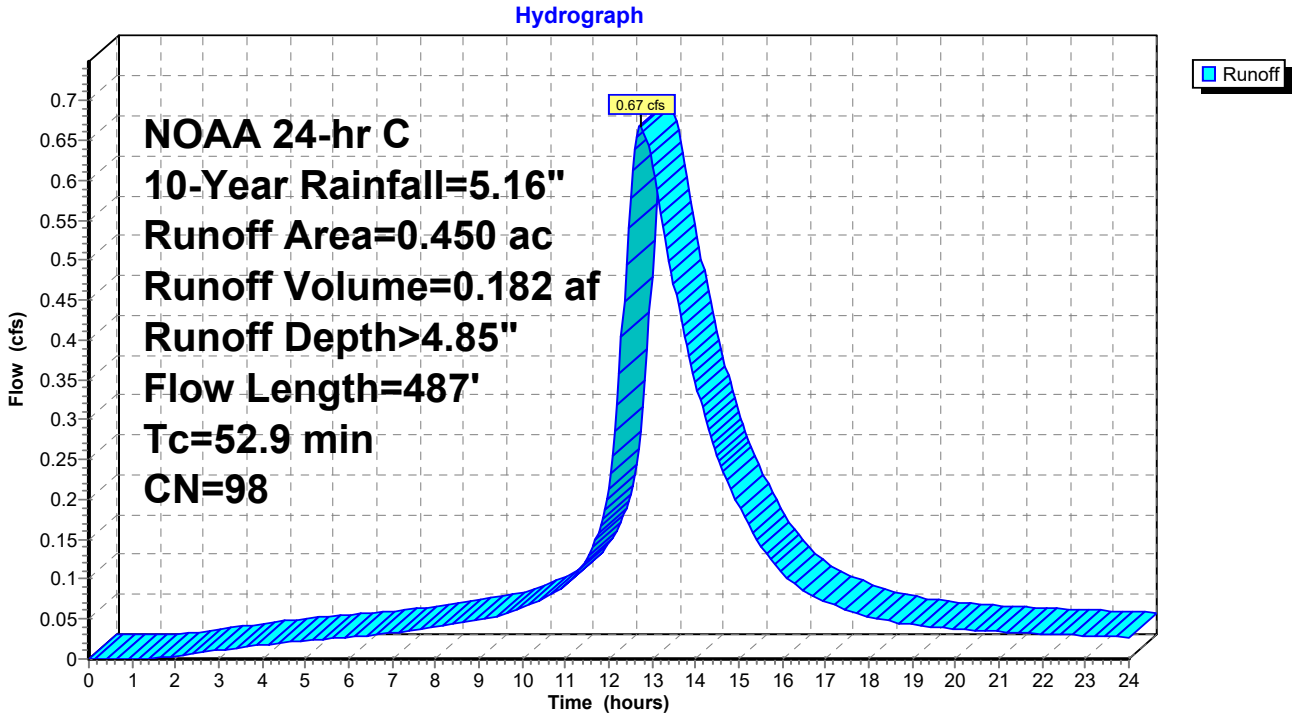
Runoff = 0.67 cfs @ 12.72 hrs, Volume= 0.182 af, Depth> 4.85"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Impervious



Summary for Subcatchment 3S: DA-2-Pervious

[73] Warning: Peak may fall outside time span

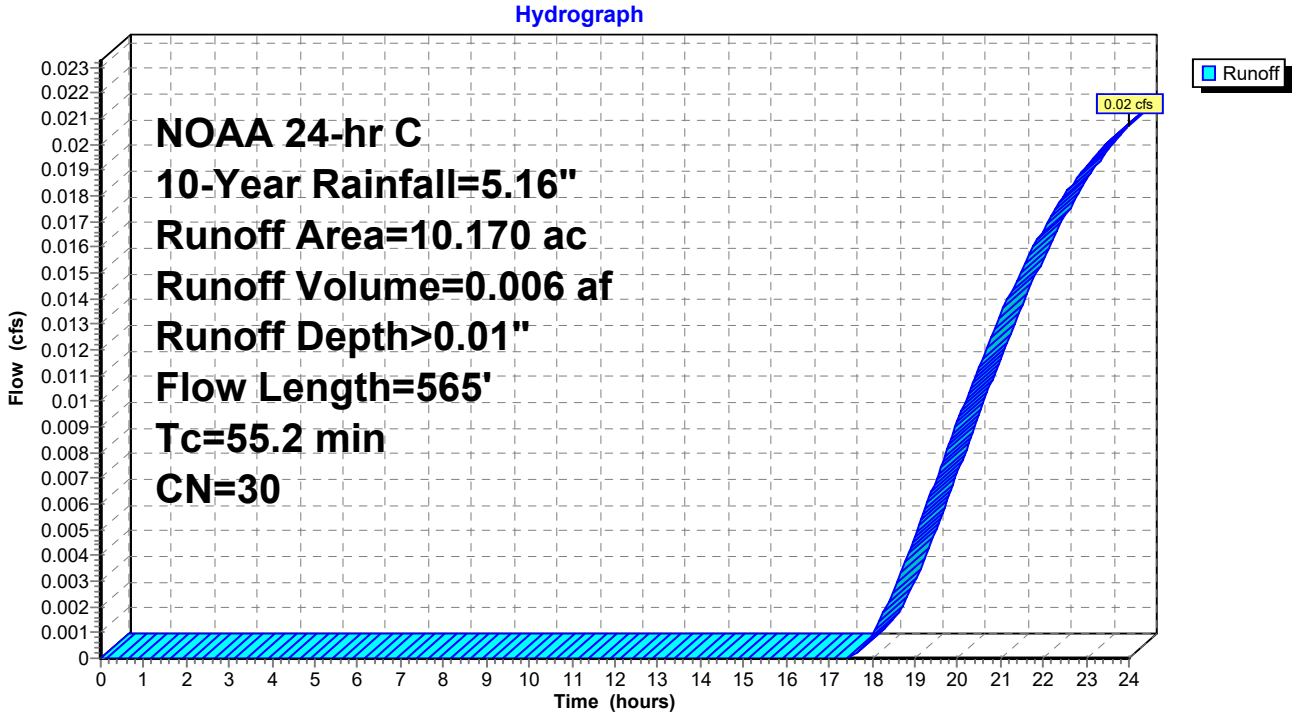
Runoff = 0.02 cfs @ 24.00 hrs, Volume= 0.006 af, Depth> 0.01"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Pervious



Summary for Subcatchment 4S: DA-2-Impervious

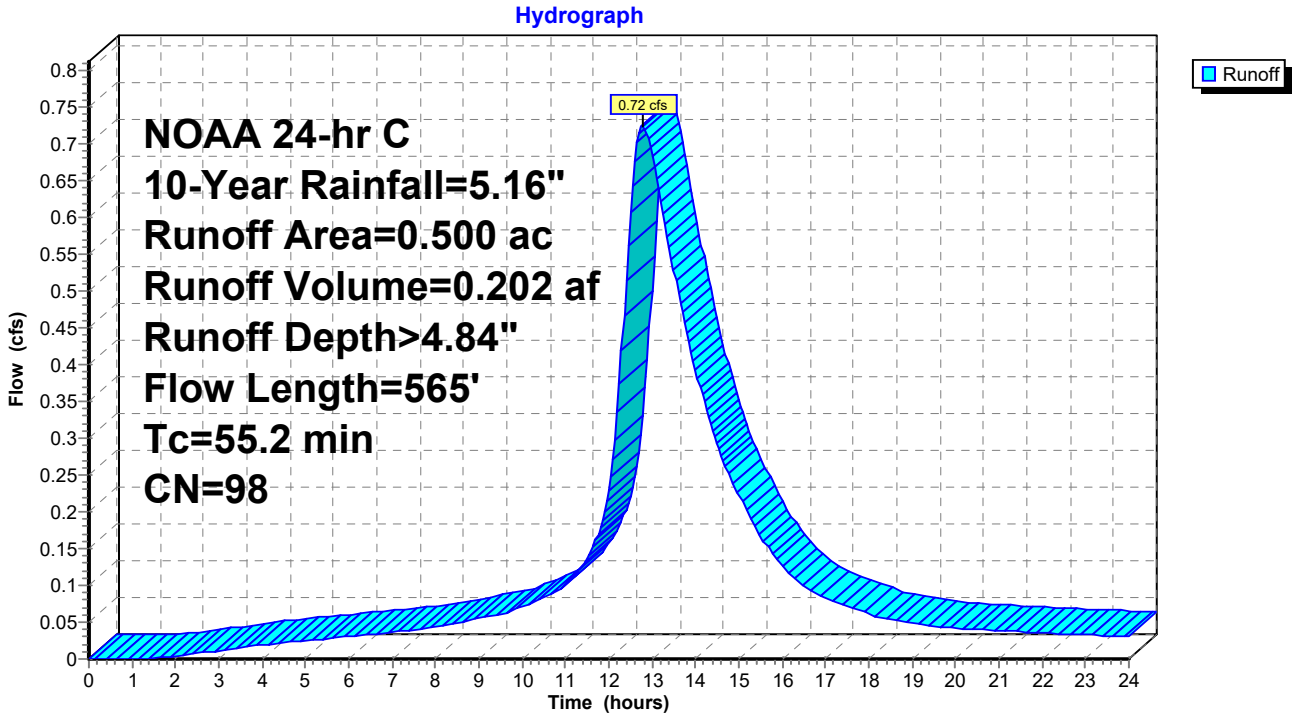
Runoff = 0.72 cfs @ 12.77 hrs, Volume= 0.202 af, Depth> 4.84"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 10-Year Rainfall=5.16"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Impervious



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 0.25" for 10-Year event
Inflow = 0.67 cfs @ 12.72 hrs, Volume= 0.188 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

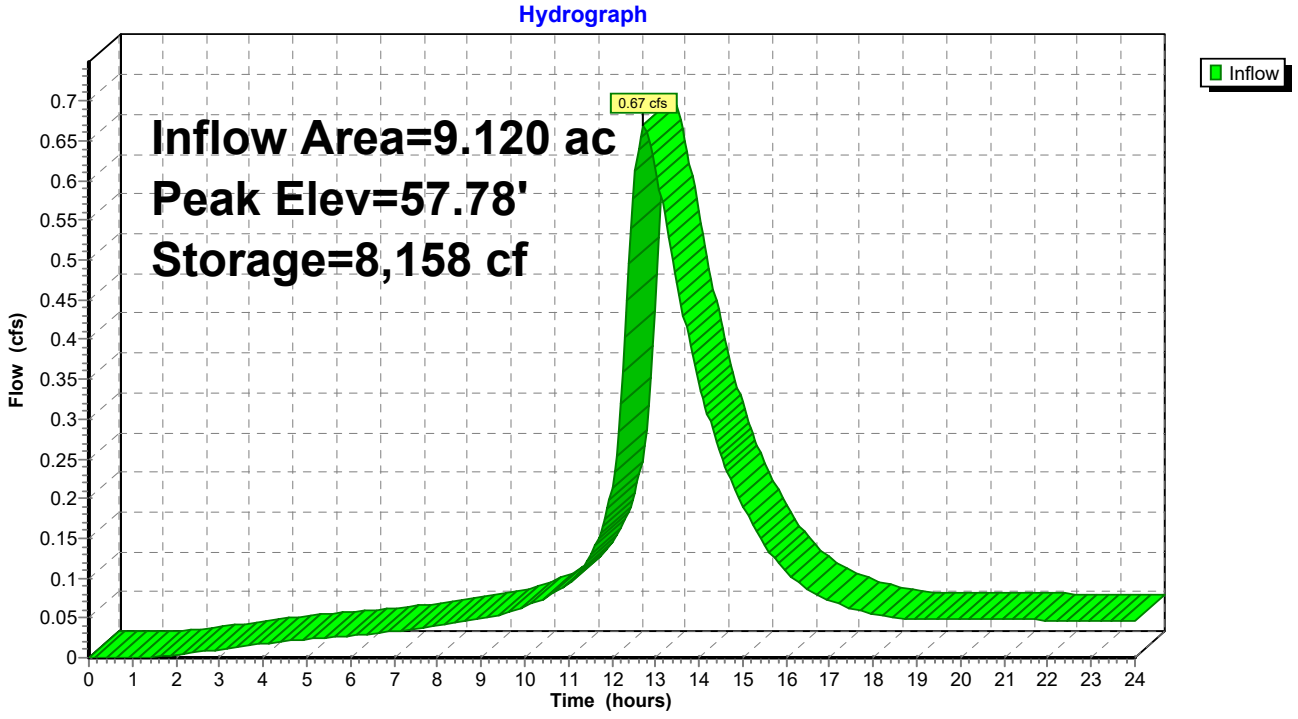
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.78' @ 24.00 hrs Surf.Area= 20,402 sf Storage= 8,158 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.23" for 10-Year event
Inflow = 0.72 cfs @ 12.77 hrs, Volume= 0.208 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

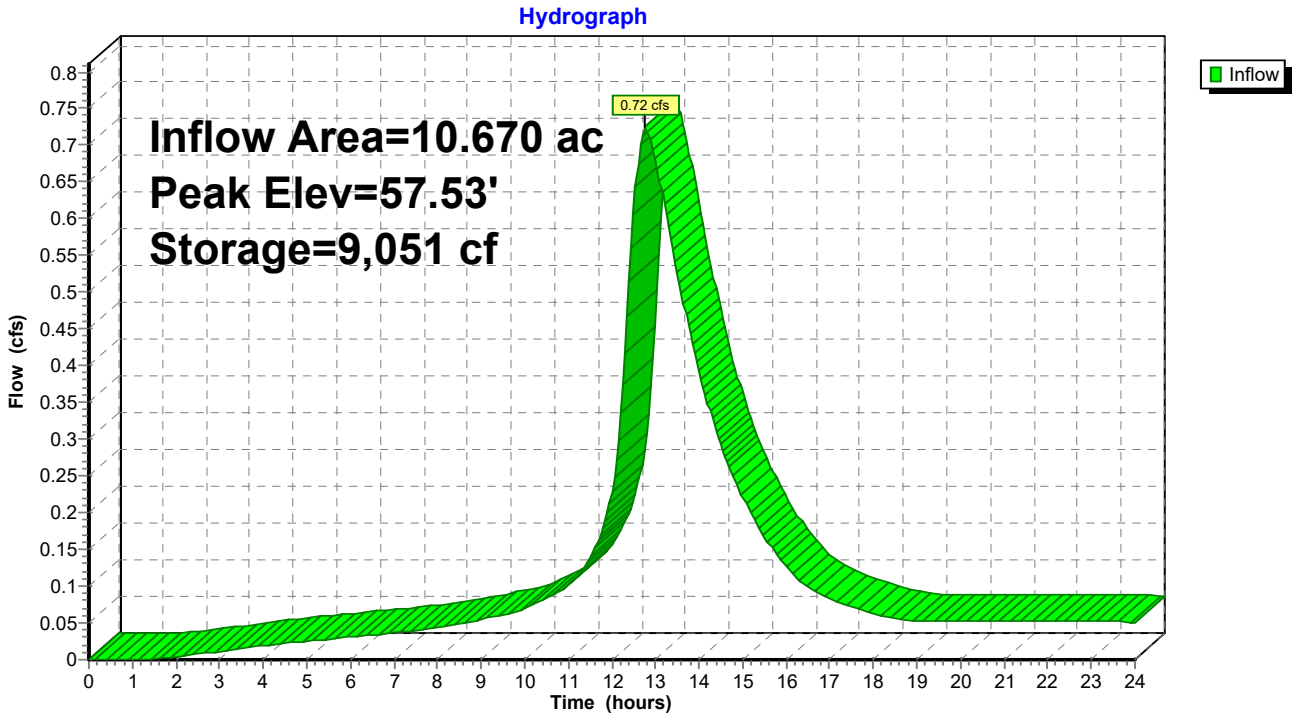
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 57.53' @ 24.00 hrs Surf.Area= 17,962 sf Storage= 9,051 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: DA-1-Pervious Runoff Area=8.670 ac 0.00% Impervious Runoff Depth>0.63"
Flow Length=487' Tc=34.5 min CN=30 Runoff=1.10 cfs 0.453 af

Subcatchment2S: DA-1-Impervious Runoff Area=0.450 ac 100.00% Impervious Runoff Depth>8.53"
Flow Length=487' Tc=52.9 min CN=98 Runoff=1.16 cfs 0.320 af

Subcatchment3S: DA-2-Pervious Runoff Area=10.170 ac 0.00% Impervious Runoff Depth>0.61"
Flow Length=565' Tc=55.2 min CN=30 Runoff=1.05 cfs 0.518 af

Subcatchment4S: DA-2-Impervious Runoff Area=0.500 ac 100.00% Impervious Runoff Depth>8.52"
Flow Length=565' Tc=55.2 min CN=98 Runoff=1.26 cfs 0.355 af

Pond 1P: Ex. Retention Basin 1 Peak Elev=58.76' Storage=33,612 cf Inflow=2.15 cfs 0.772 af
Outflow=0.00 cfs 0.000 af

Pond 2P: Ex. Retention Basin 2 Peak Elev=58.98' Storage=37,988 cf Inflow=2.04 cfs 0.873 af
Outflow=0.00 cfs 0.000 af

Total Runoff Area = 19.790 ac Runoff Volume = 1.645 af Average Runoff Depth = 1.00"
95.20% Pervious = 18.840 ac 4.80% Impervious = 0.950 ac

Summary for Subcatchment 1S: DA-1-Pervious

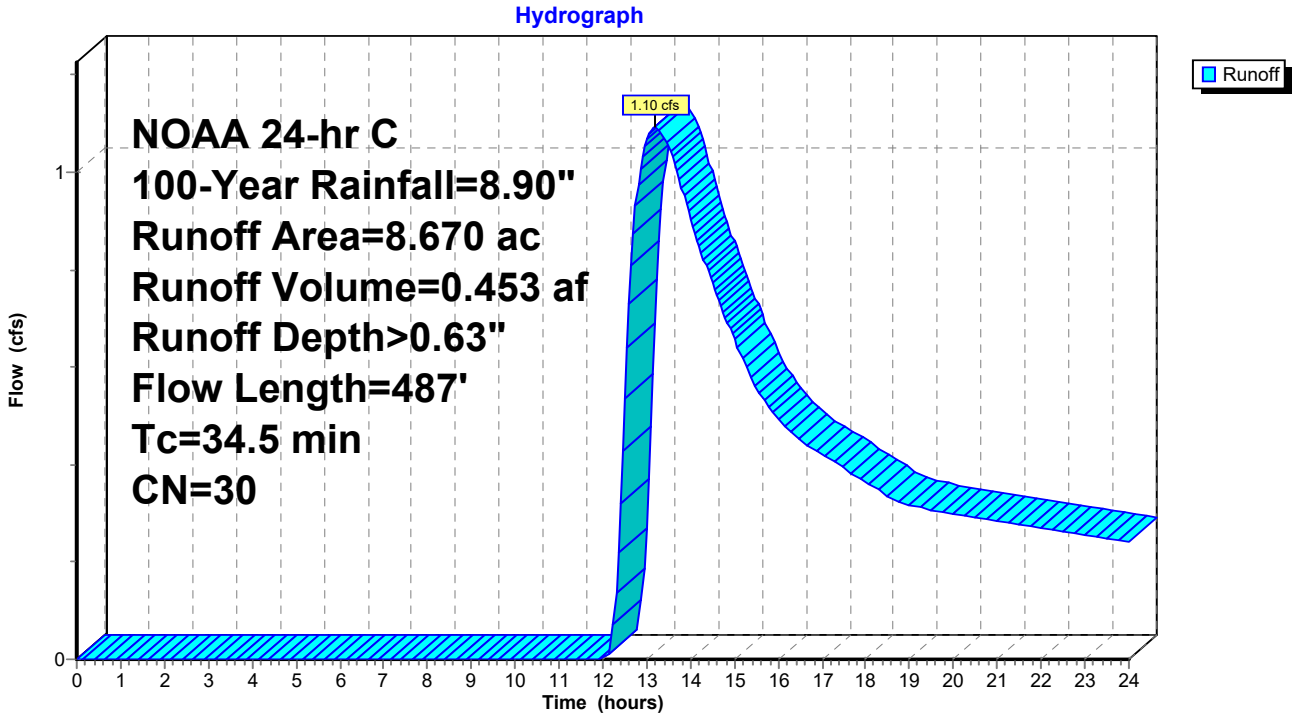
Runoff = 1.10 cfs @ 13.21 hrs, Volume= 0.453 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
8.670	30	Meadow, non-grazed, HSG A
8.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.8	150	0.0300	0.10		**Sheet Flow, Sheet Flow** Woods: Light underbrush n= 0.400 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
34.5	487	Total			

Subcatchment 1S: DA-1-Pervious



Summary for Subcatchment 2S: DA-1-Impervious

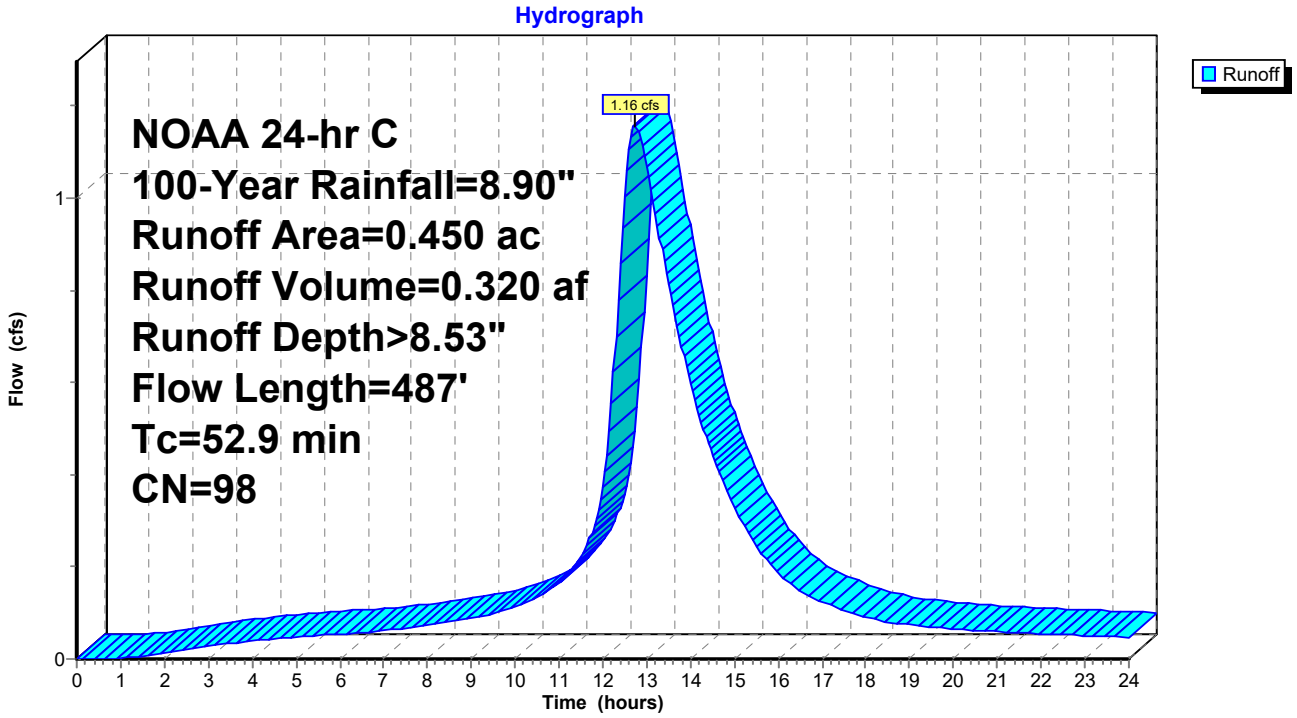
Runoff = 1.16 cfs @ 12.72 hrs, Volume= 0.320 af, Depth> 8.53"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
0.450	98	Unconnected pavement, HSG A
0.450		100.00% Impervious Area
0.450		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
9.7	337	0.0134	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
52.9	487	Total			

Subcatchment 2S: DA-1-Impervious



Summary for Subcatchment 3S: DA-2-Pervious

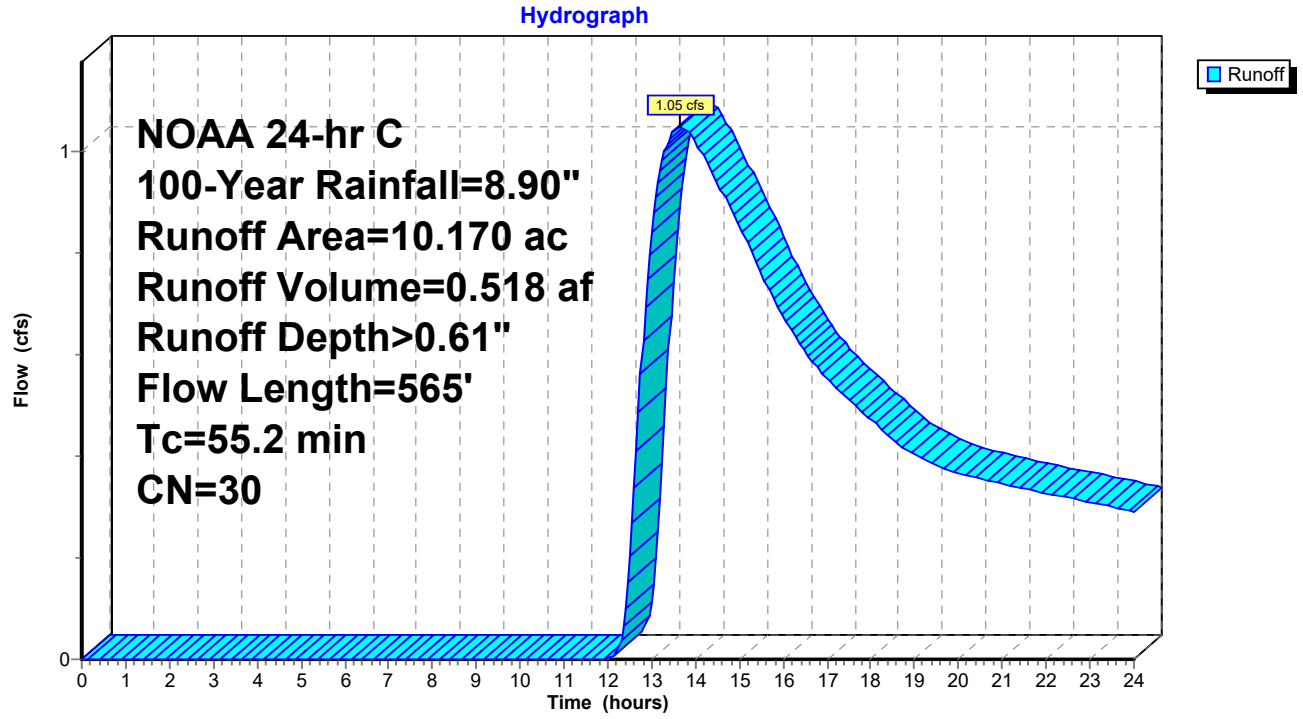
Runoff = 1.05 cfs @ 13.65 hrs, Volume= 0.518 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
10.170	30	Meadow, non-grazed, HSG A
10.170		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 3S: DA-2-Pervious



Summary for Subcatchment 4S: DA-2-Impervious

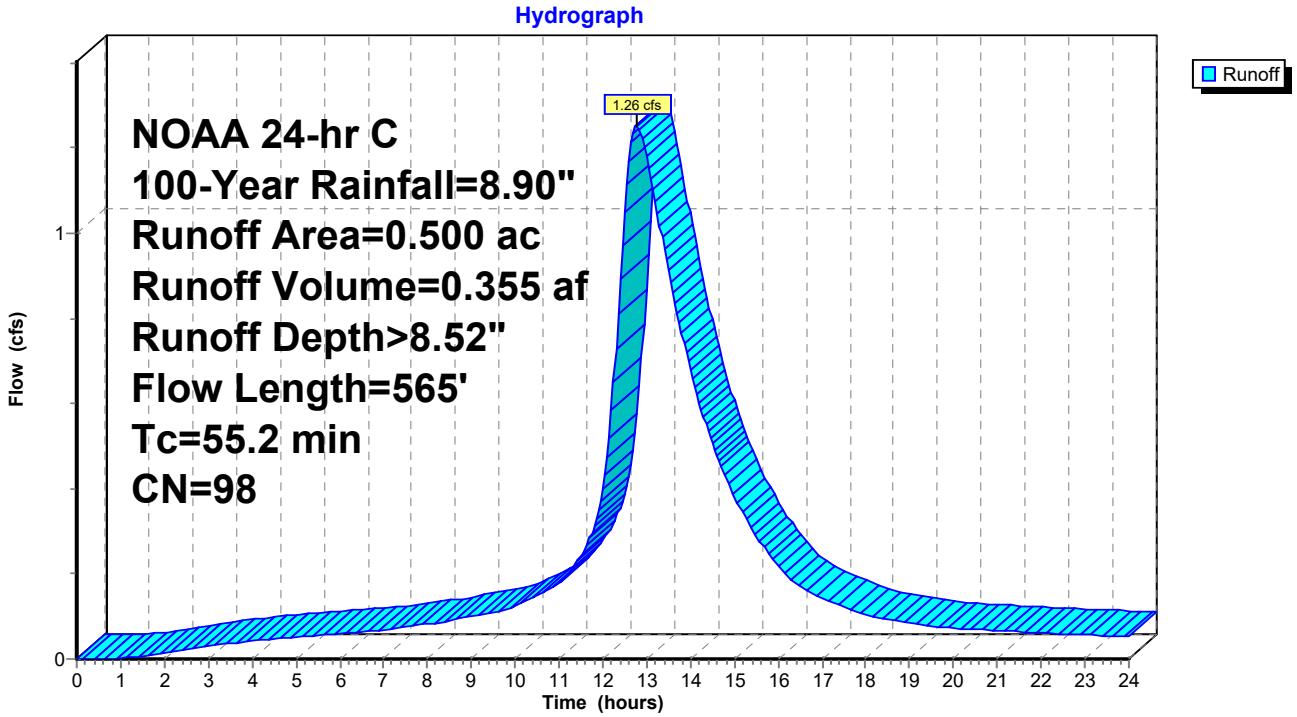
Runoff = 1.26 cfs @ 12.77 hrs, Volume= 0.355 af, Depth> 8.52"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NOAA 24-hr C 100-Year Rainfall=8.90"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG A
0.500		100.00% Impervious Area
0.500		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
43.2	150	0.0300	0.06		**Sheet Flow, Sheet Flow** Woods: Dense underbrush n= 0.800 P2= 3.31"
12.0	415	0.0133	0.58		**Shallow Concentrated Flow, Shallow Concentrated Flow** Woodland Kv= 5.0 fps
55.2	565	Total			

Subcatchment 4S: DA-2-Impervious



Summary for Pond 1P: Ex. Retention Basin 1

Inflow Area = 9.120 ac, 4.93% Impervious, Inflow Depth > 1.02" for 100-Year event
Inflow = 2.15 cfs @ 12.92 hrs, Volume= 0.772 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

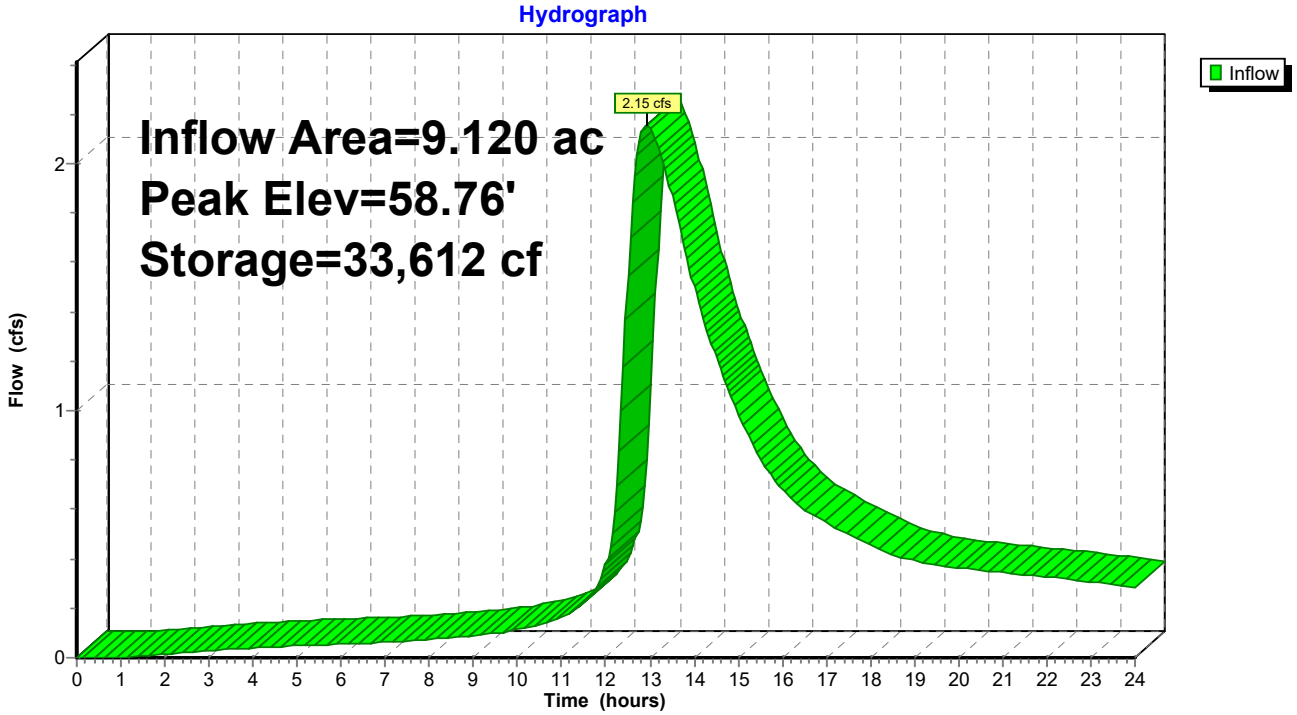
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 58.76' @ 24.00 hrs Surf.Area= 27,499 sf Storage= 33,612 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	246,927 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	504	0	0
58.00	26,000	13,252	13,252
59.00	27,970	26,985	40,237
60.00	30,005	28,988	69,225
61.00	32,135	31,070	100,295
62.00	34,345	33,240	133,535
63.00	36,575	35,460	168,995
64.00	38,950	37,763	206,757
65.00	41,390	40,170	246,927

Pond 1P: Ex. Retention Basin 1



Summary for Pond 2P: Ex. Retention Basin 2

Inflow Area = 10.670 ac, 4.69% Impervious, Inflow Depth > 0.98" for 100-Year event
Inflow = 2.04 cfs @ 13.13 hrs, Volume= 0.873 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

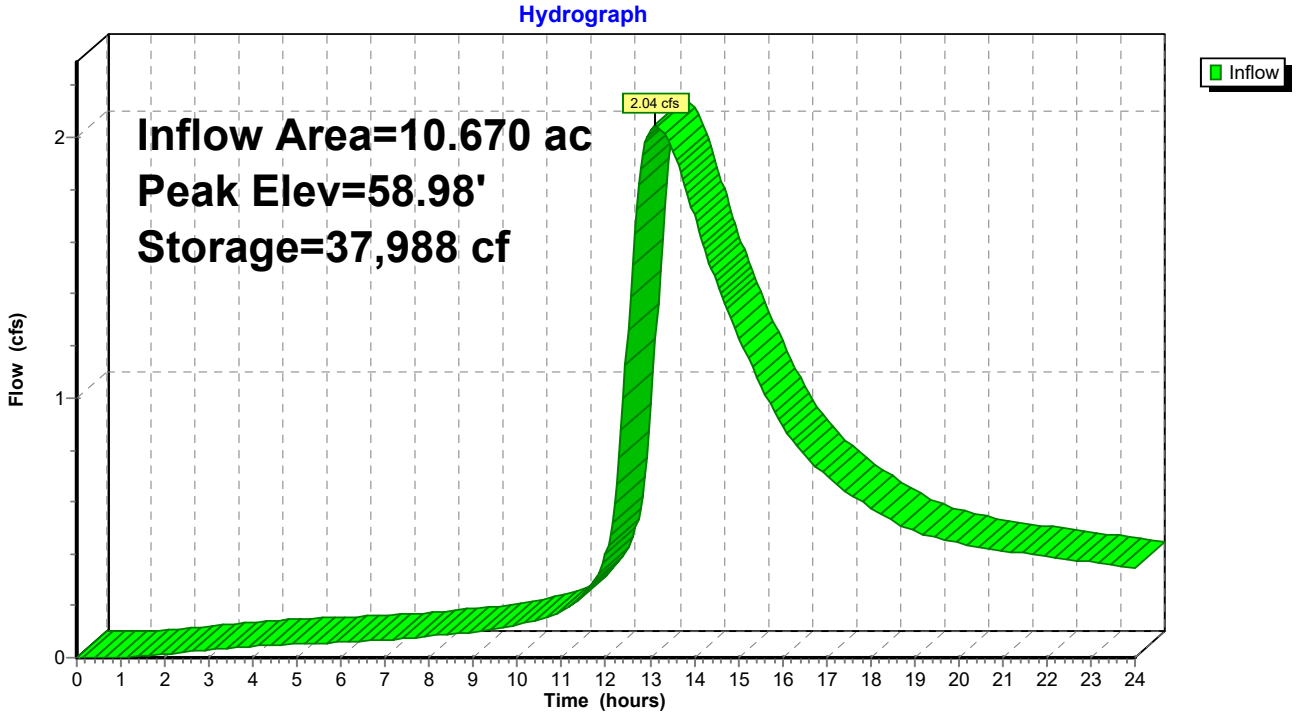
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 58.98' @ 24.00 hrs Surf.Area= 21,506 sf Storage= 37,988 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	142,165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.00	16,105	0	0
58.00	19,600	17,853	17,853
59.00	21,545	20,573	38,425
60.00	23,670	22,608	61,033
61.00	25,865	24,768	85,800
62.00	28,125	26,995	112,795
63.00	30,615	29,370	142,165

Pond 2P: Ex. Retention Basin 2



AC Power 2, LLC - ACPW-00011

Designed By NAP Checked By DJD Date 05/13/19

INFILTRATION BASIN SUMMARY

Basin	Test Pit #	Tested Infiltration Rate (in/hr)	Soil Class	Factor of Safety	Design Infiltration Rate (in/hr)	Hydraulic Conductivity of Soil (K) (ft/hr)	Minimum Hydraulic Gradient (I)	Area Provided for Infiltration (A) (sf)	Rate of Infiltration (Q) (cf/hr)	Stormwater Volume to Be Infiltrated (V) (ac-ft)	Time to Infiltrate Stormwater (hr)	Basin Bottom Elev	Water Elev Reqd for Recharge per GSR-32	NJDEP WQ Stm Elev in Basin	Lowest Inv. of Orif/Weir In Basin
Depression	TBD	2.00	K3	2	1.00	0.08	1.00	41,390	3,449.2	0.1140	1 hr 26 min	57.00			68.00

The design of an infiltration basin is based upon Darcy's Law:

$$Q = KIA$$

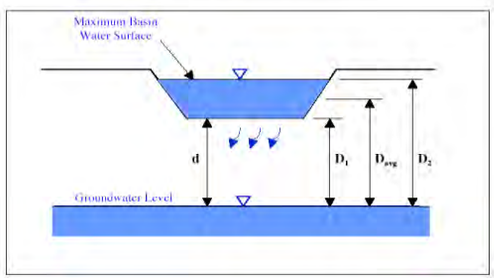
where:

Q = the rate of infiltration in cubic feet per second (cfs)
K = the hydraulic conductivity of the soil in feet per second (fps)
I = the hydraulic gradient
A = the area of infiltration in square feet (sf)

From the variables shown in Figure 9.5-2 below:

Average Hydraulic Gradient = D_{avg}/d
Minimum Hydraulic Gradient = D_1/d
Maximum Hydraulic Gradient = D_2/d

Figure 9.5-2: Schematic of Darcy's Law



Notes:

AC Power 2, LLC - ACPW-00011

Designed By NAP Checked By DJD Date 05/13/19

INFILTRATION BASIN SUMMARY

Basin	Test Pit #	Tested Infiltration Rate (in/hr)	Soil Class	Factor of Safety	Design Infiltration Rate (in/hr)	Hydraulic Conductivity of Soil (K) (ft/hr)	Minimum Hydraulic Gradient (I)	Area Provided for Infiltration (A) (sf)	Rate of Infiltration (Q) (cf/hr)	Stormwater Volume to Be Infiltrated (V) (ac-ft)	Time to Infiltrate Stormwater (hr)	Basin Bottom Elev	Water Elev Reqd for Recharge per GSR-32	NJDEP WQ Stm Elev in Basin	Lowest Inv. of Orif/Weir In Basin
Depression	TBD	2.00	K3	2	1.00	0.08	1.00	30,615	2,551.3	0.1260	2 hr 9 min	57.00			67.00

The design of an infiltration basin is based upon Darcy's Law:

$$Q = KIA$$

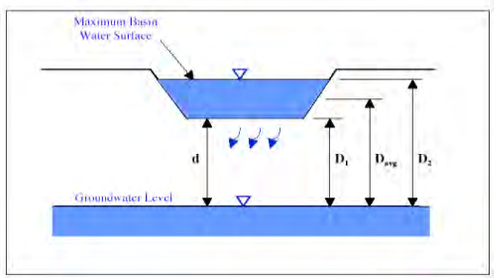
where:

Q = the rate of infiltration in cubic feet per second (cfs)
K = the hydraulic conductivity of the soil in feet per second (fps)
I = the hydraulic gradient
A = the area of infiltration in square feet (sf)

From the variables shown in Figure 9.5-2 below:

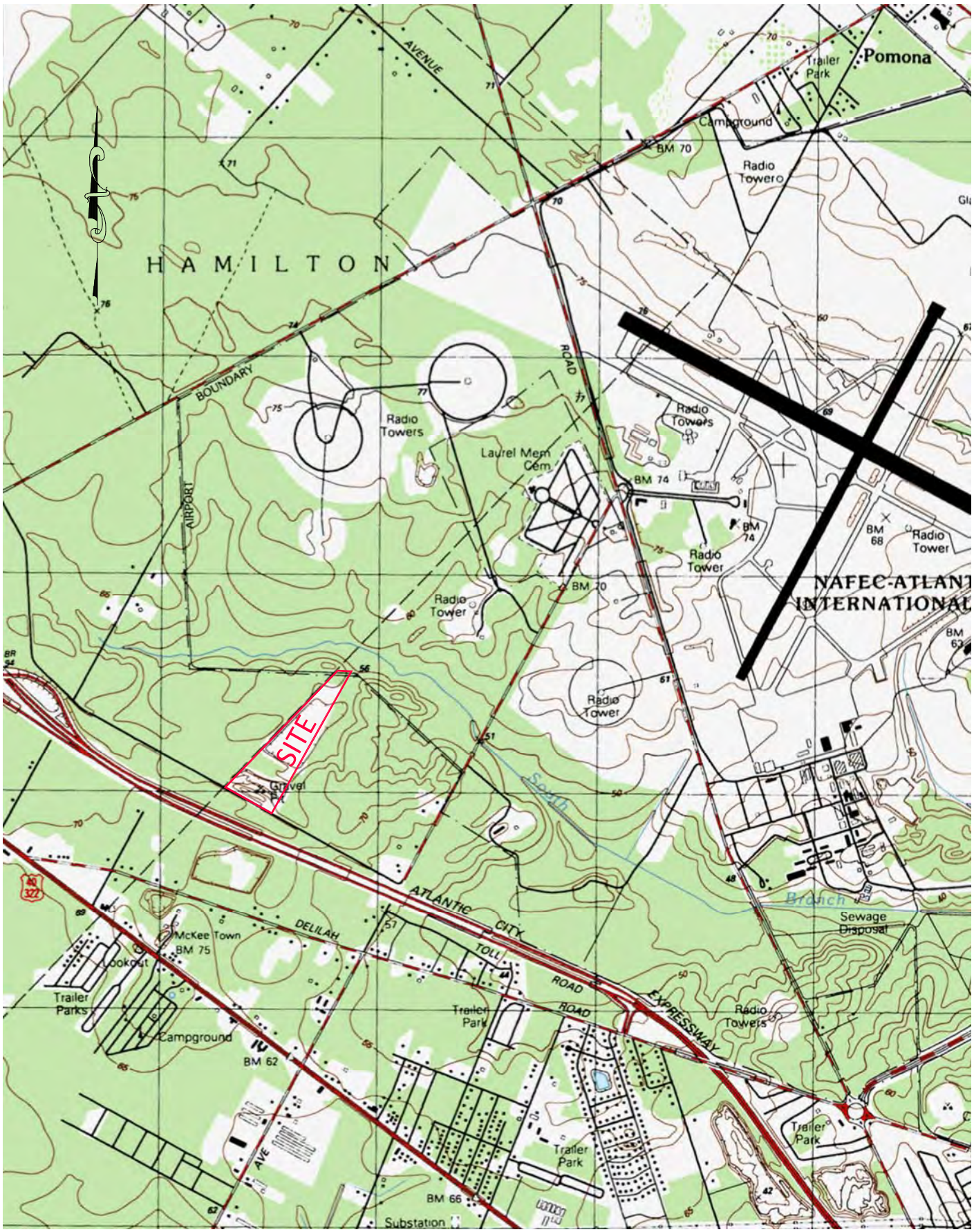
Average Hydraulic Gradient = D_{avg}/d
Minimum Hydraulic Gradient = D_1/d
Maximum Hydraulic Gradient = D_2/d

Figure 9.5-2: Schematic of Darcy's Law



Notes:

Appendix 3
Maps & Exhibits



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T&M ASSOCIATES
200 CENTURY BLVD, STE B
MT. LAUREL, N.J. 08054
TEL 856-722-6700
FAX 856-722-0175
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION
24GA27987500

AC POWER 2, LLC

PROPOSED SOLAR ARRAY
BLOCK 1504 – LOTS 1–9

EGG HARBOR TOWNSHIP TOWNSHIP, ATLANTIC COUNTY, NJ

SCALE: 1"=2,000'

USGS QUADRANGLE

PROJECT NO. ACPW-00011

DATE: 05/13/2019

Source: USGS 7.5 Minute Quadrangle, Pleasantville NJ

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24GA27987500

AC POWER 2, LLC

PROPOSED SOLAR ARRAY
BLOCK 1504 – LOTS 1-9

EGG HARBOR TOWNSHIP TOWNSHIP, ATLANTIC COUNTY, NJ

SCALE: 1"=500'

2015 AERIAL IMAGE & TAXMAP EXHIBIT

PROJECT NO. ACPW-00011
DATE: 05/13/2019

Source: 2015 AERIAL IMAGERY & EGG HARBOR TOWNSHIP TAX MAP #15

REVISIONS			
DATE	BY	LIC.NO.	COMMENTS

HAMILTON TOWNSHIP

THIS SHEET HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D).

TAX MAP

TOWNSHIP OF EGG HARBOR

ATLANTIC COUNTY, NEW JERSEY

SCALE: 1"=200' JANUARY 2008

JAMES A. MOTT, PE, PLS
PROFESSIONAL ENGINEER & LAND SURVEYOR
NEW JERSEY LICENSE NO. 29918
3122 FIRE ROAD
EGG HARBOR TOWNSHIP, NJ 08234

TO SHOW CONDITIONS AS OF JANUARY 1, 2008

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was New Jersey State Plane (FIPS 2900) zone. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was developed from high-resolution orthophotography provided by the State of New Jersey. This information was derived from digital orthophotos produced at a scale of 1:2400 with a 1-foot pixel resolution from photography dated 2012.

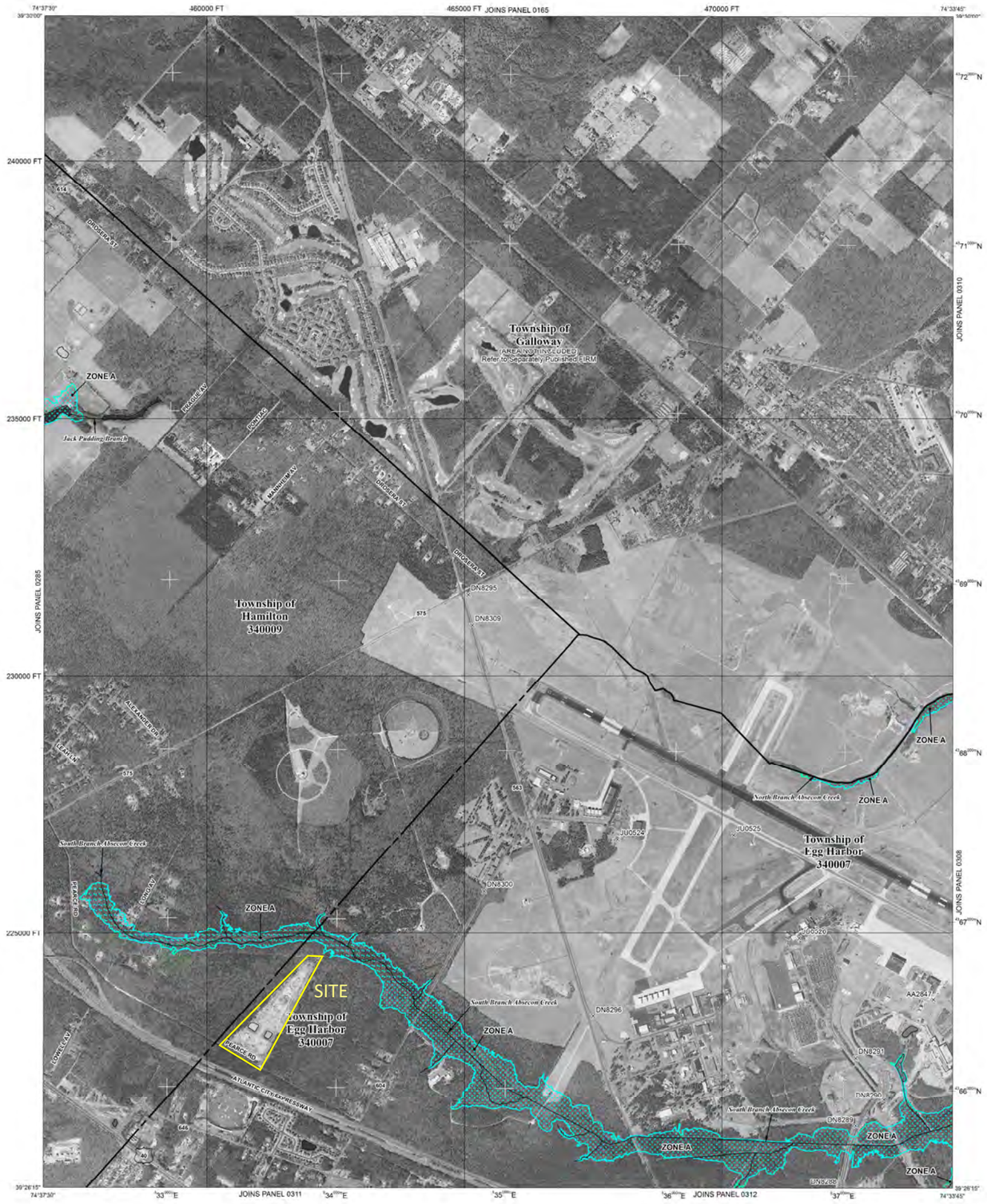
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Information eXchange** at 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Information eXchange may also be reached by Fax at 1-800-358-9620 and their website at https://msc.fema.gov/portal/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at https://www.fema.gov/national-flood-insurance-program.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equalled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Culvert, Flume, Penstock or Aqueduct
- Road or Railroad Bridge
- Footbridge
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4376000 mN — 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT — 5000-foot grid values: New Jersey State Plane coordinate system (FIPSZONE 2900), Transverse Mercator projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0305F

FIRM
FLOOD INSURANCE RATE MAP

ATLANTIC COUNTY, NEW JERSEY
(ALL JURISDICTIONS)

PANEL 305 OF 457
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

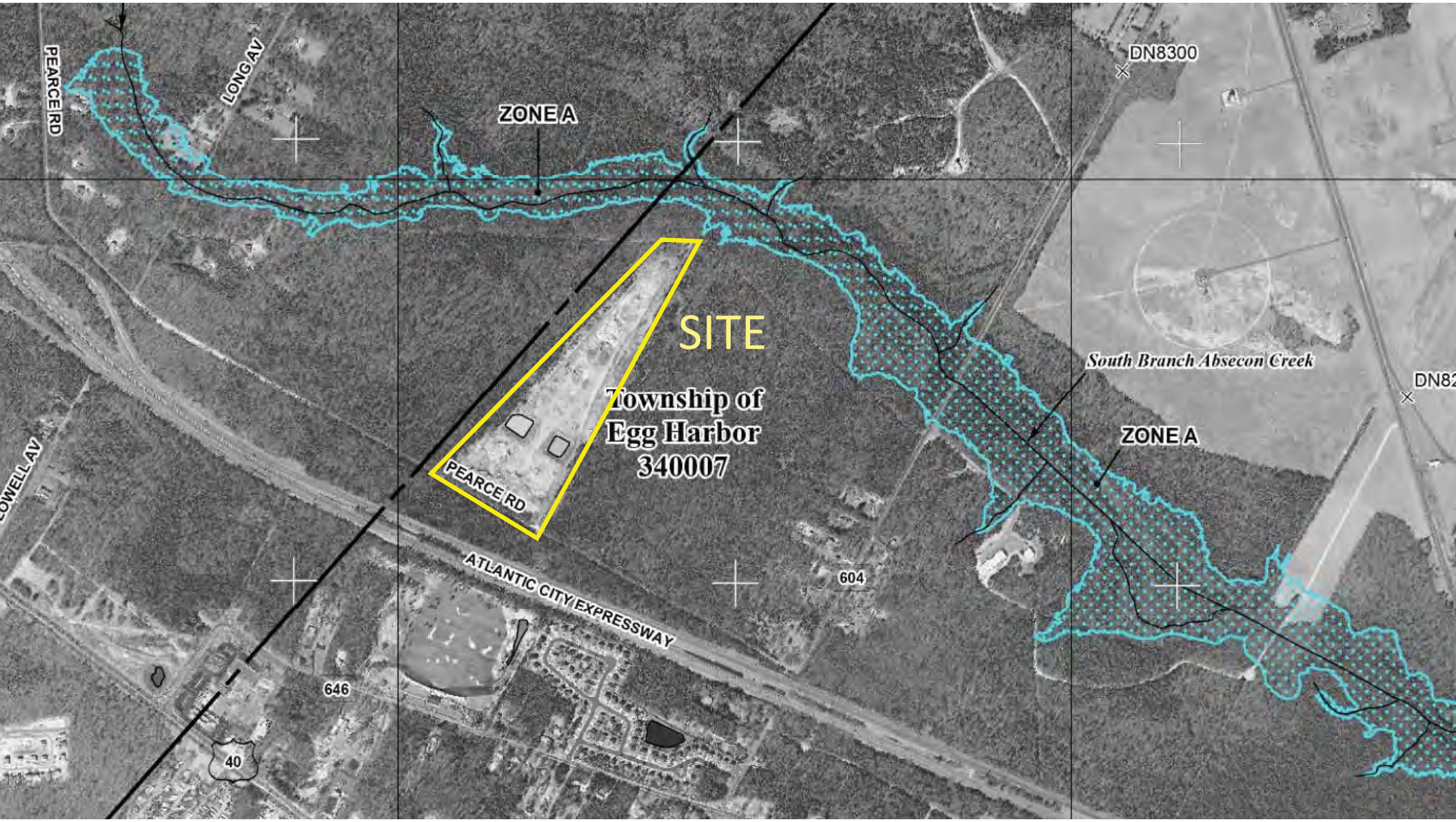
COMMUNITY	NUMBER	PANEL	SUFFIX
EGG HARBOR, TOWNSHIP OF	340007	0305	F
HAMILTON, TOWNSHIP OF	340009	0305	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
34001C0305F

EFFECTIVE DATE
AUGUST 28, 2018

Federal Emergency Management Agency



Taken from FEMA Map # 34001C0305F, effective August 28, 2018
NTS
T&M Project ACPW-00011

Map Scale: 1:6,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Atlantic County, New Jersey
Survey Area Data: Version 15, Sep 13, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 14, 2015—Apr 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DocBO	Downer loamy sand, 0 to 5 percent slopes, Northern Tidewater Area	A	14.3	21.9%
FobB	Fort Mott sand, 0 to 5 percent slopes	A	2.6	4.0%
MumA	Mullica sandy loam, 0 to 2 percent slopes	A/D	12.1	18.6%
PHG	Pits, sand and gravel		24.4	37.4%
SacBO	Sassafras sandy loam, 2 to 5 percent slopes, Northern Tidewater Area	B	11.8	18.1%
Totals for Area of Interest			**65.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

NOAA Atlas 14, Volume 2, Version 3
Location name: Mays Landing, New Jersey, USA*
Latitude: 39.4456°, Longitude: -74.6101°
Elevation: 67.6 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.351 (0.314-0.391)	0.416 (0.372-0.463)	0.488 (0.435-0.542)	0.550 (0.490-0.613)	0.622 (0.552-0.694)	0.678 (0.599-0.757)	0.732 (0.644-0.817)	0.781 (0.681-0.877)	0.842 (0.726-0.952)	0.894 (0.763-1.02)
10-min	0.561 (0.502-0.625)	0.666 (0.595-0.740)	0.782 (0.697-0.868)	0.880 (0.784-0.981)	0.991 (0.880-1.11)	1.08 (0.954-1.21)	1.16 (1.02-1.30)	1.24 (1.08-1.39)	1.33 (1.15-1.51)	1.41 (1.20-1.60)
15-min	0.701 (0.628-0.782)	0.837 (0.748-0.931)	0.989 (0.882-1.10)	1.11 (0.992-1.24)	1.26 (1.12-1.40)	1.37 (1.21-1.53)	1.47 (1.29-1.64)	1.56 (1.36-1.75)	1.68 (1.45-1.90)	1.77 (1.51-2.01)
30-min	0.962 (0.861-1.07)	1.16 (1.03-1.29)	1.41 (1.25-1.56)	1.61 (1.44-1.80)	1.86 (1.65-2.08)	2.06 (1.82-2.30)	2.25 (1.98-2.51)	2.43 (2.12-2.73)	2.67 (2.30-3.02)	2.86 (2.44-3.26)
60-min	1.20 (1.07-1.34)	1.45 (1.30-1.61)	1.80 (1.61-2.00)	2.10 (1.87-2.34)	2.48 (2.20-2.76)	2.79 (2.47-3.12)	3.10 (2.73-3.46)	3.41 (2.97-3.83)	3.83 (3.30-4.33)	4.18 (3.57-4.76)
2-hr	1.48 (1.30-1.70)	1.80 (1.58-2.06)	2.25 (1.97-2.57)	2.65 (2.31-3.03)	3.15 (2.73-3.61)	3.57 (3.09-4.10)	4.00 (3.43-4.62)	4.44 (3.78-5.16)	5.03 (4.22-5.90)	5.54 (4.60-6.53)
3-hr	1.62 (1.42-1.87)	1.97 (1.71-2.26)	2.47 (2.14-2.84)	2.92 (2.52-3.37)	3.49 (3.00-4.05)	3.99 (3.40-4.63)	4.50 (3.80-5.24)	5.03 (4.21-5.87)	5.76 (4.75-6.79)	6.39 (5.19-7.58)
6-hr	1.99 (1.75-2.34)	2.40 (2.11-2.81)	3.00 (2.62-3.51)	3.56 (3.10-4.16)	4.31 (3.72-5.04)	4.97 (4.25-5.82)	5.66 (4.80-6.64)	6.40 (5.36-7.54)	7.45 (6.13-8.81)	8.38 (6.79-9.98)
12-hr	2.37 (2.10-2.75)	2.85 (2.53-3.30)	3.58 (3.15-4.12)	4.29 (3.76-4.93)	5.27 (4.59-6.08)	6.18 (5.32-7.13)	7.14 (6.07-8.29)	8.21 (6.87-9.57)	9.78 (7.99-11.5)	11.2 (8.98-13.2)
24-hr	2.71 (2.47-3.00)	3.30 (3.01-3.66)	4.29 (3.90-4.75)	5.14 (4.66-5.68)	6.44 (5.80-7.09)	7.59 (6.78-8.31)	8.87 (7.86-9.69)	10.3 (9.06-11.3)	12.5 (10.8-13.6)	14.5 (12.3-15.7)
2-day	3.11 (2.82-3.46)	3.78 (3.43-4.21)	4.91 (4.45-5.46)	5.89 (5.31-6.54)	7.36 (6.59-8.15)	8.64 (7.70-9.56)	10.1 (8.90-11.1)	11.7 (10.2-12.9)	14.1 (12.2-15.6)	16.2 (13.9-18.0)
3-day	3.26 (2.97-3.61)	3.97 (3.61-4.39)	5.13 (4.66-5.67)	6.13 (5.55-6.76)	7.62 (6.86-8.39)	8.91 (7.98-9.81)	10.4 (9.21-11.4)	12.0 (10.5-13.1)	14.4 (12.5-15.8)	16.5 (14.2-18.1)
4-day	3.42 (3.12-3.76)	4.15 (3.80-4.56)	5.34 (4.88-5.88)	6.36 (5.79-6.99)	7.88 (7.14-8.63)	9.19 (8.27-10.1)	10.6 (9.51-11.6)	12.2 (10.9-13.4)	14.7 (12.8-16.0)	16.7 (14.5-18.3)
7-day	3.94 (3.64-4.31)	4.76 (4.40-5.20)	6.03 (5.56-6.59)	7.10 (6.53-7.74)	8.69 (7.95-9.45)	10.0 (9.15-10.9)	11.5 (10.4-12.5)	13.2 (11.8-14.3)	15.6 (13.8-16.9)	17.6 (15.5-19.1)
10-day	4.40 (4.08-4.77)	5.28 (4.90-5.74)	6.58 (6.10-7.14)	7.66 (7.08-8.30)	9.21 (8.48-9.97)	10.5 (9.64-11.4)	11.9 (10.9-12.8)	13.4 (12.1-14.5)	15.7 (14.1-17.0)	17.8 (15.8-19.2)
20-day	5.92 (5.56-6.31)	7.04 (6.61-7.52)	8.52 (7.99-9.09)	9.71 (9.09-10.4)	11.4 (10.6-12.1)	12.7 (11.8-13.6)	14.1 (13.1-15.0)	15.6 (14.3-16.6)	17.6 (16.1-18.7)	19.2 (17.4-20.5)
30-day	7.31 (6.89-7.77)	8.66 (8.16-9.20)	10.3 (9.71-11.0)	11.6 (10.9-12.3)	13.4 (12.6-14.3)	14.9 (13.9-15.8)	16.3 (15.2-17.3)	17.8 (16.5-18.9)	19.7 (18.2-21.0)	21.3 (19.5-22.7)
45-day	9.25 (8.79-9.76)	10.9 (10.4-11.5)	12.8 (12.2-13.5)	14.2 (13.5-15.0)	16.1 (15.3-17.0)	17.5 (16.6-18.5)	18.9 (17.9-19.9)	20.3 (19.1-21.4)	22.0 (20.6-23.3)	23.3 (21.8-24.7)
60-day	11.0 (10.5-11.6)	13.0 (12.3-13.6)	15.0 (14.3-15.8)	16.5 (15.7-17.3)	18.4 (17.5-19.4)	19.8 (18.8-20.8)	21.2 (20.1-22.3)	22.5 (21.2-23.6)	24.1 (22.7-25.3)	25.2 (23.7-26.6)

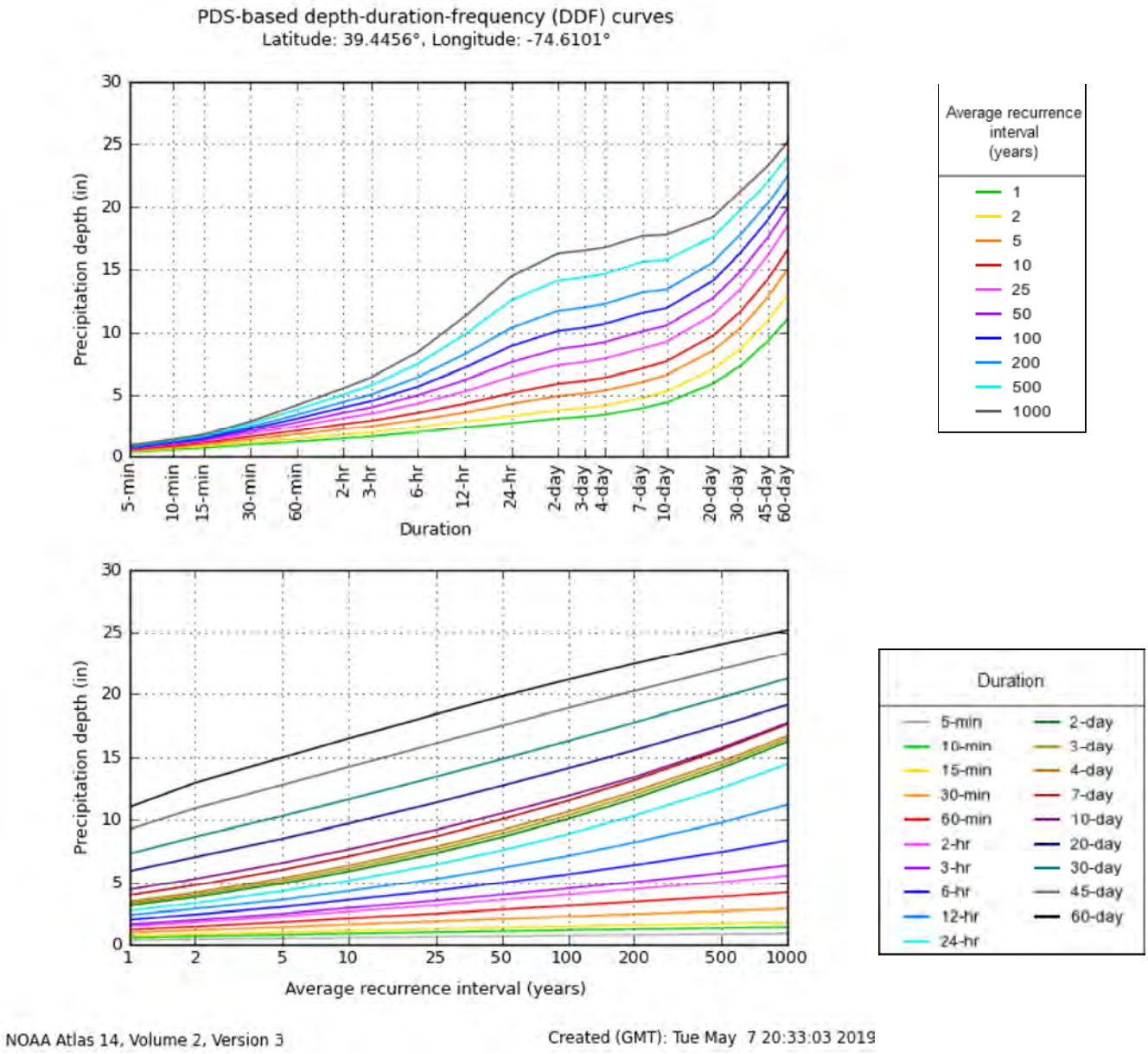
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



NOAA Atlas 14, Volume 2, Version 3

Created (GMT): Tue May 7 20:33:03 2019

Back to Top

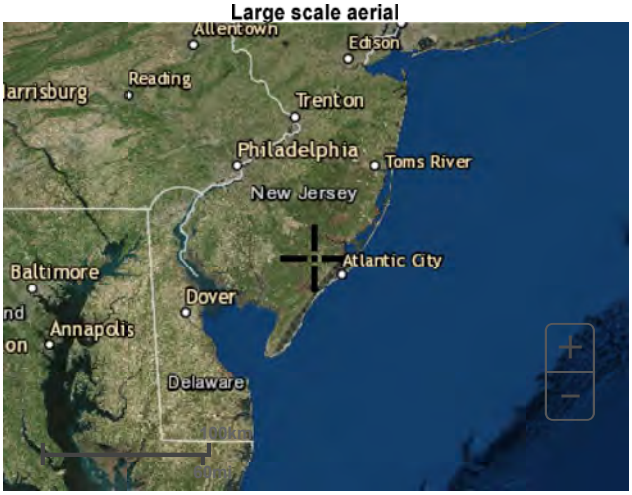
Maps & aerials

Small scale terrain

Large scale terrain

Large scale map

Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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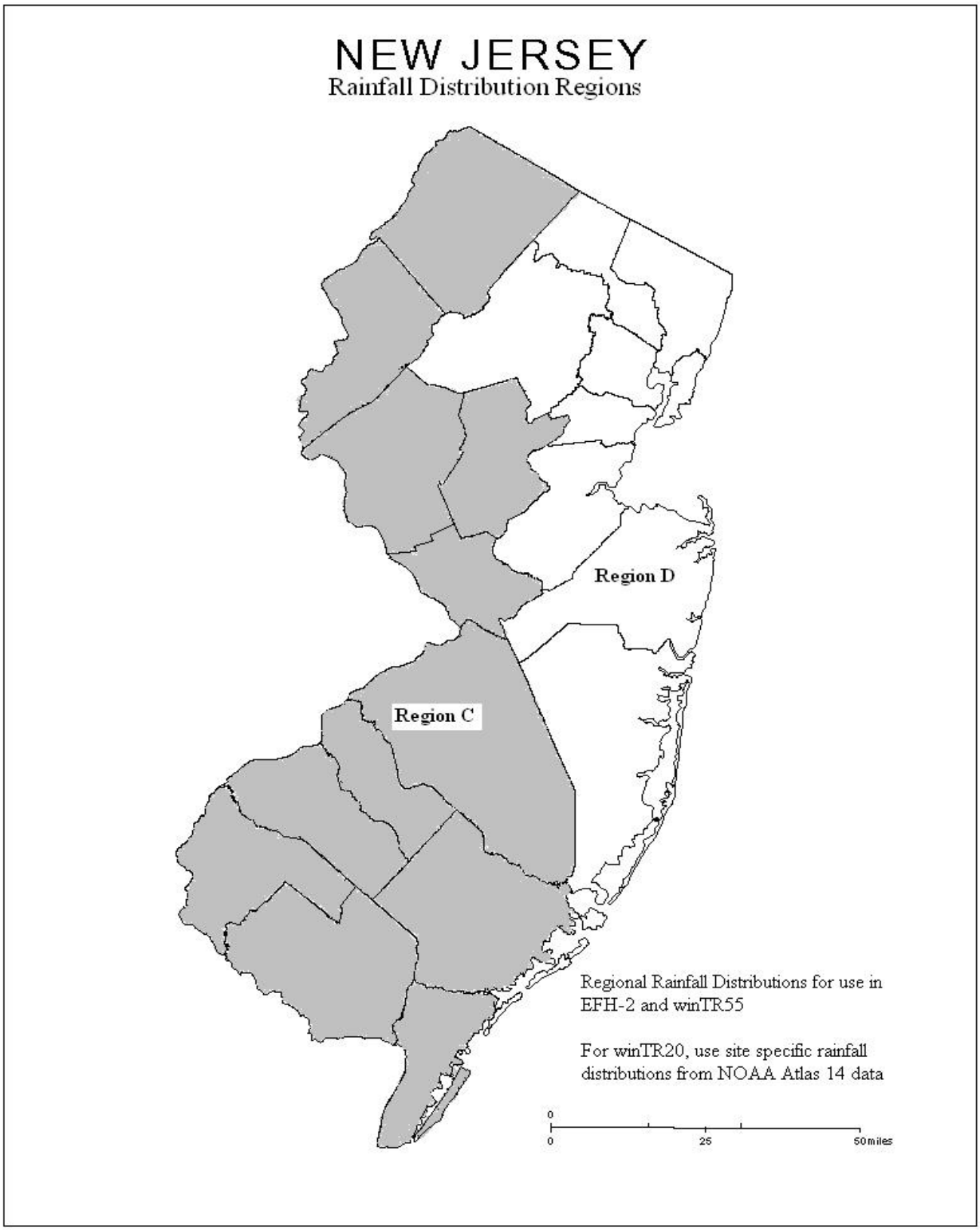
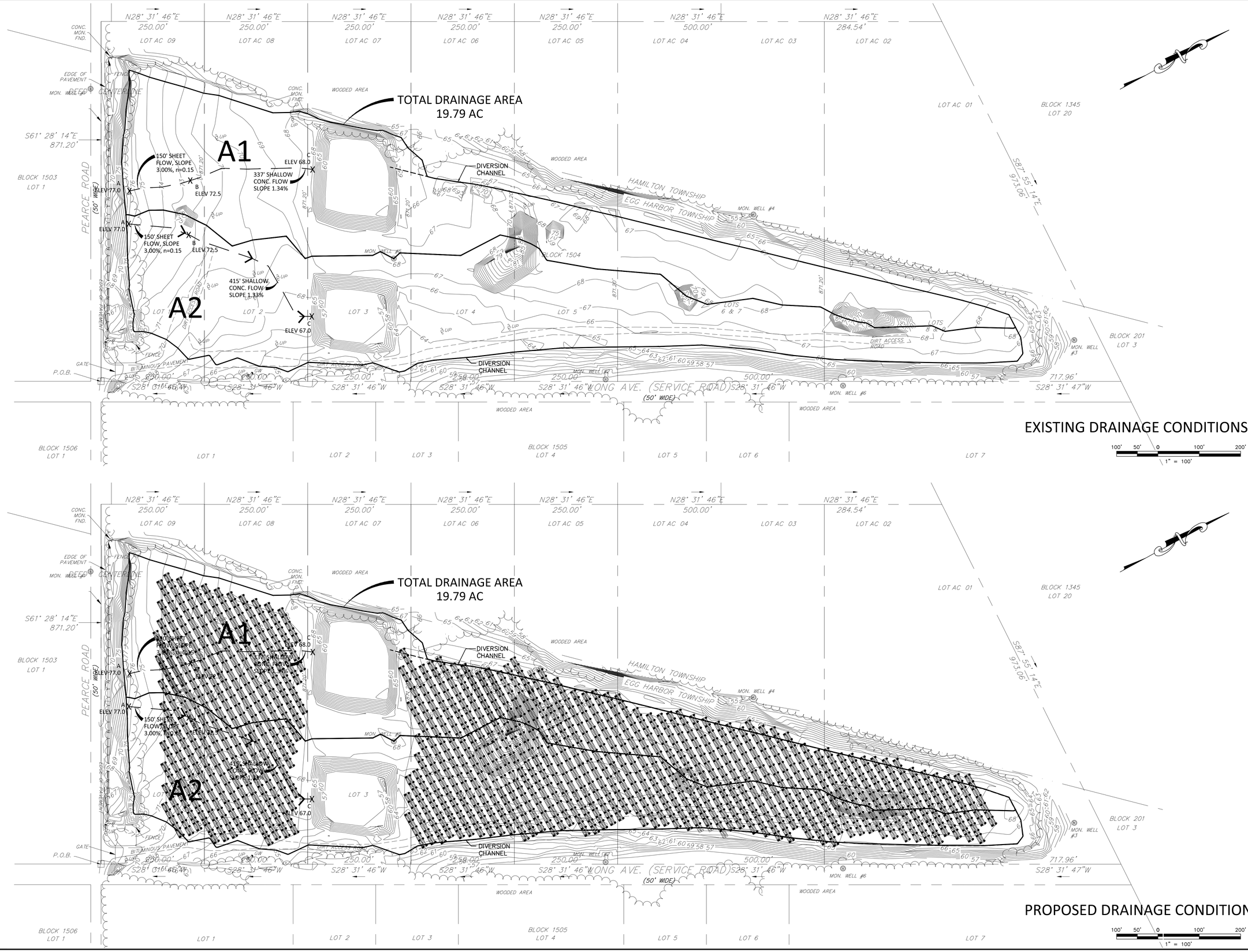

NEW JERSEY
Rainfall Distribution Regions
Region D
Region C
Regional Rainfall Distributions for use in EFH-2 and winTR55
For winTR20, use site specific rainfall distributions from NOAA Atlas 14 data
0
0
25
50 miles



EXISTING DRAINAGE CONDITIONS

PROPOSED DRAINAGE CONDITIONS

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PROJECT INFORMATION:
FILE PATH: G:\Projects\ACPW\00011\Calculations & Reports\Stormwater 2019-05\
FILE NAME: ACPW00011_SHT_DRAINAGE Plans.dwg
LAST PLOTTED: 10 May 2019 - 4:07 PM
LAST SAVE BY: NPacilio

NO.	DATE	REVISIONS	BY	CHKD

A. MAXWELL PETERS, P.E.
PRINCIPAL ENGINEER

DATE: 05-06-2019

LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. 44169

AC POWER 2, LLC
PROPOSED GROUND-MOUNTED SOLAR ARRAY
PEARCE ROAD
BLOCK 1504, LOTS 1-9
EGG HARBOR TOWNSHIP, ATLANTIC COUNTY, NEW JERSEY

PRE-DEVELOPMENT STORMWATER DRAINAGE MAP

T&M ASSOCIATES
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MT. LAUREL, NJ 08054
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DATE	05-06-2019
SCALE	1"=100'
PROJ. NO.	ACPW-00008

DRAWING: DA1

SHEET 1 OF 1

END OF REPORT