

**MEMORANDUM**

November 13, 2025  
File No. 0132892

**SUBJECT:** Initial Inflow Design Flood Control System Plan  
Ash Pond A Jefferies Generating Station  
Moncks Corner, South Carolina

South Carolina Public Service Authority (Santee Cooper) owns and operates Ash Pond A, the sole coal combustion residuals (CCRs) legacy surface impoundment at the Jefferies Generating Station located in Moncks Corner, South Carolina. Ash Pond A historically received various industrial wastewater streams, including ash sluice water. During unit operations, CCR material was sluiced to Ash Pond A for settling and storage. Ash Pond A has not received CCR or CCR wastewater since the coal-fired units were retired in 2012. Since that time, operations and maintenance of Ash Pond A have been limited to industrial stormwater treatment from the site's industrial runoff and activities associated with excavation and closure-by-removal of the CCR material. Ash Pond A is in the late stages of closure-by-removal of CCR and a layer of subsurface soil in accordance with the South Carolina Department of Environmental Services-approved state closure plan. This *Initial Inflow Design Flood (IDF) Control System Plan* (Plan) for the existing Inactive Pond CCR surface impoundment has been completed to satisfy the requirements of the United States Environmental Protection Agency (EPA) Title 40 of the Code of Federal Regulations (40 CFR) Parts 257 and 261, "*Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*" (CCR Rule) section 40 CFR § 257.82, as applicable to legacy surface impoundments. The existing conditions of Ash Pond A and the surrounding watershed have been reviewed and applicable information used in the modeling and analysis of the unit for this Plan. The Plan requirements from the CCR Rule section 40 CFR § 257.82 are described below.

40 CFR § 257.82(a): *The owner or operator of an existing or new CCR surface impoundment or any lateral expansion of a CCR surface impoundment must design, construct, operate, and maintain an inflow design flood control system as specified in paragraphs (a){1} and (a){2} of this section.*

40 CFR § 257.82(a)(I): *The inflow design flood control system must adequately manage flow into the CCR unit during and following the peak discharge of the inflow design flood specified in paragraph (a){3} of this section.*

Ash Pond A consists of a 136-acre unlined basin, with an approximate drainage area of 136 acres. See Figure 1 for the Ash Pond A existing conditions site plan and drainage watersheds.

The northwestern border to Ash Pond A is defined by a shear cut from predominantly natural, existing ground that has been modified and graded to form an access road. The cross-dike, which acts as the

southern border of Ash Pond A and abuts the Decant Pond, was constructed following substantial completion of the pond in 1970 and prior to a subsurface improvements project to address seepages below and within the dike system. The embankment associated with the entire Ash Pond A area is approximately 8,100 feet in length with a crest elevation varying from 17 to 50 feet. Ash Pond A was constructed to discharge directly to the Decant Pond through an outfall control structure within Ash Pond A that gravity feeds through a culvert at the southeastern corner into the Decant Pond.

Maintaining Ash Pond A at a largely dewatered state was not possible solely with the outfall structure and gravity drainage; therefore, a portable e Godwin Dri Prime CD150M pump with a diesel engine has been used to pump the ponded water level down below the structure elevation. The pump is used to transfer Ash Pond A wastewater through the control structure and culvert into the Decant Pond. Ash Pond A was modeled in HydroCAD in conjunction with the appropriate IDF as dictated by the CCR Rule in section 40 CFR § 257.82(a)(3). The HydroCAD model simulation output is provided in Appendix A. The peak water surface elevation remains below the embankment low-crest elevation; therefore, the discharge is controlled in the unit through the outfall control structure and e Godwin Dri Prime CD150M pump.

Based on the HydroCAD analysis and associated discussion above, the IDF control system for Ash Pond A was determined to adequately manage flow into the impoundment during and following the IDF peak discharge.

*40 CFR § 257.82(a)(2): The inflow design flood control system must adequately manage flow from the CCR unit to collect and control the peak discharge resulting from the inflow design flood specified in paragraph (a)(3) of this section.*

Operations and maintenance of Ash Pond A have been limited to industrial stormwater treatment from the site industrial runoff and activities associated with excavation and closure-by-removal of the CCR. It serves primarily as a settling basin prior to the wastewater entering the Decant Pond. Based on the HydroCAD analysis and associated discussion above, the IDF control system for Ash Pond A was determined to adequately manage flow into the impoundment during and following the IDF peak discharge. The HydroCAD model simulation outputs are provided in Appendix A.

*40 CFR § 257.82(a)(3): The inflow design flood is:*

- i. *For a high hazard potential CCR surface impoundment, as determined under 40 CFR § 257.73(a)(2) or § 257.74(a)(2), the probable maximum flood;*
- ii. *For a significant hazard potential CCR surface impoundment, as determined under 40 CFR § 257.73(a)(2) or 40 CFR § 257.74(a)(2), the 1,000-year flood;*
- iii. *For a low hazard potential CCR surface impoundment, as determined under 40 CFR § 257.73(a)(2) or 40 CFR § 257.74(a)(2), the 100-year flood; or*
- iv. *For an incised CCR surface impoundment, the 25-year flood.*

Ash Pond A received a low hazard potential based on the classification completed under separate cover. Therefore, the IDF used for modeling is the 100-year flood event. The 100-year precipitation characteristics were detailed in the National Oceanic and Atmospheric Administration's Atlas 14 Point

Precipitation Frequency Estimates: Moncks Corner, South Carolina, dated September 11, 2025. A copy of the precipitation data has been provided in Appendix B.

*40 CFR § 257.82(b): Discharge from the CCR unit must be handled in accordance with the surface water requirements under 40 CFR § 257.3-3.*

Ash Pond A operates under National Pollutant Discharge Elimination System (NPDES) Permit Number SC0001091 and accepts industrial stormwater from the site's runoff. It is permitted to serve primarily as a settling basin prior to the wastewater entering the Decant Pond. The Decant Pond then discharges through a box structure and pipes at NPDES Outfall 003, which penetrates the southwestern dike. The exterior perimeter channel intercepts the flow and redirects it into the Tailrace Canal.<sup>1</sup>

This discharge location is discharged to the Evaporation Pond and; therefore, meets the requirements of this section.

*40 CFR § 257.82(c)(1): Content of the plan. The owner or operator must prepare initial and periodic inflow design flood control system plans for the CCR unit according to the timeframes specified in paragraphs (c)(3) and (4) of this section. These plans must document how the inflow design flood control system has been designed and constructed to meet the requirements of this section. Each plan must be supported by appropriate engineering calculations. The owner or operator of the CCR unit has completed the inflow design flood control system plan when the plan has been placed in the facility's operating record as required by 40 CFR § 257.105(g)(4).*

This document and all attachments serve as the Plan and will be placed in the facility's operating record. Periodic Plans will be prepared at 5-year increments or whenever is determined necessary if there is a change in conditions that would affect the Plan.

*40 CFR § 257.73(c)(2): Amendment of the plan. The owner or operator of the CCR unit may amend the written inflow design flood control system plan at any time provided the revised plan is placed in the facility's operating record as required by 40 CFR § 257.105(g)(4). The owner or operator must amend the written inflow design flood control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.*

The Plan will be amended if conditions change that substantially affect the written plan that is in effect. Any amendments to the Plan will include written certification from a qualified professional engineer that any amendments to the Plan meet the requirements of the CCR Rule.

A record of amendments to the Plan will be tracked below. The latest version of the Plan will be noted on the first page of the Plan.

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<sup>1</sup> Geosyntec Consultants, 2016. Conceptual Closure Plan – Ash Pond A and Ash Pond B – Jefferies Station. November.

Version	Date	Description of Changes Made
1	November 13, 2025	Initial Issuance

*40 CFR § 257.73(c)(3): Timeframes for preparing the initial plan. Existing CCR surface impoundments. The owner or operator of the CCR unit must prepare the initial inflow design flood control system plan no later than October 17, 2016.*

Per EPA 40 CFR Part § 257 – The "Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Extension of Compliance Deadlines for Certain Inactive Surface Impoundments; Response to Partial Vacatur" October 17, 2016, deadline is not applicable. See the excerpt below:

*40 CFR § 257.100 (f)(3)(v): Inactive CCR surface impoundments and Legacy CCR surface impoundments. Operating criteria. The owner or operator of the legacy CCR surface impoundment must: No later than Friday, May 8, 2026, prepare the initial inflow design flood control system plan as set forth in 40 CFR § 257.82(c).*

This Plan has been prepared within the specified time frame.

*New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. The owner or operator must prepare the initial inflow design flood control system plan no later than the date of initial receipt of CCR in the CCR unit.*

Not Applicable.

*40 CFR § 257.73(c)(4): Frequency for revising the plan. The owner or operator must prepare periodic inflow design flood control system plans required by paragraph (c){l} of this section every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first periodic plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing a subsequent plan is based on the date of completing the previous plan. For purposes of this paragraph (c)(4), the owner or operator has completed an inflow design flood control system plan when the plan has been placed in the facility's operating record as required by 40 CFR § 257.105{g}{4}.*

The Plan or any subsequent version of the Plan will be assessed and amended whenever there is a change in operation of the Inactive Pond that would substantially affect the Plan or when unanticipated events necessitate a revision to the Plan.

Attachments:

- Professional Engineer Certification
- Figure 1 - Pond A Contributing Drainage Area
- Appendix A – HydroCAD Model Simulation Output
- Appendix B – NOAA Precipitation Data

**Professional Engineer Certification**

40 CFR § 257.82(c)(5): *The owner or operator must obtain a certification from a qualified professional engineer stating that the initial and periodic inflow design flood control system plans meet the requirements of this section.*

I certify that this *Initial Inflow Design Flood Control System Plan* for Santee Cooper's Ash Pond A at the Jefferies Generating Station meets the EPA's CCR Rule requirements of 40 CFR § 257.82.



Nicholas Davis, P.E.  
Certifying Engineer

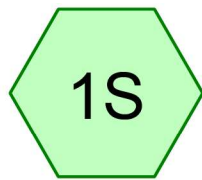


[https://haleyaldrich.sharepoint.com/sites/SanteeCooper2/Shared Documents/0132892.Santee Cooper CCR Consulting Service/0\\_Jefferies Generating Station/Deliverables/4\) X\\_2025\\_05\\_InitialInflowDesignFloodControlSystemPlan/Final/2025\\_1113\\_HAI\\_Initial Inflow Design Flood Control System Plan\\_F.docx](https://haleyaldrich.sharepoint.com/sites/SanteeCooper2/Shared Documents/0132892.Santee Cooper CCR Consulting Service/0_Jefferies Generating Station/Deliverables/4) X_2025_05_InitialInflowDesignFloodControlSystemPlan/Final/2025_1113_HAI_Initial Inflow Design Flood Control System Plan_F.docx)

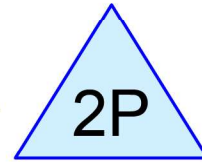
**FIGURE**



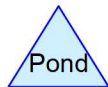
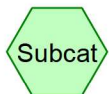
**APPENDIX A**  
**HydroCAD Model Simulation Output**



Pond A



(new Pond)



# Pond\_A\_Water\_Level

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## Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	100-year	Type II 24-hr		Default	24.00	1	9.82	2

# Pond\_A\_Water\_Level

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## Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
136.000	89	<50% Grass cover, Poor, HSG D (1S)
<b>136.000</b>	<b>89</b>	<b>TOTAL AREA</b>

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## Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
136.000	HSG D	1S
0.000	Other	
<b>136.000</b>		<b>TOTAL AREA</b>

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## Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	136.000	0.000	136.000	<50% Grass cover, Poor	1S
<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>136.000</b>	<b>0.000</b>	<b>136.000</b>	<b>TOTAL AREA</b>	

**Pond\_A\_Water\_Level**

Type II 24-hr 100-year Rainfall=9.82"

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Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Pond A**

Runoff Area=136.000 ac 0.00% Impervious Runoff Depth>8.41"  
Flow Length=4,431' Tc=17.2 min CN=89 Runoff=1,286.19 cfs 95.310 af

**Pond 2P: (new Pond)**

Peak Elev=14.75' Storage=64.317 af Inflow=1,286.19 cfs 95.310 af  
Outflow=68.03 cfs 72.778 af

**Total Runoff Area = 136.000 ac Runoff Volume = 95.310 af Average Runoff Depth = 8.41"**  
**100.00% Pervious = 136.000 ac 0.00% Impervious = 0.000 ac**

**Pond\_A\_Water\_Level**

Type II 24-hr 100-year Rainfall=9.82"

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**Summary for Subcatchment 1S: Pond A**

[47] Hint: Peak is 821% of capacity of segment #2

[47] Hint: Peak is 163% of capacity of segment #4

Runoff = 1,286.19 cfs @ 12.09 hrs, Volume= 95.310 af, Depth> 8.41"  
Routed to Pond 2P : (new Pond)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-year Rainfall=9.82"

Area (ac)	CN	Description
136.000	89	<50% Grass cover, Poor, HSG D
136.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	50	0.0200	1.34		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 4.02"
0.6	355	0.0140	9.33	156.70	<b>Channel Flow,</b> Area= 16.8 sf Perim= 11.0' r= 1.53' n= 0.025 Earth, clean & straight
7.3	800	0.0130	1.84		<b>Shallow Concentrated Flow,</b> Unpaved Kv= 16.1 fps
8.7	3,226	0.0020	6.18	787.49	<b>Channel Flow,</b> Area= 127.5 sf Perim= 36.0' r= 3.54' n= 0.025 Earth, clean & straight
17.2	4,431	Total			

**Pond\_A\_Water\_Level**

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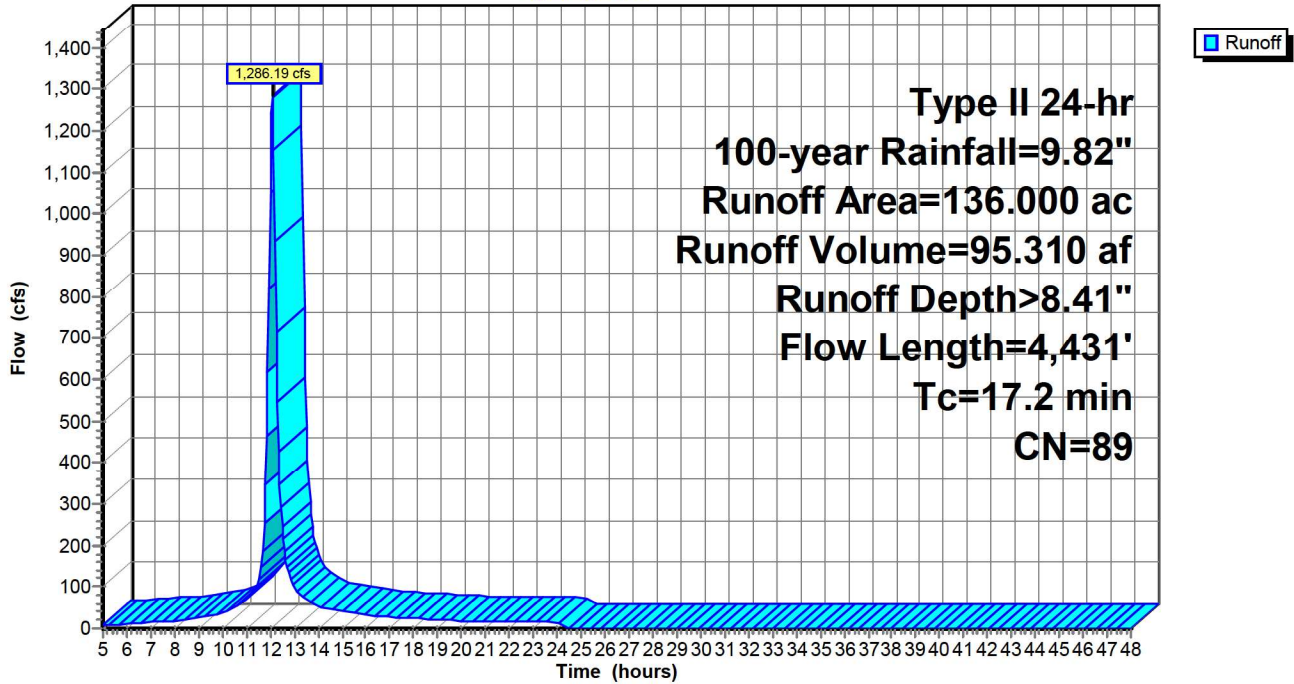
Type II 24-hr 100-year Rainfall=9.82"

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**Subcatchment 1S: Pond A**

Hydrograph



**Pond\_A\_Water\_Level**

Type II 24-hr 100-year Rainfall=9.82"

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**Summary for Pond 2P: (new Pond)**

[82] Warning: Early inflow requires earlier time span

Inflow Area = 136.000 ac, 0.00% Impervious, Inflow Depth > 8.41" for 100-year event  
 Inflow = 1,286.19 cfs @ 12.09 hrs, Volume= 95.310 af  
 Outflow = 68.03 cfs @ 13.61 hrs, Volume= 72.778 af, Atten= 95%, Lag= 91.2 min  
 Primary = 68.03 cfs @ 13.61 hrs, Volume= 72.778 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs  
 Peak Elev= 14.75' @ 13.61 hrs Surf.Area= 17.616 ac Storage= 64.317 af

Plug-Flow detention time= 573.4 min calculated for 72.677 af (76% of inflow)  
 Center-of-Mass det. time= 489.1 min ( 1,273.4 - 784.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	9.00'	144.055 af	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
9.00	3.310	0.000	0.000
10.00	7.650	5.480	5.480
11.00	10.100	8.875	14.355
12.00	11.600	10.850	25.205
13.00	13.340	12.470	37.675
14.00	15.240	14.290	51.965
15.00	18.400	16.820	68.785
16.00	18.630	18.515	87.300
17.00	18.840	18.735	106.035
18.00	19.000	18.920	124.955
19.00	19.200	19.100	144.055

Device	Routing	Invert	Outlet Devices
#1	Primary	11.20'	<b>44.4" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Primary	16.60'	<b>6.5" x 8.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Primary OutFlow** Max=68.06 cfs @ 13.61 hrs HW=14.75' (Free Discharge)

↑1=Orifice/Grate (Orifice Controls 68.06 cfs @ 6.42 fps)

└2=Orifice/Grate ( Controls 0.00 cfs)

**Pond\_A\_Water\_Level**

Prepared by Haley & Aldrich, Inc

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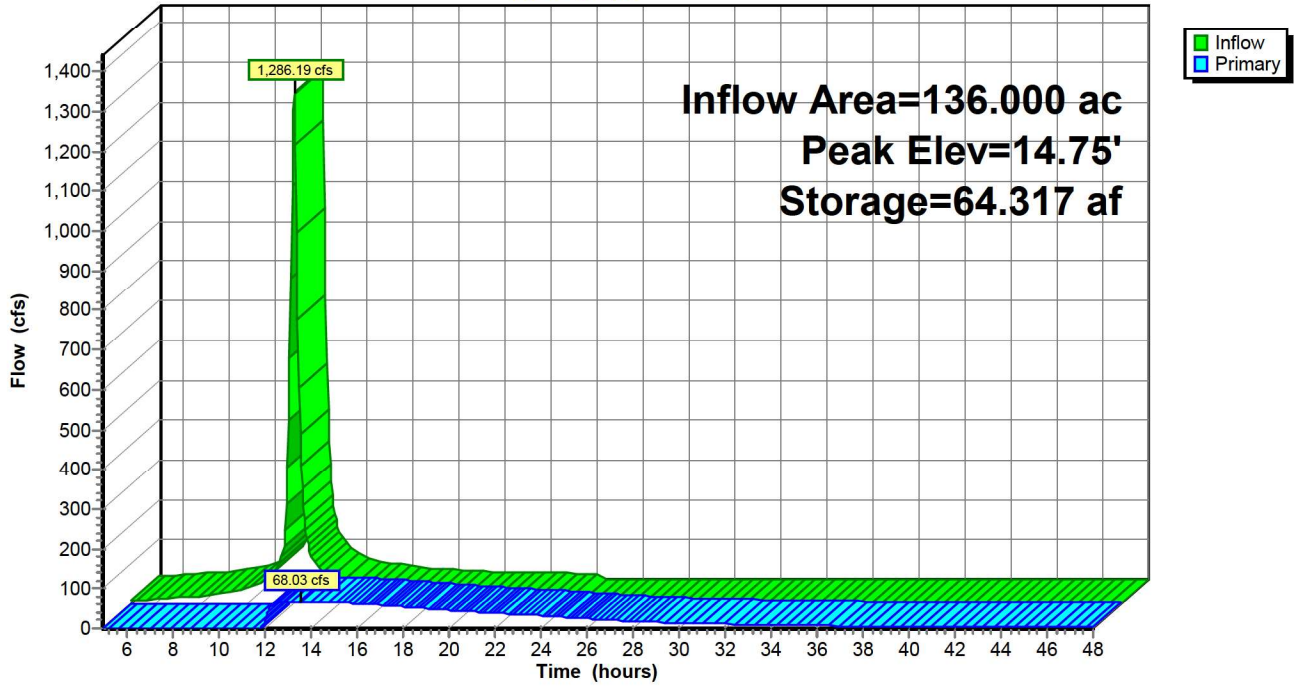
Type II 24-hr 100-year Rainfall=9.82"

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**Pond 2P: (new Pond)**

Hydrograph



**APPENDIX B**  
**NOAA Precipitation Data**



**NOAA Atlas 14, Volume 2, Version 3**  
**Location name: Moncks Corner, South Carolina,**  
**USA\***

**Latitude: 33.2415°, Longitude: -79.976°**

**Elevation: 63 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**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.484 (0.454-0.518)	0.565 (0.529-0.605)	0.650 (0.608-0.696)	0.735 (0.685-0.786)	0.829 (0.769-0.887)	0.909 (0.839-0.970)	0.984 (0.903-1.05)	1.06 (0.965-1.13)	1.15 (1.04-1.24)	1.24 (1.10-1.33)
10-min	0.773 (0.725-0.827)	0.903 (0.845-0.967)	1.04 (0.973-1.12)	1.18 (1.10-1.26)	1.32 (1.23-1.41)	1.45 (1.34-1.54)	1.56 (1.44-1.67)	1.68 (1.53-1.80)	1.82 (1.64-1.95)	1.95 (1.74-2.09)
15-min	0.966 (0.906-1.03)	1.14 (1.06-1.22)	1.32 (1.23-1.41)	1.49 (1.38-1.59)	1.68 (1.55-1.79)	1.83 (1.69-1.96)	1.98 (1.81-2.11)	2.12 (1.93-2.26)	2.29 (2.07-2.46)	2.44 (2.18-2.63)
30-min	1.32 (1.24-1.42)	1.57 (1.47-1.68)	1.87 (1.75-2.00)	2.15 (2.01-2.30)	2.48 (2.30-2.65)	2.76 (2.55-2.95)	3.03 (2.78-3.24)	3.30 (3.00-3.53)	3.65 (3.29-3.91)	3.96 (3.54-4.26)
60-min	1.65 (1.55-1.77)	1.97 (1.84-2.11)	2.40 (2.24-2.57)	2.80 (2.61-3.00)	3.30 (3.06-3.53)	3.74 (3.45-3.99)	4.17 (3.83-4.46)	4.62 (4.21-4.95)	5.24 (4.72-5.62)	5.78 (5.16-6.22)
2-hr	1.96 (1.83-2.10)	2.36 (2.19-2.53)	2.94 (2.72-3.15)	3.49 (3.22-3.73)	4.16 (3.83-4.45)	4.74 (4.34-5.07)	5.32 (4.84-5.68)	5.91 (5.35-6.32)	6.69 (5.99-7.16)	7.37 (6.54-7.92)
3-hr	2.10 (1.94-2.28)	2.52 (2.33-2.74)	3.15 (2.91-3.42)	3.76 (3.46-4.07)	4.54 (4.15-4.91)	5.24 (4.75-5.66)	5.94 (5.35-6.42)	6.68 (5.97-7.21)	7.69 (6.78-8.31)	8.59 (7.49-9.30)
6-hr	2.48 (2.29-2.69)	2.97 (2.75-3.23)	3.72 (3.43-4.03)	4.45 (4.09-4.82)	5.39 (4.92-5.83)	6.23 (5.66-6.73)	7.09 (6.38-7.65)	8.01 (7.14-8.64)	9.26 (8.15-10.0)	10.4 (9.03-11.2)
12-hr	2.88 (2.65-3.15)	3.46 (3.18-3.78)	4.34 (3.99-4.75)	5.23 (4.78-5.70)	6.38 (5.80-6.93)	7.42 (6.69-8.04)	8.49 (7.59-9.19)	9.65 (8.53-10.4)	11.3 (9.80-12.2)	12.7 (10.9-13.8)
24-hr	3.31 (3.05-3.60)	4.02 (3.71-4.38)	5.20 (4.79-5.66)	6.16 (5.65-6.69)	7.52 (6.86-8.16)	8.64 (7.84-9.37)	9.82 (8.87-10.7)	11.1 (9.96-12.0)	12.9 (11.5-14.0)	14.3 (12.7-15.6)
2-day	3.89 (3.54-4.32)	4.72 (4.29-5.23)	6.04 (5.47-6.68)	7.11 (6.43-7.86)	8.64 (7.77-9.53)	9.88 (8.86-10.9)	11.2 (9.98-12.4)	12.6 (11.2-14.0)	14.6 (12.8-16.2)	16.2 (14.2-18.0)
3-day	4.16 (3.79-4.61)	5.04 (4.58-5.58)	6.40 (5.81-7.09)	7.50 (6.79-8.30)	9.06 (8.17-10.0)	10.3 (9.27-11.4)	11.7 (10.4-12.9)	13.1 (11.6-14.5)	15.1 (13.3-16.7)	16.7 (14.6-18.5)
4-day	4.43 (4.04-4.91)	5.36 (4.87-5.93)	6.77 (6.14-7.49)	7.90 (7.16-8.74)	9.48 (8.56-10.5)	10.8 (9.69-11.9)	12.1 (10.8-13.4)	13.5 (12.1-15.0)	15.5 (13.7-17.3)	17.1 (15.1-19.1)
7-day	5.20 (4.78-5.69)	6.26 (5.76-6.85)	7.82 (7.17-8.55)	9.05 (8.29-9.89)	10.8 (9.81-11.7)	12.1 (11.0-13.2)	13.5 (12.2-14.8)	15.0 (13.5-16.4)	17.1 (15.3-18.7)	18.7 (16.7-20.6)
10-day	5.93 (5.46-6.47)	7.12 (6.55-7.76)	8.73 (8.03-9.52)	9.98 (9.16-10.9)	11.7 (10.7-12.7)	13.0 (11.9-14.2)	14.4 (13.1-15.7)	15.8 (14.3-17.2)	17.7 (15.9-19.4)	19.2 (17.2-21.1)
20-day	7.97 (7.40-8.58)	9.50 (8.83-10.2)	11.5 (10.6-12.3)	13.0 (12.1-14.0)	15.1 (13.9-16.2)	16.7 (15.4-18.0)	18.4 (16.9-19.8)	20.1 (18.3-21.6)	22.3 (20.3-24.1)	24.1 (21.9-26.1)
30-day	9.83 (9.20-10.5)	11.7 (10.9-12.4)	13.8 (12.9-14.7)	15.5 (14.4-16.5)	17.6 (16.4-18.8)	19.3 (18.0-20.6)	21.0 (19.5-22.3)	22.6 (20.9-24.1)	24.8 (22.9-26.5)	26.6 (24.4-28.4)
45-day	12.4 (11.7-13.2)	14.7 (13.8-15.6)	17.2 (16.2-18.2)	19.0 (17.9-20.2)	21.5 (20.1-22.7)	23.3 (21.8-24.7)	25.1 (23.5-26.7)	26.9 (25.1-28.6)	29.3 (27.2-31.2)	31.1 (28.7-33.2)
60-day	14.8 (13.9-15.6)	17.4 (16.4-18.4)	20.2 (19.1-21.4)	22.3 (21.0-23.5)	24.9 (23.5-26.4)	26.9 (25.3-28.5)	28.9 (27.1-30.6)	30.8 (28.8-32.7)	33.3 (31.0-35.4)	35.2 (32.7-37.5)

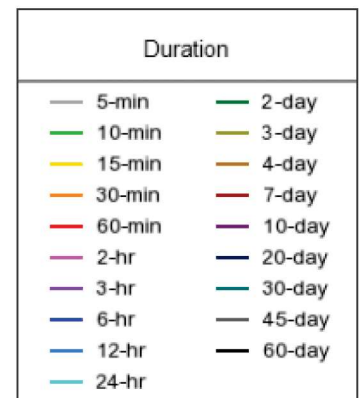
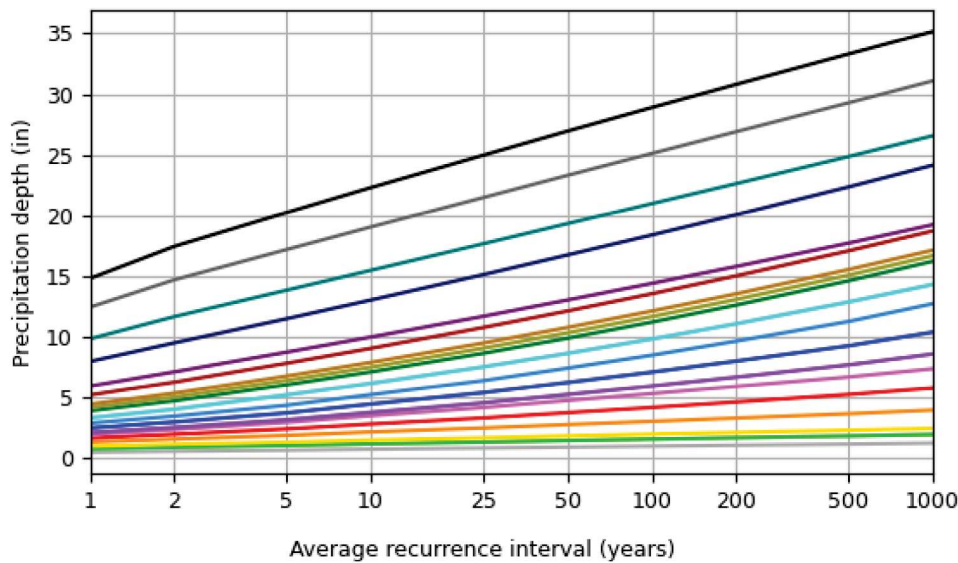
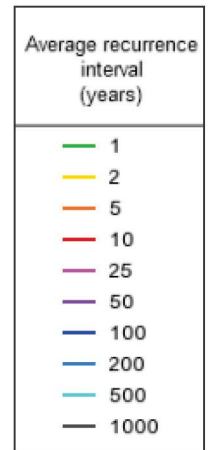
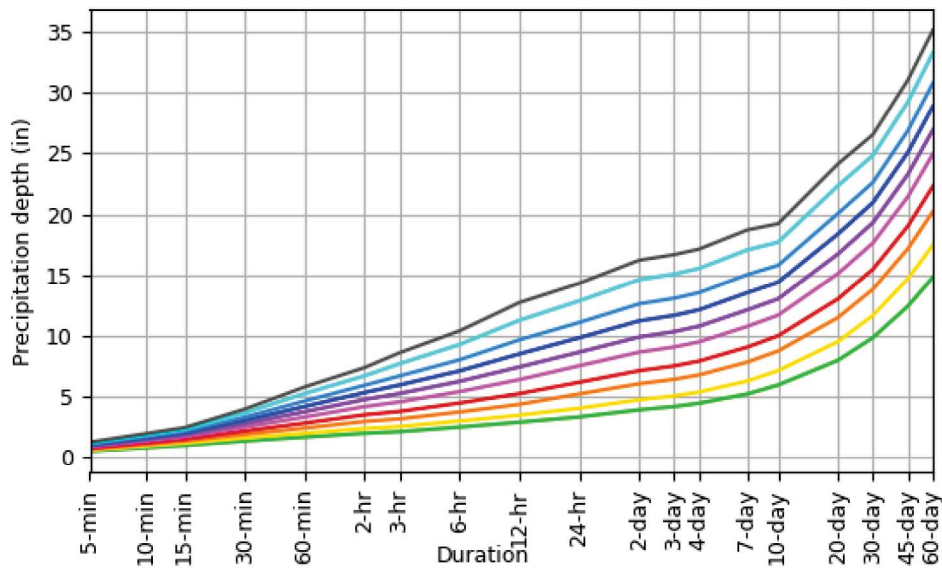
<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration 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.

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**PF graphical**

PDS-based depth-duration-frequency (DDF) curves

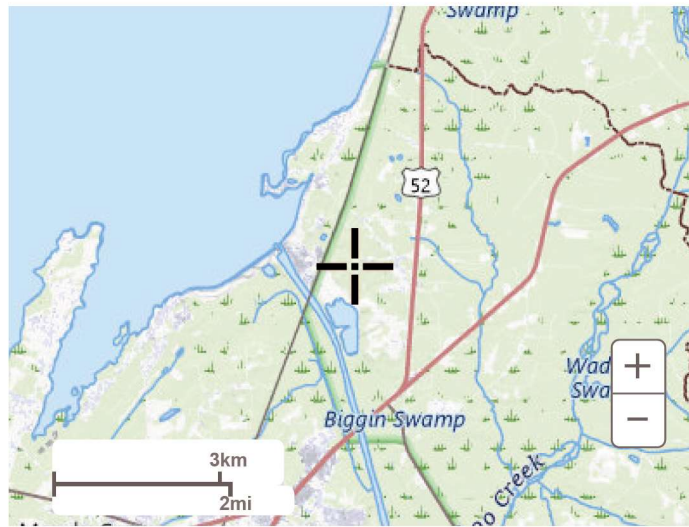
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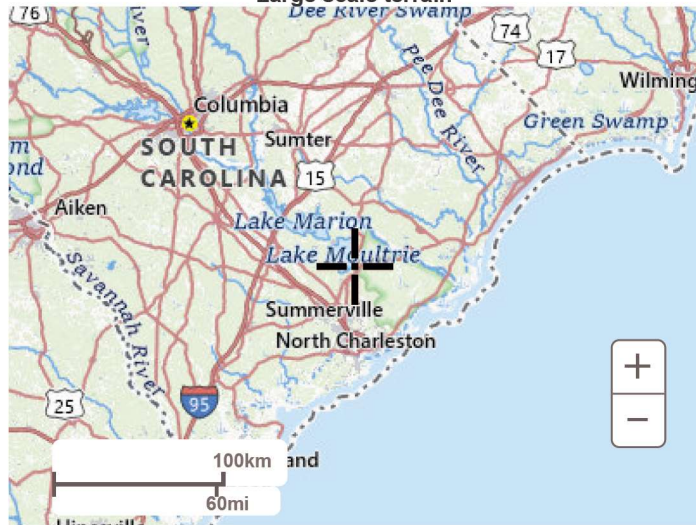
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**Maps & aerials**

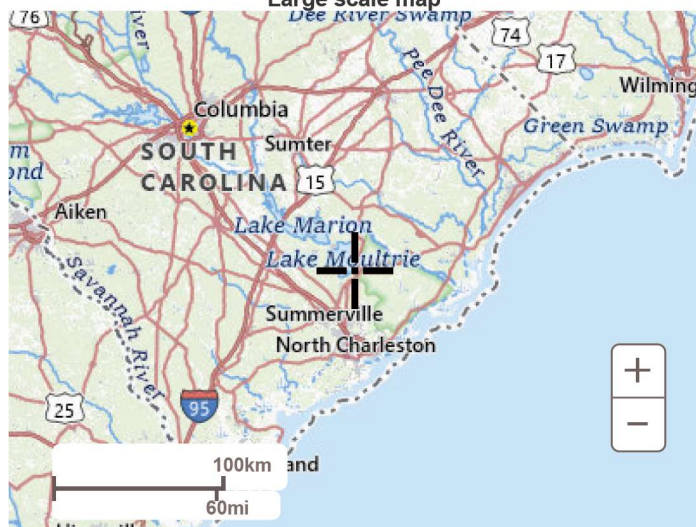
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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