

The City of North Myrtle Beach Stormwater Management Plan (SWMP)

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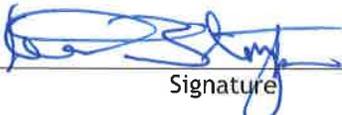
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Revised March 30, 2022
Revised February 14, 2023
Revised February 19, 2024

CERTIFICATION OF STORMWATER MANAGEMENT PLAN

I certify that the City of North Myrtle Beach has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in the NPDES General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), Permit Number SCR030000.

Kevin Blayton
Name (Print)

PW Director
Title


Signature

3/28/24
Date

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List of Acronyms and Abbreviations

| | |
|--------|---|
| BMP | Best Management Practice |
| CCU | Coastal Carolina University |
| CSR | Construction Site Runoff |
| CWA | Clean Water Act |
| CWSEC | Coastal Waccamaw Stormwater Education Consortium |
| EPA | Environmental Protection Agency |
| EPSC | Erosion Prevention and Sediment Control |
| ERP | Enforcement Response Plan |
| GIS | Geographic Information System |
| IDDE | Illicit Discharge Detection and Elimination |
| LCP | Larger Common Plan |
| LID | Low Impact Development |
| MCM | Minimum Control Measure |
| MEP | Maximum Extent Practicable |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| OCRM | Ocean and Coastal Resource Management |
| ONRW | Outstanding National Resource Waters |
| ORW | Outstanding Resource Waters |
| PCR | Post Construction Runoff |
| PEO | Public Education and Outreach |
| PIP | Public Involvement and Participation |
| POC | Pollutant of Concern |
| PP&GH | Pollution Prevention and Good Housekeeping |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| SCDOT | South Carolina Department of Transportation |
| SFH | Shellfish Harvesting Waters |
| SMS4 | Small Municipal Separate Storm Sewer System |
| SWMP | Stormwater Management Plan |
| SWPA | Source Water Protection Area |
| SWP3 | Stormwater Pollution Prevention Plan |
| TMDL | Total Maximum Daily Load |

North Myrtle Beach, South Carolina

NPDES Stormwater Management Plan (SWMP)

1.0 Introduction

This Stormwater Management Plan (SWMP) is designed to reduce the discharge of pollutants from North Myrtle Beach's Small Municipal Separate Storm Sewer System (SMS4) to the Maximum Extent Practicable (MEP), to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act (CWA). The contents are expected to change with time due to the iterative process of developing the SWMP recognized by the Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC). The EPA predicts that it will likely take two to three SMS4 general permit terms (5-year terms) to fully develop and implement the SWMP. The first permit term focused heavily on data collection, organization, development of necessary programs, and initial implementation. During the current second SMS4 general permit cycle, the SWMP will need to be amended based on the observed effectiveness of existing program components and to address the terms and conditions of the new permit. This document is meant to be a living document that will be revisited on an annual basis to reflect accomplishments, potential revisions to program components, and additions of other or expanded efforts.

This SWMP addresses the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Regulated SMS4s, Permit No. SCRO30000, effective January 1, 2014 and expired December 31, 2018. The section numbers used in this plan correspond with the general permit section numbers.

Updates to the SWMP are included in Appendix A.

It should be noted that *italicized text* within the SWMP indicates language that was copied directly from the SMS4 permit.

The City of North Myrtle Beach created this SWMP on December 31, 2014. All areas annexed into their SMS4 after that date will be included in all aspects of the City's stormwater program. All Best Management Practices (BMPs) for each Minimum Control Measure (MCM) stated in this SWMP will be fully implemented.

2.0 Notice of Intent (NOI) Information

The following information, in Table 1, is applicable to North Myrtle Beach.

Table 1: NOI Information Table

| General Permit Section | NOI Information | Description |
|--|--|--|
| 2.2.1 Information on the Permittee: | | |
| 2.2.1.1 | Name of Municipality: | North Myrtle Beach |
| | Mailing Address: | North Myrtle Beach Kevin Blayton 1018 Second Avenue South North Myrtle Beach, SC 29582 |
| | Telephone Number: | 843-280-5500 |
| 2.2.1.2 | Public Entity Type: | City |
| 2.2.2 Information on the SMS4: | | |
| 2.2.2.1 | Map of the City of North Myrtle Beach: | <p>SMS4 Location: North Myrtle Beach</p> <p>SMS4 Center Coordinates: Latitude: N34° 49' 48" Longitude: W82° 36' 7"</p> <p>SMS4 Urbanized Area: 23.48 square miles</p> |
| | |  |

| General Permit Section | NOI Information | Description |
|------------------------|---|--|
| 2.2.2.2 | Major Receiving Waters: | Atlantic Intracoastal Water Way ^{*,**} , Atlantic Ocean, Camp Branch Run, Dunn Sound*, Hog Inlet*, House Creek, Nixon Creek, Salt Flat Creek, White Point Swash*, Williams Creek |
| 2.2.2.3 | Indian Lands: | No portion of the City of North Myrtle Beach's SMS4 is located on Indian Country Lands. |
| 2.2.2.4 | List of Significant Entities within North Myrtle Beach: | The following entities operate a separate storm sewer system within the SMS4 area of North Myrtle Beach: <ul style="list-style-type: none"> • South Carolina Department of Transportation (SCDOT) |
| 2.2.2.5 2.2.2.6 | BMP Information: | See Section 4.0 for a discussion of the BMPs for each minimum measure. Each minimum measure contains all available information on the BMPs that are to be implemented, their measurable goals, a schedule for their implementation, and the person(s) responsible. |

*Listed on the CWA §303(d) list

**Allocated a TMDL

3.0 Special Conditions Applicable to Permitted Stormwater Discharges to Sensitive Waters

The SMS4 general permit requires that the City of North Myrtle Beach determine whether its SMS4 discharges to sensitive waters. For the purpose of the permit, sensitive waters are waters:

- With a Total Maximum Daily Load (TMDL) developed and approved or established by EPA,
- Included in the most recent SC DHEC Section 303(d) list,
- In Source Water Protection Areas (SWPA), and
- Pursuant to DHEC Water Classifications & Standards (R.61-68) and Regulations (R.61-69), classified as either:
 - Outstanding National Resource Waters (ONRW)
 - Outstanding Resource Waters (ORW)
 - Trout Waters
 - Shellfish Harvesting Waters (SFH)

3.1 Determination of Receiving Water Conditions and Impacts

The SMS4 general permit requires the City of North Myrtle Beach to determine whether stormwater discharges from any part of the SMS4 contribute one or more pollutants directly or indirectly to an impaired waterbody that is listed in the most recent South Carolina 303(d) list. The list identifies waterbodies that do not currently meet state water quality standards. The list is intended to be used as a tool to determine what types of water quality improvement measures should be taken. To meet this SMS4 general permit requirement, the City of North Myrtle Beach has collected information from SCDHEC on the location of impaired waters, as determined from results of the State’s monitoring program, that could potentially be impacted by discharges from the City of North Myrtle Beach’s SMS4. Table 2 provides a list of the impaired waterbodies on the 2020-2022 303(d) list that the City of North Myrtle Beach’s SMS4 contributes to, either directly or indirectly.

Table 2: 2020-2022 303(d) List of Impaired Stations within the City of North Myrtle Beach’s SMS4 Area

| Basin | Station Description | Station | Pollutant of Concern | Use | Priority Rank |
|--------|--|----------|----------------------|----------------------|---------------|
| Peedee | WAC-09A-White Point Swash | WAC-009A | Entero | Recreational | 3 |
| Peedee | White Point Swash | 02-01 | FC | Shellfish Harvesting | 3 |
| Peedee | Intracoastal Waterway at North Myrtle | MD-163 | HG | Fish Consumption | 3 |
| Peedee | 42nd Avenue-Cherry Grove | 01-17 | FC | Shellfish Harvesting | 3 |
| Peedee | House Creek at 53rd Avenue out from Boat Landing (01-19) | MD-276 | DO | Aquatic Life | 3 |
| | | | ZN | Aquatic Life | 3 |
| Peedee | 53rd Avenue Bridge on Canal | 01-17A | FC | Shellfish Harvesting | 3 |
| Peedee | Main Creek at 53rd Avenue | 01-19 | FC | Shellfish Harvesting | 3 |
| Peedee | Dunn Sound at Hog Inlet | 01-18 | FC | Shellfish Harvesting | 3 |
| Peedee | Hog Inlet | 01-07 | FC | Shellfish Harvesting | 3 |
| Peedee | Intracoastal Waterway – Little River – On SC 9 – US 17 | MD-125 | Entero | Recreational | 3 |

*Priority rank of 3 is classified as a long-term priority. Long-term priorities are those site/pollutant combinations being addressed by TMDL or alternative restoration plans developed after 2026. All target dates are subject to change, based on the severity of pollution, designated use, availability of additional site-specific information, available resources, or other factors SCDHEC deems appropriate for scheduling TMDL or alternative restoration plan development.

3.2 TMDL Monitoring and Assessment

In compliance with Section 3.2.1 of the SMS4 general permit, TMDL monitoring and assessment plans will be developed for all TMDL waters receiving SMS4 discharges of pollutant(s) of concern, except where Section 3.1.1.2 of the SMS4 general permit is applicable. For TMDLs existing before the effective date of permit coverage, TMDL monitoring and assessment plans will be completed, submitted to SCDHEC, and appended to this SWMP within 12 months of the effective date of permit coverage.

For newly established TMDLs, the City of North Myrtle Beach will complete a TMDL monitoring and assessment plan within 12 months of the effective date of the TMDL. As completed, TMDL monitoring and assessment plans will be submitted to SCDHEC and attached to this SWMP in Appendix D. Sampling will be initiated within 18 months of the effective date of permit coverage for TMDLs existing before the effective date of permit coverage. For newly established TMDLs, North Myrtle Beach will initiate sampling within 18 months of the effective date of the TMDL. A list of current TMDLs within the City of North Myrtle Beach’s SMS4 Area is in Table 3 below.

Table 3: List of Approved TMDLs within the City of North Myrtle Beach’s SMS4 Area

| TMDL Watershed | Impaired Stations | Pollutant of Concern | Effective TMDL Date |
|--|-------------------|----------------------|---------------------|
| Waccamaw River and the Atlantic Intracoastal Water Way | MD-125 | Dissolved Oxygen | 1999 |

3.3 TMDL Implementation and Analysis

In compliance with Section 3.3.2 of the SMS4 general permit, TMDL Implementation Plans will be developed for all TMDL waters receiving SMS4 discharges of pollutant(s) of concern, except when Section 3.1.1.2 of the SMS4 general permit is applicable. TMDL Implementation Plans will be completed and submitted to SCDHEC within 48 months from the effective date of permit coverage or, for TMDLs established after the effective date of permit coverage, within 48 months of the effective date of the TMDL.

3.4 Discharges to Impaired Waterbodies

For impaired waterbodies for which no TMDL has been assigned, protection will be provided by BMP applications conducted through implementation of the six MCMs in Section 4.2.

3.5 Discharges to Classified Waters

For discharges to Classified Waters, protection will be provided by BMP applications conducted through implementation of the six MCMs in Section 4.2. Classified waters in North Myrtle Beach are seen in Table 4.

Table 4: Discharges to Classified Waters

| Water Body | Classification | Waterbody Description and Site Specific Standard |
|--------------------------------|----------------|---|
| Coastal Waters | SFH | From the land to the 3 mile limits of State jurisdiction in the Atlantic Ocean |
| Dunn Sound | SFH | The entire sound |
| Hog Inlet/Cherry Grove Inlet | SFH | The entire inlet |
| Atlantic Intracoastal Waterway | SA, FW | That portion of the waterway from the North Carolina line to S.C. Hwy 9, That portion of the waterway from S.C. Hwy 9 to its confluence with Waccamaw River |

3.6 Discharges to Source Water Protection Areas

For discharges to Source Water Protection Areas, protection will be provided by BMP applications conducted through implementation of the six MCMs in Section 4.2.

4.0 Stormwater Management Plan (SWMP)

Table 5: SWMP Requirements

| SWMP REQUIREMENTS | | | |
|--|--|------------------|-------------------------------------|
| Develop and Implement SWMP | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.1.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Revise and update written SWMP document and submit the SWMP to SCDHEC Bureau of Water. | Deadline: July 1, 2014 Schedule: December 31, 2014 | Once | Public Works Director/City Engineer |
| Update Stormwater Management Ordinance | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.1.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Review and revise the Stormwater Management Ordinance or adopt any new ordinances or other regulatory mechanisms that provide adequate legal authority to control pollutant discharges into and from the SMS4 and meet the requirements of the SMS4 permit. | Deadline: December 31, 2014 Latest Update: March 2021 | Once | Public Works Director/City Engineer |
| It has been determined that the City's current ordinance meets the requirements set forth in the permit. The ordinance was updated on 03/01/2021. Further revisions were made to Division 3, Use of Sewer, on 10/04/2022. The latest applicable ordinances are included in Appendix E. | | | |
| Develop Enforcement Response Plan (ERP) | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.1.5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Implement an enforcement response plan (ERP). | Deadline: December 31, 2014 | Once | Public Works Director/City Engineer |
| Update Stormwater Management Plan | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.1.10 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Review and revise the SWMP document to keep it up to date during the term of the permit. | Throughout the Permit Term | Annually | Public Works Director/City Engineer |

4.1.1 Requirements of the NPDES SMS4 General Permit

North Myrtle Beach will implement this SWMP to reduce the discharge of pollutants from its SMS4 to the maximum extent practicable to protect water quality.

4.1.2 SWMP Development

The City will revise and update the written SWMP document and submit the SWMP to the SCDHEC Bureau of Water by December 31, 2014.

4.1.3 Contents of the SWMP

At a minimum, the City must include ordinances or other regulatory mechanisms providing the legal authority necessary to implement and enforce the requirements of the SMS4 general permit. See Appendix E for the City of North Myrtle Beach Ordinance. The City has reviewed and revised the Stormwater Management Ordinance to ensure that adequate legal authority is provided to control pollutant discharges into and from the SMS4 and meet the requirements of the SMS4 general permit.

4.1.4 Requirement to Develop Adequate Legal Authority

At a minimum, the legal authority will address the following:

- Authority to prohibit illicit discharges
- Determination of allowable non-stormwater discharges
- Authority to prohibit spills or other releases
- Authority to require compliance
- Authority to require installation, implementation, and maintenance of control measures
- Authority to receive and collect information
- Authority to inspect
- Response to violations
- Monetary penalties
- Civil/criminal penalties
- Interagency agreements (if applicable)

A certification statement has been included in this SWMP that certifies the City of North Myrtle Beach has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in the NPDES SMS4 general permit (see Page i). Further updates to the ordinance were completed March 1, 2021.

4.1.5 Enforcement Measures and Tracking

The City will implement an ERP by January 1, 2015 and revise, as necessary. The ERP describes the City of North Myrtle Beach's potential responses to violations and addresses repeat and continuing violations through progressively stricter responses as needed to achieve compliance. This document was completed in December 2014 and can be found in Appendix G.

4.1.5.2 Enforcement Tracking

The City will track instances of non-compliance either in hard-copy files or electronically.

4.1.5.3 Recidivism Reduction

The City will summarize inspection results by consuetudinary violators and include incentives, disincentives, or an increased inspection frequency at the operator's sites.

4.1.6 Annual Report Requirements

The City of North Myrtle Beach will at a minimum submit the following information in the report (See Section 5.3 for details):

- *The status of implementing the components of the SWMP that are established as permit conditions*
- *Proposed changes to the SWMP that are established as permit conditions*
- *Revisions, if necessary, to the assessment of controls and the fiscal analysis, including a description of staff resources necessary to meet the requirements of the permit*
- *A summary of data, including monitoring data, that is accumulated throughout the reporting year*
- *A summary describing the number and nature of enforcement actions, inspections, and public education programs*

4.1.7 SWMP Minimum Control Measure Requirements

The City of North Myrtle Beach's SWMP will include the following information for each of the six MCMs as described in Section 4.2 of this SWMP in detail:

- *Best management practices (BMP) that the City or another entity will implement for each of the MCM*
- *Measurable goals for each of the BMP including, as appropriate, the months and years in which the City will undertake required actions, including interim milestones and the frequency of the action*
- *Person, or persons, responsible for implementing or coordinating the BMP for the City's SWMP*

4.1.10 SWMP Modifications

SCDHEC Bureau of Water may notify North Myrtle Beach of the need to modify the SWMP document to be consistent with the permit, in which case North Myrtle Beach will have 90 days to finalize such changes to the program.

North Myrtle Beach will keep the SWMP document up to date during the term of the permit. Where North Myrtle Beach determines that Ordinance modifications are needed to address any procedural, protocol, or programmatic change, such changes must be made as soon as practicable, but not later than 360 days.

4.2 Minimum Control Measures

In compliance with the SMS4 general permit requirements, this SWMP includes a description of the six MCMs and details on the development and implementation of the plan to address MCM requirements. The details on each minimum measure include the proposed BMP measurable goals for each proposed BMP, the responsible departments and staff to implement the BMP, and the implementation schedule for the BMP (i.e., start date, frequency of activities, etc.)

4.2.1 Public Education and Outreach (Minimum Measure #1)

4.2.1.1 Permit Requirements

In order to meet the requirements of Minimum Measure #1, North Myrtle Beach has focused on the development and implementation of educational programs designed to inform the public about the impacts stormwater discharges could have on local waterbodies and the steps the public can take to reduce pollutants in stormwater runoff. North Myrtle Beach works in cooperation with the Coastal Waccamaw Stormwater Education Consortium (CWSEC) by Clemson Extension in order to efficiently reach as many citizens as economically possible through public education and outreach efforts. The City will assist in promoting events to increase event attendance and provide campaign items targeted specifically to address community issues affecting water quality. The City’s public education efforts will target specific events to strategically reach a diverse group of citizens.

Table 6: Minimum Measure #1 Permit Requirements

| |
|---|
| 4.2.1.1.1 The Pollutant(s) of Concern (POC) within North Myrtle Beach’s Watershed Area(s): |
| In North Myrtle Beach’s watershed area, the potential pollutants of concern (POC) have been determined to be bacteria, sediment, nutrients, pollutants resulting in low dissolved oxygen, mercury, debris, and metals. A description of the pollutants of concern for the City’s watershed area is included below. |
| 4.2.1.1.2 Description of the POC(s) Listed Above: |
| <ul style="list-style-type: none"> ➤ Bacteria: Typically contributes to stormwater pollution due to animal fecal matter in stormwater runoff, failing septic systems, or sanitary sewer leaks/spills and cross connections. ➤ Sediment: Typically contributes to stormwater pollution due to erosion of exposed bare soil areas from construction sites or other land disturbing activities. ➤ Nutrients: Typically contributes to stormwater pollution due to fertilizers, human causes, and natural sources. ➤ Pollutants resulting in low Dissolved Oxygen: Many factors contribute to low dissolved oxygen, pH, and debris in streams. The atmosphere, temperature, amount of rain, and depth of a stream can influence the amount of oxygen dissolved in water. Debris in streams includes trash, litter, and other types of waste from human activities, and it can impair the quality of a waterbody. ➤ Mercury: Areas with high mercury levels are typically a result of complex interactions of several natural and manmade factors. These factors include but are not limited to: Coal-fired and chemical manufacturing plant emissions containing mercury vapor that is transported via rain or snow into water, and pesticides/fungicides. ➤ Debris: Can include trash, litter, and other types of waste from human activities. Debris can impair the quality of a waterbody. ➤ Metals: The primary sources of metals in stormwater are runoff over galvanized metal rooftops, gutters, and downspouts, and metal contributions from brake pads on roads and parking lots. Some metals bioaccumulate in an ecosystem, harm microorganisms that live in soils, and/or harm human health. |

| |
|---|
| 4.2.1.1.3 Programs Targeted at High Priority Community Issues with the Potential to Decrease the POC’s Effect on Water Quality: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.4 The Audience(s) that is Believed to have an Influence on the POC Identified and that is Believed to have an Influence on the Goals and Objectives Identified: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.5 The Message(s) Directed at the Target Audience(s) Listed Above to Achieve the Program Goals and Objectives: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. The City has determined their target audiences to include the general public, elected and appointed officials and high-level staff (e.g. administrators and department heads), K-12 and higher education, general staff (e.g. street maintenance, facilities and groundskeepers), and professionals (e.g. contractors, engineers and developers). |
| 4.2.1.1.6 Education Campaign(s) and Materials: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.7 Distribution of Campaign Materials: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.8 Quantitative and/or Qualitative Formative Assessment of Programs: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.9 Utilization of Public Input into the Development of This Program: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.10 Implementation of Program Goals and Objectives: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |
| 4.2.1.1.11 Process for Annual Adjustment of Program Based Upon Program Assessment: |
| North Myrtle Beach utilizes the CWSEC by Clemson Extension to assist in meeting the requirements of Minimum Measures 1 and 2. The Contract can be found in Appendix H. |

4.2.1.2 BMP Implementation

Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. Measurable goals for each BMP were selected by formulating attainable goals for the various BMP implementation steps or tasks.

In order to meet the requirements of Minimum Measure #1, North Myrtle Beach will implement the following BMPs:

- Contractual Agreement with CWSEC by Clemson Extension
- Support CWSEC by Clemson Extension
- Develop Educational Materials
- Distribute Campaign Materials
- Assess the Public Education and Outreach Plan
- Develop Annual Adjustments for the Public Education and Outreach Plan

Table 7 describes the components of North Myrtle Beach’s Public Education and Outreach program.

Table 7: Best Management Practices - Minimum Measure #1

| PUBLIC EDUCATION AND OUTREACH BMPS | | | |
|--|---|------------------|-------------------------------------|
| Contractual Agreement with CWSEC by Clemson Extension | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.1.1.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will continue their contract with CWSEC by Clemson Extension to implement a public education/outreach program for the City’s regulated area. | Throughout Permit Term Beginning in Year 1 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • A program that provides public education concerning water quality issues in the SMS4 regulated area of North Myrtle Beach. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has continued their agreement with CWSEC by Clemson Extension and has been participating to assist in meeting MCM #1 and #2. The agreement can be found in Appendix H of this document. | | | |

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| Support CWSEC by Clemson Extension | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.1.1.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will sponsor/support the CWSEC by Clemson Extension by providing funding, promoting/advertising events, distributing water quality awareness campaign items, and providing other general assistance as resources allow. | Throughout Permit Term Beginning in Year 1 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Support the CWSEC by Clemson Extension. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City has continued to support CWSEC by Clemson Extension through different events, educational campaigns, and providing funding and general assistance. Further detail for what has been completed through CWSEC by Clemson Extension can be seen in the CWSEC by Clemson Extension Annual Report, which is an appendix of each of the City's Annual Reports. | | | |
| Develop Educational Materials | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.1.1.6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will prepare handouts about preventing water pollution regarding pet waste and other materials. | December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop handouts for the public. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> Pet waste flyers have been developed and distributed to the North Myrtle Humane Society. Educational signage has been developed and installed. With CWSEC by Clemson Extension, educational material has been developed. Further detail for what has been completed through CWSEC by Clemson Extension can be seen in the CWSEC by Clemson Extension Annual Report, which is an appendix of each of the City's Annual Reports. | | | |
| Distribute Campaign Materials | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.1.1.7 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Distribute campaign materials at various community events hosted by the CWSEC by Clemson Extension. | Throughout Permit Term Beginning in Year 1 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Distribute 500 campaign items annually at events hosted by the CWSEC by Clemson Extension. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> Through the support of CWSEC by Clemson Extension, the City has reached many people by distributing brochures, booklets, websites, newspaper articles, displays, etc., exceeding the goal number. Further detail for what has been completed through CWSEC by Clemson Extension can be seen in the CWSEC by Clemson Extension Annual Report, which is an appendix of each of the City's Annual Reports. | | | |

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|---|---|------------------|-------------------------------------|
| Assess the Public Education and Outreach Plan | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.1.1.8 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Assess the Public Education program to determine any necessary changes to the program's goals or objectives. | Target Start Date: June 30, 2016 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Identify public education and outreach program deficiencies/limitations by comparing Public Education and Outreach (PEO) program results to the measurable goals. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The PEO program is assessed and adjusted annually through CWSEC by Clemson Extension. | | | |
| Develop Annual Adjustments for the Public Education and Outreach Plan | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.1.1.11 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Make adjustments to educational materials and the delivery of such materials to address any shortcomings found as a result of the assessments in Milestone 4.2.1.1.8. | Throughout Permit Term | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Revise PEO plan to address any program deficiencies/limitations identified during the annual assessment. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The public education and outreach program is assessed and adjusted annually through CWSEC by Clemson Extension. | | | |

4.2.2 Public Involvement/Participation (Minimum Measure #2)

4.2.2.1 Permit Requirements

North Myrtle Beach intends to support the CWSEC by Clemson Extension in order to efficiently reach as many citizens as economically possible through public involvement and participation efforts. The City will support events by providing funding, promoting events to increase event attendance, and providing hands-on demonstrations with the watershed model. The City's public participation efforts will target specific events to strategically reach a diverse group of citizens.

Table 8: Minimum Measure #2 Permit Requirements

| |
|--|
| 4.2.2.1.1 Available Opportunities for Citizens to Participate in the Implementation of Stormwater Controls: |
| Opportunities for citizen participation in the implementation of stormwater controls in North Myrtle Beach will be provided by the CWSEC by Clemson Extension. |
| 4.2.2.1.2 Accessing Information on this SWMP: |
| North Myrtle Beach will include the SWMP on the City’s Stormwater Management webpage. |
| 4.2.2.1.3 Incorporate written procedures for implementing the public involvement/participation (PIP) MCM in the SWMP: |
| North Myrtle Beach will continue to implement its written procedures (Contract) with CWSEC by Clemson Extension to implement a Public Involvement and Participation Program. |

4.2.2.2 BMP Implementation

The BMPs selected in this section describe how the citizens will be informed about the SWMP and lists activities for public participation. The measurable goals for each BMP for the Public Participation and Involvement minimum measure will be used to evaluate the success of each BMP. The following sections describe the components of North Myrtle Beach’s Public Involvement/Participation program.

In order to meet the requirements of Minimum Measure #2, North Myrtle Beach will:

- Sponsor/Support Citizen Participation Events,
- Provide Access to Information for the SWMP, and
- Incorporate Written Procedures for Implementing MCM#2.

Table 9 describes the components of North Myrtle Beach’s Public Involvement/Participation program.

Table 9: Best Management Practices - Minimum Measure #2

| PUBLIC INVOLVEMENT/PARTICIPATION BMPS | | | |
|---|---|-----------|-------------------------------------|
| Sponsor/Support Citizen Participation Events | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.2.1.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Contract with CWSEC by Clemson Extension to implement a public involvement/participation program for North Myrtle Beach. | Throughout Permit Term Beginning in Year 1 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Provide sponsorship/support for the CWSEC by Clemson Extension events. • A program that will provide the citizens of North Myrtle Beach opportunities to participate in activities and events relating to water quality preservation and water quality education. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has continued their agreement with CWSEC by Clemson Extension and has been participating to assist in meeting MCM #1 and #2. The agreement can be found in Appendix H of this document. The City provided opportunities for the public to participate in different events, including but not limited to, community cleanups and storm drain marking. Further detail for what has been completed through CWSEC by Clemson Extension can be seen in the CWSEC by Clemson Extension Annual Report, which is an appendix of each of the City’s Annual Reports. | | | |

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|--|--|-------------------------|-------------------------------------|
| Provide Access to Information for the SWMP | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.2.1.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Ensure the public can easily find information about the SWMP. | Deadline: March 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Include SWMP on the City's webpage. | | | |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • The City includes the latest SWMP for the public to access on their updated webpage. | | | |
| Incorporate Written Procedures for Implementing MCM#2 | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.2.1.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will continue implementing the public education and involvement MCM. | Throughout Permit Term | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Signed contract with CWSEC by Clemson Extension. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has continued their agreement with CWSEC by Clemson Extension and has been participating to assist in meeting MCM #1 and #2. The agreement can be found in Appendix H of this document. Further detail for what has been completed through CWSEC by Clemson Extension can be seen in the CWSEC by Clemson Extension Annual Report, which is an appendix of each of the City's Annual Reports. | | | |

4.2.3 Illicit Discharge Detection and Elimination (Minimum Measure #3)

4.2.3.1 Permit Requirements

North Myrtle Beach will locate and eliminate illicit discharges by developing BMPs in accordance with the SMS4 general permit requirements. Priority areas will be established based on the higher likelihood of illicit connections. Outfalls located within the priority areas will be visited to check for dry weather flow. Outfalls with dry weather flow will be screened to identify potential illicit discharges. Prior to illicit tracking activities, the City will develop illicit tracking procedures. After illicit discharge tracking procedures have been established, illicit discharges will be tracked to a source and eliminated when possible. Illicit discharge tracking activities will be documented for review.

Table 10: Minimum Measure #3 Permit Requirements

| |
|---|
| 4.2.3.2.1 Development of the Storm Sewer System Map: |
| In previous years, North Myrtle Beach has developed a storm sewer system map showing the location of known outfalls and names and locations of all waters of the United States that receive discharges from those outfalls. The storm sewer map will be updated as needed to show new outfalls due to new developments. |

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|---|
| <p>4.2.3.2.2 Identification of Priority Areas:</p> |
| <p>North Myrtle Beach will identify priority areas for more detailed screening of the SMS4 based on higher likelihood of illicit connections.</p> <p><i>The City will document the basis for its selection of each priority area and create a list of all priority areas identified in the system no later than 12 months after the effective date of permit coverage. The priority area list will be updated annually to reflect changing priorities and be available for review by the permitting authority.</i></p> |
| <p>4.2.3.2.3.a Field Screening Procedures and Implementation:</p> |
| <p>North Myrtle Beach will conduct dry weather field screening and/or analytical monitoring, when necessary, to identify the source of illicit discharges. At a minimum, North Myrtle Beach will identify and create a list of all field screening points within the priority areas where field screening and analytical monitoring will take place. The City will also conduct field screening and analytical monitoring outside the priority areas for known non-stormwater discharges. The areas and the schedule for conducting the screening, as well as the field screening points, will be identified annually.</p> <p>North Myrtle Beach will develop dry weather screening procedures which:</p> <ul style="list-style-type: none"> • Provide a description of screening methods used and a description of why they are appropriate. • Provide a description of field screening equipment with respective methodologies for use. <p>All dry weather screening activities will be conducted after 72 hours of dry conditions following no more than 0.10 inch of rainfall.</p> <p>The elimination of all illicit discharges will be documented. Documentation procedures will be developed as described in section 4.2.3.2.5/6.</p> |
| <p>4.2.3.2.3.b Field Screening Assessment:</p> |
| <p><i>North Myrtle Beach will assess the effectiveness of the Field Screening component of their IDDE program in the third permit year to determine if the level of effort is adequate in attaining the effective prohibition of non-stormwater discharges into the MS4. Where updates are found to be necessary, North Myrtle Beach will make such changes and include them as part of the re-notification required under Part 2.5 of the SMS4 general permit.</i></p> |
| <p>4.2.3.2.3.c Procedures for Notifying another SMS4 of an Illicit Discharge.</p> |
| <p>For non-traditional SMS4 permittees, if illicit connections or illicit discharges are observed related to another operator’s municipal storm sewer system, then North Myrtle Beach will notify the other operator as soon as practical but no later than three (3) business days.</p> |
| <p>4.2.3.2.3.d Addressing a Notification of an Illicit Discharge by another Operator:</p> |
| <p>North Myrtle Beach will follow appropriate procedures when notified of an illicit discharge by another MS4 operator.</p> |

4.2.3.2.4/5 Tracing the Source of an Illicit Discharge:

North Myrtle Beach has procedures for conducting illicit tracking and elimination procedures in the “City of North Myrtle Beach Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual”. This was last revised in December 2014.

After becoming aware of an illicit discharge, North Myrtle Beach will initiate an investigation(s) to attempt to identify and locate the source of any continuous or intermittent non-stormwater discharge as soon as practical but no later than two (2) business days.

North Myrtle Beach will report immediately the occurrence of any dry weather flow believed to be an immediate threat to human health of the environment to SC DHEC Emergency Response, 1-888-481-0125.

Illicit Discharges suspected of being sanitary sewage and/or significantly contaminated will be considered a high priority and will be reported to appropriate public utility owner within 24 hours.

Investigations of illicit discharges suspected of being cooling water, wash water, or natural flows may be delayed until after all discharges suspected of having the potential for adversely impact either human health or water quality have been investigated, eliminated, and/or resolved.

At a minimum, North Myrtle Beach will document the date(s) the illicit discharge was observed, the results of the investigation, any follow-up of the investigation, and the date the investigation was closed.

4.2.3.2.6 Documenting Illicit Discharges:

North Myrtle Beach will determine and document through their investigations the source of all confirmed illicit discharges. If the source of the suspected illicit discharge is found to be a suspected non-compliance with an NPDES permit, the appropriate SCDHEC Regional Office will be notified.

- a. If an illicit discharge is found, but within six (6) months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified/observed, North Myrtle Beach will maintain written documentation for review by the permitting authority.*
- b. If the observed discharge is intermittent, North Myrtle Beach will document that a minimum of three (3) separate investigations were made to observe the discharge when it was flowing. If these attempts are unsuccessful, North Myrtle Beach will maintain written documentation for review by the permitting authority. However, since this is an ongoing program, North Myrtle Beach will periodically recheck these suspected intermittent discharges.*

4.2.3.2.7 Corrective Action Plan to Eliminate Illicit Discharges:

Once the source of the illicit discharge has been determined, North Myrtle Beach will:

- a. Notify the responsible party of the problem as soon as practical no later than three (3) business days.*
- b. Require the responsible party to conduct all necessary corrective actions to eliminate the non-stormwater discharge within 30 days. When, and if, elimination will take longer than 30 days, North Myrtle Beach will require responsible parties to submit a plan with a schedule for elimination.*
- c. Conduct a follow-up investigation and field screening, consistent with Part 4.2.3.4/5 of this SWMP, to verify that the discharge has been eliminated.*
- d. Document their follow-up investigations.*
- e. Follow the SWMP ERP and include the resulting enforcement actions in the subsequent report.*

4.2.3.2.8 Public Reporting Mechanics:

North Myrtle Beach will promote, publicize, and facilitate an illicit reporting hotline for the public and staff to report illicit discharges.

The City will establish and implement citizen request response procedures in the illicit tracking procedures document created for section 4.2.3.2.4/5. The citizen response procedures in the illicit tracking procedures document will:

- a. *Develop a written spill/dumping response procedure for responding to public notices of illicit discharges, the various responsible agencies and their contacts, and who would be involved in illicit discharge incidence response.*
- b. *Include procedures for inspections in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party to achieve and maintain compliance.*

4.2.3.2.9 Employee Training:

North Myrtle Beach will implement a training program for all appropriate municipal staff, which, as part of their normal job responsibilities, may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system. This BMP will be implemented through training for Pollution Prevention in Section 4.2.6.5.

4.2.3.2 BMP Implementation

In order to meet the requirements of Minimum Measure #3, North Myrtle Beach has listed BMPs that focus on the detection and elimination of illicit discharges into the SMS4. North Myrtle Beach will document the various Illicit Discharge Detection and Elimination (IDDE) permit requirements which includes the following:

- Map of Priority Areas
- List of Screening Points in the Priority Areas
- Dry Weather Screening Procedures
- Illicit Tracking Procedures
- Illicit Elimination Procedures
- IDDE Documentation Procedures

Evaluation of the success of this minimum measure will be based on the level of implementation of the BMPs included in this minimum measure. The following sections describe the components of the City's IDDE program. The screening procedures for the IDDE program will be included in Appendix F once complete.

In order to meet the requirements of Minimum Measure #3, North Myrtle Beach will:

- Update the Storm Sewer Map,
- Identify Priority Areas for Illicit Discharges,
- Identify Screening Points,
- Develop Dry-Weather Screening Procedures
- Conduct Field Screening (Dry Weather Screening),
- Develop Illicit Tracking Procedures,

- Conduct Illicit Tracking,
- Eliminate Illicit Discharges,
- Document Illicit Discharge Investigations,
- Assess Field Screening Procedures,
- Develop a Public Reporting Hotline, and
- Provide Employee Training on Illicit Discharge Identification.

Table 11 describes the components of North Myrtle Beach’s IDDE program.

Table 11: Best Management Practices - Minimum Measure #3

| IDDE BMPs | | | |
|--|--|------------------|-------------------------------------|
| Update Storm Sewer Map | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.3.2.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Update the storm sewer map as needed to show the location of all outfalls and names and locations of all waters of the United States that receive discharge from those outfalls. | Current map complete | As Needed | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Update storm sewer map as needed to show new outfalls. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City of North Myrtle Beach has a map with the location of outfalls included. This map is up to date and includes existing outfalls, outfalls that have been eliminated, and proposed outfall locations. This map is updated as needed. | | | |
| Identify Priority Areas | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.2.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Identify illicit priority areas based on an identification of areas with a higher likelihood of illicit connections. The map will be updated annually. | Deadline: December 31, 2014 | Updated Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Identify areas for SMS4 Dry-Weather Screening. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has identified illicit priority areas and stores this information in a map. This map is updated annually and is adjusted as necessary. | | | |
| <ul style="list-style-type: none"> • In 2019 during the annual review of the priority areas, two new areas were added to the list and the map was updated. These include the Alligator Adventure attraction area as well as the area near 15th, 16th, and 17th, Avenue South. These areas will be inspected on a higher frequency for potential illicit discharges going forward due to a higher number of illicit discharges in the past. | | | |

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|--|--|-------------------------|-------------------------------------|
| Identify Screening Points | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.2.3a | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Identify all field screening points within the priority area. Include a schedule for conducting the screening. | Deadline: March 31, 2015 | Updated Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> A list of all field screening points. A schedule for conducting the field screening. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City utilized Coastal Carolina University (CCU) to assist with identifying screening points in the identified priority areas. The City utilized CCU to assist with creating a schedule for conducting field screening at the identified screening points. | | | |
| Develop Dry-Weather Screening Procedures | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.3.2.3a | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop dry-weather screening procedures for identifying potential illicit discharges. | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> A set of procedures for dry-weather screening activities. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City of North Myrtle Beach developed the “Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual” which includes dry-weather screening procedures. The manual was last revised in December 2014 and is included in Appendix F of this document. The City also created the “Illicit Discharge Detection and Elimination Quick Reference” for internal use. | | | |
| Conduct Field Screening | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.2.3a | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Conduct dry-weather flow screening at outfalls in the priority area and at known dry-weather discharges. | Deadline: December 31, 2015 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Locate potential illicit discharges in the priority area. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City is utilizing CCU to assist with conducting field screening at the identified priority outfalls. The City is utilizing CCU to track potential illicit discharges during wet and dry weather conditions. CCU is also assisting in testing potential illicit discharges to determine if the bacteria sources are human or non-human contributors. | | | |

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|---|--|-------------------------|-------------------------------------|
| Develop Illicit Tracking Procedures | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.3.2.4/5/8 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will develop procedures for tracking illicit discharges. The illicit tracking procedures will include the minimum investigation requirements in section 4.2.3.2.5. In addition, the illicit tracking procedures will include requirements for responding to public notices. (section 4.2.3.2.8.a/b) | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> A set of procedures for illicit tracking activities. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City of North Myrtle Beach developed the “Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual” that includes illicit tracking procedures. The manual was last revised in December 2014 and is included in Appendix F of this document. The City also created the “Illicit Discharge Detection and Elimination Quick Reference” for internal use. | | | |
| Conduct Illicit Tracking/Determine Source of Illicit Discharge | Not Started: <input type="checkbox"/> In Progress: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.2.4/5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will conduct illicit tracking at outfalls identified as potential illicit discharges by the field screening effort. | Confirmed illicit discharges will be tracked within a timeframe listed in Table 10 Section 4.2.3.2.4/5/8 | As Needed | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Determine potential source(s) of illicit discharges identified during field screening. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City conducts tracking for potential illicit discharges based on the procedures in the City’s “Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual”. In 2014 and 2015 there were a total of 9 suspected illicit discharges. After further investigation and tracking, 5 were confirmed illicit discharges. In 2016 there were a total of 9 suspected illicit discharges. After further investigation and tracking, 8 were confirmed illicit discharges. In 2017 there were a total of 7 confirmed illicit discharges after 10 potential illicit discharge inspections. All confirmed illicit discharges have been eliminated. In 2018, the City had 5 potential illicit discharges and performed 5 inspections. Of these, 4 were confirmed to be illicit discharges, and they were all eliminated. In order to eliminate these illicit discharges, 5 enforcement actions were taken following the ERP. Inspections and enforcement actions were documented. In 2019, the City had 6 potential illicit discharges and performed 6 inspections. Of these, 5 were confirmed to be illicit discharges, and they were all eliminated. In order to eliminate these illicit discharges, 5 enforcement actions were taken following the ERP. Inspections and enforcement actions were documented. In 2020, the City had 17 potential illicit discharges and performed 18 inspections. Of these, 16 were confirmed to be illicit discharges. One illicit discharge was still being corrected within the assigned timeframe at the end of 2020. The outstanding illicit in 2020 was eliminated in 2021. All other illicit discharges were eliminated in 2020. In order to eliminate these illicit discharges, 12 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |

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| <ul style="list-style-type: none"> In 2021, the City had 15 potential illicit discharges and performed 15 inspections. Of these, 15 were confirmed to be illicit discharges. One illicit discharge was still being corrected at the end of 2021 and should be eliminated in 2022. All other illicit discharges were eliminated. In order to eliminate these illicit discharges, 12 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2022, the City had 8 potential illicit discharges and performed 8 inspections. Of these, 8 were confirmed to be illicit discharges and all were eliminated. In order to eliminate these illicit discharges, 7 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2023, the City had 8 potential illicit discharges and performed 8 inspections. Of these, 8 were confirmed to be illicit discharges and all were eliminated. In order to eliminate these illicit discharges, 7 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| Eliminate Illicit Discharges | | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | |
| | | Section: 4.2.3.2.7 | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Once the source of an illicit discharge has been determined, the City will follow procedures (a-e) of section 4.2.3.2.7 of the permit to eliminate the illicit discharge. | Confirmed illicit discharges will be eliminated within the timeframe listed in Table 10 Section 4.2.3.2.7.b | As Needed | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Documentation of eliminated illicit discharges. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City conducts tracking for potential illicit discharges based on the procedures in the City's "Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual". In 2014 and 2015 there were a total of 9 suspected illicit discharges. After further investigation and tracking, 5 were confirmed illicit discharges. All of the illicit discharges have been eliminated. | | | |
| <ul style="list-style-type: none"> In 2016 there were a total of 9 suspected illicit discharges. After further investigation and tracking, 8 were confirmed illicit discharges. Of the confirmed illicit discharges, 6 were eliminated during 2016. In 2017 there were a total of 7 confirmed illicit discharges after 10 potential illicit discharge inspections. All confirmed illicit discharges have been eliminated. | | | |
| <ul style="list-style-type: none"> In 2018, the City had 5 potential illicit discharges and performed 5 inspections. Of these, 4 were confirmed to be illicit discharges, and they were all eliminated. In order to eliminate these illicit discharges, 5 enforcement actions were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2019, the City had 6 potential illicit discharges and performed 6 inspections. Of these, 5 were confirmed to be illicit discharges, and they were all eliminated. In order to eliminate these illicit discharges, 5 enforcement actions were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2020, the City had 17 potential illicit discharges and performed 18 inspections. Of these, 16 were confirmed to be illicit discharges. One illicit discharge was still being corrected within the assigned timeframe at the end of 2020. The outstanding illicit in 2020 was eliminated in 2021. All other illicit discharges were eliminated in 2020. In order to eliminate these illicit discharges, 12 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2021, the City had 15 potential illicit discharges and performed 15 inspections. Of these, 15 were confirmed to be illicit discharges. One illicit discharge was still being corrected at the end of 2021 and should be eliminated in 2022. All other illicit discharges were eliminated. In order to eliminate these illicit discharges, 12 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2022, the City had 8 potential illicit discharges and performed 8 inspections. Of these, 8 were confirmed to be illicit discharges and all were eliminated. In order to eliminate these illicit discharges, 7 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |
| <ul style="list-style-type: none"> In 2023, the City had 8 potential illicit discharges and performed 8 inspections. Of these, 8 were confirmed to be illicit discharges and all were eliminated. In order to eliminate these illicit discharges, 7 enforcement actions (letters) were taken following the ERP. Inspections and enforcement actions were documented. | | | |

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| Document Illicit Discharge Investigations | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.2.5/6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| <p>North Myrtle Beach will document illicit discharge tracking and elimination activities to include the following information:</p> <ul style="list-style-type: none"> • Date(s) the illicit discharge was observed • Results of the illicit investigation • Results of any follow-up investigations • Date the investigation was closed • Source of the illicit discharge • Documentation for unresolved illicit tracking investigations in which no source is located (as required by section 4.2.3.2.6.a of the permit) • Documentation for intermittent illicit discharges (as required by section 4.2.3.2.6.b of the permit) | Documentation will begin as soon as practical but no later than three (3) business days | As Needed | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Document illicit tracking and elimination activities. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • Illicit discharge tracking and elimination activities are documented in a spreadsheet, and any pictures and extra documentation are kept on file. | | | |
| Field Screening Assessment | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.3.2.3b | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Assess the effectiveness of the Field Screening program by the end of permit year 3. | Deadline: July 31, 2017 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • A summary assessing the effectiveness of the Field Screening program. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has been conducting field screening on potential illicit discharges, as necessary, throughout the permit term. With this program, the City either collects field samples and has them analyzed at the City's lab or utilizes their contract with CCU to assist in tracking and analyzing the collected samples. Throughout the permit term, from 2014-2023, the City identified 84 potential illicit discharges, of which 76 were identified as illicit discharges, and all were eliminated. Enforcement actions were taken when necessary to eliminate all identified illicit discharges. Based on these results, the City has assessed the effectiveness of the IDDE program, and the City has confirmed that their level of effort is adequate in attaining the effective prohibition of non-stormwater discharges to the SMS4. No updates were found to be necessary during the 2023 assessment of the IDDE program. The City will continue their IDDE program to track and eliminate illicit discharges, to the MEP. | | | |

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| Develop a Public Reporting Hotline | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.3.2.8 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will develop a Public Reporting Hotline to report illicit discharges. | Deadline: July 1, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Create a hotline to report illicit discharges. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City of North Myrtle Beach developed the “Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination Manual” which includes a citizen complaint section. The manual was last revised in December 2014 and is included in Appendix F of this document. The City operates a website (Community Requests form) that directs any complaints or reports of illicit discharges to the main stormwater department phone number, (843)-280-5500. These are directed to the appropriate City staff to address the reported illicit discharge through a work order system. | | | |
| Provide Employee Training | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.3.9 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will implement a training program for all appropriate municipal field staff. | Start-up deadline: January 1, 2015 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Provide IDDE training to appropriate field staff. This BMP will be implemented through training for Pollution Prevention in Section 4.2.6.5. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City conducts an annual training, including an IDDE section, for appropriate field staff. This training includes a film, a quiz, and other material distribution. The “Illicit Discharge Detection and Elimination Quick Reference” document was developed in January 2015 to be used by appropriate field staff. Sign in sheets from trainings are kept on file. Further training information is included in each Annual Report. | | | |

4.2.4 Construction Site Stormwater Runoff Control (Minimum Measure #4)

4.2.4.1 Permit Requirements

North Myrtle Beach will revise the construction program by developing and implementing BMPs in order to meet the SMS4 general permit requirements. The City will update appropriate design requirements and revise the corresponding Stormwater Pollution Prevention Plan (SWP3) review procedures. Site inspection procedures will be updated to conform to the SMS4 general permit requirements, and an ERP will be developed to determine how the City will use specific types of responses to address various types of violations. In addition, the City will develop educational packets for construction operators to educate them about areas in which improvements are needed.

Table 12: Minimum Measure #4 Permit Requirements

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| <p>4.2.4.4.1 Regulatory Requirement for Erosion and Sediment Controls:</p> |
| <p>The ordinance section requiring erosion and sediment controls and sanctions can be found in the North Myrtle Beach, South Carolina, Code of Ordinances Chapter 13: Article III “Grading Permits, Erosion Control” Section 13-61 through 13-81. The North Myrtle Beach Storm Water Management Ordinance can be found in Appendix E.</p> |
| <p>4.2.4.4.2 Requirements for Erosion and Sediment Controls and Soil Stabilization Practices:</p> |
| <p>North Myrtle Beach provides requirements for construction site operators to implement appropriate BMPs such as Erosion and Sediment Controls and Soil Stabilization Practices in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans” and the Plan Review Checklist.</p> |
| <p>4.2.4.4.3 Requirements for Pollution Prevention Measures:</p> |
| <p>North Myrtle Beach will provide requirements for the design, installation and maintenance of effective pollution prevention measures for construction site operators to:</p> <ul style="list-style-type: none"> a. <i>Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.</i> b. <i>Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on site to precipitation and to stormwater runoff that may cause adverse impacts to water quality, and,</i> c. <i>Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.</i> d. <i>The following discharges from sites are prohibited:</i> <ul style="list-style-type: none"> i. <i>Wastewater from washout of concrete, unless managed by an appropriate control;</i> ii. <i>Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials</i> iii. <i>Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and,</i> iv. <i>Soaps or solvents used in vehicle and equipment washing.</i> |
| <p>4.2.4.4.4 Requirements for Stormwater Pollution Prevention Plans (SWP3):</p> |
| <p>North Myrtle Beach will require each operator of a construction activity to prepare and submit a SWP3 prior to the disturbance of land for the SMS4 to review and approve.</p> |
| <p>4.2.4.4.5 Review of SWP3:</p> |
| <p>North Myrtle Beach’s plan review procedures will at a minimum meet the following:</p> <ul style="list-style-type: none"> a. <i>The Plan Review Checklist for Design Professionals will be edited to make a clear statement that a SWP3 must be prepared before construction begins.</i> b. <i>North Myrtle Beach’s plan review checklist ensures SWP3 submittals meet the requirements of NPDES General Permit for Storm Water Discharges from Construction Activities, SCR100000.</i> c. <i>North Myrtle Beach will add a statement in the plan review checklist that SWP3 submittals must include the rationale used for selecting control measures, including how the control measure protects a waterway or stormwater conveyance.</i> d. <i>North Myrtle Beach will use qualified individuals, knowledgeable in the technical review of SWP3, to conduct reviews.</i> e. <i>North Myrtle Beach documents the review of each SWP3 plan using a checklist.</i> f. <i>North Myrtle Beach will develop procedures for SWP3 review, including the review of pre-construction site plans. For construction activity that discharges pollutant(s) of concern to TMDL waters and to waters on the 303(d) List of Impaired Waters, the SWP3 must identify potential water quality impacts</i> |

- g. *the permitted discharges may have. The SWP3 will limit sediment discharges to the MEP and will protect water quality. Procedures for SWP3 review will:*
 - i. *Incorporate consideration of potential water quality impacts.*
 - ii. *Include the review of construction site plans.*
 - iii. *For construction projects that disturb less than 25 acres, carefully evaluate all selected BMPs and their ability to control the pollutant(s) of concern.*
 - iv. *For construction projects that disturb 25 acres or more, require a written quantitative and qualitative assessment showing that the selected BMP will control the discharge of the pollutant(s) of concern from the site during construction and post-construction within a TMDL watershed, or to a water on the 303(d) List of Impaired Waters.*
 - v. *Require that SWP3 prepared by construction activity applicants for SMS4 review and approval must demonstrate that stormwater discharges will neither cause nor contribute to a violation of water quality standards.*

4.2.4.6 Site Inspections:

- a. *North Myrtle Beach currently maintains an inventory of all active construction projects. The inventory will be continuously updated as new projects are permitted and projects are completed. The inventory will be edited to contain relevant contact information for each project (e.g., name, address, phone, etc.), the size of the project and area of disturbance. North Myrtle Beach will make the inventory available to SC DHEC upon request. As part of this inventory, North Myrtle Beach will:*
 - i. *Track the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required.*
 - ii. *Document inspections and enforcement activities for each site in the inventory.*
- b. *North Myrtle Beach will implement procedures for inspecting construction projects in accordance with the frequency listed in the SMS4 general permit.*
- c. *North Myrtle Beach will adequately inspect all phases of construction. At a minimum, inspections will occur following installation of initial BMPs, during active construction, and after final site stabilization.*
- d. *North Myrtle Beach will have trained and qualified inspectors. North Myrtle Beach will also continue to follow, and revise as necessary, written procedures outlining the inspection and enforcement procedures.*

Inspections of construction sites will, at a minimum:

 - i. *Check for coverage under SCR100000 by requesting a copy of any application or Notice of Intent (NOI), the stamped approved stormwater pollution prevention plan, or other relevant application form during initial inspections.*
 - ii. *Review the applicable stormwater pollution prevention plan and conduct a thorough site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the plan.*
 - iii. *Assess compliance with North Myrtle Beach's ordinances and permits related to stormwater runoff, including the implementation and maintenance of designated minimum control measures.*
 - iv. *Assess the effectiveness of control measures.*
 - v. *Visually observe and record non-stormwater discharges, potential illicit connections, and potential discharge of pollutants in stormwater runoff.*
 - vi. *Prepare a written or electronic inspection report generated from findings in the field.*

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| 4.2.4.7 Enforcement Response Plan (ERP): |
| <i>North Myrtle Beach will develop an Enforcement Response Plan (ERP). The ERP will contain descriptions of how North Myrtle Beach will use specific type of responses to address various types of violations. The ERP will include, but is not limited to:</i> |
| <ul style="list-style-type: none"> <i>a. Types of responses: <ul style="list-style-type: none"> <i>i. Verbal warnings</i> <i>ii. Written notices</i> <i>iii. Escalated enforcement measures such as citations, fines, stop work orders, etc.</i> </i> <i>b. Specific strategies for escalating enforcement responses, where necessary, to address persistent, repeat, or escalating violations.</i> <i>c. Ensure ERP is reasonably effective in reducing pollutant discharges to the MEP and to protect water quality.</i> |
| 4.2.4.8 SMS4 Staff Training: |
| <i>North Myrtle Beach will ensure that all staff whose primary job duties are related to implementing the construction stormwater program, including permitting, plan review, construction site inspections, and enforcement, is trained to conduct these activities.</i> |
| 4.2.4.9 Construction Site Operator and Public Involvement: |
| 4.2.4.9.a Construction operator education: |
| North Myrtle Beach will continue to implement an effective communication process with construction contractors, educate them on areas in which improvements are needed, and enforce any required actions. |
| 4.2.4.9.b Public involvement: |
| North Myrtle Beach will implement procedures for receipt and consideration of information submitted by the public. This will be coordinated with the public participation program. |

4.2.4.2 BMP Implementation

In order to meet the requirements of Minimum Measure #4, North Myrtle Beach has listed BMPs that focus on the reduction of pollutants in stormwater runoff to the SMS4 from construction activities that result from a land disturbance greater than or equal to one acre. North Myrtle Beach will continue implementing existing BMPs and provide assistance and ensure compliance through routine inspections. Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. Measurable goals for each BMP were selected by formulating attainable goals for the various BMP implementation steps or tasks. In order to meet the requirements of Minimum Measure #4, North Myrtle Beach will:

- Update the Ordinance for Compliance,
- Revise the Ordinance,
- Revise SWP3 Submittal and Review Requirements,
- Develop SWP3 Review Procedures for Discharges to Impaired Waters,
- Modify and Maintain a Construction Site and Site Inspection Inventory,
- Develop/Modify Site Inspection Procedures,

- Develop Section of ERP for Construction Activities,
- Train SMS4 Staff,
- Develop Construction Operator Training/Education, and
- Develop Public Involvement Procedures.

Table 13 describes the components of North Myrtle Beach’s construction site stormwater runoff control program.

Table 13: Best Management Practices - Minimum Measure #4

| CONSTRUCTION RUNOFF BMPs | | | |
|---|--|-------------------------|-------------------------------------|
| Update Ordinance for Compliance | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.4.4 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Update City ordinance to require erosion and sediment controls to meet requirements of 4.2.4.4.2 through 4.2.4.4.4. | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Updated ordinance. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • It was determined that the City’s current ordinance meets the requirements set forth in the permit. | | | |
| Revise Ordinance | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.4.4 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| It has been determined that the City’s current ordinance meets the requirements set forth in the permit. The current ordinance is scheduled to be updated. | Schedule: December 31, 2019 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Revised ordinance. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The ordinance was revised on 03/01/2021. Further revisions were made to Division 3, Use of Sewer, on 10/04/2022. The latest applicable ordinances are included in Appendix E. | | | |
| Revise SWP3 Submittal & Review Requirements | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.4.5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Update the Stormwater Plan Review Checklist for Design Professionals to ensure SWP3 submittals include a rationale used for selecting control measures, including how the control measure protects a waterway or stormwater conveyance. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Update the Stormwater Plan Review Checklist for Design Professionals to include a statement that prohibits operators of construction activity from commencing construction activity until they receive written approval of the plans. | | Once During Permit Term | Public Works Director/City Engineer |

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| Update plan review procedures (internal checklist) to address new requirements listed above. | | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Update SWP3 submittal requirement documents and corresponding plan review procedures to include items listed above. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The SWP3 Submittal and Review Requirements are located in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans”. The City uses SCDHEC’s plan review checklist. | | | |
| Develop SWP3 Review Procedures for Discharges to Impaired Waters | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> Section: 4.2.4.5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will develop procedures outlined in section 4.2.4.5.f for SWP3 review for construction activity that discharges pollutant(s) of concern to TMDL waters and to waters on the 303(d) List of Impaired Waters. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop plan review procedures for construction discharges to impaired waters. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> Procedures for construction activity that discharges to receiving waters with TMDLs is located in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans”. | | | |
| Modify and Maintain Construction Site Inspection Inventory | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> Section: 4.2.4.6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will maintain an inventory of all active construction projects. The inventory will be edited to include information for: <ul style="list-style-type: none"> Relevant contact information Size of the project Area of disturbance Number of inspections by the City for each construction site Inspection results and enforcement actions | Deadline: December 31, 2014 | Throughout Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop and maintain a database that provides general site information and ensures appropriate site inspections are conducted. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> A list of all active construction projects is stored in a shared folder on the City’s network and is updated as necessary. | | | |

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| Modify and Implement Site Inspection Procedures | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.4.6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will modify and implement site inspection procedures to comply with permit section 4.2.4.6(b-d). | Deadline: July 1, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop/edit site inspection procedures that includes the items listed in section 4.2.4.6(b-d). | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The inspection procedures were verified and edited as necessary to include the items listed in 4.2.4.6(b-d) of the permit. The inspection procedures have been implemented, and 510 inspections were conducted in 2014 and 2015. There were 180 and 186 inspections conducted in 2016 and 2017, respectively. There were 358 and 291 inspections conducted in 2018 and 2019, respectively. In 2020, 280 construction inspections were performed. In 2021, 310 construction inspections were performed. In 2022, 390 construction inspections were performed. In 2023, 461 construction inspections were performed. These inspections are documented and filed for each construction project. | | | |
| ERP for Construction Activities | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.4.7 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop ERP for permit violations, SWP3 violations, and Erosion Prevention and Sediment Control (EPSC) BMP installation, operation, and maintenance violations. | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop an ERP to clearly identify types of violations, response to violations, and enforcement measures. The response plan will be made available to construction site operators and SCDHEC. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City of North Myrtle Beach has developed an ERP for construction/permitting violations which can be found in The City of North Myrtle Beach Enforcement Response Plan document. In 2014 and 2015, there were a total of 6 verbal warnings issued. In 2016, 6 verbal warnings were issued, and 0 enforcement actions were needed in 2017. In 2018 and 2019, there were 0 enforcement actions. There were 9 enforcement actions taken in 2020. There were 5 verbal warnings issued in 2021. In 2022 3 emailed enforcement actions were taken for construction/permitting violations. In 2023 there were no enforcement actions related to construction or permitting violations. | | | |

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| Train SMS4 Staff | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.4.8 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will ensure that all staff whose primary job duties are related to implementing the construction stormwater program, including permitting, plan review, construction site inspections, and enforcement, is trained to conduct these activities. | December 31, 2014 | Throughout Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Train staff whose primary job duties are related to implementing the construction stormwater program. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> Staff whose job duties relate to the construction stormwater program are trained. Records of the sign in sheets for trainings are kept on file. In addition, appropriate staff are trained through various events and conferences throughout the year. | | | |
| Develop Construction Site Operator Education | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.4.9a | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will develop and implement an effective communication process with construction contractors to educate them on areas where improvements are needed and enforce any required actions. | December 31, 2015 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Continue effective communication with construction contractors. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> Contractors attend the pre-construction meeting, as required by the Design Manual, allowing effective communication between all. There is also communication with construction contractors during inspections. This process will be continued. The City offers internal trainings and a training sponsored through CWSEC by Clemson Extension and local universities. | | | |
| Construction Operator Training/Education and Public Involvement | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.4.9b | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| North Myrtle Beach will implement procedures for receipt and consideration of information submitted by the public. | December 31, 2015 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Implement procedures for receipt and consideration of information submitted by the public. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City has a hotline number that the public can call to submit information. The information is directed to the appropriate party. This number is published on the City's website and in brochures. | | | |

4.2.5 Post-Construction Stormwater Management for New Development and Redevelopment (Minimum Measure #5)

4.2.5.1 Permit Requirements

The post-construction stormwater management program is designed to give the City of North Myrtle Beach the authority to require structural and non-structural stormwater quality BMPs on sites being developed. North Myrtle Beach currently provides design requirements to control stormwater discharges from new development and redeveloped sites and has established performance standards for addressing the first inch of runoff. North Myrtle Beach will improve the post construction program by developing additional site performance standards and ensuring post-construction BMPs are inspected and maintained appropriately.

Table 14: Minimum Measure #5 Permit Requirements

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| 4.2.5.1. Post-Construction Stormwater Management Program: |
| North Myrtle Beach will implement a program to control stormwater discharges from new development and redeveloped sites that disturb at least one acre. The requirements will be updated in their ordinance and in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans”. The applicability for stormwater management plans are addressed in the City of North Myrtle Beach, South Carolina, Code of Ordinance Chapter 13: Article II “Stormwater Management Plan” Section 13-27 through 13-29. |
| 4.2.5.2 Site Performance Standards: |
| Currently, the City specifies site performance standards in the Stormwater Management Ordinance and in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans”. This ensures the peak rate of discharge and volume of runoff from a site after development shall approximate the volume of runoff from the site prior to development and shall not exceed the latter volume for a 25-year frequency storm. |
| The City provides guidance in the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans” and requires proposed development to be designed, constructed, and maintained in compliance with all applicable state regulations, including 72-300, General Permit for Storm Water Discharges from SMS4’s SCR030000, SCDHEC/Ocean and Coastal Resource Management (OCRM) Stormwater Management Guidelines, and NPDES SCR035106. |
| The City currently requires that permanent water quality ponds without permanent pools be designed to store and release the first inch of runoff from the site over a 24-hour period. The City also requires permanent water quality ponds with a permanent pool be designed to store and release the first ½” of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate at least ½” of runoff from the entire site. |
| The SMS4 General Permit requires the City to establish, implement, and enforce a requirement that owners or operators of new development and redeveloped sites discharging to the MS4 which disturb greater than or equal to one acre (including projects that disturb less than one acre that are part of a larger common plan (LCP)), design, install, implement, and maintain stormwater control measures that approximate pre-development conditions to the MEP and protect water quality. The performance standards for stormwater management plans are addressed in the City of North Myrtle Beach, South Carolina, Code of Ordinance Chapter 13: Article II “Stormwater Management Plan” Section 13-27 through 13-29. |
| 4.2.5.3 Site Plan Review: |
| North Myrtle Beach uses the SCDHEC plan review checklist for evaluating the information or plans that are submitted. Plan review for site performance standards developed during the permit term will be added to the plan review checklist for design professionals. |

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| <p>4.2.5.4 Long-Term Maintenance of Post-Construction Stormwater Control Measures:</p> |
| <p><i>All structural stormwater control measures installed and implemented to meet the site performance standards will be maintained in perpetuity. North Myrtle Beach will ensure the long-term maintenance of structural stormwater control measures installed.</i></p> <p>The City code/ordinance specifies the responsibility for maintaining all permanent runoff control measures and facilities after site development is completed shall lie with the landowner unless a facility is officially accepted by the City for City maintenance.</p> <p>The City currently requires the property owner, or agent acting on their behalf, to complete a Permanent Stormwater System Maintenance and Responsibility Agreement within a complete/full NOI project submittal to SCDHEC.</p> <p>CWSEC by Clemson Extension has offered a property management workshop and municipal interaction with facility management/property owners during post-construction inspections targeted at property managers/owners.</p> |
| <p>4.2.5.5 Inventory of Post-Construction Stormwater Control Measures:</p> |
| <p><i>North Myrtle Beach will maintain an inventory of all post-construction structural stormwater control measures installed and implemented at new development and redeveloped sites, including all City permitted public and private sector sites located within the permit area. At a minimum, the inventory will contain all BMPs constructed since the effective date starting with the effective date of the SMS4 general permit.</i></p> <p>The City currently has a list of post construction structural stormwater control measures installed and implemented at new development and redeveloped sites, both private and public.</p> <p>The City’s post-construction activities are recorded within Cityworks and the drainage system is illustrated as either private or public ownership on the citywide stormwater utility map.</p> |
| <p>4.2.5.6 Inspections and Enforcement:</p> |
| <p>4.2.5.6.1 Inspection procedures:</p> |
| <p><i>To ensure that all stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance agreement, North Myrtle Beach will conduct inspections of each project site covered under the performance standards at least one time during the permit term. A description of inspection procedures must be added to the SWMP once developed.</i></p> |
| <p>4.2.5.6.2 Post-Construction Notification:</p> |
| <p><i>Within 30 days of completion of construction of any project required to meet the performance standards, North Myrtle Beach will conduct a post construction inspection to verify that BMP have been installed as per approved plans.</i></p> <p>Once the City is notified of completion of active construction, the close-out inspection is conducted. At the time of close-out, the City gets copies of the “as built” and verifies that they are installed correctly.</p> |
| <p>4.2.5.6.3 Inspection Reports:</p> |
| <p><i>North Myrtle Beach will document its inspection findings in an inspection report. The City will document and maintain records of inspection findings and enforcement actions and make them available for review by the permitting authority.</i></p> |

4.2.5.2 BMP Implementation

Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. Measurable goals for each BMP were selected by formulating attainable goals for the various BMP implementation steps or tasks. In order to meet the requirements of Minimum Measure #5, North Myrtle Beach will:

- Update the Ordinance and Design Manual,
- Modify Site Performance Standards,
- Update Permanent Water Quality Maintenance Forms,
- Develop Long-term Maintenance Requirements for Post-construction BMPs,
- Create a Post-construction BMP Inventory, and
- Develop a Post-construction BMP Inspection Program.

Table 15 describes the components of North Myrtle Beach’s post-construction stormwater management program.

Table 15: Best Management Practices - Minimum Measure #5

| POST CONSTRUCTION RUNOFF BMPs | | | |
|--|--|-------------------------|-------------------------------------|
| Update Ordinance and Design Manual | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.5.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Update the Ordinance and the “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans” to state that the design, installation, and maintenance of permanent water quality BMPs will be required for all projects that disturb 1 acre or more of land. | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Update Ordinance to require controls for projects disturbing 1 acre or more of land. • Revise “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans” to be applicable for all projects disturbing 1 acre or more of land. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The Ordinance includes requirements for projects disturbing 1 acre or more of land. • The “Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans” includes requirements for projects disturbing 1 acre or more of land. | | | |
| Revise Ordinance | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.5.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| It has been determined that the City’s current ordinance meets the requirements set forth in the permit. The current ordinance is scheduled to be updated. | Schedule: December 31, 2019 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • Updated ordinance. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The ordinance was updated 03/01/2021. Further revisions were made to Division 3, Use of Sewer, on 10/04/2022. The latest applicable ordinances are included in Appendix E. | | | |

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| Modify Site Performance Standards and Plan Review | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.5.2/3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop additional site performance standards in addition to the existing “first inch” standard. | Deadline: December 31, 2018 | Once During Permit Term | Public Works Director/City Engineer |
| Update plan review procedures to address new development and redeveloped site performance standards. | Deadline: December 31, 2018 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Update post-construction site performance standards. Update review procedures to address any updated site performance standards. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City adopted sections of the Low Impact Development (LID) Guide for Coastal South Carolina as acceptable new design development standards. The Design Manual was updated in 2016 and 2019 and is currently in the process of further revision. | | | |
| Update Permanent Water Quality Maintenance Forms | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.5.4 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Update permanent water quality maintenance forms. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Updated maintenance forms. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City’s permanent water quality maintenance agreement form was updated and will be revised further as necessary. | | | |
| Post-Construction BMP Inventory | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.5.5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop an inventory of all City permitted post-construction BMPs constructed since the effective date of permit SCR030000 (January 1, 2014). | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Update City permitted post-construction BMP inventory. | Throughout Permit Term Beginning in Year 2 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Provide an inventory of City permitted post construction BMPs. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City keeps an inventory of post-construction BMPs constructed, taken from as-builts submitted. | | | |

| Post-Construction BMP Inspections Program | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
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| | Section: 4.2.5.6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop procedures and forms for post-construction BMP installation inspections. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Conduct post-construction BMP inspections on City permitted BMPs within 30 days of construction completion to ensure BMPs are installed per approved plans. | Throughout Permit Term Beginning in Year 2 | As Needed | Public Works Director/City Engineer |
| Develop procedures and forms for post-construction BMP maintenance inspections. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Conduct post-construction BMP inspections on City permitted BMPs to ensure BMPs are maintained properly. | Throughout Permit Term Beginning in Year 2 | Once During Permit Term | Public Works Director/City Engineer |
| Document and maintain records of inspection findings and enforcement actions and make them available for review by the permitting authority. | Throughout Permit Term Beginning in Year 2 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop procedures and forms for post-construction BMP installation inspections. Inspect all City permitted post-construction BMPs within 30 days of construction completion. Develop procedures and forms for post-construction BMP maintenance inspections and include procedures in this document. Inspect appropriate construction sites to ensure City permitted post-construction BMPs are maintained and operating correctly. Provide documentation of post-construction BMP inspections. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> A post-construction BMP installation and maintenance inspection procedures and checklist document was developed in February 2016. 11 inspections for post-construction BMPs were completed in 2015. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 11 inspections for post-construction BMPs were completed in 2016. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 17 post-construction BMP inspections to ensure BMPs were being maintained properly were conducted in 2016. 12 inspections for post-construction BMPs were completed in 2017. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 21 post-construction BMP inspections to ensure BMPs were being maintained properly were conducted in 2017. 12 inspections for post-construction BMPs were completed in 2018. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 16 post-construction BMP inspections to ensure BMPs are being maintained properly were conducted in 2018. 25 inspections for post-construction BMPs were completed in 2019. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 0 post-construction BMP inspections to ensure BMPs are being maintained properly were conducted in 2019. 15 inspections for post-construction BMPs were completed in 2020. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 1 post-construction BMP inspection, to ensure BMPs are being maintained properly, were conducted in 2020. 18 inspections for post-construction BMPs were completed in 2021. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. 11 post-construction BMP inspections, to ensure BMPs are being maintained properly, were conducted in 2021. | | | |

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| <ul style="list-style-type: none"> • 17 inspections for post-construction BMPs were completed in 2022. These inspections ensured BMPs were installed per the approved plans and were conducted as a part of the close out meeting. |
| <ul style="list-style-type: none"> • 12 post-construction BMP inspections, to ensure BMPs are being maintained properly, were conducted in 2022. |
| <ul style="list-style-type: none"> • 21 Inspections for post-construction BMPs were conducted in 2023 to ensure that BMPs were installed per the approved plans. These inspections were conducted as a part of the close out meeting. |
| <ul style="list-style-type: none"> • 21 post-construction BMP inspections, to ensure BMPs are being maintained properly, were conducted in 2023. |
| <ul style="list-style-type: none"> • Inspection findings are documented and kept on file. |

4.2.6 Pollution Prevention / Good Housekeeping (Minimum Measure #6)

4.2.6.1 Permit Requirements

In order to meet the requirements of Minimum Measure #6, North Myrtle Beach will implement a range of BMPs targeted to reduce pollutants from City-owned facilities and storm sewer systems. A Citywide inventory of major municipal facilities will be developed, and each facility will be assessed for its potential pollutant discharges. Based on the assessment, a list of high priority facilities will be developed, and annual inspections will be conducted at the high priority facilities. North Myrtle Beach will prioritize their owned and/or operated stormwater management systems and implement a maintenance schedule. All City-owned structural controls (stormwater BMPs) will be inspected and maintained. In addition, the City will develop a set of pollution prevention measures for operation and maintenance activities. North Myrtle Beach will provide training to appropriate employees to ensure pollution prevention and good housekeeping activities are practiced throughout the City’s separate departments.

Table 16: Minimum Measure #6 Permit Requirements

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| 4.2.6.1 Development of a Municipal Facility and Stormwater Control Inventory: |
| <p><i>North Myrtle Beach will update and maintain an inventory of significant City-owned facilities and stormwater controls that are not covered under a separate general or individual NPDES permit (i.e. industrial, solid waste, etc.).</i></p> <p><i>North Myrtle Beach will also include a list of industrial facilities owned or operated by the City that are subject to SCDHEC NPDES General Permit for Stormwater Discharges associated with Industrial Activity (SCR000000) or individual NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the City’s SMS4. The SCDHEC permit number or a copy of the Industrial NOI form for each facility will be included.</i></p> |
| 4.2.6.2 Municipally Owned or Operated Facility Assessment: |
| 4.2.6.2.1 Comprehensive assessment of pollutant discharge potential: |
| <p><i>North Myrtle Beach will develop a comprehensive assessment of all City-owned or operated facilities identified in Part 4.2.6.1 at least once during the permit term and include it in the permit reapplication for their potential to discharge pollutants in stormwater.</i></p> |

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| 4.2.6.2.2 Identification of high priority facilities: |
| <i>North Myrtle Beach will identify “high priority” facilities that have a high potential to generate stormwater pollutants.</i> |
| 4.2.6.2.3 Documentation of comprehensive assessment results: |
| <i>North Myrtle Beach will document the results of the assessments and maintain copies of all site evaluation checklists used to conduct the comprehensive assessment. The documentation will include the results of North Myrtle Beach’s initial assessment, any identified deficiencies, and corrective actions taken.</i> |
| 4.2.6.3 Annual Comprehensive Inspections of High Priority Facilities: |
| <i>Starting no later than 24 months from the effective date of coverage and at least once per year thereafter, a comprehensive inspection of “high priority” facilities (Part 4.2.6.2.2), including all stormwater controls, must be performed by North Myrtle Beach. Specific attention will be given to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar potential pollutant-generating areas. The yearly inspection results will be documented and records will be maintained by North Myrtle Beach. The inspection report will also include any identified deficiencies and the corrective actions taken to fix the deficiencies.</i> |
| 4.2.6.4 Storm Sewer System Maintenance Activities - MS4 Maintenance: |
| 4.2.6.4.1 Assessment/prioritization of MS4 stormwater management systems/structures: |
| <i>North Myrtle Beach will prioritize their owned and/or operated stormwater management systems/structures and implement a maintenance schedule.</i> |
| 4.2.6.4.2 Municipal activities and operation: |
| <i>North Myrtle Beach will develop a set of pollution prevention measures that, when applied during municipal O&M activities, will reduce the discharge of pollutants in stormwater. Municipal operation and maintenance activities to be considered include, but are not limited to, pavement and rights-of-way maintenance, bridge maintenance, cold weather operations, and municipally sponsored events.</i> |
| 4.2.6.4.3 Maintenance of municipally owned and/or maintained structural stormwater controls (Stormwater BMPs): |
| <i>North Myrtle Beach will inspect and maintain, wherever and whenever necessary, all City-owned or maintained structural stormwater controls. North Myrtle will also maintain all municipally owned green infrastructure practices through regularly scheduled maintenance activities.</i> |
| 4.2.6.5 Employee Training and Education Requirements: |
| <i>North Myrtle Beach will develop an annual employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices.</i> |
| <i>This annual training will include a general stormwater education component, any new technologies, operations, or responsibilities that arise during the year, and the SMS4 general permit requirements that apply to the staff being trained.</i> |
| <i>A description of how the program will be maintained for review by the permitting authority.</i> |
| <i>North Myrtle Beach will also identify and track all personnel requiring training and records must be maintained.</i> |
| <i>Training will begin within the first year from the effective date of permit authorization.</i> |

4.2.6.6 Requirements for Contractor Oversight:

Contractors hired by North Myrtle Beach to perform municipal maintenance activities will be contractually required to comply with all of North Myrtle Beach's stormwater control measures, good housekeeping practices, and facility-specific stormwater management procedures.

North Myrtle Beach will provide oversight of contractor activities to ensure that contractors are using appropriate control measures and procedures.

4.2.6.2 BMP Implementation

Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. In order to meet the requirements of Minimum Measure #6, North Myrtle Beach will:

- Develop a municipal facility inventory,
- Conduct assessment of non-permitted municipal facilities and identify high priority facilities,
- Conduct high priority facility inspections,
- Prioritize SMS4 stormwater management systems/structures,
- Develop and implement pollution prevention measures for operation and maintenance activities,
- Inspect and maintain City-owned structural controls (stormwater BMPs),
- Conduct storm sewer system maintenance activities,
- Conduct pollution prevention and good housekeeping employee training, and
- Provide contractor oversight.

Table 17 describes the components of North Myrtle Beach's pollution prevention/good housekeeping for municipal operations program.

Table 17: Best Management Practices - Minimum Measure #6

| POLLUTION PREVENTION / GOOD HOUSEKEEPING BMPS | | | |
|--|--|-----------------------------|-------------------------------------|
| Municipal Facility Inventory | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.1.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop an inventory of all City-owned facilities and stormwater controls that are not covered under a separate NPDES permit. In addition, include a list of all municipally owned facilities that are covered under a separate NPDES permit. | Deadline: March 31, 2015 | Once during the permit term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> An inventory of non-permitted municipal facilities. A list of all municipally owned facilities that are covered under a separate NPDES permit. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City has a map that includes an inventory of municipal facilities. | | | |
| Assessment of All Non-Permitted Municipal Facilities | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.2.1/3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop a comprehensive assessment of all municipally owned or operated facilities. | Deadline: December 31, 2017 | Once during permit term | Public Works Director/City Engineer |
| Document results of the assessments and maintain copies of all site evaluation checklists used to conduct the comprehensive assessment. Documentation will include the results of the initial assessment, any identified deficiencies, and corrective actions taken. | Deadline: December 31, 2017 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Conduct comprehensive assessment of all municipally owned facilities. Document results of the assessments. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> A Geographic Information System (GIS) exercise was completed to assess all municipally owned facilities. Parcels were assessed by reviewing the landuse, activities performed at the site, size of parcel, and proximity to water. From these conditions, each parcel was prioritized as high, medium, or low. | | | |

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|--|--|-------------------------|-------------------------------------|
| Assessment of Non-Permitted Municipal Facilities for High Priority Sites | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Create a comprehensive assessment of all municipally owned or operated facilities. | Deadline: December 31, 2015 | Once during permit term | Public Works Director/City Engineer |
| Based on the results of the assessment, identify high priority facilities and document results. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| <u>Measurable Goal:</u> | | | |
| <ul style="list-style-type: none"> Identify high priority facilities. Documentation of results. | | | |
| <u>Measurable Goal Update:</u> | | | |
| <ul style="list-style-type: none"> Based on an assessment of all municipally-owned or operated facilities, 4 high priority facilities were originally identified and are included in a map. In 2019 the City added one new facility to the high priority facility list, the mosquito lab, to increase the frequency of inspections. The map was updated accordingly. | | | |
| Conduct High Priority Facility Inspections | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.6.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Create inspection report template with sections for identified deficiencies and corrective actions taken for each site inspection. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Conduct facility site inspections including evaluations of potential “pollutant generating” areas. | Throughout Permit Term Beginning in Year 3 (January 1, 2016) | Annual | Public Works Director/City Engineer |
| Document inspection reports. | Throughout Permit Term Beginning in Year 3 (January 1, 2016) | Annual | Public Works Director/City Engineer |
| <u>Measurable Goal:</u> | | | |
| <ul style="list-style-type: none"> Develop a high priority facility inspection report form. Conduct inspections and determine potential “pollutant generating” areas at high priority facilities. Documentation of facility inspection report forms. | | | |
| <u>Measurable Goal Update:</u> | | | |
| <ul style="list-style-type: none"> The City has an inspection form to conduct high priority facility inspections. From 2015 through 2018 there were 4 high priority facilities. Another facility was added in 2019 during the review of high priority facilities. In 2019 and 2020 there were 5 high priority facility inspections conducted annually. In 2021, there were 4 high priority facility inspections conducted and all findings have been documented. The private parcel that was previously included in the list of “high priority facilities” was not inspected in 2021. In 2022 and 2023, there were 5 high priority facility inspections conducted annually. In the future, the 5 “high priority facilities” will continue to be inspected annually. | | | |

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| Prioritize SMS4 Stormwater Management Systems/Structures | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.4.1 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Prioritize stormwater management systems/structures. | Deadline: June 1, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Implement a maintenance schedule for stormwater management systems/structures. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> Develop a schedule to maintain the stormwater management system. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The stormwater management system/structures have been prioritized, and a maintenance schedule is kept in Cityworks. | | | |
| Develop and Implement Pollution Prevention Measures for Operation and Maintenance Activities | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.4.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop a written set of pollution prevention measures for municipal operation and maintenance activities. | Deadline: June 30, 2016 | Once During Permit Term | Public Works Director/City Engineer |
| Implement pollution prevention measures for municipal operation and maintenance activities. | Throughout Permit Term Starting June 30, 2016 | Throughout Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> A written set of pollution prevention measures for operation and maintenance activities. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> The City of North Myrtle Beach Pollution Prevention for Municipal Operations document was completed and implemented in June 2016. | | | |

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|---|---|-------------------------|-------------------------------------|
| Inspect and Maintain City-Owned Structural Controls | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.6.4.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Create a structural control inspection and maintenance form. | Deadline: December 31, 2015 | Once During Permit Term | Public Works Director/City Engineer |
| Create a list/map of all City-owned post-construction BMPs. | Deadline: December 31, 2015 | Throughout Permit Term | Public Works Director/City Engineer |
| Conduct inspections for City-owned structural controls. | Throughout Permit Term Beginning in Year 3 | Annually | Public Works Director/City Engineer |
| Perform necessary maintenance for City-owned structural controls. | Throughout Permit Term | Annually As Needed | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • A structural control inspection and maintenance form. • A list/map of City-owned post-construction BMPs. • Conduct inspections for City-owned structural controls. • Conduct maintenance for City-owned structural controls. • Documentation of completed inspection and maintenance forms. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • The City has developed a structural inspection and maintenance form. • The City has compiled a list of the City-owned post-construction BMPs stored in a spreadsheet. • In 2016, 5 inspections were conducted on municipally-owned structural controls. In 2017, 6 inspections were conducted on municipally-owned structural controls. In 2018, 5 inspections were conducted on municipally-owned structural controls. In 2019, 5 inspections were conducted on municipally-owned structural controls. In 2020, 5 inspections were conducted on municipally-owned structural controls. In 2021, 9 inspections were conducted on municipally-owned structural controls. There were 10 municipally-owned structural control inspections conducted in 2022 and 7 conducted in 2023. | | | |
| Conduct Pollution Prevention and Good House Keeping Employee Training | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.2.6.5 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Develop an annual employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices. Include training for IDDE. | Deadline: December 31, 2014 | Once During Permit Term | Public Works Director/City Engineer |
| Create a list of employees that have been identified for pollution prevention training. | Deadline: December 31, 2014 | Annually | Public Works Director/City Engineer |
| Conduct pollution prevention and good housekeeping training. | Start-up deadline: January 1, 2015 | Annually | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> • A pollution prevention employee training plan/program. | | | |
| Measurable Goal Update: | | | |
| <ul style="list-style-type: none"> • Annual employee training is offered and sign in sheets are kept on file. This training includes a film, quiz, and the distribution of appropriate material. | | | |

| | | | |
|---|---|------------------------|-------------------------------------|
| Provide Contractor Oversight | Not Started: <input type="checkbox"/> On-going: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 4.2.6.6 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Provide oversight of contractor activities to ensure that contractors are using appropriate control measures and procedures to comply with all SMS4 stormwater control measures, good housekeeping practices, and facility-specific stormwater management procedures. | Deadline: December 31, 2015 | Throughout Permit Term | Public Works Director/City Engineer |
| Measurable Goal: | | | |
| <ul style="list-style-type: none"> North Myrtle Beach does all maintenance activities in house and does not sub-out work. | | | |

4.5 Reviewing and Updating Stormwater Management Plan

Table 18: Reviewing and Updating SWMP

| SWMP REQUIREMENTS | | | |
|--|--|------------------|-------------------------------------|
| Update Stormwater Management Plan | Not Started: <input type="checkbox"/> On-going: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.5.1 & 4.5.2 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Review and revise the SWMP document to keep it up to date during the term of the permit. | Deadline: December 31, 2018 | Annually | Public Works Director/City Engineer |
| Stormwater Management Plan Updates Required by SCDHEC | Not Started: <input checked="" type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 4.5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| SCDHEC requested changes to the SWMP | Deadline: December 31, 2018 | As Required | Public Works Director/City Engineer |

This SWMP is a living document and will be updated and revised throughout the permit term. In accordance with Section 4.5.2 of the SMS4 general permit, additions (but not subtracting or replacing components) to the SWMP will be made at any time with a written notification made to SCDHEC.

Any changes intended to replace an ineffective or unfeasible BMP with an alternate BMP will be requested and submitted in written form to SCDHEC at any time. Unless denied by SCDHEC, changes proposed in accordance with the criteria below will be deemed approved and may be implemented 60 days from submittal of the request. If request is denied, SCDHEC will send North Myrtle Beach a written response giving a reason for the decision. The modification requests must include the following:

- An analysis of why the BMP is ineffective or infeasible (including cost prohibitive)*
- Expectations on the effectiveness of the replacement BMP*

-
- *An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced*

Additionally, SCDHEC may request North Myrtle Beach to make changes to the SWMP at any time to:

- *Address documented impacts on receiving water quality caused, or contributed to, by discharges from the SMS4;*
- *Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements; and/or*
- *Include such other conditions deemed necessary by the Department to comply with the goals and requirements of the Clean Water Act.*

Changes requested by SCDHEC must be made in writing, set forth the time schedule for the City to develop the changes, and offer the City the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by SCDHEC will be made in accordance with South Carolina Water Pollution Control Permits Regulation 61-9 124.5, 122.62, or as appropriate 122.63.

5.3 Reporting

Table 19: Reporting

| REPORTING | | | |
|--|--|------------------|-------------------------------------|
| 1st Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and Submit 1 st Report (covering years 1 and 2). | Deadline: April 01, 2016 | Once | Public Works Director/City Engineer |
| 2nd Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 2 nd Report (covering years 3 and 4). | Deadline: July 4, 2018 | Once | Public Works Director/City Engineer |
| 3rd Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 3 rd Report (covering years 5 and 6). | Deadline: April 1, 2020 | Once | Public Works Director/City Engineer |
| 4th Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 4 th Report (covering year 7). | Deadline: December 31, 2021 | Once | Public Works Director/City Engineer |
| 5th Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 5 th Report (covering year 8). | Deadline: December 31, 2022 | Once | Public Works Director/City Engineer |
| 6th Report | Not Started: <input type="checkbox"/> In Progress: <input type="checkbox"/> Completed: <input checked="" type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 6 th Report (covering year 9). | Deadline: December 31, 2023 | Once | Public Works Director/City Engineer |
| 7th Report | Not Started: <input type="checkbox"/> In Progress: <input checked="" type="checkbox"/> Completed: <input type="checkbox"/> | | |
| | Section: 5.3 | | |
| Milestone(s) | Schedule/Deadline | Frequency | Responsible Party |
| Complete and submit 7 th Report (covering year 10). | Deadline: December 31, 2024 | Once | Public Works Director/City Engineer |

Unless DHEC requires more frequent reports, reports will be submitted based on the following schedule:

- 1. The first report covering years 1 and 2 must be submitted to the Department 27 months after the effective date of the permit.*
- 2. The following report, covering years 3 and 4 shall be submitted 180 days before the permit expiration date as part of the re-notification.*
- 3. While, and if the expired permit is continued, reports are due every year on the anniversary date of the expired permit.*

All reports shall be sent to the address below unless the Department instructs permittees to submit via alternate mechanisms (i.e. electronic mechanisms):

*SCDHEC Bureau of Water
Water Pollution Compliance & Enforcement
2600 Bull Street
Columbia, SC 29201-1708*

All reports will include:

- The status of the City's compliance with permit conditions, an assessment of the appropriateness of the identified BMP under Part 4, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures;*
- Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;*
- A summary of the stormwater activities the City plans to undertake during the next reporting cycle (including an implementation schedule);*
- Proposed changes to the City's SWMP, including changes to any BMP or any identified measurable goals that apply to the program elements;*
- Notice that the City relying on another entity to satisfy some of the City's permit obligations (if applicable); and*
- Information requested in the SMS4 general permit including, but not limited to, Sections 1.4.7, 3.1.1.1, 3.2.1.1, 3.2.1.2.2, 3.3.6, 4.1.6, and in the additional conditions applicable to NPDES MS4 permits contained in Appendix B of the SMS4 general permit.*

Appendix A

North Myrtle Beach

SWMP Updates

| Date | Description of Update or Revision |
|----------------|---|
| September 2015 | Updates to the Minimum Measure tables to reflect the current status of each milestone. |
| | Interim dates that were not set by the permit were adjusted, if needed. |
| | The impaired stations list was updated from the 2013 303(d) list to the 2014 303(d) list. The changes that were made are listed in the 2016 Annual Report and are reflected in the current SWMP. |
| March 2016 | Inserting Measurable Goal Updates to the BMP Minimum Measure tables. These provide descriptions of what items have been completed and what progress has been made in achieving the goal of reducing the discharge of pollutants to the MEP. |
| | BMPs were adjusted to provide an appropriate description on what has been completed and what will be completed. |
| | The City of North Myrtle Beach's SWMP implementation list was updated to include the proposed schedule for the remainder of the permit term. This is included in Appendix B. |
| August 2017 | Updates to the Minimum Measure tables to reflect the current status of each milestone. |
| | Interim dates that were not set by the permit were adjusted, if needed. |
| | The City of North Myrtle Beach's SWMP implementation list was updated to include the proposed schedule for the remainder of the permit term. This is included in Appendix B. |
| | The Field Screening Assessment was added in Table 11 of the SWMP based on Section 4.2.3.2.3b of the permit. |
| June 2018 | The impaired stations list was updated from the 2014 303(d) list to the 2016 303(d) list. There were two impaired stations added to the City's MS4 area (01-18 and 01-07). There was also a change in Table 2 related to the priority ranking and TMDL development schedule. No 303(d) stations were removed. |
| | Interim dates that were not set by the permit were adjusted, if needed. |
| | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed for the remainder of the permit term. This is included in Appendix B. |
| December 2019 | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed for the remainder of the permit term. This is included in Appendix B. |
| March 2020 | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed for the remainder of the permit term. This is included in Appendix B. |
| March 2021 | The impaired stations list was updated from the 2016 303(d) list to the 2018 303(d) list. There was one impaired station added to the City's MS4 area (MD-125). This was updated in Table 2. No 303(d) stations were removed. |
| | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed through 2022. This is included in Appendix B. |
| March 2022 | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed through 2023. This is included in Appendix B. |

| | |
|------------------|--|
| February 2023 | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed through 2024. This is included in Appendix B. |
| February 2024 | The impaired stations list was reviewed updated from the 2018 303(d) list to the 2020-2022 303(d) list. There were no changes to the impaired stations or pollutants of concern. |
| | Measurable goal updates for each BMP in the Minimum Measure tables were edited to provide an update on what progress has been made, where applicable. |
| | The City of North Myrtle Beach's SWMP implementation schedule was updated to include items to be completed through 2025. This is included in Appendix B. |

Appendix B

Deadlines for North Myrtle Beach Associated with SWMP

| SWMP Requirements | | | | | |
|------------------------|---------------|---|-----------------|-------------------|-------------------------|
| Measure | Section | Brief Description | Start Date | Deadline | Frequency |
| 7 th Report | 5.3 | Complete and Submit 7 th Report (covering year 10) | N/A | December 31, 2024 | Once During Permit Term |
| 8 th Report | 5.3 | Complete and Submit 8 th Report (covering year 11) | N/A | December 31, 2025 | Once During Permit Term |
| Year 11 - 2024 | | | | | |
| Measure | Section | Brief Description | Start Date | Deadline | Frequency |
| PEO | 4.2.1.1.3 | Continue Contractual Agreement with CWSEC by Clemson Extension | January 1, 2024 | December 31, 2024 | Annually |
| PEO | 4.2.1.1.3 | Support CWSEC by Clemson Extension | January 1, 2024 | December 31, 2024 | Annually |
| PEO | 4.2.1.1.7 | Distribute Campaign Materials | January 1, 2024 | December 31, 2024 | Annually |
| PEO | 4.2.1.1.8 | Assess the PEO Plan | January 1, 2024 | December 31, 2024 | Annually |
| PEO | 4.2.1.1.8 | Develop Annual Adjustments for the PEO Plan | January 1, 2024 | December 31, 2024 | Annually |
| PIP | 4.2.2.1.1 | Sponsor/Support Citizen Participation Events | January 1, 2024 | December 31, 2024 | Annually |
| PIP | 4.2.2.1.3 | Incorporate Written Procedures for Implementing MCM#2 | January 1, 2024 | December 31, 2024 | Annually |
| IDDE | 4.2.3.2.1 | Update Storm Sewer Map | January 1, 2024 | December 31, 2024 | As Needed |
| IDDE | 4.2.3.2.3.a | Conduct Field Screening of Year 11 Screening Points | January 1, 2024 | December 31, 2024 | Annually |
| IDDE | 4.2.3.2.4/5/7 | Conduct Illicit Tracking of Year 10 Potential Illicit Discharges and Eliminate Illicit Discharges | January 1, 2024 | December 31, 2024 | As Needed |
| IDDE | 4.2.3.2.2 | Identify Year 12 Priority Areas | January 1, 2024 | December 31, 2024 | Annually |
| IDDE | 4.2.3.2.2.a.i | Identify Year 12 Screening Points | January 1, 2024 | December 31, 2024 | Annually |
| IDDE | 4.2.3.2.5/6 | Document Illicit Discharges | January 1, 2024 | December 31, 2024 | As Needed |
| IDDE | 4.2.3.9 | Provide Employee Training | January 1, 2024 | December 31, 2024 | Annually |
| CSR | 4.2.4.6.a | Maintain Site Inspection Inventory | January 1, 2024 | December 31, 2024 | Annually |
| CSR | 4.2.4.8 | Train SMS4 Staff | January 1, 2024 | December 31, 2024 | Throughout Permit Term |
| CSR | 4.2.4.9 | Construction Operator Education | January 1, 2024 | December 31, 2024 | Annually |
| PCR | 4.2.5.5 | Update Post Construction BMP Inventory | January 1, 2024 | December 31, 2024 | Annually |
| PCR | 4.2.5.6.2 | Conduct and Document Post Construction BMP Installation Inspections | January 1, 2024 | December 31, 2024 | Annually |
| PCR | 4.2.5.6.1 | Conduct and Document Post Construction BMP Maintenance Inspections | January 1, 2024 | December 31, 2024 | Annually |

| PP&GH | 4.2.6.3 | Conduct and Document High Priority Facility Inspections | January 1, 2024 | December 31, 2024 | Annually |
|----------------|---------------|---|-----------------|-------------------|------------------------|
| PP&GH | 4.2.6.4.2 | Continue to Implement Pollution Prevention Measures for O&M Activities | January 1, 2024 | December 31, 2024 | Throughout Permit Term |
| PP&GH | 4.2.6.4.3 | Inspect City-Owned Structural Controls | January 1, 2024 | December 31, 2024 | Annually |
| PP&GH | 4.2.6.4.3 | Maintain City-Owned Structural Controls | January 1, 2024 | December 31, 2024 | Annually |
| PP&GH | 4.2.6.5 | Conduct PP&GH Training | January 1, 2024 | December 31, 2024 | Annually |
| PP&GH | 4.2.6.6 | Provide Contractor Oversight (if this becomes applicable) | January 1, 2024 | December 31, 2024 | Throughout Permit Term |
| Year 12 - 2025 | | | | | |
| Measure | Section | Brief Description | Start Date | Deadline | Frequency |
| PEO | 4.2.1.1.3 | Continue Contractual Agreement with CWSEC by Clemson Extension | January 1, 2025 | December 31, 2025 | Annually |
| PEO | 4.2.1.1.3 | Support CWSEC by Clemson Extension | January 1, 2025 | December 31, 2025 | Annually |
| PEO | 4.2.1.1.7 | Distribute Campaign Materials | January 1, 2025 | December 31, 2025 | Annually |
| PEO | 4.2.1.1.8 | Assess the PEO Plan | January 1, 2025 | December 31, 2025 | Annually |
| PEO | 4.2.1.1.8 | Develop Annual Adjustments for the PEO Plan | January 1, 2025 | December 31, 2025 | Annually |
| PIP | 4.2.2.1.1 | Sponsor/Support Citizen Participation Events | January 1, 2025 | December 31, 2025 | Annually |
| PIP | 4.2.2.1.3 | Incorporate Written Procedures for Implementing MCM#2 | January 1, 2025 | December 31, 2025 | Annually |
| IDDE | 4.2.3.2.1 | Update Storm Sewer Map | January 1, 2025 | December 31, 2025 | As Needed |
| IDDE | 4.2.3.2.3.a | Conduct Field Screening of Year 12 Screening Points | January 1, 2025 | December 31, 2025 | Annually |
| IDDE | 4.2.3.2.4/5/7 | Conduct Illicit Tracking of Year 10 Potential Illicit Discharges and Eliminate Illicit Discharges | January 1, 2025 | December 31, 2025 | As Needed |
| IDDE | 4.2.3.2.2 | Identify Year 13 Priority Areas | January 1, 2025 | December 31, 2025 | Annually |
| IDDE | 4.2.3.2.2.a.i | Identify Year 13 Screening Points | January 1, 2025 | December 31, 2025 | Annually |
| IDDE | 4.2.3.2.5/6 | Document Illicit Discharges | January 1, 2025 | December 31, 2025 | As Needed |
| IDDE | 4.2.3.9 | Provide Employee Training | January 1, 2025 | December 31, 2025 | Annually |
| CSR | 4.2.4.6.a | Maintain Site Inspection Inventory | January 1, 2025 | December 31, 2025 | Annually |
| CSR | 4.2.4.8 | Train SMS4 Staff | January 1, 2025 | December 31, 2025 | Throughout Permit Term |
| CSR | 4.2.4.9 | Construction Operator Education | January 1, 2025 | December 31, 2025 | Annually |
| PCR | 4.2.5.5 | Update Post Construction BMP Inventory | January 1, 2025 | December 31, 2025 | Annually |

| | | | | | |
|-------|-----------|--|-----------------|-------------------|------------------------|
| PCR | 4.2.5.6.2 | Conduct and Document Post Construction BMP Installation Inspections | January 1, 2025 | December 31, 2025 | Annually |
| PCR | 4.2.5.6.1 | Conduct and Document Post Construction BMP Maintenance Inspections | January 1, 2025 | December 31, 2025 | Annually |
| PP&GH | 4.2.6.3 | Conduct and Document High Priority Facility Inspections | January 1, 2025 | December 31, 2025 | Annually |
| PP&GH | 4.2.6.4.2 | Continue to Implement Pollution Prevention Measures for O&M Activities | January 1, 2025 | December 31, 2025 | Throughout Permit Term |
| PP&GH | 4.2.6.4.3 | Inspect City-Owned Structural Controls | January 1, 2025 | December 31, 2025 | Annually |
| PP&GH | 4.2.6.4.3 | Maintain City-Owned Structural Controls | January 1, 2025 | December 31, 2025 | Annually |
| PP&GH | 4.2.6.5 | Conduct PP&GH Training | January 1, 2025 | December 31, 2025 | Annually |
| PP&GH | 4.2.6.6 | Provide Contractor Oversight (if this becomes applicable) | January 1, 2025 | December 31, 2025 | Throughout Permit Term |

The permit expired December 31, 2018. This implementation schedule has been extended in the case that the City continues under the expired permit. Should another permit become effective, this implementation schedule will no longer be followed, and a new implementation schedule will be developed according to the new permit.

Appendix C

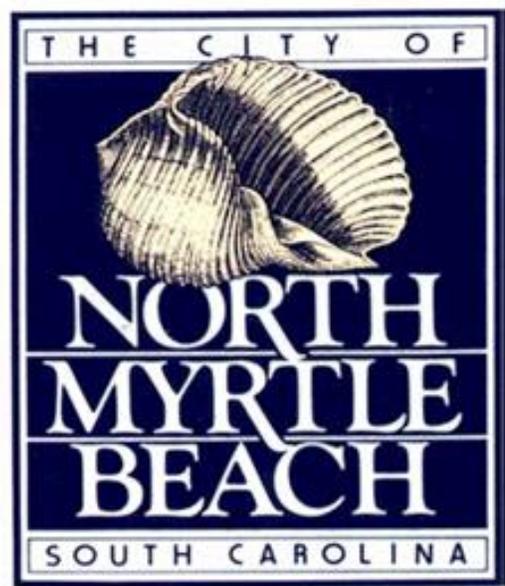
North Myrtle Beach

SMS4 Area



Appendix D

TMDL Monitoring and Assessment Plan



THE CITY OF NORTH MYRTLE BEACH

TMDL MONITORING AND ASSESSMENT PLAN WACCAMAW RIVER AND THE ATLANTIC INTRACOASTAL WATER WAY

1018 Second Avenue South
North Myrtle Beach, SC 29582
843-280-5538

December 31, 2014

PREPARED IN ACCORDANCE WITH SCDHEC PERMIT #SCR030000

Table of Contents

***Table of Contents follows section numbers of #SCR030000.**

3.2 TMDL Monitoring and Assessment 1
Appendix A: North Myrtle Beach Waccamaw River/AIWW TMDL Map 2

List of Tables

Table 1: Permitted Discharges 1

List of Acronyms and Abbreviations

| | |
|--------|---|
| AIWW | Atlantic Intracoastal Water Way |
| NMB | North Myrtle Beach |
| POC | Pollutant of Concern |
| POTW | Publicly Owned Treatment Works |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| TMDL | Total Maximum Daily Load |
| UOD | Ultimate Oxygen Demand |
| WLA | Wasteload Allocation |
| WQMS | Water Quality Monitoring Stations |

NORTH MYRTLE BEACH

TMDL MONITORING AND ASSESSMENT PLAN

The following monitoring and assessment plan was developed to meet the requirements of Section 3 of SCDHEC SMS4 permit number SCR030000.

3.2 TMDL Monitoring and Assessment

A Total Maximum Daily Load (TMDL) has been developed for biochemical oxygen demand, both carbonaceous and nitrogenous, in the Waccamaw River and Atlantic Intracoastal Water Way (AIWW) watershed, which includes portions of the urbanized area within North Myrtle Beach (NMB). The TMDL became effective in 1999.

Permit number SCR030000 states in 3.2.1, “Where a TMDL Wasteload Allocation (WLA) is assigned to point sources, permittees shall review its SWMP requirements for the control of stormwater discharges to water quality monitoring stations (WQMS) identified in the TMDL. For SMS4 discharges of the pollutant(s) of concern to TMDL waters, permittees shall identify discharges located in the TMDL watershed draining to the impaired WQMS. The SWMP shall include a TMDL Monitoring and Assessment Plan.”

After reviewing the TMDL for the Waccamaw River and the AIWW Near Myrtle Beach, SC, there are no stormwater discharges assigned a WLA.

The TMDL states:

“The four areas where point source TMDLs are being established are: the Conway area of the Waccamaw River; the North Myrtle Beach area of the AIWW; the area at the confluence of the AIWW and the Waccamaw River near Bucksport; and the southern area of the Waccamaw River, north of Hagley Landing.”

The permitted publicly owned treatment works (POTW) that discharge in North Myrtle Beach are:

Table 1: Permitted Discharges

| Dischargers | NPDES Permit # | Current Permit Limit Q (MGD) | Current Permit Limit UOD (lbs/day) |
|---------------------|----------------|------------------------------|------------------------------------|
| NMB Ocean Drive | SC0022152 | 3.4 | 685 |
| NMB Crescent Beach | SC0022161 | 2.1 | 743 |
| GSW&SA Vereen Plant | SC0041696 | 2.5 | 481 |
| Total: | | 8.0 | 1,908 |

The TMDL goes on to propose TMDLs for the permitted dischargers listed above and lowers the total to ultimate oxygen demand (UOD) to 1,638 lbs/day. There is no WLA assigned to the City of North Myrtle Beach other than the dischargers that are covered under another permit. The City of North Myrtle Beach will not monitor for SMS4 discharges.

Appendix A
North Myrtle Beach
Waccamaw River/AIWW TMDL Map



Appendix E

North Myrtle Beach

Stormwater Management Ordinance

Chapter 13 STORMWATER MANAGEMENT AND EROSION CONTROL¹

ARTICLE I. IN GENERAL

Secs. 13-1—13-20. Reserved.

ARTICLE II. STORMWATER MANAGEMENT PLAN

Sec. 13-21. Short title.

This article shall be known and cited as "The Stormwater Management Ordinance" of the City of North Myrtle Beach.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-22. Findings of fact.

- (a) Unregulated land use changes may result in increased rates and volumes of stormwater runoff, creating local and area flooding harmful to human health, welfare, and safety, a risk to property, and unreasonably interfering with the enjoyment of life or property.
- (b) Development requiring the alteration of natural topography and removal of vegetation may increase the rate and volume of stormwater runoff, thereby increasing soil erosion and sedimentation and degrading water quality.
- (c) The impacts on a drainage facility resulting from increased erosion may significantly decrease the drainage facility's capacity to transport stormwater, thereby increasing the potential for more frequent or severe flooding.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-23. Jurisdiction.

- (a) This article shall apply to the development or redevelopment of any land in the incorporated areas of the City of North Myrtle Beach, and any land development outside the corporate limits for which a request for annexation has been submitted.
- (b) The City of North Myrtle Beach herein establishes regulations for land disturbance activities as authorized by South Carolina Department of Health and Environmental Control (SCDHEC) under National Pollutant Discharge Elimination System (NPDES) regulations in accordance with the NPDES General Permit for Storm

¹Cross reference(s)—Discharge of stormwater into sanitary sewers prohibited, § 15-130; approval of certain discharges into storm sewers, § 15-131.

Water Discharges from Construction Activities, SCR100000 and the NPDES General Permit for Stormwater Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), SCR030000.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-24. Definitions.

[The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

Applicant: A person, firm, or governmental agency applying for NPDES permit coverage for a land disturbing activity and to obtain approval to discharge wastes into the waters of the state or to operate a treatment works within the scope of this article.

Clearing: The removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction and/or non-construction activities, but shall not include the ordinary mowing of grass or gardening. Clearing does not refer to the removal of vegetation and disturbance of soil along existing or new roadways, highways, dams, power lines for sight distance, other maintenance and/or safety concerns, and cold milling of roadway pavement surfaces.

Coastal receiving water: A receiving water body as defined in the Policies and Procedures of the South Carolina Coastal Zone Management Program, updated July 1995. This includes all regularly tidally influenced salt and fresh water marsh areas, all lakes or ponds which are used primarily for public recreation or a public drinking water supply, and other water bodies within the coastal zone, excluding wetlands, swamps, ditches and stormwater management ponds which are not contiguous via an outfall or similar structure with a tidal water body.

Culvert: Enclosed symmetrical channel of comparatively short length to convey water from one side of an embankment to the other.

Detention: The collection and storage of stormwater runoff in a surface or subsurface facility for subsequent controlled discharge to a watercourse or water body.

Developer: Any person who engages in development either as the owner or as the agent of an owner of property.

Development or development activity:

- (1) The construction, installation, alteration, demolition or removal of a structure, impervious surface, or drainage facility; or
- (2) The installation of infrastructure improvements such as drainage and utilities.
- (3) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging or otherwise significantly disturbing the soil, mud, sand or rock of a site, but shall not include landscaping.

Ditch: A drainage channel in earth created by natural or artificial means to convey surface and/or subsurface water, flowing continuously or intermittently.

Drainage facility: Any component of the drainage system.

Drainage system: The surface and/or subsurface system, which collects and conveys stormwater and surface water, and includes all watercourses, water bodies and wetlands.

Elevation: Height in feet above a given known datum, such as mean sea level.

Erosion: The wearing or washing away of soil by the action of water or wind.

Flood: A temporary rise in the level of any water body, watercourse or wetland, which results in, the inundation of areas not ordinarily covered by water.

Grading: Any displacement of earth materials by stripping, excavating, filling, stockpiling, or any combination thereof, but does not include landscaping.

Impervious surface: Any land surface with a low or no capacity for soil infiltration including, but not limited to, pavement, sidewalks, parking areas and driveways, packed gravel or soil. All rooftops.

Operator: In the context of stormwater associated with construction activity, means any party associated with a construction project that meets one (1) of the following two (2) criteria:

- (1) A qualified person that has operational control over construction plans, SWPPPs, and specifications, including the ability to request modifications to those plans and SWPPPs. This person is typically the owner or developer of the project or a portion of the project (subsequent builders), and is considered the primary permittee; or
- (2) The person has day-to-day operational control of those activities at a construction site, which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee. This person is considered a secondary permittee.

Owner: The person in who is vested the fee ownership, dominion, or title of property. This term may also include a tenant, if chargeable under his/her lease for the maintenance of the property, and any agent of the owner or tenant including a developer.

Person: Any and all persons, natural or artificial and includes any individual, firm, corporation, government agency, business trust, estate, trust, partnership, association, two (2) or more persons having a joint or common interest, or any other legal entity.

Post-development conditions: Those conditions which are expected to exist, or do exist, after a land disturbing activity, resulting from human activity, of the natural topography, vegetation, land use and rate, volume or direction of stormwater runoff.

Predevelopment conditions: Those conditions which existed prior to any land disturbing activity on the site in terms of the natural topography, vegetation, land use and rate, volume or direction of stormwater runoff.

Primary drainage system: System that includes the major drainage facilities and appurtenances for conveying stormwater and surface water from watershed.

Rate: Volume of water passing a point per unit of time, generally expressed in cubic feet per second (cfs).

Receiving bodies of water: "Waters of the United States" as defined in § 122.2 of SC Regulation 61-9 into which regulated stormwater discharges. For information on receiving water bodies in respect to Coastal Zone stormwater management requirements, see the definition for Coastal Receiving Waters.

Retention: The collection and storage of stormwater runoff without subsequent discharge to surface waters.

Return period: The average length of time between rainfall events having the same amount of precipitation and length of time over which the precipitation occurs.

Runoff: That part of rainfall that is not absorbed into the ground, but as surface water, flows from or over the land.

Secondary drainage system: System that includes minor storm sewer systems, ditches, swales, and appurtenant structures and systems for conveying stormwater and surface water.

Sedimentation facility: Any structure or area, which is designed to retain suspended sediments from collected stormwater runoff.

Site: Any tract, lot or parcel of land or combination of tracts, lots or parcels of land, which are in one (1) ownership, or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision, or project.

Storm sewer: Artificial drainage facility or system designed to collect and transport stormwater runoff from storms of frequent occurrence, such as two-, five-, ten and twenty-five-year events.

Stormwater management facility: Drainage facility whose function is to mitigate the detrimental effects of stormwater runoff generated by development activity by encouraging infiltration and percolation, attenuating peak discharge rates and volumes, reducing and controlling erosion and sediment transport, or otherwise simulates the predevelopment hydrologic conditions of a site.

Stormwater management and sediment control plan: Drawings, maps, other documents, supporting calculations, and technical specifications prepared and submitted as a prerequisite to obtaining a permit to undertake a land disturbing activity in accordance with the provisions of this article, with the purpose of mitigating the detrimental effects of stormwater runoff generated by land disturbing activity. The Stormwater Management and Sediment Control Plan is considered to be a part of the Storm Water Pollution Prevention Plan (SWPPP) as defined in SCDHEC Regulations 72-300 and NPDES General Permit for Storm Water Discharges from Construction Activities, SCR100000.

Subdivide: To divide the ownership of a parcel of land, whether improved or unimproved, into two (2) or more contiguous lots or parcels of land, whether by reference to a plat, by metes and bounds or otherwise, or, if the establishment of a new street is involved, any division of a parcel of land. Subdivision includes a re-subdivision and, when appropriate to the context, relates to the process of subdividing or to the land subdivided.

Tailwater: The depth of ponding of water at the outlet of a culvert as measured from the culvert invert to the water surface in the outlet channel.

Vegetation: All plant growth, especially trees, shrubs, vines, ferns, mosses and grasses.

Volume of rainfall: The amount of precipitation occurring over the duration of a storm event, generally expressed in inches.

Volume of runoff: The quantity of stormwater runoff generated upstream of a particular point, or stored in a stormwater management facility, generally expressed in cubic feet (c.f.) or acre-feet (acre-ft.).

Watercourse: Any natural or artificial stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, street, roadway, swale or wash in which water flows in a definite direction, either continuously or intermittently, and which has a definite channel, bed, or banks.

Water body: Any natural or artificial pond, lake, reservoir or other area which ordinarily or intermittently contains water and which has a discernible shoreline.

Watershed: A drainage area or drainage basin contributing to the flow of stormwater runoff to a single point.

Wetlands: Low-lying areas that typically exhibit standing water where the US Army Corps of Engineers and or SCDHEC/OCRM have approved delineation. Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19; Ord. No. 21-02, § 2, 3-1-21)

Sec. 13-25. Applicability exemptions, modifications, and appeals.

- (a) *Applicability.* A stormwater management plan prepared in accordance with this article must be approved by the city engineer when:

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- (1) Recording a subdivision plat, subdividing land, or commencing development for subdivision; or
 - (2) Commencing development for multifamily residential, single family residential, institutional, commercial, industrial or other land development projects; or
 - (3) Construction of a new roadway; or
 - (4) Altering, rerouting, deepening, widening, obstructing or changing the characteristics of an existing drainage; or
 - (5) Commencing any other development activity, which may have adverse impacts on any wetland, watercourse, or water body; or
 - (6) All construction sites and other activities disturbing one (1) or more acres of land, including larger sites that are part of a larger development plan.
- (b) *Exemptions.* The following activities are exempt from the requirements of this article:
- (1) Construction of or improvements to a single-family home or accessory buildings shall not require approval of a stormwater management plan if any of the following conditions are met:
 - a. Drainage provisions for the subdivision were previously approved and remain valid as part of a final plat; and the development is constructed in substantial accordance with the stormwater management provisions contained in the development plan; or
 - b. The lot does not require substantial removal or placement of soil, defined as more than eight (8) inches, as measured at the building setback line; or
 - c. Land disturbance is less than one-acre.
 - (2) Maintenance work performed on existing stormwater detention/retention structures and drainage ditches provided such work does not alter the function, capacity, or integrity of such facilities.
 - (3) Landscape improvements installed on private property.
 - (4) Land disturbing activities on agricultural land for production of plants and animals useful to man, including but not limited to: forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules, or goats, including the breeding and grazing of these animals; bees and dairy products; fur animals and aquaculture, except that the construction of an agricultural structure of one (1) or more acres, such as broiler houses, machine sheds, repair shops, and other major buildings and which require the issuance of a building permit shall require the submittal and approval of a stormwater management and sediment control plan prior to the start of the land disturbing activity pursuant to S.C. Code 1976 § 48-14-40(A) , as amended.
 - (5) Activities undertaken by persons who are otherwise regulated by the provisions of Chapter 20 of Title 48 , the South Carolina Mining Act.
 - (6) Certain land disturbing activities undertaken by persons who are exempt from the provisions of the Storm Water Management and Sediment Reduction Act as set forth in S.C. Code 1976 § 48-14-60(F) , as amended.
 - (7) Discharges of dredged or fill material into waters of the United States, which are regulated under section 404 of the Clean Water Act (CWA).
 - (8) Any introduction of pollutants from nonpoint source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands. Discharges from concentrated animal feeding operations, discharges from concentrated aquatic animal production

facilities, discharges to aquaculture projects, and discharges from silvicultural point sources are not exempt.

- (c) *Appeals.* Determinations made by the city engineer regarding the enforcement of provisions of this article may be appealed, in writing, to the city manager within ten (10) days of receipt of notification of action by the city.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-26. Application procedures, required submittals, and fees.

- (a) *Stormwater management plan permit application.*

- (1) *Purpose.* The purpose of the stormwater management plan review process is to provide an organized framework for evaluating and acting upon proposals for development as they relate to stormwater management issues.
- (2) *Required information.* The applicant shall furnish the city engineer with three (3) copies of the stormwater management plan, sealed by a professional engineer registered in the State of South Carolina or, where permitted by state law, a Tier B land surveyor registered in the State of South Carolina.
- (3) *Review process.* Within thirty (30) calendar days after submission of the completed stormwater management plan by the applicant, the city engineer shall approve, or recommend that specified conditions conforming to the requirements of this article be met prior to approval, and shall notify the applicant accordingly.
- (4) *Review criteria.* The city engineer, in recommending approval, or conditions required before approval may be granted for a stormwater management plan permit application, shall consider the requirements of this article. As a minimum, they shall consider the following:
 - a. The characteristics and limitations of the soil at the proposed site, specifically with respect to percolation, infiltration, and water table depth.
 - b. The existing topography of the proposed site and the extent of proposed topographical changes after development.
 - c. The existing vegetation on the site and the extent of vegetation changes after development.
 - d. The impact of the proposed project on upstream and downstream water quantity and quality, and specifically the potential for flooding conditions of adjacent or affected properties.
 - e. The plans and specifications of structures or devices to be employed for detention, retention, erosion control, and flow attenuation.
 - f. The continuity of phased projects (projects to be developed in phases will require the submission of a comprehensive drainage plan for the project's total boundary).
 - g. Compliance with the NPDES General Permit for Storm Water Discharges from Construction Activities, SCR100000.
- (5) *Fees.*
 - a. Permit fees shall be in accordance with the building permit fee schedule section 6-3(b). Plan review fees shall be in accordance with section 6-3(d)(1).
 - b. City permit fees are in addition to any and all applicable state and/or federal permit application fees.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-27. Responsibility of applicant.

It is the responsibility of an applicant to include sufficient information in the stormwater management plan to enable evaluation of the potential and predicted impacts of the proposed activity on all affected lands and water, both on-and off-site, and the effectiveness and acceptability of the measures proposed by the applicant for preventing or reducing adverse impacts.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-28. Performance standards for stormwater management plans.

- (a) *Purpose.* The purpose of this section is to establish engineering standards for the design, construction, and maintenance activities of stormwater management plans. It is the intent of the article that the performance standards be satisfied by all development proposals, while the design the city engineer may modify requirements and maintenance responsibilities.
- (b) *Approval of stormwater management plans.* Stormwater management plans will be approved, consistent with procedures in this article, when the applicant has demonstrated that the proposed development activity is designed to meet each of the following performance standards:
 - (1) To encourage the use of "best management practices," i.e., maximum use of on-site storage facilities to reduce runoff rates and volumes, and minimize erosion and sedimentation.
 - (2) To design, construct, and maintain stormwater management facilities in a manner, which controls post-development runoff so as to simulate the time-discharge function for predevelopment runoff, based on the two-year, ten-year and twenty-five-year, twenty-four-hour design storms.
 - (3) To design, construct, and maintain stormwater management facilities in such a manner that erosion or sedimentation does not exceed natural or predevelopment conditions.
 - (4) To ensure that downstream drainage systems are adequate to handle any increased flows and to provide off-site improvements where necessary to comply with the City of North Myrtle Beach Storm Water Master Plan and the City of North Myrtle Beach Manual of Design, Installation and Maintenance.
 - (5) To design, construct and maintain stormwater management facilities consistent with mosquito control objectives and programs when not in conflict with this article.
 - (6) To protect the water quality of the surf and the physical characteristics of the beach area by minimizing the rates, volumes, and velocities of stormwater entering drainage systems discharging onto the beach.
 - (7) To design, construct and maintain stormwater management facilities in compliance with all applicable state regulations, including SCDHEC Standards for Stormwater Management and Sediment Reduction Regulation 72-300, NPDES General Permit for Storm Water Discharges from Regulated SMS4s SCR030000, SCDHEC/OCRM Policies and Procedures of the South Carolina Coastal Management Program, and NPDES Permit SCR035106.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-29. Maintenance responsibilities for stormwater management facilities.

- (a) *General.* The installed on-site stormwater management facilities required by this article shall be maintained by the owner. Adequate ingress and egress shall be provided by the owner for the city to inspect the premises at reasonable times.
- (1) Where permanent stormwater management facilities are employed, the person(s) or organization(s) responsible for maintenance shall execute a permanent stormwater management maintenance agreement to assure proper maintenance of stormwater management facilities in accordance with their approved plan.
 - (2) The maintenance agreement shall also specify responsibilities for financing permanent maintenance with options that may include the property owner, a homeowner's association, provided that provisions for financing necessary permanent maintenance are included in deed restrictions or other contractual agreements, or other financing mechanisms acceptable to the city.
 - (3) The city and any other permitting authority must be notified in writing of any changes in maintenance responsibility for stormwater management facilities at the site. This requirement shall be included in the maintenance agreement.
 - (4) In order to implement its responsibilities as an SMS4 and to comply with the terms and conditions of the NPDES permit, the city, through its duly designated employees and officials, may enter private property to perform periodic post-construction inspections:
 - a. Inspections ensure that all permanent stormwater management facilities are operating correctly and are being maintained as required consistent with the applicable permanent stormwater management maintenance agreement,
 - b. Conduct inspections of each project site permanent stormwater management facilities at least one (1) time during the NPDES SMS4 permit term.
 - c. Document inspection findings in an inspection report, maintain records of inspection findings and enforcement actions, and make them available for review.
- (b) *Failure to maintain.* Should the owner fail to properly maintain the system as required by this article, the city engineer shall give written notice to the owner of record as appears on the latest property tax rolls by certified mail of the nature of the violation and order the corrective action necessary. Should the owner fail, within thirty (30) days from the date of the notice, to take corrective action to the satisfaction of the city engineer or appeal the notice and order, the city may enter upon the lands, take corrective action as the city engineer may deem necessary, and place a lien on the property of the owner for the costs thereof.
- (c) *City maintenance.* Certain off-site systems as may be identified by the city engineer, which are to provide general public benefits, may be accepted by the city for maintenance. All areas and/or structures to be maintained by the city must be dedicated to the city by plat or separate instrument.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-30. Plan adherence.

The applicant shall be required to strictly adhere to the stormwater management plan approved by the city engineer. Any changes or amendments to the plan must be approved by the city engineer in accordance with the procedures set forth in this article of obtaining stormwater management plan approval. Enforcement officials shall, and are herein granted, inspection rights and right-of-entry privileges in order to ensure compliance with the requirements of this article.

After completion of the project and prior to issuance of a certificate of occupancy, the city engineer shall require from the applicant that the professional engineer in charge certify compliance with terms of the approved stormwater management plan and permit.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-31. Enforcement.

The city engineer is authorized to request from owners and operators information including, but not limited to, specific requirements to control construction, industrial and post-construction discharges of pollutants in stormwater. If the city engineer determines that the project is not being carried out in accordance with the approved plan, or that any project subject to this article is being carried out without approval, the city engineer is authorized to take the appropriate enforcement action in accordance with the city's enforcement response plan (ERP).

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-32. Penalties.

Any person who violates or causes to be violated any provision of this article or permits any such violation or fails to comply with any of the requirements herein shall be guilty of a misdemeanor. Each day upon which such violation occurs shall constitute a separate offense. In addition to any other remedies, whether civil or criminal, the violation of this article may be restrained by injunction, including mandatory injunction, and otherwise abated in any manner provided by law.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-33. Emergency exemptions.

This article shall not be construed to prevent the performance of any act necessary to prevent material harm to or destruction of real or personal property as a result of a present emergency, including but not limited to fire, hazards resulting from violent storms or hurricanes, earthquake, extreme flooding conditions, widespread disruption in essential public services, or when obtaining a permit is impractical and would cause undue hardship in the protection of the property.

If land disturbing activities are performed in response to an emergency, and the related work requires immediate authorization to avoid imminent danger to human health, public safety, or the environment, or to reestablish essential public services, stormwater discharges are allowable on the condition that a complete and accurate NOI is submitted within thirty (30) calendar days after commencing land disturbing activities establishing eligibility for coverage under SCR100000. Documentation must be provided in the Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-34. Separability provision.

If any part of this article is held to be unconstitutional, it shall be construed to have been the legislative intent to pass this article without such unconstitutional part, and the remainder of this article, as to the exclusion of such part, shall be deemed and held to be valid as if such part had not been included herein. If this article or any provision hereof is held to be inapplicable to any persons, group of persons, property, kinds of property,

circumstances or set of circumstances, such holding shall not affect the applicability hereof to any other person, property or circumstances.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-35. Conflict with other ordinances and codes.

In case of conflict between this article or any part thereof, and the whole or part of any other existing or future ordinance or code, the most restrictive in each case shall apply.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-36. Vested rights.

This article shall not in any way limit or modify the vested rights of any person to complete any development of [or] improvements to lands based upon prior law, where previous permits or authorization have been granted in effect, or where application for such permits or authorization has been made.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Secs. 13-37—13-60. Reserved.

ARTICLE III. GRADING PERMITS, EROSION CONTROL

Sec. 13-61. Definitions.

As used in this article, the following terms shall have the respective meanings ascribed to them:

As built plans: Plans, which are drawn to the same scale as the approved plan, and which:

- (1) Show that the location, dimensions, elevations, and status of the resulting grading, drainage structures, and/or drainage systems and erosion and sediment control practices (including vegetative measures) are in substantial conformance with the previously approved detailed development plans and specifications.
- (2) Note all deviations from the approved plans on the "as built" plan. (Data required to show such deviations and to support certifications such as measurements, rod readings, elevations, computations, and notes on field observations may be recorded ("red lined") directly on the approved plan.)

Certification: A signed, written statement that specific construction, inspections or tests (where required) have been performed, and that they comply with the applicable requirements of this article.

Compaction: Densification of a soil or rock fill by mechanical or other acceptable procedures.

Cut: See *Excavation*.

Development or development activity:

- (1) The construction, installation, alteration, demolition or removal of a structure, impervious surface, or drainage facility; or
- (2) The installation of infrastructure improvements such as drainage and utilities.

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- (3) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging or otherwise significantly disturbing the soil, mud, sand or rock of a site, but shall not include landscaping.

Diversion: A channel, ditch or ridge constructed across a slope, which intercepts and diverts surface runoff.

Drainage way: See *watercourse*.

Embankment or fill: A deposit of soil, rock or other materials placed by man.

Engineer: See *professional engineer*.

Erosion: The process by which the ground surface is worn away by the action of wind or water.

Excavation or cut: Any act (or the conditions resulting therefore) by which soil or rock is cut into, dug, quarried, uncovered, removed, displaced or relocated.

Existing grade: The vertical location of the existing ground surface prior to excavating or filling.

Finished grade: The final grade or elevation of the ground surface conforming to the proposed design.

Flood plain: That area, which would be inundated by stormwater runoff equivalent to that which would occur from a rainfall of one-hundred-year frequency after total development of the watershed, said area defined by an elevation below which only controlled development may take place.

Grading: Any displacement of earth materials by stripping, excavating, filling, stockpiling, or any combination thereof, but does not include landscaping.

Grading permit: A permit issued to authorize work to be performed under this article.

Load bearing fill: Any facility, earthwork or fill placed in a controlled manner to support structural foundations or vehicular traffic, the instability of which would constitute a public hazard or nuisance.

Natural ground surface: The ground surface in its original state before grading, stripping, excavation or filling.

Permittee: Any person to whom a permit is issued pursuant to this article.

Professional engineer: An engineer duly registered by the state to practice professional engineering.

Professional land surveyor: A person who has been duly registered and licensed by the state to practice land surveying.

Regulated grading: Any grading performed in accordance with the provisions of this article.

Sediment: Soils or other surficial materials that have been or are being transported by wind or surface water as a product of erosion.

Site: That portion of any parcel of land, upon which grading is performed or permitted.

Slope: The inclined exposed surface of a fill, excavation or natural terrain.

Soil: The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.

Steep slope: A slope of thirty (30) percent (~3H:1V) or greater in grade, which is characterized by increased runoff, erosion and sediment hazards.

Stripping: Any activity, which removes the vegetative surface cover (including tree removal, clearing, grubbing, and removal of top soil).

Structural rock fills: Fills constructed predominantly of rock materials for the purpose of supporting structures.

Watercourse and/or drainage way: Any natural or artificial watercourse (including, but not limited to, streams, rivers, creeks, ditches, channels, canals, conduits, culverts, drains, waterways, gullies, ravines or washes) in which surface waters, flood waters and/or run-off waters flow in a definite course, either continuously or intermittently; and includes any area adjacent thereto which is subject to inundation by reason of overflow or flood water.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-62. Purposes; liberal construction.

- (a) The purpose of this article is to safeguard life, limb, property and public welfare by establishing minimum requirements for land development activities, grading of land and for control of soil erosion, sediment and drainage.
- (b) The provisions of this article are minimum requirements, shall be in addition to any other legal requirements, and shall be liberally construed to accomplish the purposes hereinabove set forth.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-63. Scope of grading permit required.

Except as set forth in section 13-64, no person shall conduct land development activities, create borrow pits or spoil areas, or install retaining walls greater than thirty (30) inches in height without first obtaining approval for a grading permit from the city engineer.

- (1) Grading and drainage plans shall be approved by the city engineer and the approved work shall be authorized by permit as follows:
 - a. Under the building permit issued for construction of the principle structure on the site.
 - b. Under a separate grading permit issued for development activities not associated with the building of a structure.
- (2) A grading permit may not be issued until all applicable state and federal permits have been issued, including coverage under SCR100000.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-64. Exemptions.

A grading permit shall not be required for the following activities, provided that all state and federal laws are satisfied:

- (1) Construction of, or improvements to a single-family home or accessory buildings shall not require a separate grading permit if the following conditions are met:
 - a. Drainage provisions for the subdivision were previously approved and remain valid as part of a final plat; and the development is constructed in substantial accordance with the stormwater management provisions contained in the development plan; or
 - b. The lot does not require substantial removal or placement of soil, defined as more than eight (8) inches, as measured at the building setback line.
- (2) Maintenance work performed on existing stormwater detention/retention structures and drainage ditches, provided such work does not alter the function, capacity, or integrity of such facilities.

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- (3) Agricultural pursuits and land management practices.
 - (4) Grading and related earthwork incidental to individual water wells and sewage disposal (septic) systems installed pursuant to a valid permit from Horry County and South Carolina Department of Health and Environmental Control.
 - (5) Grading on existing developed lots or parcels for the purpose of landscaping.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-65. Application for permit.

Permit applications shall include the following:

(a) *Information statement.*

- (1) The proposed area of development,
- (2) The proposed site development or grading work to be accomplished, and
- (3) The necessary provision for storm drainage, erosion and sediment control, and landscape establishment.

(b) *Plans and specifications requirements.*

- (1) A vicinity sketch in such detail to easily locate the property, indicating north arrow and scale.
- (2) A boundary line survey of any site for which a permit is sought; on approved and recorded subdivision lots, a copy of the officially recorded plat shall be submitted.
- (3) A plan of the site, showing:
 - a. Name, address and telephone number of the owner, developer and applicant.
 - b. A time schedule indicating the anticipated starting and completion dates of the development sequence in accordance with the provisions of subsection (b)(3)l. of this section, and the time exposure of each area prior to the completion of effective erosion and sediment control measures.
 - c. The estimated total cost.
 - d. Location of any existing buildings or structures, utilities, sewers, water and storm drains on the site where the work is to be performed.
 - e. Location of any building or structure within one hundred (100) feet of the site.
 - f. Elevations, dimensions, location, extent and the slope of all proposed grading (including, but not limited to, building and driveway grades, utilities, sewer, water and storm drains), all clearly indicated with finished contours at the same interval as required or used for existing topography.
 - g. Adequate plans of:
 1. All drainage provisions, retaining walls, cribbing, vegetative practices, erosion and sediment control measures or other protective devices to be constructed in connection with, or as part of, the proposed work;
 2. A map showing the drainage area of land tributary to the site; and
 3. Estimated runoff of the area served by any drains. Complete storm drainage studies shall be submitted for the site, if not previously submitted.

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- h. A grading plan based on the findings and evaluations of the soil investigation report.
 - i. An appropriate legend.
 - j. The plan of the site including a one hundred-foot adjacent peripheral strip and showing existing topography of the contour.
 - k. Such supplemental reports, data and/or additional information as the city may require to ensure the adequacy of the proposed plan. Such reports, data and/or additional information may require that the following be prepared by a registered professional engineer employed by or under contract with the applicant.
 - l. The plan shall provide for erosion and sediment control measures throughout all phases of development:
 - 1. Phase I: Stripping and/or clearing;
 - 2. Phase II: Rough grading and construction;
 - 3. Phase III: Final grading and vegetative establishment;
 - 4. Phase IV: Maintenance; and
 - 5. A proposed time schedule for each of said phases.
- (4) The professional engineer's recommendations to guide the design, construction and inspection of the proposed site. Said recommendations shall take into consideration the following:
- a. Clearing, grubbing, stripping, keying and undercutting for the acceptance of fill.
 - b. Compaction requirement for all classes of fill.
 - c. Allowable slope angle and bench requirements for cut and fill slopes.
 - d. Erosion control during both the construction and the life of the facility.
 - e. Ground water control during both the construction and the life of the facility.
 - f. Testing and inspection requirements of this article.
 - g. Location, utilization and restoration of borrow and/or spoil areas.
- (5) A record of field observations, field test data (such as behavior of adjacent or nearby structures; geologic history and origin of soil; field test boring log giving classification, standard penetration data and water level observations; field test results for pile load test, plate load test and others as necessary), laboratory test data (such as moisture density curves, grain size curves, shear strength tests, moisture content, and consolidation test results), and project characteristics (such as those affecting soil and foundation design; sensitivity to settlement and design loads; factor of safety against failure; consequences of failure and merits of programmed maintenance; location of borrow pits on site or location where suitable fill will be obtained) upon which the professional engineer's recommendations were based.
- (6) Compliance with the City of North Myrtle Beach Storm Water Manual of Design, Installation and Maintenance Requirements.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-66. Permit approval.

No permit shall be issued unless:

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- (1) The proposed erosion and sediment control measures have been approved by the city engineer.
 - (2) All plans have been approved and permits issued by the proper state and federal agencies and coverage has been issued under NPDES General Permit SCR100000 (where applicable).
 - (3) Plans have been approved by all applicable city departments.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-67. Permit; modification.

Major modifications of the approved grading plans shall be submitted to the city engineer and reprocessed as the application. The city engineer may authorize field modifications of a minor nature.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-68. Permit fees.

Permit fees shall be according to the building permit fee schedule, section 6-3(b). Plan review fees shall be in accordance with section 6-3(d).

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-69. Time limitations generally.

- (a) If the applicant is unable to complete the work within the time specified in the approved application, within thirty (30) days of the expiration of the permit, applicant shall present a written request for extension to the city engineer, setting forth the reasons therefore. Where, in the sole discretion of the department, such an extension is warranted, it may grant such additional time as may be necessary.
- (b) If operations cease for a period of ninety (90) consecutive days, permanent erosion and sediment control measures shall be employed.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-70. Responsibility for damages.

Neither the issuance of a permit under the provisions of this article nor the compliance with the provisions of this article shall relieve any person from any responsibility for damage to persons or property otherwise imposed by law, nor impose any liability upon the city for any such damages.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-71. Materials.

Only materials which meet generally accepted engineering standards shall be used for fill.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Cross reference(s)—Littering, etc., generally, § 12-22 et seq.

Sec. 13-72. Maintenance of protective measures.

All graded surfaces, erosion control measures, vegetative covers and other protective measures disturbed or destroyed during the course of operations shall be promptly repaired, restored and maintained in accordance with the approved plans and specifications until permanent measures are accepted by the city engineer.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-73. Grading plans and specifications provisions.

All grading plans and specifications shall provide for the following: in accordance with the current design and construction standards, specifications and details in use by the city.

- (1) Development shall be fitted to the topography and soils as to create the least erosion potential.
- (2) Natural vegetation shall be retained and protected wherever possible.
- (3) Only the smallest practical area shall be exposed, and only for the shortest practical period of time.
- (4) Erosion control practices (such as interceptor ditches, berms, terraces, contour ripping, soil erosion checks and sediment basins) shall be installed to minimize soil and water losses.
- (5) Temporary vegetation or mulching shall be used to protect critical areas exposed during the time of development.
- (6) During and after development, stormwater management provisions shall be utilized to effectively accommodate increased runoff caused by changes in soil and surface conditions, and to avoid siltation of receiving streams.
- (7) Permanent vegetation and structures shall be installed in the development as soon as the weather permits.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-74. Drainage.

Surface water runoff may be conveyed in accordance with the requirements of the most current version of the City of North Myrtle Beach Manual of Design, Installation and Maintenance along with the following provisions:

- (1) Drainage facilities shall be designed to prevent erosion, or uncontrolled overflow or ponding when ponding is not an integral part of the design and function of the drainage facility. Said water shall be conveyed to an acceptable outlet in accordance with the design criteria, standards and procedures required by the city engineer. The ponding of water shall not be permitted above cut or fill slopes or on drainage terraces; adequate drainage facilities shall be provided to prevent such ponding.
- (2) Surface and/or ground waters shall not damage the face of any cut or fill; slopes shall be protected from surface water runoff by berms, swales, or brow ditches. Suitable underdrains shall be installed to intercept and carry ground water seepage to an acceptable outlet.
- (3) All areas shall be graded to provide for positive drainage away from the building toward the approved disposal area.

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- (4) Stormwater management subject to the requirements and recommendation of the city engineer. Measures such as infiltration beds, dry wells and retention ponds may be used to allow stormwater runoff to percolate into the soil.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-75. Fees for installation of drainage tile.

- (a) Installation of drainage pipe by the city for disposal of surface water runoff shall be limited to public rights-of-way or dedicated public drainage easements. Such installation shall be in accordance with the current material cost for the installation to be paid by the applicant prior to the commencement of work. The material cost shall be as established periodically by the city engineer.
- (b) Whenever the city is unable to install drainage tile due to time, work schedules or unavailability of the required tile size or linear footage, the purchase and installation of such tile may be accomplished by the applicant; provided however, that the requirements of all other applicable provisions of the Code of Ordinances are met.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-76. Submitting inspection and construction control program.

Prior to initiating any operations subject to this article, the permittee shall submit to the city engineer for its approval, a proposed construction compliance inspection program that complies with all permit conditions.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-77. Tests; inspection; certification of reports.

- (a) Inspections and testing shall be performed under the direction of a professional engineer who shall certify all inspection reports and test results. Such reports shall include certification by an engineer of the adequacy of:
 - (1) Cleared areas and benched or keyed surfaces prepared to receive fills; and
 - (2) Removal of unsuitable materials; and
 - (3) Construction of erosion control or drainage devices; buttress fills, underdrains, retaining walls, and other grading appurtenances; and
 - (4) The degree of compaction where tests are performed.
- (b) All certified inspection reports and certified test results shall be periodically submitted to the city engineer during the performance of the work as required by the permit.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-78. Final report.

Upon completion of permitted work the following shall be submitted to the city engineer:

- (1) An "as built" plan.

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- (2) Certification by the owner and/or permittee on the "as built" plan that all grading, drainage, structures and/or systems, erosion and sediment control practices including facilities and vegetative measures have been completed in conformance with the approved plans and specifications.
 - (3) A report summarizing the inspection reports, field and laboratory tests and locations of tests and field observations.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-79. Notification of completion.

The permittee or permittee's agent shall notify the city engineer when the grading operation is ready for final inspection. Final approval shall be given in a timely manner only after all work and required vegetative stabilization (including installation of all drainage structures and erosion protective devices) has been completed, and the required reports have been submitted.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-80. Notification of noncompliance.

If the city engineer determines that the project is not being carried out in accordance with the approved plan, or that any project subject to the article is being carried out without approval, the city engineer is authorized to take the appropriate enforcement action in accordance with the City of North Myrtle Beach Enforcement Response Plan (ERP). If at any stage the work does not comply or conform to a permit or plans and specifications (or any approved modification thereof), a written notice of noncompliance shall be sent by registered mail to the permittee and to the surety (in the event a bond secures the work). Such notice shall set forth the nature of the corrections required and the time within such corrections shall be made. If the corrections are not commenced and diligently pursued with ten (10) days of delivery of said notice, the permittee shall be considered in default of such permittee's obligations under this article, and the city engineer shall immediately notify the permittee and the surety by registered mail that a default has occurred.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-81. Punishment for violations.

- (a) In addition to any civil remedies, at law or in equity (including ex parte injunction relief), any violation of this article shall be a misdemeanor, punishable as provided in section 1-6 for each violation. Every day that said violation continues shall be a separate offense.
- (b) No such violation shall be prosecuted until after issuance of the notice required by the provisions of the City of North Myrtle Beach Enforcement Response Plan (ERP).

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

ARTICLE IV. DETECTION AND REMOVAL OF ILLICIT CONNECTIONS AND DISCHARGES AND IMPROPER DISPOSAL

Sec. 13-82. Short title.

This article shall be known and cited as "Illicit Connections and Illicit Discharges Ordinance" of the City of North Myrtle Beach.

(Ord. No. 19-33, 8-19-19)

Sec. 13-83. Illicit connections and illicit discharges.

- (a) It is unlawful for any person to connect any pipe, open channel, or any other conveyance system that discharges anything, except stormwater or unpolluted water which is approved by the city engineer or designee, into the SMS4.
- (b) It is unlawful for any person to continue the operation of any such illicit connection regardless of whether the connection was permissible when constructed. Improper connections in violation of this article must be disconnected and redirected, if necessary, to the satisfaction of the city engineer or his/her designee and any other federal, state, or local agencies or departments regulating the discharge.
- (c) It is unlawful for any person to throw, drain, or otherwise discharge to the city's SMS4 or to cause, permit, or allow a discharge that is composed of anything except stormwater or unpolluted water which is approved by the city engineer or designee.
- (d) The city engineer or designee shall develop procedures for detecting, tracking, and eliminating illicit discharges and improper disposals to the stormwater system.
- (e) The following activities are exempt from the provision of this section and are not considered illicit discharge:
 - (1) Unpolluted industrial cooling water, but only under the authorization and direction of the city engineer or his/her designee and appropriate NPDES permit.
 - (2) Water line flushing performed or required by a government agency, diverted stream flows, rising ground waters, and unpolluted pumped ground waters, and unpolluted ground water infiltration.
 - (3) Discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual car washing, de-chlorinated swimming pool discharges, flows from riparian habitats and wetlands, and street wash water.
 - (4) Discharges or flows from firefighting activities.

(Ord. No. 19-33, 8-19-19; Ord. No. 21-02, § 2, 3-1-21)

Sec. 13-84. Detection of illicit connections and improper disposal.

- (a) The city engineer or designee shall take appropriate steps to detect, prohibit and eliminate illicit connections to the City of North Myrtle Beach SMS4, including the adoption of a program to screen illicit discharges, identify their source or sources, perform inspections, issue corrective actions to abate and eliminate illicit discharges and levy fines if not removed.
- (b) The city engineer or designee shall take appropriate steps to detect and eliminate improper discharges. These steps may include programs to screen for disposal, programs to provide for public education and public information, inspection, levy fines, and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials, and household hazardous waste.

(Ord. No. 19-33, 8-19-19)

Sec. 13-85. Waste disposal prohibitions.

- (a) No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the small municipal separate stormwater system, or water of the U.S., any refuse, rubbish, garbage, litter, pet fecal matter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution.
- (b) Yard debris, including natural foliage, may be deposited in the public right of way but not in or on any stormwater conveyance structures, including inlets and gutters, but only if a collection service is available.
 - (1) Wastes in proper waste receptacles may be placed in the street for collection, but again only if collection by or through the city is in place.
 - (2) No waste or yard debris shall be placed in the street without such a collection service.

(Ord. No. 19-33, 8-19-19)

Sec. 13-86 Discharges in violation of industrial or construction activity NPDES discharge permit.

Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the city engineer or designee prior to or as a condition of the issuance of a land disturbance permit, and/or a building permit.

(Ord. No. 19-33, 8-19-19)

Sec. 13-87. Enforcement.

The city engineer is authorized to take the appropriate enforcement action in accordance with the City of North Myrtle Beach Enforcement Response Plan (ERP).

(Ord. No. 19-33, 8-19-19)

Sec. 13-88. Penalties.

Any person who violates or causes to be violated any provision of this article or permits any such violation or fails to comply with any of the requirements herein shall be guilty of a misdemeanor. Each day upon which such violation occurs shall constitute a separate offense. In addition to any other remedies, whether civil or criminal, the violation of this article may be restrained by injunction, including mandatory injunction, and otherwise abated in any manner provided by law.

(Ord. No. 19-33, 8-19-19)

Secs. 13-89—13-110. Reserved.

ARTICLE V. STORMWATER MANAGEMENT UTILITY²

Sec. 13-111. Article designation and authority.

This article may be cited as the "Stormwater Management Utility Ordinance" and is adopted pursuant to S.C. Code § 48-14-10 , S.C. Code § 5-7-30 and S.C. Land Resources Conservation Commission Regulations 72-300 to 72-316.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-112. Definitions.

Unless the context specifically indicates otherwise, the meanings of words and terms used in this article shall be as set forth in S.C. Land Resources Conservation Commission, Regulations, 72-301 (Supp. 1992).

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-113. Establishment of stormwater management utility; administration; duties and powers.

The city council hereby establishes a stormwater management utility (utility) to carry out the purposes, functions and responsibilities herein set forth. The city manager or his/her designee shall administer the utility, which shall have the powers, and duties hereinafter set out, which powers and duties are not necessarily exclusive to the utility:

- (1) Stormwater management planning and preparation of comprehensive watershed master plans for stormwater management;
- (2) Regular inspections of public and private stormwater management facilities and measures and the construction thereof;
- (3) Maintenance and improvement of stormwater management facilities that have been accepted by the city for that purpose;
- (4) Plan review and inspection of stormwater management plans, measures and practices
- (5) Retrofitting designed watersheds to reduce existing flooding problems or to improve water quality;
- (6) Acquisition of interests in land, including easements;
- (7) Design and construction of stormwater management facilities and acquisition of equipment;
- (8) Water quantity and water quality management, including monitoring surveillance;

²Editor's note(s)—Ord. No. 19-33, adopted August 19, 2019, renumbered Article IV as Article V.

Cross reference(s)—Municipal utilities, Ch. 15.

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- (9) Implementing the regulations as authorized by the South Carolina Department of Health and Environmental Control (SCDHEC) under the National Pollutant Discharge Elimination System (NPDES) regulations in accordance with the NPDES General Permit for Storm Water Discharges from Construction Activities, SCR100000 and the NPDES General Permit for Stormwater Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), SCR030000; and
 - (10) Any and all powers and duties delegated or granted to it as a local government implementing agency under the laws and regulations of the State of South Carolina and the ordinances of this city.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19; Ord. No. 21-02, § 2, 3-1-21)

Sec. 13-114. Boundaries and jurisdiction.

The municipal limits and jurisdiction of the utility shall extend to the limits of the city, as they may exist from time to time.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-115. Regulation of land-disturbing activity.

The city council shall establish by ordinance a system regulating land disturbing activities, including, but not limited to provisions for reviewing and approving stormwater management plans; creating design requirements for such plans and land disturbing activities; and providing operational and maintenance requirements for stormwater management facilities and measures.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-116. Stormwater utility fees.

- (a) The fee system shall be reasonable and equitable so that users pay to the extent they contribute to the need for the utility, and the fees shall be apportioned with approximate equality and upon a reasonable basis with due regard for the benefits conferred. The city council recognizes that these benefits, while substantial, in many cases cannot be measured directly.
- (b) The components of the calculations used to establish fees may include, but may not be limited to, the following cost factors, which may be associated with the resolution of stormwater problems, which the utility shall seek to alleviate.
 - (1) Stormwater management planning and preparation of comprehensive watershed master plans for stormwater management;
 - (2) Regular inspections of public and private stormwater management facilities and measures and the construction thereof;
 - (3) Maintenance and improvement of stormwater management facilities that have been accepted by the city for the purpose;
 - (4) Plan review and inspection of stormwater management plans, measures and practices;
 - (5) Retrofitting designated watersheds to reduce existing flooding problems or to improve water quality;
 - (6) Acquisition of interests in land, including easements;
 - (7) Design and construction of stormwater management facilities and the acquisition of equipment;

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- (8) Administration and enforcement;
 - (9) Water quantity and water quality management, including monitoring, surveillance and private maintenance inspection; and
 - (10) Debt service and financing costs.
- (c) The stormwater utility fee shall be based on an "equivalent runoff unit" (ERU) defined as three thousand five hundred (3,500) square feet of impervious area, which is the average impervious area for a single-family home in the city.
 - (d) Each ERU shall be assessed a monthly fee as adopted by city council with each annual budget.
 - (e) Each single family home shall be assessed one (1) ERU.
 - (f) ERU's for commercial and multi-family residential property shall be calculated assessed by the city engineer or designee and the monthly fee per ERU shall be as adopted by city council with each annual budget.
 - (g) Undeveloped properties shall not be assessed a stormwater utility fee.
 - (h) A credit will be allowed for commercial properties that provide on-site storm water retention facilities that exceed the design requirements for a twenty-five-year, twenty-four hour storm. The credit shall reduce the ERU calculation by twenty-five (25) percent for facilities that are designed for a 100-year, twenty-four hour storm.
- (Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-117. Billing of stormwater management utility fee.

The stormwater utility fee shall be included on the combined utility system bill. Fees for stormwater management utility shall be due and payable at the same time and in the same manner as fees for water and sewer services as provided in Chapter 15 of this Code. Failure to pay said stormwater management utility fees shall result in the discontinuation of water and sewer services and other remedies provided by law. For developed real properties not having active city utility accounts, the fee shall be billed to the owners or other persons listed on the real property tax records on a separate bill for the required fee.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-118. Sunset clause.

The fees imposed by this article will cease upon completion of the city stormwater improvement projects and repayment of all debt issued for this work.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-119. Investment and reinvestment of funds and borrowing.

Funds generated for the utility from fees, bond issues, other borrowing, and other sources shall be utilized only for those purposes for which the utility has been established, including but not limited to: planning; acquisition of interests in land including easements; design and construction of facilities; maintenance of the stormwater system; billing and administration; and water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection, and other activities which are reasonably required. Such funds shall be invested and reinvested pursuant to the same procedures and practices

established by the city for investment and reinvestment of funds. The city council may use any form of borrowing authorized by law to fund capital acquisitions or expenditures for the utility.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-120. Appeals.

Any utility customer, real property owner or other person aggrieved by the amount of utility fee charged with respect to property, or by any other matter arising out of the operation of the utility, may appeal by filing a written explanation of the grounds of the appeal with the city manager, or his/her designee, within thirty (30) days of the date of the notification of the fee. A decision shall be rendered in writing within twenty (20) days after receipt of the written appeal. Any person aggrieved by an adverse decision may appeal that decision by written request to the city council. Any person aggrieved by, an adverse decision of the city council may appeal that decision to the court of common pleas within thirty (30) days of receipt of such decision.

During the review of any of the appeal process set forth above, if timely pursued, no enforcement shall be attempted and the appeal shall act as a supersedes staying all enforcement proceedings as set forth in the next section of this article.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19; Ord. No. 21-02, § 2, 3-1-21)

Sec. 13-121. Enforcement and penalties.

- (a) The city manager or his/her designee shall be the enforcement officer(s) for the provisions of this article.
- (b) It shall be unlawful for any person to violate any provision of this article, and any such violation shall be punished as prescribed in section 1-6 of this Code. Each day a violation continues constitutes a separate offense.
- (c) In addition to any other penalties provided in this article, the city manager may assess a civil penalty not to exceed two hundred dollars (\$200.00) against any person violating any provision of this article. In setting the amount of the civil penalty, the city manager shall consider the type, duration, and severity of the violation and the responsiveness of the person against whom the penalty is assessed in remedying the violation. Each day a violation continues constitutes a separate violation that may be the subject of such a penalty. The city with the assistance of the city attorney shall make a written demand for payment of the civil penalty upon the person, including an explanation of the basis of the violation and penalty. If full payment of the penalty is not made within thirty (30) days after such demand is mailed or delivered to the person, the city attorney may commence a civil action in the appropriate court to recover the penalty.
- (d) In addition to any other penalties or remedies provided in this article, the city, upon the recommendation of the city attorney and approval of the city manager, may institute a civil action in the appropriate court to obtain injunctive compliance with the provisions of this article or remedy or prevent the violation or threatened violation of any provision of this article.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19; Ord. No. 21-02, § 2, 3-1-21)

Sec. 13-122. Municipal liability.

Nothing in this article and no action or failure to act under this article shall or may be construed to:

- (1) Impose any liability on the city, or its departments, agencies, officers or employees for the recovery of damages; or

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- (2) Relieve any person engaged in a land-disturbing activity of duties, obligations, responsibilities, or liabilities arising from or incident to operations associated with such activity or imposed by the provisions of this article or the laws and regulations pursuant to which it was adopted.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Sec. 13-123. Severability.

It is declared the intent of the city council that the sections, subsections, paragraphs, sentences, clauses and phrases of this article are severable; and if any such provision shall be declared unconstitutional or otherwise invalid or unenforceable by a court of competent jurisdiction, it shall not affect the validity or enforceability of any remaining provisions of this article, and it is the intent of the council that such provisions shall continue in full force and effect.

(Ord. No. 05-40, 9-19-05; Ord. No. 19-33, 8-19-19)

Chapter 15 MUNICIPAL UTILITIES³

ARTICLE I. IN GENERAL

Secs. 15-1—15-19. Reserved.

ARTICLE II. WATER⁴

DIVISION 1. GENERALLY

Sec. 15-20. Definitions.

As used in this article, the following terms shall have the respective meanings ascribed to them:

Application: The instrument by which one applies for water service.

Building: Any structure with a roof, erected or maintained on any parcel of land and which requires water service.

Business: Any building used by the occupant for amusement, entertainment, service, professional, retail trade or any other similar purposes except as defined under "hotel" etc.

³Cross reference(s)—Municipal refuse collection service, § 12-40 et seq.

⁴Editor's note(s)—An ordinance of Feb. 4, 1986, repealed Divs. 1—3 of Art. II in their entirety and enacted new Divs. 1—3 to read as herein set forth. Prior to repeal, said divisions pertained to similar subject matter and were derived from the following: Ordinance of Feb. 4, 1975, §§ 101—115, 201—213, 301—312, 401—405, 501—504, 602, 604, 803; ordinance of May 15, 1979; ordinance of June 5, 1979; ordinance of July 17, 1979; ordinance of Oct. 16, 1979; ordinance of April 29, 1980; ordinance of June 3, 1980; ordinance of Oct. 20, 1980; ordinance of June 15, 1982; ordinance of Oct. 18, 1983; and ordinance of Dec. 4, 1984.

City: Includes any duly authorized official acting on behalf of the City of North Myrtle Beach.

Cross-connection: A connection between a piped distribution system carrying a potable public water supply and secondary piping system, institutional, private or public, providing a water supply, the source of which, prior to connection, is distinct from and unrelated physically to that of the public supply.

Customer: The person responsible for payment for all water and sewer services used at a specific location, of one household or business and further defined as that person in whose name the application was made.

Development: A portion of land, including any single-family subdivision, that is being developed to the extent that water service is desirable to realize its full potential.

Hotel, motel, inn, lodge: Any building providing lodging to transients.

Institution: Any building used as a hospital, church, school or similar public facility.

Multiple-family dwelling: Any building having within its exterior walls provisions for housing two (2) or more families separately.

Occupant: A person who occupies property where city water service is provided.

Owner: The person, corporation, partnership or other entity that has an ownership interest in the real property receiving utility services.

Person: Any individual, firm, company, association, society, corporation, institution or group as indicated by the context in which used.

Plumbing: All pipes, fittings and appurtenances on the property owner's side of the meter, servicing only the property of the owner, including the extension from the service line up to and including all house plumbing.

Services: The delivery of potable water through an authorized and approved water connection, account recordkeeping, billing and all work associated therewith.

Single-family dwelling: Any building having within its exterior walls provisions for housing only one family.

Water connection: All materials including valves, pipes, fittings, meter and meter box necessary to convey water from the city's most convenient water main to the property line of the customer.

Water impact fee: A charge imposed by this chapter when a building permit is issued, designed to reimburse the city for the cost of providing additional facilities and services made necessary by the impact of new utility users of the facilities and services.

Water tap fee: A charge imposed by this chapter designed to reimburse the city for the cost of all materials, labor and overhead made necessary to construct the water connection and provide service to the customer.

Waterworks system: All property, wells, equipment, pumps, piping, water storage tanks, water connections, records, structures, and any other associated appurtenance necessary to provide water service, owned and operated by the city.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-21. Rights to city—Acting in an emergency generally; changing regulations.

The city, through its duly qualified officers, reserves the right to take such immediate action for emergencies not specifically covered herein, as it may deem necessary and further reserves the right to amend this article in part or in whole, whenever it may deem necessary, but such right will be exercised only in the manner established or prescribed for such matters, including, but not limited to, giving public notice ninety (90) days prior to final action.

(Ord. of 2-4-86)

Sec. 15-22. Same—Emergency action in operating system; closing portion of system.

In the interest of the public health and safety, the city shall be permitted to take such emergency action as may be deemed necessary in the operation of the waterworks system including, but not limited to, the right to close down any water line or portion of the waterworks system for the purpose of making connections, alterations or repairs.

(Ord. of 2-4-86)

Sec. 15-23. Same—Restricting quantity of water used during shortages.

The city shall have the right during emergency water shortages to restrict the use of water to that normally used as personal and household use only. Watering of lawns, washing of cars and other uses will be discontinued during such emergency periods. Notice by the city will be made in the local papers, radio broadcasts or any other means to give due notice.

(Ord. of 2-4-86)

Sec. 15-24. Same—Entering premises.

The city shall have the right to enter the customer's premises without notice for the purpose of making emergency repairs, disconnection or reconnection of service, necessary installations, or reading of meters. The city shall further have the right to enter the customer's premises for inspections and any other reason for administering reasonable service provided the customer is notified in advance.

(Ord. of 2-4-86)

Sec. 15-25. Damaging system and making connections.

It shall be unlawful for any person to damage, deface, or tamper with any part of the waterworks system. No person shall connect or turn on any water service or tap or make any alterations to any main or distribution pipe of the city's water system or in any way interfere with or molest any of the wells, reservoirs, basins or water in the same, or permit any connection or tapping to be made to the city's water system or his/her premises or the premises occupied by him/her or knowingly use city water from unauthorized connections. It shall be unlawful for any person, except an authorized agent of the city, to remove or undertake to repair the water meters or fixtures of the city. It shall further be unlawful for any person to make any reconnection of service when it has been discontinued for violation of this article. This section shall not apply to disconnections and reconnections of water service by a customer or an authorized agent of the customer for purposes of winterizing the building or in an emergency situation.

(Ord. of 2-4-86; Ord. No. 21-02, § 2, 3-1-21)

Sec. 15-26. Interruption of service.

The city agrees to use reasonable diligence in providing a regular and uninterrupted supply of water and service, but in case the supply of water shall be interrupted or fail by accident, or any cause whatsoever, the city shall not be liable for such interruption or failure and the city shall not be liable for any damages sustained by the customer by reason thereof.

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(Ord. of 2-4-86)

Secs. 15-27—15-39. Reserved.

DIVISION 2. CONNECTIONS; DISCONNECTIONS

Sec. 15-40. Required after notice.

Every building within the city limits and used as a residence, business or other institution and which is situated on a parcel of land located within two hundred fifty (250) feet of any water main operated and maintained by the city shall be connected thereto and shall utilize the same for water. Such water connections shall be made immediately. For the purpose of the penal provisions, any connections not made following thirty (30) days written notification by the city shall constitute a separate offense and punishable as a misdemeanor each day such building is not connected to said city water system.

No person shall drill wells for new and/or existing buildings for the purpose of providing a domestic water supply. In addition, any existing well which is used for the purpose of providing potable water shall be metered if said building or other structure receives sewer service.

(Ord. of 2-4-86; Ord. No. 87-20, 12-1-87)

Sec. 15-41. Payment of tap fee and impact fee prerequisite.

It shall be unlawful for any person, firm, or corporation to connect or engage another to connect to the water system of the City of North Myrtle Beach, or to any private water system which is already connected to the water system of the city, without first paying to the city the water tap fee and water impact fees as set forth in this division.

(Ord. of 2-4-86; Ord. No. 87-20, 12-1-87)

Sec. 15-42. Accomplishment by city.

All taps and connections shall be accomplished using standard equipment and materials and shall be installed by the city except as otherwise provided herein.

(Ord. of 2-4-86)

Sec. 15-43. Water tap fees.

(a) Water connection or tap fees shall be charged and paid in accordance with the schedule of fees.

Water tap fees for all new buildings shall be paid at the time of issuance of a building permit. If the building permit expires and no building is constructed and the city has expended the money to install the water tap and meter, the city, upon the request of the owner, will remove the meter and refund any meter deposit remaining. If the water tap is not installed, the owner, upon request and not exceeding twelve (12) months after expiration of the building permit, will receive a full refund of all fees paid, without interest, for the water tap.

Water taps are not transferable from lots or properties for which they were originally sold.

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- (b) In any subdivision or development where the developer thereof has installed, at such developer's own expense, a water system including individual service lines and meter boxes to each individual lot or building and has delivered to the city a meter, which is acceptable to and constructed in accordance with the city's standard specifications and deeded to the city, then no water connection fee shall be charged, but a water impact fee shall be charged and paid in accordance with the schedule referred to in section 15-44.2. If said installation is not in accordance with the city standards and specifications, the cost of bringing said facilities into compliance shall be charged prior to connection of any building to said water system.

(Ord. of 2-4-86; Ord. No. 87-20, 12-1-87; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-44. Determination of water tap meter sizes and changes reference.

- (a) Meter sizes for connections shall be determined and water tap fees shall be charged based on estimated flow requirements shown in the table below:

| Meter Capacity (gpm) | Normal Op. Range (gpm) | Meter size |
|----------------------|------------------------|--------------------|
| 24 | 2—30 | ¾" |
| 40 | 3—50 | 1" |
| 80 | 5—100 | 1½" |
| 128 | 8—160 | 2" D.M. |
| 128 | 4—280 | Turbine |
| 280 | 5—450 | 3" Turbine |
| 256 | 4—320 | Compound |
| 800 | 15—1,250 | 4" Turbine |
| 400 | 6— 500 | Compound |
| 1,600 | 30—2,500 | 6" Turbine |
| 800 | 10—1,000 | Compound and above |

- (1) The city reserves the right to select the type and size meter to be used for each application.

- (b) Charges shall be as adopted by city council in accordance with each annual budget.

(Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-44.1. Reserved.

Sec. 15-44.2. Reserved.

Editor's note(s)—Ordinance No. 92-40, adopted Sept. 21, 1992, repealed §§ 15-44.2, 15-45, 15-45.5, which pertained to water impact fees and derived from an ordinance of Feb. 4, 1986; Ord. No. 87-20, adopted Dec. 1, 1987 and Ord. No. 90-21, adopted June 18, 1990. Water and wastewater capital recovery fees are currently included in Art. III, Div. 6, §§ 15-181—15-187 of this article.

Sec. 15-45. Reserved.

Note(s)—See the editor's note following § 15-44.2.

Sec. 15-45.5. Reserved.

Sec. 15-46. Condition hazardous to health.

The city shall make inspections of existing building plumbing and if any condition is found which, in the opinion of the city constitutes a health hazard or a potential health hazard as to the water supply or operation of the waterworks system, the city shall require immediate action to be taken by the customer or disconnect the water until remedial measures are instituted and the hazard eliminated to the complete satisfaction of the city.

(Ord. of 2-4-86)

Sec. 15-47. Cross-connection; contamination.

No water service connection to any premises shall be installed or maintained unless the water supply is protected as required by state laws and regulations and this chapter of the City Code of Ordinances as amended. In installation where conditions as prescribed by state laws and regulations required backflow prevention, the city shall require the customer to install at his/her own expense cross-connection control devices in the category required by state law.

Where cross-connection protection devices in the various categories are required, the customer is required to perform or cause to be performed inspections and operational tests on a schedule to be determined by the city. These tests shall be performed by the customer or his/her agent at the customer's expense at least once per year. These tests and inspections must be performed by a person duly certified in the appropriate category by the South Carolina Department of Health and Environmental Control to perform such tests.

The city will notify the customer in writing informing him/her that within thirty (30) days he/she must provide proof, on an approved format, that the inspection and testing have been accomplished. The customer is required to notify the city at least three (3) working days in advance of exactly where and when the inspection and testing are to be performed. The city may elect to witness the test.

Any cross-connection control device found to be defective shall be satisfactorily repaired or replaced at the customer's expense. Records of inspection, testing and maintenance of these devices shall be kept by the owner and made available to the city upon request. Failure to perform inspection, testing and maintenance of these units as required will result in the city classifying the service as an unprotected cross-connection.

In the event it is determined that an unprotected cross-connection exists, the service may be disconnected until corrective measures have been taken.

(Ord. of 2-4-86; Ord. No. 88-24, 7-19-88; Ord. No. 21-02, § 2, 3-1-21)

Sec. 15-48. Service from an existing service.

No water service shall be furnished to any lot from an existing service on another lot except as herein provided or by special authorization, in writing, of the city council.

(Ord. of 2-4-86)

Sec. 15-49. Service personal to customer.

Water service as provided by this article is rendered to the customer for the use of the customer in the operation of the customer's residence, rentals, services, business, commercial or institution; and said service shall not be subleased, assigned, transferred, sold or disposed of to others, in whole or any part thereof.

(Ord. of 2-4-86)

Sec. 15-50. Discontinuing service for violation—Right reserved.

The city reserves the right to discontinue service immediately, and the water connection removed, if it is found that any provision of this article has been violated.

(Ord. of 2-4-86)

Cross reference(s)—Discontinuance for nonpayment. § 15-65.

Sec. 15-51. Same—Reinstatement thereafter.

Where service has been discontinued for violation of this article, all charges for services to date become immediately due and payable and service will not be reinstated until payment in full has been made of all charges including bills, cost of repairs, service charges, reconnection fees and penalties.

(Ord. of 2-4-86)

Cross reference(s)—Reconnection fees, § 15-65.

Secs. 15-52—15-59. Reserved.

DIVISION 3. SERVICE CHARGES; BILLING; COLLECTING; DEPOSITS

Sec. 15-60. No free service.

No water service shall be furnished or rendered free of charge to any person.

(Ord. of 2-4-86)

Sec. 15-61. Deposits.

Each new water customer shall make application to the city for service by completing the standard contract of the city for water service charges and making a deposit in accord with the schedule of fees. With each new water connection, or in the event of a change of ownership of an existing water connection, a deposit shall be required to secure the payment of usage and availability under the fee schedule as adopted by city council in accordance with each annual budget.

Whenever an occupant vacates a structure or dwelling, the account will automatically revert to the owner of record and billing will resume.

In the event of a transfer of water service within the city, an owner or occupant who has a deposit with the city and whose account has been in good standing for one year, shall not be required to pay an additional deposit

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or increase thereof provided, however, the transfer of said water service does not require an increase in meter size. In the event a larger size meter is required, the owner or occupant shall pay the applicable deposit. In the event a smaller meter size is required, an applicable refund shall be given.

Whenever any bill shall remain unpaid for forty-five (45) days from billing date, the city shall order the immediate disconnection of all delinquent service and service shall not be restored until the delinquent bill, service charges and a meter deposit upgrade to either the prevailing rates or two (2) times the highest monthly bill on such customers rounded to the nearest ten dollars (\$10.00), whichever is greater, is collected by city.

Whenever service is discontinued, said deposit, without interest, shall be returned to the customer, after first deducting all outstanding bills for service. Where any outstanding bills exceed the amount of the deposit, the customer is liable for settlement of said bills under all applicable codes, statutes, laws and ordinances, and payment of all cost incident to the enforcement thereof.

(Ord. of 2-4-86; Ord. No. 88-15, 5-3-88; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-62. Payment before service furnished.

For each new water service, and in addition to making the required deposit, the person applying for water service shall pay the fees as adopted by city council in accordance with each annual budget, payment to be made before the water connection is provided by the city. In addition, a service charge will be applied and paid for the purpose of water cut-on, initial meter reading and billing set-up.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-63. Accounts.

Each water connection shall require the deposit as required herein and separate billing for water service. Each connection shall constitute a separate account in the waterworks records of the city. The applicant for water service to be provided through that water connection shall be responsible to all provisions of this article regardless of ownership of the property being served by that water connection.

(Ord. of 2-4-86)

Sec. 15-64. Billing determined by meter sizes; use of meters to determine amount of water used; minimum rate during convenience cut-off; upgrading meters.

Billing will be determined by the recommended meter sizes under Division 2 of this article. The meter shall determine the quantity of water for which the consumer shall be charged, and all water passing through the meter shall be charged for whether the same shall have been used or wasted or the premises shall not have been occupied. The minimum rate for each meter size shall be as stated under this division.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-65. Monthly billing; delinquency penalties; cut-off of service; reconnection fees.

All metered accounts will be read monthly and billed monthly to the customer. If a bill is not paid in its entirety within twenty-one (21) days of billing date, a penalty of ten (10) percent shall be added; (this is to be applied to the sewer portion also) and if any bill shall remain unpaid for more than forty-five (45) days from billing date, all service shall be forthwith discontinued until said customer shall have paid his/her past-due account and a disconnection and reconnection fee, plus monthly charges.

(Ord. of 2-4-86; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-66. Effect of nondelivery of bill.

While the city will make every reasonable effort to see that each customer receives such customer's bill, no responsibility will be assumed for non-delivery when same has been mailed at the post office. The customer shall supply the correct mailing address to the city or any changes to a mailing address in writing.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-67. Place of payment.

All charges for water services are due and payable at the collecting office in the city hall building or other designated collection agent.

(Ord. of 2-4-86)

Sec. 15-68. Water rates—Monthly charges.

The monthly base charge and volume charges for water service shall be as adopted by city council in accordance with each annual budget.

(Ord. of 2-4-86; Ord. No. 86-13, 9-4-86; Ord. No. 88-15, 5-3-88; Ord. No. 93-21, § 6, 5-17-93; Ord. No. 95-30, § 6, 5-15-95; Ord. No. 02-20, § 6, 5-20-02; Ord. No. 12-07, § 6, 6-4-12, eff. 7-1-12; Ord. No. 14-11, § 6, 5-21-14, eff. 7-1-14; Ord. No. 19-28, § 6, 5-20-19, eff. 7-1-19; Ord. No. 21-24, § 6, 6-21-21, eff. 7-1-21; Ord. No. 22-24, § 6, 6-20-22, eff. 7-1-22; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-69. Charges and assessments for customers outside this city and the City of Atlantic Beach.

All charges and assessments for water services outside the limits of the cities of North Myrtle Beach and Atlantic Beach shall be billed at a rate equal to twice the charges and assessments set forth in this article.

(Ord. of 2-4-86)

Sec. 15-70. Classification for billing purposes.

Each account for water service shall be classified for billing purposes at the discretion of the city and according to the definitions contained herein. The customer shall have the right to redress to the city for purposes of reclassification through presentation of sufficient evidence to the city manager.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-71. Fee for convenience cut-off and cut-on.

Upon payment of a fee, the city will allow any customer a convenience cut-off and cut-on as a protective device during periods of absence from the premises. Actual cut-off and cut-on must be accomplished by the city and does not relieve the customer of any obligation to pay the minimum charges as set forth in the schedule of fees.

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(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-72. Meters required; inaccuracy; adjustments.

- (a) All service will be metered.
- (b) Adjustments to bills shall be arrived at by comparison with the same billing period of the previous year. If previous year is not available, adjustments will be arrived at by comparison with same size meter and similar type activity. If a meter is found to be defective, a new meter will be installed at no charge to the customer.
- (c) In the event that a customer's water bill is abnormally high, the city shall, at the request of the customer:
 - (1) Verify the accuracy of the reading and the billing, at no charge.
 - (2) Assist the customer in checking for leaks, at no charge.
 - (3) Calibrate the meter as stated below in subsection (e).
- (d) If the meter reading or billing is not accurate, the customer's account will be adjusted to reflect the actual amount of water consumed.
- (e) When a meter is calibrated at the customer's request, the customer shall pay a service charge based on the city's cost of testing. The service charge will be refunded if meter is found to be defective. If a meter is found to be defective or to be more than three (3) percent fast when calibrated, the account will be adjusted in accordance with subsection (b), but in no case will the adjustment exceed six (6) months prior billing. In addition, the customer may also request that the meter be tested by an independent testing company. The cost of testing will be borne by the customer and is not refundable. If a defective meter is found, the city will make an adjustment in accordance with subsection (b). The customer agrees to accept the results of the test by the independent testing company.
- (f) If a leak is detected at the meter, the city will adjust the customer's account in accordance with subsection (b).
- (g) If a leak is detected on the customer side of the meter (excluding exposed and interior plumbing) the city will make an adjustment to the sewer portion of the bill in accordance with subsection (b). An adjustment under this section will be limited to one every two (2) years.
- (h) If the results of the investigation by the city or independent testing company reveal that none of the above reasons explain the abnormal consumption, no adjustment will be given.

It is the intent of the adjustment procedure to allow reasonable administrative leeway in order to make fair adjustments and promote good public relations and customer confidence and satisfaction. In the event of unusual circumstances not covered by this section, an appeal can be made to the city manager or his/her designee for final decision on adjustments.

(Ord. of 2-4-86; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-73. Detector check meters for fire protection devices.

All water connections installed for sprinkler systems or similar business and commercial fire protection devices must be equipped with a detector check valve and meter at the customer's expense.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-74. No offset for customer claims.

No claims or demand that the customer may have against the city shall be considered as an offset against the payments for service as provided under this article.

(Ord. of 2-4-86)

Sec. 15-75. Refunds for overcharges limited.

In no event will refunds for overcharges be made for a period covering more than six (6) months immediately preceding.

(Ord. of 2-4-86)

Secs. 15-76—15-79. Reserved.

DIVISION 4. WATER SYSTEM EXTENSIONS

Sec. 15-80. Developer's responsibility of new development to construct.

Extension of the water lines and addition of fire hydrants shall be the responsibility of the person requiring such extension or addition, and they shall pay the full cost thereof.

(Ord. of 2-4-75, § 701; Ord. of 2-17-81; Ord. of 10-18-83)

Sec. 15-80.1. Cost estimates for plan review and inspections.

All plans for water line extensions shall be submitted to the city engineer for review. Permit fees shall be in accordance with the building permit fee schedule with section 6-3(b). Plan review fees shall be in accordance with section 6-3(d).

(Ord. of 10-18-83, § 605; Ord. No. 99-33, 9-20-99)

Editor's note(s)—An ordinance of Oct. 18, 1983, added a new § 605 to the water use ordinance, which provisions have been included as § 15-80.1 at the discretion of the editor.

Sec. 15-81. Conformance of plans and specifications in new developments.

Any developer of a new development proposing to construct water distribution lines or extensions to existing transmission mains to connect directly into the city's water system shall conform its plans and specifications to the requirements of the approving authority. The plans and specifications shall be prepared by a registered engineer who is authorized by the laws of the state and approved or approvable by all local, county and state authorities having jurisdiction.

(Ord. of 2-4-75, § 703)

Sec. 15-82. Administrative procedures.

The following administrative procedures shall be followed by the developer:

- (1) Submit preliminary construction plans to the approving authority in sufficient detail to indicate location, system layout, line sizes, service connections, flows, pressures and point of connection to the city's system.
- (2) Receive preliminary approval from the city and other jurisdictional agencies.
- (3) Prepare construction drawings and documents for city approval.
- (4) Secure all other agency approvals of construction drawings and contract documents.
- (5) Upon receipt of all approvals, proceed with construction, notifying the approving authority of construction schedules.
- (6) Provide the approving authority and its authorized representatives with permission for on-site inspection during construction.
- (7) Furnish to the approving authority a certificate of completion, instrument of conveyance, and warranty, together with such other legal documents as may be required, and similar special provisions.

(Ord. of 2-4-75, § 704)

Sec. 15-83. Construction by contractor.

Construction of the proposed water line extension in a new development shall be accomplished by a registered, licensed contractor, under the laws of the state, who shall have paid all business licenses required by the city.

(Ord. of 2-4-75, § 705; Ord. of 2-17-81)

Sec. 15-84. Final inspection and certification by developer's engineer.

Upon completion of construction, the engineer employed by the developer, or person requiring such extension, shall inspect and furnish to the approving authority, at no cost of the city, such engineer's certificate of completion, indicating that the subject water line has been constructed in accordance with the approved plans and specifications, and shall provide four (4) copies of "as constructed" drawings.

(Ord. of 2-4-75, § 706; Ord. of 2-17-81)

Sec. 15-85. Warranty.

The owner or the owner's authorized agent shall submit a warranty which is a legal instrument in which the owner warrants the materials, equipment and construction of the system for twelve (12) months. The owner shall further warrant to the approving authority that all fees have been paid and that there is no outstanding indebtedness remaining and holding the city harmless in each instance.

(Ord. of 2-4-75, § 707; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-86. Making water taps during construction.

All water line extensions must be compatible with present and future plans and needs of the city, and approved by the city engineer, applying accepted engineering practices.

(Ord. of 2-4-75, § 708; Ord. of 2-17-81)

Sec. 15-87. Compatibility with plans.

All water system extensions must be compatible with present and future plans and needs of the city; and approved by the city engineer, applying accepted engineering practices.

(Ord. of 2-4-75, § 709; Ord. of 2-17-81)

Sec. 15-88. Conveyance of lines in new developments—Authorized.

Extension of the water lines may be conveyed to the city, provided all such water lines are located within public rights-of-way or easements of adequate unobstructed widths to provide maintenance vehicle access.

(Ord. of 2-4-75, § 702; Ord. of 2-17-81)

Sec. 15-89. Same—Execution.

When all other requirements of this division have been met and approved, the owner shall prepare and submit to the approving authority an instrument of conveyance, conveying the constructed system to the city, at no cost to the city, and the system shall thereafter be owned, operated and maintained by the city as provided for in this article. The instrument of conveyance shall also include permanent easements and rights-of-way fully described and duly recorded at the appropriate authority.

(Ord. of 2-4-75, § 710)

Sec. 15-90. Water extension fee.

- (1) Except as outlined in sections 15-80 through 15-89, city council may, in its sole discretion, authorize the extension of the water system to geographical areas within or beyond the corporate limits of the city when such extension will provide capacity beyond that required by the person requesting such extension. Costs for such extensions shall be recovered through the establishment of a water extension fee, to be calculated as follows:

$$EF = \frac{CE}{tx/tDERU}$$

TERU

Where:

| | | |
|------|---|--|
| EF | = | Extension fee. |
| CE | = | Cost of extension of water distribution system. |
| DERU | = | Water capacity required by development expressed as ERU's. |

| | | |
|------|---|---|
| TERU | = | Total capacity of extended water distribution system as determined by city manager or his/her designee, expressed in ERU's. |
| ERU | = | Equivalent residential unit. The equivalent number of structures which equal a single-family detached unit. |

- (2) In geographical areas beyond the corporate limits, the owner/developer must first annex to the city before connection to the extended water system or execute an annexation agreement with the city.
- (3) All project costs, including right-of-way acquisition, engineering, construction, unearned interest on funds expended, etc., shall be recovered through the water extension fee.
- (4) When an owner or developer desires to have a water extension constructed in accordance with the terms of this section, he/they shall execute an agreement with the city which shall have the following provisions:
 - (a) The agreement shall provide that the developer agrees to connect to the system within a reasonable length of time as mutually agreed by the parties. Said agreement shall provide for a prepaid guarantee should the developer fail to comply with these provisions.
 - (b) The city shall design and construct the water system extension, said design and construction standards shall be at the sole discretion of the city.
 - (c) Capacity in the water system shall not be reserved until such time as all other applicable fees, as outlined in sections 15-43 through 15-45 are paid. Upon issuance of a building permit, with payment of extension fee, impact fees, and other applicable fees, the owner/developer shall be entitled to water service.
 - (d) If the capacity of the system extension is fully utilized and the person initiating the extension has not paid all applicable fees as outlined in paragraph (c) above, then any agreement between the city and the person initiating a system extension shall be immediately null and void.
- (5) Where an extended water system as provided by this section exists prior to development, and while there is additional capacity, as determined by city engineer, then the extension fee shall be paid at the time a building permit is issued and water fees are paid in accordance with sections 15-43 through 15-45 of the City Code. The extension fee to be paid shall be computed as provided for in section (1) and in addition, shall be escalated by an interest rate equal to average annual rate earned by the city.

When an extension fee is paid and a building permit expires, and building construction has not started, as defined by the building code, then the extension fee shall be reimbursed, less fifteen (15) percent for administrative costs, along with impact fees, and the capacity shall be available for resale.

When the capacity of the water system extension has been reached, a new extension may be initiated. The city, at its option, may elect to improve the system at its own cost, or it may require a developer to initiate an extension project, as provided herein.

(Ord. No. 87-12, 7-21-87; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

DIVISION 5. DROUGHT MANAGEMENT AND RESPONSE⁵

⁵Editor's note(s)—Ord. No. 03-36, adopted Aug. 18, 2003, deleted former Div. 5 of Ch. 15, Art. II in its entirety and added new provisions as Div. 5 as herein set out. Former Div. 5, §§ 15-91—15-95, pertained to drought response and derived from Ord. No. 87-11, adopted July 21, 1987.

Sec. 15-91. Declaration of purpose and intent.

The City of North Myrtle Beach understands the fundamental need to make efficient use of the limited and valuable water resource under its stewardship in order to protect the public's health and safety and environmental integrity. The purpose of this division is to establish a plan and procedures for managing water demand and evaluating supply options before and during a drought-related water shortage. The intent is to satisfy the requirements of the Drought Response Act of 2000 (Code of Laws of South Carolina, 1976, Section 49-23-10 et seq., as amended) with the goal of achieving the greatest public benefit from domestic water use, sanitation, and fire protection and to provide water for other purposes in an equitable manner. Therefore, the City of North Myrtle Beach has adopted this drought management plan and drought response ordinance that provide the policies and the authority to fulfill this obligation. The drought management plan [section 15-93 of this Code] outlines the framework by which City of North Myrtle Beach will internally prepare for water shortages. The [drought response] ordinance [section 15-94 of this Code] provides the regulations by which the City of North Myrtle Beach will manage and control its customer water usage during various levels of a drought.

(Ord. No. 03-36, § 1, 8-18-03; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-92. Definition of terms.

For the purposes of this [drought management] plan and the accompanying [drought response] ordinance [set out in this division], the following definitions shall apply:

Aesthetic water use: Water use for ornamental or decorative purposes such as fountains, reflecting pools and waterfalls.

Commercial and industrial use: Water use integral to the production of goods and/or services by any establishment having profit as its primary aim.

Conservation: Reduction in water use to prevent depletion or waste of the resource.

Customer: Any person, company or organization using finished water owned or supplied by the City of North Myrtle Beach.

Domestic water use: Water use for personal needs or for household purposes such as drinking, bathing, heating, cooking, sanitation or for cleaning a residence, business, industry or institution.

Drought alert phases: There are four (4) drought alert phases to be determined by the drought response committee for the State of South Carolina. The four (4) phases are:

- (1) Incipient drought.
- (2) Moderate drought.
- (3) Severe drought.
- (4) Extreme drought.

Drought response management areas: There are four (4) drought management areas corresponding to the major river basins in South Carolina. The four (4) areas are:

- (1) West or Savannah.
- (2) Central or Santee.
- (3) Northeast or Pee Dee.
- (4) Southern or Ashepoo, Combahee, and Edisto.

In order to prevent overly broad response to drought conditions, drought response measures shall be considered within individual drought management areas or within individual counties, as applicable.

Drought response committee: A committee composed of state and local representatives created for the purpose of coordinating responses to water supply shortages within drought management areas and making recommendations for action to the South Carolina Department of Natural Resources and/or the governor. The committee is composed of state agency representatives from the South Carolina Emergency Management Division of the Office of the Adjutant General, South Carolina Department of Health and Environmental Control, South Carolina Department of Agriculture, South Carolina Forestry Commission, and South Carolina Department of Natural Resources, as well as local committees representing counties, municipalities, public service districts, private water suppliers, agriculture, industry, domestic users, regional councils of government, commissions of public works, power generation facilities, special purpose districts and soil and water conservation districts.

Equivalent residential unit (ERU): An equivalency unit defined to be equal to one (1) single-family residence. The City of North Myrtle Beach ERU equals three hundred seventeen (317) gallons per day.

Essential water use: Water used specifically for firefighting, maintaining in-stream flow requirements and to satisfy federal, state or local public health and safety requirements.

Finished water: Water distributed for use after treatment. The terms "water use," "water user," and "water customer" refer to finished water use unless otherwise defined.

Institutional water use: Water used by government, public and private educational institutions, churches and places of worship, water utilities, and organizations within the public domain.

Irrigation water use: Water used to maintain gardens, trees, lawns, shrubs, flowers, athletic fields, rights-of-way and medians.

Non-essential water use: Categories of water use other than essential water use. Examples of non-essential water use include landscape irrigation and the washing of buildings, parking lots, automobiles, etc.

South Carolina Department of Natural Resources: The state agency with primacy to implement the provisions of the Drought Response Act.

Water supply shortage: Lack of adequate, available water caused by drought to meet normal demands.

(Ord. No. 03-36, § II, 8-18-03; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-93. Drought management plan.

- (a) *Introduction.* To ensure that the City of North Myrtle adequately manages its water system during drought-related conditions, an organized plan is necessary for system operation and reliability, proper communications, effective coordination and ultimate allocation of water use. Prior planning will complement the City of North Myrtle Beach ability to respond to drought conditions and to enforce the related [drought response] ordinance [section 15-94 of this Code].
- (b) *Designation of water system drought response representative.* Adminstrating a drought plan requires the skills needed to undertake a comprehensive public information program and the judgment required to deal with equity issues arising from enforcement of a mandatory program. Someone who has these skills will be selected by the water system to manage the water system's program and serve as the principal contact for the news media as the water system's drought response representative. The drought response representative for the City of North Myrtle Beach shall be city engineer/public works director or his/her designee. Contact: City Engineer/Public Works Director, City of North Myrtle Beach, 1018 Second Avenue South, North Myrtle Beach, SC 29582; Phone: 843-280-5500, Fax: 843-280-5521.

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- (c) *Description of water system layout, water sources, capacities and yields.* The City of North Myrtle Beach is located in the Pee Dee Drought Response Management Area of South Carolina. The system serves over ten thousand (10,000) customers in the North Myrtle Beach Area.

The City of North Myrtle Beach purchases water from two (2) adjoining water suppliers. Water is stored at one (1) ground storage tank and five (5) elevated storage tanks for a total capacity of four million (4,000,000) gallons. Booster pumping is provided at the ground storage tank at a maximum rate of twelve million gallons per day (12 MGD). The water supply sources available to the system are the City of Myrtle Beach water system and Grand Strand Water and Sewer Authority water system.

- (d) *Identification of water system specific drought or water shortage indicators.* Operators of every water system must develop historical trends that are valuable indicators of a system's ability to meet demand when demand begins to outpace supply. The City of North Myrtle Beach has developed triggers for use during drought or demand water shortages that describe when specific phases of the drought response ordinance [section 15-94 of this Code] are implemented. The system triggers are as follows:

Moderate Drought Phase

- (1) Notification from one (1) or both water suppliers.

Severe Drought Phase

- (1) Notification from one (1) or both water suppliers.
- (2) Inability to consistently maintain tank levels.

Extreme Drought Phase

- (1) Notification from one (1) or both water suppliers.
- (2) Inability to consistently maintain tank levels.
- (3) Inability to fill tanks.
- (4) Low water pressure.

- (e) *Cooperative agreements and alternative water supply sources.* Successful drought management requires a comprehensive program by the water utility. In many situations administrative agreements are required with other agencies to fully implement the plan. Agreements with other water purveyors may be necessary for alternative water supply sources. Other agreements that strengthen conservation efforts by large users may be necessary. The City of North Myrtle Beach has identified the following agreements that are in place to facilitate the implementation of this plan: City of Myrtle Beach, Grand Strand Water and Sewer Authority.

- (f) *Description of pre-drought planning efforts.* Before the occurrence of a water supply shortage and the need to implement the emergency provisions of the [drought response] ordinance [section 15-94 of this Code], it is important that certain pre-response measures be taken with the aim of conserving the system's source water, as well as the water distributed to the customer. In regard to the conservation measures listed below, the City of North Myrtle Beach has taken the following actions:

- (1) Identification of all major water users of the system:
- (2) Identification of those users with whom there are conservation agreements: City of North Myrtle Beach public right-of-way landscape irrigation usage and ball field irrigation.
- (3) A vigorous public education program is critical for achieving substantial water use reductions. An effective public outreach program will keep the public informed about the water supply situation, what actions will mitigate drought emergency problems, and how well the public is doing in terms of meeting the program goals. Keeping the public involved, informed, and participating in the decision-making process is key to implementing an effective drought management plan. Provide a description of

your utility's efforts to develop an effective drought-related public education program: The City of North Myrtle Beach will utilize public access cable television, government channel and quarterly newsletter to advise public about conservation issues and drought status.

- (g) *Description of capital planning and investment for system reliability and demand forecasting.* Water utilities routinely find that capital improvements to the system strongly enhance their ability to get through times of drought. It is important that every water utility aggressively plans and builds for future needs. The utility must continue to provide for system operation flexibility, improved pumping and storage capacity and new technologies to meet the demands of tomorrow.

The City of North Myrtle Beach has developed and maintains a Capital improvement Plan (CIP) to identify system improvements needed to maintain adequate water supply and service level. A water system model is maintained to predict pressure and flow rates.

(Ord. No. 03-36, § III, 8-18-03; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-94. Drought response ordinance.

- (a) *Declaration of policy and authority.* The objective of this drought response ordinance [this section] is to establish authority, policy and procedure by which the City of North Myrtle Beach will take the proper actions to manage water demand during a drought-related shortage. The [drought response] ordinance [this section] satisfies the requirements of the Drought Response Act of 2000 and has the goal of achieving the greatest public benefit from limited supplies of water needed for domestic water use, sanitation, and fire protection and of allocating water for other purposes in an equitable manner.

This [drought response] ordinance [this section] outlines the actions to be taken for the conservation of water supplied by the City of North Myrtle Beach. These actions are directed both towards an overall reduction in water usage and the optimization of supply.

To satisfy these goals, the City of North Myrtle Beach hereby adopts the following regulations and restrictions on the delivery and consumption of water. This [drought response] ordinance [this section] is hereby declared necessary for the protection of public health, safety and welfare and shall take effect upon its adoption by the City of North Myrtle Beach.

If it becomes necessary to conserve water in its service area due to drought, the City of North Myrtle Beach is authorized to issue a proclamation (a "Proclamation") that existing conditions prevent fulfillment of the usual water-use demands. The proclamation is an attempt to prevent depleting the water supply to the extent that water-use for human consumption, sanitation, fire protection, and other essential needs becomes endangered.

Immediately upon issuance of such a proclamation, regulations and restrictions set forth under this [drought response] ordinance [this section] shall become effective and remain in effect until the water supply shortage has ended and the proclamation rescinded.

Water uses that are regulated or prohibited under this [drought response] ordinance [this section] are considered to be non-essential and continuation of such uses during times of water supply shortages is deemed to constitute a waste of water, subjecting the offender(s) to penalties.

The drought management plan as outlined in section 15-93 is hereby approved.

- (b) *Moderate drought phase.* Upon notification by the drought response committee that a moderate drought condition is present and is expected to persist and/or upon determination by the City of North Myrtle Beach that a moderate water supply shortage exists based on trigger levels, the City of North Myrtle Beach will seek voluntary reductions from its customers in the use of water for all purposes and voluntary reductions on using water during certain peak water demand periods. Specifically, the goal during this phase is to achieve a reduction of twenty (20) percent in residential water use and fifteen (15) percent in other water uses such as

commercial, industrial, institutional and irrigation; and a reduction in overall water use of fifteen (15) percent. To accomplish this, the City of North Myrtle Beach will take the following actions.

- (1) Issue a proclamation to be released to local media, the City of North Myrtle Beach's customers and to the South Carolina Department of Natural Resources Drought Information Center that moderate drought conditions are present.
 - (2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the voluntary conservation measures that the customers are requested to follow during moderate drought conditions, including:
 - a. Reduce residential water use to fifty-five (55) gallons per person per day and a maximum of two hundred (200) gallons per household per day;
 - b. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;
 - c. Eliminate the washing down of buildings for purposes other than immediate fire protection;
 - d. Eliminate the flushing of gutters;
 - e. Eliminate the domestic washing of motorbikes, boats, cars, etc.;
 - f. Minimize the use of water to maintain fountains, reflection ponds and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life;
 - g. Reduce watering of lawns, plants, trees, gardens, shrubbery and flora on private or public property to the minimum necessary. Encourage outdoor watering to be done during off-peak hours.
 - h. Reduce the amount of water obtained from fire hydrants for construction purposes, fire drills or for any purpose other than firefighting or flushing necessary to maintain water quality; and
 - i. Limit normal water use by commercial and individual customers including, but not limited to, the following:
 1. Stop serving water in addition to another beverage routinely in restaurants;
 2. Cease water service to customers who have been given a ten-day notice to repair one (1) or more leaks and have failed to do so.
 - (3) Intensify maintenance efforts to identify and correct water leaks in the distribution system
 - (4) Continue to encourage and educate customers to comply with voluntary water conservation.
- (c) *Severe drought phase.* Upon notification by the drought response committee that a severe drought condition is present and is expected to persist and/or upon determination by the City of North Myrtle Beach that a severe water supply shortage exists. The City of North Myrtle Beach will seek voluntary reduction in the use of water for all purposes and mandatory restrictions on non-essential usage and restrictions on times when certain water usage is allowed. Specifically, the goal during this phase is to achieve a reduction of twenty-five (25) percent in residential water use, twenty (20) percent in all other water use categories, and a reduction in overall water use of twenty (20) percent. To accomplish these goals, the City of North Myrtle Beach will take the following actions.
- (1) Issue a proclamation to be released to the local media, the City of North Myrtle Beach's customers and to the South Carolina Department of Natural Resources Drought Information Center that severe drought conditions are present.

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- (2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the voluntary conservation measures and mandatory restrictions to be placed on the use of water supplied by the utility, including:
- a. Voluntary reduction of residential water use by the utility's customers to fifty-five (55) gallons per person per day and a maximum of one hundred seventy (170) gallons per household or ERU per day.
 - b. Control landscape irrigation by the utility's customers by staggering watering times.
 - c. Mandatory restrictions on the use of water supplied by the utility for activities including:
 1. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;
 2. Eliminate the washing down of buildings for purposes other than immediate fire protection;
 3. Eliminate the flushing of gutters;
 4. Eliminate domestic washing of motorbikes, boats, cars, etc.;
 5. Eliminate the use of water to maintain fountains, reflection ponds and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life;
 6. Minimize obtaining water from fire hydrants for construction purposes, fire drills or any purpose other than firefighting or flushing necessary to maintain water quality; and
 - d. Limit use of water by commercial and individual customers including, but not limited to, the following:
 1. Stop serving water in addition to another beverage routinely in restaurants;
 2. Cease water service to customers who have been given a ten-day notice to repair one (1) or more leaks and have failed to do so; and
- (3) Intensify maintenance efforts to identify and correct water leaks in the distribution system.
- (4) Cease installation of new irrigation taps on the water system.
- (5) Publicize widely the penalties to be imposed for violations of mandatory restrictions and the procedures to be followed if a variance in the restrictions is requested.
- (6) Expand the use of education and public relations efforts and emphasize the penalties associated with violating the mandatory restrictions.
- (7) Provide written notification monthly to the South Carolina Department of Natural Resources Drought Information Center regarding the success of the voluntary and mandatory restrictions.
- (d) *Extreme drought phase.* Upon notification by the drought response committee that an extreme drought condition is present and is expected to persist and/or upon determination by the City of North Myrtle Beach that an extreme water supply shortage exists based on the trigger levels, the City of North Myrtle Beach will impose mandatory restrictions in the use of water for all purposes and on the times when certain water usage is allowed. Specifically, the goal during this phase is to achieve a reduction of thirty (30) percent in residential water use, twenty-five (25) percent in all other categories of water uses and a reduction in overall water use of twenty-five (25) percent. To accomplish these goals, the City of North Myrtle Beach will take the following actions:

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- (1) Issue a proclamation to be released to the local media, the City of North Myrtle Beach's customers and to the South Carolina Department of Natural Resources Drought Information Center that extreme drought conditions are present;
 - (2) Provide written notification to the South Carolina Department of Natural Resources Drought Information Center and routinely publish in a newspaper of general circulation in the service area of the water system the mandatory restrictions to be placed on the use of water supplied by the utility, including:
 - a. Limiting residential water use to forty-five (45) gallons per person per day and a maximum of one hundred fifty (150) gallons per household or ERU per day.
 - b. Eliminate landscape irrigation by the utility's customers.
 - c. Mandatory restrictions on the use of water supplied by the utility for activities including:
 1. Eliminate the washing down of sidewalks, walkways, driveways, parking lots, tennis courts and other hard surfaced areas;
 2. Eliminate the washing down of buildings for purposes other than immediate fire protection;
 3. Eliminate the flushing of gutters;
 4. No domestic washing of motorbikes, boats, cars, etc.;
 5. Eliminate the use of water to maintain fountains, reflection ponds, and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life;
 6. Eliminate obtaining water from fire hydrants for construction purposes, fire drills, or any purpose other than firefighting or flushing necessary to maintain water quality; and
 - d. Limit normal water use by commercial and individual customers including, but not limited to, the following:
 1. Stop serving water in addition to another beverage routinely in restaurants;
 2. Limit irrigating golf courses and any portion of their grounds;
 3. Cease water service to customers who have been given a ten-day notice to repair one (1) or more leaks and have failed to do so; and
 4. Delay planting or landscaping when required by site design review process.
 - (3) Intensify maintenance efforts to identify and correct water leaks in the distribution system.
 - (4) Continue to cease installation of new irrigation taps on the water system.
 - (5) Other conservation measures:
 - a. If voluntary conservation is not successful, the City of North Myrtle Beach may implement a drought surcharge for water usage in excess of two hundred fifty (250) gallons per day, per ERU. The surcharge will be a penalty rate of two (2) times the regular water usage rate.
 - (6) Publicize widely the penalties to be imposed for violations of mandatory restrictions and the procedures to be followed if a variance in the restrictions is requested.
 - (7) Expand the use of education and public relations efforts as conducted under the moderate and severe drought phase and emphasize the penalties associated with violating the mandatory restrictions.
 - (8) Provide written notification monthly to the South Carolina Department of Natural Resources Drought Information Center regarding the success of the mandatory restrictions.

(e) *Rationing.* If a drought threatens the protection of public health and safety, the City of North Myrtle Beach is hereby authorized to ration water.

(f) *Enforcement of restrictions.* If any customer of the City of North Myrtle Beach fails to comply with the mandatory water use restrictions of this [drought response] ordinance [this section], the customer shall be given a written notice of such failure to comply, which cites the date of said violation, and shall be assessed surcharges in accordance with the following schedule:

First violation—Written notification and warning;

Second violation—A twenty-five dollars (\$25.00) surcharge shall be added to the customer's water bill;

Third violation—The customer's water service shall be terminated and restored only after payment of a surcharge of fifty dollars (\$50.00) in addition to all previously assessed surcharges.

Law enforcement agencies and other authorized agencies or designated employees in the respective jurisdiction that is being supplied water by the City of North Myrtle Beach shall diligently enforce the provisions of the drought response ordinance [this section].

(g) *Variations.* Customers, who in their belief are unable to comply with the mandatory water use restrictions of this drought response ordinance [this section], may petition for a variance from restrictions by filing a petition with the City of North Myrtle Beach City Manager or designee, within ten (10) working days after the issuance of the proclamation requiring water use restrictions. The request shall contain the following information:

- (1) Name and address of the petitioner;
- (2) Purpose of water usage;
- (3) Special provision from which the petitioner is requesting relief;
- (4) Detailed statement as to how the curtailment declaration adversely affects the petitioner;
- (5) Description of the relief desired;
- (6) Period of time for which the variance is sought;
- (7) Economic value of the water use;
- (8) Damage or harm to the petitioner or others if petitioner complies with the drought response ordinance [this section];
- (9) Restrictions with which the petitioner is expected to comply and the compliance date;
- (10) Steps the petitioner is taking to meet the restrictions from which the variance is sought and the expected date of compliance; and
- (11) Other information as needed. In order for the variance to be granted, the petitioner must demonstrate clearly that compliance with the [drought response] ordinance [this section] cannot be technically accomplished during the duration of the water supply shortage without having an adverse impact upon the best interests of the community. The City of North Myrtle Beach is authorized to grant the request for variance.

In addition, the City of North Myrtle Beach is authorized to grant temporary variances for existing water uses otherwise prohibited under the [drought response] ordinance [this section] if it is determined that failure to grant such variances could cause an emergency condition adversely affecting health, sanitation and fire protection for the public. No such variance shall be retroactive or otherwise justify any violation of this [drought response] ordinance [this section] occurring prior to the issuance of the variance. Variances granted by the City of North Myrtle Beach shall include a timetable for compliance and shall expire when the water supply shortage no longer exists, unless the petitioner has failed to meet specified requirements.

(h) *Status of the [drought response] ordinance [this section].*

- (1) If any portion of this [drought response] ordinance [this section] is held to be unconstitutional for any reason, the remaining portions of the drought response ordinance [this section] shall not be affected.
- (2) The provisions of this [drought response] ordinance [this section] shall prevail and control in the event of any inconsistency between this [drought response] ordinance [this section] and other rules and regulations of the City of North Myrtle Beach.
- (3) Nothing in this [drought response] ordinance [this section] shall be deemed to invalidate or be interpreted in a manner inconsistent with any covenants now in effect and given as security to holders of bonds secured by revenues of the system.

(Ord. No. 03-36, § III, 8-18-03; Ord. No. 23-09, § 1, 1-9-23)

Secs. 15-95—15-99. Reserved.

ARTICLE III. SEWER⁶

DIVISION 1. GENERALLY

Sec. 15-100. Definitions.

Unless the context specifically indicates otherwise, the following terms shall have the respective meanings ascribed to them:

Approving authority: The city manager or authorized designee.

BOD (denoting biochemical oxygen demand): A measure of the degree of pollution strength of wastes. BOD expressed in parts per million by weight, shall mean the calculated pounds of oxygen required to satisfy the five-day oxygen demand of one million (1,000,000) pounds of domestic sewage and/or industrial wastes.

Application: The instrument by which one applies for sewer service.

Building: Any structure with a roof, erected or maintained on any parcel of land and which requires sewer service.

City: Includes any duly authorized official acting in behalf of the City of North Myrtle Beach.

Color: The "true color" due to substances in solution which cause any variation in the hue of the receiving stream, expressed in wavelengths of light.

Combined sewer: A sewer receiving both surface runoff and sanitary sewage.

⁶Editor's note(s)—An ordinance of Feb. 4, 1986, repealed Divs. 1—4 of Art. III and enacted new Divs. 1—4 to read as herein set forth. Prior to repeal, said divisions pertained to similar subject matter and were derived from the following: Ordinance of Feb. 4, 1975, §§ 101—135, 201—203, 301—312, 401—412, 501—512, 601—604, 801, 802; ordinance of June 3, 1975; ordinance of June 5, 1979; ordinance of July 6, 1962; ordinance of Aug. 3, 1982; ordinance of Aug. 16, 1983; ordinance of Oct. 18, 1983; and an ordinance of Nov. 20, 1984.

Cross reference(s)—Stormwater management, § 6-130 et seq.

Customer: The person responsible for payment of all water and sewer services used at a specific location, of one household or business and further defined as that person in whose name the application was made.

Development: A portion of land, including any single-family subdivision; that is being developed to the extent that sewer service is desirable to realize its full potential.

Domestic sewage: Liquid waste from noncommercial residential bathrooms, toilet rooms, kitchens and laundries.

Equivalent residential user: The equivalent number of other structures which equal a single-family detached dwelling unit.

Federal categorical pretreatment standard: Any regulation containing pollutant discharge limits promulgated by the environmental protection agency in accordance with Section 307(b) and (c) of the Federal Clean Water Act which applies to a specific category of industry.

Garbage: Solid wastes from the preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.

Hotel, motel, inn, lodge: Any building providing lodging to transients.

Industrial: Any building used by the occupant to manufacture, assemble or process goods classified in the Standard Industrial Classification Manual, published by the U.S. Bureau of the Budget.

Industrial wastes: The liquid wastes from commercial and industrial processes and operations, as distinct from domestic sewage.

Interference: The inhibition or disruption of the city's wastewater treatment processes or operations which contributes to a violation of any requirement of the city's NPDES permit. The term includes the prevention of the use or disposal of sewage sludge.

Mobile home park: Land used for the purpose of providing space to park mobile homes (trailers), whether on wheels or a foundation, designed to serve as living quarters, whether permanent or occasional.

Motel bedroom unit: Each room in a motel, hotel, inn or lodge used for sleeping of the management or guests.

Multiple-family dwelling: Any building having within its exterior walls provisions for housing two (2) or more families separately.

Natural outlet: Any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

NPDES permit: Shall mean national pollution discharge elimination system permit issued to the city pursuant to Section 402 of the Federal Clean Water Act.

Owner: The person, corporation, partnership or other entity that has an ownership interest in the real property receiving utility services.

Occupant: A person who occupies property where city sewer service is provided.

Person: Any individual, firm, company, association, society, corporation, institution or group as indicated by the context in which used.

pH: The logarithm (base 10) of the reciprocal of the weight of hydrogen ions in grams per liter of solution and indicates the strength of acidity or alkalinity of a substance. A pH value of 7.0 is considered neutral. A stabilized pH will be considered as a pH which does not change beyond the specified limits when the waste is subjected to aeration. pH below 7.0 is acid, above alkaline.

ppm (denoting parts per million): Parts per million by weight expressed in pounds. One million (1,000,000) pounds of water or sewage equals approximately one hundred twenty thousand (120,000) gallons.

Property shredded garbage: The wastes from the preparation, cooking and dispensing of food that has been shredded to such degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particles greater than one-half (½) inch in any dimension.

Public sewer: A sewer in which all owners of abutting properties shall have equal rights, and which is controlled by public authority.

Receiving stream: That body of water, stream or watercourse receiving the discharge waters from the sewage treatment plant or formed by the discharge of the sewage treatment plant.

Sanitary sewer: A sewer which carries sewage or polluted industrial wastes and to which storm, surface and ground waters or unpolluted industrial waste are not intentionally admitted.

Septic tank: A private domestic sewage treatment system consisting of an underground tank, distribution box and drain field designed and constructed in accordance with all existing local and state requirements.

Sewage: A combination of the water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such ground, surface and storm water as may be naturally present.

Sewage treatment plant: Any arrangements of devices and structures for treating sewage.

Sewer: A pipe or conduit for carrying sewage.

Sewer impact fee: A charge imposed by this chapter when a building permit is issued, designed to reimburse the city for the cost of providing additional facilities and services made necessary by the impact of new utility users of the facilities and services.

Sewer tap fee: A charge imposed by this chapter designed to reimburse the city for the cost of all materials, labor, and overhead made necessary to construct the sewer connection and provide service to the customer.

Sewerage system: All facilities for collecting, conveying, pumping, treating and disposing of sewage.

Shall is mandatory; *may* is permissive.

Single-family dwelling: Any building having within its exterior walls provisions for housing only one family.

Storm sewer or storm drain: A sewer which carries storm and surface waters and drainage but excludes sewage and polluted wastes.

Suspended solids: Solids that either float on the surface of, or are in suspension in water, sewage or other liquids; and which are removable by laboratory filtering.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-101. Reserved.

Sec. 15-102. Action in emergency in interest of health; closing system or part of system temporarily.

In the interest of the public health and safety, the approving authority and duly authorized representatives, shall be permitted to take such emergency action as may be deemed necessary in the operation of the sewerage system including, but not limited to, the right to close down any sewer or portion of the sewerage system for the purpose of making connections, alterations or repairs.

(Ord. of 2-4-86)

Sec. 15-103. Right-of-entry.

The approving authority and duly authorized representatives of the city shall be permitted to enter upon all properties for the purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of this article. The city shall notify, if available, the person in charge of the premises or a representative of such person prior to entering the premises.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-104. Payment for damages.

Failure to comply with this article shall subject the person to payment of all damages incurred to the sewerage system as a result of noncompliance.

(Ord. of 2-4-86)

Secs. 15-105—15-109. Reserved.

DIVISION 2. CONNECTIONS

Sec. 15-110. Inspection, permission and payment of fees prerequisite.

The city shall reserve the right to inspect and grant permission for all connections to the sewerage system. It shall be unlawful for any person, firm, or corporation to connect or engage another to connect to the sanitary sewer system of the City of North Myrtle Beach, South Carolina, or to any private sanitary sewer system which is already connected to the sanitary sewer system of the city, without first paying to the city the sewer tap fee and sewer impact fee as specified in this division.

(Ord. of 2-4-86; Ord. No. 87-21, 12-1-87)

Cross reference(s)—Payment of minimum monthly charge at time of connection, § 15-152.

Sec. 15-111. Required connection—Criteria.

Every building, on a lot or tract of land which adjoins a public way or easement in which a public sewer main is available shall be connected to such sewer main and shall utilize the same for wastewater disposal. Public sewer is considered available if the sewer line is within five hundred (500) feet of the lot or parcel. Said connections shall be made prior to occupancy of any new building.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-112. Same—Time within which to accomplish.

Existing buildings which are provided with access as described in section 15-111, shall connect to the sewer main at the earliest of the following events:

- (1) Within a period of one hundred eighty (180) days from date of the availability of the sewer main;
- (2) Reserved.

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- (3) At such time as directed by the county or state department of health upon a determination that the waste disposal system servicing the existing building is a community health hazard or is in violation of federal, state or local law or regulation;
 - (4) Failure to connect within the prescribed time limitations and other conditions set forth above will not relieve the customer of monthly sewer rate charges.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-113. Same—Septic tanks.

Septic tanks shall not be allowed where public sewer is available, including any extension of the public sewer line where required.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-114. Application.

It shall be unlawful for any person to make or undertake to make or cause to be made any connection to the sewerage system without first having paid the required fees.

(Ord. of 2-4-86)

Sec. 15-115. Basis for determining tap size and fee.

The size and connection fee of all services shall be governed by the number of individual units to be served by the same connection.

- (1) Single-family dwellings shall have a four-inch connection minimum.
- (2) Multiple-family dwelling units containing more than two (2) units shall have a six-inch connection minimum.
- (3) Multiple-family dwellings containing more than two (2) single-family units shall have a connection sized upon the equivalent number of bedrooms and flow as specified by the city engineer.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-116. Sewer tap fees.

- (a) Sewer connection or tap fees shall be charged and paid according to the schedule of fees. Sewer tap fees shall be paid at the same time the building permit is issued for all new buildings; however:
 - (1) If the building permit expires and the building is not constructed and the city does not install or locate an existing sewer tap, then the owner will be refunded the connection fee without interest;
 - (2) If the tap is installed, no refund will be made;
 - (3) Connection fees for existing buildings will be paid prior to connection of said building to the city sewer system.

Sewer taps are not transferable from lots or properties for which they were originally sold.

- (b) In any subdivision or development where the developer thereof has installed, at such developer's expense, a sewer system including individual service lines to each individual lot or building, which system is acceptable

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to and constructed in accordance with the city's standard specifications and which system is conveyed to the city, no sewer connection fee shall be charged, but a sewer impact fee shall be charged and paid in accordance with the schedule set forth in section 15-116.2. Where a system is not constructed in accordance with city standard specifications and it becomes necessary for the city to correct any deficiencies in said sewer tap construction, then the city shall be reimbursed for the actual cost incurred in correcting said deficiencies. Where a sewer tap is not properly marked and it becomes necessary for the city to physically locate said sewer taps for the convenience of the builder, owner, or developer, then the city shall charge a standard fee of one-half (½) the current tap fee for locating sewer tap.

(Ord. of 12-18-84; Ord. of 2-4-86; Ord. No. 87-21, 12-1-87; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-116.1. Schedule of sewer tap fees.

Sewer tap fees shall be as adopted by city council in accordance with each annual budget.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-116.2. Reserved.

Editor's note(s)—Ordinance No. 92-40, adopted Sept. 21, 1992, repealed §§ 15-116.2, 15-116.3 and 15-117 which pertained to sewer impact fees and derived from an ordinance of Feb. 4, 1986 and Ord. No. 87-21, adopted Dec. 1, 1987. Water and wastewater capital recovery fees are currently in §§ 15-181—15-187.

Sec. 15-116.3. Reserved.

Note(s)—See the editor's note following § 15-116.2.

Sec. 15-117. Reserved.

Note(s)—See the editor's note following § 15-116.2.

Sec. 15-118. Conformance of tap specifications; persons authorized to make connection.

All connections made to the city sewer system shall conform to the requirements of the approving authority on location, size, type, materials and methods used and shall be accomplished only by a licensed plumber or licensed utility contractor approved by the city.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-119. Discontinuance of sewer and water service for nonpayment.

The city may discontinue water and sewer service to any person whose bill shall remain unpaid for more than forty-five (45) days from billing date. This will apply to all charges, cost recovery, and/or surcharges. Sewer service may be discontinued by complete severance of the sewer connection and the city may authorize any public utility to discontinue water service through the person's water meter. Renewed water service or sewer reconnection may be permitted only after payment of all charges and penalties and costs associated with disconnection/reconnection.

(Ord. of 2-4-86)

Cross reference(s)—Water turn-off and turn-on fees, § 15-64 et seq.

Secs. 15-120—15-129. Reserved.

DIVISION 3. USE OF SEWER

Sec. 15-130. Prohibited water discharges into sanitary sewers.

No person shall discharge or cause to be discharged into any sanitary sewers any of the following:

- (a) Any storm water, surface water, ground water, roof run-off, subsurface drainage, cooling water or unpolluted industrial or commercial process water, except as specifically authorized.
- (b) Any pollutant or sewage which will interfere with the operation or performance of sewage collection, pumping or treatment facilities, pass through such systems untreated or inadequately treated, or contaminate sewage sludges in a manner that renders them unsafe, more difficult to dispose, or more difficult to reuse.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-131. Approval of certain discharges into storm sewers; prohibited discharges into sanitary sewers.

- (a) Storm water and surface drainage shall be admitted to only such sewers as are specifically designated as storm sewers or storm drains. Unpolluted process and cooling waters may, upon written application and approval by the approving authority, be discharged to storm sewers or storm drains.
- (b) The following article or substances shall not be discharged into the sanitary sewers:
 - (1) Any clothing, rags, textile remnants or wastes, cloth, scraps, etc., except fibers, scraps, etc., which will pass through a one-fourth-inch mesh screen or its equivalent in screening ability.
 - (2) Any liquid or vapor having a temperature higher than one hundred sixty (160) degrees Fahrenheit.
 - (3) Any water or waste containing more than one hundred (100) parts per million by weight of facts, oils or grease.
 - (4) Any liquids, solids or gases which by reason of their nature or quality may cause a fire or explosion hazard, or be in any way injurious to persons, the sewerage system, the sewage treatment works or the operation of the sewage treatment works; including but not limited to wastes with a closed cup flash point of less than one hundred forty (140) degrees Fahrenheit using methods specified in 40 C.F.R. 261.21.
 - (5) Any liquid wastes in which the suspended solids exceed four hundred (400) parts per million by weight, except as hereinafter provided or as provided by specific authorization of the approving authority.
 - (6) Any liquid wastes having a BOD of more than two hundred fifty (250) parts per million except as hereinafter provided or as provided by specific authorization of the approving authority.
 - (7) Any waters or wastes having a stabilized pH lower than 5.0 or higher than 9.0 or having other corrosive property capable of causing damage or hazard to structures, equipment or personnel of the sewage works.

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- (8) Any waters or wastes containing a poisonous or toxic substance or any other materials in sufficient quantity to injure or interfere with any sewage treatment process, or constitute a hazard to humans or animals, or create any hazard in the receiving stream at the sewage treatment plant.
 - (9) Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials in the sewerage system.
 - (10) Any noxious or malodorous gas or substance capable of creating a public nuisance.
 - (11) Any garbage that has not been properly shredded.
 - (12) Any ashes, cinders, sand, mud, straw, shavings, metal, glass, bones, feathers, tar, plastics, wood, paunch manure, butcher's offal, or any other solid or viscous substances capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewerage system.
 - (13) Any materials which form excessive amounts of scum that may interfere with the operation of the sewage treatment works or cause undue additional labor in connection with its operation.
 - (14) Any waters or wastes containing dyes or other color which cannot be removed by biological processes and which require special chemical treatment.
 - (15) Any waters or wastes containing lint in such quantities as to be detrimental to sewer lines, sewage pumps or sewage treatment works.
 - (16) Any substance which may cause the sewage treatment works' effluent or other product such as residues, sludges, or scums, to be unsuitable for reclamation, reuse, and disposal.
 - (17) Any substance which will cause or present a substantial risk of causing the sewage treatment works to violate its NPDES permit or to contribute to an exceedance of any water quality standards in the receiving waters of the sewage treatment works.
 - (18) Any petroleum oil, non-biodegradable cutting oil or products of mineral oil origin in amounts that will interfere with the sewer system or sewage treatment works.
 - (19) Any radioactive wastes in concentrations or quantities that exceed limits established by federal or South Carolina requirements.
 - (20) Any holding tank waste, trucked or hauled pollutants, except at discharge points designated by the approving authority.
- (c) Upon the promulgation of the federal categorical pretreatment standards for a particular industrial subcategory, the federal standard shall apply to dischargers to the sewer system in accordance with their terms. However, nothing in this subsection (c) shall supersede any other requirement or limitation of this Division. Where the city's sewage treatment system achieves consistent removal of pollutants limited by federal pretreatment standards, the city may apply for modification of specific limits in the federal pretreatment standards in the manner provided under federal and South Carolina law.
- (d) No person shall ever increase the use of process water or, in any way, attempt to dilute a discharge in order to achieve compliance with the requirements of this section.
- (Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-132. Approval or disapproval of certain discharges.

The approving authority, without limitation by other sections of this article, may authorize any person to discharge industrial waste of unusual strength or character into the sanitary sewers of the city under approved conditions or with specified pretreatment. The approving authority may prohibit entry of particular industrial wastes into the sanitary sewer whenever such action is necessary to prevent damage to the system or to

determine the effects of such wastes on the sewage system, and whenever such action is otherwise necessary for the purposes of this article.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-133. Same—Large volume.

Where the volume of any proposed sewage discharge by any person exceeds the capacity of the system, such person shall pay for the system upgrade on terms determined appropriate by the approving authority.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-134. When preliminary treatment facilities required; reducing objectionable characteristics.

Whenever the waste characteristics of sewage being discharged by any person exceed those requirements of section 15-131, or where necessary in the determination of the approving authority, the person discharging sewage shall construct or cause to be constructed at no expense to the city such preliminary handling or treatment facilities as may be required to:

- (1) Reduce the BOD to four hundred (400) parts per million by weight, and the suspended solids to four hundred (400) parts per million by weight; or
- (2) Change the objectionable characteristics or constituents to come within the maximum limits and restrictions provided for in section 15-131.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-135. Plans, etc., of preliminary treatment facilities.

Plans, specifications and other pertinent information relating to proposed preliminary treatment or handling facilities shall be submitted for the approval of the approving authority and no construction of such facilities shall be commenced until such approval is obtained in writing. Notwithstanding any such approval, the facility owner and operator shall be solely responsible for the design and adequacy of such facilities.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-136. Maintenance of preliminary treatment facilities.

Where preliminary treatment or holding facilities are provided for any purpose, they shall be maintained continuously in satisfactory and effective operation by the facility owner and operator and at no cost to the city.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-137. Information and analysis may be required of any user.

Any person who is discharging any sewage into the city public sewers may be required to make written application to the approving authority giving complete information as to the nature and character of sewage as determined by an analysis of a composite sample[s] of the waste made by an independent laboratory. The approving authority may specify the requirements for such required information and data.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-137.1. Contaminants of emerging concern.

The approving authority may determine that the discharge of sewage to the collection system from commercial or industrial sources, management within POTWs, discharge to receiving waters, presence within biosolids, and other operations of contaminants of emerging concern ("CECs") may bring about unacceptable risks to the POTWs, human health, and of pass-through or other adverse environmental impacts. The approving authority shall address CECs in the following manner when determined necessary for the purposes of these regulations:

- (a) The approving authority may require persons to provide specified information on their purchase, use, manufacture (intentional or incidental), discharge as a wastewater or other waste constituent, or other information or data on specified CECs; and specified information on the person's products and processes that may contribute to the creation or discharge of CECs.
- (b) The approving authority may require persons to provide specified wastewater discharge or other data on any CECs identified by either the approving authority or by the persons discharging wastewaters within subsection (a) above. Such data shall include any existing data in the possession or control of the persons and may include requirements for the persons to sample and generate at their cost such data. The approving authority may also itself sample and generate such data and the costs therefore may be billed to the persons as an additional service associated with sewered wastes.
- (c) When the approving authority determines it necessary for the purposes of this article, it may require by wastewater discharge permit (through either a new permit, reissuance, or amendment), by enforcement order, or otherwise pursuant to the terms of this article actions by a person to address CECs. Such actions may include:
 - (1) Further or routine monitoring requirements;
 - (2) Numeric effluent limits adopted as local limits or calculated as either generally applicable or discharger-specific technology-based limits; and
 - (3) Requirements for best management practices.
- (d) Any such requirements may be based on the approving authority's determination of CEC numeric criteria based on available toxicity or other data, EPA or State of South Carolina standards or criteria, or generally-accepted criteria determinations by recognized scientific entities.
- (e) For purposes of this section contaminants of emerging concern ("CECs") shall be defined as contaminants posing unique issues and challenges to the environment and/or human health as a result of (i) the recent development of new chemicals or other products; (ii) new or recently identified byproducts or waste products; (iii) newly discovered or suspected adverse human health or environmental impacts; (iv) properties that are not fully evaluated or understood; (v) an absence of or pending changes to fully defined risk levels, water quality standards or guidance or other environmental program levels of control; and (vi) other appropriate factors. CECs include, but are not limited to, PFAS (per and polyfluoroalkyl substances), nanomaterials, pharmaceuticals and their constituents, and steroids and hormones.

(Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-138. Approval of change in nature or quantity of sewage—Required.

Any person having been granted authority by the approving authority to institute a new discharge of sewage into the city's public sewers, and any person who shall change or cause to be changed the nature or quantity of such sewage, shall, before making such new discharge or such change, receive the approval of the approving authority and may be required to furnish the approving authority with either an engineering analysis of anticipated sewage characteristics, or a complete analysis of a composite sample[s] of the sewage as determined by an independent laboratory. The approving authority may specify the requirements for such information and data.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-139. Grease, oil and sand separators—May be required, exceptions; accessibility; maintenance.

Grease, oil and sand separators or traps shall be provided when in the determination of the approving authority they are necessary for the proper handling and control of liquid wastes containing grease, oil or sand in excessive amounts. Such separators shall not be required for private living quarters or dwelling units but may be required for individual or specified categories of industrial or commercial establishments, public eating places, hospitals, hotels, schools or other institutions. Such separators shall be readily accessible for inspection by the approving authority and shall be maintained and cleaned by the person in charge of the premises at no expense to the city and in continuously efficient operation at all times.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-140. Same—Making application; furnishing analysis.

Any person desiring to make such connection and discharge such sewage as described above, shall make written application to the approving authority and may be required to furnish the approving authority a complete analysis of a composite sample of the sewage as determined by an independent laboratory, in addition to compliance with all other sections of this article.

(Ord. of 2-4-86)

Sec. 15-141. Same—Grease trap requirements and specifications.

All existing boarding houses, cafes, restaurants, hotels, motels or food preparation establishments shall install a grease trap on the kitchen waste line within one hundred twenty (120) days of written notice by the city. New construction shall comply with this ordinance at the time of construction. The grease trap shall be designed in accordance with current engineering standards and shall be accessible for cleaning. Grease traps will be installed on the outside of buildings and must have a minimum capacity of one thousand (1,000) gallons. For food service establishments with less than fifty (50) seats, the city engineer (or designee) may permit under sink grease traps provided such units are properly designed and sized for the particular application. Grease traps shall be cleaned periodically by the owner or operator of the facility. Failure to make periodic cleaning which results in or contributes to a stoppage of the city's sewer system shall constitute a violation of this Division. If city employees are required to clean out the city sewer lines as a result of a stoppage due to clogged grease traps, the property owner or operator shall be further required to pay the costs of city labor and materials required to clean out the lines.

(Ord. of 2-4-86; Ord. No. 94-11, 4-4-94; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-142. Control manhole.

Any person discharging industrial wastes into the public sewers may be required to construct and maintain a suitable control or inspection manhole either downstream from any pretreatment, storage or other approved works, or if pretreatment is not required, at the point where the sewage enters the public sewers. Such manhole shall be located so as to be readily accessible and shall be constructed in such a manner as may be approved by the approving authority so as to facilitate such inspection or measuring as may be necessary for paper sampling and/or control of the waste discharged.

(Ord. of 2-4-86)

Sec. 15-143. Procedures for tests and analyses.

All tests and analyses of the characteristics of sewage to which reference is made in this article shall be made in accordance with the procedures given in the latest edition of "Standard Methods for Examination of Water and Sewage," as revised, published by the American Public Health Association. Such tests and analyses shall be determined at the control manhole provided for in section 15-142, or at the point of discharge of any sewage at the site of its origin on the premises of any person discharging such sewage into the sewers.

(Ord. of 2-4-86)

Sec. 15-144. Basis for volume of flow for computing user charges; reduced percentage.

The volume of flow used in computing waste user charges and surcharges shall be based upon metered water consumption as shown in the records of meter reading maintained by the city water department. In the event that a person discharging wastes into the sanitary sewer system produces evidence to the approving authority that greater than ten (10) percent of such person's water used does not reach the city sanitary sewer, the user may apply to the approving authority for a separate water meter for the identified water-only use.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-145. Meter required when water not from city.

Where the person discharging wastes into the sanitary sewers of the city procures any part or all of such person's water supply from sources other than the city water system, all or part of which is discharged into the sanitary sewer, the person discharging said waste shall install and maintain, at such person's expense, water meters of a type approved by the approving authority for the purpose of determining the proper volume of flow to be charged.

(Ord. of 2-4-86)

Sec. 15-146. Enforcement orders.

- (a) When the approving authority finds that a person has violated, or continues to violate, any provision of this Division, a wastewater discharge permit, or any other requirement of this Division, after providing an opportunity for an informal hearing before an approving authority representative, the approving authority may issue an enforcement order to the person responsible for the discharge directing that such person come into compliance within a specified time.

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- (b) An enforcement order may impose an immediately applicable or other emergency sewer use suspension or termination when the approving authority determines it necessary for the protection of human health, the environment, or the POTW or other facilities of the city. In any such case the person[s] affected by such enforcement order shall be provided an opportunity for an informal hearing as soon as practicable.
 - (c) Enforcement orders also may contain other requirements to address the person's noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. An enforcement order may not extend the deadline for compliance established for any mandatory requirement of this Division, nor does an enforcement order relieve the person of liability for any violation, including any continuing violation.
 - (d) Issuance of an enforcement order shall not be a bar against, or a prerequisite for, taking any other action against the person.

(Ord. No. 23-09, § 1, 1-9-23)

Secs. 15-147—15-149. Reserved.

DIVISION 4. USER CHARGES, SURCHARGES, INDUSTRIAL COST RECOVERY

Sec. 15-150. Annual adoption of service charge schedule; cost basis.

The city shall adopt an adequate schedule of sewer service charges to defray the cost of operating and maintaining the sanitary sewerage system. The costs to be used as a basis of determining charges shall include, but not necessarily be limited to, direct operation and maintenance, administration, collection and billing of charges, bond redemption, studies and reports, professional fees, repairs, capital improvements and depreciation. The sewer service charges adopted shall be such that each user pays at least such user's proportionate share of all costs herein noted.

(Ord. of 2-4-86)

Sec. 15-151. Payment of minimum at time of connection.

At such time as sewer is available as described in section 15-111, each building shall pay the minimum monthly charge as established by this article; at such time as existing buildings are required to connect to the sewer main as provided in section 15-112, each building shall pay the sewer service charge as provided in section 15-155.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Editor's note(s)—Ord. No. 23-09, § 1, adopted January 9, 2023, deleted § 15-151 and renumbered the remaining sections, 15-152—15-158 as 15-151—15-157. The original § 15-151 pertained to publication, etc., of service charges and derived from an ordinance of February 4, 1986.

Sec. 15-152. Minimum monthly charge schedule.

The monthly base charge and volume charge for sewer service shall be as adopted by city council in accordance with each annual budget.

(Ord. of 2-4-86; Ord. No. 86-12, 9-4-86; Ord. No. 88-15, 5-3-88; Ord. No. 89-34, § 6, 8-15-89; Ord. No. 95-30, § 7, 5-15-95; Ord. No. 02-20, § 7, 5-20-02; Ord. No. 12-07, § 7, 6-4-12, eff. 7-1-12; Ord. No. 14-11, § 7, 5-21-14, eff. 7-1-

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14; Ord. No. 19-28, § 7, 5-20-19, eff. 7-1-19; Ord. No. 21-24, § 7, 6-21-21, eff. 7-1-21; Ord. No. 22-24, § 7, 6-20-22, eff. 7-1-22; Ord. No. 23-09, § 1, 1-9-23)

Note(s)—Formerly § 15-153.

Sec. 15-153. Levy of monthly service charges; based on water consumption.

The approving authority shall levy monthly sewer service charges, and said charges shall be due and payable together with the water charges and penalties as provided in accordance with the provisions for water payment as stated in section 15-65. The service charges shall be based on actual water consumption, as obtained from water meter readings as provided under sections 15-144 and 15-145.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Note(s)—Formerly § 15-154.

Sec. 15-154. Charge per gallon over minimum.

The sewer service charge shall be based upon monthly use of water as given under section 15-154 with the rates given under section 15-153.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Note(s)—Formerly § 15-155.

Sec. 15-155. Service charges outside this city and the City of Atlantic Beach.

Sewer service outside the limits of the cities of North Myrtle Beach and Atlantic Beach shall be billed for services under sections 15-152 and 15-155 at a rate equal to twice that shown under said rates.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Note(s)—Formerly § 15-156.

Sec. 15-156. Industrial waste discharge.

The approving authority may, at its discretion, allow the discharge of industrial waste into the sanitary sewerage system provided that the person discharging such waste shall agree to the payment of a surcharge of all BOD and suspended solids in excess of two hundred fifty (250) parts per million. This surcharge shall be imposed in addition to any other charges made for sewer service, as calculated by the city engineer.

(Ord. of 2-4-86; Ord. No. 23-09, § 1, 1-9-23)

Note(s)—Formerly § 15-157.

Sec. 15-158. Reserved.

Editor's note(s)—Ord. No. 23-09, § 1, adopted January 9, 2023, repealed § 15-158, which pertained to manner of determining surcharge and derived from an ordinance of February 4, 1986.

Secs. 15-159—15-169. Reserved.

DIVISION 5. SANITARY SEWER EXTENSIONS

Sec. 15-170. Responsibility of developer of new development to construct.

Extensions of the sanitary sewer system shall be the responsibility of the person requiring such extension.
(Ord. of 2-4-75, § 701; Ord. of 2-3-81)

Sec. 15-170.1. Cost estimates for plan review and inspections.

All plans for sewer line extensions shall be submitted to the city engineer for review. Permit fees shall be in accordance with the building permit fee schedule with section 6-3(b). Plan review fees shall be in accordance with section 6-3(d).

(Ord. of 10-18-83, § 513; Ord. No. 99-33, 9-20-99)

Editor's note(s)—An ordinance enacted Oct. 18, 1983, added a new § 513 to the sewer use ordinance. At the discretion of the editor, said provisions have been included as § 15-170.1.

Sec. 15-171. Conformance of plans and specifications in new development.

Any developer of a new development proposing to build local or lateral sanitary sewers or extensions to existing local or lateral sanitary sewers to connect directly or indirectly into the city's sanitary sewerage system shall conform its plans and specifications to the requirements of the approving authority. The plans and specifications shall be prepared by a registered engineer who is authorized by the laws of the state and approved or approvable by all local, county and state authorities having jurisdiction.

(Ord. of 2-4-75, § 703)

Sec. 15-172. Administrative procedures.

The following administrative procedures shall be followed:

- (1) Submit preliminary construction plans to the approving authority in sufficient detail to indicate location, system layout, line sizes, service connections, flows, character of sewage, relationship with and connection to the city's system, and total development plans.
- (2) Receive preliminary approval from city and other jurisdictional agencies.
- (3) Prepare construction drawings and documents for city approval.
- (4) Secure all other agency approvals of construction drawings and contract documents.
- (5) Upon receipt of all approvals, proceed with construction, notifying the approving authority of construction schedules.
- (6) Provide the approving authority and its authorized representatives with permission for on-site inspection during construction.

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- (7) Furnish to the approving authority a certificate of completion, instrument of conveyance, warranty together with such other legal documents as may be required, and similar special provisions.

(Ord. of 2-4-75, § 704)

Sec. 15-173. Construction by contractor.

Construction of the proposed sewage system extension shall be accomplished by a properly licensed contractor under the laws of the state, and approved by the city.

(Ord. of 2-4-75, § 705; Ord. of 2-3-81; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-174. Final inspection and certification by developer's engineer.

Upon completion of construction, the engineer employed by the developer, or person requiring such extension, shall inspect and furnish to the approving authority, at no cost to the city, such engineer's certificate of completion, indicating that the subject sewage system has been constructed in accordance with the approved plans and specifications, and shall provide four (4) copies of "as constructed" drawings.

(Ord. of 2-4-75, § 706; Ord. of 2-3-81)

Sec. 15-175. Warranty.

The owner or the owner's authorized agent shall submit a warranty which is a legal instrument in which the owner warrants the materials, equipment and construction of the system for twelve (12) months. The owner shall further warrant to the approving authority that all fees have been paid and that there is no outstanding indebtedness remaining and holding the city harmless in each instance.

(Ord. of 2-4-75, § 707)

Sec. 15-176. Making taps during construction.

All sewer taps shall be made during construction from the main out to the property line. Location of all taps shall be recorded on the "as constructed" drawings.

(Ord. of 2-4-75, § 708)

Sec. 15-177. Compatibility with plans.

All sewage system extensions must be compatible with present and future plans and needs of the city and approved by the city engineer, applying accepted engineering practices.

(Ord. of 2-4-75, § 709; Ord. of 2-3-81)

Sec. 15-178. Conveyance to city—Authorized; conditions.

Extension of the sanitary sewer system may be conveyed to the city, provided all such sewers are located within public rights-of-way or easements of adequate unobstructed widths to provide maintenance vehicle access.

(Ord. of 2-4-75, § 702; Ord. of 2-3-81)

Sec. 15-179. Same—Execution.

When all other requirements of this article have been met and approved, the owner shall prepare and submit to the approving authority an instrument of conveyance, conveying the constructed system to the city, at no cost to the city, and the system shall thereafter be owned, operated and maintained by the city as provided for in this article. The instrument of conveyance shall also include permanent easements and rights-of-way fully described and duly recorded at the appropriate authority.

(Ord. of 2-4-75, § 710)

Sec. 15-180. Sewer extension fee.

- (1) Except as outlined in sections 15-170 through 15-179, city council may in its sole discretion, authorize the extension of the sewer system to geographical areas within or beyond the corporate limits of the city when such extension will provide capacity beyond that required by the person requesting such extension. Costs for such extensions shall be recovered through the establishment of a sewer extension fee, to be calculated as follows:

$$EF = \frac{CE}{tx/tDERU}$$

TERU

;b1; Where:

| | |
|--------|---|
| EF = | Extension fee. |
| CE = | Cost of extension of sewer distribution system. |
| DERU = | Sewer capacity required by development expressed as ERU's. |
| TERU = | Total capacity of extended sewer distribution system as determined by city manager or his/her designee, expressed in ERU's. |
| ERU = | Equivalent residential unit. The equivalent number of structures which equal a single-family detached unit. |

- (2) In order to qualify a project for a sewer system extension as outlined herein, the distance from the closest existing sewer main shall be at least one-half (½) mile.
- (3) In geographical areas beyond the corporate limits, the owner/developer must first annex to the city before connection to the extended sewer system or execute an annexation agreement with the city.
- (4) All project costs, including right-of-way acquisition, engineering, construction, unearned interest on funds expended, etc., shall be recovered through the sewer extension fee.
- (5) When an owner or developer desires to have a sewer extension constructed in accordance with the terms of this section, he/they shall execute an agreement with the city which shall have the following provisions:
- (a) The agreement shall provide that the developer agrees to connect to the system within a reasonable length of time as mutually agreed by the parties. Said agreement shall provide for a prepaid guarantee should the developer fail to comply with these provisions.
 - (b) The city shall design and construct the sewer system extension, said design and construction standards shall be at the sole discretion of the city.
 - (c) Capacity in the sewer system shall not be reserved until such time as all other applicable fees, as outlined in sections 15-116 through 15-116.2 are paid. Upon issuance of a building permit, with

payment of extension fee, impact fees, and other applicable fees, the owner/developer shall be entitled to sewer service.

- (d) If the capacity of the system extension is fully utilized and the person initiating the extension has not paid all applicable fees as outlined in paragraph (c) above, then any agreement between the city and the person initiating a system extension shall be immediately null and void.
- (6) Where an extended sewer system as provided by this section exists prior to development, and while there is additional capacity, as determined by city engineer, then the extension fee shall be paid at the time a building permit is issued and sewer fees are paid in accordance with section 15-116 of the City Code. The extension fee to be paid shall be computed as provided for in subsection (1) and in addition, shall be escalated by an interest rate equal to average annual rate earned by the city.

When an extension fee is paid and a building permit expires, and building construction has not started, as defined by the building code, then the extension fee shall be reimbursed, less fifteen (15) percent for administrative costs, along with impact fees, and the capacity shall be available for resale.

When the capacity of the sewer system extension has been reached, no additional fees will be collected, and a new extension may be initiated. The city, at its option, may elect to improve the system at its own cost, or it may require a developer to initiate an extension project, as provided herein.

(Ord. No. 87-13, 7-21-87; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 23-09, § 1, 1-9-23)

DIVISION 6. WATER AND WASTEWATER CAPITAL RECOVERY FEE

Sec. 15-181. Definitions.

Definitions provided in section 15-20 and section 15-100 of this chapter shall apply to this article. In addition, the following definitions are added:

Capital recovery fee: The scheduled assessments applied to new development to generate revenue for the construction or expansion of capital facilities that benefit contributing development. Capital recovery fees may also be referred to as "development impact fees" or "impact fees".

Equivalent residential unit: Basis upon which capital recovery fees are calculated. ERU is the equivalent of a single residential unit. The equivalent residential unit factor is considered to be three hundred seventeen (317) gallons of water usage per day (9,500 gallons per month).

Capital facilities: Facilities of the water and sewer system which have a useful life of more than one (1) year and are referred to as property, plant, and equipment.

Utility system: Combined water and wastewater system.

Water system: Potable water treatment, transmission, and distribution to end user.

Wastewater system: Collection, treatment, and disposal of wastewater. Also referred to as sanitary sewer system.

(Ord. No. 92-40, § 2, 9-21-92)

Sec. 15-182. Imposition of water and sewer capital recovery fee.

- (a) Any person who seeks to connect to the water system is hereby required to pay a capital recovery fee in the manner and amount set forth in this division.

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- (b) Any person who seeks to connect to the sewer system is hereby required to pay a capital recovery fee in the manner and amount set forth in this division.

(Ord. No. 92-40, § 2, 9-21-92)

Sec. 15-183. Computation of the amount of the water and sewer capital recovery fee.

- (a) The City of North Myrtle Beach finds that the South Carolina Department of Health and Environment Control, Unit Contributory Loadings and the American Waterworks Association's Manual of Water Supply Practices: Sizing water lines and meters (AWWA Manual #M22), provide a fair and equitable method of measuring the capacity impact of each new connection of the utility system.
- (b) Capital recovery fees shall be determined by first computing the number of equivalent residential units (ERU) corresponding to the connection by the table, Schedule of ERU Factors for Water and Wastewater Capital Recovery Fees, as maintained by the city engineer, and then multiplying this number by the capital recovery fee for one (1) equivalent residential unit. the charge for water and wastewater capital recovery fees per ERU shall be as adopted by city council in accordance with each annual budget.
- (c) To account for inflation, the capital recovery fee shall be increased annually by five (5) percent, as adopted by city council in accordance with each annual budget.
- (d) For any structure or facility not specified in the table referenced above, the equivalent residential unit factor shall be computed by the city engineer (or designee) by making an engineering determination of the capacity impact of the connection based upon peak monthly water usage of the type of use divided by nine thousand five hundred (9,500) gallons per month to yield the number of equivalent residential units corresponding to the connection; or by any other method which yields an accurate measure of the capacity impact of the subject connection.
 - (1) For capital recovery fees calculated under this subsection, the person seeking connection may, at his/her option, execute an agreement to have the fees recalculated after a twenty-four-month period. Such recalculation shall be based upon the peak monthly water usage during that period divided by nine thousand five hundred (9,500) gallons to yield the number of equivalent residential units. If the ERU's are less than the projected calculations, then the person seeking connection shall be entitled to a refund of the difference. If the calculation exceeds the projected calculation, then the difference shall be paid to the city. Failure to pay the difference to the city shall result in disconnection of water and sewer service.
- (e) Water and sewer capital recovery fees shall be charged and paid according to the schedule of fees. Fees shall be paid at the same time as the building permit is issued. If the building permit expires and no building is constructed, as defined by the building code, the owner shall be reimbursed said fees, without interest, upon request and not exceeding twelve (12) months after the expiration of the building permit.
- (f) When an existing structure or facility is physically altered or used in any manner which causes the classification of the structure or facility to be changed to a classification upon which a higher capital recovery fee is assessed, then the capital recovery fee shall be charged and paid for each higher classification at the rates set for the new classification.
- (g) Credit for sewer capital recovery fees shall be given for pre-existing structures in accordance with the following criteria:
 - (1) Windy Hill, no credit may be allowed for the years prior to 1968;
 - (2) Crescent Beach, no credit may be allowed for the years prior to 1965;
 - (3) Ocean Drive, no credit may be allowed for the years prior to 1961;

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- (4) Cherry Grove, no credit may be allowed for the years prior to 1968;
 - (5) Atlantic Beach, no credit may be allowed for the years prior to 1968;
 - (6) Any other area within the corporate limits of North Myrtle Beach, no credit may be allowed for the years prior to 1968.
 - (7) Credits allowed under this subsection shall be calculated through January 1, 1987.
 - (8) For each eligible year as set forth in subparagraphs (1) through (7) above, the applicant shall receive a credit against the required capital recovery fees in the amount of fifty-three dollars and forty-one cents (\$53.41) per year, provided that in no case shall the final capital recovery fee be less than sixty dollars (\$60.00) per ERU.

(Ord. No. 92-40, § 2, 9-21-92; Ord. No. 00-07, 2-7-00; Ord. No. 02-20, § 8, 5-20-02; Ord. No. 04-33, 8-16-04; Ord. No. 12-07, § 8, 6-4-12, eff. 7-1-12; Ord. No. 14-11, § 8, 5-21-14, eff. 7-1-14; Ord. No. 19-28, § 8, 5-20-19, eff. 7-1-19; Ord. No. 21-02, § 2, 3-1-21; Ord. No. 22-24, § 8, 6-20-22, eff. 7-1-22; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-184. Credit for structures or facilities removed from the utility system.

- (a) When computing capital recovery fees, credit shall be given for existing structures or facilities on that same site that are removed from the system. Removal from the system shall include structures and facilities which are physically removed for any reason, and those for which service has been discontinued and minimum water and sewer bills not paid as required by this chapter. Credit shall be given based on the ERU factors listed and the schedule of fees in effect at the time of the issuance of the building permit or reconnection. Such capital recovery fee credit must be exercised within twelve (12) months from the time a structure or facility is removed from the utility system, or where construction has begun, from the time the building permit expired. In no case shall a cash refund of capital recovery fee be given except as provided in section 15-183.
- (b) After a period of twelve (12) months from the time a structure or facility is removed from the water or sewer system, capital recovery fees shall be due and payable prior to the reestablishment of water and sewer utility service at the then current classification and schedule of fees. However, at the option of the owner, an "availability charge" may be paid for the period from which the structure or facility was removed from the water and sewer utility system. The "availability charge" shall be the minimum water and sewer service charge for the meter size for each month the structure or facility was removed from the system, plus ten (10) percent.
- (c) When an existing structure is relocated as result of a public improvement project and the property associated with the structure is converted to public use, a credit shall be allowed for the individual or entity that has previously paid the impact fee for the affected property and is otherwise entitled to a credit in accordance with paragraph (a), to relocate or rebuild the structure at the new location, provided the structure is relocated or rebuilt within the city limits.

(Ord. No. 92-40, § 2, 9-21-92; Ord. No. 04-26, 6-21-04; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-185. Establishment of a water and a wastewater capital recovery fee account.

- (a) All monies received from water and sewer capital recovery fees imposed hereunder shall be deposited and held, together with any interest thereon, with separate accounting, and shall be expended only for the purpose of extending, expanding, upgrading, or constructing new additions to the water and sewer system, subject always to any lien upon and the pledge of the net revenues of the water and wastewater system for revenue bond funding for any of the aforementioned facilities cost.

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- (b) In the event that bonds or similar debt instruments are issued for advanced provisions of capital facilities for which water and sewer capital recovery fees may be expended, capital recovery fees may be used to pay debt service on such bonds or similar debt instruments.
 - (c) The water and the wastewater capital recovery fees imposed hereunder, and any interest earned thereon, shall not be used for general operating expenses of the respective systems.

(Ord. No. 92-40, § 2, 9-21-92)

Sec. 15-186. Existing dwelling units; installment payments for connection to water and sewer system.

- (a) With respect to existing dwelling units with water and sewerage available, a water and wastewater connection fee and capital recovery fees, shall be paid in full upon the date application for connection is made, or at the option of the applicant, payment may be made in payments not to exceed ten (10) years. The prevailing interest rate shall be included in the payments.
 - (1) Such payments shall constitute mortgage liens on the property until paid and any payment not paid within fifteen (15) days of its billing date shall, at the option of the city, cause the entire unpaid balance to be immediately due and payable. Furthermore, water and sewer services may be suspended until payments of the unpaid balance is paid by the applicant.
 - (2) In the event the ownership of the dwelling unit has changed, the balance shall be paid by the new owner in order to be eligible for water and sewer service.

(Ord. No. 92-40, § 2, 9-21-92; Ord. No. 23-09, § 1, 1-9-23)

Sec. 15-187. Penalty provision.

A violation of this division, including any changes in size or use of a structure or facility which results in change to a higher classification and fee without appropriate permits and payment of fees, shall be prosecuted in the same manner as misdemeanors are prosecuted and upon conviction the violator shall be punished according to the general penalty provisions of this Code. Furthermore, water and sewer service may be discontinued.

(Ord. No. 92-40, § 2, 9-21-92)

Chapter 20 LAND DEVELOPMENT REGULATIONS⁷

⁷Editor's note(s)—Ord. No. 05-31, § 2, adopted June 20, 2005, repealed former Ch. 20 of the Code in its entirety; § 1 of said ordinance added new provisions as Ch. 20 as herein set out. Former Ch. 20, §§ 20-1—20-4, 20-11—20-16, 20-21—20-23, 20-26, 20-27, 20-31—20-33, App. A, pertained to subdivision regulations and derived from Ord. No. 90-30, adopted Aug. 20, 1990; Ord. No. 91-35, § 1a.—c., adopted Sept. 3, 1991; Ord. No. 93-27, § 4, adopted Sept. 20, 1993; Ord. No. 93-32, §§ 1, 2, adopted Sept. 20, 1993; Ord. No. 93-37, § 1, adopted Oct. 4, 1993; Ord. No. 95-6, § 1, adopted Feb. 20, 1995; Ord. No. 95-11, §§ 1—8, adopted March 20, 1995; Ord. No. 96-38, § 1, adopted Sept. 16, 1996; Ord. No. 99-12, § 1, adopted May 17, 1999; and Ord. No. 02-01, § 1, adopted Jan. 7, 2002.

Cross reference(s)—Planning, Ch. 18; zoning, Ch. 23.

ARTICLE I. IN GENERAL

Sec. 20-1. Purpose.

The public health, safety, economy, good order, appearance, convenience, morals, and general welfare require the harmonious, orderly, and progressive development of land within the City of North Myrtle Beach. In furtherance of this general intent, the regulation of land development in the City of North Myrtle Beach is authorized for the following purposes, among others:

- (1) To encourage the development of an economically sound and stable community; and
- (2) To assure the timely provision of required streets, utilities, and other facilities and services to new land developments; and
- (3) To assure the adequate provision of safe and convenient traffic access and circulation, both vehicular and pedestrian, in and through new land developments; and
- (4) To assure the provision of needed public open spaces and building sites in new land developments through the dedication or reservation of land for recreational, educational, transportation, and other public purposes; and
- (5) To assure, in general the wise and timely development of new areas, and redevelopment of previously developed areas in harmony with the comprehensive plans of the City of North Myrtle Beach; and
- (6) To assure safe, functional, and attractive developments in compliance with City Code.

(Ord. No. 05-31, § 1, 6-20-05)

Sec. 20-2. Intent.

It is the intent of the land development regulations to comply with Title 6, Chapter 29, Article 7 of the South Carolina Local Government Comprehensive Planning Enabling Act of 1994 and Article 11 "Vested Rights Act" of 2004.

(Ord. No. 05-31, § 1, 6-20-05)

Sec. 20-3. Separability.

Should any section or provision of this chapter be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of this chapter as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

(Ord. No. 05-31, § 1, 6-20-05)

Sec. 20-4. Definitions.

[The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

Commercial center (commercial park): Two (2) or more retail stores, service establishments, professional offices or any other businesses serving a community or neighborhood, not necessarily owned by one (1) party nor by a single land ownership, which occupy a common and/or adjacent building(s) on premises and also utilize common parking area(s).

Industrial parks: A planned, coordinated development of a tract of land for industrial uses. Generally the park is subdivided into two (2) or more parcels of land for individual industrial buildings and uses. The park is coordinated in design of buildings, vehicular traffic, parking, and utilities.

Land development: The changing of land characteristics through redevelopment, construction, subdivision into parcels, multifamily (condominium and apartment) complexes, commercial parks, commercial centers, industrial parks, mobile home parks, and similar developments for sale, lease, or any combination of owner and rental characteristics.

Land development plan: A complete site-specific development plan or phased development plan and application providing all information required by this chapter.

Mobile home parks: A parcel of land under single ownership, with required improvements and utilities for the long-term parking and occupancy of mobile/manufactured homes where mobile/manufactured home sites are available for rent or lease and which may include services and common facilities for the residents.

Phased development plan: A development plan submitted to the City of North Myrtle Beach Planning and Development Department that shows the types and density or intensity of uses for a specific property or properties at least ten (10) acres or more in size to be developed in phases, but as a whole do not satisfy the requirements for a site-specific development. The first phase of the plan shall contain at least five (5) acres or twenty-five (25) percent of the total land area and shall include all of the requirements of the site-specific development plan as prescribed in this chapter.

Preliminary subdivision plat: The preliminary drawing or drawings described in the subdivision regulations component of this chapter indicating the proposed manner or layout of the subdivision, to be submitted to the planning commission for approval.

Site-specific development plan: A development plan submitted to the City of North Myrtle Beach Planning and Development Department by a landowner for a specific property or properties that include those documents that comprise a complete application for approval of a site-specific development plan, including all required components of a site-specific development plan (section 20-7).

Vested right: The right to undertake and complete the development of property under the terms and conditions of a site-specific development plan or a phased development plan as provided in this chapter.

(Ord. No. 05-31, § 1, 6-20-05)

Sec. 20-5. Vested rights.

A vested right to develop property is established when a complete application for site-specific development plan review has been submitted, the site-specific development plans are approved for construction and all applicable fees are paid. A preliminary subdivision plat that has been approved for construction by the planning commission shall have the same vested right as site-specific development plan approval.

The vested right shall be observed for two (2) years from the date of approval (stamped on the plan or plat) of the site-specific plan or preliminary plat. After the two-year period, extensions are prohibited except for those qualifying projects defined in this section where the foundation work has been completed and passed inspection for at least one (1) principal building. For those projects, a one-year extension can be applied for through the city planner's office. No more than two (2) one-year extensions may be granted for qualifying projects. An application for extension of the vested right shall be submitted to the city planner's office no later than thirty (30) days prior to

the vested right period expiring. Failure to submit an application for extension within the required time shall disqualify an extension from being considered or approved. Qualifying projects are defined as follows:

- (1) Phased development projects of ten (10) acres or more when a phased development plan includes an overall master plan showing areas of footprints, parking, landscaping, use of structures, number of units by bedroom types for residential uses, square footage of commercial buildings, construction schedule for the master plan including all phases, minimum engineering for storm water retention and utility connections has been approved. Phase I shall be at least five (5) acres or twenty-five (25) percent of the total acreage of the total project. Phase I shall include all of the requirements of the site-specific development plan as prescribed in this chapter.
- (2) Projects (residential or commercial) with four (4) or more principal buildings on property greater than two (2) acres when land development review has occurred and been approved for the entire project.

Minor amendments during the vested period may be approved if all applicable city departments involved in the site-specific review and approval have reviewed the amendment and have found that the amendment meets city code. Minor amendments are considered those that do not increase the intensity (density, additional buildings, larger units, changes of use, additional parking areas, etc.) of the site. Minor amendments include but are not limited to such changes as redesign of parking areas, minor shifts in building footprint, changes to plant material in landscape areas, additional sidewalks, fences and changes to amenity areas.

(Ord. No. 05-31, § 1, 6-20-05)

ARTICLE II. SITE-SPECIFIC DEVELOPMENT PLAN REVIEW⁸

Sec. 20-6. Process.

- (a) The application must be signed by the current owner(s) of all of the property petitioned for development. (Incomplete application and plans shall not be approved). On the application, an individual or contact is identified as the applicant. The applicant, on behalf of the owner, assumes the role of authorized agent during plan review. The planning staff shall provide the applicant with the latest departmental policy statement detailing submission requirements (formats, sizes, and quantities of materials required). Incomplete submissions shall not be processed or reviewed.
- (b) Planning staff will coordinate the review of the land development plans with the various city departments charged with review of the site. Representatives of the departments involved may utilize a technical review committee (TRC) to facilitate this process.
- (c) Planning staff will assemble all the review comments and give written notification to the applicant in the form of a letter detailing the departmental comments.
- (d) The applicant shall revise the plans answering all of the departmental comments, and may need to contact individuals in various departments for clarification. However, the revised submittal must be provided to the planning department.
- (e) When the application and plans are complete and revised as required, the planning department may place the item on the technical review committee (TRC) agenda. Planning staff shall provide the revised site-specific development plans to the reviewing city departments prior to the TRC meeting, where final sign off

⁸Editor's note(s)—Ord. No. 09-28, § 1, adopted Sept. 21, 2009, amended Art. II in its entirety to read as herein set out. Former Art. II, §§ 20-6—20-8, pertained to similar subject matter. See the Code Comparative Table for complete derivation.

by all departments may take place. If all concerns have been addressed at that point, the plans shall be deemed approved.

(Ord. No. 09-28, § 1, 9-21-09)

Sec. 20-7. Site-specific development plan requirements.

Plans must meet requirements of all applicable codes regulating land development in the City of North Myrtle Beach. Plan elements and information may include but may not be limited to the following:

- (1) A dimensioned site plan (Re: Subsection 20-6(a)) showing all proposed improvements to the site including:
 - a. Structures.
 - b. List land use(s) for the building or all buildings shown on the site plan.
 - c. Parking spaces, handicap spaces and access ramps including an accessible route from a parking lot to a building, wheelstops and curbing.
 - d. Total impervious surface area.
 - e. Dumpster or compactor location(s) and screening.
 - f. Proposed fences or walls.
 - g. Roadway and driveway/aisle widths.
 - h. Curb radius.
 - i. Perimeter and interior landscaped areas.
 - j. Lighting plan.
 - k. Public access ways for all modes of transportation (motorized vehicle, bicycle, pedestrian, and transit) adjacent to and through the development site. [See subsection 20-7(8), access, connectivity, and congestion management].
 - l. Dune cross-overs, if applicable.
 - m. Notations indicating total land area, total heated space in the building(s), number of residential units and bedroom counts, restaurant seats, number of required parking spaces and the number of parking spaces provided, the number of handicap and compact parking spaces.
 - n. Flood zone information including the flood zone line if the property is not located in a single zone.
- (2) A current survey of the property signed and sealed by a licensed surveyor. All wetland areas shall be designated on the survey. If the site contains more than one (1) lot, a recombination plat shall be recorded prior to site plan approval.

Note 1: If proposed new construction is within the CPO (Coastal Protection Overlay) zone, the survey and proposed site plan shall indicate the OCRM (Ocean and Coastal Resource Management) base line and building control line. These documents must be stamped approved by the OCRM or a letter stating approval prior to submittal to the City of North Myrtle Beach for site plan review.
- (3) Landscape plan, when required, showing:
 - a. Perimeter landscape areas and plantings.

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- b. Interior landscape areas within parking lot, total square footage of landscape areas and percentage ratio of landscape area to pavement area.
 - c. Irrigation system (if proposed).
 - d. Proposed planting plan showing location and type of proposed trees and shrubs per landscape requirements.
 - e. Tree survey showing all trees existing on the property over eight (8) caliper inches and a replacement schedule for all trees measuring ten (10) caliper inches and larger to be removed.
 - f. For all existing trees to be saved the plan shall show the tree protection zone.
 - g. Existing landscaping clearance.

Note 2: On smaller projects when applicable, rather than preparing a separate document, the landscape plan information may be included on the site plan.

(4) Drainage plan including:

- a. Proposed new contours and/or ground elevations.
- b. Direction of surface flow.
- c. Subsurface piping and structures, including discharge locations.
- d. Stormwater runoff and retention calculations, meeting public works design standards.

Note 3: Commercial developments and residential developments with four (4) or more units must have a drainage plan and calculations signed and sealed by a state licensed engineer.

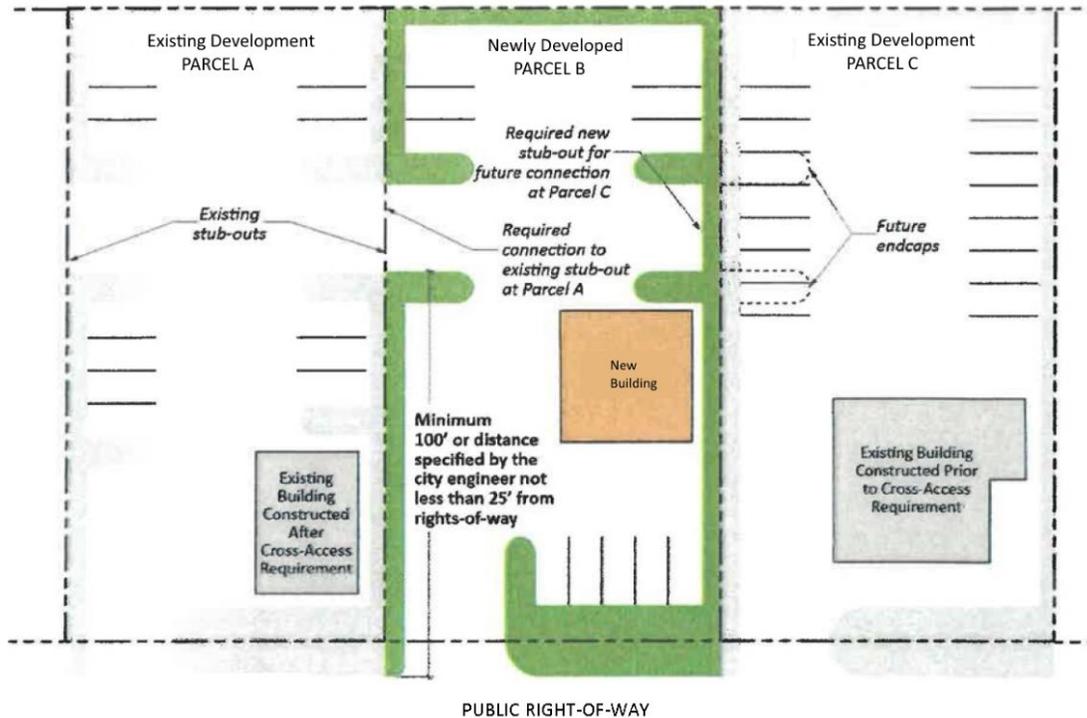
(5) Utilities (water and sewer) and fire plan including:

- a. Location of water and sewer connections for each structure including domestic supply lines, fire lines, and irrigation lines, if applicable.
- b. Proposed on-site utilities and/or possible extensions.
- c. Proposed water line layout.
- d. Proposed sewer line layout.
- e. Location of proposed and existing fire hydrants. Fire hydrants located within one thousand (1,000) feet of a site shall be listed along with their distances to an indicated reference point.
- f. Proposed location of building fire department connections, if applicable (reference the International Fire Code).
- g. Fire protection systems, underground valve pipes, supply piping, and the riser locations in the structure.
- h. Square footage of structures, including square footage of ground floors, each additional typical floor, and square footage of nontypical floors (these can be on a separate plan).
- i. Building elevations and views, when required.
- j. Copies of all applicable permits required (DOT, DHEC, OCRM, etc.).
- k. Locations of grease traps, if applicable.
- l. Location of backflow prevention devices, if applicable.
- m. Existing water and sewer lines.

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- n. Available capacity of water and sewer system along with any needed improvements to the existing system.
 - o. Detail sheets and specs of materials to be used for water/sewer work.
 - p. All easements designed to serve the property, both on and off-site.
 - q. copies of signed easement agreements for those located off-site.
- (6) A nuisance abatement plan detailing the following:
- a. Staging plan for materials and concrete trucks.
 - b. Laydown and storage area for construction material.
 - c. Location of construction trailer(s).
 - d. Radius of the swing area for the construction crane.
 - e. Parking area for employees.
 - f. Security fencing.
 - g. Protective coverings for nearby pedestrian sidewalks and beach access.
 - h. Public areas that have been approved by city council for closure.
 - i. Litter control plan.
 - j. Contact person for plan enforcement (daytime and nighttime telephone numbers).
- (7) Demolition plan (when necessary) [including:]
- a. Existing conditions.
 - b. Buildings to be removed along with the use of the building(s), number of units and/or bedrooms should be identified.
 - c. Existing pools.
 - d. Existing irrigation systems present before redevelopment.
- (8) Access, connectivity, and congestion management plan. An access plan addressing the relationship of the development site to adjacent properties and public rights-of-way, including the following:
- a. *Cross access.* All nonresidential site development shall be designed to allow for vehicular cross access to adjacent nonresidential properties. These cross access points must be a minimum of one hundred (100) feet from "curb cut" access to public rights-of-way or at a distance specified by the city engineer not less than twenty-five (25) feet from the rights-of-way. (See figure 1, cross access) If adjacent nonresidential property is undeveloped, at least one (1) "stub out" ending at the property line shall be provided for future connectivity, per adjacent property. If any adjacent nonresidential property is developed, and the owner of the adjacent site chooses not to connect, a "stub out" shall still be required for the proposed development site for future redevelopment purposes, unless waived by the director of planning and development. Where there are existing stub outs on adjoining properties, the site under review shall complete the connection. The cross access must be designed to the same standards as internal circulation within the parking and circulation area.
 - i. If providing cross access to adjacent properties results in an unavoidable reduction in required parking, the zoning administrator may waive the parking required, up to three (3) stalls for each cross access approved. See [sub]section 23-43(4) "Off-street parking requirements" of the city zoning ordinance.

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- ii. If cross access is deemed impractical due to topography, natural features (including trees), or safety factors; the director of planning and development may waive the cross access requirement in whole or in part.
- b. *Vehicular access to and from public right-of-way corridors/streets.* All development sites shall be designed to help mitigate potential negative impacts to traffic flow on adjacent streets by addressing the following:
- i. Minimize proposed curb cuts/vehicular access points to/from public rights-of-way.
 - ii. In the case of two (2) or more adjacent parcels being developed at the same time, by the same applicant, sites must share an access point to the roadway at the property line dividing the sites. The city engineer may waive this requirement where practical difficulties and/or safety concerns would reasonably preclude such driveway location.
 - iii. On non-corner sites with more than one (1) frontage adjacent to public rights-of-way, access must be provided to all existing or planned streets, alleys, sidewalks and recreational trails, with the following two (2) possible exceptions:
 - The city engineer determines that any such access will constitute a safety hazard.
 - The development across any given adjoining street is predominantly residential in character, with homes fronting on said street. Negative traffic impacts to the safety, convenience, and quality of life of those residents shall be weighed before making the decision to require access on that street.
 - iv. Corner lots having less than one hundred fifty (150) feet of frontage on the more heavily traveled of the two (2) adjacent streets shall generally provide all vehicular access for the site from the secondary or side street. Exceptions to this may be approved by the city engineer, at his/her sole discretion, in cases where secondary access is problematic, and/or if the site has frontage on a South Carolina Department of Transportation (SCDOT) owned road, and SCDOT approves access from the road. The city engineer may require any design modifications to such accesses as deemed necessary to maximize safety and efficient traffic movement.
 - v. In cases where adjacent street rights-of-way are maintained by SCDOT, the applicant must provide evidence of SCDOT approval of any access points and/or right-of-way improvements of any kind. However, it should be noted that city site plan requirements regarding access may be more restrictive than SCDOT requirements.
- c. *Walkway and pedestrian access.* All development proposals shall include walkable design for the development site and adjacent rights-of-way, by addressing the following:
- i. Pedestrian walkways shall form an on-site circulation system that minimizes conflict between pedestrians and vehicular traffic. On-site pedestrian walkways shall connect the public sidewalk to building entrances, and if applicable, between buildings.
 - ii. Where pedestrian walkways cross primary automobile circulation aisles, traffic calming techniques favoring pedestrian safety, such as speed tables and elevated crossings, shall generally be required.
 - iii. Pedestrian cross access to adjacent properties shall generally be required, even if vehicular cross access is not provided.

- iv. Where public sidewalks exist along the street frontage of adjoining properties, such sidewalks shall be extended across the full length of the street rights-of-way abutting the proposed development site.
- d. All residential development proposals shall be subject to external access requirements detailed in section 20-40. Complete streets (c.1), including the ability to request a planning commission waiver to the required number of accesses using the criteria as listed in section 20-40(c.1)(4).



(Ord. No. 09-28, § 1, 9-21-09; Ord. No. 14-10, § 1, 4-21-14; Ord. No. 14-37, § 1, 11-17-14; Ord. No. 17-05, § 1, 5-1-17; Ord. No. 19-26, § 1, 4-15-19; Ord. No. 20-26, § 1, 10-5-20)

Sec. 20-8. Appeals.

The planning commission of the City of North Myrtle Beach shall act as an appeal board for disputes regarding land development plan review and approval not to override requirements of code or requirements of departments when specifically authorized by code.

(Ord. No. 09-28, § 1, 9-21-09)

Secs. 20-9, 20-10. Reserved.

ARTICLE III. SUBDIVISION REGULATIONS⁹

DIVISION 1. GENERALLY

Sec. 20-11. Authority and enactment.

Pursuant to the authority granted by S.C. Code of Laws 1976, ch. 29, tit. 6 , as amended, and supplemented by all applicable laws, the City Council of the City of North Myrtle Beach, South Carolina, does hereby ordain and enact into law the following regulations to be incorporated as the subdivision component of the land development regulations.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-12. Purpose.

The public health, safety, economy, good order, appearance, convenience, morals, and general welfare require the harmonious, orderly and progressive development of land within the City of North Myrtle Beach, South Carolina. In furtherance of this general intent, the regulation of land subdivision is enacted for the following purposes, among others:

- (1) To encourage the development of an economically sound and stable city;
- (2) To assure the timely provision of required streets, utilities, and other facilities and services to new land developments;
- (3) To assure the adequate provision of safe and convenient traffic access and circulation, both vehicular and pedestrian, in and through new land developments;
- (4) To assure the provision of needed public open spaces and building sites in new land developments through the dedication or reservation of land for recreational, educational, transportation and other public purposes; and
- (5) To assure, in general, the wise and timely development of new areas, and redevelopment of previously developed areas in harmony with the comprehensive plan.

(Ord. No. 09-28, § 2, 9-21-09)

⁹Editor's note(s)—Ord. No. 09-28, § 2, adopted Sept. 21, 2009, amended Art. III in its entirety to read as herein set out. Former Art. III, §§ 20-11—20-44, pertained to similar subject matter. See the Code Comparative Table for complete derivation.

Cross reference(s)—Developer's responsibility to extend city water system, § 15-80; extending city sewer system, § 15-170; planning commission, § 18-1 et seq.; zoning, Ch. 23.

Sec. 20-13. Jurisdiction.

These regulations shall govern the subdivision of land within the City of North Myrtle Beach, South Carolina.
(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-14. Definitions.

Except as specially defined herein, all words used in this article have their customary dictionary definitions. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense, and words in the plural number include the singular.

Administrative official: The officer designated to administer these regulations and to assist administratively other boards and commissions.

Alley: A public or private right-of-way primarily designed to serve as secondary access to the side or rear of those properties whose principal frontage is on some other street.

Applicant: The owner of land proposed to be subdivided or his/her representative.

Block: A tract of land bounded by streets, or by a combination of streets and public land, cemeteries, railroad rights-of-way, shorelines of waterways, or any other barrier to the continuity of development.

Bond: Any form of security including a cash deposit, surety bond, collateral, property, or instrument of credit in an amount and form satisfactory to the city.

Building: Any structure built for the support, shelter or enclosure of persons, animals, chattels or movable property of any kind and includes any structure.

City engineer: The designated engineer of the City of North Myrtle Beach.

Construction plan: The maps or drawings accompanying a subdivision plat or plan and showing specific location and design of improvements to be installed in the subdivision.

Double-frontage lot: A lot having frontage and access on two (2) or more streets. A corner lot shall not be considered having double frontage unless it has frontage and access on three (3) or more streets.

Driveway: All private drives typically used to provide vehicular access to one (1) residential lot, except where South Carolina Department of Transportation (SCDOT) standards require the creation of a shared driveway.

Easement: Authorization by a property owner for the use by another, and for a specified purpose, of any designated part of his/her property.

Final plat or plan: The map or plan of record of a subdivision and any accompanying material, as described in these regulations.

Frontage: That side of a lot abutting on a street or way and ordinarily regarded as the front of the lot, but it shall not be considered as the ordinary side of a corner lot.

Lot: A tract, plot or portion of a subdivision or other parcel of land intended as a unit for the purpose, whether immediate or future, or transfer of ownership or for building development.

Lot, corner: A lot situated at the intersection of two (2) streets (the interior angle of such intersection not exceeding one hundred thirty-five (135) degrees).

Lot width: The distance between the side lot lines, measured at the required front building setback line.

Major subdivision: All subdivisions not classified as minor subdivisions, and those requiring any new street improvement or extension of utilities.

Minor subdivision: Any subdivision not containing more than three (3) lots fronting on an existing street, and not involving any new street, the extension of public utilities, the need for zoning variances as a precondition for lot creation, and not adversely affecting the remainder of the parcel or adjoining property.

Owner: Any person, group of persons, firm or firms, corporation or corporations, or any other legal entity having legal title to or sufficient proprietary interest in the land sought to be subdivided under these regulations.

Preliminary plat or plan: The preliminary drawing or drawings described in these regulations indicating the proposed manner or layout of the subdivision, to be submitted to the planning commission for approval.

Registered engineer: An engineer properly licensed and registered in the state.

Registered land surveyor: A land surveyor properly licensed and registered in the state.

- (1) *Tier B Land Surveyor:* Persons registered as land surveyors who have passed the written examination as prescribed by the South Carolina State Board of Professional Engineers and Land Surveyors. Additional duties allowed by state law.

Right-of-way: A strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or stormsewer main, shade trees, or for another special use. The usage of the term "right-of-way" for land platting purposes shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels. Rights-of-way intended for streets, crosswalks, water mains, sanitary sewers, storm drains, shade trees, or any other use involving maintenance by a public agency shall be dedicated to public use by the maker of the plat on which such right-of-way is established.

Sale or lease: Any immediate or future transfer of ownership, or any possessory interest in land, including contract of sale, lease, devise, intestate succession or transfer, of an interest in a subdivision or part thereof, whether by metes and bounds, deed, contract, plat, map, lease, devise, intestate succession or other written instrument.

Setback, building: The distance between a building and the street right-of-way nearest thereto, which is equal to the depth of the front yard required for the zoning district in which the lot is located.

Street: A vehicular way designed to provide principal means of access to abutting property or serving as a roadway for vehicular travel, or both, but excluding alleys and including the following functional classifications:

- (1) *Local street:* A street used primarily for providing direct access to abutting property.
- (2) *Collector street:* A street designed to carry medium volumes of vehicular traffic, provide access to the major street system and collect the traffic from the intersecting local streets. Typically, collector streets will fall into the "avenue" design category according to the city's street planning manual.
- (3) *Marginal access:* A minor (service) street which parallels, and is adjacent to, a major street providing access to abutting property and may vary in design from the "alley" design to "local street" according to the city's street planning manual.
- (4) *Arterial street:* A street designated primarily for the movement of large volumes of traffic from one (1) area to another. Such streets are usually numbered state or federal highways and will usually fall into the "boulevard" or "parkway" design cross-section according to the city's street planning manual.

Street, private: A street shown on and indicated as a private street on a plat approved by the planning commission.

Street, public: A street bearing the legal status of a public street.

Subdivider: Any person who:

- (1) Having an interest in land, causes it, directly or indirectly, to be divided into a subdivision; or
- (2) Directly or indirectly sells, leases or develops, or offers to sell, lease or develop, or advertises for sale, lease or development any interest, lot, parcel site, unit or plat in a subdivision; or
- (3) Engages directly or through an agent in the business of selling, leasing, developing, or offering for sale, lease or development a subdivision or any interest, lot, parcel site or plat in a subdivision; and
- (4) Is directly or indirectly controlled by or under direct or indirect common control with any of the foregoing.

Subdivision: All divisions of a tract or parcel of land into two (2) or more lots, building sites or other divisions for the purpose, whether immediate or future, of sale, lease or building development, and includes all division of land involving a new street or a change in existing streets, and includes resubdivision which would involve the further division or relocation of lot lines of any lot or lots within or subdivision previously made and approved or recorded according to law, or, the alteration of any streets or the establishments of any new streets within any subdivision previously made and approved or recorded according to law, and includes combinations of lots or record, however, the following exceptions are included within this definition only for the purpose of requiring that the planning agency be informed and have record of such subdivision:

- (1) The combination or recombination of portions of previously platted lots where the total number of lots is not increased and the resultant lots are equal to the standards of the governing authority;
- (2) The division of land into parcels of five (5) acres or more where no new street is involved and plats of these exceptions must be received as information by the planning agency which shall indicate that fact on the plats; and
- (3) The combination or recombination of entire lots of record where no new street or change in existing streets is involved.

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 14-37, § 2, 11-17-14; Ord. No. 15-34, § 1, 10-19-15; Ord. No. 15-38, § 1, 12-14-15; Ord. No. 20-33, § 1, 11-2-20; Ord. No. 21-02, § 2, 3-1-21)

Secs. 20-15—20-19. Reserved.

DIVISION 2. ADMINISTRATION

Sec. 20-20. Application of regulations.

From and after the adoption of these regulations and notification of the office and Horry County official responsible for recording plats and deeds in the county:

- (1) No subdivision plat shall be filed with or recorded by any Horry County official responsible for accepting and recording plats and deeds until such plat has been given final plat approval according to the procedures set forth in these regulations and until such final plat has been stamped and certified approved for recording by the planning commission's administrative official.
- (2) No building permit or certificate of occupancy shall be issued for any lot, parcel, plat of land or building site which was created by subdivision after the effective date of, and not in conformance with, the provisions of these regulations.

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- (3) No street right-of-way shall be accepted as a public street and no public or private street right-of-way shall be opened or maintained in any subdivision established hereafter which does not meet the requirements of these regulations.
 - (4) No building permit and no occupancy permit shall be issued for, and no building or structure shall be erected on any lot unless (a) the street giving access to the lot shall have been accepted as or otherwise received the status of a public street; or unless (b) such street corresponds in its location and lines with a street shown on a recorded final plat approved by the planning commission. Permanent erosion control structures such as bulkheads are exempt from this subsection.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-21. Violation and penalty.

- (a) The owner or agent of the owner of any land to be subdivided within the city who transfers or sells or agrees to sell or negotiates to sell such land by reference to or exhibition of or by other use of a plat of subdivision of such land, before such plat has been approved by the planning commission and recorded at the Horry County Register of Deeds, shall be guilty of a misdemeanor. The description of metes and bounds in the instrument of transfer or other document used in the process of selling or transfer shall not exempt the transaction from these penalties. The city may enjoin such transfer or sale or agreement by appropriate action.
- (b) The Horry County Register of Deeds is prohibited by the Code of Laws of South Carolina from accepting, filing or recording any subdivision plat of land situated within an area covered by subdivision regulations without prior approval of the plat by the planning commission.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-22. Conflict with other laws.

Whenever the provisions of these regulations impose more restrictive standards than are required in or under any other ordinance, the regulations herein contained shall prevail. Whenever the provisions of any other ordinance require more restrictive standards than are required herein, the requirements of such regulations shall prevail.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-23. Separability clause.

If any section, clause or portion of these regulations shall be held by a court of competent jurisdiction to be invalid or unconstitutional, such findings shall not affect any other section, clause or portion of these regulations.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-24. Effective date.

These regulations shall take effect and be enforced from and after their adoption, the public welfare demanding it; provided, however, these regulations shall not apply to any subdivision or part thereof which has been approved for construction by the planning commission prior to the adoption of these regulations, except that the final plat shall be approved by the planning commission and shall be in substantial conformance with the approved preliminary plat.

(Supp. No. 97)

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(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-25. Amendments.

These regulations may be amended by the city council after public hearing and recommendation from the planning commission. At least thirty (30) days' notice of the time and place of the public hearing shall be published in a newspaper of general circulation in the city.

(Ord. No. 09-28, § 2, 9-21-09)

Secs. 20-26—20-29. Reserved.

DIVISION 3. PROCEDURES FOR PLAT APPROVAL

Sec. 20-30. General procedures.

Whenever any subdivision of land is proposed, before any contract is made for the sale of any part thereof and before any permit for the erection of a structure in such proposed subdivision shall be granted, the subdivider or his/her authorized agent shall apply for and secure approval of such proposed subdivision in accordance with the following procedures:

- (1) *Preapplication conference (when required)*: Prior to the application for subdivision review and approval, the applicant should discuss with the administrative official of the planning commission the procedure for approval of a subdivision plat and the requirements as to general layout of streets and for reservations of land, street improvements, drainage, utilities and similar matters. The administrative official shall also advise the applicant to discuss the proposed subdivision with those officials who must eventually approve aspects of the subdivision plat.
- (2) *Major subdivision*: The procedure for review and approval of a major subdivision plat consist of two (2) separate steps. The initial step is the preparation and submission to the planning commission of a preliminary plat of the proposed subdivision. The second step is the preparation and submission to the planning commission of a final plat, together with certifications. The final plat becomes the instrument to be recorded at the Horry County Register of Deeds, when duly signed and certified approved for recording by the administrative official of the planning commission.

Minor subdivision: The procedure for review and approval of a minor subdivision consists of a one-step approval process involving the preparation and submission of a final plat, together with certifications, to the planning staff. If the submittal meets the definition of a "minor subdivision", as stated in section 20-14 of this article, planning staff shall provide the subdivision plans to the reviewing city departments prior to the technical review committee meeting. After all concerns have been addressed and all departments involved have approved, the minor subdivision shall be deemed approved. The final plat of a minor subdivision becomes the instrument to be recorded at the Horry County Register of Deeds, when duly signed and certified approved for recording by the administrative official of the planning staff.

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 21-02, § 2, 3-1-21)

Sec. 20-31. Plat submission for major subdivision preliminary review.

- (a) *Procedure.*

(Supp. No. 97)

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- (1) Applications requiring planning commission approval, together with all requirements specified in this section, shall be submitted to, stamped received, dated and initialed by the administrative official. All required information shall be submitted to the administrative official at least fifteen (15) working days prior to a regularly scheduled meeting of the planning commission. Resubmission of plat and other information made pursuant to staff review of a plat shall be received at least ten (10) working days prior to a regularly scheduled planning commission meeting.
 - (2) Upon receipt of a complete application for any subdivision, the administrative official shall submit copies of the plans to the various city departments tasked with review, including the zoning administrator and the city engineer for review and approval. The zoning administrator and the city engineer shall submit written reports to the planning commission indicating code compliance or required changes. The administrative official shall include requirements of the zoning administrator and the city engineer, together with other requirements and/or recommended changes, in a report to the planning commission within thirty (30) days of receipt of the completed application.
 - (3) Upon receipt of the report from the administrative official for major subdivision requests, the planning commission shall give approval, approval with certain modifications, or disapproval of the preliminary plat, but in each case their action shall be taken within thirty (30) days after submission of the preliminary plat; otherwise, such plat shall be deemed approved and authorization to proceed based on the plat presented; however, that the applicant for the planning commission's approval may waive this requirement and consent in writing to an extension of such period. The grounds for approval or disapproval, and any conditions attached, of any preliminary plat shall be stated in the records of the planning commission. In addition, the applicant must be notified in writing of the actions taken by the planning commission. No plat shall be acted upon by the planning commission without affording the subdivider a hearing, notice of time and place of which shall be sent by registered or certified mail to the applicant not less than five (5) days before the scheduled date. It is expressly understood that the planning commission shall not act to override the authorized requirements of other agencies or city departments. It may, however, seek to bring agreement in case of conflicts between the various reviewing agencies, or a reviewing agency and the subdivider.
 - (4) The planning commission approval of the preliminary plat constitutes authority to the subdivider to construct site improvements in accordance with the approved preliminary plat. Preliminary plat approval shall be valid only for two (2) years. In the event site improvements are not completed within two (2) years after preliminary plat approval, the plat must be resubmitted as a new application subject to the subdivision regulations as amended to that date.
- (b) *Requirements.* The subdivider or their representative shall submit information in the format, quantities and sizes as described in the latest departmental policy statement on plat submissions, with said information to include all of the following:
- (1) *Name.*
 - a. Name of subdivision if property is within an existing subdivision.
 - b. Proposed subdivision name if not within a previously platted subdivision. The proposed name shall not duplicate the name of any plat previously recorded.
 - (2) *Ownership.*
 - a. Name and address, including telephone number, of legal owner or agent of the property involved in the subdivision.
 - b. Name and address, including telephone number, of the professional person(s) responsible for this subdivision's design, or for the design of any public improvements, and for the surveys.
 - (3) *Location.*

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- a. A vicinity map at scale of not less than one (1) inch equals one (1) mile, showing the relationship of the proposed subdivision to surrounding existing development and the existing street system.
- (4) *Existing conditions.*
- a. Graphic scale, north point and date. The north point shall be identified as magnetic, true or grid north.
 - b. Exact boundaries of the total tract of land being subdivided, shown with bearings and distances indicated and with a degree of accuracy such that the error of closure shall comply with the standards set forth by the South Carolina Board of Engineering Examiners.
 - c. Property lines within and adjoining the subdivision.
 - d. Names of adjoining subdivisions.
 - e. Deed record names of adjoining property owners.
 - f. The location of existing streets, buildings, railroads, transmission lines, sewers, culverts, drainpipes, water mains, public utility easements and other recorded easements and rights-of-way, both on and adjacent to the tract being subdivided.
 - g. The location of marshes, wetlands, streams, lakes, swamps, and land subject to flood, based on a one hundred-year frequency flood.
 - h. All land elevations expressed in mean sea level datum.
 - i. The boundaries of all protected wetlands as verified by the U.S. Army Corps of Engineers.
 - j. The critical line, base line and oceanfront setback line, as verified by the South Carolina Department of Health and Environmental Control—Office of Ocean and Coastal Resources Management.
 - k. The location of any established spoilage easements.
 - l. The location of city limit lines, if applicable.
 - m. Upon request, a topographic map at a vertical interval of not more than five (5) feet.
- (5) *Proposed conditions.*
- a. The location, width, classification and name of all public streets, alleys and other public ways, including the width of the paved surface and the right-of-way.
 - b. The location, width and name of all private streets, including the width of paved surface and the right-of-way.
 - c. The location and width of all utility and other types of easements.
 - d. The location of all lot and property lines with bearings and distances, lot and block numbers consecutively numbered, and building setback lines.
 - e. The location of site setbacks, if applicable.
 - f. The location of property lines with bearings and distances of all property to be dedicated to the public and conditions of such dedication.
 - g. The location of property lines with bearings and distances of all property to be owned in common and conditions of such ownership and use.

- h. The location of property lines with bearings and distances of all property reserved as common open space with type of open space, the conditions of use, and the square footage of each parcel identified.
 - i. The location of all property monuments.
 - j. Identification of the use of all lots.
 - k. Site data:
 1. Acreage in total tract;
 2. Square footage of smallest lot;
 3. Total number of lots;
 4. Linear feet of streets;
 5. Square footage of common open space, excluding land area to be occupied by structures;
 6. Square footage of common open space located within site setback area;
 7. Square footage or acreage of total land area proposed to be sold or transferred as private lots;
 8. Square footage or acreage of total land area proposed to be owned in common (open space, streets, etc.);
 9. Square footage or acreage of total land area to be dedicated to the public;
 10. Excluding 7, 8, and 9 above, square footage or acreage of total land area to be reserved, owned, sold or otherwise used by the subdivider;
 11. Tax map reference and existing zoning designation.
 - l. For resubdivision of previously platted property, a certified copy of the existing plat of record with the proposed resubdivision superimposed thereon.
- (6) *Construction plans.* See plan submission policy for a complete list of elements that comprise a complete set of construction plans.

**Plan Submission Policy
North Myrtle Beach**

| Case type | Submittal requirements (# of copies/sizes, scale, and contents) |
|--|---|
| Subdivisions | |
| Preliminary | Four (4) copies of a sketch plan and plat sheet(s) at a scale between 1:10 and 1:100 and four (4) copies of construction plans at a scale between 1:10 and 1:50 on 24"×36" paper. *See the reverse side for a complete list of elements that comprise a complete set of construction plans. **Also see the latest departmental policy statement for an overview of the preliminary platting process and the land development regulations for code requirements. |
| Final (major or minor) | Four (4) copies of plat sheets at the same scale as the preliminary plat, if applicable, on 24"×36" paper. *See the latest departmental policy statement for an overview of the final platting process and the land development regulations for code requirements. |
| Site-specific development plans | |

| | |
|---|--|
| Non-Residential/Multifamily Residential | Seven (7) copies of complete plans at a scale between 1:10 and 1:50 on 24"×36" paper. *See the latest departmental policy statement for an overview of the site-specific development plan process and the land development regulations for code requirements. |
| Planned development districts | |
| Newly proposed | Number of copies, sizes and scale are not specifically listed and are negotiable. *See the zoning ordinance, section 23-29, for a complete list of submission requirements. |
| PDD amendment (major or minor) | Ten (10) copies of application and amended plan sheets at a reasonable scale on appropriately sized paper based on the nature of amendment and staff consultation. *See the latest informational brochures for an overview of the major PDD amendment process. |
| As-built plans and close-out packages | |
| Subdivisions, private site developments, and PDDs | *See public works final inspection and acceptance list for requirements. |

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 12-27, § 1, 12-3-12; Ord. No. 14-37, § 3, 11-17-14)

Sec. 20-32. Plat submission for major subdivision final review.

(a) *Procedure.*

- (1) After completion of the physical development of all or any approved phase of area shown on an approved preliminary plat or after having guaranteed to the satisfaction of the city the installation of such improvements, the subdivider shall submit a completed application of the final plat to the director of planning and development, or their authorized representative. If the subdivider chooses to request final plat approval before all physical infrastructure improvements and development (as shown on the approved preliminary plans) is completed to the satisfaction of the city, agreement guaranteeing the improvements and a bond in the amount of one hundred twenty-five (125) percent of the estimated cost of the improvements remaining to be completed shall be submitted to the city. Upon determination that the final plat is in substantial compliance with the approved preliminary plat, or a bond of guarantee has been provided to assure compliance, the director of planning and development, or their authorized representatives shall distribute copies of the final plat for review by the zoning administrator and the city engineer. The director of planning and development, or their authorized representatives shall include reviews by the reviewing city departments, together with other requirements and/or recommended changes, in a report to the planning commission within thirty (30) days of receipt of the completed application.
- (2) Upon receipt of the report from the administrative official, the planning commission shall give approval, approval with certain modifications, or disapproval of the final plat, but in each case their action shall be taken within thirty (30) days after submission of the final plat; otherwise, such plat shall be deemed approved and the applicant must be issued a letter of approval and authorization to proceed based on the plat presented; however, that the applicant for the planning commission's approval, may waive this requirement and consent in writing to an extension of such period. The grounds for approval or disapproval, and any conditions attached, of any final plat shall be stated in the records of the planning commission. In addition, the applicant must be notified in writing of the actions taken by the planning commission. No plat shall be acted upon by the planning commission without affording the subdivider a hearing thereon, notice of time and place of which shall be sent by registered or certified mail to the applicant not less than five (5) days before the scheduled date.

It is expressly understood that the planning commission shall not act to override the authorized requirements of other agencies or city departments. It may, however, seek to bring agreement in case of conflicts between the various reviewing agencies, or a reviewing agency and the subdivider.

- (3) The planning commission approval of the final plat constitutes authority to the subdivider to record the plat with the Horry County Register of Deeds when duly signed and certified approved for recording by the administrative official of the planning commission. Approval is contingent upon the plat being recorded within sixty (60) days after the planning commission approval date.
- (b) *Requirements.* The final plat shall be prepared by a registered surveyor or civil engineer and shall conform substantially to the preliminary plat as approved. The final plat shall be drawn at the same scale as the preliminary plat and shall include the following information:
- (1) Name of owner of record.
 - (2) Name of subdivision, date, north point and graphic scale.
 - (3) Name and seal of registered surveyor or civil engineer.
 - (4) Name of municipality in which subdivision is located, and city limit lines if applicable.
 - (5) Exact boundaries of the tract of land being subdivided shown with bearings and distances.
 - (6) Lot lines with bearings and distances, and lot and block numbers.
 - (7) Exact boundaries with bearings and distances of all property to be owned in common, identified as common area.
 - (8) Streets, alleys, rights-of-way, street names, parks, school sites and other lands to be dedicated to the public.
 - (9) Private street rights-of-way, clearly shown on the plat as privately maintained streets and common area, and street names.
 - (10) Accurate description of the location of all monuments and markers.
 - (11) Existing railroads and watercourses.
 - (12) Utility easements and width for:
 - a. Water;
 - b. Gas;
 - c. Sanitary sewer;
 - d. Storm drainage;
 - e. Electrical lines.
 - (13) Final finished contours and the resultant areas subject to inundation by a one hundred-year flood.
 - (14) If applicable, the following information shall be referenced by title on the final plat with a statement that the referenced information has been recorded at the Horry County Register of Deeds as a component of the final plat. Approval of a final plat by the planning commission is conditioned upon the recordation of the following information, when required:
 - a. Declaration establishing restrictions for the preservation of common areas.
 - b. Declaration establishing an association of owners with responsibility for ownership and maintenance of common areas.

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- c. A disclosure statement signed by the owner/subdivider outlining the maintenance responsibilities for private streets and other common areas. Such statements shall include language obligating the owners and their agents to furnish each initial lot purchaser with a copy of the recorded disclosure statement prior to purchase.
 - d. For private streets, a maintenance agreement signed by the owner/subdivider and approved by the planning commission.
- (15) *Final certifications.* All certificates shall be submitted in the format as described in the latest departmental policy statement.

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 12-27, § 2, 12-3-12; Ord. No. 14-10, § 2, 4-21-14)

Secs. 20-33, 20-34. Reserved.

DIVISION 4. REQUIRED IMPROVEMENTS

Sec. 20-35. Permanent reference points.

- (a) *Monuments.* Within each block of a subdivision, at least two (2) monuments designed and designated as control corners shall be installed. The surveyor shall employ additional monuments if and when required. All monuments shall be constructed of concrete and shall be at least four (4) inches in diameter or square and not less than three (3) feet in length. Each monument shall have embedded in its top or attached by a suitable means a metal plate of noncorrosive materials and marked plainly with the surveyor's registration number, the month and year it was installed and the words "monument" or "control corner." A monument shall be set at least thirty (30) inches in the ground with at least six (6) inches exposed above finished grade unless this requirement is impractical.
- (b) *Property markers.* A steel or wrought iron pipe or the equivalent, not less than three-fourths ($\frac{3}{4}$) inch in diameter and at least thirty (30) inches in length, shall be set at all property corners, except those located by monuments.
- (c) *Degree of accuracy.* Monuments and property markers shall be measured and installed to an accuracy in accordance with accepted professional standards.
- (d) All monuments and markers shall be referenced to the current horizontal and vertical datum in the public works department.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-36. Required improvements.

Approval of the final plat shall be subject to the subdivider's having installed the improvements hereinafter designated or having guaranteed, to the satisfaction of the city, the installation of such improvements. See section 20-32, plat submission for major subdivision final review for details.

- (1) *Installation of required improvements.* The following improvements shall be satisfactorily installed in accordance with city standard specifications or guaranteed prior to final plat approval:
 - a. *Street improvements.* Land designated for streets and roads shall be constructed in accordance with these regulations and the specifications set forth in the state highway department's "Standard Specifications for Highway Construction" and shall be approved by the city engineer.

Street name signs and regulatory signs required by the "Manual or Uniform Traffic Control Devices" shall be installed on public or private streets. All street design and installation shall conform to the "Complete Streets" design standards in section 20-40 and the street planning manual.

- b. *Streetscape improvements.* Pedestrian (sidewalk) and bicycle facilities, street trees and transit facilities shall conform to section 20-40 and the street planning manual, and be included as required physical improvements.
 - c. *Drainage.* Storm sewers, including open ditches and rights-of-way, shall be provided for the proper drainage of all surface water and shall be approved by the city engineer.
 - d. *Public water and sewer systems.* All extensions of public water and sanitary sewer systems shall have the approval of the appropriate city departments involved and shall be constructed according to standards under the supervision of the city engineer.
 - e. *Other required improvements.* Any other physical improvements included as a condition for preliminary subdivision plat approval by the planning commission, (and noted on that approved plan or in meeting minutes), shall be considered a "required improvement" for final subdivision plat approval.
 - f. Final inspection and acceptance list if not completed to the satisfaction of the city.
- (2) *Financial guarantee for completion of required improvements.* In lieu of completion of required improvements prior to approval and recording of a final plat, the subdivider shall provide the city with a financial guarantee that is adequate to insure the actual construction and installation of the required improvements pursuant to subsection 20-36(1). The financial guarantees may be in the form of a cash bond, letter of credit or performance bond and shall be subject to the following requirements:
- a. The guarantee shall be in a form acceptable to the city engineer and the city attorney. The surety must be in an amount equal to at least one hundred twenty-five (125) percent of the cost of the improvement. This surety must be in favor of the city to ensure that, in the event of default by the developer, funds will be used to install the required improvements at the expense of the applicant.
 - b. Cash bonds shall be either certified checks or cash. Performance bonds shall be issued by a surety company licensed to do business in the State of South Carolina. Letters of credit shall be issued by a state or federally licensed financial institution.
 - c. Any guarantee submitted must include a statement indicating the date when all required improvements must be completed.
 - d. All guarantees shall be made payable to the City of North Myrtle Beach. Extensions or revisions of the guarantee may be made for good cause, upon the mutual agreement of the developer and the city.

During the process of construction, the city may reduce the dollar amount of any cash bond or letter of credit to reflect the current cost to complete the remaining work. The amount of reduction shall be approved by the city engineer. If the amount of the letter of credit is reduced, then a new letter of credit reflecting the new amount must be issued to the city. No guarantee can be reduced more than twice during construction.

The guarantee will be returned to the developer upon completion of the required improvements. If the improvements are not made by the stated completion date, the city reserves the right to forfeit the guarantee and install the required improvements.

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 15-32, § 1, 10-19-15; Ord. No. 20-33, § 2, 11-2-20)

Secs. 20-37—20-39. Reserved.

DIVISION 5. MINIMUM DESIGN STANDARDS

Sec. 20-40. Complete streets.

- (a) *Conformity to existing maps, plans or policies.* The location and width of all proposed streets shall be in conformity with official plans and maps of the city and with existing or amended plans of the planning commission. All streets shall be designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a "complete street."
- (b) *Continuation of adjoining street system.* The proposed street layout shall be coordinated with the street system of the surrounding area. Where feasible, all existing principal streets shall be extended so as to prevent increased traffic congestion on the overall street network. The planning commission, during the subdivision approval process, will determine feasibility as well as judge, and possibly require mitigation of, negative impacts if a proposed neighborhood design does not adequately connect to the adjoining street system.
- (c) *Access to adjacent properties.* To provide for street access to adjoining property, proposed streets shall be extended by dedication of right-of-way to the boundary of such property and a temporary turnaround shall be provided until connection is achieved.
- (c.1) *External access.* Subdivisions shall require sufficient external access points to the existing or future roadway network and shall be provided as follows:
 - (1) Any residential development between thirty (30) and fifty (50) lots or dwelling units shall be provided with one (1) separate and approved fire apparatus access road as defined in the latest edition of the South Carolina Fire Code, in addition to one (1) improved primary access road. Any fire apparatus access road may be located within a private easement; however, all primary access roads must be located within a public or private right-of-way.
 - (2) Any residential development between fifty-one (51) and two hundred forty-nine (249) or more lots or dwelling units shall include a minimum of two (2) improved access points within a public or private right-of-way.
 - (3) Residential developments of two hundred fifty (250) or more lots or dwelling units shall provide three (3) separate access points within a public or private right-of-way. Where three (3) or more access points are required, the planning commission may waive the requirement for immediate construction of more than two (2) access points, provided the subdivision phasing and engineering design illustrates the additional required connections.
 - (4) Exceptions to these standards may be allowed by the planning commission during approval of the preliminary plat of a major subdivision, or a minor final plat of subdivision and concept plan, but only in exceptional cases where limited frontage, natural features (topography, the presence of environmentally sensitive areas), or similar circumstances preclude the required connections and there is no substantial impact to emergency service delivery.

The planning commission shall not grant an exception unless the following is determined:

- a. The granting of an exception will not be detrimental to the public safety, health, or welfare or injurious to other property or improvements in the neighborhood in which the property is located;

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- b. The conditions upon which the request for an exception are based are unique to the property for which the exception is sought;
 - c. Because of the particular physical surroundings, shape, or topographical conditions of the specific property involved, a compelling and detrimental condition to the owner would result, as distinguished from a mere inconvenience, if the strict letter of this Code is enforced;
 - d. The purpose of the exception is not based primarily upon financial consideration.

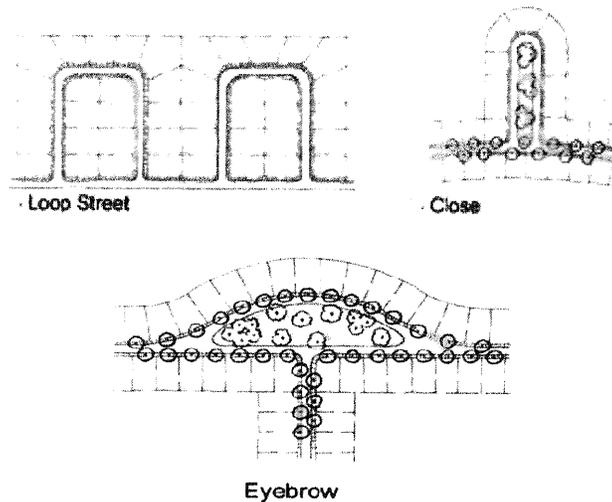
In granting an exception, the planning commission may require such conditions as will, in its judgment, to secure substantially the objectives of the standards or requirements of this Code.

- (d) *Public and private streets.* Except as otherwise provided in this section, all lots created after the effective date of this section shall abut a public street.
 - (1) Developments as allowed in the zoning ordinance may utilize private streets that meet the design standards in the street planning manual, and are not intended for dedication to the public, provided:
 - a. The proposed development will have direct access and at least one (1) connection onto a public street;
 - b. Proposed streets connecting two (2) or more public streets or serving as the sole access to adjacent properties may be required to be public by the planning commission, with recommendations from the director of public works and director of planning and development. If such streets are approved to be private, they shall not be gated, obstructed, or access-controlled in any manner;
 - c. Continuation of the adjoining street system will not be obstructed;
 - d. Street access to adjoining properties will not be obstructed;
 - e. The subdivider's maintenance plan, as required by subsection 20-32(b)(14), demonstrates that the private streets will be properly maintained.
 - f. A private street shall not be the sole connection between two (2) public streets;
 - g. The words "private street" shall be incorporated into all private street sign blades, small enough to avoid competing with the roadway name, but large enough to easily read.
 - (2) Lots intended solely for the location of public or private utility infrastructure, such as (but not limited to) water, sewer or storm water pump stations, electric, gas or other energy production and distribution substations, or communications infrastructure, may be accessed by easements and shall be exempt from the requirement to abut a public or private street. When platted, such lots shall be clearly labeled as a "utility/infrastructure parcel not intended for habitable structures."
- (e) *Street names.* For 911 emergency services provision, proposed streets which are obviously in alignment with other existing and named streets shall bear the assigned name of the existing streets. In no case shall the names of proposed streets duplicate or be phonetically similar to existing street names, irrespective of the use of suffix "street," "avenue," "boulevard," "drive," "place," "court," etc.
- (f) *Local streets.* Local streets shall be so laid out that their excessive use by through traffic will be discouraged. However, to decrease the number of local trips and congestion on major roadways, provision for cross access (as described in (b) and (c) of this section) must not be totally eliminated in the process. While extensions of principal streets need to serve through traffic, the connections of local streets may be designed to be primarily useful to local residents of that area.
- (g) *Residential buffers for arterial or collector streets.* Where a subdivision abuts or contains an existing or proposed arterial or collector street, the planning commission may require marginal-access streets, double frontage with screen planting contained in a nonaccess reservation along the rear property line, deep lots

with rear service drives, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

- (h) *Reserved strips prohibited.* Reserved strips at the terminus of a new street shall be prohibited.
- (i) *Street jogs.* Street jogs with center line of less than two hundred (200) feet shall be avoided.
- (j) *Right angle intersections.* Street intersections shall be as nearly at right angles as practicable.
- (k) *Cul-de-sac.* The total length of permanent dead-end streets (including cul-de-sac streets) shall not exceed fifteen (15) percent of the overall length of streets proposed in a development. Individual dead-end and cul-de-sac streets shall not exceed six hundred (600) feet in length. Although through access for motorized vehicle ends, through bicycle and pedestrian access must be maintained. The planning commission shall require culs-de-sac to include pedestrian connections to abutting streets wherever practicable. At the discretion of the planning commission, limits on the length of permanent dead-end streets (including cul-de-sac streets) may be waived in situations involving smaller subdivisions, where environmental, topographic or other limitations render compliance impractical.

Dead-end streets shall be provided with a turnaround of sufficient dimensions to allow for adequate turning maneuvers. Alternatives to cul-de-sacs that have less impact on traffic congestion include loop streets, closes, and eyebrows as shown below:

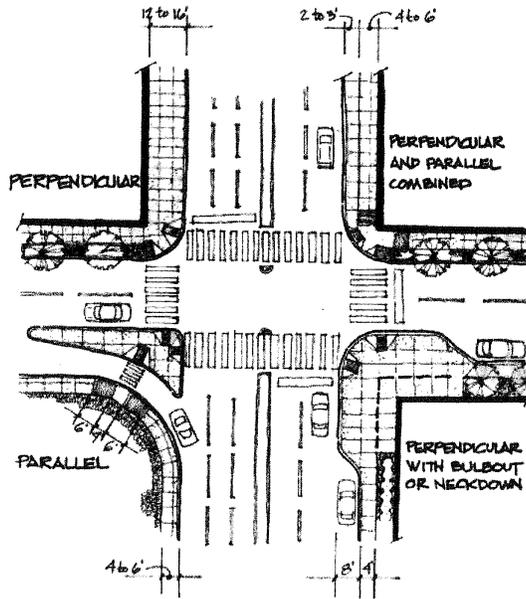


Source: Metropolitan Government of Nashville & Davidson County, Tennessee, *Walkable Subdivisions*

- (l) *Street design types.* Although this division describes and refers to street types by function (i.e. collector, arterial) that terminology is tied to the functional classification assigned by engineering professionals for movement of motor vehicles. These terms alone do not address the city's community design vision and commitment to "complete street" design that safely serves all modes (pedestrian, bicycle, transit) of transportation. Additional street type terminology that provides better imagery regarding community design and adjacent land use criteria are described in detailed cross section designs shown in the street design guidelines section of Appendix A.
- (m) *Design standards for streets.* The following street design standards shall be considered minimum requirements. All streets shall be designed using the city's design standards as contained in the street planning manual, as well as the engineering standards of the city public works department. In case of conflicts in the various sources for safety, design, and functionality standards; the city engineer will consult

with the director of planning and development and both will determine the appropriate standard to be required.

- (1) *Vertical design.* Vertical design shall be in accordance with the current edition of the AASHTO Manual. The minimum grade shall be 0.5 percent.
- (2) *Right-of-way and pavement width.* Minimum right-of-way width shall be determined per the street planning manual. For all streets, pavement widths shall not be less than twenty (20) feet, except for alleys. All streets shall be designed and constructed with reference to the city's street planning manual.
- (3) *Non-curb street design permitted.* When it is found to be in the public interest, a non-curb street design cross section in accordance with the public works department's subdivision construction specifications may be permitted in low-density residential areas.
- (4) *Horizontal design.* Subdivision streets shall not be superelevated. (See street types and design in the street planning manual.)
- (5) *Turnarounds.* The type and design of turnaround required shall be determined by the planning commission, with advice from the public works department.
 - a. Turnarounds shall be designed to accommodate emergency and service vehicles as well as passenger cars. All circular turnarounds of fifty (50) feet or greater radius on permanent dead-end streets shall be hollow-core turnarounds, with center landscaped islands.
- (6) *Transit stops.* At the request of the planning commission or coast RTA (Horry County's transit provider), if the development abuts a right-of-way with a planned or inadequate existing stop facility, a transit stop shall be incorporated into the proposed street design.
- (7) *Intersection design standards:*
 - a. Intersecting streets should meet at a ninety-degree angle wherever possible.
 - b. Pedestrian bulbs and median refuges are techniques to ensure safety for all users of streets. The installation of pedestrian bulbs to decrease intersection crossing distance for pedestrians should be used wherever feasible, and may be required by the planning commission. A median refuge is used to accommodate pedestrians crossing the roadway in stages, and is required on any four-lane (or wider) roadway. An example of pedestrian bulbs and median refuges is shown below:



Source: United States Access Board

- c. *Intersection offset.* The centerline-to-centerline distance between offset T-type intersections shall be at least two hundred (200) feet along local streets and three hundred (300) feet when such T-type intersections occur along a collector street.
 - d. *Curb radius.* In general, when designing curb radii for street intersections, pedestrian safety, as well as safe turning movements for motorized vehicles, must be considered. The city engineer, in consultation with the director of planning and development, will determine the safest design for all modes.
 - e. *Number of intersecting streets.* Not more than two (2) streets shall intersect in any one (1) location unless otherwise specifically approved by the planning commission.
- (8) *Construction of sidewalks.* Cement concrete standard sidewalks are required. Sidewalk width shall vary depending on the street type. Sidewalks shall not be located adjacent to the curb. The sidewalk will be separated from the curb by a planting strip. The planting strip width will depend on the street type.
 - (9) *Bicycle accommodation.* Any vaults, covers, castings, and drainage grates must be designed to accommodate bicycle travel. Bicycle lanes or separated path/trail may be required, with construction standards and width determined by street type.
 - (10) *Standard construction of crosswalks.* For higher volume residential streets, higher volume driveways, and all commercial streets, crosswalks may be required at intersections. Such determination shall be made by the city engineer, in consultation with the director of planning and development. Midblock crosswalk designs should be avoided; however, they may be allowed as a design exception by the city engineer. Marked crosswalks should correspond as much as possible with the natural path of travel. Also, crosswalks must have a thermoplastic, reflective surface that is visible in hours of darkness or during poor weather conditions. Textured and/or colored asphalt crosswalk applications are encouraged. No obstructions to pedestrian or driver visibility should be present within thirty (30) feet of the crosswalk. The design of all crosswalks, including signage, striping, curb ramps, surfacing, and visibility, shall comply with the standards of the South Carolina Department of Transportation and the Federal Highway Administration's Manual on Uniform Traffic Control Devices.

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- (11) *Easements.* For the purpose of maintaining appropriate distance between the actual placement of utilities and structures, utility easements adjacent to private street rights-of-way shall be designed using the city's design standards as contained in the street planning manual.
 - (12) *Design criteria.* For design criteria not specifically mentioned in this section, standards from the current SCDOT and AASHTO standards as stated in "A Policy on Geometric Design of Highway & Streets" as well as the Institute for Transportation Engineers street design manual entitled "Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities" shall be used as references. The city engineer will determine the best criteria and apply that design criteria during development review.
 - (13) *Existing adjacent streetscapes.* Existing streets adjacent to the proposed development must be upgraded to these design standards for sidewalks and street trees on the side of the street adjoining the proposed development for subdivisions of four (4) or more lots. To assure continuity of the streetscape design and connectivity to a network of existing and future pedestrian facilities, the sidewalk component for this existing street requirement may be waived on a case-by-case basis. The conditions taken into consideration include whether future public plans call for sidewalk for the existing street, location of existing public sidewalks on the opposite side of the street, or if the location is determined by the city engineer to be physically unfeasible due to utility conflicts, right-of-way limitations or other technical reasons that would be impossible or highly impractical to overcome. Where such determination is made, the property owner shall choose from the following two (2) options: provide for a street tree and sidewalk easement not less than ten (10) feet in width, adjoining and running parallel to the existing street right-of-way, within which a sidewalk and street tree plantings comparable to those required herein are to be provided by and at the expense of the developer; or provide the city with a monetary proffer in an amount equivalent to the cost of installing sidewalks and/or street trees in accordance with this ordinance to be paid into a mitigation bank whose purpose is to retrofit existing public streets with sidewalks and street trees. The amount of said proffer shall be provided according to an estimate prepared by a licensed civil engineer and accepted by the city engineer. If any given parent parcel of land is subdivided into four (4) or more cumulative lots within a 36-month period, the requirement shall retroactively apply for sidewalk and street tree installation, or a monetary proffer in an amount equivalent to the cost of installing sidewalks and/or street trees in accordance with this ordinance to be paid into a mitigation bank as described above for all current and previous lots. The 36-month period begins upon the approval and recordation of the first minor subdivision plat of the parent parcel.

(Ord. No. 09-28, § 2, 9-21-09; Ord. No. 12-27, § 3, 12-3-12; Ord. No. 14-10, § 3, 4-21-14; Ord. No. 16-02, § 1, 2-1-16; Ord. No. 16-10, § 1, 4-18-16; Ord. No. 18-04, §§ 1, 2, 3-19-18; Ord. No. 18-14, § 1, 8-6-18; Ord. No. 20-26, § 2, 10-5-20; Ord. No. 20-33, §§ 3, 4, 11-2-20)

Sec. 20-41. Easements.

Easements having a minimum width of eight (8) feet and located along the side or rear lot lines shall be provided as required for utility lines and underground mains and cables.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-42. Blocks.

- (a) *Length.* Block lengths shall not exceed six hundred (600) feet. At the discretion of the planning commission, limits on the block length may be waived in situations where environmental, topographic or other limitations render compliance impractical. The planning commission may require the provision of additional pedestrian and/or bicycle connectivity within the development to offset the losses from longer block lengths.

Where a waiver in the maximum block length results in street alignment(s) that could encourage excessive travel speeds, the planning commission may require design modifications incorporating traffic calming measures deemed acceptable by the city engineer.

- (1) Length for walkable traditional neighborhood developments. Block lengths shall be between three hundred (300) and four hundred (400) feet; however, the maximum length may be allowed to increase to six hundred (600) feet if significant natural/recreational feature(s), (i.e. wetlands and/or parkland), were present or provided within the new block.
 - (b) *Widths*. Blocks shall have sufficient width to allow two (2) tiers of lots of minimum depth. Blocks may be one (1) lot in depth where single-tier lots are required to separate residential development from through vehicular traffic or nonresidential areas.
 - (c) *Perimeters*. Block perimeters shall not exceed two thousand (2,000) feet. At the discretion of the planning commission, where the limits on the block length is waived the block perimeter may also be increased.
- (Ord. No. 09-28, § 2, 9-21-09; Ord. No. 17-06, § 1, 5-1-17)

Sec. 20-43. Lots.

Residential lots shall meet the lot width, depth and area requirements of the zoning ordinance (Chapter 23 of this Code).

- (1) *Orientation of lot lines*. Side lot lines shall be substantially at right angles or radial to street lines.
- (2) *Lots abutting streets*. Except as provided in subsection 20-40(d), all lots shall abut a public street.
- (3) *Building setback lines*. A building line meeting the front yard setback requirements of the zoning ordinance shall be established on all lots.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-44. General suitability.

- (a) The planning commission shall not approve a subdivision where the soil conditions have been determined not suitable for development purposes of the kind proposed.
- (b) Land subject to flooding shall not be platted for residential occupancy, nor for such uses as may increase danger to health, life or property, or aggravate erosion or flood hazard.

(Ord. No. 09-28, § 2, 9-21-09)

Sec. 20-45. Conversion of private streets to public streets.

To protect the city's financial position, a procedure for evaluation of converting existing private street to public streets shall be set forth, with the possible requirement of maintenance bonds or other measures to bring the private streets into an acceptable condition for public ownership and maintenance.

The following steps shall be followed:

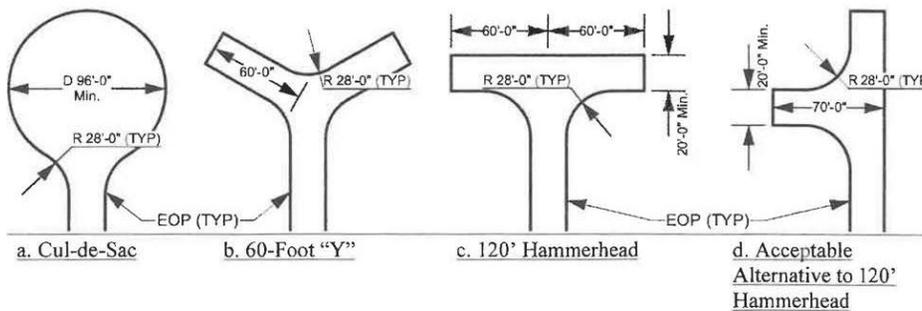
- (1) The director of public works shall examine the existing conditions of the subject street(s) and drainage systems to make recommendations as to any potential upgrades that may be needed to improve streets/drainage systems to current city standards prior to acceptance.

- (2) The director of public works shall then determine the useful lifespan of the subject street(s)/drainage systems and make recommendations for any up-front maintenance payments, based on the average typical lifespan/maintenance cycle of a street in the city.
- (3) If private streets are owned/maintained by a homeowner's association or property owner's association, sufficient documentation would need to be provided indicating satisfactory legal standing exists in order for that entity to make the request and to convey the street/drainage right-of-way to the city.
- (4) The above information (steps 1—3) would be compiled in the form of a street acceptance resolution for city council consideration and action.

(Ord. No. 16-27, § 1, 8-1-16)

Sec. 20-46. Special provisions regarding fire safety.

- (1) All fire hydrants shall be the type that has Storz connectors per the North Myrtle Beach Public Works Department standard details and specifications.
- (2) There shall be a maximum spacing between hydrants measured along the road and/or travel way of six hundred (600) feet in residential development and five hundred (500) feet in nonresidential development.
- (3) Turnarounds are required along any dead-end road and/or travel way greater than one hundred fifty (150) feet in length and shall meet the following minimum standards:



Sec. 20-47. Special provisions regarding wetlands.

- (1) All wetlands proposed to remain on a site shall be surrounded with a minimum 20-foot water quality buffer, within which no building construction shall occur. These areas shall be in common ownership, and shall remain naturalized, with the exception that a multipurpose path not exceeding ten (10) feet in width may be constructed within them. Such paths may be utilized for recreation, and/or access for maintenance equipment.
- (2) This required buffer does not prevent the construction of permitted docks (or similar) in water bodies, protected or otherwise.
- (3) Boardwalks and trails created to facilitate access and enjoyment of wetlands may be allowed, if permissible. These elements should be constructed with the intent to provide interpretive opportunities that educate and expose the beauty and natural functions of wetlands, build support for the protection and restoration of wetlands, or provide for other ecotourism opportunities.
- (4) The provisions of this section shall apply to all new subdivisions and site-specific development plans. If no property owners association or homeowners association exists or will exist to maintain common ownership

of the wetland buffers, the buffer will remain in private ownership. All wetland buffers shall be depicted on a final plat of record.

(Ord. No. 22-53, § 1, 12-5-22)

Secs. 20-48—20-49. Reserved.

**APPENDIX A
RESERVED¹⁰**

¹⁰Editor's note(s)—Ord. No. 20-33, § 5, adopted November 2, 2020, repealed Appendix A, which pertained to complete street design guidelines and derived from Ord. No. 09-07, § 2, February 2, 2009; Ord. No. 15-33, § 1, October 19, 2015; Ord. No. 16-03, § 1, February 1, 2016; Ord. No. 17-13, § 1, June 5, 2017; Ord. No. 19-48, § 1, December 16, 2019.

Appendix F

Standard Operating Procedures for Use in Field Investigations for Illicit Discharges

City of North Myrtle Beach

Dry Weather Screening and Field Investigations for Illicit Discharge Detection and Elimination

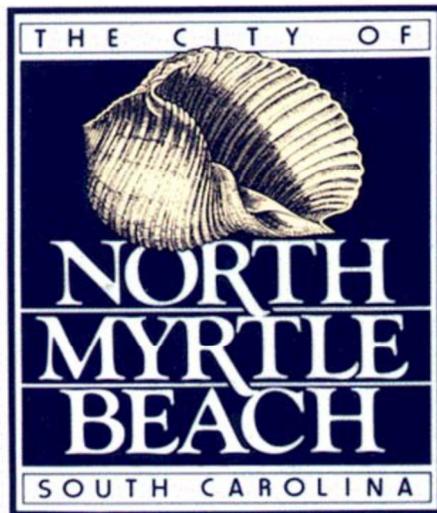


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1.0 Introduction

The State of South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), SCR030000, was issued with an effective date of January 1, 2014. This second cycle permit outlines tasks to be completed for compliance with the terms and conditions of the federal NPDES program and has a five-year term ending December 31, 2018. The Permit requires that the City of North Myrtle Beach implement, manage, and oversee all provisions of its Storm Water Management Plan (SWMP) to control, to the maximum extent practical (MEP), the discharge of pollutants from its municipal storm sewer system associated with stormwater runoff and illicit discharges, including spills and illegal dumping.

This document presents the City of North Myrtle Beach's plan for illicit discharge detection and elimination in compliance with NPDES SMS4 Permit. The NPDES SMS4 Permit requires that the City develop an Illicit Discharge Detection and Elimination (IDDE) program that contains a set of standard investigative procedures to identify the source of illicit connections or discharges and enforce their removal. Although the permit does not specifically dictate these procedures, the IDDE program must, to the MEP, increase knowledge of the City's stormwater management system and pollutants of concern. An understanding of the nature of illicit discharges in urban watersheds is essential to find, fix, and prevent them.

An *illicit discharge* is defined by the U.S. EPA as "... any discharge into a separate storm sewer system that is not composed entirely of stormwater, except for discharges allowed under a NPDES permit or waters used for firefighting operations." Typically, illicit discharges enter a storm sewer system either through direct connections, e.g., sanitary sewer piping, or indirectly from cracked sanitary sewer conveyance systems, spills collected by storm drains, or from contaminants dumped directly into a storm sewer inlet. Pollutants from these sources can include heavy metals, toxics, oils and grease, solvents, nutrients, viruses, and harmful bacteria. Substantial levels of these contaminants can damage fish and wildlife habitats, decrease aesthetic value, prevent or eliminate recreational benefits, and more importantly threaten public health.

The field procedures for detecting illicit discharges include:

- Observations at stormwater outfalls for signs of possible contamination from illicit connections,
- Observing the physical characteristics of stormwater outfalls,
- Performing elementary chemical analysis, and
- Collecting samples for comprehensive laboratory analyses (if necessary).

The dry weather screening program is an initial screening process to locate outfalls with dry weather flows within the City of North Myrtle Beach MS4 and determine if there is an indication that the flow is a potential illicit discharge. The procedures outlined in this guidance document are used to detect and eliminate illicit discharges. Contact information for the City of North Myrtle Beach Stormwater Management Program can be found on their website: <http://www.nmb.us/Page.aspx?id=33>.

The Illicit Discharge Program has two primary components:

1. Dry weather screening program, and
2. Illicit detection and tracking program.

The dry weather screening program is an initial screening process to locate outfalls with dry weather flows and determine if there is an indication that the flow is a potential illicit discharge. The illicit detection, tracking, and elimination (IDDE) program represents an additional set of investigative and enforcement procedures to be taken once an outfall screened under the dry weather screening program is determined to have a potential illicit discharge.

2.0 Dry Weather Screening Program

Dry weather flow or discharge is generally accepted to be flow present in a City of North Myrtle Beach outfall after at least 72 hours with less than a tenth of an inch of precipitation. The presence of dry weather flow does not necessarily indicate the presence of an illicit discharge. It should also be noted that because of the City's location in the coastal plain, stormwater flow has a tendency to remain in pipes and low lying drainage areas. Tidal water may also affect flow throughout the drainage system. Care should be taken to identify that water in a pipe or outfall is indeed flow, as opposed to stagnant water or tidal flows. See section 2.1.1 for more information.

Many dry weather flows, including those listed below as the non-stormwater discharges allowed by the City of North Myrtle Beach, are typically considered allowable dry weather discharges.

The City allows certain non-stormwater discharges to its Small Municipal Separate Storm Sewer System, SMS4. The following discharges are exempt from discharge prohibitions:

- Water line flushing or other potable water sources,
- Landscape irrigation or lawn watering,
- Diverted stream flows,
- Rising ground water,
- Ground water infiltration to storm drains,
- Uncontaminated pumped ground water,
- Foundation or footing drains (not including active groundwater dewatering systems),
- Crawl space pumps,
- Air conditioning condensation,
- Springs,
- Non-commercial washing of vehicles,
- Commercial carwashes that are in compliance with the NPDES General Permit for Vehicle Wash Water Discharges,
- Natural flows from riparian habitat or wetlands,
- Dechlorinated swimming pool discharges,
- Firefighting activities,

- Tidal flows,
- Street wash water, and
- Any other water source not containing pollutants as designated by the City Engineer or his/ her designee.

Also included are any discharges specified in writing by the City of North Myrtle Beach as being necessary to protect public health and safety. Dye testing is an allowable discharge, but requires notification to the authorized enforcement agency prior to the time of the test. The prohibition does not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the EPA or SCDHEC, provided that the discharger is in full compliance and written approval has been granted.

2.1 Selection of Indicator Parameters

2.1.1 Flow Parameters

Based on location and site characteristics, crews will first need to determine if water in an outfall is legitimate flow, as opposed to stagnant, non-flowing water that hasn't drained from the storm sewer system.

2.1.2 Chemical Parameters

The U.S. EPA and South Carolina Department of Health and Environmental Control (SCDHEC) recommend testing for the following parameters to detect the major pollutants found in stormwater runoff from major land use categories:

- pH
- Temperature
- Copper
- Phenols
- Surfactants
- Chlorine

It is also recommended to test for the pollutant of concern (POC) for outfalls discharging to impaired waters or within a TMDL watershed.

pH

The normal pH of ground water typically ranges from 6.0 to 9.0. Values outside of this range may be an indicator of an illicit discharge. pH alone is not a sufficient indicator of an illicit discharge and is only considered in relation to other parameters that are out of range for a particular sample. Water with pH values less than 6.0 is acidic and may indicate discharges from textile mills, pharmaceutical manufacturers, metal fabricators, and companies that produce resins, fertilizers, or pesticides. Wastes containing sulfuric, hydrochloric, or nitric acids are a common source of contamination. Water with pH values greater than 9.0 is alkaline and may indicate discharges from industries such as textile mills, metal plating facilities, steel mills, ready mix concrete plants (including concrete truck wash out areas), and producers of rubber and plastic. Wash water used to clean floors and industrial machinery may also produce alkaline wastewater.

Water Temperature

Water temperature can vary widely and this parameter is best considered in relation to other characteristics. Any extreme temperatures (hot or cold) may indicate the presence of an illicit discharge. Extremely warm temperatures can be indicative of industrial or sanitary sewer discharges.

Copper

Elevated levels of copper may indicate discharges from cooling, boiler, or industrial re-circulation systems. Copper sulfate is typically used as an algicide in all of these systems. Copper can also be an indicator of discharges from an automobile manufacturing or maintenance facility. The normal/allowable range for copper is 0.0 – 0.5 mg/L.

Phenols

Elevated levels of phenols may indicate industrial wastewater discharges such as those from plastics production, pharmaceuticals, and also herbicides. Consider phenols in relation to other parameters in determining the potential source. The normal/allowable range for phenols is 0.000 – 0.399 mg/L.

Surfactants/Detergents

Typically, the presence of surfactants and detergents indicate a connection to either an automobile wash facility or a laundry facility. High surfactants/detergents combined with elevated temperatures are a good indicator of commercial or institutional laundry facilities. Lower levels of surfactants/detergents may indicate a connection to a residential laundry, industrial facility, or possibly an illicit sewer connection or failing/improperly functioning septic system. A normal range is 0.0 – 0.5 mg/L. Regardless of the results, however, there should be no persistent visible foam at the discharge.

Chlorine

The absence of chlorine may indicate a natural water source. However, due to chlorine's ability to quickly dissipate with exposure to ultra violet light (UV), use caution when making judgments based on its absence. Generally, only potable water sources contain chlorine. Therefore, the presence of chlorine indicates that the source is not a natural water source. Very high levels (above 5.0 mg/l) of chlorine typically indicate connection to a swimming pool or other potable water source. A normal range for surface water is 0.0 – 0.5 mg/L.

2.1.3 Physical Parameters

The detection of a variety of other parameters during the physical inspection can be useful indicators of outfall problems. The types of illicit discharges that can be identified through visual identification and physical data include:

- Sanitary sewer overflows/leaks,
- Broken manholes,
- Septic tank leaks,
- Gray water discharges from residences,

- Erosion and sediment control problems,
- Public dumping of trash, and
- Unnatural volume, temperature, color or odor issues involving drainage flows.

The following is a description of these physical parameters:

Odor

The odor of stormwater discharges will vary widely. Odor can be a good indicator of the type of pollutant in the water. For instance, stormwater discharges may smell like sewage, oil, gasoline, or may contain a chemical smell. Decomposition of organic materials can also cause a distinctive sulfur odor. Odors may vary greatly with changes in temperature and time of year.

Color

Color can be an important factor in determining the source of an illicit discharge. The particular color should be noted and tracked upstream as far as possible. Sewage will typically have a gray or brown color, whereas industrial wastes may have a variety of colors.

Turbidity

Turbidity is a measure of the amount of suspended matter in the water and affects the clarity of the discharge, as opposed to the color. Discharges from industrial facilities are often highly turbid. Although erosion can also create highly turbid water, this should not be the case during dry weather flows. Each inspection should note the relative degree of turbidity.

Oil Sheen

An oily sheen on water near a storm water outfall can be an indicator of illicit discharges from petroleum refineries, storage facilities, vehicle service facilities including vehicle wash facilities, and/or dumping of used oil products into the SMS4.

Floatables

Floatables are solids and liquids that float on the surface of the water. Floatables may include substances such as animal fats, food products, trash, oils, plant materials, solvents, foams, hydrocarbons, or gasoline. Floatables can often lead directly to the manufacturing process or other source of the illicit discharge. A full description of the type and quantity of the floatables and a photograph of the discharge should be included in the report.

Residue

Residue left on the conveyance system can be an indicator of an illicit discharge. Discoloration of the pipe or channel should be tracked upstream. It is also important to note the location of the discoloration or stain within the conveyance system. For example, is it just a line of residue half way up the pipe or is the pipe completely stained for some depth? Harmful and excessive growths of algae are generally caused by excessive nutrients.

Sediment/ Debris

Excessive sediment and debris near a stormwater outfall can be indicative of construction site runoff problems.

Vegetation

Vegetation growing in the immediate discharge area should be noted in relation to vegetation growing in the general vicinity of the outlet. Certain discharges can cause substantial changes in plant growth. Discharges containing a high nutrient content may cause increased growth while discharges with severe changes in pH may cause a decrease in growth. Although vegetation patterns may serve as an indicator of non-stormwater discharges, they are also difficult to interpret. Time of year, rainfall patterns, and exposures to sun all affect plant growth and may be contributing factors to the changes in vegetation patterns. Caution should be used when considering vegetation as an indicator of an illicit discharge.

Structural Damage

Like residue, structural damage to the conveyance system can also be an indicator of an illicit discharge. Structural damage is typically more noticeable in concrete pipes. Acidic discharges may cause cracking, spalling, or deterioration of the concrete. The location of the damage within the pipe and the distance upstream will be important in determining the type of pollutant and the source of the discharge.

Table 2 in Appendix C describes the physical observation parameters and the potential associated illicit flow sources.

3.0 Dry Weather Field Screening and Illicit Tracking

The Standard Operating Procedure (SOP) in Section 3.1 and 3.2 outlines the procedures for Dry Weather Screening and Illicit Discharge Tracking. The IDDE program is composed of investigative procedures to be conducted once a potential illicit discharge is identified under the dry weather screening program. Field crews should be familiar with the job hazards associated with dry weather screening, and should always use appropriate Personal Protective Equipment (PPE) when performing screening activities and collecting samples. Refer to Appendix B for OSHA and job safety information **before** starting work.

3.1 Dry Weather Screening Standard Operating Procedures

Dry weather field screening is the examination of dry weather discharge from outfalls to attempt to determine if the discharge is allowable or if it is a potential illicit discharge. Dry weather field screening includes the documentation of the physical parameters of a discharge and may include chemical analysis as well. Dry weather field screening may consist of, but is not limited to:

- Visual observations
- Field screening monitoring
- Analytical monitoring at selected points to the extent necessary to identify and eliminate, to the MEP, an illicit discharge

Dry weather field screening can either be done in conjunction with outfall inventory, or separate from an outfall inventory if the locations of discharge points are already available. Conduct dry

weather screening at least 72 hours after a storm event greater than 0.1 inch. Dry weather flows must be screened two times with the second screening occurring at least 4 hours but no more than 24 hours after the first. Due to the potential for tidal influences, dry weather field screening is best performed during low tide.

The following standard operating procedures should be used to screen outfalls for dry weather flow:

1. Prepare for screening activities. Refer to Appendix B for a list of items that field crews should have
2. Screen outfalls for dry weather flow (ensure that the antecedent dry period of 72 hours after a storm event of 0.1 inch has been satisfied). Determine if flow is stagnant, tidal or another source.

If there is no flow present at the outfall, it is considered dry and no further immediate action is necessary.

If there is dry weather flow, the outfall must be evaluated and categorized with on-site screening procedures.

- a. Collect information for physical characteristics on the Dry Weather Screening/Potential Illicit Discharge Field Sheet (located in Appendix A) or an approved digital field data collection method. Record (at minimum) the following information for the physical characteristics:
 - i. Inspection date and time
 - ii. Initials or name of inspector
 - iii. Picture or digital image of the site
 - iv. Site description
 - v. Outfall size
 - vi. Outfall condition
 - vii. Presence or absence of flow
 - viii. Discharge color
 - ix. Discharge odor
 - x. Presence and type of floatables
 - xi. Discharge turbidity (visual not measured)
 - xii. Deposits/stains
 - xiii. Vegetative condition
- b. After initial physical parameter evaluation, if testing is needed, proceed with steps c-j. Use physical observations and chemical test results to determine if the discharge is illicit in nature. (If dry weather screening suggests a potential illicit discharge, then attempt to track the illicit upstream to its source. See steps g-i below)
- c. Determine the best area of the discharge to collect screening samples. An ideal sample is one that is representative of the entire flow (e.g. in the middle of the discharge) and that can be collected without interference from objects or debris in the flow. Avoid entraining leaves, floatable debris, and sediment when collecting samples. Be careful to limit the amount of discharge entering the bottle as to not

create splash when filling. Be aware of any added preservatives that may already be in the container. (Refer to Appendix B for information on proper sample collection techniques).

- d. Place the sample bottle directly into the stream, taking care not to touch the inside of the lid or bottle. Be careful to limit the amount of discharge entering the container as to not overflow or create splash when filling. Be aware of any added preservatives that may already be in the container. Fill the container with the sample to the designated sample fill line (if specified) or to the top. Cap container immediately.
- e. If necessary, collect samples in laboratory supplied containers. (Refer to Appendix B for diagrams and information on proper sample collection techniques).
 - i. Using a permanent marker, fill out the label on the sample container with any required information.
 - ii. Be careful not to touch the inside of the bottle or lid during sample collection. Some parameters require that the bottle remain sterile beforehand and uncontaminated afterwards. Take care in re-capping. Note the fill line on the bottle - do not overflow. The vessel may also contain a preservative that must remain in the bottle. Take precautions not to overflow the bottle and lose the preservative tablet or powder. Adhere to 40 CFR 136 for sample collection, preservation and transportation requirements.
 - iii. After any screening activities have ended, deliver the sample(s) to the lab within the given holding times (if applicable) and on ice (if applicable). Fill out the chain of custody with sample information. Retain a copy of the chain of custody form for City records.
- f. Measure pH and temperature at a flowing outfall using a handheld meter or a thermometer and pH paper. Use the procedure in the device instruction manual to ensure accurate testing results. Ensure that equipment is calibrated before use (if necessary- refer to device instruction manual). Measure pH within 15 minutes of sample collection.
- g. Measure Chlorine, Copper, Phenols, and Detergents/Surfactants using a spectrophotometer, handheld meter, or test paper (if appropriate). Refer to the instruction manual for procedures. Analyze all samples within 15 minutes of collection.
- h. Return to the discharge between 4 and 24 hours later to obtain a second screening sample.
- i. Repeat these dry weather screening procedures for all designated outfalls.
 - i. If an intermittent discharge is observed from the outfall, the SMS4 Permit requires that it be rechecked to observe the discharge while it is flowing. In the case of intermittent discharges, an outfall is considered dry when there have been non-flowing conditions on three separate visits. Since this is an ongoing program, it is recommended that suspected intermittent discharges be periodically rechecked.

3.2 Illicit Discharge Identification and Tracking Standard Operating Procedures

Illicit tracking procedures begin when dry weather screening results indicate a flow is a potential illicit or illegal discharge (through visual or chemical analysis). Illicit discharges may include but are not limited to sanitary wastewater and wash water discharges.

In most cases, the outfall is originally screened for dry weather flow (screened at least 72 hours after a storm event of 0.1 inch). This identifies the potential illicit discharge and prompts illicit tracking activities. Using visual and physical observations, likely sources of the illicit discharge can be identified. Crosscheck these potential sources with known facility information to determine potential illicit discharges. Refer to the tables in Appendix C for additional information on identifying sources of illicit discharges. Some common questions to ask are:

- a. Is there flow in the outfall? Identify if the water is stagnant, tidally influenced, or has a possible alternative source. Refer to tidal gauges and charts if water depth around the outfall appears to have fluctuated recently.
 - i. If tidal water is suspected, crews should return to the site during low tide to determine if flow is still present. Handheld salinity or conductivity meters may also be used to determine if tidal water is present.
- b. Does the discharge have a distinctive/unusual odor or color or quality?
- c. Were any of the field analysis results extremely high or low (refer to Appendix C for values)?
- d. Is the discharge potentially toxic or harmful to human health or the environment? If so, these discharges should be reported to the City of North Myrtle Beach immediately, and SCDHEC will be notified of the discharge (SC DHEC emergency response 1-888-481-0125).
- e. If the discharge appears to be a natural source (e.g. groundwater) and does not appear to have any negative affect on the receiving water, do not begin illicit tracking. Make a note to return to the outfall at a later time to check the discharge again.

A simple review of the outfall characteristics of a suspected illicit discharge outfall can present key indicators of contamination. Indicators of contamination (negative indicators) are often clearly apparent visual or physical parameters indicating obvious problems and are readily observable at the outfall during the field screening activities. This is the simplest method for identifying potential illicit dry-weather outfall flows.

1. If dry weather screening suggests an illicit discharge, then attempt to track the illicit upstream to its source. Depending on the discharge, a source may or may not be obvious. Crews should use best judgment in tracking activities; common procedures may include:
 - a. Driving around in the drainage area looking at businesses or industries that could be potential sources of the illicit. Crews should look for places where the discharge could enter the storm drain directly (e.g. a hose from an industrial building discharging directly into a storm drain).

- b. Walking upstream along the storm drainage line and opening manhole covers to follow the discharge. This can be helpful to pinpoint the discharge to a specific area or establishment.
2. After initial analysis has indicated the presence of an illicit discharge, further detailed analyses may be needed to identify and locate the specific source(s) (e.g., residential, commercial, and/or industrial) in the drainage area. Due to the extensive nature of most storm sewer systems, different lines will split off of the main drainage lines. To track illicit flows where there is a split in the line:
 - a. Visually assess both flows; do they both have the same characteristics? Visual and olfactory characteristics are the easiest way to track illicit.
 - b. Analyze grab samples at several manhole points along the storm drainage system to narrow the location of the contaminating source; this enables crews to delineate which side of the system is contributing to the discharge and eliminate areas that are not.
 - c. Test for specific pollutants associated with the discharge at several points along the drainage system; this can clarify the upper area that might be contributing to the discharge.
 - d. Measure water flow rate and temperature. For example if crews were tracking an industrial discharge with an elevated temperature, collecting and analyzing grab samples along the drainage line would enable them to test temperature back up the drainage line until a source was identified.
 - e. Pathogenic and toxic pollutants should be considered the most severe since contact or consumption of stormwater contaminated by these pollutants could cause illness and significant water treatment problems for downstream users. These discharges should be reported to the City of North Myrtle Beach immediately, and SCDHEC will be notified of the discharge.

3.3 Enforcement Procedures

The City of North Myrtle Beach has the enforcement capabilities to respond to instances of illicit discharges within their SMS4. The City incorporates an Enforcement Response Plan (ERP) to outline enforcement guidelines. See Appendix E for the Enforcement Response Plan. In general there are three categories of discharges to the MS4:

1. Pathogenic and toxic pollutants
2. Nuisance pollutants
3. Clean water/ allowable discharge

Pathogenic and toxic pollutants should be considered the most severe since contact or consumption of stormwater contaminated by these pollutants could cause illness and significant water treatment problems for downstream users. These pollutants may originate from sanitary, commercial, and industrial wastewater sources, inappropriate household toxicant disposal, automobile engine de-greasing, and excessive use of chemicals (pesticides, herbicides, and fertilizers). Pathogenic or toxic pollutants should be prioritized in a manner that ensures prompt action in the source identification process as these types of pollutants have the most harmful

effects to the environment. In areas containing no industrial or commercial sources, sanitary wastewater is probably the most severe dry-weather contaminating source of storm drain flows. These discharges should be reported to the City of North Myrtle Beach immediately, and SCDHEC will be notified of the discharge and any enforcement action taken.

Nuisance pollutants contribute aquatic life threatening conditions to the storm drainage system. These pollutants can cause excessive dissolved oxygen depletions, tastes, odors, and colors in downstream water supplies, algal blooms, offensive floatables, and noticeably turbid water. These pollutants may originate in residential areas from sanitary wastewaters, laundry wastewaters, lawn irrigation runoff, automobile wash waters, construction site dewatering, and washing of concrete ready-mix trucks. Nuisance pollutants should be reported to the City of North Myrtle Beach immediately. The City will then decide if SCDHEC should be notified, depending on the severity of the pollution.

Clean water discharged through a storm drainage system is commonly found during dry weather screening. Clean water discharges can originate from natural springs in urban areas that have been piped to a nearby creek or stream, infiltrating groundwater, and infiltration from potable waterline leaks. Section 1.0 of this document lists other allowable non-stormwater discharges within the City of North Myrtle Beach SMS4. Clean water discharges typically have little to no negative effect on the environment and in most cases, do not need to be reported.

The City of North Myrtle Beach will utilize the ERP upon identification of the source of the illicit discharge or illegal dumping. The responsible party will be notified to cease the improper practices and appropriate regulatory agencies will be notified of the discharge (this may vary depending on the type of discharge and its location). SCDHEC will be notified of enforcement actions taken. The City may order compliance by written notice of violation to the responsible entity. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by the City of North Myrtle Beach or by its designated contractor(s). All costs incurred including time, materials, and labor plus a 15 percent penalty shall be charged to the violator. If the property owner or Lessee, as the case may be, fails to reimburse the City, the City is authorized to file a lien for said costs against the property or the Lessee's leasehold interest, as the case may be, and to enforce the lien by judicial foreclosure proceedings.

3.3.1 Deadlines for Reporting Illicit Discharge/ Illicit Connection/ Improper Waste Disposal

The City of North Myrtle Beach has created an Emergency Response Plan containing standard procedures for responding to illicit discharges. This document can be found in Appendix E. The City has also outlined particular response times for certain aspects of their IDDE program.

Documenting Illicit Discharges

The City will document illicit discharges as soon as practicable, but within three (3) business days from discovery. City staff will store documentation of the illicit discharge, and any supporting information, both in hard copy form and electronically on the City's server. See section 3.4 for information on the storage of electronic data.

Tracing the Source of Illicit Discharges

The City of North Myrtle Beach will follow the standard operating procedures for identifying and tracking any instances of illicit discharges in their SMS4. Once identified, the City will begin tracing the source of the illicit as soon as practicable, but no later than two (2) business days.

Identifying the Source of the Illicit Discharge

Once the source of the illicit discharge has been discovered, the City of North Myrtle Beach will notify the discharger as soon as practicable, but no later than three (3) business days. See the Emergency Response Plan in Appendix E for more information.

Notifying Other MS4's

If the City of North Myrtle Beach discovers an illicit discharge or connection that originates in a traditional permittee's MS4, they will notify the operator as soon as practicable, but no later than three (3) business days.

Notifying Non-traditional Parties

If illicit connections or discharges are discovered in other areas, the City will notify the other operator as soon as practicable, but no later than three (3) business days.

Citizen Complaints

The City will respond to citizen complaints of illicit discharges, illicit connections and improper disposal as soon as practicable, but no later than two (2) business days from the reporting date. City staff will follow the standard operating procedures for illicit discharge identification, tracking and reporting.

3.4 Data Management

All data collected in support of the illicit discharge detection and elimination program will be collected and recorded in accordance with the Dry Weather Screening/ Potential Illicit Discharge Field Sheet shown in Appendix A. This data may be collected using hard copy paper, or may be collected in a GIS based database, similar to an ESRI Geodatabase, or other digital data collection platform.

4.0 Citizen Complaints

The City of North Myrtle Beach operates a website for disseminating information to its citizens. Contact names and phone numbers for stormwater staff are listed, as well general stormwater information for the City. The website directs any complaints or reports of illicit discharges to the main stormwater department phone number, (843) 280-5500. Any complaints that are sent in writing, electronically by email, or by phone are logged in as a work order by City staff on the Engineering Department Work Order Request Form, and sent to the appropriate staff member to be addressed. Complaints will be addressed as soon as possible, but no later than two (2) business days from the initial complaint. The City website also enables citizens to report a problem by email to any City department, including stormwater.

5.0 Resources

1. Brown, Edward, Caraco, Deb, and Pitt, Robert. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. USEPA. Washington, DC, 2004.
2. Van der Leeden, Frits, Fred L. Troise and David Keith Todd. *The Water Encyclopedia*. Lewis Publishers. Chelsea, Michigan. 1990.
3. USEPA. 1993b. *Investigation of Inappropriate Pollutant Entries into Storm Drain Systems - A User's Guide*. EPA 600-R-92-238. Washington, D.C.
4. Ventura Countywide Stormwater Quality Management Program. 18 Jan. 2011. 18 Jan. 2011 <<http://www.vcstormwater.org/>>.
5. State of Washington Department of Ecology. 18 Jan. 2011. 18 Jan. 2011 <http://www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html>.
6. USEPA. 11 April 2011 <<http://www.epa.gov/owow/NPS/ordinance/discharges.htm>>.
7. SCDHEC, 2014. The State of South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), SCR030000, January 1, 2014.

Appendix A: Dry Weather Screening/ Potential Illicit Discharge Field Sheet

LLICIT DISCHARGE FIELD DATA SHEET

SOURCE IDENTIFICATION ACTIVITIES:

LOCATION/ TRACKING ID POINT

| | | | | | | |
|---|--|--------------------------------|-----------------------------------|---------------------------------------|----------------------------------|--|
| TYPE: | <input type="checkbox"/> Ditch | <input type="checkbox"/> Inlet | <input type="checkbox"/> Junction | <input type="checkbox"/> Sample Point | <input type="checkbox"/> Channel | <input type="checkbox"/> Pipe |
| UNIQUE ID: | WATERSHED: | | | | | |
| COMMENTS: | | | | Go To: | | <i>(Sketch pertinent system information or add additional notes)</i> |
| Mark the appropriate comment or add your own comment below: | | | | | | |
| <input type="checkbox"/> | Flow continues upstream. Continue tracking. | | | Next Tracking ID Point | | |
| <input type="checkbox"/> | System splits. See sample data below for individual branch analysis. | | | 2. | | |
| <input type="checkbox"/> | No flow. | | | Illustrate findings in sketch box → | | |
| <input type="checkbox"/> | Source found. | | | 3. | | |
| <input type="checkbox"/> | Sample point. (See "SAMPLE POINT ANALYSIS" below.) | | | 1. | | |
| <input type="checkbox"/> | Flow enters pipe, no flow found upstream of pipe outlet | | | 4 | | |
| PHOTO ID #: | PHOTO DESCRIPTION | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | | | |
|---------------------------------|-----------|------------------------|--------|-------------------------------------|----------------------------------|
| 1. SAMPLE POINT ANALYSIS | BOTTLE #: | | | 2. BRANCH #1 SAMPLE ANALYSIS | BRANCH #2 SAMPLE ANALYSIS |
| <i>Chemical Properties</i> | | <i>Allowable Range</i> | | <i>Chemical Properties</i> | |
| pH: | | (5.5 - 9.0) | | pH: | |
| CHLORINE: | mg/L | (0.0 - 0.5 mg/L) | | CHLORINE: | mg/L |
| COPPER: | mg/L | (0.0 - 0.5 mg/L) | | COPPER: | mg/L |
| PHENOLS: | mg/L | (0.0 - 0.399 mg/L) | | PHENOLS: | mg/L |
| SURFACTANTS: | mg/L | (0.0 - 0.06 mg/L) | | SURFACTANTS: | mg/L |
| <i>Physical Properties</i> | | | DEG. C | <i>Physical Properties</i> | |
| TEMPERATURE: | | | DEG. C | TEMPERATURE: | DEG. C |
| TURBIDITY: | | | | TURBIDITY: | |
| OIL SHEEN: | | | | OIL SHEEN: | |
| SCUM: | | | | SCUM: | |
| FLOW ODOR: | | | | FLOW ODOR: | |
| FLOW COLOR: | | | | FLOW COLOR: | |
| FLOW RATE: | | | | FLOW RATE: | |
| COMMENTS: | | | | COMMENTS: | |

| | | |
|---------------------------------|-----------|------------------------------|
| 3. | 4. | INVESTIGATION RESULTS |
| NAME OF FACILITY or DISCHARGER: | | |
| ADDRESS OF FACILITY: | | |
| FACILITY ACTIVITIES: | | |
| PHOTO ID#S: | | |

Appendix B: Stormwater Sampling Techniques and OSHA Standards/ Field Safety

Stormwater Sampling Techniques and Information

1. Sample containers should be stored inside at room temperature when not in use.
2. Note that containers for certain parameters contain preservatives. Handle preserved containers with caution, as preservatives may be an acid (e.g. hydrochloric, nitric). When sampling, take measures to ensure that no preservative is lost during sample collection.
3. Always wear protective gloves when collecting stormwater samples. Wear new gloves at each sample location to eliminate cross contamination. Safety glasses should also be worn to protect the eyes while collecting samples. If using or mixing chemicals, or sampling any location that may create splash, safety goggles should be worn to protect the eyes from inadvertent splashing of chemicals or samples.
4. Always collect a sample in an area of representative flow (e.g. in the middle of the stream or discharge). When possible, fill the container directly from the flow without touching the lip of the bottle to anything in the surrounding environment.
 - a. Unless you are purposely sampling stagnated water, do not collect a sample in a stagnant area of the water body.
 - b. Do not touch the inside of any bottles or lids. Take precautions to avoid splashing or other contamination when sampling.
5. Complete an illicit discharge field screening form at each flowing discharge point.
6. When sampling from a pool, be careful not to disturb any sediment if you must dip a container into the water.
7. After collection, the sample should be placed in an ice filled cooler. Refer to 40 CFR 136 for information on sample preservation, collection and transportation. All samples have associated holding times; coordinate with laboratory staff to ensure that samples are returned to the lab properly and on time.
8. Fill out a chain of custody form with sample name or location, number, date, time, and other pertinent information. Always retain a copy for the City.
9. If necessary, ensure that crews have portable units for field testing. These may include methods to test for pH, chlorine, copper, phenols, and surfactants. Refer to the Illicit Discharge identification SOP for more information.

OSHA Standards/ Field Safety

It is important to remember that any type of fieldwork, including dry weather screening and illicit discharge tracking, can be hazardous. Field crews will be exposed to the elements in varying types of terrain. Common hazards include extreme heat/cold, wildlife (snakes and insects), hazardous waste materials of unknown origins (sanitary wastewater, chemicals, etc.), and potentially dangerous objects and situations (rocks, deep water, manhole lids, confined spaces). Employees should be current on their Bloodborne Pathogens training and have been vaccinated for Hepatitis A and B. A current tetanus vaccination is also recommended.

In order to ensure the safety of field crews, all employees in the field should work as a team of two (or more). Crews should always carry a cell phone or other means of communication and should let a member of management know their daily itinerary. Crews should wear high visibility clothing, long pants, and if appropriate, safety glasses or goggles, snake chaps, and/or safety shoes.

Due to the nature of dry weather screening and illicit discharge tracking, field crews will often encounter circumstances that involve confined spaces. The Occupational Safety and Health Administration (OSHA) regulates confined space entry. A confined space is/has:

- Limited or restricted means of entry or exit,
- Large enough for an employee to enter and perform assigned work, **and**
- Is not designed for continuous occupancy by the employee.

Because of the hazards associated with confined space entry, crews should not enter confined spaces. OSHA governs that confined space entry only be performed by certified individuals using prescribed equipment and procedures. At no time should any field crews enter a confined space. This includes manholes, storm drains, storm drainage tunnels, culverts, and pipes. If confined space entry is necessary, crews should consult with a member of management, who can then contact the appropriate City staff members. More information on confined space procedures and regulations can be found on the United States Department of Labor OSHA web page at www.osha.gov/index.html.

Appendix C: Characteristics of Potential Illicit Discharge Sources

Table 1. Examples of Chemical and Physical Properties of Industrial Non-Stormwater Entries into the Storm Drainage System

| Industrial Categories Major Classifications SIC Group Numbers | | Odor | Color | Turbidity | Floatables | Debris and Stains | Damage to Outfall Structures | Vegetation | pH | Total Dissolved Solids |
|---|--|---|------------------------|-----------|--|---------------------|------------------------------|------------|------------|------------------------|
| <u>Primary Industries</u> | | | | | | | | | | |
| 201 | Meat Products | Spoiled Meats, Rotten Eggs and Flesh | Brown to Reddish Brown | High | Animal Fats, Byproducts, Pieces of Processed Meats | Brown to Black | High | Flourish | Normal | High |
| 202 | Dairy Products | Spoiled Milk Rancid Butter | Gray to White | High | Animal Fats, Spoiled Milk Products | Gray to Light Brown | High | Flourish | Acidic | High |
| 203 | Canned and Preserved Fruits and Vegetables | Decaying Products Compost Pile | Various | High | Vegetable Waxes, Seeds, Skins, Cores, Leaves | Brown | Low | Normal | Wide Range | High |
| 204 | Grain Mill Products | Slightly Sweet and Musty Grainy | Brown to Reddish Brown | High | Grain Hulls and Skins, Straw & Plant Fragments | Light Brown | Low | Normal | Normal | High |
| 205 | Bakery Products | Sweet and or Spoiled | Brown to Black | High | Cooking Oils, Lard, Flour, Sugar | Gray to Light Brown | Low | Normal | Normal | High |
| 206 | Sugar and Confectionery Products | N/A | N/A | Low | Low Potential | White Crystals | Low | Normal | Normal | High |
| 207 | Fats and Oils | Spoiled Meats, Lard or Grease | Brown to Black | High | Animal Fats, Lard | Gray to Light Brown | Low | Normal | Normal | High |
| 208 | Beverages | Flat Soda, Beer or Wine, Alcohol, Yeast | Various | Moderate | Grains and Hops, Broken Glass, Discarded Canning Items | Light Brown | High | Inhibited | Wide Range | High |
| 21 | Tobacco Manufacturers | Dried Tobacco, Cigars, Cigarettes | Brown to Black | Low | Tobacco Stems and Leaves, Papers and Fillers | Brown | Low | Normal | Normal | Low |
| 22 | Textile Mill Products | Wet Burlap, Bleach, Soap, Detergents | Various | High | Fibers, Oils, Grease | Gray to Black | Low | Inhibited | Basic | High |
| 23 | Apparel and Other Finished Products | NA | Various | Low | Some Fabric Particles | N/A | Low | Normal | Normal | Low |

| Industrial Categories Major Classifications SIC Group Numbers | Odor | Color | Turbidity | Floatables | Debris and Stains | Damage to Outfall Structures | Vegetation | pH | Total Dissolved Solids | |
|---|---|---------------------------------------|------------------------|------------|--|------------------------------|------------|------------------|------------------------|------|
| <u>Material Manufacturers</u> | | | | | | | | | | |
| 24 | Lumber and Wood Products | N/A | N/A | Low | Some Sawdust | Light Brown | Low | Normal | Normal | Low |
| 25 | Furniture and Fixtures | Various | Various | Low | Some Sawdust, Solvents | Light Brown | Low | Normal | Normal | Low |
| 26 | Paper and Allied Products | Bleach, Various Chemicals | Various | Moderate | Sawdust, Pulp Paper, Waxes, Oils | Light Brown | Low | Normal | Wide Range | Low |
| 27 | Printing, Publishing, and Allied Industries | Ink, Solvents | Brown to Black | Moderate | Paper Dust, Solvents | Gray to Light Brown | Low | Inhibited | Normal | High |
| 31 | Leather and Leather Products | Leather, Bleach, Rotten Eggs or Flesh | Various | High | Animal Flesh and Hair, Oils & Grease | Gray to Black, Salt Crystals | High | Highly Inhibited | Wide Range | High |
| 33 | Primary Metal Industries | Various | Brown to Black | Moderate | Ore, Coke, Limestone, Millscale, Oils | Gray to Black | High | Inhibited | Acidic | High |
| 34 | Fabricated Metal Products | Detergents, Rotten Eggs | Brown to Black | High | Dirt, Grease, Oils, Sand, Clay Dust | Gray to Black | Low | Inhibited | Wide Range | High |
| 32 | Stone, Clay, Galss, and Concrete Products | Wet Clay, Mud, Detergents | Brown to Reddish Brown | Moderate | Glass Particles, Dust from Clay or Stone | Gray to Light Brown | Low | Normal | Basic | Low |

| Industrial Categories Major Classifications SIC Group Numbers | | Odor | Color | Turbidity | Floatables | Debris and Stains | Damage to Outfall Structures | Vegetation | pH | Total Dissolved Solids |
|---|--|---|--|-----------|---|--------------------------|------------------------------|------------------|----------------------------|------------------------|
| Chemical Manufacturer | | | | | | | | | | |
| 2812 | Alkalies and Chlorine | Strong Halogen or Chlorine, Pungent Buming | Alkalies - N/A Chlorine - Yellow to Green | Moderate | Glass Particles, Dust from Clay or Stone | Gray to Light Brown | Highly Inhibited | Normal | Basic | Low |
| 2816 | Inorganic Pigments | N/A | Various | High | Low Potential | Various | Low | Highly Inhibited | Wide Range | High |
| 282 | Plastic Materials and Synthetics | Pungent, Fishy | Various | High | Plastic Fragments, Pieces of Synthetic Products | Various | Low | Inhibited | Wide Range | High |
| 283 | Drugs | N/A | Various | High | Gelatin Byproducts for Capsulating Drugs | Various | Low | Highly Inhibited | Normal | High |
| 284 | Soap, Detergents, & Cleaning Preparations | Sweet or Flowery | Various | High | Oils, Grease | Gray to Black | Low | Inhibited | Basic | High |
| 285 | Paints, Varnishes, Lacquers, Enamels and Allied Products (SB-Solvent Base) | Latex-Ammonia, SB Dependent upon Solvent (Paint Thinner, Mineral Spirits) | Various | High | Latex - N/A, SB - All Solvents | Gray to Black | Low | Inhibited | Latex- Basic, SB-Normal | High |
| 2861 | Gum and Wood Chemicals | Pine Spirits | Brown to Black | High | Rosins and Pine Tars | Gray to Black | Low | Inhibited | Acidic | High |
| 2865 | Cyclic Crudes, & Cyclic Intermediates, Dyes, & Organic Pigments | Sweet Organic Smell | N/A | Low | Translucent Sheen | N/A | Low | Highly Inhibited | Normal | Low |
| 2873 | Nitrogenous Fertilizers | N/A | N/A | Low | N/A | White Crystalline Powder | High | Inhibited | Acidic | High |

| Industrial Categories Major Classifications SIC Group Numbers | | Odor | Color | Turbidity | Floatables | Debris and Stains | Damage to Outfall Structures | Vegetation | pH | Total Dissolved Solids |
|---|-----------------------|---------|----------------|-----------|--|-------------------|------------------------------|------------|--------|------------------------|
| Transportation and Construction | | | | | | | | | | |
| 15 | Building Construction | Various | Brown to Black | High | Oils, Grease, Fuels | Gray to Black | Low | Normal | Normal | High |
| 16 | Heavy Construction | Various | Brown to Black | High | Oils, Grease, Fuels, Diluted Asphalt or Cement | Gray to Black | Low | Normal | Normal | High |

| Industrial Categories Major Classifications SIC Group Numbers | | Odor | Color | Turbidity | Floatables | Debris and Stains | Damage to Outfall Structures | Vegetation | pH | Total Dissolved Solids |
|---|--|-------------------------------|----------------|-----------|--|------------------------|------------------------------|------------|-----------------|------------------------|
| <u>Chemical Manufacturer</u> | | | | | | | | | | |
| 52 | Building Materials, Hardware, Garden Supply, and Mobile Home Dealers | N/A | Brown to Black | Low | Some Seeds, Plant Parts, Dirt, Sawdust, or Oil | Light Brown | Low | Normal | Normal | Low |
| 53 | General Merchandise Stores | N/A | N/A | N/A | N/A | N/A | Low | Normal | Normal | Low |
| 54 | Food Stores | Spoiled Produce, Rancid, Sour | Various | Low | Fragments of Food, Decaying Produce | Light Brown | Low | Flourish | Normal | Low |
| 65 | Automotive Dealers & Gasoline Service Stations | Oil or Gasoline | Brown to Black | Moderate | Oil or Gasoline | Brown | Low | Inhibited | Normal | Low |
| 56 | Apparel & Accessory Stores | N/A | N/A | Low | N/A | N/A | Low | Normal | Normal | Low |
| 57 | Home Furniture, Furnishings, & Equipment Stores | N/A | N/A | Low | N/A | N/A | Low | Normal | Normal | Low |
| 58 | Eating and Drinking Places | Spoiled Foods, Oil & Grease | Brown to Black | Low | Spoiled or Leftover Food | Brown | Low | Normal | Normal | Low |
| Coal Steam Electric Power | | N/A | Brown to Black | High | Coal Dust | Black Emorphous Powder | Low | Normal | Slightly Acidic | Low |
| Nuclear Steam Electric Power | | N/A | Light Brown | Low | Oil, Lubricants | Light Brown | Low | Normal | Normal | Low |

Source: Brown, Caraco, and Pitt. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. USEPA. Washington, DC, 2004

Table 2. Interpretations of Physical Observation Parameters and Potential Associated Flow Sources

| Physical Observation Parameter | Description |
|---|--|
| Odor – Most strong odors, especially gasoline, oils, and solvents, are likely associated with high responses to the toxicity screening test. Typical obvious odors include: gasoline, oil, sanitary wastewater, industrial chemicals, decomposing organic wastes, etc. | |
| Sewage | Smell associated with stale sanitary wastewater, especially in pools near outfall |
| Sulfide (rotten eggs) | Industries (e.g. meat packers, canneries, dairies, etc.; and stale sanitary wastewater) |
| Petroleum/Gas | Petroleum refineries or facilities associated with vehicle maintenance and operation or petroleum product storage |
| Chlorine | Laundries, paper mills, textile bleaching, swimming pool, or other potable water source |
| Rancid-sour | Food preparation facilities (e.g. restaurants, hotels, etc.) |
| Color – Important indicator of inappropriate industrial sources. Industrial dry weather discharges may be of various colors, but dark colors such as brown, gray, or black are most common. | |
| Yellow | Chemical, textile, and tanning plants |
| Brown | Meat packers, printing plants, metal works, stone and concrete works, fertilizer application, and petroleum refining facilities |
| Green | Chemical plants and textile facilities |
| Red | Meat packers |
| Gray | Dairies |
| Orange | Iron staining due to construction or other land altering activities |
| Turbidity – Often affected by the degree of gross contamination. Dry weather industrial flows with moderate turbidity can be cloudy, while highly turbid flows can be opaque. High turbidity is often a characteristic of undiluted dry weather industrial discharges. | |
| Cloudy | Sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers |
| Opaque | Food processors, lumber mills, metal operations, and pigment plants |
| Floatable Matter – A contaminated flow may contain floating solids or liquids directly related to industrial or sanitary wastewater pollution. Floatables of industrial origin may include animal fats, spoiled food, oils, solvents, sawdust, foams, packing materials, or fuel. | |
| Oil Sheen | Petroleum refineries or storage facilities and vehicle service facilities |
| Sewage | Sanitary wastewater |
| Deposits and Stains – Refer to any type of coating near the outfall and are usually of a dark color. Deposits and stains often will contain fragments of floatable substances. These situations are illustrated by the grayish-black deposits that contain fragments of animal flesh and hair, which often are produced by leather tanneries, or the white crystalline powder that commonly coats outfalls due to nitrogenous fertilizer, wastes. | |
| Sediment | Construction site erosion |
| Oily | Petroleum refineries or storage facilities and vehicle service facilities |
| Vegetation – Vegetation surrounding an outfall may show the effects of industrial pollutants. Decaying organic materials coming from various food product wastes would cause an increase in plant life, while the discharge of chemical dyes and inorganic pigments from textile mills could noticeably decrease vegetation. It is important not to confuse the adverse scouring effects of high stormwater flows on vegetation with highly toxic dry weather intermittent flows. | |
| Excessive growth | Food product facilities |
| Inhibited growth | High stormwater flows, beverage facilities, printing plants, metal product facilities, drug manufacturing, petroleum facilities, vehicle service facilities and automobile dealers |
| Damage to Outfall Structures – Another readily visible indication of industrial contamination. Cracking, deterioration, and spalling of concrete or peeling of surface paint occurring at an outfall are usually caused by severely contaminated discharges, usually of industrial origin. These contaminants are usually very acidic or basic in nature. Primary metal industries have a strong potential for causing outfall structural damage because their batch dumps are highly acidic. Poor construction, hydraulic scour, and old age may also adversely affect the condition of the outfall structure, which are not indications of upstream contaminating entries. | |
| Concrete cracking | Industrial flows |
| Concrete spalling | Industrial flows |
| Peeling paint | Industrial flows |
| Metal corrosion | Industrial flows |

Source: Brown, Caraco, and Pitt. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. USEPA. Washington, DC, 2004

Table 3. Examples of Potential Sources of Industrial Non-Stormwater Entries into the Storm Drainage System

| Industrial Categories | | | Loading/Unloading | | Outdoor Storage/ Processing | Water Usage | | Particle Generation Process | Illicit/ Inadvertent Connections |
|-----------------------------|---|--|-------------------|--------|-----------------------------|-------------|---------|-----------------------------|----------------------------------|
| Major Class. | SIC Group | Industrial Description | Dry Bulk | Liquid | | Cooling | Process | | |
| Primary Industries | | | | | | | | | |
| 20 | | Food & Kindred Products | | | | | | | |
| 20 | 201 | Meat Products | H | L | H | H | H | L | H |
| 20 | 202 | Dairy Products | H | H | N/A | H | H | N/A | H |
| 20 | 203 | Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties | H | H | H | H | H | M | H |
| 20 | 204 | Grain Mill Products | H | H | L | H | H | H | H |
| 20 | 205 | Bakery Products | H | M | N/A | N/A | H | M | L |
| 20 | 206 | Sugar & Confectionery Products | H | M | N/A | L | M | H | L |
| 20 | 207 | Fats & Oils | H | H | N/A | M | H | N/A | M |
| 20 | 208 | Beverages | H | H | N/A | H | H | M | L |
| 21 | | Tobacco Products | H | M | N/A | N/A | M | H | M |
| 22 | | Textile Mill Products | H | L | N/A | H | H | M | H |
| 23 | | Apparel & Other Finished Products Made From Fabrics & Similar Materials | H | L | N/A | N/A | M | M | L |
| Material Manufacture | | | | | | | | | |
| 24 | | Lumber & Wood Products, Except Furniture | H | L | H | N/A | M | H | L |
| 25 | | Furniture & Fixtures | H | M | N/A | N/A | L | M | L |
| 26 | | Paper & Allied Products | H | H | H | H | H | H | H |
| 27 | | Printing, Publishing, & Allied Industries | H | M | N/A | N/A | M | H | L |
| 31 | | Leather & Leather Products | H | H | L | L | H | H | H |
| 32 | | Stone, Clay, Glass, & Concrete Products | H | M | H | L | H | H | L |
| 33 | | Primary Metal Industries | H | M | H | H | H | H | H |
| 34 | | Fabricated Metal Products, Except Machinery & Transportation Equipment | H | H | L | H | H | H | H |
| 37 | | Transportation Equipment | L | H | L | H | H | L | H |
| Chemical Manufacture | | | | | | | | | |
| 28 | Chemicals & Allied Products | | | | | | | | |
| | 281 | Industrial Inorganic Chemicals | H | H | N/A | H | H | H | H |
| | 282 | Plastics Materials & Synthetic Resins, Synthetic | H | H | L | H | M | L | H |
| | 283 | Drugs | L | L | N/A | H | M | L | L |
| | 284 | Soaps, Detergents, & Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations | H | H | N/A | H | H | H | H |
| | 285 | Paints, Varnishes, Lacquers, Enamels & Allied Products | H | H | N/A | L | H | H | L |
| | 286 | Industrial Organic Chemicals | H | H | N/A | H | H | H | M |
| | 287 | Agricultural Chemicals | L | L | N/A | H | L | L | L |
| 29 | Petroleum Refining & Related Industries | | | | | | | | |
| | 291 | Petroleum Refining | L | H | H | H | L | N/A | H |
| | 295 | Asphalt Paving & Roofing Materials | H | H | H | N/A | M | M | L |
| 30 | | Rubber & Misc. Plastic Products | H | H | N/A | H | H | H | M |

| Industrial Categories | | | Loading/Unloading | | Outdoor Storage/Processing | Water Usage | | Particle Generation Process | Illicit/Inadvertent Connections |
|--|-----------|---|-------------------|--------|----------------------------|-------------|---------|-----------------------------|---------------------------------|
| Major Class. | SIC Group | Industrial Description | Dry Bulk | Liquid | | Cooling | Process | | |
| Transportation & Construction | | | | | | | | | |
| 15 | | Building Construction General Contractors & Operative Builders | M | L | H | N/A | L | H | L |
| 16 | | Heavy Construction Other Than Building Construction Contractors | M | L | H | N/A | L | H | L |
| Retail | | | | | | | | | |
| 52 | | Building Materials, Hardware Garden Supply, & Mobile Home Dealers | H | L | H | N/A | L | N/A | L |
| 53 | | General Merchandise Stores | H | M | L | N/A | L | N/A | L |
| 54 | | Food Stores | H | H | N/A | N/A | M | L | L |
| 55 | | Automotive Dealers & Gasoline Service Stations | H | H | H | N/A | M | L | M |
| 56 | | Apparel & Accessory Stores | H | L | N/A | N/A | L | N/A | L |
| 57 | | Home Furniture, Furnishings, and Equipment Stores | H | L | L | N/A | L | N/A | L |
| 58 | | Eating & Drinking Places | H | M | N/A | N/A | M | N/A | M |
| Other | | | | | | | | | |
| | | Coal Steam Electric Power | H | L | H | H | L | H | L |
| | | Nuclear Steam Electric Power | N/A | L | N/A | H | L | N/A | N/A |

The industrial categories listed in Table 3 were defined according to the 1987 Standard Industrial Classification Manual codes (SIC code). The industries were classified according to six main categories. The category for "Primary Industries" includes facilities involved in the production of food products and other basic goods. The category of "Material Manufacturing" includes those industries producing materials such as lumber, paper, glass, and leather. Similarly, the "Chemical Manufacturing" category includes those industries making products such as plastics, paints, detergents, fertilizers, pesticides, and other related substances. "Transportation and Construction" primarily concerns the discharge of contaminants from building or other types of outdoor development. The "Retail" category includes establishments engaged in the selling of merchandise or offering merchandise related services. Finally, all other industries, which did not fit into any of the above classifications, were placed into an "Other" category. Those industries, which are not specifically listed, should have characteristics resembling the industries of the major groups with which they are classified by SIC code.

High potential (H)

Moderate potential (M),

Low potential (L)

Potential not applicable (N/A) if no relationship evident.

Source: Brown, Caraco, and Pitt. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. USEPA. Washington, DC, 2004.

Table 3 can be used to identify industries in each drainage area most likely to contribute non-stormwater entries into the storm drainage system. The categories considered in this table include loading and unloading of dry bulk or liquid materials, outdoor storage or processing, water usage (cooling and process waters), dust or particulate generating processes, and illicit or inadvertent industrial connections. The likelihood of an industry producing dry weather or wet weather discharges in each of these categories was rated on the basis of high (H), moderate (M), or low (L) potential and not applicable (N/A) if there was no relationship evident.

Table 4. Listing of Industrial- Related Chemicals

| Chemical | Industry |
|-------------------|---|
| Acetic Acid | Acetate rayon, pickle and beetroot manufacture |
| Alkalines | Cotton and straw kiering, cotton manufacture, mercerizing, wool scouring, and laundries |
| Ammonia | Gas, coke, and chemical manufacture |
| Arsenic | Sheep-dipping and felt mongering |
| Chlorine | Laundries, paper mills, and textile bleaching |
| Chromium | Plating, chrome tanning, and aluminum anodizing |
| Cadmium | Plating |
| Citric Acid | Soft drinks and citrus fruits |
| Copper | Plating, pickling, and rayon |
| Cyanides | Plating, metal cleaning, case-hardening, and gas manufacturer |
| Fats, oils | Wool scouring, laundries, textiles, and oil refineries |
| Fluorides | Gas, coke, and chemical manufacturer, fertilizer plants, transistor manufacturer, metal refining, ceramic plants, and glass etching |
| Formalin | Manufacture of synthetic resins and penicillin |
| Hydrocarbons | Petrochemicals and rubber factories |
| Hydrogen Peroxide | Textile bleaching, and rocket motor testing |
| Lead | Battery manufacture, lead mining, paint manufacture, and gasoline manufacture |
| Mercaptans | Oil refining, and pulp mills |
| Mineral Acids | Chemical manufacture, mines, Fe and Cu pickling, brewing, textiles, photo-engraving, and battery manufacture |
| Nickel | Plating |
| Nitro Compounds | Explosives and chemical works |
| Organic Acids | Distilleries and fermentation plants |
| Phenols | Gas and coke manufacture, synthetic resin manufacture, textiles, tanneries, tar, chemical, and dye manufacture and sheep-dipping |
| Silver | Plating, and photography |
| Starch | Food, textile, and wallpaper manufacture |
| Sugars | Dairies, foods, sugar refining, and preserves |
| Sulfides | Textile, tanneries, gas manufacture, and rayon manufacture |
| Sulfites | Wood process, viscose manufacture, and bleaching |
| Tannic Acid | Tanning, and sawmills |
| Tartaric Acid | Dyeing, wine, leather, and chemical manufacture |
| Zinc | Galvanizing, plating, viscose manufacture, and rubber process |

Source: Van der Leeden, et al., 1990

Table 4: The 3 General Categories of Stormwater Pollutants and Discharges

| |
|--|
| <p>Pathogenic or toxic, and nuisance pollutants</p> <p>Pathogenic or toxic, and nuisance pollutants should be prioritized in a manner that ensures prompt action in the source identification process as these types of pollutants have the most harmful effects to the environment. In areas containing no industrial or commercial sources, sanitary wastewater is probably the most severe dry-weather contaminating source of storm drain flows. The following parameters can be used for quantifying the sanitary wastewater components of the treated potable water portion:</p> <ul style="list-style-type: none">• Surfactant analysis may be used in determining the presence of sanitary wastewaters. However, surfactants present in water originating from potable water sources could indicate sanitary wastewaters, laundry wastewaters, car washing wastewater, or any other waters containing surfactants. If surfactants are not present, then the potable water could be relatively uncontaminated (potable waterline leaks or irrigation runoff).• Sanitary wastewaters often exhibit predictable trends during the day in flow and quality. In order to maximize the ability to detect direct sanitary wastewater connections into the storm drainage system, it would be best to survey the outfalls during periods of highest sanitary wastewater flows (mid to late morning hours).• The ratio of surfactants to ammonia or potassium concentrations may be an effective indicator of the presence of sanitary wastewaters or septic tank effluents. If the surfactant concentrations are high, but the ammonia and potassium concentrations are low, then the contaminated source may be laundry wastewaters. Conversely, if ammonia, potassium, and surfactant concentrations are all high, then sanitary wastewater is the likely source. Some researchers have reported low surfactants in septic tank effluents. Therefore, if surfactants are low, but potassium and ammonia are both high, septic tank effluent may be present.• Obviously, odor and other physical characteristics, e.g. turbidity, coarse and floating solids, foaming, color, and temperature would also be very useful in distinguishing sanitary wastewater from wash water or laundry wastewater sources. However, these indicators may not be very obvious for small levels of sanitary wastewater contamination. |
| <p>Nuisance Pollutants</p> <p>Nuisance pollutants contribute aquatic life threatening conditions to the storm drainage system. These pollutants can cause excessive dissolved oxygen depletions, tastes, odors, and colors in downstream water supplies, algal blooms, offensive floatables, and noticeably turbid water. These pollutants may originate in residential areas from:</p> <ul style="list-style-type: none">• Sanitary wastewaters• Laundry wastewaters• Lawn irrigation runoff• Automobile wash waters• Construction site dewatering• Washing of concrete ready-mix trucks |
| <p>Clean Water</p> <p>A number of tracer parameters may be useful for distinguishing treated potable water from natural waters:</p> <ul style="list-style-type: none">• Major ions or other chemical/physical characteristics of the flow components can vary substantially depending upon whether the water supply sources are groundwater or surface water, and whether the sources are treated or not. Specific conductance may |

also serve as a rough indicator of the major water source.

- Fluoride can often be used to separate treated potable water from untreated water sources. Untreated water sources can include local springs, groundwater, regional surface flows or non-portable industrial waters. If the treated water has no fluoride added, or if the natural water has fluoride concentrations close to potable water fluoride concentrations, then fluoride may not be an appropriate indicator.
- Hardness can also be used as an indicator if the potable water source and the base flow are from different water sources. An example would be if the base flow is from hard groundwater, and the potable water is from softer surface supplies.
- If the concentration of chlorine is high, then a major leak of disinfected potable water is likely to be close to the outfall. Because of the rapid dissipation of chlorine in water (especially if some organic contamination is present) it is not a good parameter for quantifying the amount of treated potable water observed at the outfall.
- Water from potable water supplies (that test positive for fluorides, or other suitable tracers) can be relatively uncontaminated, e.g., potable waterline leakage or irrigation runoff, or heavily contaminated, e.g., sanitary wastewater.

Source: Brown, Caraco, and Pitt. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. USEPA. Washington, DC, 2004.

**Appendix D: Environmental Engineering Standard Operating Procedure
Regarding Stormwater Illicit Discharge Complaints**

When a call is received regarding an Illicit Discharge complaint from citizens, the following procedures are to be followed:

1. Staff asks the caller for the date and time that the illicit discharge was observed, who was seen discharging the material, the water color and odor if possible. The address and location of complaint is determined. Pictures are requested if available. All information is entered onto an Engineering Department Work Order Request form. If pictures are included, they will be attached to the Engineering Department Work Order Request.
2. The property is located on the City's GIS mapping system, various layers including contours, aerial, storm sewer systems, and streams are turned on, and a map is printed to aid in the investigation. If available, digital maps may be used on a pentop or laptop computer in the field to access pertinent information.
3. A site visit is conducted to access the illicit discharge complaint the same day if possible, but no later than two (2) business days.
4. Once the downstream discharge point is located, staff should review maps and determine potential contributing pipes and stream tributaries.
5. Perform dry weather screening to determine if the discharge is illicit in source.
6. Investigate each of the potential contributing stormwater systems.
7. If the discharge location is found, the entity responsible for the illicit is notified. If the illicit discharge material is identifiable, staff should determine minimum reportable discharge quantity.
8. If the discharge is considered illicit, then staff issues the discharger a Notice of Violation.
9. For a second offense, the discharger is issued a fine and a citation that requires them to appear in court.
10. The City of North Myrtle Beach requires that the illicit discharge material be removed from the stormwater conveyance system or stream. For example, if an industrial cleaning solution is discharged to the stormwater conveyance system, then the downstream system will be plugged and the system cleaned and vacuumed out by the entity responsible for the illicit discharge. In the event of a significant/ toxic or dangerous discharge which may cause a detriment to public health or the ecosystem, staff may choose to have City operations assist with the clean-up and assess the costs to the violator. Refer to the Emergency Response Procedures (ERP) in Appendix E for more information.
11. If the illicit discharge incident qualifies as reportable, City stormwater staff will contact SCDHEC EQC office is contacted at (843) 953-0150.

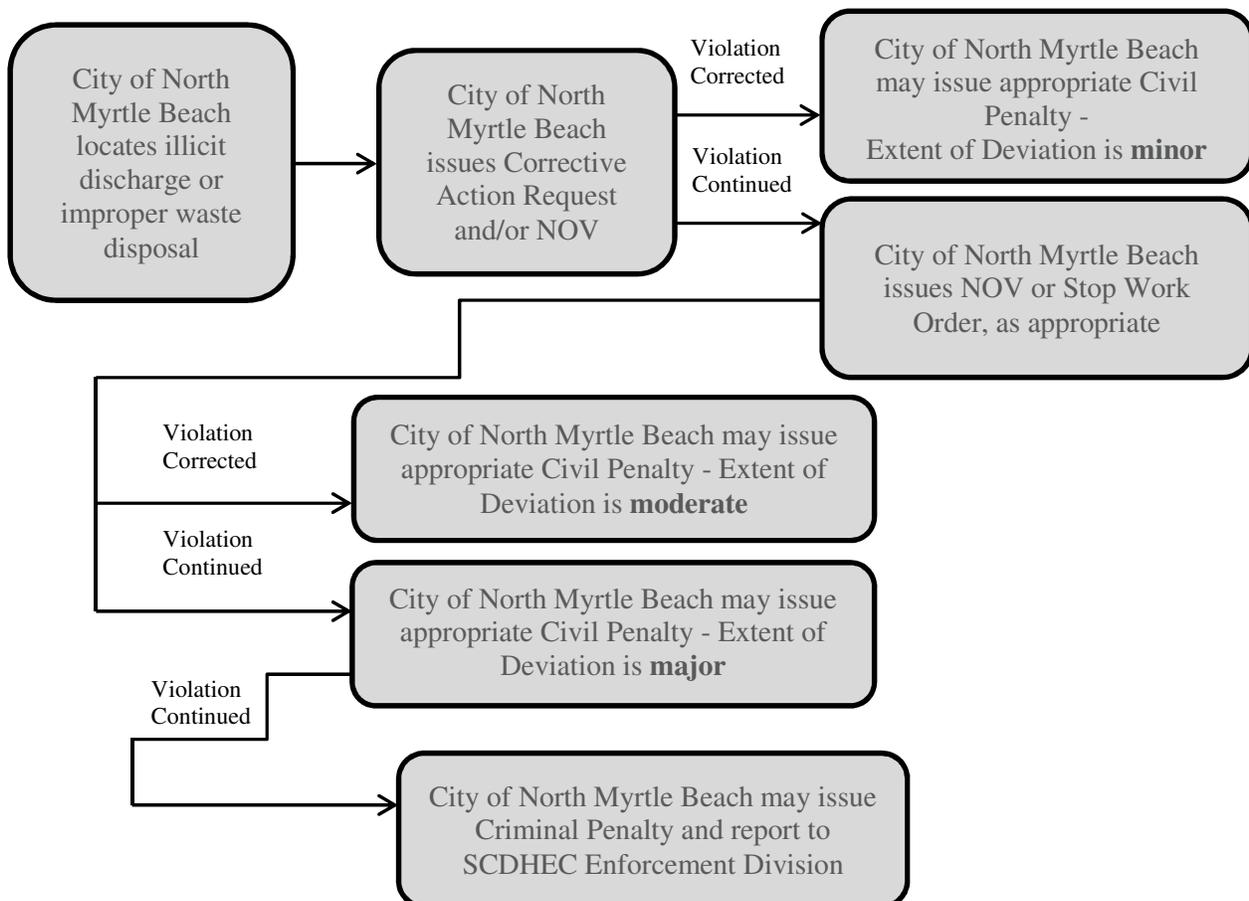
Appendix E: Enforcement Response Procedures
(IDDE SECTION FROM CITY'S ENFORCMENT RESPONSE PLAN)

Illicit Discharge/ Illicit Connection/ Improper Waste Disposal

The City of North Myrtle Beach response:

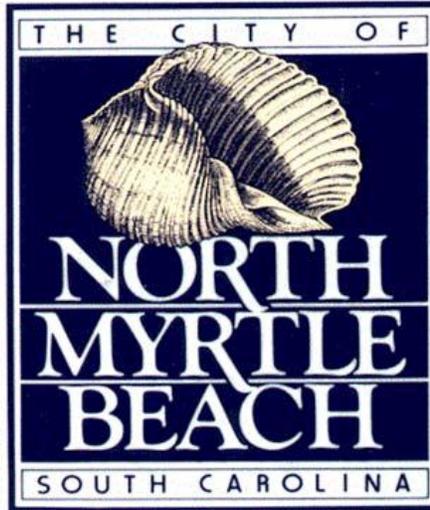
The City of North Myrtle Beach must report immediately the occurrence of any dry weather flows believed to be an immediate threat to human health or the environment to SCDHEC Emergency Response, 1-888-481-0125. If the source of the suspected illicit discharge is found to be a suspected non-compliance with an NPDES permit, the appropriate SCDHEC Regional Office must be notified.

Once the source of the illicit discharge has been determined, the City of North Myrtle Beach will notify the responsible party of the discharge with a Corrective Action Request and/or NOV as soon as practicable but not later than three (3) days after that determination. The City will require the responsible party to conduct all necessary corrective actions to eliminate the non-stormwater discharge within 30 days. If elimination takes longer than 30 days, the City of North Myrtle Beach will require the responsible party to submit a plan with a schedule for elimination. If elimination does not occur and no plan is submitted, then a NOV or Stop Work Order may be issued. The City of North Myrtle Beach will conduct follow-up inspections to ensure corrective action is provided. Appropriate Civil or Criminal Penalties may be issued. If non-compliance continues, the City may report the violation to SCDHEC Enforcement Division.



Appendix G

Enforcement Response Plan



**The City of North Myrtle Beach
Enforcement Response Plan (ERP)**

**1018 Second Avenue South
North Myrtle Beach, SC 29582
843-280-5538**

December 31, 2014

Prepared in accordance with SCDHEC Permit #SCR030000

ENFORCEMENT RESPONSE PLAN
The City of North Myrtle Beach
South Carolina

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I. INTRODUCTION

This Enforcement Response Plan (ERP) document was developed as a guidance manual for identifying specific violation types and defining The City of North Myrtle Beach's response to violations of The Stormwater Management Ordinance of the City of North Myrtle Beach (05-40, 9-19-05), The City of North Myrtle Beach Manual of Design, Installation, and Maintenance Requirements for Stormwater Management Plans, or site specific stormwater management plans. The goals of the Enforcement Response Plan are to:

- 1) Deter future noncompliance by the violator and other members of the regulated community,
- 2) Ensure that violators do not obtain economic benefit or advantage over competitors through noncompliance, and
- 3) Apply fair and consistent enforcement actions to the regulated community throughout the City.

Upon determination that a violation of any provisions referenced above has occurred, the City may choose to assess and make a written demand for payment of a Civil Penalty. In addition to any applicable Civil Penalties:

- Any person(s) or entity that negligently or intentionally violates any provision of the above shall be guilty of a misdemeanor and shall be punished within the jurisdictional limits of the municipal court.
- If the City of North Myrtle Beach has to perform corrective action due to continued non-compliance, then the costs incurred as a result of such action shall be reimbursed to the City of North Myrtle Beach by the owner or operator.
- If the City of North Myrtle Beach is fined and/or placed under a compliance schedule by the state or federal government for a violation(s) of its NPDES permit, and can identify the person(s) or entity who caused such violation(s) to occur, then the City of North Myrtle Beach may pass through the penalty and cost of compliance to that person(s) or entity.

This ERP document is for the use of the City of North Myrtle Beach personnel. The City of North Myrtle Beach reserves the right to change this document at any time, without prior notice, or to act at variance to this document. This document does not create any rights, implied or otherwise, to any third parties.

II. ENFORCEMENT ACTION DEFINITIONS

Corrective Action Request:

The Corrective Action Request is a written or verbal notice for first offenses of non-compliance with the City Ordinance, the City permit or the approved stormwater management plan. The purpose of the Corrective Action Request is to give notice of the deficiencies, identify expected corrective results, and provide a reasonable timeframe to the contractor prior to the City taking further action to get a problem resolved.

Notice of Violation (NOV):

The Notice of Violation is a written notice which serves as a legal requirement to remove the violation(s) to the City Ordinance, the City permit or the approved stormwater management plan. It should include the nature of the violation, proposed penalty, required corrective actions, time period for correcting the violation(s), and notification that a Stop Work Order may be issued or other permits may be suspended or revoked if there is continued non-compliance.

Stop Work Order:

A Stop Work Order may allow or require correction of violations, but no other construction activities may occur. The Stop Work Order shall state that failure to comply may result in the suspension or revocation of any remaining permits issued for the site and/or Civil Penalties being issued.

Civil Penalty:

In the case of failure to comply with the above orders, a Civil Penalty may be assessed up to five hundred dollars (\$500) per violation. Each separate day of a violation constitutes a new and separate violation. In addition, a Civil Penalty may be issued when there are repeated, recurring violations at the same site or by the same party.

Criminal Penalty:

In addition to any applicable Civil Penalty, any person who negligently, willfully, or intentionally violates any provision of the Stormwater Management Ordinance shall be guilty of a misdemeanor and punished by a fine not exceeding five hundred dollars (\$500.00), imprisonment for a period not exceeding thirty (30) days, or both. Each day of a violation constitutes a separate and new violation.

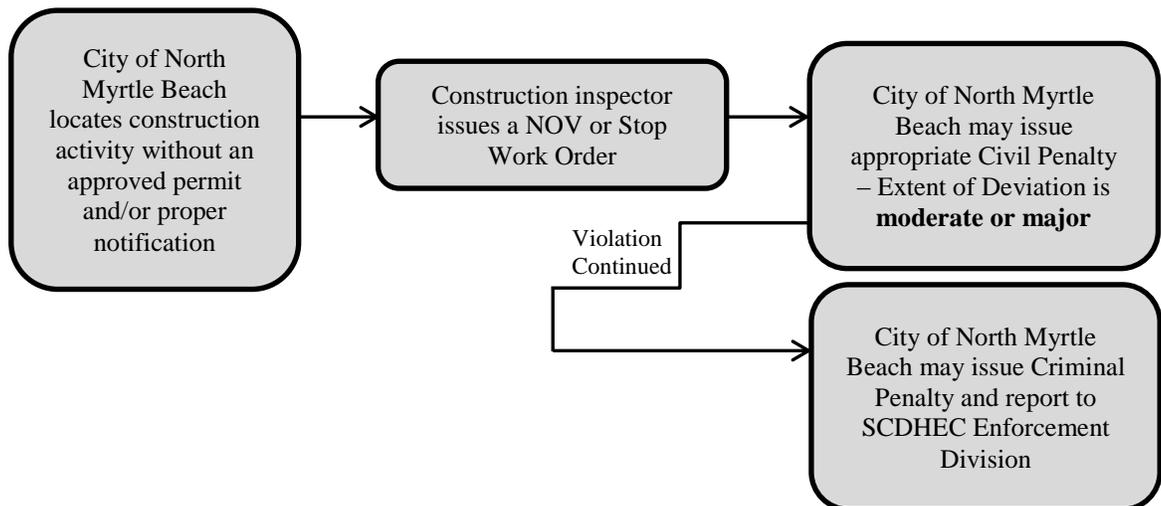
III. VIOLATION CATEGORIES

A. Construction/Permitting Violations

1. Initiation of construction activity without a site development/land disturbing/grading permit.

The City of North Myrtle Beach response:

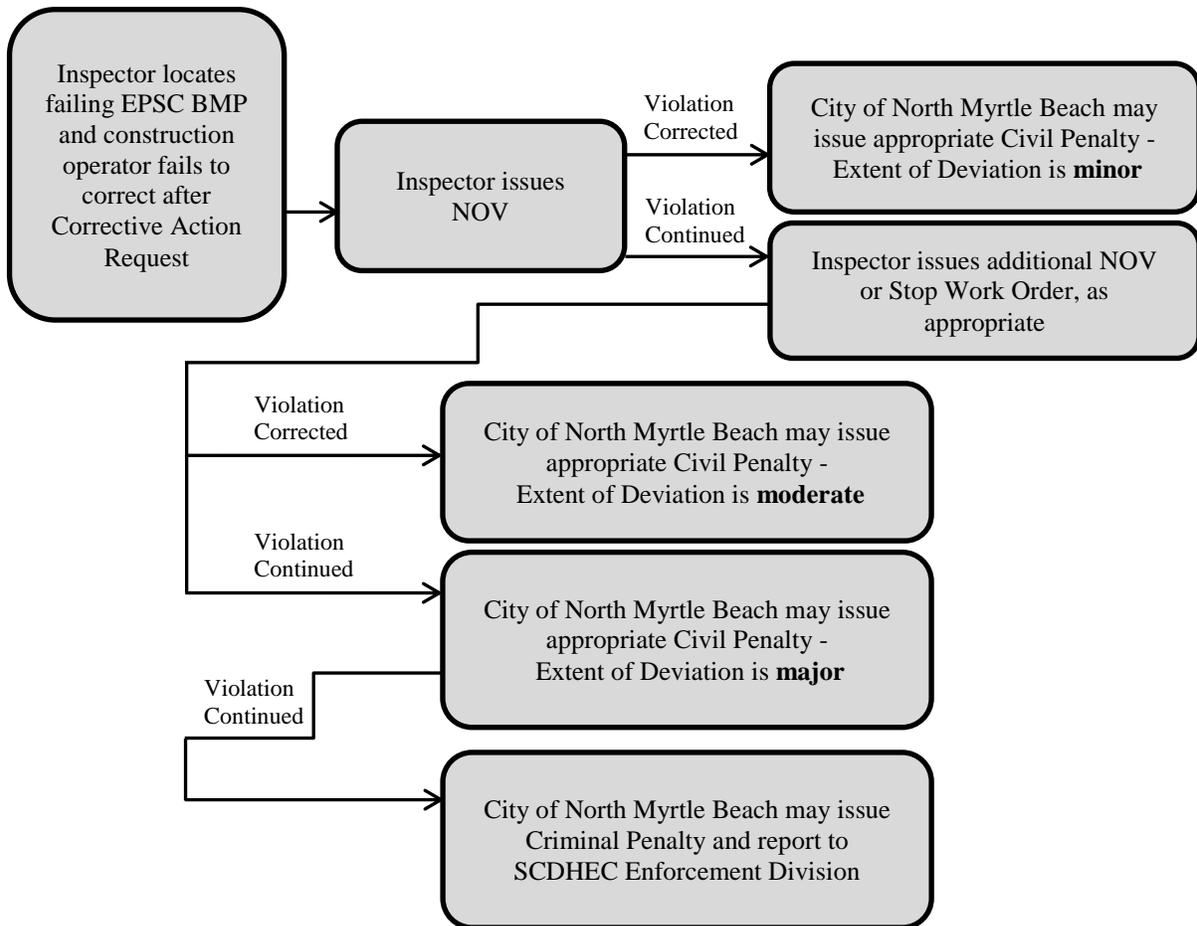
The City of North Myrtle Beach may issue a Notice of Violation (NOV) or a Stop Work Order, as appropriate, for all violations involving initiation of construction activity without a site development/land disturbing/grading permit and proper notification. Appropriate Civil or Criminal Penalties may be issued. If non-compliance continues, the City may report the violation to SCDHEC Enforcement Division.



2. Failure to properly operate and/or maintain all BMPs, components, facilities, and equipment associated with site Erosion Prevention and Sediment Control (EPSC).

The City of North Myrtle Beach response:

In cases of minor violations for operation and maintenance of EPSC BMPs, the construction inspector may issue a verbal Corrective Action Request prior to issuing written notifications. The City of North Myrtle Beach may issue a written Notice of Violation (NOV) if the construction operator fails to correct deficiency after a Corrective Action Request. The City of North Myrtle Beach will conduct follow-up inspections to ensure corrective action is provided. A Stop Work Order or additional NOV may be issued if corrective action is not provided. Appropriate Civil or Criminal Penalties may be issued. If non-compliance continues, the City may report the violation to SCDHEC Enforcement Division.

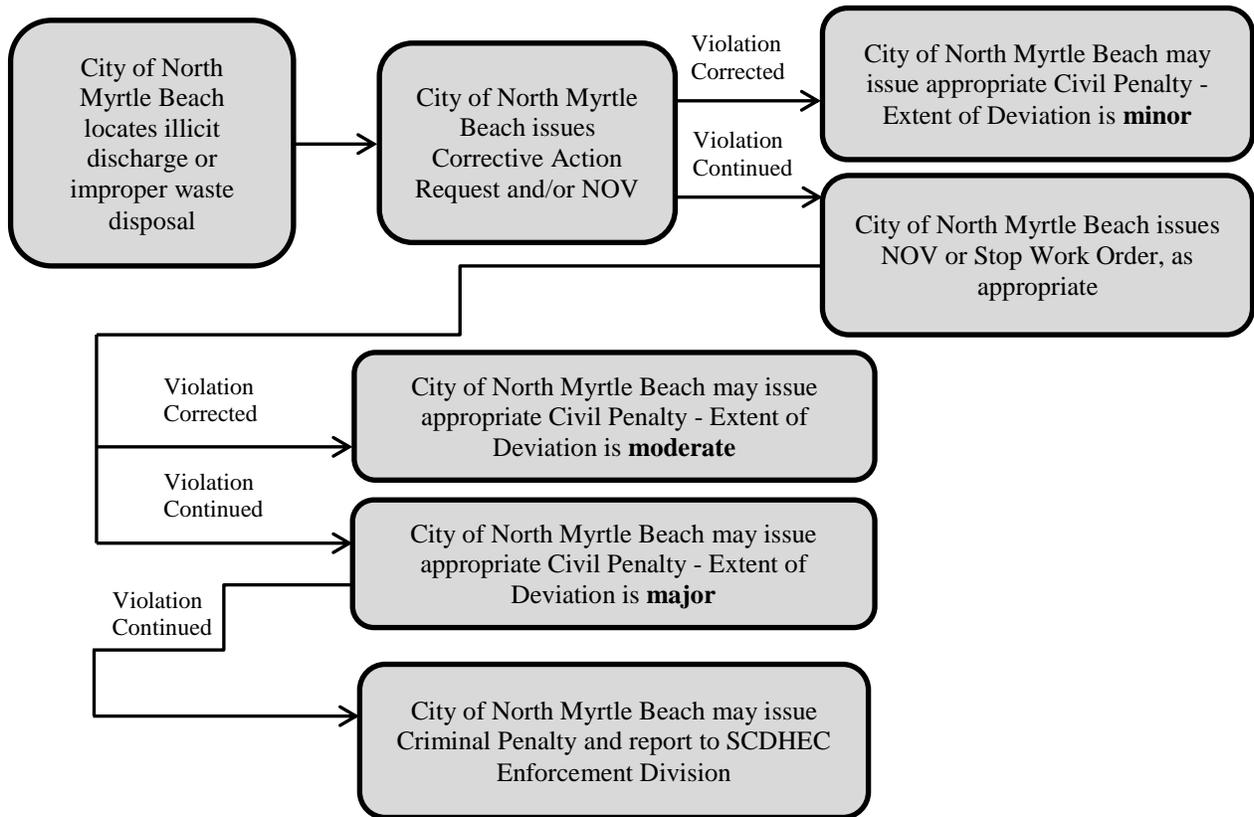


B. Illicit Discharge/ Illicit Connection/ Improper Waste Disposal

The City of North Myrtle Beach response:

The City of North Myrtle Beach must report immediately the occurrence of any dry weather flows believed to be an immediate threat to human health or the environment to SCDHEC Emergency Response, 1-888-481-0125. If the source of the suspected illicit discharge is found to be a suspected non-compliance with an NPDES permit, the appropriate SCDHEC Regional Office must be notified.

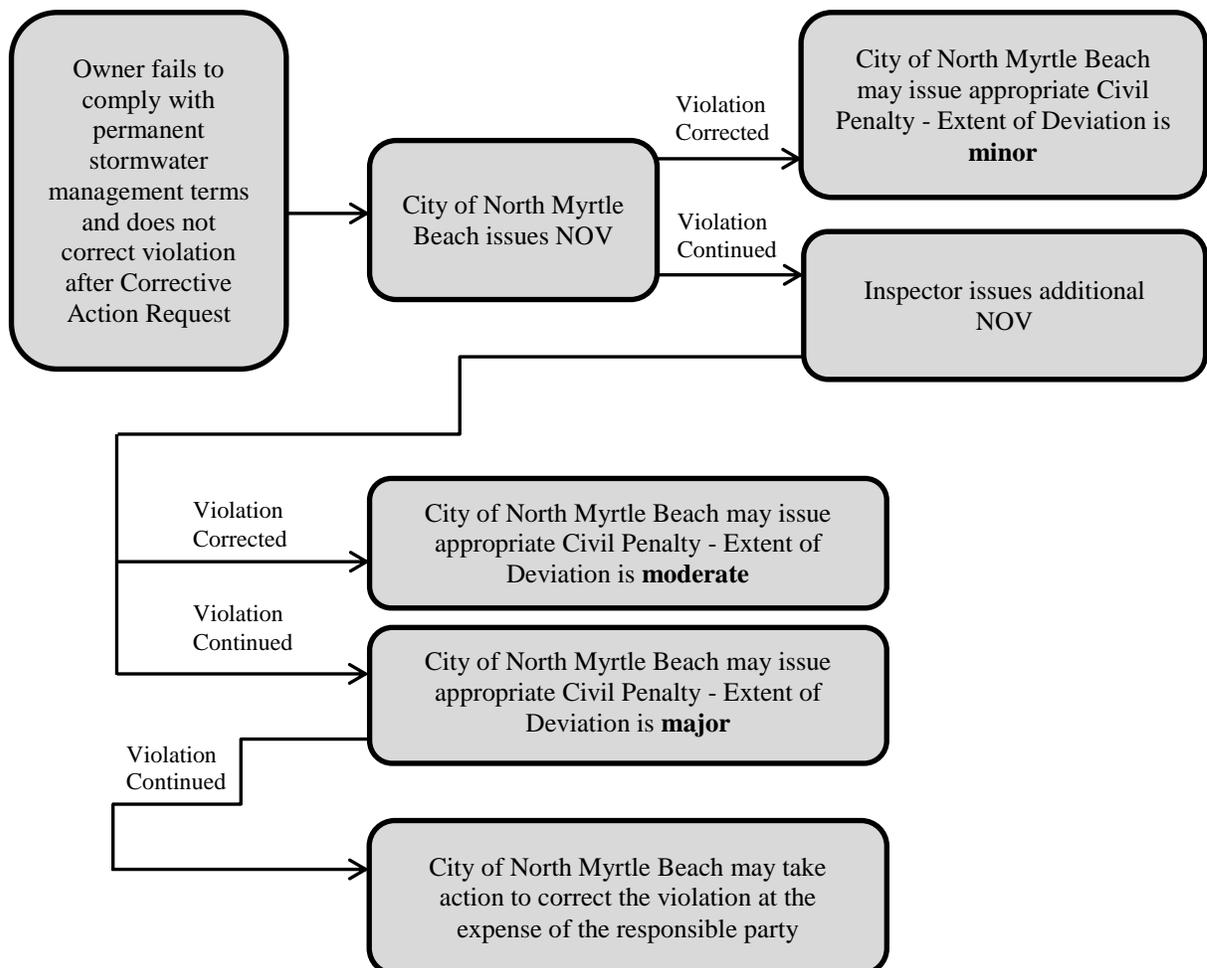
Once the source of the illicit discharge has been determined, the City of North Myrtle Beach will notify the responsible party of the discharge with a Corrective Action Request and/or NOV as soon as practicable but not later than three (3) days after that determination. The City will require the responsible party to conduct all necessary corrective actions to eliminate the non-stormwater discharge within 30 days. If elimination takes longer than 30 days, the City of North Myrtle Beach will require the responsible party to submit a plan with a schedule for elimination. If elimination does not occur and no plan is submitted, then a NOV or Stop Work Order may be issued. The City of North Myrtle Beach will conduct follow-up inspections to ensure corrective action is provided. Appropriate Civil or Criminal Penalties may be issued. If non-compliance continues, the City may report the violation to SCDHEC Enforcement Division.



C. Failure to Comply with Permanent Stormwater Management Requirements

The City of North Myrtle Beach response:

The City of North Myrtle Beach may issue a verbal Corrective Action Request upon initial discovery of a permanent stormwater management violation. The City of North Myrtle Beach may issue a Notice of Violation (NOV) if the construction operator fails to correct violation in response to Corrective Action Request. The City will conduct follow-up inspections to ensure corrective action is provided. Additional NOV may be issued if corrective action is not provided. Appropriate Civil Penalty may be issued. Continued non-compliance may result in the City taking action to correct the violation at the expense of the responsible party.

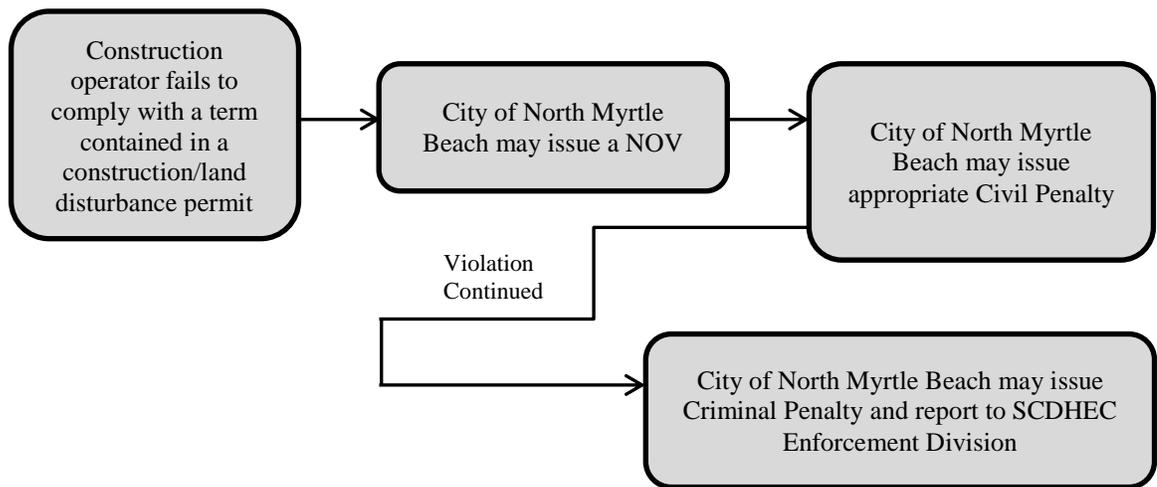


D. Failure to Comply with a Permit

Failure to comply with a requirement, condition, or term contained in a construction permit, site development, land disturbance, or grading permit.

The City of North Myrtle Beach response:

The City of North Myrtle Beach may issue Notice of Violation (NOV) upon initial discovery of violation. The City of North Myrtle Beach will conduct follow-up inspections to ensure corrective action is provided. Appropriate Civil or Criminal Penalties may be issued. If non-compliance continues, the City may report the violation to SCDHEC Enforcement Division.

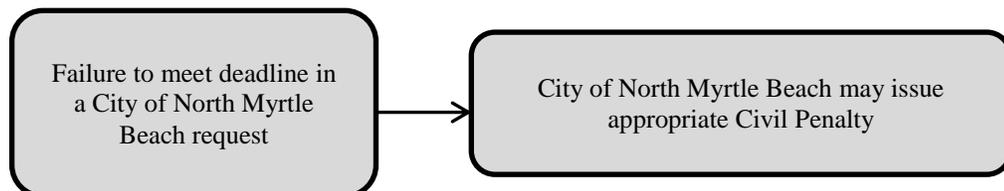


E. Failure to Comply with a City Request

Failure to comply with each requirement, term, or condition of a city request within the specified time frame.

The City of North Myrtle Beach response:

The City of North Myrtle Beach may issue Civil Penalty when a deadline in a city request is not met.



IV. PENALTY CALCULATION RATIONALE

The total penalty calculation will include consideration of the following factors at the discretion of the City of North Myrtle Beach:

- 1) Degree of harm or potential for harm to the public health, safety, private property, or the environment.
- 2) Extent of Deviation* from the requirements of the regulation, standard, or permit.
- 3) Frequency or duration of the violation.
- 4) Economic benefit as a result of non-compliance.
- 5) Cost of restoration of the environment or abatement of the environmental harm.
- 6) Past performance record or past history of noncompliance.
- 7) Degree of willfulness or negligence.

*Extent of Deviation for Civil Penalty comes from flow charts for each violation category. When not specified, the maximum Civil Penalty is to be determined by the City of North Myrtle Beach. Suggested Civil Penalties are as follow:

| Extent of Deviation | Suggested Maximum Civil Penalty (per day) |
|---------------------|---|
| Minor | \$150 |
| Moderate | \$300 |
| Major | \$500 |

When a violation is determined to involve criminal action, an additional Criminal Penalty of \$500 per day may be assessed.

A total penalty assessment rationale will be developed and outlined in writing for each enforcement action for which a penalty is assessed.

Penalties for long-lasting and/or continuing violations (such as, but not limited to, unauthorized discharges or poor operation and maintenance) and recovery of economic benefit may be assessed per occurrence, per month, or per week.

Appendix H North Myrtle Beach Contract with CWSEC by Clemson Extension

**CONTRACTUAL AGREEMENT BETWEEN CITY OF NORTH MYRTLE
BEACH AND CLEMSON UNIVERSITY Cooperative Extension**

THIS AGREEMENT (the “Agreement”) is made this 1st day of July, 2022, by and between the City of North Myrtle Beach (hereinafter referred to as “North Myrtle Beach”) and the Clemson University Cooperative Extension (hereinafter referred to as “Clemson”). This Agreement shall consist of all the terms, conditions, specifications and provisions required to deliver the Scope of Services defined heretofore.

WITNESSETH:

WHEREAS, North Myrtle Beach is seeking to implement stormwater public education and outreach and public involvement/participation programming; and

WHEREAS, Clemson University holds in its Extension faculty and staff various levels of expertise concerning stormwater compliance requirements as promulgated by SC DHEC and USEPA; and

WHEREAS, Clemson University Cooperative Extension has developed an environmental outreach program (Carolina Clear), portions of which apply to the impact of stormwater on natural resources; and

WHEREAS, North Myrtle Beach and Clemson desire to enter into an agreement relating to Clemson University’s requirement to implement strategic stormwater outreach and involvement programming, subject to the terms, specifications, conditions and provisions of the contract as heretofore mentioned.

THEREFORE, be it resolved that since Carolina Clear seeks to educate citizens about the impacts of stormwater and means to improve stormwater management and since this program provides outreach opportunities to address a broad range of water quality issues including the impact of stormwater on natural resources, Clemson and North Myrtle Beach will collaborate to address stormwater public education and outreach and public involvement/participation. Carolina Clear is a comprehensive approach developed by Clemson University Cooperative Extension Service to inform and educate communities about, among other issues, water quality, water quantity, and the cumulative effects of stormwater. Carolina Clear addresses the special significance of South Carolina’s water resources and the role these resources play in enhancing the state’s economy, environmental health, and overall quality of life.

NOW, THEREFORE, Clemson and North Myrtle Beach agree to all of these terms, conditions, specifications, provisions and the special provisions as listed below:

- A. This Agreement is deemed to be under and shall be governed by and construed according to the laws of the State of South Carolina.

- B. This Agreement, including the terms, conditions, specifications and provisions listed herein makes up the entire agreement between the Clemson and North Myrtle Beach. No other Agreement, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or bind either party hereto.
- C. It is understood that this Agreement shall be considered exclusive between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained herein, the parties agree as follows:

ARTICLE 1 DESCRIPTION

Because each agreement is unique to the requirements of the circumstances, Clemson and North Myrtle Beach agree that the specific metrics of each task shall be individually negotiated and delineated in the Scope of Services. Neither party has any responsibility for any performance obligations except as indicated within the Scope of Services.

Clemson does hereby offer to North Myrtle Beach services for the purpose of providing stormwater-related public education and involvement programs and documentation of activities for Clemson University, as contained and described in the Scope of Services.

SCOPE OF SERVICES

PUBLIC awareness and education about natural resources is crucial to the process of protecting and restoring water quality. Clemson and North Myrtle Beach will work together to deliver public education and outreach and public involvement/participation programming to general and targeted audiences towards achieving compliance with the public education and outreach and public involvement/participation requirements of the NPDES Phase II Stormwater Program.

In general, Clemson will lead a regional effort that includes strategic identification of behaviors and pollutants that can be addressed through stormwater education programming; implementation of an outreach campaign that seeks to address target behaviors, pollutants, and audiences; website presence and information made available to the public about pollution prevention; annual data report regarding program activities.

In order to assist North Myrtle Beach in satisfying the Public Education and Outreach Minimum Control Measure, as required by the NPDES Phase II Stormwater Program, Clemson proposes to utilize selected components of the Carolina Clear program in order to:

- Coordinate and lead a regional body of collaborators including community representatives joined together by a shared interest in watershed restoration, protection, and improved stormwater management.

- Determine the appropriate public awareness campaign with North Myrtle Beach and the community's guidance on target behaviors, audiences, pollutants and established venues and modes for outreach. Some program implementation approaches, BMPs (i.e., the program actions/activities), and measurable goals are contained in the individual agreement and seek to
 - Form collaborations,
 - Use and develop education materials and strategies, and
 - Reach diverse audiences.
- Implement a strategic public education program with North Myrtle Beach, or conduct equivalent outreach activities addressing the awareness of stormwater pollution and its effects on natural resources and the specific activities and safe alternatives to improve stormwater management.

In order to satisfy the Public Involvement/Participation Minimum Control Measure, as required by the NPDES Phase II Stormwater Program, Clemson proposes to

- Provide opportunities for citizens and various audiences to become active in stormwater management.
- Provide program accountability measures including estimated number of people contacted, publications produced and distributed, and measures of outreach impacts and possible behavior change, and other specifics as appropriate considering SCDHEC and USEPA guidance.
- Other programs and measures as specified in the Contractual Agreement.

NOW, the parties specifically agree as follows:

1. Clemson will deliver public education and outreach and public involvement/participation with a goal to influence a more aware and involved public in regards to stormwater management decisions. The educational programs will include components designed for various residential and commercial audiences and others targeted for their impact to stormwater and nonpoint source pollution. This effort will be delivered through various means, as detailed below in items 4 and 5. Events will be held at available facilities in such a way to reach diverse and regionally distributed audiences. Such instruction may include the furnishing of informational handouts, instructional manuals, promotional materials, webpages, logos, slogan, symbols, and similar such materials, as deemed appropriate by Clemson and North Myrtle Beach.
2. North Myrtle Beach will participate in a regional decision-making process to define regional priorities in regards to behaviors, pollutants, and audiences to be targeted for outreach. Additionally, North Myrtle Beach shall provide input as available on audience demographics, behaviors based on staff observations, residential and commercial impacts related to stormwater management that may lead to compliance and enforcement actions, and other input based on stormwater operations.
3. City of North Myrtle Beach shall provide information regarding readily available delivery modes for education and involvement programming (e.g., newsletters, community

calendars, government access channels, community meetings, Council meetings, tax or water bills, etc.).

4. Clemson will raise public awareness using a mass media approach. Billboard and television public service announcements, radio broadcasts and interviews, newspaper articles, stories and advertisements, and publications are among the outlets considered for use in this effort.
5. Each of the public-related activities described below will be part of the core program on an annual basis and will target a specific audience, all subject to modification with the approval of North Myrtle Beach and Clemson, as well as acknowledging regulatory direction and interpretation by South Carolina DHEC.

Clemson will:

LEAD

- 5.1. Work with the Coastal Waccamaw Stormwater Education Consortium, regional association of **stormwater managers, and local decision-makers** to update, plan, and determine regional public education and outreach and public involvement/participation priorities as part of a multi-year strategic plan with benchmarks of activities and measures of success annually.
- 5.2. Explore, pilot (as needed), and initiate strategic approaches to educating target audiences towards the goal of adopting improved behaviors and practices towards better stormwater management.

COMMUNICATE

- 5.3. Maintain webpage(s) with content specific to the regional outreach programs. Utilize tools to monitor website visits and other related statistics.
- 5.4. Maintain communication among regional collaborators through meetings, newsletters/e-news, one-on-one meetings, or other means established as best practice for the partnership.

IMPLEMENT

- 5.5. Plan, develop, present, and be a participant in at least three (3) **community and public** programs per year with emphasis on stormwater education. Provide resources to encourage continued learning and practice adoption.
- 5.6. Create at least three (3) news articles per year for the **area's residents and/or target audiences**.
- 5.7. Plan and present homeowner and yard owner program(s) for **individuals and families**. Distribute or provide materials for distribution as part of workshops and/or provide resources to encourage continued learning and practice adoption.
- 5.8. Provide at least one (1) **youth** program per year within the region such as
 - i. Adopt-A-Watershed which uses a local watershed,
 - ii. Storm Drain Marking,
 - iii. 4-H Wetlands Project explores estuaries, marshes, and swamps,
 - iv. 4H₂O Pontoon Classroom,
 - v. Engaging teachers in new watershed and stormwater curriculum meeting SC Standards, and
 - vi. EnviroScape®.
- 5.9. Present at least one (1) program per year that addresses pollution prevention and alternatives for a **target audience; as per the region's priorities**.
- 5.10. Develop and provide for the **general public**, within means, items such as banners and promotional giveaways to serve as a way to attract audiences and increase regional consortium visibility.
- 5.11. Utilize mass media outlets to provide statewide education at an increased cost-effectiveness; as needed, locally utilize mass media such as newspapers, radio, interviews and advertisements to address specific needs.

INVOLVE

- 5.12. Provide at least one (1) opportunity to involve an audience (**general public or commercial**) in improved watershed management and stormwater awareness.
- 5.13. Promote and expand web-based tools to encourage learning about and adoption of low impact development techniques (SC LID Atlas) and furthering involvement from citizens in watershed-focused volunteer opportunities (Watershed Stewardship Map) and through the use of demonstration sites as warranted appropriate.

REPORT

- 5.14. Provide and manage a user-friendly database to track each year's activities.
- 5.15. Annually, produce a document summarizing the year's efforts, successes, decision-making processes, collaborations and regional priorities.
- 5.16. On request and based on current regulatory guidance, provide data for public education and outreach and public involvement/participation measures of the Annual Report Checklist (or alternative document) required by DHEC of all Small Multiple Separate Storm Sewer Systems (MS4s).

6. Clemson Extension will provide accountability statistics for each of the activities as best can be estimated. The statistics will include the following accomplishment indicators:
 - 6.1. Number of educational programs and activities conducted.
 - 6.2. Number of people reached through educational programs or involved by outreach programs according to method, audience or targeted behavior.
 - 6.3. Number of people receiving information through "non-program" contacts such as telephone, office, visits, website contacts, visual and print media.
 - 6.4. Evaluation of activities and the pollutant or behavior targeted.
 - 6.5. As available, feedback on programs and anecdotal evidence of successful program implementation.

7. At a minimum of *once per permit cycle* (anticipated as no less than 3 years and no more than 5 years), and on the Carolina Clear statewide schedule so as to gain regional comparison information, implement statistically relevant survey instruments to gain insight on the awareness, knowledge and behaviors of the general public related to stormwater and watershed management, as well as regional effort awareness.

A mutually agreeable estimated delivery schedule shall provide activities distributed through each year in an Annual Activity Plan (as default) or on an otherwise agreed upon multi-year activity plan, which will be noted as a regional decision documented in writing for the regional entity.

ARTICLE 2 LIABILITY

City of North Myrtle Beach and Clemson shall not be responsible to each other for any incidental, indirect or consequential damages incurred by either City of North Myrtle Beach or Clemson or for which either party may be liable to any third party which damages have been or are occasioned by services performed or reports prepared or other work performed hereunder.

ARTICLE 3 ASSIGNMENT

Clemson shall not assign or subcontract any rights or duties of this Agreement, except to an affiliated company, without the expressed written consent of North Myrtle Beach, which consent shall not be unreasonably withheld, conditioned or delayed. Any assignment or subcontract without the written consent of North Myrtle Beach shall be void and this Agreement shall terminate at the option of the North Myrtle Beach.

**ARTICLE 4
TERM**

The term of this Agreement shall be for five (5) years beginning on the date of the last signature of this contract agreement. The contract may be extended an additional one (1) year three times, for a total of three (3) years, at the written mutual agreement of both parties, provided such agreement is executed no later than 30 days prior to the expiration of this contract. No amendments, changes or modifications will be effective until and unless reduced to writing and signed by the parties.

**ARTICLE 5
COMPENSATION**

City of North Myrtle Beach shall provide payment in the amount of Sixteen Thousand and Three Hundred Eight-Nine Dollars (\$16,389), for the first year of core program subject to the terms and conditions of this Agreement, unless additional services are amended to this Agreement. The contract dollar amount will be decreased incrementally to reflect Fourteen Thousand Three Hundred and Eighty-Nine Dollars (\$14,389) in Year Two, Twelve Thousand Three Hundred and Eighty-Nine Dollars (\$12,389) in Year Three, Ten Thousand Three Hundred Eighty-Nine Dollars (\$10,389) in Year Four, and Ten Thousand Dollars (\$10,000) in Year Five. On Year Five the base rate of Ten Thousand Dollars (\$10,000) will then serve as the base rate for future agreements. Fees for additional services will be negotiated based on cost.

**ARTICLE 6
LIABILITY COVERAGE**

Each party agrees to carry and provide insurance coverage in the amount of \$1 million for general liability, as well as carrying statutory amounts of workers compensation and auto insurance.

**ARTICLE 7
DEFAULT**

The remedies herein given to North Myrtle Beach shall be cumulative, and the exercise of any one remedy by North Myrtle Beach shall not be to the exclusion of any other remedy.

**ARTICLE 8
TERMINATION**

In the event that Clemson fails to perform (or fails to commence the cure of any breach, which shall be diligently prosecuted in good faith) the services described within fifteen (15) business days of its receipt of a written demand from North Myrtle Beach, North Myrtle Beach may terminate the Contract immediately upon notice provided such notice is at least thirty (30) business days following North Myrtle Beach's notice of non-performance. In the event that North Myrtle Beach breaches any of the terms of this Agreement including, but not limited to, non-payment, and fails to cure such breach within fifteen (15) business days of its receipt of a written demand from Clemson, Clemson may terminate the Contract immediately upon notice, provided such notice is at least thirty (30) business days following the Clemson's notice of breach. Upon such termination, the North Myrtle Beach has the right to award the Contract to an alternate contractor.

**ARTICLE 9
CITY RESPONSIBILITIES**

North Myrtle Beach will be responsible to provide Extension reasonable access to its locations when necessary, and to ensure cooperation of North Myrtle Beach employees in activities reasonable and appropriate under the project, as well as obtaining authorization for access to third party sites, if required.

**ARTICLE 10
FORCE MAJEURE**

Should performance of Clemson services be materially affected by causes beyond its reasonable control, a Force Majeure results. Force Majeure includes, but is not restricted to, acts of God, acts of a legislative, administrative or judicial entity, acts of contractors other than subcontractors of Clemson, fires, floods, labor disturbances, and unusually severe weather. Clemson will be granted a time extension and the parties will negotiate an adjustment to the fee, where appropriate, based upon the effect of the Force Majeure upon Clemson's performance.

**ARTICLE 11
SEVERABILITY**

Every term or provision of this Agreement is severable from others. Notwithstanding any possible future finding by a duly constituted authority that a particular term or provision is invalid, void, or unenforceable, this Agreement has been made with the clear intention that the validity and enforceability of the remaining parts, terms and provisions shall not be affected thereby.

ARTICLE 12

INDEPENDENT CONTRACTOR

Clemson shall be fully independent in performing the services and shall not act as an agent or employee of North Myrtle Beach. As such, Clemson shall be solely responsible for its employees, subcontractors, and agents and for their compensation, benefits, contributions and taxes, if any.

ARTICLE 13 NOTICE

Clemson and North Myrtle Beach shall notify each other of service of any notice of violation of any law, regulation, permit or license relating to the services; initiation of any proceedings to revoke any permits or licenses which relate to such services; revocation of any permits, licenses or other governmental authorizations relating to such services; or commencement of any litigation that could affect such services. Such notice shall be delivered by U. S. mail with proper postage affixed thereto and addressed as follows:

City of North Myrtle Beach ATTN: Kevin Blayton
Title: Director of Public Works
Address: 1018 2nd Avenue S, North Myrtle Beach, SC 29582

Clemson University: Clemson Extension Service
Attn: Kimberly C. Morganello
Carolina Clear Program Coordinator,
Clemson Cooperative Extension
259 Meeting Street
Charleston, SC 29401

**ARTICLE 14
TOTAL AGREEMENT**

This Agreement constitutes the entire agreement between the parties hereto. No representations, warranties or promises pertaining to this Agreement have been made or shall be binding upon any of the parties, except as expressly stated herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

WITNESSES:

Richard Jellner

Alleen K. Hallerath

City of North Myrtle Beach

Signature: _____

Name: Mike Mahan

City Administrator City Manager

Address: City of _____

NORTH MYRTLE BEACH

WITNESSES:

Dalshen J. Jameson

K W L

Clemson University Cooperative Extension Service

Signature: _____

Name: George Askey, Vice President for Public Service & Agriculture

Address: Clemson University