[Trees play a critical, often overlooked, role in the water cycle and in the mitigation of stormwater runoff issues such as soil erosion, pollutant reduction, infiltration, quantity reduction, and thermal effects. This ordinance is intended to ensure that permittees are considering these undervalued assets in their stormwater management efforts.

The 2023 Tier A MS4 permit renewal requires permittees to, at a minimum, adopt and enforce a community-wide ordinance to control tree removal and replacement for all types of properties where the municipality has jurisdiction. This model ordinance, developed by the Department, can be used by each municipality for consideration in reviewing and/or updating their existing tree ordinance, or adopting a new tree ordinance. This model may also be modified by the municipality to meet the needs of their community.]

Ordinance # [] - Tree Removal-Replacement Ordinance

SECTION I. Purpose:

An ordinance to establish requirements for tree removal and replacement in **[insert name of municipality]** to reduce soil erosion and pollutant runoff, promote infiltration of rainwater into the soil, and protect the environment, public health, safety, and welfare.

[Municipalities that are accredited with the NJ Urban and Community Forestry Program may continue to follow their town's established forestry program requirements provided their accredited program addresses tree removal and replacement.

The details of a municipality's forestry program shall be incorporated by reference or contained within the municipality's adopted ordinance. Please contact the NJ Urban and Community Forestry Program to obtain further information regarding becoming an accredited municipality and the associated requirements.]

[Municipalities with an existing tree ordinance may contact the Department at stormwatermanager@dep.nj.gov to determine if their ordinance requires modification.]

SECTION II. Definitions:

For the purpose of this ordinance, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this ordinance clearly demonstrates a different meaning. When consistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The use of the word "shall" means the requirement is always mandatory and not merely directory.

- A. "Applicant" means any "person", as defined below, who applies for approval to remove trees regulated under this ordinance.
- B. "Critical Root Radius (CRR)" means the zone around the base of a tree where the majority of the root system is found. This zone is calculated by multiplying the diameter at breast height (DBH) of the tree by 1.5 feet. For example: a tree with a 6" DBH would have a CRR = 6"x1.5" = 9".
- C. "Diameter at Breast Height (DBH)" means the diameter of the trunk of a mature tree generally measured at a point four and a half feet above ground level from the uphill side of the tree. For species of trees where the main trunk divides below the 4½ foot height, the DBH shall be measured at the highest point before any division.
- D. "Hazard Tree" means a tree or limbs thereof that meet one or more of the criteria below. Trees that do not meet any of the criteria below and are proposed to be removed solely for development purposes are not hazard trees. [Municipalities may choose to require a Licensed Tree Expect to make all Hazard tree determination]
 - 1. Has an infectious disease or insect infestation;
 - 2. Is dead or dying;
 - 3. Obstructs the view of traffic signs or the free passage of pedestrians or vehicles, where pruning attempts have not been effective;
 - 4. Is causing obvious damage to structures (such as building foundations, sidewalks, etc.); or
 - 5. Is determined to be a threat to public health, safety, and/or welfare by a certified arborist or Licensed Tree Expert (LTE).
- E. "Person" means any individual, resident, corporation, utility, company, partnership, firm, or association.
- F. "Planting strip" means the part of a street right-of-way between the public right-ofway and the portion of the street reserved for vehicular traffic or between the abutting property line and the curb or traveled portion of the street, exclusive of any sidewalk.
- G. "Resident" means an individual who resides on the residential property or contractor hired by the individual who resides on the residential property where a tree(s) regulated by this ordinance is removed or proposed to be removed.

- H. "Street Tree" means a tree planted in the sidewalk, planting strip, and/or in the public right-of-way adjacent to (or specified distance from) the portion of the street reserved for vehicular traffic. This also includes trees planted in planting strips within the roadway right-of-way, i.e., islands, medians, pedestrian refuges.
- I. "Tree" means a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground.
- J. "Tree Caliper" means the diameter of the trunk of a young tree, measured six (6) inches from the soil line. For young trees whose caliper exceeds four (4) inches, the measurement is taken twelve (12) inches above the soil line.
- K. "Tree removal" means to kill or to cause irreparable damage that leads to the decline and/or death of a tree. This includes, but is not limited to, excessive pruning, application of substances that are toxic to the tree, over-mulching or improper mulching, and improper grading and/or soil compaction within the critical root radius around the base of the tree that leads to the decline and/or death of a tree. Removal does not include responsible pruning and maintenance of a tree, or the application of treatments intended to manage invasive species.

SECTION III. Regulated Activities:

[Application review and approval can be conducted along with existing business practices and permit application review such as, but not limited to, site plan approvals, building permit approvals, planning board application approval, etc. A separate application process is not required, but the Department has included sample language below for municipalities that prefer to do so.]

A. Optional Application Process:

1. Any person planning to remove a street tree, as defined as Tree removal, with DBH of 2.5" or more or any non-street tree with DBH of 6" or more on their property shall submit a Tree Removal Application to [Municipal Officials]. No tree shall be removed until municipal officials have reviewed and approved the removal. [For larger scale clearing projects, municipalities may choose to require a tree survey be submitted as part of the application to determine number, sizes, and exemptions of trees for the assessment of fees]

[The municipality may choose to impose application fees. If so, the following language may be used, with revisions as deemed appropriate.]
[Optional for municipalities: Applicants will be subject to an application fee as per the Table below.]

B. Tree Replacement Requirements

- 1. Any person who removes one or more street tree(s) with a DBH of 2.5" or more, unless exempt under Section IV, shall be subject to the requirements of the Tree Replacement Requirements Table below.
- 2. Any person, who removes one or more tree(s), as defined as Tree removal, with a DBH of 6" or more per acre, unless otherwise detailed under Section IV, shall be subject to the requirements of the Tree Replacement Requirements Table.

The species type and diversity of replacement trees shall be in accordance with Appendix A (*insert municipality provided tree list as Appendix A of this ordinance*). [The municipality shall provide a list of approved trees that are acceptable to be planted as replacement trees, or at a minimum develop a list of trees that shall <u>not</u> be used as replacement trees. This list will be included as "Appendix A". It is permissible for a municipality to include a procedure for approval of a tree not on the approved list. The list shall also contain approved planting times/seasons and proper planting standard procedures or a reference to available literature containing this information.]

Replacement tree(s) shall:

- 1. Be replaced in kind with a tree that has an equal or greater DBH than tree removed <u>or</u> meet the Tree Replacement Criteria in the table below;
- 2. Be planted within twelve (12) months of the date of removal of the original tree(s) or at an alternative date specified by the municipality;
- 3. Be monitored by the applicant for a period of two (2) years to ensure their survival and shall be replaced as needed within twelve (12) months; and
- 4. Shall not be planted in temporary containers or pots, as these do not count towards tree replacement requirements.

Tree Replacement Requirements Table:

Category	Tree Removed (DBH)	Tree Replacement Criteria (See Appendix A)	Application Fee [Municipality may choose to include and determine appropriate fees.]
1	DBH of 2.5" (for street trees) or 6" (for non-street trees) to 12.99"	Replant 1 tree with a minimum tree caliper of 1.5" for each tree removed	TBD by town
2	DBH of 13" to 22.99"	Replant 2 trees with minimum tree calipers of 1.5" for each tree removed	TBD by town

3	DBH of 23" to 32.99"	Replant 3 trees with minimum tree calipers of 1.5" for each tree removed	TBD by town
4	DBH of 33" or greater	Replant 4 trees with minimum tree calipers of 1.5" for each tree removed	TBD by town

C. Replacement Alternatives:

- 1. If the municipality determines that some or all required replacement trees cannot be planted on the property where the tree removal activity occurred, then the applicant shall do one of the following:
 - a. Plant replacement trees in a separate area(s) approved by the municipality.
 - b. Pay a fee of (amount to be set by municipality) per tree removed. This fee shall be placed into a fund dedicated to tree planting and continued maintenance of the trees.

SECTION IV. Exemptions:

All persons shall comply with the tree replacement standard outlined above, except in the cases detailed below. Proper justification shall be provided, in writing, to the municipality by all persons claiming an exemption [the municipality shall define what "proper justification" is such as photos or statements from NJ licensed tree expert as per NJ Statue 45:15C-11 or arborist.]:

- A. Residents who remove less than four (4) trees per acre that fall into category 1, 2, or 3 of the Tree Replacement Requirements Table within a five-year period. [The number of trees removed is a rolling count across a five-year period. For example, if 3 trees from category 1 are removed in July 2023, the 'count' resets to zero in July 2028. However, if 1 tree from category 1 is removed in July 2023 and another in July of 2025 the first tree will come off the count in July 2028 and the second in July 2030.]
- B. Tree farms in active operation, nurseries, fruit orchards, and garden centers;
- C. Properties used for the practice of silviculture under an approved forest stewardship or woodland management plan that is active and on file with the municipality;
- D. Any trees removed as part of a municipal or state decommissioning plan. This exemption only includes trees planted as part of the construction and predetermined to be removed in the decommissioning plan.

- E. Any trees removed pursuant to a New Jersey Department of Environmental Protection (NJDEP) or U.S. Environmental Protection Agency (EPA) approved environmental clean-up, or NJDEP approved habitat enhancement plan;
- F. Approved game management practices, as recommended by the State of New Jersey Department of Environmental Protection, Division of Fish, Game and Wildlife:
- G. Hazard trees may be removed with no fee or replacement requirement.

SECTION V. Enforcement:

This ordinance shall be enforced by the **[Police Department and/or other Municipal Officials of insert name of municipality]** during the course of ordinary enforcement duties.

SECTION VI. Violations and Penalties:

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to a fine of \$ [amount per tree to be established by municipality but shall not be less than the amount of the required replacement tree(s) and cost of planting [Municipalities may require the planting of additional trees in lieu of a fine].

SECTION VII. Severability:

Each section, subsection, sentence, clause, and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause, and phrase, and finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause or reason shall not affect any other portion of this Ordinance.

SECTION VIII. Effective Date:

This	Ordinance	shall	be	in	full	force	and	effect	from	and	after	its	adoption	and	any
publi	cation as m	ay be	req	uir	ed b	y law.							-		•

Adoption Date: _			
Approved By:			

Appendix A

Approved list of Replacement tree Species and Planting Standards for (*Insert Municipality Name*)

[The municipality shall provide a list of approved trees that are acceptable to be planted as replacement trees, or at a minimum develop a list of trees that shall <u>not</u> be used as replacement trees. The list shall include approved planting times/seasons and proper planting standard procedures or a reference to available literature containing this information.]

Tree Species	Planting Season	Planting Procedure (soil type, watering, pruning, staking, wrapping, exposure, depth, mulching, etc)