



Environment & Energy Efficiency Committee Meeting

Monday, March 18, 2024 at 7:00 PM
149 Main Street, Philip Pane Lower Hearing Room

Agenda

Pursuant to Chapter 2 of the Acts of 2023, the meeting and public hearing will be conducted with remote opportunities for participation. Remote participation and access methods include:

ACCESS INFORMATION:

- A. This meeting will be held on March 18, 2024 at 7:00 pm. Location: 149 Main Street, Philip Pane Lower Hearing Room
- B. The meeting will be televised through WCATV (Watertown Cable Access Television): <http://vodwcatv.org/CablecastPublicSite/watch-now?site=3>
- C. The Public may join the virtual meeting online: <https://watertown-ma.zoom.us/j/89347924373?pwd=b1pKaUU1bHM0aWZRWDVCS1pQVFIsQT09>
- D. Public may join the virtual meeting audio only by phone: (877) 853-5257 or (888) 475-4499 (Toll Free) and enter Webinar ID: 893 4792 4373
- E. Public may comment through email: silas.fyler@watertown.k12.ma.us
- F. Please Visit the Environment & Energy Efficiency Committee Website here: <https://www.watertown-ma.gov/210/Environment-Energy-Efficiency-Committee>

You can request placement of an item on future agendas by contacting Jeanne Trubek mjtrubek@gmail.com or Ellen Menounos ellenmenounos@gmail.com

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- 1. Welcome and introductions
 - 2. Announcements and approval of minutes
 - 3. Energy Manager Report
 - 4. Environmental Planner Report
 - 5. Updates on Tree Ordinance Working Group
 - Memo: Draft Watertown Tree Protection Ordinance
 - Watertown Rules and Regulations Annotated 240216
 - Watertown Ordinance Annotated 240216
 - Proposed alternatives for Chapter 56 Title and Section 56.01.
 - 6. Presentation of the proposed BERDO (Building Emissions Reduction Disclosure Ordinance)

City of Watertown BERDO Ordinance

7. Questions and Discussion of BERDO
8. Vote on whether to send the BERDO to City Manager Proakis
9. Adjourn

TO: Michael Micieli and Michael Cookson
FROM: Ellen Menounos, Co-Chair Watertown Environment and Energy Efficiency Committee
Libby Shaw, President, Trees for Watertown
DATE: February 16, 2024
SUBJECT: Draft Watertown Tree Protection Ordinance

Mike and Mikey: Thank you for the considerable effort you put into separating out rules and regulations from the ordinance language in WE3C's original draft Tree Protection Ordinance. We truly appreciate that our City administration is back in action to develop this urgently needed protection for all our city trees.

The fundamental purpose of a municipal Tree Protection Ordinance is to present an explicit and evocative statement acknowledging that healthy, mature urban trees are an **essential public good**, and to establish a municipal mechanism that provides reasonable and effective rules and regulations in order to carry out the protection, enhancement and expansion of this essential public good.

We do believe the ordinance as currently written should be reexamined to ensure that it applies in the neighborhood areas where it's most needed in Watertown, while protecting the interests of owner-occupants, and that it emphasizes tree protection as well as tree replacement policy.

Concepts and definitions we believe should be thoroughly discussed for inclusion in Watertown's Tree Protection Ordinance:

- "Protected tree" (a tree having a DBH of 6" or more) and "Significant tree" (a protected tree estimated to be 30 years old or more)
- Regulations designed to reasonably protect Protected trees, with stronger regulations to protect Significant trees
- Regulations supporting recommended genus and species diversity, including some percentage of native tree species for environmental sustainability
- Language recognizing the ongoing disappearance of healthy protective city tree canopy, the majority of which is in private residential yards, which compels the creation of a tree protection ordinance
- Regulations with appropriately different impact on owner-occupied residential property vs. residential property under development
- Regulations designed to provide adequate monitoring and regular public reporting on progress toward the improved tree preservation, canopy coverage, and overall urban forest health that are the objectives of this ordinance.

The following are topics recommended after discussion with Laurence Wiseman, senior advisor on urban forestry for American Forests.

- Requirements for a minimum percentage tree canopy coverage adjusted for each category of Watertown zoning district
- Clarification that the City follows the same protective rules for its trees that are applied to private trees

We've attached a proposed rewrite of Chapter 56, Section 56.01 which incorporates language and objectives we believe should be in Watertown's Tree Protection Ordinance, and annotated copies of DPW's draft ordinance and regulations, present some of the changes we'd like to see.

Once again, on behalf of the WE3C Tree Ordinance Working Group and Trees for Watertown, thank you very much for your efforts.

WATERTOWN TREE RULES & REGS – "ANNOTATED" FEEDBACK / COPY EDITS

NOTE: The DPW proposed Rules & Regs is in *italic black type*; the "annotations" are in blue type.

City of Watertown

*Rules and Regulations for Urban Forest Tree **Preservation, Protection, and Replacement***

Chapter 56, Attachment 1

Comment: We want to emphasize preservation and protection throughout; replacement is a last resort.

- 1) **Purpose; Objective.** *The purpose of these rules and regulations is to provide for the health, safety, and general welfare of the citizens of the City through the protection of the urban forest. Accordingly, the objective of these rules and regulations is to preserve, maintain, enhance, and enlarge the City of Watertown's urban forest by establishing a tree preservation, protection, and replacement program that requires nonexempt development and redevelopment projects to preserve and protect healthy trees or, when removal is necessary, to replace removed healthy trees or pay an in-lieu fee.*
- 2) **Definitions.** *Must be dealt with later.*
- 3) **Authority.** *The rules and regulations contained herein have been adopted by the City Manager pursuant to § 56.10 of the City Code.*
- 4) **Administration.** *The Department of Public Works shall administer, implement, and enforce these rules and regulations. Any powers granted to, or duties imposed upon, the Department of Public Works may be delegated to the Department of Public Work's employees or agents.*
- 5) **Small Residential Properties Exempt.** *With the understanding that exemptions do not apply to trees of a DBH of ___ inches or greater, nothing in these rules and regulations shall impose a duty upon persons proposing or performing development or redevelopment projects on sites of an area less than 10,000 square feet that contain three (3) or fewer residential units and no commercial units before beginning and ~~will still contain three (3) or fewer residential units and no commercial units~~ after completion.*
- 6) **Preexisting Tree Survey.** *Subject to Section 5 of these rules and regulations, all persons proposing, planning, or performing a development or redevelopment project shall make private arrangements for a certified arborist to complete a survey of all trees on the site.*

Question: Will the survey requirements be defined? Can the regs refer to the guiding document? See [page 3 of Arlington's guide for protecting trees](#), it shows a sample tree survey.

7) **Required Submissions.** *Subject to Section 5 of these rules and regulations, all persons proposing, planning, or performing a development or redevelopment project shall submit to the Department of Public Works:*

a) **Survey Results.** *The results of the survey completed pursuant to Section 6 of these rules and regulations;*

b) **Tree Inventory.** *An inventory of each tree surveyed pursuant to Section 6 of these rules and regulations with a DBH of six (6) inches or more, including the following information for each tree:*

i) *Species;*

ii) *DBH;*

iii) **CRZ (critical root zone);**

iv) *Location;*

v) *Condition according to the certified arborist who completed the survey pursuant to Section 6 of these rules and regulations;*

vi) *Whether the tree is proposed for removal or transplantation; and*

vii) *If a public shade tree is proposed for removal, then the reason for removal and a written acknowledgement that no public shade tree shall be removed before a tree hearing consistent with Chapter 87, Section 3, of the Massachusetts General Laws;*

c) **Tree Replacement Plan.** *A tree replacement plan consistent with Section 8 of these rules and regulations; and*

d) **Tree Protection Plan.** *A plan to protect and maintain ~~the non-removed~~ all preserved trees on the site throughout the duration of the project.*

Comment: Arlington has a great guide.

8) **Tree Replacement.** *Subject to Section 5 of these rules and regulations, all persons proposing, planning, or performing a development or redevelopment project shall replace all removed healthy trees with a DBH of six (6) inches or more in accordance with the following minimum standards:*

- a) **Transplantation.** Whenever practicable, trees shall be transplanted to another location on or adjacent to the site of development or redevelopment rather than being removed. If a tree is transplanted to another location on or adjacent to the site of development or redevelopment and the tree warden certifies that the tree remains in good condition after the transplantation, then no replacement trees shall be required for the transplanted tree;
- b) **Standard Replacement Trees.** All replacement trees shall be of a species approved by the tree warden and no smaller than three (3) inches DBH;
- c) **Equal Replacement.** Notwithstanding Subsections (d) through (f) ~~infra~~ below, a removed healthy tree may be replaced by a single healthy tree of a species approved by the tree warden and of a DBH equal to or greater than that of the removed healthy tree;
- d) **Healthy Trees.** Except for significant trees and invasive trees, each healthy tree shall be replaced by a number of replacement trees equal to the quotient obtained by dividing the DBH of the removed healthy tree by three (3);

Question: Clarify with an example? $12" / 3 = 4$ replacement trees (3" DBH each)

- e) **Significant Trees.** Each significant tree shall be replaced by a number of replacement trees equal to one and one half (1.5) times the quotient obtained by dividing the DBH of the removed significant tree by three (3);

Question: Clarify with an example? $12" / 3 = 4$; $4 \times 1.5 = 6$ replacement trees (3" DBH each)

- f) **Invasive Trees.** Each invasive tree shall be replaced by a number of replacement trees equal to one half (0.5) of the quotient obtained by dividing the DBH of the removed invasive tree by three (3);

Question: Clarify with an example? $12" / 3 = 4$; $4 \times .5 = 2$ replacement trees (3" DBH each)

- g) **Round Up.** If the number of replacement trees required under Subsections (d), (e), or (f) ~~supra~~ above is not a whole number, then the number of replacement trees required for each removed tree shall be equal to the next highest whole number;

Question: Explain "for each" – for example, 3 trees at $1\frac{1}{3}$ each = 4 replacement trees or 6?

- h) **Dead or Unhealthy Trees.** If a certified arborist finds and the tree warden confirms that a tree is dead or in poor condition, then said tree may be removed without replacement;
- i) **Tree Distribution.** Replacement trees shall be planted such that they are distributed across the entire land area of the site to the greatest extent practicable;

- j) **Insufficient Land Area.** If the number of replacement trees required cannot practicably fit on the site, then, at the Department of Public Works' discretion, such replacement trees as can fit on the site shall be planted thereon and the remaining replacement trees shall be planted on a public right of way or at another location as determined by the Department of Public Works; and*
- k) **Tree on Public Right of Way.** All trees planted on any public right of way shall conform to such tree planting requirements as the Department of Public Works promulgates from time to time.*
- 9) In-Lieu Fees.** *At the Department of Public Works' discretion, a person required by these rules and regulations to replace trees may instead pay the Department of Public Works a fee of two thousand dollars (\$2,000) per required replacement tree. In such cases, the Department of Public Works shall plant a number of trees equal to the number of trees for which a fee was paid on public rights of way or at other locations as determined by the Department of Public Works.*

Copy edit: Add hyphen for In-Lieu Fees.

WATERTOWN TREE ORDINANCE – "ANNOTATED" FEEDBACK / COPY EDITS

The Ordinance Title and § 56.01 are dealt with in the Memo document sent separately. § 56.02. Definitions must be addressed later.

Five neighboring cities' Tree [Ordinances](#) were referenced in making these annotations: [Arlington](#), [Boston](#), [Cambridge](#), [Newton](#), and [Somerville](#). When notes refer to "other ordinances," it means these five.

NOTE: We want to reinstate the Tree Committee, if not in the ordinance then in the regulations. The five neighboring municipalities have tree committees, though only the ordinances for Boston and Somerville specify them, while the committees / commissions for [Arlington](#), [Cambridge](#), and [Newton](#) are not specified in their ordinances. A draft of the Tree Committee language is at the end of this document.

NOTE: The DPW proposed ordinance is in *italic black type*; the "annotations" are in blue type.

§ 56.03. Authority. *This chapter is adopted under authority granted by Article 89 of the Constitution of the Commonwealth of Massachusetts, the Home Rule Amendment, and Chapter 43B of the Massachusetts General Laws, the Home Rule Procedures Act.*

Observation: There is no comparable section in the tree ordinances for neighboring cities. It seems unnecessary and without a purpose or benefit.

<https://www.mass.gov/doc/home-rule-0/download>

[Mass General Laws, Chapter 43B Home Rule Procedures and "Dispelling the Myth of Home Rule: Local Power in Greater Boston"](#)

§ 56.04. Administration. *Unless another department is specified, the Watertown Department of Public Works shall administer, implement, and enforce this chapter, all regulations promulgated pursuant to this chapter, and all permits issued under this chapter. Any powers granted to, or duties imposed upon, a department under this chapter may be delegated to such department's employees or agents. Nothing in this Chapter shall be construed to conflict with the Tree Warden's powers under Chapter 87 of the Massachusetts General Laws or other applicable state or federal law.*

§ 56.05. General Tree Removal Permit. *Except as provided in § 56.07(B), no person shall remove one (1) tree of a DBH of ___ inches or greater, or three (3) or more trees of six (6) inches DBH or greater from any private property without first obtaining a tree removal permit.*

Observation: This would be very difficult to enforce and very easy to "cheat" (cut down two trees this month, two trees next month, etc.).

§ 56.06. Development and Redevelopment Tree Removal Permits. *Except as provided in § 56.07, a tree removal permit shall be required prior to the removal of any trees as part of a development or redevelopment project.*

§ 56.07. Exemptions.

(A) **Small Residential Properties.** With the understanding that exemptions do not apply to trees of a DBH of ____ inches or greater, ~~no~~ *No person planning, proposing, or performing a development or redevelopment project of an area less than 10,000 square feet shall be required under § 56.06 to obtain a tree removal permit if the project site contains three (3) or fewer residential units and no commercial units before the project begins and will still contain three (3) or fewer residential units and no commercial units after the project is completed.*

Recommended: Add protection for all trees of a DBH of ____ inches and greater.

Recommended: Since a project of 3 residential units could cover a very large area, add a size limit of 10,000 square feet.

Copy edit: "commercial units" needs to be defined; remove unnecessary repetition for ease of reading.

(B) **Emergency.** *Nothing in this chapter nor any rule or regulation promulgated pursuant to this chapter shall prevent the removal, pruning, or alteration of any tree determined to be:*

- (1) *Imminently threatening to public safety;*
- (2) *Imminently threatening to existing structures or property; or*
- (3) *Presently disruptive of public services.*

§ 56.08. **Tree Replacement.** *All persons removing trees pursuant to a tree removal permit issued under § 56.06 or § 56.05 or who failed to obtain a required tree removal permit shall replace all removed trees with a DBH of six (6) inches or greater, or, at the Department of Public Work's discretion, ~~to~~ shall pay an in-lieu fee therefor.*

Copy edit: add § 56.05: "... issued under § 56.06 or § 56.05 or who ..."; replace "to" with "shall"

§ 56.09. Permit Procedures.

(C) **Permit Required.** *No tree removal, pruning, or alteration activity requiring a permit under § 56.05 or §56.06 shall commence prior to the issuance of a tree removal permit.*

(D) **Procedures.** *Permit procedures and requirements including, among other things, inter alia application forms, fee schedules, right-of-entry, tree replacement plan ~~contents~~, tree*

replacement requirements, inspections, and project closeout approvals may be included as part of the rules and regulations promulgated under this chapter.

Copy edit: change *inter alia* to ", among other things, "; delete "contents" or replace it with "form" because the contents of a tree replacement plan would be filled in by the person.

Recommended reordering to put the verb up front for easier reading:

(F) **Procedures.** The rules and regulations promulgated under this chapter may include permit procedures and requirements, including application forms, fee schedules, right-of-entry, tree replacement plan, tree replacement requirements, inspections, and project closeout approvals, among other things.

§ 56.10. Rules and Regulations. *The City Manager may adopt and periodically amend rules and regulations related to the purpose, findings, objectives, requirements, procedures, permitting, administration, and enforcement of this Chapter, including, among other things, ~~inter alia~~ the establishment of penalties, fines, in-lieu fees based on the reasonable cost to the City of planting replacement trees, enforcement actions, and mitigation requirements.*

Copy edit: change *inter alia* to ", among other things, "; lower case chapter to be consistent.

§ 56.11. Severability. *Neither the provisions of this chapter nor any permit issued in accordance with this chapter shall be suspended or invalidated as a result of the City Manager's failure to promulgate rules and regulations pursuant to this chapter, the City Manager's repeal of any or all rules or regulations promulgated under this chapter, or a court of law's invalidation of any or all provisions of this chapter or rules or regulations promulgated pursuant to this chapter.*

Recommendation: Use language common to other ordinances [Cambridge, Newton]:

Severability. The provisions of this Chapter are severable. If any section, provision, or portion of this Chapter is determined to be invalid by a court of competent jurisdiction, the remaining provisions of this Chapter shall continue to be valid.

Observation: There seems to be an error; it cannot be possible for the provisions to remain in effect if the City Manager has repealed them or if a court of law has invalidated them.

Question: Why does the numbering jump from 56.11 to 56.99?

§ 56.99. Enforcement. *The Department of Public Works shall have the authority to enforce this chapter, the rules and regulations promulgated pursuant to this chapter, and permits issued under this chapter. The Department of Public Works may issue orders, violation notices, and enforcement orders, and may pursue all available civil and criminal remedies for violations of this chapter, ~~the rules and regulations promulgated pursuant to this chapter, and the terms of permits issued under this chapter.~~*

Recommendation: Remove repetitions of the phrase highlighted above to make the rest easier to read. If helpful, add "including" before the phrase highlighted above ("...this chapter, including the rules...").

Copy edit: clarify "may issue orders, violation notices, and enforcement orders, and..." – mentioning "orders" and then "enforcement orders" is confusing; possible rewording: "may issue orders and violation notices, and..."

(A) Orders. *The Department of Public Works may issue written orders to enforce the provisions of this chapter, ~~rules and regulations promulgated pursuant to this chapter, and permits issued under this chapter.~~ Such orders may include, among other things, ~~inter alia~~ requirements to:*

Copy edit: change *inter alia* to ", among other things, ".

- (1) Cease and desist from development, redevelopment, or tree removal activities pending compliance with this chapter, ~~rules and regulations promulgated pursuant to this chapter, and the terms of permits issued under this chapter;~~*
- (2) Replace removed trees or pay a fee in lieu of replacement in accordance with this chapter, ~~the rules and regulations promulgated pursuant to this chapter, and permits issued under this chapter;~~*
- (3) Perform monitoring, analysis, and reporting to ensure compliance with this chapter, ~~the rules and regulations promulgated pursuant to this chapter, and permits issued under this chapter;~~ and*
- (4) Abate or remediate violations of this chapter, ~~the rules and regulations promulgated pursuant to this chapter, permits issued under this chapter,~~ and adverse impacts resulting directly or indirectly from violations thereof.*

(B) Injunctive Relief. *The City Manager may seek injunctive relief in a court of competent jurisdiction against any person who violates a provision of this chapter or any rule, regulation, permit, notice, or order promulgated or issued under this chapter to restrain such person from activities that would cause future violations or to compel such person to perform abatement or remediation related to past or present violations or the adverse impacts resulting directly or indirectly from such violations.*

Recommendation: All the other ordinances begin with a mention of "reasonable cause to believe" – here's a possible rewording for the wording highlighted above:

(B) Injunctive Relief. Whenever there exists reasonable cause to believe that a person is violating any applicable provision of this chapter, the City Manager may seek injunctive relief in a court of competent jurisdiction to restrain such person

(C) Penalties. *Pursuant to § 10.99 of the City Code, any person who violates any provision of this chapter or any rule, regulation, permit, notice, or order promulgated or issued under*

this chapter, may be ordered to correct the violation or shall be punished by a fine of not more than \$300 per violation, excluding the cost of damages. Each day or part thereof that such violation occurs or continues shall constitute a separate violation. Nothing in this section shall be construed to limit any other form of relief or penalty available or any authority to establish and assess in-lieu fees under this chapter.

(D) Non-Criminal Disposition. *As an alternative to criminal prosecution, the Department of Public Works may elect to utilize the non-criminal disposition procedure set forth in Mass. Gen. Laws Ch. 40, § 21D, which has been adopted by the City in § 35.05 of the City Code, for which purpose the Superintendent of the Department of Public Works and the Department's employees shall be enforcing persons.*

Recommendation: delete (D) Non-Criminal Disposition. No other ordinance has a Non-Criminal Disposition section or mentions an alternative penalty to be applied at the discretion of City staff. (C) Penalties mentions "a fine of not more than \$300 per violation" – doesn't that allow for fines less than \$300? If the objective is to allow for lesser fines, could Rules & Regulations give guidelines? (C) and (D) otherwise appear to leap from \$300 to \$25 at the discretion of city staff.

Referenced: [Mass General Laws Ch. 40, § 21D](#) [City Code § 35.05](#)

If this section (D) is going to be used after all, it should be preceded by its companion:

[municipal code § 35.04]

(D) Application for criminal complaint.

The officer, department head, or employee responsible for enforcement of any code provision, rule or regulation, or any employee designated by the City Manager, is hereby empowered to apply for a criminal complaint in the District Court and to seek the imposition of the penalty set forth in § 10.99.

(E) Non-Criminal Disposition. ... (F) Appeals. ... (G) Remedies Not Exclusive. ...

And if (D) is going to be used, (a) below should be fixed; it is incomplete:

the General law specifies, "...the enforcing person ... may, give to the offender a written notice to appear before the clerk of the district court having jurisdiction thereof ..."

The municipal code specifies, "[the enforcing person may] ...issue citations and notice to appear before the clerk of the District Court, pursuant to Mass. Gen. Laws Ch. 40, § 21D"

(a) would need to include an expression of these points:

"Any person notified to appear before the clerk of the District Court as hereinbefore provided may so appear and confess the offense charged either personally or through a duly authorized agent or by mailing to the City Clerk together with the notice the specific sum set forth on the notice, which shall be the specific penalty set forth in the ordinance, code, rule or regulation, but in no case shall be more than:"

~~(a) The specific penalties under this provision shall be:~~

~~(i) \$25 for the first offense;~~

(ii) \$50 for the second offense; and

(iii) \$100 for the third offense and any subsequent offense.

(b) Notwithstanding the foregoing, the enforcing person shall have the discretion to issue a warning in lieu of the citation for \$25 for the first offense.

Copy edit: If (D) is going to be used, "offense" needs to be defined.

(E) Appeals. The decisions and orders of the Department of Public Works shall be final. Further relief shall be to a court of competent jurisdiction.

(F) Remedies Not Exclusive. The remedies listed in this chapter are not exclusive of any other remedies under any applicable Federal, state or local law.

Copy edit: lower-case federal

PROPOSED:

Watertown Tree Committee.

(A) **Purpose.** The Watertown Tree Committee will be charged with advising on matters pertaining to the management and maintenance of all existing and new trees and shrubs throughout the City. The activities of the Tree Committee shall be consistent with the purpose and intent of this ordinance and of the Watertown Climate and Energy Plan.

(B) **Duties.** The Watertown Tree Committee shall:

- (1) Advise and assist the Tree Warden regarding planning and care for City trees, and regarding documentation and planning for canopy preservation and enhancement throughout the City.
- (2) This Committee shall have the ability to comment during any City of Watertown permitting review process.
- (3) The Tree Committee may elect to review issues related to the health, effective maintenance, and protection of existing trees and shrubs on public grounds and public ways of the City of Watertown, recommend solutions to any problems identified with such plantings, and shall support all public education and outreach by:
 - (a) Promoting knowledge and awareness of the benefits of trees in the City;
 - (b) Developing and maintaining a noteworthy tree program;
 - (c) Developing educational materials regarding best management practices for tree care;
 - (d) Supporting City staff during Arbor Day Celebrations; and
 - (e) Considering and recommending incentives for tree planting and maintenance.

- (4) Upon request, this Committee shall provide information to individual residents or owners on questions regarding trees or tree care.
- (5) Upon request of the applicant, this Committee shall consider and make recommendations to the Tree Warden on waivers for any required re-plantings or payments associated with the issuance of a Tree Permit.

(C) **Composition.** This seven-member Committee shall consist of the following members:

- (1) The Tree Warden,
- (2) The Senior Environmental Planner, and
- (3) Five Watertown residents, each serving a term of three years, except that at the time that the Committee is initially established one member shall be appointed for a one-year term, two for a two-year term, and two for a three-year term. Members may be reappointed for subsequent three-year terms.
- (4) Residents interested in serving on the Tree Committee shall be interviewed by the City Manager or his/her designee and by the City Council Committee on Climate and Energy, with recommendations for appointments forwarded to the City Council. Appointments shall be made on the basis of expressed interest and any qualifications or areas of expertise pertaining to the work of the Committee.

Proposed alternatives for Chapter 56 Title and Section 56.01. The sections in blue are introductory commentary.

The fundamental functions of a municipal Tree Protection Ordinance are

- to present a compelling statement of the public health, municipal, and environmental benefits of healthy city trees, that is, to explain why protection and enhancement of our city's tree population is a public good,
- to explain why protection and enhancement of our city's tree population urgently requires a municipal ordinance, and
- to lay out a municipal mechanism for providing reasonable and effective protection for, and enhancement of, our city's tree population.

The importance of the first and second functions above should not be overlooked.

We agree with DPW's definition of "urban forest" as "the trees, plants and associated ecosystems within the City." However this Ordinance and its associated Rules and Regulations properly focus only on trees.

To better illuminate the functions of this ordinance, we recommend these changes to the Chapter title and all-important statement of purpose.

Chapter 56. Tree Protection

Section 56.01. Purpose; Findings; Objectives. The purpose of this chapter is to provide for the health, safety, and general welfare of the citizens of the City through regulations which protect and increase the population of healthy urban trees throughout Watertown.

Parts 56.01 A and 56.01B of this important introductory section will better serve the functions of this ordinance by

- explicitly and evocatively acknowledging the environmental and quality of life benefits of trees, particularly the benefits of native trees and large trees
- stating the compelling reason that an ordinance is necessary
- avoiding punitive language.

We further believe that this ordinance should include

- the concept and definition of a "protected tree"
- the objective of enhancing and enlarging our city's tree canopy
- genus and species diversity objectives, including the objective of including native tree species, given the important role of native trees in environmental sustainability.

(A) The City Council deems that the preservation and enlargement of tree canopy in the City of Watertown is a public good in that trees

- Improve public health by providing significant mitigation of heat island effects,*
- improve air quality through filtration of particulates and production of oxygen,*
- support the natural water cycle,*
- absorb carbon dioxide and sequester carbon,*
- reduce energy demands for heating and cooling of buildings,*
- provide water filtration that improves groundwater and river water quality,*
- provide stormwater absorption that reduces flooding, storm drain requirements and stormwater management costs,*
- reduce erosion, retain and improve topsoil,*
- provide wind reduction,*
- provide noise reduction,*
- provide support for local ecosystems particularly through the presence of native trees,*
- improve the beauty of city streets,*
- provide privacy and natural beauty throughout the city.*

The City Council further finds that tree canopy will continue to diminish in Watertown unless actively maintained and enlarged.

It is therefore determined that the growth and maintenance of substantial trees throughout the city will improve public health and the quality of life.

(B) Therefore, the objectives of this chapter are to:

- (1) Maintain and increase public and private trees and tree canopy throughout the City of Watertown;*
- (2) Increase the diversity of genera and species of trees, particularly of native trees;*
- (3) Prevent, as much as possible, the loss of trees and tree canopy through development, disease, neglect, pollution and the effects of climate change;*
- (4) Establish legal authority to carry out all permitting, inspection, monitoring and enforcement procedures necessary to support the above objectives.*

To support these objectives, we believe Section 56.02, DEFINITIONS of this ordinance should include the following **additions and amendments**. This is a partial list, since it's expected that further additions and amendments will result from further discussions within the City and with the community.

Tree Warden/Urban Forestry Supervisor : A Certified Arborist employed by the City to carry out the duties of a tree warden as defined in MA G.L. Ch. 87, Section 2 & 14 and Ch. 41, Section 1 and 106, and to oversee public tree planting and care, to work to develop tree canopy throughout the city, to review and approve private Tree Plans and permit applications, and to advise regarding private tree planting and care. Throughout this ordinance, the term "Tree Warden" refers to the Tree Warden/Urban Forestry Supervisor or his/her designee acting under the direction of the Tree Warden/Urban Forestry Supervisor.

Forestry Department: A designated department of the Dept of Public Works operating under the supervision of the Tree Warden – Urban Forestry Supervisor to assist in carrying out the intent and duties of this ordinance

Tree Committee: An advisory committee appointed by the City Manager, supporting the Tree Warden/Urban Forestry Supervisor

City Tree: Tree growing on City property, including along streets, in parks or on any city land.

Public shade tree: Tree within a public way as defined by MA G.L. Ch. 87, Section 1

Private tree: Tree growing on private property

Diameter at breast height (DBH): The diameter in inches of a tree trunk measured at 4.5 ft from the ground or, for a multiple-trunked tree, the combined diameter measured at 4.5 ft from the ground

Caliper: The diameter of a newly installed tree measured at 6" above the ground for any tree up to 4" diameter, or measured at 12" above the ground if greater than 4" diameter

Drip line: The line running on the ground below the outermost edge of the crown of a tree

Root zone: The area beneath a tree that contains its roots which often extends well beyond the drip line

Tree genus: Any known genus of tree

Species: Any species of a given genus of tree

Native tree: Any species of tree that has been part of the ecosystems of the Northeast since before European colonization, or has co-evolved relationships with Northeast native fauna

Invasive tree: Any species of tree that is able to establish on multiple sites and grow rapidly so as to disrupt local ecosystems, listed on the MA Invasive Tree List or is deemed invasive by the Tree Warden

Tree canopy: The space occupied by the leaves and branches of a tree or trees which provide shade and cooling

Urban forest: The entirety of trees and shrubs growing within the city

Tree care manual: A manual developed or approved by the Tree Warden and Tree Committee advising on the planting, care and maintenance of trees

Pruning standards: Standards for pruning as defined by the International Society of Arboriculture (ISA)

Removal: The cutting down or extraction from the ground of any tree

Removal standards: Standards defined by the Tree Warden/Urban Forestry Supervisor for the removal of a tree, including precautions to avoid damage to nearby trees or property

Intentional tree damage: Any intentional act that will result in substantial harm or the eventual death of a tree through such means as bark damage, root damage, poisoning or excessive pruning

Owner: Any person, firm, partnership, association, corporation, company or organization of any kind that owns or manages property on which a tree or trees grow or may grow

Development: Any intended change of use of a property including but not limited to the construction of a building or the alteration or enlargement of an existing building significant enough to require a building permit, or for any other alteration of land use such as the construction of a parking lot or other installation

Excavation: Any removal or regrading of earth on a site or the addition or replacement of soil, or any digging or trenching such as for the installation of foundations, pipes, drainage, or structures

CITY OF WATERTOWN BERDO ORDINANCE

In the Year Two Thousand and Twenty-four

An Ordinance

In amendment to the Ordinance entitled “Municipal Code of the City of Watertown”

WHEREAS: The Watertown Town Council in 2019 passed a resolution committing to 100% renewable energy by 2050; and

WHEREAS: The Watertown Town Council passed a resolution in May 2021 declaring a climate crisis with a goal of ending town-wide greenhouse gas emissions as soon as possible; and

WHEREAS: The City of Watertown’s 2022 Climate and Energy Plan details strategies to reduce carbon emissions from buildings, including a requirement for a building performance standard ordinance; and

WHEREAS: The City of Watertown has exhibited leadership in combating global climate change as the first city in New England to pass a solar ordinance and the first city in Massachusetts to adopt the specialized energy stretch code; and

WHEREAS: The City of Watertown has acted on these commitments by building two zero net energy registered elementary schools and is in the process of building a new Watertown High School designed to be the first LEED 4.1 platinum zero net energy high school in the country; and

WHEREAS: Environmental justice communities in Watertown are disproportionately affected by climate change

through increasing heat island exposure, rising sea levels, and storm water flooding; and

WHEREAS: Buildings contribute approximately 50% of greenhouse gas emissions in the City of Watertown and a small number of large buildings contribute a disproportionate amount of those emissions;

THEREFORE BE IT

ORDERED: By the City Council of the City of Watertown that the Municipal Ordinances of the City of Watertown be amended by adding the following:

Building Emissions Reduction and Disclosure Ordinance

(#TBD 1.0) DEFINITIONS

- (1) "Alternative Compliance Credit" shall mean a credit obtained by a Covered Property Owner to offset greenhouse gas emissions from the Covered Property. One Alternative Compliance Credit shall be equivalent to one metric ton of Greenhouse Gas Emissions. In the first Compliance Period, each Alternative Compliance Credit shall cost \$234. The Director of the Department shall promulgate regulations pursuant to xxxxxx prior to each Compliance Period to establish the price of the Alternative Compliance Credit for that Compliance Period, based on review of the average cost of reducing one metric ton of greenhouse gas emissions in Covered Properties. Monies from Alternative Compliance Credits shall be deposited into the City of Watertown's Equitable Emissions Investment Fund.
- (2) "Approved Verification Body" shall mean an organization accredited by the American National Standards Institute, or other accrediting body approved by the Department, to conduct verification services of energy and covered property characteristics for the reported data.
- (3) "Baseline" shall mean the average of Greenhouse Gas Emissions of Covered Properties for two consecutive calendar years comprising the default baseline, alternative baseline, or new covered properties

baseline, as set forth in section xxxx for purposes of calculating emissions reduction targets necessary to meet the requirements of this Ordinance set forth in section xxxx.

- (4) “Benchmarking information” shall mean information input and/or generated by the Benchmarking Tool, as herein defined, including descriptive information about the physical property and its operational characteristics. The information, which can be changed by the Department, shall include, but need not be limited to:
 - (a) Property address;
 - (b) Owner and/or designated agent contact information;
 - (c) Primary use type;
 - (d) Gross floor area;
 - (e) Energy use and production by type;
 - (f) Site Energy Use Intensity (EUI) as defined in this section;
 - (g) Weather normalized source EUI;
 - (h) Any Emission Factors for Energy used by the building if different from the Emission Factors in the Regulations;
 - (i) The energy performance score that compares the energy use of the building to that of similar buildings, where available; and
 - (j) Compliance or noncompliance with this Ordinance.
- (5) “Benchmarking Tool” shall mean the ENERGY STAR Portfolio Manager tool developed and maintained by the U.S. Environmental Protection Agency to track and assess the relative energy performance of buildings nationwide, and/or other tools identified by the Department to collect and track Benchmarking information necessary for compliance with this Ordinance.
- (6) “Compliance Period” shall mean a defined set of years in which each year a Covered Property must achieve the performance requirements of xxxx. Compliance Period 1 is the years 2026 through 2029. Compliance Period 2 is the years 2030 through 2034. Compliance Period 3 is the years 2035 through 2039. Compliance Period 4 is the years 2040 through 2044. Compliance Period 5 is the years 2045 through 2049. Compliance Period 6 is the years 2050 and onwards.

- (7) "Condominium" shall mean a residential or non-residential condominium property established pursuant to G.L. c183A, as may be identified by the City of Watertown Assessor's records.
- (8) "Cooperative" shall mean a multi-dwelling complex in which owners acquire an interest in the entire complex and a proprietary lease to their own apartment or dwelling. The complex is formed or held pursuant to Chapters 156C, 156D, 157, 157B, or 180 or similar provision in the Massachusetts General Laws.
- (9) "Covered Property" shall mean a Residential or Non-Residential building that contains 20,000 or more Covered Square Feet.
 - (a) Any significant change in the size of a Covered Building (due to renovation, addition, reduction in size, etc.) shall be evaluated by the Department for the necessity of an adjusted Baseline.
 - (b) No building shall be removed from the list of Covered Buildings without approval by the Review Board of a Hardship Plan submitted by the Owner.
- (10) "Covered Square Feet" shall mean the finished area of the property as per the City of Watertown Assessor's records.
- (11) "Department" shall mean the City of Watertown Community Development and Planning Department.
- (12) "Dwelling Unit" shall mean a single residential unit, as defined by the Watertown Zoning Ordinance, consisting of one or more habitable rooms, occupied or arranged to be occupied, as a residential unit separate from all other residential units within a building, and used primarily for residential purposes and not primarily for professional or commercial purposes.
- (13) "Emission Factors" shall mean the multipliers used to determine the Greenhouse Gas Emissions produced by the production or consumption of Energy. The Director of the Department shall promulgate regulations pursuant to xxxx to establish the Emission Factors for that Compliance Period, no later than the year prior to each Compliance Period.

- (a) For the combustion of fuels such as oil and gas, the Emission Factors will be based on standard scientific values published by federal agencies.
 - (b) For the use of all electricity purchased from the grid other than Renewable Electricity, the Emission Factors will reflect the emissions intensity of electricity consumed in Massachusetts.
 - (c) For the generation of steam, hot water, and chilled water, and the generation of electricity other than Renewable Electricity, the Emission Factors for each output from the generation facility will be calculated using the Greenhouse Gas Protocol methodology jointly developed by the World Resources Institute and World Business Council for Sustainable Development, or similar methodology acceptable to the Department, using data provided by the generation facility owner.
 - (d) Any RECs created for onsite solar arrays or other renewable energy generation must be retired in order for the electricity from that source used onsite to qualify as zero emission.
 - (e) If a building is supplied with power through a PPA from a solar array or other renewable energy generator, the associated RECs must be retired for the electricity from that source to qualify as zero emissions.
 - (f) If requested by an Owner and approved by the Department, Greenhouse Gas Emission Factors other than those in the Regulations may be used.
- (14) “Energy” shall mean purchased electricity, natural gas, steam, hot or chilled water, heating oil, or other product or electricity generated on site, for use in a building for purposes of providing heating, cooling, lighting, water heating, cooking, or for powering or fueling other end-uses in the building and related facilities, excluding any verified amount of electricity used for charging electric vehicles and excluding any Energy exported for consumption outside the Covered Property.

- (15) “ENERGY STAR Portfolio Manager” shall mean the tool developed and maintained by the U.S. Environmental Protection Agency to track and assess the relative energy performance of buildings nationwide.
- (16) “Energy Use Intensity” (EUI) shall mean a building’s annual energy consumption measured in kBtUs (1000 British Thermal Units) used per square foot of gross floor area.
- (17) “Fund” shall mean the Equitable Emissions Investment Fund, a separate account established to receive monies and expend them for the reduction of Watertown’s Green House Gas Emissions.
- (18) “Greenhouse Gas Emissions” (GHG) shall mean the carbon dioxide equivalent emissions produced from the operations of the Covered Property calculated by the Department according to the following:
 - (a) Greenhouse Gas Emissions are the sum of annual Energy use by fuel type, multiplied by the Emission Factor for that type of Energy, minus Alternative Compliance Credits. Renewable Electricity shall be subtracted from any electricity consumption, up to a limit of the total electricity consumption or the limit determined in xxxx.
- (19) “Hardship Compliance Plan” shall mean a detailed compliance plan to reduce Greenhouse Gas Emissions. A Building Owner may apply to the Review Board for a Hardship Compliance Plan if there are Building characteristics or circumstances that present a hardship in complying with the Emissions standards in this Ordinance. Such characteristics or circumstances, to be detailed in the Regulations, may include historic Building designations, affordable housing refinancing timelines, pre-existing long-term Energy contracts without reopeners, or financial hardship. The application, review process and conditions for Hardship Compliance Plans shall be set forth in the Regulations. The Review Board shall have sole discretion in issuing Hardship Compliance Plans; such plans may include alternative timelines for meeting Emissions standards and alternative Emissions standards.
- (20) “Municipal Property” shall mean a building that is owned and managed by the City of Watertown.

- (21) “New Covered Property” shall mean a Covered Property that has received a Certificate of Occupancy in 2025 or later or has completed a substantial rehabilitation of the property in 2025 or later. New Covered Properties shall comply with the performance requirements of xxxx.
- (22) “Owner” shall mean an owner of a Covered Property, including but not limited to:
- (a) An individual or entity having title, either directly or through a legally authorized or designated affiliate or subsidiary, to a Covered Property;
 - (b) An agent authorized to act on behalf of the owner of a Covered Property. However, this does not relieve the Owner of any compliance obligation under this Ordinance;
 - (c) The net lessee in the case of a Covered Property subject to a net lease with a term of at least forty-nine years, inclusive of all renewal options;
 - (d) The board of managers or trustees in the case of a condominium at the Covered Property; and/or
 - (e) The board of directors or trustees in the case of a cooperative apartment corporation at the Covered Property.
- (23) “Power Purchase Agreement” (PPA) shall mean a contract by which an Owner agrees to purchase electricity from a generating facility over a fixed term of years.
- (24) “Regulations” shall mean rules generated by the Department and derived from this Ordinance. The Regulations will provide details and clarifications of this Ordinance.
- (25) “Renewable Electricity” shall mean purchases from specific off-site renewable electricity programs approved by the Department, or the renewable energy attributes, measured in megawatt-hours retired from renewable on-site electricity generation or from off-site zero greenhouse gas emission electricity sources. The Department will qualify based on the following:
- (a) The off-site renewable energy procurement shall support a renewable energy project that is new, meaning that the Covered Property Owner enters into a contract to purchase

Renewable Electricity from a newly built renewable energy generating source that is not operational at the time of contract execution. This includes contracts that lead to construction of a new project, as well as contracts that lead to expansion of existing projects with new renewable capacity.

- (b) Renewable Energy Certificates (Class I RECs only) and other environmental attributes associated with the procured off-site renewable energy shall be assigned to the Covered Property in Watertown for the duration of the contract and made available for inspection by the City of Watertown upon request. The Owner shall maintain transparent accounting that clearly assigns renewable energy production in the form of RECs in megawatt-hours to the Covered Property in Watertown for the duration of the procured off-site renewable energy contract.
 - (c) The renewable energy generating source shall be local (New England) photovoltaic systems, solar thermal power plants, wind turbines, geothermal power plants, small hydro-power or other renewable energy generating sources, excluding biomass, that may be submitted to and certified by the Department.
 - (d) However, Commonwealth of Massachusetts mandated green products (such as class II RECs in Utility standard offerings) will be allowed.
- (26) “Renewable Energy Certificate” (REC) shall mean a certificate representing the positive environmental attributes associated with the production of one (1) megawatt hour (MWh) of electricity by a renewable energy facility.
 - (27) “Residential Property” shall mean a property containing one or more Dwelling Units and whose use is primarily (greater than 75% of the Covered Square Feet) residential.
 - (28) “Review Board” shall mean a board established by this Ordinance as a resource for owners of Covered Properties seeking redress of reporting or reductions of energy use for reasons including

hardship. The Review Board shall consist of five voting members appointed by the City Manager and approved by City Council for terms of up to five years and will consist of a majority of scientists, climate experts, and equity advocates and preferably a majority of qualified Watertown residents. In addition, the Review Board will include a non-voting staff member assigned by the Department. The members shall elect a member every three years to serve as Chair of the Review Board. The Regulations shall establish the minimum frequency of the meetings of the Review Board and any compensation for members.

- (29) “Site Energy” shall mean the amount of energy consumed by a Covered Property or Municipal Property as reflected in utility bills or other documentation of actual energy use.
- (30) “Source Energy” shall mean all the energy used in delivering energy to a Covered Property, including power generation and transmission and distribution losses.
- (31) “Tenant” shall mean a person or entity leasing, occupying, or holding possession of, all or a portion of a Covered Property or Municipal Property.
- (32) “Utility” shall mean an entity that distributes and sells Energy for Covered Properties or Municipal Properties.

(#TBD 2.0) PURPOSE

To encourage efficient use of energy and to reduce the emission of greenhouse gasses, this Ordinance requires owners of Covered Properties and Municipal Properties to annually measure and disclose energy use to the Department and to achieve Greenhouse Gas Emissions reduction targets consistent with the commitments of the 2022 Watertown Climate and Energy Plan, as it may be amended from time to time. Furthermore, this Ordinance will authorize the Department to collect energy usage data to enable more effective energy and climate protection planning by the City and others and to provide information to the real estate marketplace so that its members are able

to make decisions that foster better energy performance. The performance requirements of this Ordinance will reduce emissions from all Covered Properties, achieving net zero emissions from the largest Non-Residential Properties by 2036 and all Covered and Municipal Properties by 2050, in line with the commitments of Watertown's Climate and Energy Plan.

(#TBD 3.0) APPLICABLE PROPERTIES

- (1) This Ordinance applies to the following:
 - (a) All Municipal Properties as defined in Section (#TBD) of this Ordinance; and
 - (b) All Covered Properties as defined in Section (#TBD) of this Ordinance.

(#TBD 4.0) BENCHMARKING REQUIRED FOR MUNICIPAL PROPERTIES

No later than December 31, 2025, and no later than May 1 every year thereafter, the total Energy consumed by each Municipal Property, along with all other descriptive information required by the Benchmarking Tool, shall be entered into the Benchmarking Tool for the previous calendar year. Renewable Electricity production and purchases shall be reported annually to the Department on the same schedule.

(#TBD 5.0) BENCHMARKING REQUIRED FOR COVERED PROPERTIES

- (1) Owners shall annually input the total Energy consumed by each Covered Property, along with all other descriptive information required by the Benchmarking Tool, into the Benchmarking Tool for the previous calendar year. Renewable Electricity production and

purchases shall be annually reported to the Department. The Owner shall input this information according to the following schedule:

- (a) A Non-residential Covered Property by May 1, 2026 and by every May 1 thereafter;
 - (b) A Residential Covered Property that is not a Condominium or Cooperative by May 1, 2026 and by every May 1 thereafter;
 - (c) A Residential Covered Property that is a Condominium or Cooperative by May 1, 2027 and by every May 1 thereafter;
 - (d) A new Covered Property must report by the following May 1st, when it has one full calendar year of energy use data.
- (2) Provided that the necessary mechanisms exist, Owners may authorize an energy utility or other third party to report Covered Property-specific data on their behalf to the Department. Such authorization shall not create an obligation on the part of energy utilities or remove the obligation of Owners to comply with reporting requirements.

(#TBD 6.0) NOTIFICATION OF COVERED PROPERTIES

Between September 1 and December 1 of each year, the City shall notify Owners of Covered Properties of their obligation to input Energy use into the Benchmarking Tool. By February 15 of each year, the City shall post the list of the addresses of Covered Properties on a public website. Greenhouse Gas Emissions shall be calculated by the Department and reported annually to the Owners along with the performance requirements of section xxxx.

(#TBD 7.0) QUALIFICATIONS OF BENCHMARKERS

The Department may establish certification and/or licensing requirements for the users of Benchmarking Tools.

(#TBD 8.0) DISCLOSURE AND PUBLICATION OF BENCHMARKING INFORMATION

- (1) Owners shall annually provide Benchmarking information to the Department, in such form as established by the Department, by the date provided by the schedule in section (#TBD). The City will provide owners with the opportunity to submit contextual information related to energy use and may disclose such information on its website upon request of the owner.
- (2) The Department shall make available to the public on the internet, Benchmarking Information for Covered and Municipal Properties for the previous calendar year, no later than December 31 for the year in which the data is required. The Review Board may grant an exception to public reporting for any given data at the request of an Owner or the Department, but not for two consecutive years.
- (3) The Department shall make available to the public and update at least annually, information which may include the following:
 - (a) Summary statistics on energy consumption and greenhouse gas emissions derived from the aggregation of Benchmarking information for Municipal Properties and Covered Properties;
 - (b) Summary statistics on overall compliance with this Ordinance, including an assessment of the accuracy of this data;
 - (c) For each Municipal Property and Covered Property:
 - (i) The status of compliance with the requirements of this Ordinance
 - (ii) Annual summary statistics for the Municipal Property or Covered Property, including EUI, annual Greenhouse Gas Emissions per square foot, total annual Greenhouse Gas Emissions, water use per square foot, and an energy performance score where available; and
 - (iii) A comparison of Benchmarking Information, Greenhouse Gas Emissions, and other descriptive information across calendar years.

(#TBD 9.0) PROVISION OF BENCHMARKING INFORMATION BY TENANTS TO THE OWNER

- (1) Upon request from the Owner, a Tenant in a Covered Property shall provide information that cannot otherwise be acquired by the Owner and is needed to comply with the requirements of this Ordinance. The Tenant shall provide the information no later than February 28 of any year in which the Owner is required to report. Failure to provide information to an Owner may result in penalties to the Tenant as provided under Section (#TBD).
- (2) Failure of a Tenant to provide required information does not relieve the Owner of the obligation to report emissions data.
- (3) When an Owner of a building is unable to obtain complete data due to the failure of a Tenant to provide the required information, the Owner shall use values or formulas established by the Department to estimate data.
- (4) For Covered Residential Buildings, the Home Owners Association or the Management Company may input the energy use of the building into the Benchmarking Tool.

(#TBD 10.0) EMISSION REDUCTION REQUIREMENTS

- (1) Baseline: The default Baseline years for Covered Properties shall be calendar years 2025 and 2026.
- (2) Performance requirements: each Covered Property shall comply on an annual basis with Greenhouse Gas Emissions requirements according to the following schedule of Greenhouse Gas Emissions relative to the Baseline:
 - (a) For Non-Residential Covered Properties of 100,000 Covered Square Feet or greater:
 - (i) In Compliance Period 1, from 2027 to 2029, annual Greenhouse Gas Emissions will not exceed 80% of the Baseline.

- (ii) In Compliance Period 2, from 2030 to 2034, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
 - (iii) From 2035 onwards, annual Greenhouse Gas Emissions will not exceed zero.
- (b) For Non-Residential Covered Properties of 20,000 to 99,999 Covered Square Feet, Municipal Properties or Residential Covered Properties that are not Condominiums or Cooperatives:
 - (i) In Compliance Period 1, from 2027 to 2029, annual Greenhouse Gas Emissions will not exceed 100% of the Baseline.
 - (ii) In Compliance Period 2, from 2030 to 2034, annual Greenhouse Gas Emissions will not exceed 60% of the Baseline.
 - (iii) In Compliance Period 3, from 2035 to 2039, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
 - (iv) In Compliance Period 4, from 2040 to 2044, annual Greenhouse Gas Emissions will not exceed 20% of the Baseline.
 - (v) In Compliance Period 5, from 2045 to 2049, annual Greenhouse Gas Emissions will not exceed 10% of the Baseline.
 - (vi) From 2050 onwards, annual Greenhouse Gas Emissions will not exceed zero.
- (c) For Residential Covered Properties that are Condominiums or Cooperatives:
 - (i) In Compliance Period 1, from 2028 to 2030, annual Greenhouse Gas Emissions will not exceed 100% of the Baseline.
 - (ii) In Compliance Period 2, from 2031 to 2034, annual Greenhouse Gas Emissions will not exceed 60% of the Baseline.

- (iii) In Compliance Period 3, from 2035 to 2039, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
- (iv) In Compliance Period 4, from 2040 to 2044, annual Greenhouse Gas Emissions will not exceed 20% of the Baseline.
- (v) In Compliance Period 5, from 2045 to 2049, annual Greenhouse Gas Emissions will not exceed 10% of the Baseline.
- (vi) From 2050 onwards, annual Greenhouse Gas Emissions will not exceed zero.

(3) New Covered Properties: The Baseline for a New Covered Property shall be the average Greenhouse Gas Emissions of the first two calendar years following issuance of the Certificate of Occupancy. New Covered Properties shall comply with the following performance requirements on an annual basis:

- (a) For Residential and Non-Residential New Covered Properties of any size, Greenhouse Gas Emissions shall not exceed 80% of the Baseline in the fourth year after the Baseline period. Thereafter, the New Covered Property shall reduce Greenhouse Gas Emissions in three-year Compliance Periods that achieve a linear reduction to zero Greenhouse Gas Emissions in 2035, except no such New Covered Property shall exceed zero Greenhouse Gas Emissions in 2035 and onwards.

(4) Alternative Baseline: An Owner may request alternative Baseline years for a Covered Property that is prior to the default Baseline years. The alternative Baseline must be the average Greenhouse Gas Emissions of two consecutive years between 2020 and the default Baseline. The request for an alternative Baseline must be submitted to the Department prior to the Covered Property's first Compliance Period per the Ordinance (#TBD) and, if approved, shall remain the Baseline for all future Compliance Periods. Owners shall ensure that the Energy use for the alternative Baseline years has been inputted into the Benchmarking Tool and that Benchmarking Information and any Renewable Electricity for the alternative Baseline

years have been provided to the Department. A Covered Property that uses an alternative Baseline shall comply with performance requirements that include an additional 2.5% reduction for every year between the start of the alternative Baseline and the default Baseline.

- (5) Use of Alternative Compliance Credits: Alternative Compliance Credits must be obtained in the same calendar year during which reporting is required. The month by which they must be obtained will be defined in the Regulations.
- (6) Use of Renewable Electricity: Any Renewable Electricity must be obtained in the year in which it is applied to the Covered Property, and documentation thereof must be submitted to the Department by the subsequent May 1 reporting deadline. In calculating Greenhouse Gas Emissions, a Covered Property that uses electricity from a generating facility in Watertown using combustible fuels to generate electricity for direct use by the Covered Property may subtract Renewable Electricity from that electricity only as long as the Emission Factor for the generated electricity is less than or equal to the Emission Factor for electricity purchased from the grid. The Director of the Department shall promulgate regulations pursuant to (#TBD) to establish a methodology for evaluating the Emission Factor for generated electricity compared to grid electricity.
- (7) Deferral: A Covered Property may apply to the Review Board with a detailed plan to defer compliance with any Greenhouse Gas Emissions requirements for up to five years such that the cumulative Greenhouse Gas Emissions of the Covered Property from the start of the deferred compliance through 2050 do not exceed what they would be without such deferral. Such plans must detail the expected measures that will result in compliance within five years and must comply with the Regulations. The Review Board may issue its approval of such plans for one or more years, upon which such Covered Property is deemed to be in compliance for those years. In no event shall a deferred compliance plan be approved that results in Greenhouse Gas Emissions being above zero in 2050 or beyond. After the conclusion of the approved deferral period of five years or less, the Covered Property shall annually purchase Alternative

Compliance Credits for any Greenhouse Gas Emissions in excess of the amount proposed in the deferral plan. The Director of the Department shall promulgate regulations pursuant to (#TBD) that establish minimum performance requirements that a Covered Property must meet during the deferral period.

- (8) Hardship: A Covered Property may submit a Hardship Compliance Plan for consideration to the Review Board. Hardship Compliance Plans must comply with the Regulations. The Review Board may issue its approval of a Compliance Plan for one or more years. During those years the Covered Property is deemed to be in compliance.
- (9) Energy Use that is Exempt from Emissions Requirements: Building Owners may choose to deduct Energy used by Emergency Backup Generators or other Backup Power and Electrical Vehicle Supply Equipment (EVSE) from a Building's total Energy use, as long as it meets the CO₂e Emission Factors in this Ordinance and the Regulations, and provided that:
 - (a) Emergency Backup Generation/Backup Power provides Energy only to the Covered Building.
 - (b) Electrical Vehicle Supply Equipment is separately metered or capable of tracking and accurate reporting of energy usage.
 - (c) Building Owners annually report Energy used by Emergency Backup Generation and EVSEs and the dates, hours and conditions that required Emergency Backup power. Such reporting shall be subject to the self-certification and third-party verification procedures in section (MAINTENANCE OF RECORDS AND DATA VERIFICATION section # TBD).
 - (d) Upon recommendation from the Review Board, these exemptions may be revised or additional exemptions added by the Department. Energy used by Emergency Backup Generation will not be exempted after 2030, but such energy usage by a healthcare institution, shall continue to be exempted for as long as the institution is required to install and maintain Emergency Backup Generation to ensure reliable operations or as a condition of accreditation. Emergency Backup Generation in specific Covered and Municipal Properties, granted by the

Review Board, will continue until the Review Board terminates a Property's exemption.

(e) Acceptable uses of generators will be defined in the Regulations

(#TBD 11.0) MAINTENANCE OF RECORDS AND DATA VERIFICATION

- (1) Owners shall maintain records as the Department determines is necessary for carrying out the purposes of this Ordinance, including but not limited to, energy bills and other documents received from Tenants and/or Utilities. Such records shall be preserved by Owners for a period of seven years. At the request of the Department, records shall be made available for inspection and audit by the Department.
- (2) Owners shall self-certify their reporting data every year.
- (3) For the two Baseline years, Owners shall provide a third-party verification of their reporting data, submitted by the benchmarking deadline for the first year of the first Compliance Period.
- (4) For the first year of each Compliance Period, Owners shall provide, by the benchmarking deadline for that year, a third-party verification of their reporting data per xxxx.
- (5) For any year in which any Covered Building is transferred to new ownership, the new Owner shall provide a third-party verification of their reporting data by the benchmarking deadline for that year per xxxx.
- (6) For the generation of steam, hot water, chilled water, or electricity, other than Renewable Electricity, the owner of the generating facility shall provide annual third-party verification of the facility's Energy inputs and outputs and the calculated Emission Factor for each output.
- (7) All verifications shall be performed by an Approved Verification Body.
- (8) In the event that there is a discrepancy between verified third party data and an Owner's self-certified reporting data, any resulting lack of

compliance with the emissions reduction requirements in Section xxxx shall be a violation.

- (9) At the time any occupied Covered Building is transferred to new ownership, the buyer and seller shall arrange for the seller to provide to the buyer, all energy information necessary for the buyer to report complete Benchmarking information for the entire year. It shall be a violation of this Ordinance for any seller to fail to provide any such information within 30 days of request by the buyer.

(#TBD 12.0) VIOLATIONS

It shall be unlawful for any entity or person to fail to comply with the requirements of this Ordinance or misrepresent any material fact in a document required to be prepared or disclosed by this Ordinance.

(#TBD 13.0) ENFORCEMENT AND ADMINISTRATION

- (1) The Director of the Department or his or her designee shall be the Chief Enforcement Officer of this Ordinance.
- (2) The Director of the Department may promulgate regulations relative to the administration of the requirements of this Ordinance as necessary.
- (3) The Review Board is a resource for owners of Covered Properties seeking redress of reporting or reductions of energy usage, for example, for reasons of hardship.
- (4) If any person or entity violates any provision of this Ordinance, enforcement measures shall be taken. A violation can include but is not limited to the following:
 - (a) Any person or entity fails to report the Benchmarking Information.
 - (b) A third-party verification of Benchmarking Information reported by an Owner identifies a discrepancy with an Owner's self-certified reporting or an Owner neglects to obtain third-party verification.

- (c) Any person or entity fails to meet the emissions reduction requirements.
- (5) Enforcement measures for violations may include:
 - (a) For the first violation, a written warning may be issued; and
 - (b) For any subsequent violation the Department may issue a fine of up to \$300.00 per violation per day, pursuant to the provisions of Chapter (#TBD) herein. Each day that the property remains in violation shall constitute a separate offence.
 - (c) The Department may adjust the amount of the fine on an annual basis.

(#TBD 14.0) EQUITABLE EMISSIONS INVESTMENT FUND

The City Auditor shall establish the Fund as a separate account, and credit to the Fund all Alternative Compliance Payments and penalties made pursuant to this Ordinance; the City or Department may direct other monies to the Fund at its discretion. The Director of the Department is responsible for evaluating local Greenhouse Gas Emissions abatement proposals and determining expenditures from the Fund.

Money in the Fund shall be expended for the support, implementation, and administration of local Greenhouse Gas Emissions abatement projects that benefit the City of Watertown's reduction goals. Fund expenditures shall prioritize projects that benefit Environmental Justice Populations and populations disproportionately affected by air pollution.

(#TBD 15.0) REVIEW OF ORDINANCE

The Department shall review the implementation of this Ordinance after three years and thereafter every five years. As part of such review, the Department shall hold at least one public hearing and solicit comments from the public.

(#TBD 16.0) APPLICABILITY

If any provision of this Ordinance imposes greater restrictions or obligations than those imposed by any other general law, special law, regulation, rule, ordinance, by-law, order, or policy, then the provisions of this Ordinance control.

(#TBD 17.0) SEVERABILITY

If any provision of this Ordinance shall be held to be invalid by a court of competent jurisdiction, then such provision shall be considered separately and apart from the remaining provisions, which shall remain in full force and effect.

(#TBD 18.0) EFFECTIVE DATE

The provisions of this Ordinance shall be effective immediately upon passage.