



## City of Auburn, Maine

Office of Planning & Permitting

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Date: November 14, 2023

To: Auburn Planning Board

From: Katherine Cook, Planning Coordinator

**Re: Staff Report on proposed ordinance text changes within the Lake Auburn Watershed Overlay District**

- I. Public Hearing/ Text Amendment:** Proposed Amendments to Chapter 60, Article XII, Division 4- Lake Auburn Watershed Overlay District pertaining to animal farms, agricultural buffer strips, subsurface wastewater disposal system setbacks from resources/buffer strips, private sewage disposal systems and subsurface wastewater standards and requirements. The text changes in this proposal have been initiated by the City Council and Planning Board and are pursuant to Chapter 60, Article XVII, Division 2- Amendment to the Zoning Ordinance or Zoning Map.
- II. Background:** Since January 2022, several amendments to Chapter 60, Article XII, Division 4 Lake Auburn Watershed Overlay District have been proposed. These amendments include 1.) changes to the private subsurface wastewater disposal system design and site standards and inspection requirements; 2.) changes to agricultural and subsurface wastewater system buffer widths from Lake Auburn and its tributaries and streams; and 3.) prohibiting new non-hobby animal farms within the Lake Auburn Watershed Overlay District. These amendments were brought forward over time to improve the quality of Lake Auburn as Auburn and Lewiston's drinking water supply by updating subsurface wastewater disposal standards and environmental regulations to meet current best practices and modern science. All amendments were proposed at various stages but are now ready for review and recommendation by the planning board with ultimate approval by the city council.

These amendments have been collectively reviewed by outside subject matter experts to include former State of Maine Soil Scientist and State of Maine licensed Soil Scientist and Site Evaluator, David Rocque. University of Rhode Island, Director of the Onsite Wastewater Resource Center, Alissa Cox PhD. In addition, the Lake Auburn Water Quality Ad-Hoc Committee has reviewed and recommends the adoption of the zoning amendments.

For reference, below is the relevant meetings to this point have been listed below:

### **Previous Meetings and Actions:**

- **Jan. 3, 2022**—Council directs planning board to maintain requirement of 36 inches above limiting factor for septic systems while allowing updating septic design to meet state standards.
- **Apr. 12, 2022**—Planning Board Workshop and Public Hearing on updating Sec. 60-952(f) (1-5) and (c) subsurface wastewater systems in the Lake Auburn watershed. Planning Board forwarded a favorable recommendation contingent upon the change coinciding with a zone change reducing housing density in Lake Auburn watershed from one dwelling unit per acre to one dwelling units per three acres in the currently existing Rural Residence district in the Lake Auburn watershed.
- **April 19, 2022**—City council workshop on Lake Auburn watershed ordinance updates.

- **May 2, 2022**—City council first reading: updating Ch. 60, Article XII, Division 4, Sec. 60-952 (c) and (f) (1-5) for agricultural buffer strip and subsurface wastewater systems in the Lake Auburn Watershed. Favorable vote.
- **Aug. 9, 2022**—Planning board workshop on FB Environmental Report on updating Sec. 60-952 (f) (1-5) for subsurface wastewater systems.
- **Oct. 11, 2022**—Planning board review of text amendment to Ch. 60, Article XVII, Div. 4, Sec. 60-952(c) agricultural buffer strip and (f) (1-5) private sewage disposal systems.
- **Jan. 17, 2023**—City council directs staff to prepare ordinance text and map Amendment to prohibit any future residential structures and limit or prohibit animal farms in the Lake Auburn Watershed in the AGRP zone.
- **Jan. 17, 2023**—City council directs Planning Board to provide a recommendation for a zoning amendment that will prohibit any future subsurface wastewater disposal within 300’ of Lake Auburn.
- **Sept. 26, 2023**—Lake Auburn Watershed Ad-Hoc Committee issues memo to recommend that zoning text amendments pertaining to animal farms, agriculture buffer strips, and septic system standards and map amendments to the Lake Auburn Watershed Overlay District and changing the Rural Residence District to the Low-Density Country Residence District within the Lake Auburn Watershed Overlay District. This memo was included in the materials for the October Planning Board and City Council meetings.
- **Oct. 10, 2023**—Planning Board workshop on text amendments concerning septic system design standards, banning commercial agriculture in the Lake Auburn Watershed, increasing width agricultural buffer strips abutting Lake Auburn and its tributaries.
- **Oct. 16, 2023**—City Council workshop on text amendments concerning septic system design standards, banning commercial agriculture in the Lake Auburn Watershed, increasing width agricultural buffer strips abutting Lake Auburn and its tributaries.

Staff has provided the Planning Board with two versions of Chapter 60, Article XII, Division 4- Lake Auburn Watershed Overlay District. The first is titled “**VERSION A (per 10/10/23 PI Bd Workshop)**” the yellow highlighted text in Version A was recommended by the Ad Hoc Committee. The second is titled “**VERSION B (with Additional Staff/Legal Suggested Changes highlighted in yellow).**” Below is a summary of the changes in the attached proposed text amendment, and name where each proposed change originated. There are asterisks (\*) on changes that have been suggested since the October Workshop by legal counsel, and two asterisks (\*\*) on changes which have been suggested by the planning board.

To capture the Planning Board’s preference and to receive appropriate feedback specific to each proposed text change, below we include two motions, Motion A and Motion B, each with several separate recommended motions which will together constitute the entire text amendment which is the subject of this agenda item. This will allow the Board and the public to discuss and form a recommendation on each component of the proposed changes individually. It should be noted that some of the changes rely on other changes to achieve the desired outcome of less development at a higher standard for the protection of Lake Auburn (Example: SSWW Disposal standards and change in density to reduce buildable lot potential).

### **Summary of Ordinance Text Changes:**

1. Minor edits to clarify meaning made to Sec. 60-950. *(Edits suggested by legal counsel for clarity).*
2. Add Sec. 60-951 “(a) Boundaries”, make minor edits to clarify meaning. *(Edits made by legal counsel for clarity).*
3. Add Sec. 60-951” (b) Definitions” and under this section, add the definition of “curtain drain,” “hobby agricultural use,” “Lake Auburn Watershed Protection Commission or LAWPC”, (\*) “non-hobby agricultural use,” “soil horizon,” “soil horizon, limiting or limiting soil horizon,” “soil

profile,” “soil filter media”, (\*) and soil filter media specifications”. (\*) (*Edits matching language in the State Plumbing Code made for specificity by legal counsel*).

4. Amend Sec. 60-952(a) to state that as of January 1, 2024, non-hobby farms are not permitted, and hobby farms require review from the LAWPC Watershed Manager and notification to the code enforcement officer. (*Introduced by the city council*).
5. Amend Sec. 60-952(b) to prohibit new dwelling units in the Lake Auburn Watershed Overlay District siting state law which may occasionally be amended. (*Language edit for clarity suggested by legal counsel, it should be noted, however, that the planning board and city council already took favorable action on this item’s content.*)
6. Amend Sec. 60-952(c) so that agricultural buffer strips become 100 feet wide instead of 50 feet wide and specify that applicable perennial or tributary streams should be identified on a 7.5-minute series USGS topographic map, dated 1981. (*City council introduced this item and has had first reading*).
7. Amend Sec. 60-953(d) to prohibit any spreading of sludge and specify that manure spreading shall be in conformance with the then-current edition of the Maine Dept. of Agriculture Conservation and Forestry’s rules, regulations and guidelines for manure spreading and disposal. (*Edit made by legal counsel to reflect existing environmental guidelines and practices.*)
8. Make minor edits to add specificity and clarify meaning in Sec. 60-952(e)(2) and (3). (*Introduced by legal counsel to add clarity.*)
9. Amend Sec. 60-952(f) substituting “sewage” with “subsurface wastewater.” Under this section, also amend 60-952(f)(1) private subsurface wastewater disposal system design to specify that there must be at least 36 inches separation between the bottom of the disposal field and the limiting soil horizon and allows for 24 inches of this material be natural or fill; a change from the current ordinance. (\*) (*Introduced by the city council with favorable recommendation made by the planning board.*)
10. Amend Sec. 60-952(f)(2) from requiring 300 feet between any new septic field to the high-water line of a stream, tributary, or outlet of Lake Auburn to requiring 400 feet separation. (*Introduced by the city council.*)
11. Add Sec. 60-952(f)(3) stating that all new or replacement systems must meet the above criteria or be designed in consultation with Auburn Water District or its designer (\*). (*Introduced by legal counsel to add clarity.*)
12. Add Sec. 60-952(f)(4) that all replacement or new systems shall have either a curtain drain or a diversion ditch and that the design is signed off on by a site evaluator. (*Introduced by the city council.*)
13. Add Sec. 60-952(f)(5) which requires that all new and replacement systems be located on the same lot as the dwelling unit being served, or that in the case of an existing home, the applicant can prove to the plumbing inspector that it is physically impossible to have the septic system on the same lot. (*Introduced by the city council.*)
14. Add Sec. 60-952(f)(6) which requires that systems in the Lake Auburn Watershed Overlay District be inspected by LAWPC or its designee every five years (\*). (*Introduced by the planning board*).
15. Make minor edits to clarify wording made to Sec. 60-952(f)(7) (\*). (*Introduced by legal counsel to add clarity*).
16. Make grammatical edits to Sec. 60-952(f)(8). (\*) (*Introduced by legal counsel.*)
17. Eliminate Sec. 60-952(f)(5) which exempts systems in existence since 1983 from meeting the provisions of this section.
18. Make grammatical edits made to Sec. 60-1237. (*Introduced by legal counsel.*)
19. Add clarifying wording to Sec. 60-1065- Definitions.

### **III. Department Review:**

- Police - No Comments
- Auburn Water and Sewer – No Comments
- Fire Department/Code Enforcement – No Comments
- Engineering – No Comments
- Public Services - No Comments

- Airport – No Comments

**IV. Planning Board Action:** This proposed text amendment involves several parts, so staff has suggested a public hearing and motions to break up this agenda item into multiple sections for comments on each component. The staff has provided a series of recommended motions for the planning board forward to council. These motions will together constitute the favorable recommendation to amend Chapter 60, Article XII, Division 4 Lake Auburn Watershed Overlay District. Staff recommends **Version B** with final legal advice and clarifications included but has included Version A below for transparency and to give the Board options.

## V. Potential Motion A:

- I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-950 adding the word “Overlay” to clarify the Lake Auburn Watershed Overlay District name as shown:

### Sec. 60-950. Purpose.

The Lake Auburn Watershed **Overlay** District is intended to maintain safe and healthful environmental conditions; prevent and control water pollution; protect spawning ground for fish, aquatic life, bird and other wildlife habitats; control building sites; provide visual and physical points of access to waters and natural beauty; and protect and maintain the present quality and volume of potable water supplied from the Lake Auburn Watershed to the population of the Auburn-Lewiston area.

(Ord. of 9-21-2009, § 5.3A)

- I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-951 (a)-Boundaries, adding the word “Overlay” to clarify the Lake Auburn Watershed Overlay District name, and changing “city water district” to “Auburn Water District” as shown:

### Sec. 60-951. Boundaries and definitions.

(a) **Boundaries.** The Lake Auburn Watershed **Overlay** District is that section of the city in which surface and subsurface waters ultimately flow or drain into Lake Auburn as such section is delineated on a watershed map and survey by the **Auburn Water District** on file in the office of the **Auburn Water District**, the city department of planning and permitting services and the city clerk. The Lake Auburn Watershed **Overlay** District shall be superimposed over underlying districts within such section. Permitted uses in the underlying districts shall continue subject to compliance with the provisions of the Lake Auburn Watershed **Overlay** District.

- I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-951 (b)- Definitions, adding the definition of *curtain drain*, *hobby agricultural use*, *Lake Auburn Watershed Protection Commission or LAWPC*, *Non-hobby agricultural use*, *soil horizon*, *soil horizon limiting*, or *limiting soil horizon*, and *soil profile* to this section as shown below:

### Sec. 60-951. Boundaries and definitions.

(b) **Definitions.** For purposes of this Division 4, the following words and terms as used herein shall have the meanings or limitations of meaning hereby defined, explained or assigned:

**Curtain drain** means a trench to intercept laterally moving ground water and divert it away from a septic system disposal field.

**Hobby agricultural use** means uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes where (i) the products produced through such use of the land is for personal consumption, pleasure or sustenance by those occupying the land and does not involve the sale of the products produced through such use of the land for profit, and (ii) the allowances set forth in Sec. 60-2 regarding “farm, livestock” of this chapter and the allowances set forth in Article VII, Division 4 of Chapter 8 of the City Code of Ordinances are not exceeded.

**Lake Auburn Watershed Protection Commission or LAWPC** means the commission formed through an interlocal cooperation agreement between the City of Lewiston, Auburn Water District, Town of Turner, and Town of Minot/Hebron/Buckfield.

**Non-hobby agricultural use** means uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes where the products produced through such use of the land are sold for profit.

**Soil horizon, limiting or limiting soil horizon** means any soil horizon or combination of soil horizons, within the soil profile or any parent material below the soil profile, that limits the ability of the soil to provide treatment or disposal of septic tank effluent. Limiting horizons include bedrock, hydraulically restrictive soil horizons and parent material, excessively coarse soil horizons and parent material, and the seasonal groundwater table. Also sometimes referred to as a “limiting factor.”



Soil horizon means a layer within a soil profile differing from the soil above or below it in one or more soil morphological characteristics. The characteristics of the layer include the color, texture, rock-fragment content, and consistence of each parent soil material.

Soil profile means a vertical cross section of the undisturbed soil showing the characteristic soil horizontal layers or soil horizons that have formed as a result of the combined effects of parent material, topography, climate, biological activity, and time.

- d. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952-use and environmental regulation (a) Agricultural uses prohibiting new non-hobby agricultural uses as of 1/1/24 and requiring approval by LAWPC's Watershed Manager to operate hobby agricultural uses after 12/31/23 as shown:

**Sec. 60-952. Use and environmental regulations.**

- (a) Agricultural uses. All uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes shall be subject to the approval of the city water district. Such approval shall be granted upon a showing that such uses will not cause groundwater contamination or contaminate or disturb the normal course of surface water runoff. Non-hobby agricultural uses not in existence as of January 1, 2024 are prohibited, and expansions of non-hobby agricultural uses in existence as of December 31, 2023 are prohibited. As of January 1, 2024, new hobby agricultural uses or expansions of hobby agricultural uses in existence as of December 31, 2023 are only allowed if (i) the owner or operator first demonstrates to LAWPC's Watershed Manager that such use or expansion will not cause groundwater contamination and will not contaminate or disturb the normal course of surface water runoff, and (ii) LAWPC's Watershed Manager approves such use or expansion in writing and so notifies the code enforcement officer.

- e. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952-use and environmental regulations (b) *residential dwellings in the agriculture and resource protection zoning district* by specifying that LD 2003 does not apply in the Lake Auburn Watershed Overlay District as shown:

**Sec. 60-952. Use and environmental regulations.**

- (b) Residential dwellings in the agriculture and resource protection zoning district. Notwithstanding the provisions of Secs. subsections 60-145(a)(1), 60-145(b)(18) and 60-146(1)(c), new one-family detached dwellings units are only permitted-prohibited in the Lake Auburn Watershed Overlay District on parcels containing no less than ten acres, provided that the dwelling is accessory to farming operations and subject to the following restriction: at least 50 percent of the total annual household income of the farm occupants living in the farm residence will be derived from farm uses. Pursuant to 30-A M.R.S. § 4364(9), 30-A M.R.S. § 4364-A(1-A), and 30-A M.R.S. § 4364-B(1-A), each as may be amended from time to time, the affordable housing density, residential density and accessory dwelling unit provisions of P.L. 2021, ch. 672, "An Act To Implement the Recommendations of the Commission To Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions" and any related State regulations do not apply in the Lake Auburn Watershed Overlay District.

- f. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (c) by increasing the width of an untilled agricultural buffer strip near Lake Auburn or its perennial tributaries from 50 feet wide to 100 feet wide as shown:

**Sec. 60-952. Use and environmental regulations.**

- (c) Agricultural buffer strip. Where land adjoining Lake Auburn or its perennial tributaries [as depicted on a 7.5 minute series USGS topographic map, dated 1981] is tilled for agricultural purposes, an untilled buffer strip 10050 feet wide shall be retained between the tilled area and the normal high-water mark. This subsection (c) shall not be interpreted as permitting agricultural tillage in any zoning district in which it is not otherwise permitted.

- g. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (d) to prohibit all spreading of or disposal of sludge as shown.

**Sec. 60-952. Use and environmental regulations.**

- (d) Municipal and mManure and sludge disposal. All sSpreading and disposal of municipal-sludge is prohibited, shall be accomplished in conformance with the Rules of Municipal Sludge Utilization on Land, published by the department of environmental protection in September, 1980. All spreading and disposal of manure shall be accomplished in conformance with the then-current edition of the Maine Department of Agriculture, Conservation and Forestry's rules, regulations and guidelines for manure spreading and disposalMaine Guidelines for Manure and Manure Sludge Disposal on Land, published by the Life Sciences and Agriculture Experiment Station and the Cooperative Extension Service, University of Maine at Orono, and the Maine Soil and Water Conservation Commission in July, 1972.

- h. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (e) to change “water district” to “Auburn Water District” as shown:

**Sec. 60-952. Use and environmental regulations.**

- (e) *Erosion control.* The following provisions shall be observed for the control of erosion in the Lake Auburn Watershed:
- (1) Any earth cutting, moving or removal activities that will result in erosion or runoff which is likely to increase sedimentation of Lake Auburn, or any tributaries or other water bodies in the watershed are prohibited.
  - (2) Vegetative cover shall not be removed except in a manner which will minimize erosion. Harvesting of trees shall be permitted only after a plan prepared by a qualified forester is submitted to and approved by the ~~Auburn Wwater District~~. Such plan will be approved or disapproved on the basis of its conformance with good watershed management practice for domestic water supplies.
  - (3) Trees may be cleared, provided the cleared areas are covered with other vegetation, for approved construction and landscaping. Where such clearing is extended to the shoreline, a cleared opening or openings not greater than 30 feet in width for every 100 feet of shoreline (measured along the high-water mark) may be created in the strip extending 50 feet inland from the normal high-water mark. For purposes of this section, clearing is the removal of adjacent dominant trees which extend into the canopy and shrubs within ten feet of the shoreline. Where natural vegetation is removed, it shall be replaced with other vegetation which is equally effective in retarding erosion and preserving natural beauty. When the vegetative cover is changed in areas greater than three acres, a plan shall be filed with the ~~Auburn Wwater District~~ indicating the changes so that a record can be maintained of watershed water yields to the system.

- i. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (f)-private subsurface wastewater disposal systems by (1) amending the separation requirements between the disposal field and the limiting soil horizon; (2) increasing the separation between septic systems and tributaries to Lake Auburn from 300 to 400 feet; (3) requiring that the plumbing inspector must ensure that new and replacement systems meet this set design criteria; (4) specifying the design standards of private subsurface wastewater disposal systems; (5) specifying that systems must be on the same lot as the unit they serve; (6) specifying that LAWPC or its designee shall have the right to inspect systems; (7) clarifying the follow-up steps in case of a malfunction; (8) changing the wording of overseeing agencies; and deleting section 60-952 (f) (5) as shown.

**Sec. 60-952. Use and environmental regulations.**

- (f) *Private ~~subsurface wastewatersewage~~ disposal systems.* The following regulations shall be adhered to in the development of private ~~subsurface wastewatersewage~~ disposal systems in the Lake Auburn Watershed ~~Overlay District~~:
- (1) ~~Subsurface absorption areas shall not be permitted on sites on which the highest seasonal groundwater table, bedrock, or other impervious layer is less than 36 inches below the bottom of the organic horizon. Not less than 24 inches of suitable soil shall be present below the bottom of the subsurface absorption area. The bottom of such subsurface absorption area shall not be less than 12 inches below the bottom of the organic horizon measured from the lowest point on the subsurface absorption area. Disposal fields are prohibited on sites with less than 12 inches to the limiting soil horizon. In addition to having at least 12 inches to the limiting soil horizon, disposal fields shall have at least 24 inches of suitable natural soil the bottom of the disposal field, such that there is at least a 36-inch separation between the bottom of the disposal field and the limiting soil horizon. The local plumbing inspector shall require that a Maine licensed site evaluator affirm that these design criteria are met before the LPI finds the design or installation of the system to comply with this ordinance.~~
  - (2) ~~Within areas containing soils described as deep, loose and sandy or gravelly and which contain more than 70 percent sand as shown on table 9-3 of the state plumbing code, part II (April 25, 1975), nNo new disposal fields~~subsurface absorption area shall be installed closer than ~~400~~300 feet to the normal high-water mark of any lake, pond, or year-round or intermittent stream ~~[as depicted on a 7.5 minute series USGS topographic map, dated 1981].~~ Where the daily ~~wastewatersewage~~ flow is or is reasonably likely to be in excess of 2,000 gallons, the system shall be located at least 1,000 feet from the normal high-water mark of any lake, pond or year-round or intermittent stream.
  - (3) ~~All disposal fields, replacement or new, shall meet the design criteria set forth in subsection (f)(1) above, except that if a replacement system disposal field cannot meet the design criteria set forth in subsection (f)(1) above, the local plumbing inspector must, in consultation with and the concurrence of the Auburn Water District, evaluate the design and then require the disposal field to meet as much of the design criteria as is physically possible under the site-specific circumstances.~~



- (4) All private subsurface wastewater disposal systems, replacement or new, shall either have (a) a curtain drain installed per Section 11(H) of the Maine Subsurface Wastewater Disposal Rules, 10-144 C.M.R. ch. 241 (2015), as may be amended from time to time, or (b) a diversion ditch, upslope of the disposal field, installed for the disposal field's entire length (including fill extensions), whichever installation is determined to be most appropriate based on the evaluation of groundwater conditions on the site by a Maine licensed site evaluator. The local plumbing inspector shall require that a Maine licensed site evaluator affirm that one of these two types of installation is part of the design of the system before the LPI finds the design or installation of the system to comply with this ordinance.
- (5) All private subsurface wastewater disposal systems, replacement or new, shall be installed on the same lot as the dwelling unit being served by the system, unless the system can be developed outside of the Lake Auburn Watershed Overlay District or, in the case of a replacement system, the property owner can demonstrate to the local plumbing inspector that it is physically impossible for the replacement system to be located on the same lot, in which case the local plumbing inspector may approve all or a portion of the replacement system's location on adjacent lots.
- (6) Commencing July 1, 2024, LAWPC or its designee shall have the right to inspect all private subsurface wastewater disposal systems in the Lake Auburn Watershed Overlay District every 5 years or at the time that a property sold, whichever date is sooner.
- (7) The Auburn City Water District shall have the right to inspect any subsurface wastewater disposal system within the Lake Auburn Watershed Overlay District during its construction and operation and may notify the health officer, police chief, local plumbing inspector or housing inspector of any observed defects or malfunctions that who shall require the abatement action by the property owner or operator of such defects or malfunctions.
- (8) The local plumbing inspector shall furnish a copy of all site investigation evaluation reports in the Lake Auburn Watershed Overlay District to the Auburn City Water District.
- (5) Replacement or reconstruction of private residential sewage disposal systems in existence and in use on December 17, 1983 shall not be subject to the requirements of this section but shall be required to comply with the current state plumbing code.

- j. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-1065 to clarify the text as shown.

#### **Sec. 60-1065. Definitions.**

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

*Acceptable increase in lake phosphorus concentration (C)* is based upon water quality and the city's selected level of protection. For Taylor Pond the number is 0.75; for Lake Auburn the number is 0.5.

*Direct watershed* means any land area which contributes storm-water runoff by either surface or subsurface flow to Taylor Pond or Lake Auburn without such runoff first passing through an upstream lake.

*Future area to be developed (D)* means an estimate of the acreage in the city's share of the direct watersheds that will be developed during the planning period of 50 years. For Taylor Pond, the estimated future developed acreage is 715.3; for Lake Auburn, the estimated future developed acreage is 1,180.0.

*Lake Auburn* means the Lake Auburn Watershed regulated by this chapter, which is all land areas within the direct watershed of Lake Auburn as defined on the attached map entitled Lake Auburn Watershed Overlay District Map.

*Per-acre phosphorus allocation (P)* means the acceptable increase of phosphorus export per acre in the watershed as determined by solving the following equation  $(P) = (FC)/(D)$ . For Taylor Pond, the phosphorus allocation is 0.036; for Lake Auburn, the phosphorus allocation is 0.047.

*Phosphorus export coefficient (F)* means the amount of phosphorus export from the watershed each year that will produce a one ppb increase in the lake's phosphorus concentration. For Taylor Pond, the phosphorus coefficient is 35.26 lbs/ppb/year; for Lake Auburn, the phosphorus coefficient is 109.9 lbs/ppb/year.

*Taylor Pond* means the Taylor Pond Watershed regulated by this chapter, which is all land areas within the direct watershed of Taylor Pond as defined on the attached map entitled "Taylor Pond Watershed Map".

*Ord. 2023-0000 SE 781*

- k. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-1237 to clarify the text as shown:

#### **Sec. 60-1237. Lake Auburn Watershed Overlay District ~~zone~~ variance.**

When by reason of extraordinary physical conditions peculiar to the land or buildings under appeal but not to other land or buildings adjoining or nearby, an owner of land would be subject to unusual difficulty or special hardships (not mere financial hardship or hardships caused by rigid subsurface wastewater disposal regulations) by reason of the literal application and rigorous enforcement of the terms of this chapter, the board of zoning appeals may grant a variance from strict compliance with the requirements of division 4 of article XII of this chapter after notice and public hearing as provided in this article. No such variance shall be granted unless the board is satisfied that the variance applied for will not adversely affect the quality of the Lake Auburn water supply. When an application for a variance is filed, it shall be forwarded to the Auburn City Water District with a request for an informational report and a recommendation to the board regarding the disposition of the requested variance application. In any case in which a variance request is granted, despite the recommendation of the Auburn City Water District that it be denied, the board of appeals shall make part of its permanent records a written statement of its reasons for taking such action. In granting any such variance application, the board may also impose reasonable conditions upon the use of the land in question which shall be reduced to writing and made a part of the permanent records of the board.

## VI. Suggested Motion B (Staff and Legal Counsel Recommended):

- a. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-950 adding the word “Overlay” to clarify the Lake Auburn Watershed Overlay District name as shown:

### **Sec. 60-950. Purpose.**

The Lake Auburn Watershed Overlay District is intended to maintain safe and healthful environmental conditions; prevent and control water pollution; protect spawning ground for fish, aquatic life, bird and other wildlife habitats; control building sites; provide visual and physical points of access to waters and natural beauty; and protect and maintain the present quality and volume of potable water supplied from the Lake Auburn Watershed to the population of the Auburn-Lewiston area.

(Ord. of 9-21-2009, § 5.3A)

- b. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-951 (a)-Boundaries, adding the word “Overlay” to clarify the Lake Auburn Watershed Overlay District name, and changing “city water district” to “Auburn Water District” as shown:

### **Sec. 60-951. Boundaries and definitions.**

- (a) Boundaries. The Lake Auburn Watershed Overlay District is that section of the city in which surface and subsurface waters ultimately flow or drain into Lake Auburn as such section is delineated on a watershed map and survey by the Auburn City Water District on file in the office of the Auburn City Water District, the city department of planning and permitting services and the city clerk. The Lake Auburn Watershed Overlay District shall be superimposed over underlying districts within such section. Permitted uses in the underlying districts shall continue subject to compliance with the provisions of the Lake Auburn Watershed Overlay District.

- c. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-951 (b)- Definitions, adding the definition of *curtain drain*, *hobby agricultural use*, *Lake Auburn Watershed Protection Commission or LAWPC*, *Non-hobby agricultural use*, *soil horizon*, *soil horizon limiting*, or *limiting soil horizon*, and *soil profile* to this section as shown below:

### **Sec. 60-951. Boundaries and definitions.**

- (b) Definitions. For purposes of this Division 4, the following words and terms as used herein shall have the meanings or limitations of meaning hereby defined, explained or assigned:

Curtain drain means a trench to intercept laterally moving ground water and divert it away from a septic system disposal field.

Hobby agricultural use means uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes where (i) the products produced through such use of the land is for personal consumption, pleasure or sustenance by those occupying the land and does not involve the sale of the products produced through such use of the land for profit, and (ii) the allowances set forth in Sec. 60-2 regarding “farm, livestock” of this chapter and the allowances set forth in Article VII, Division 4 of Chapter 8 of the City Code of Ordinances are not exceeded.

Lake Auburn Watershed Protection Commission or LAWPC means the commission formed through an interlocal cooperation agreement between and among the City of Lewiston, Auburn Water District, and Town of Turner, with three commissioners appointed by the City of Lewiston, three commissioners appointed by the Auburn Water District, one commissioner appointed by the Town of Turner, one commissioner appointed by the Towns of Hebron, Minot and Buckfield, and one commissioner appointed by the Androscoggin Valley Council of Governments.

Non-hobby agricultural use means uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes where the products produced through such use of the land are sold for profit.

Soil horizon means a layer within a soil profile differing from the soil above or below it in one or more soil morphological characteristics. The characteristics of the layer include the color, texture, rock-fragment content, and consistence of each parent soil material.

Soil horizon, limiting or limiting soil horizon means any soil horizon or combination of soil horizons, within the soil profile or any parent material below the soil profile, that limits the ability of the soil to provide treatment or disposal of septic tank effluent. Limiting horizons include bedrock, hydraulically restrictive soil horizons and parent material, excessively coarse soil horizons and parent material, and the seasonal groundwater table. Also sometimes referred to as a “limiting factor.”

Soil profile means a vertical cross section of the undisturbed soil showing the characteristic soil horizontal layers or soil horizons that have formed as a result of the combined effects of parent material, topography, climate, biological activity, and time.

Soil filter media means a soil mixture that consists of a loamy sand lower fill layer meeting the following lower fill layer specifications, plus a minimum of 6 inches of upper fill layer meeting the following upper fill layer specifications:



#### Soil Filter Media Specifications

Upper Fill Layer	
Sieve #	% Passing by Weight
No. 4	75-95
No. 10	60-90
No. 40	35-85
No. 200	20-40
200 (clay size)	<2.0

Lower Fill Layer	
Sieve #	% Passing by Weight
No. 10	85-100
No. 20	70-100
No. 60	15-400
No. 200	6-8
200 (clay size)	<2.0

- d. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952-use and environmental regulation (a) Agricultural uses prohibiting new non-hobby agricultural uses as of 1/1/24 and requiring approval by LAWPC's Watershed Manager to operate hobby agricultural uses after 12/31/23 as shown:

#### Sec. 60-952. Use and environmental regulations.

- (a) Agricultural uses. All uses of land for chicken farms, cattle farms, horse farms, egg farms, piggeries, sheep farms, stables, crop farming and other agricultural purposes shall be subject to the approval of the city water district. Such approval shall be granted upon a showing that such uses will not cause groundwater contamination or contaminate or disturb the normal course of surface water runoff. Non-hobby agricultural uses not in existence as of January 1, 2024 are prohibited, and expansions of non-hobby agricultural uses in existence as of December 31, 2023 are prohibited. As of January 1, 2024, new hobby agricultural uses or expansions of hobby agricultural uses in existence as of December 31, 2023 are only allowed if (i) the owner or operator first demonstrates to LAWPC's Watershed Manager that such use or expansion will not cause groundwater contamination and will not contaminate or disturb the normal course of surface water runoff, and (ii) LAWPC's Watershed Manager approves such use or expansion in writing and so notifies the code enforcement officer.

- e. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952-use and environmental regulations (b) *residential dwellings in the agriculture and resource protection zoning district* by specifying that LD 2003 does not apply in the Lake Auburn Watershed Overlay District as shown:

#### Sec. 60-952. Use and environmental regulations.

- (b) Residential dwellings in the agriculture and resource protection zoning district. Notwithstanding the provisions of Secs. subsections 60-145(a)(1), 60-145(b)(18) and 60-146(1)(c), new one-family detached dwellings units are only permitted-prohibited in the Lake Auburn Watershed Overlay District on parcels containing no less than ten acres, provided that the dwelling is accessory to farming operations and subject to the following restriction: at least 50 percent of the total annual household income of the farm occupants living in the farm residence will be derived from farm uses. Pursuant to 30-A M.R.S. § 4364(9), 30-A M.R.S. § 4364-A(1-A), and 30-A M.R.S. § 4364-B(1-A), each as may be amended from time to time, the affordable housing density, residential density and accessory dwelling unit provisions of P.L. 2021, ch. 672, "An Act To Implement the Recommendations of the Commission To Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions" and any related State regulations do not apply in the Lake Auburn Watershed Overlay District.

- f. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (c) by increasing the width of an untitled agricultural buffer strip near Lake Auburn or its perennial tributaries from 50 feet wide to 100 feet wide as shown:

**Sec. 60-952. Use and environmental regulations.**

- (c) *Agricultural buffer strip.* Where land adjoining Lake Auburn or its perennial tributaries ~~(as depicted on a 7.5 minute series USGS topographic map, dated 1981)~~ is tilled for agricultural purposes, an untilled buffer strip ~~100~~50 feet wide shall be retained between the tilled area and the normal high-water mark. This subsection (c) shall not be interpreted as permitting agricultural tillage in any zoning district in which it is not otherwise permitted.

- g. I make a motion to forward a favorable recommendation to the City Council to amend Sec. 60-952 (d) to prohibit all spreading of or disposal of sludge as shown:

**Sec. 60-952. Use and environmental regulations.**

- (d) ~~Municipal and m~~*anure and sludge disposal.* All ~~s~~spreading and disposal of municipal sludge is prohibited. ~~shall be accomplished in conformance with the Rules of Municipal Sludge Utilization on Land, published by the department of environmental protection in September, 1980. All spreading and disposal of manure shall be accomplished in conformance with the then-current edition of the Maine Department of Agriculture, Conservation and Forestry's rules, regulations and guidelines for manure spreading and disposal. Maine Guidelines for Manure and Manure Sludge Disposal on Land, published by the Life Sciences and Agriculture Experiment Station and the Cooperative Extension Service, University of Maine at Orono, and the Maine Soil and Water Conservation Commission in July, 1972.~~

- h. I make a motion to forward a favorable recommendation to the City Council to amend Sec. 60-952 (e) to change “water district” to “Auburn Water District” as shown:

**Sec. 60-952. Use and environmental regulations.**

- (e) *Erosion control.* The following provisions shall be observed for the control of erosion in the Lake Auburn Watershed:
- (1) Any earth cutting, moving or removal activities that will result in erosion or runoff which is likely to increase sedimentation of Lake Auburn, or any tributaries or other water bodies in the watershed are prohibited.
  - (2) Vegetative cover shall not be removed except in a manner which will minimize erosion. Harvesting of trees shall be permitted only after a plan prepared by a qualified forester is submitted to and approved by the ~~Auburn W~~*ater D*istrict. Such plan will be approved or disapproved on the basis of its conformance with good watershed management practice for domestic water supplies.
  - (3) Trees may be cleared, provided the cleared areas are covered with other vegetation, for approved construction and landscaping. Where such clearing is extended to the shoreline, a cleared opening or openings not greater than 30 feet in width for every 100 feet of shoreline (measured along the high-water mark) may be created in the strip extending 50 feet inland from the normal high-water mark. For purposes of this section, clearing is the removal of adjacent dominant trees which extend into the canopy and shrubs within ten feet of the shoreline. Where natural vegetation is removed, it shall be replaced with other vegetation which is equally effective in retarding erosion and preserving natural beauty. When the vegetative cover is changed in areas greater than three acres, a plan shall be filed with the ~~Auburn W~~*ater D*istrict indicating the changes so that a record can be maintained of watershed water yields to the system.

- i. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-952 (f)-private subsurface wastewater disposal systems by (1) amending the separation requirements between the disposal field and the limiting soil horizon; (2) increasing the separation between septic systems and tributaries to Lake Auburn from 300 to 400 feet; (3) requiring that the plumbing inspector must ensure that new and replacement systems meet this set design criteria; (4) specifying the design standards of private subsurface wastewater disposal systems; (5) specifying that systems must be on the same lot as the unit they serve; (6) specifying that LAWPC or its designee shall have the right to inspect systems; (7) clarifying the follow-up steps in case of a malfunction; (8) changing the wording of overseeing agencies; and deleting section 60-952 (f) (5) as shown:

**Sec. 60-952. Use and environmental regulations.**

- (f) ~~Private subsurface wastewatersewage disposal systems.~~ The following regulations shall be adhered to in the development of private ~~subsurface wastewatersewage~~ disposal systems in the Lake Auburn Watershed Overlay District:
- (1) ~~Subsurface absorption areas shall not be permitted on sites on which the highest seasonal groundwater table, bedrock, or other impervious layer is less than 36 inches below the bottom of the organic horizon. Not less than 24 inches of suitable soil shall be present below the bottom of the subsurface absorption area. The bottom of such subsurface absorption area shall not be less than 12 inches below the bottom of the organic horizon measured from the lowest point on the subsurface absorption area. Disposal fields are prohibited on sites with less than 12 inches to the limiting soil horizon. In addition to having at least 12 inches to the limiting soil horizon, disposal fields shall have at least 24 inches of suitable natural soil or soil filter media below the bottom of the disposal field, such that there is at least a 36-inch separation between the bottom of the disposal field and the limiting soil horizon. The local plumbing inspector shall require that a Maine licensed site evaluator affirm that these design criteria are met before the LPI finds the design or installation of the system to comply with this ordinance.~~
  - (2) ~~Within areas containing soils described as deep, loose and sandy or gravelly and which contain more than 70 percent sand as shown on table 9-3 of the state plumbing code, part II (April 25, 1975), no new disposal fieldsubsurface absorption area shall be installed closer than 400200 feet to the normal high-water mark of any lake, pond, or year-round or intermittent stream [as depicted on a 7.5 minute series USGS topographic map, dated 1981]. Where the daily wastewatersewage flow is or is reasonably likely to be in excess of 2,000 gallons, the system shall be located at least 1,000 feet from the normal high-water mark of any lake, pond or year-round or intermittent stream.~~
  - (3) ~~All disposal fields, replacement or new, shall meet the design criteria set forth in subsection (f)(1) above, except that if a replacement system disposal field cannot meet the design criteria set forth in subsection (f)(1) above, the local plumbing inspector must, in consultation with and the concurrence of the Auburn Water District or its designee, evaluate the design and then require the disposal field to meet as much of the design criteria as is physically possible under the site-specific circumstances.~~
  - (4) ~~All private subsurface wastewater disposal systems, replacement or new, shall either have (a) a curtain drain installed per Section 11(H) of the Maine Subsurface Wastewater Disposal Rules, 10-144 C.M.R. ch. 241 (2015), as may be amended from time to time, or (b) a diversion ditch, upslope of the disposal field, installed for the disposal field's entire length (including fill extensions), whichever installation is determined to be most appropriate based on the evaluation of groundwater conditions on the site by a Maine licensed site evaluator. The local plumbing inspector shall require that a Maine licensed site evaluator affirm that one of these two types of installation is part of the design of the system before the LPI finds the design or installation of the system to comply with this ordinance.~~
  - (5) ~~All private subsurface wastewater disposal systems, replacement or new, shall be installed on the same lot as the dwelling unit being served by the system, unless the system can be developed outside of the Lake Auburn Watershed Overlay District or, in the case of a replacement system, the property owner can demonstrate to the local plumbing inspector that it is physically impossible for the replacement system to be located on the same lot, in which case the local plumbing inspector may approve all or a portion of the replacement system's location on adjacent lots.~~
  - (6) ~~Commencing July 1, 2024, LAWPC or its designee shall have the right to inspect all private subsurface wastewater disposal systems in the Lake Auburn Watershed Overlay District every 5 years and/or at the time that a property sold, whichever time frame is deemed most appropriate by LAWPC or its designee.~~
  - (7) ~~The Auburn city Wwater Ddistrict or its designee shall have the right to inspect any subsurface wastewater disposal system within the Lake Auburn Watershed Overlay District during its construction and operation and may notify the health officer, police chief, local plumbing inspector or housing inspector of any observed defects or malfunctions that who shall require the abatement action by the property owner or operator of such defects or malfunctions.~~
  - (8) ~~The local plumbing inspector shall furnish a copy of all site investigation evaluation reports in the Lake Auburn Watershed Overlay District to the Auburn city Wwater Ddistrict or its designee.~~
  - (5) ~~Replacement or reconstruction of private residential sewage disposal systems in existence and in use on December 17, 1983 shall not be subject to the requirements of this section but shall be required to comply with the current state plumbing code.~~

- j. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-1065 to clarify the text as shown:



#### Sec. 60-1065. Definitions.

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

*Acceptable increase in lake phosphorus concentration (C)* is based upon water quality and the city's selected level of protection. For Taylor Pond the number is 0.75; for Lake Auburn the number is 0.5.

*Direct watershed* means any land area which contributes storm-water runoff by either surface or subsurface flow to Taylor Pond or Lake Auburn without such runoff first passing through an upstream lake.

*Future area to be developed (D)* means an estimate of the acreage in the city's share of the direct watersheds that will be developed during the planning period of 50 years. For Taylor Pond, the estimated future developed acreage is 715.3; for Lake Auburn, the estimated future developed acreage is 1,180.0.

*Lake Auburn* means the Lake Auburn Watershed regulated by this chapter, which is all land areas within the direct watershed of Lake Auburn as defined on the attached map entitled Lake Auburn Watershed Overlay District Map.

*Per-acre phosphorus allocation (P)* means the acceptable increase of phosphorus export per acre in the watershed as determined by solving the following equation  $(P) = (FC)/(D)$ . For Taylor Pond, the phosphorus allocation is 0.036; for Lake Auburn, the phosphorus allocation is 0.047.

*Phosphorus export coefficient (F)* means the amount of phosphorus export from the watershed each year that will produce a one ppb increase in the lake's phosphorus concentration. For Taylor Pond, the phosphorus coefficient is 35.26 lbs/ppb/year; for Lake Auburn, the phosphorus coefficient is 109.9 lbs/ppb/year.

*Taylor Pond* means the Taylor Pond Watershed regulated by this chapter, which is all land areas within the direct watershed of Taylor Pond as defined on the attached map entitled "Taylor Pond Watershed Map".

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- k. I make a motion to forward a favorable recommendation to City Council to amend Sec. 60-1237 to clarify the text as shown:

#### Sec. 60-1237. Lake Auburn Watershed Overlay District ~~zone~~-variance.

When by reason of extraordinary physical conditions peculiar to the land or buildings under appeal but not to other land or buildings adjoining or nearby, an owner of land would be subject to unusual difficulty or special hardships (not mere financial hardship or hardships caused by rigid subsurface wastewatersewage disposal regulations) by reason of the literal application and rigorous enforcement of the terms of this chapter, the board of zoning appeals may grant a variance from strict compliance with the requirements of division 4 of article XII of this chapter after notice and public hearing as provided in this article. No such variance shall be granted unless the board is satisfied that the variance applied for will not adversely affect the quality of the Lake Auburn water supply. When an application for a variance is filed, it shall be forwarded to the Auburn City Wwater Ddistrict with a request for an informational report and a recommendation to the board regarding the disposition of the requested variance application. In any case in which a variance request is granted, despite the recommendation of the Auburn Wwater Ddistrict that it be denied, the board of appeals shall make part of its permanent records a written statement of its reasons for taking such action. In granting any such variance application, the board may also impose reasonable conditions upon the use of the land in question which shall be reduced to writing and made a part of the permanent records of the board.