

# Map & Ordinance Text Amendments Related to Lake Auburn Watershed

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Planning Board Workshop



# Agenda

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- 1.) Why more changes?
- 2.) Phosphorus Control (Text Changes)
- 3.) Low Density Country Residential District (Text Changes)
- 4.) Lake Auburn Watershed Overlay District (Text Changes)
  - a. Map of 400' Setback to lake, stream, brook for SSWW
  - b. Septic Inspection Map

# Why More Changes?

- January 2024; CC, Order 04-01022024 City Manager to direct staff to work with the Lake Auburn Stakeholders Group. (AG working group, Sustainability, and Natural Resources Board, LAWPC, PB members, and public stakeholders) met in a public setting over 6 times from Jan-May to discuss and identify continued concerns and processes related to ordinances that protect Lake Auburn and its watershed.
- May 2024; CC, Order 71-05062024: Initiating ordinance amendments process to definitions, phosphorus, LCDR, and Lake Auburn Overlay District (SSWW).
- Update definitions in the phosphorus calculations to recognize changes in zoning.
- Add the MDEP Technical Design Manual Volume III to the phosphorus ordinance and require the basic single-family residential (SFR) lot standards for ADU and single-family homes (dwelling units).
- Changing setback in LDCR from 50' to 25' in Lake Auburn Watershed.
- Add Definitions; building, dwelling units, LPI, normal HWL, site evaluator, stream or brook, SSWW Inspector
- Requirements for SSWW regardless of type of development.
- 400' resource setback from SSWW field. (Map Developed).
- Curtain drain language from DWP review.
- Inspection program rollout. (Map Developed)
- Number of units in a year (3).
- Enforcement language
- Update setbacks to align with SLZ.

*Helping Protect Source Water Protection for the Auburn and Lewiston Community. **That's our drinking water!***

**We are one of 50 communities nationwide that has a filtration waiver.**



## Division 2. Phosphorus Control

- Update definitions in the phosphorus calculations to recognize changes in zoning.
- Reduces Acceptable Increase in Phosphorus Concentration, Area to Be Developed, Phosphorus Allocation, and Export.

### 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 ~~.25~~ 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~~ 150.

*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 0.03~~65~~; for Lake Auburn, the phosphorus allocation is 0.04~~720~~.

*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~~ 3.74 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. of 9-21-2009, § 5.7B; Ord. No. 28-11202023, 12-4-2023)



$2\text{KNO}_3 + \text{H}_2\text{CO}_3 \rightarrow \text{KCO}_3 + 2$

- Sec. 60-1069. Erosion and sedimentation controls.**

(1) In the Taylor Pond Watershed –, A-a plan designed in accordance with the applicable sections of chapter 8 of the latest edition of Maine Department of Environmental Protection, Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II & Technical Design Manual Volume III, March 2016, DEP Phosphorous Control and Lake Watersheds: A Technical Guide to Evaluating New Development, the latest edition of the Maine Erosion and sediment Control Handbook and all building and environmental protection requirements of this Code. For dwelling units, the Basic Single Family Residential (SFR) Lot Standards of the latest edition of Maine Department of Environmental Protection, Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II shall be used.

(2) In the Lake Auburn Watershed Overlay District–, A-a plan designed in accordance with the applicable sections of chapter 8 of the latest edition of Maine Department of Environmental Protection, Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II & Technical Design Manual III, March 2016, DEP Phosphorous Control and Lake Watersheds: A Technical Guide to Evaluating New Development, the latest edition of the Maine Erosion and Sediment Control Handbook, and all building and environmental protection requirements of this Code and criteria of the city water district or commission. For dwelling units, the Basic Single Family Residential (SFR) Lot Standards of the latest edition of Maine Department of Environmental Protection, Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II shall be used.

Basic SFR Lot Standard
Disturbance on an individual lot must be less than 15,000 square feet (including building, driveway, walkways, lawn area, construction access, grading). And, no more than 7,500 square feet of impervious cover is located on the property.
A minimum natural vegetated buffer must be maintained downgradient of all developed area on the lot. This buffer shall be 35 feet deep if naturally forested or 50 feet deep if maintained as a natural meadow.*
A minimum of 25 percent of the lot area must be maintained as undisturbed natural area.*
<p><i>* If the lot or a portion of the lot is located within a watershed of a Lake Most at Risk from New Development, an Urban Impaired Stream, or other impaired or sensitive waterbodies as designated by the municipality for the purposes of this standard, a minimum of:</i></p> <ul style="list-style-type: none"> <li><i>• 50 feet if naturally forested buffer, or 75 feet if maintained as meadow must be maintained downgradient of all developed area on the lot,</i></li> <li><i>• A minimum of 40% of the lot area must be maintained as undisturbed natural area.</i></li> </ul> <p><i>If the existing land has been disturbed by prior activities, a natural vegetated buffer and/or undisturbed natural area may be proposed through restoration and revegetation.</i></p>

*Ref. MDEP, Phosphorus Design  
Manual Volume II, Chapter 6*



## Division 3. Low Density Country Residential District

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- Changing front setback in LDCR from 50' to 25' in Lake Auburn Watershed.
  - Provides option for lot development to minimize impervious surface and align with SFR requirements.
- (3) *Yard requirements.*
- a. *Rear.* There shall be behind every building a rear yard having a minimum depth of 50 feet or 25 percent of the average depth of the lot, whichever is less.
  - b. *Side.* There shall be a minimum distance of 15 feet between any building and the side property line plus the side yard setback shall be increased one foot for every five feet or part thereof increase in street frontage over 50 feet to a maximum of 25 feet for side yard setback.
  - c. *Front.* There shall be in front of every building a front yard having a minimum depth of 50 feet or 25 percent of the average depth of the lot whichever is less, unless the lot is in the Lake Auburn Watershed Overlay District in which case the front yard shall have a minimum depth of 25 feet or 25 percent of the average depth of the lot whichever is less.

# Division 4. Lake Auburn Watershed Overlay District

## 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 ~~planning, permitting and code department~~~~department of planning and permitting services~~ and the city clerk. The Lake Auburn Watershed Overlay District shall be superimposed over underlying zoning districts within ~~such section~~the city. Permitted uses in the underlying districts shall continue subject to compliance with the provisions of the Lake Auburn Watershed Overlay District.

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

Building has the same meaning as in section 60-2.

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

Dwelling Unit has the same meaning as in section 60-2.

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:

- (1) 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
- (2) The allowances set forth in section 60-2 regarding "farm, livestock" of this chapter and the allowances set forth in article VII, division 4 of chapter 8 of this Code are not exceeded.

Lake Auburn Watershed Protection Commission or LAWPC means the commission formed through an interlocal cooperation agreement between and among the Auburn Water District, City of Lewiston, and the Town of Turner, consisting of three commissioners appointed by the Auburn Water District, three commissioners appointed by the City of Lewiston, 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.

Local plumbing inspector means a plumbing inspector or alternate plumbing inspector as defined in Section 12-22.

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.

Normal high-water line and Normal high-water mark means that line which is apparent from visible markings, changes in the character of soils due to prolonged action of the water or changes in vegetation, and which distinguishes between predominantly aquatic and predominantly terrestrial land.

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~~consistency 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. Any of these limiting horizons may from time to time be ~~Also sometimes~~ referred to as a "limiting factor."

Add Definitions; building: ref 60-2, dwelling units: ref 60-2, LPI, normal HWL, site evaluator, stream or brook, SSWW Inspector

State licensed site evaluator means a person licensed by the Maine Department of Health and Human Services to evaluate soils for the purpose of designing subsurface wastewater disposal systems.

Stream or Brook means a channel between defined banks as depicted as a solid or broken blue line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map.

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Subsurface wastewater disposal system inspector means a person who holds a current certification issued by the Maine Department of Health and Human Services, Division of Environmental and Community Health as a Subsurface Wastewater Disposal System Inspector.





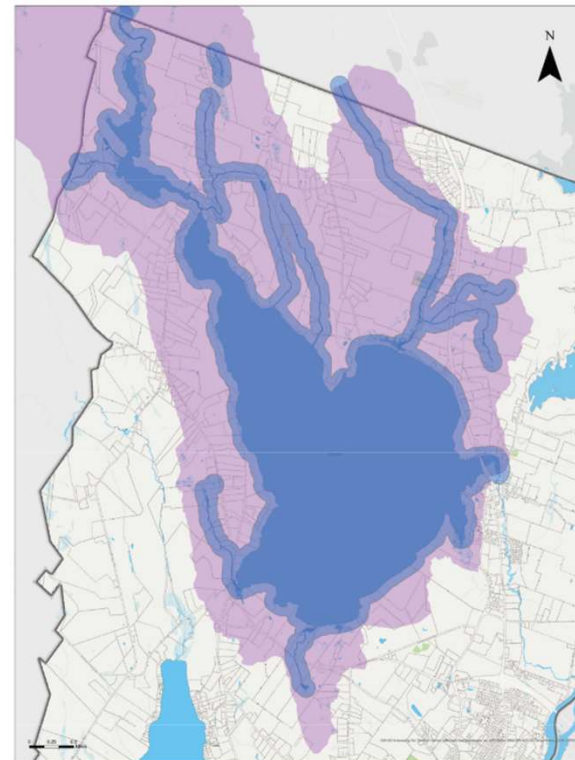
# Division 4. Lake Auburn Watershed Overlay District Cont.

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

### 1. Subsurface Wastewater Disposal Systems.

- (ba) Residential-dwelling units in the agriculture and resource protection zoning district. Notwithstanding the provisions of subsections 60-145(a)(1), 60-145(b)(18) and 60-146(1)c., new dwelling units are prohibited in ~~the that part of the~~ Lake Auburn Watershed Overlay District which overlies the Agriculture and Resource Protection Zone. Pursuant to 30-A M.R.S.A. §§ 4364(9), 4364-A(1-A), and 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.
- (fb) Private subsurface wastewater disposal systems. Each new building, or any existing building for which there is any addition, alteration, or change of use, each new dwelling unit, or any existing dwelling unit for which there is an addition or alteration thereto that includes the addition of one or more bedrooms, in the Lake Auburn Watershed Overlay District, not served by public sewer, shall, in the development of a private subsurface wastewater disposal system, adhere to the requirements of this section as well as the requirements of the latest version of the Maine Subsurface Wastewater Disposal Rule, 10-144 C.M.R. ch. 241. Notwithstanding any provision of the Maine Subsurface Wastewater Disposal Rule, 10-144 C.M.R. ch. 241 the Rule shall be applied regardless of whether the addition or alteration is an initial or subsequent addition or alteration. The following regulations shall be adhered to in the development of private subsurface wastewater disposal systems in the Lake Auburn Watershed Overlay District:
- (1) 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 filler 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 state licensed site evaluator affirm that these design criteria requirements are met before the LPI local plumbing inspector finds the design or installation of the system to comply with this section.
  - (2) No new (first use), expanded, or replacement disposal fields shall be set back from installed closer than 400 feet to the normal high-water mark of any lake, pond, or year-round or intermittent stream, or brook (as depicted on a 7.5 minute series USGS topographic map, dated 1981). Where the daily wastewater 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 as follows:
    - a. Where the daily wastewater 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.
    - a. Where the daily wastewater flow is, or is reasonably likely to be, 2,000 gallons or less, the system shall be set back at least 400 feet from the normal high-water mark of any lake, pond, stream, or brook.
  - b. Where the daily wastewater flow is, or is reasonably likely to be, in excess of 2,000 gallons, the system shall be set back at least 1,000 feet from the normal high-water mark of any lake, pond, stream, or brook.

- Requirements for SSWW regardless of type of development. (includes home, commercial, existing farm)
- 400' resource setback from SSWW field. (See Map Below).



■ Lake Auburn Watershed  
— USGS 7.5 Minute Streams  
■ Lake Auburn Watershed Streams Buffer 400 ft  
■ Wetlands

\* This Map was created on April 23, 2024 using USGS 7.5 minute lakes and streams



# Division 4. Lake Auburn Watershed Overlay District Cont.

(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.~~

(43) All new (first use), expanded, or replacement private subsurface wastewater disposal systems; ~~replacement or new~~, shall include one of the two following design elements. The selection of which design element is most appropriate shall be determined by a state licensed site evaluator based upon the evaluation of the groundwater conditions, soils, and slopes present at the site where the system is to be installed ~~either have:~~

- ~~A~~ A curtain drain installed per Section ~~11-12(H)~~ 10-144 C.M.R. ch. 241 (~~2015~~ 2023), as may be amended from time to time; or
- ~~A~~ A diversion ditch, upslope of the disposal field, installed for the disposal field's entire length (including fill extensions, and constructed so that the curtain drain is located to prevent any under drain of the disposal field);

~~whichever installation is determined to be the most appropriate based on the evaluation of groundwater conditions on the site by a state licensed site evaluator.~~

~~The local plumbing inspector shall require that a state 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 section.~~

(54) All new (first use), expanded, or replacement private subsurface wastewater disposal systems; ~~replacement or new~~, shall be installed on the same lot as the building or 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 an expanded or 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 expanded or replacement system's location on adjacent lots if the property owner holds a perpetual easement from the adjacent lot owner allowing the installation and maintenance of the system.

(56) 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 five years and/or at the time that a property sold, whichever time frame is deemed most appropriate by LAWPC or its designee, the owner of each building or dwelling unit in the Lake Auburn Watershed Overlay District, not served by public sewer, shall have their private subsurface wastewater disposal system inspected to ensure continuing compliance with this section and the latest version of the Maine Subsurface Wastewater Disposal Rule, 10-144 C.M.R. ch. 241.~~

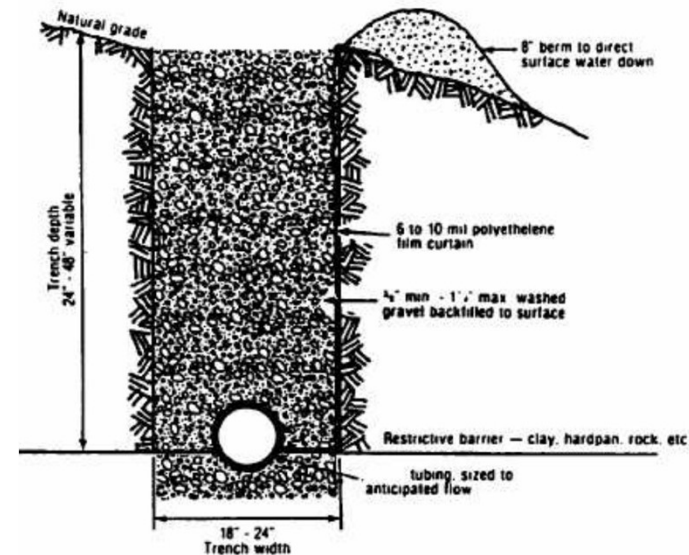
a. Inspections. An initial inspection shall be completed by the completion date specified in the Lake Auburn Watershed Overlay District Septic Systems Inspection Map, dated March 19, 2024, which is on file in the office of the city planning, permitting and code department.

Subsequent inspections shall be completed within five years of the initial inspection and every subsequent inspection, unless the property is sold, in which case a subsequent inspection shall be conducted at the time of sale.

Such inspections shall be completed by a certified subsurface wastewater disposal system inspector.

Such inspector shall inspect the private subsurface wastewater disposal system using the minimum requirements established by the Maine Department of Health and Human Services, Division of

- Curtain drain and diversion ditch language edit from the Drinking Water Program review.



# Division 4. Lake Auburn Watershed Overlay District Cont.

Environmental and Community Health for evaluating and reporting on existing subsurface wastewater disposal systems.

b. City record keeping and notifications. The city planning, permitting and code department shall maintain, within the city GIS system, a record of each subsurface wastewater disposal system within the Lake Auburn Watershed Overlay District that requires inspection. The record must include, at a minimum, the city parcel identifier, date the next inspection is due, and date of the last inspection.

The city planning, permitting and code department shall provide the owner of each building or dwelling unit written notices by regular mail, to the address shown on the city property tax records, of the date by which the inspection of the subsurface wastewater disposal system must be completed. The first notice shall be mailed 12 months prior to each required completion date and the second notice six months prior to each required completion date.

c. Reporting and reviewing of results of inspections. Reporting shall be made utilizing the latest version of the HHE-240 reporting form, for initial inspections, and the Supplement HHE-240 reporting form, for subsequent inspections, as published by the Maine Department of Health and Human Services, Division of Environmental and Community Health. Such reports shall be submitted to the local plumbing inspector.

The local plumbing inspector shall review the report and determine if corrective action is required to ensure that:

1. for subsurface wastewater disposal systems for which a design is on file with the planning, permitting and code department, the system is functioning per the design on file,
2. for subsurface wastewater disposal systems for which there is no design on file with the planning, permitting and code department, the system is functioning as built.

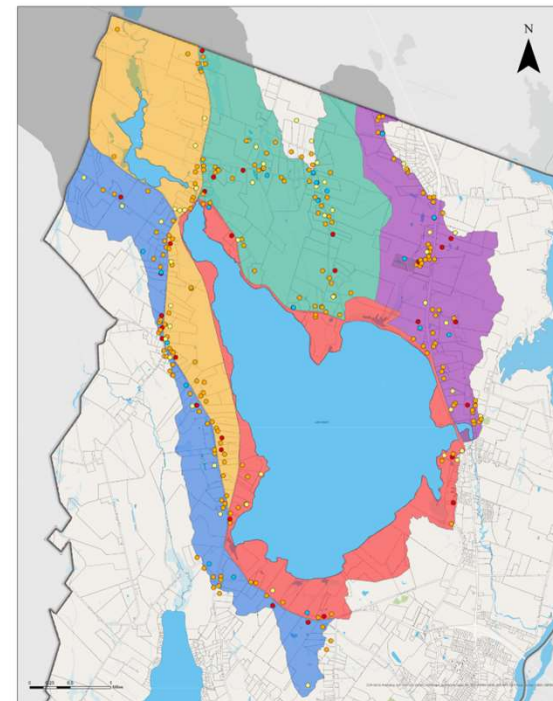
d. Alternative design for replacement subsurface wastewater disposal systems. For buildings or dwelling units that exist in the Lake Auburn Watershed Overlay District as of July 1, 2024, should the local plumbing inspector determine, upon review of the report from the subsurface wastewater disposal system inspector, through personal observation, or through independent means, that the subsurface wastewater disposal system is not functioning as designed or built and a replacement system is required, and:

1. a state licensed site evaluator informs the local plumbing inspector that the parcel on which the building or dwelling unit is situated is not suitable to site a replacement subsurface wastewater disposal system that meets the requirements of this section and the latest version of the Maine Subsurface Wastewater Disposal Rule, 10-144 C.M.R. ch. 241; and
2. the local plumbing inspector determines that the replacement subsurface wastewater disposal system cannot be sited pursuant to Subsection 4;

then a state licensed site evaluator may propose, and the local plumbing inspector may approve, after consultation with the Lake Auburn Water Protection Commission, an alternative subsurface wastewater design that does not meet the requirements of this section and the latest version of the Maine Subsurface Wastewater Disposal Rule, 10-144 C.M.R. ch. 241 but which meets as many of the requirements as possible, and for those requirements that cannot be met, includes design elements that maximize the efficacy of the treatment of the wastewater.

- (76) The Auburn Water District, in coordination with the local plumbing inspector LAWPC, 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 City of Auburn health officer, police chief, local plumbing inspector or housing inspector, code enforcement officer of

Lake Auburn Watershed Overlay  
District Septic Systems Inspection Map



- Inspection program rollout. (Map Developed)
- Auburn Water District and Lewiston Water Department secure Source Water Protection Grant from Maine Drinking Water Program for a total of \$40,000! To assist with public outreach.

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March 19, 2024

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## Division 4. Lake Auburn Watershed Overlay District Cont.

any observed defects or malfunction that require ~~abatement~~ corrective action by the property owner or operator.

(87) The local plumbing inspector shall furnish a copy of all site evaluation and inspection reports in the Lake Auburn Watershed Overlay District to ~~the Auburn Water District or its designee~~ LAWPC.

8) Commencing on July 1, 2024, a maximum of three new dwelling units per calendar year are permitted in that part of the Lake Auburn Watershed Overlay District in which new dwelling units are permitted.

The city planning, permitting, and code department shall, on an annual basis, provide a report to the Planning Board as to the extent and effect of the construction of new dwelling units in the Lake Auburn Watershed Overlay District. The report shall include, at a minimum, the number of new dwelling units constructed in the past year, the cumulative number of new dwelling units constructed since July 1, 2024, and the effect of such construction on the Lake Auburn water quality.

Should the Planning Board conclude, based on the city planning, permitting and code department report that the construction of new dwelling units has had an adverse effect on the Lake Auburn water quality, the Planning Board shall consider what action is to be taken to prevent further degradation of Lake Auburn water quality from the construction of new dwelling units.

- \*Number of units in a year (3). (Any Dwelling Unit-ADU or New)
- Controlled rollout of new development in the watershed.
- City staff to report to the Planning Board on Development in the Lake Auburn Watershed and overall impacts on water quality.

\* Staff reviewed permits the last 5 years. The average number of new units built was 1. (Ave. per year .20/year)





# Division 4. Lake Auburn Watershed Overlay District Cont.

## 3. Enforcement

The city planning, permitting and code department shall have authority to enforce all requirements of this Division in accordance with section 60-1403.

(Ord. of 9-21-2009, § 5.3C; Ord. No. 19-12022019, 12-9-2019; Ord. No. 10-06202023, 7-10-2023; Ord. No. 28-11202023, 12-4-2023)

## **Sec. 60-953. Dimensional regulations; building setbacks.**

All Any new or expanded buildings ~~and~~ or structures, except those requiring direct access to the water as an operational necessity, shall be constructed not less than ~~75-100~~ feet inland from the normal high-water mark of Lake Auburn. Operational necessity shall include private docks, but shall not include boathouses, storage sheds, garages, or other structures. Marinas and boat rental facilities shall not be permitted within ~~75-100~~ feet of the normal high-water mark of Lake Auburn.

(Ord. of 9-21-2009, § 5.3D)

## **Sec. 60-954. Conflicts.**

In any case in which a provision of this section conflicts with a provision of any other section of this chapter, the provision which establishes the more stringent standard shall apply.

(Ord. of 9-21-2009, § 5.3E)

## **Secs. 60-955—60-981. Reserved.**

- Enforcement language
- Update setbacks to align with Shoreland Zone.

