



# City of Norman, OK

Municipal Building Council  
Chambers  
201 West Gray Street  
Norman, OK 73069

## Text File

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title

ORDINANCE NO. O-1213-34 UPON SECOND AND FINAL READING: AN ORDINANCE OF THE COUNCIL OF THE CITY OF NORMAN, OKLAHOMA, ADDING ARTICLE VIII, MANUFACTURED FERTILIZER, SECTIONS 10-801 THROUGH 10-813 TO THE CODE OF THE CITY OF NORMAN TO DEFINE MANUFACTURED FERTILIZER CONTAINING PHOSPHORUS, REGULATE ITS USE IN ACCORDANCE WITH SPECIFIC PROVISIONS, TO PROVIDE FOR REGISTRATION OF COMMERCIAL APPLICATORS OF MANUFACTURED FERTILIZER, AND PROVIDE FOR PENALTY FOR FAILURE TO COMPLY WITH THE TERMS OF THIS CHAPTER; AND ADDING SECTION 13-108 TO PROVIDE FEES FOR COMMERCIAL APPLICATORS; AND PROVIDING FOR THE SEVERABILITY THEREOF.

body

**BACKGROUND:** Lake Thunderbird, the City of Norman's primary source of drinking water, has been identified as having chlorophyll-a concentrations over 3 times the allowable limit set by the Oklahoma Department of Environmental Quality and the U.S. Environmental Protection Agency. Chlorophyll-a is an indicator of the amount of algae in a water body. The high levels indicate that Lake Thunderbird is at risk of potentially dangerous algae levels that could render the water body unusable as a drinking water source. The algae growth is limited by the amount of nutrients provided in the water system. In this case, phosphorus has been identified as the limiting nutrient and by reducing the available phosphorus in Lake Thunderbird the amount of algae in the lake will decrease. Phosphorus levels in Lake Thunderbird have been well documented and were a topic addressed in the Storm Water Master Plan (SWMP) completed in November 2009 and adopted by the City Council in June 2011.

The SWMP suggests structural and non-structural best management practices (BMPs) to control nutrients including phosphorus. Structural controls are those controls that require engineering solutions that include detention basins, sediment basins, retention basins, constructed wetlands, and bio retention filter basins. Non-structural controls include stream planning corridors (SPC), fertilizer use control and education, street sweeping, and development density limitations in the watershed. In June 2011, City Council adopted the Water Quality Protection Zone (WQPZ) ordinance that includes several of these BMPs. The ordinance established SPCs around the streams and requires buffers upon development of the property. With structural BMPs, the buffers may be reduced providing the developer can supply data showing an equivalent removal rate. According to the SWMP, if Norman institutes a combination of the BMPs, there is a potential decrease of 20% in the chlorophyll-a concentration in the fully developed condition. However, it still almost doubles the water quality standard. Norman contributes approximately 50% of the area of the Lake Thunderbird watershed. It will require a cooperative effort from all of the municipalities in the watershed to increase the phosphorus removal in the watershed.

Fertilizer control and education have been identified as additional BMPs to be used in the reduction of the phosphorus load to Lake Thunderbird. The SWMP indicates that fertilizer control can reduce phosphorous levels in Lake Thunderbird, but it is not enough to reduce the chlorophyll-a levels to meet current standards. As an example, the City of Ann Arbor, Michigan, has adopted ordinances regarding fertilizer use and control. A study on phosphorus reduction following implementation of the fertilizer ordinance in Ann Arbor indicated that the ordinance had a positive effect on the reduction of the phosphorus levels. Public education has been initiated in Norman and the City Environmental Control Advisory Board (ECAB) has been active in looking into the reduction of phosphorus. ECAB has conducted surveys in conjunction with Earth Day. The results indicate that most people in Norman do not know if the fertilizer they apply contains phosphorus. This indicates that public education is needed and the City of Norman will continue efforts to educate the public.

Soil sampling and testing has been completed in Cleveland County in recent years. The average phosphorus content was 145.34 lbs./acre in lawns more than doubling the ideal index level of 65 lbs./acre. It is suspected that phosphorus-containing fertilizer had been applied in the past resulting in the high phosphorus levels. A reduction in the application of phosphorous-containing fertilizer will help to alleviate any additional issues with phosphorus loading in Lake Thunderbird.

The Council Oversight Committee reviewed information regarding fertilizer ordinances at the September 5, 2012 meeting. At this meeting, the committee requested that a sample fertilizer ordinance be presented on October 10, 2012. Following the October 10, 2012 meeting, the Committee requested staff make several revisions and present a second alternative fertilizer ordinance for consideration. The revisions and alternate were presented at the Oversight Committee meeting on December 12, 2012. The attached Fertilizer Ordinance includes revisions that were made to the ordinance reflecting the comments from the committee members.

**DISCUSSION:** The City of Norman, in a proactive effort, is proposing adoption of a fertilizer ordinance to help control the phosphorus loading to Lake Thunderbird to reduce the chlorophyll-a levels in the lake. The attached Fertilizer Ordinance was drafted using information from fertilizer ordinances in Ann Arbor, Michigan; St. Paul, Minnesota; the State of New Jersey and the State of Florida.

The following key areas are included in this ordinance:

- Phosphorus fertilizer application will be allowed during the first growing season and with soil testing data indicating that the soils are deficient in phosphorus
- A pamphlet will be produced by the City for educational purposes
- The sale of phosphorus-containing fertilizers and the requirement that the City's pamphlets be made available at the point of sale
- Provisions for penalties for violations
- Requires commercial applicators to be registered with the City of Norman with a registration fee waiver if the applicant certifies they do not use phosphorus-containing fertilizers

**RECOMMENDATION:** Staff recommends that the City Council approve Ordinance No. O-1213-34 creating Article VIII - Manufactured Fertilizer, Sections 10-801 through 10-813 to the Code of the City of Norman.