

COUNCIL CONFERENCE MINUTES

March 8, 2011

The City Council of the City of Norman, Cleveland County, State of Oklahoma, met in a conference at 5:30 p.m. in the Municipal Building Conference Room on the 8th day of March, 2011, and notice and agenda of the meeting were posted at the Municipal Building at 201 West Gray, and the Norman Public Library at 225 North Webster 48 hours prior to the beginning of the meeting.

PRESENT: Councilmembers Atkins, Butler, Cubberley, Dillingham, Griffith, Kovach, Mayor Rosenthal

ABSENT: Councilmembers Ezzell and Quinn

DISCUSSION REGARDING THE STORM WATER MASTER PLAN – DRAFT WATER QUALITY PROTECTION ZONE ORDINANCES.

Mr. Shawn O’Leary, Director of Public Works, reviewed the past history for the Storm Water Master Plan (SWMP). He said the goals and objectives were to obtain public input; public education; consensus building throughout the community; water quality; merging stormwater with recreation; and funding solutions. He said the goals and objectives have been met throughout the planning process and water quality, particularly the focus on Lake Thunderbird and Norman’s drinking water supply, has been a common theme throughout discussions. He said the Canadian River Watershed, Bishop Creek, Imhoff Creek, Brookhaven Creek, etc., were all considered in the discussions as well and flooding and drainage are also important pieces of the SWMP process.

Mr. O’Leary said several public forums have been held to discuss the SWMP as well as task force meetings, ward meetings, Council study sessions, multiple Greenbelt Commission meetings, and multiple civic group presentations.

Mr. O’Leary described key issues for the SWMP as follows:

- Stream Planning Corridors (also known as the Full Build-Out Floodplain (FBF) and additional buffer strips
- Structural and nonstructural storm water quality controls
- Acquisition of drainage easements and rights-of-way
- Enhanced maintenance of creeks and detention facilities
- Dam safety

Mr. O’Leary said the SWMP incorporated the concept of stream planning corridors or FBF. He said Post, Buckley, Schuh, and Jernigan, Inc., (PBS&J) developed a set of local floodplain maps that surpass the Federal Emergency Management Agency (FEMA) floodplain maps. He said the City’s current floodplain maps were developed and adopted in 1970 and the FEMA floodplain maps are based on existing conditions only. The local floodplain maps are based on future FBF conditions, or stream planning corridors and FBF are the basis of the maps developed in the SWMP.

Mr. O’Leary said, during public meetings, water quality was the key regional issue. He said other public comments included questions regarding stormwater utility fee variances and/or exceptions; how enhanced maintenance needs will be met; invasion of privacy issues where recreation trails are near back yards when merging the SWMP with the Greenway Master Plan (GMP); the need for low impact development standards; availability of state /federal funds; the term limit for a utility fee system; and the idea of separating the GMP from the SWMP instead of merging them together.

Mr. O'Leary said early discussion of the SWMP included an Oklahoma Department of Environmental Quality (ODEQ) Watershed Plan Development; Oklahoma Conservation Commission (OCC) Water Quality Modeling results, and the Central Oklahoma Master Conservancy District (COMCD) Rock Creek Watershed Study. He said the Oklahoma Water Resources Board (OWRB) had declared Lake Thunderbird an impaired water body in the areas of turbidity, dissolved oxygen, and Chlorophyll-A levels. He said Chlorophyll-A is the major ingredient in algae growth and the increased Chlorophyll-A levels have become an alarming trend over the last ten years.

Mr. Randy Worden, Executive Director of COMCD, said the COMCD had filed a lawsuit against the OWRB, ODEQ, the City of Oklahoma City (OKC), and the Oklahoma Department of Transportation (ODOT) because of a permit application submitted by ODOT and OKC to discharge storm water into the Lake Thunderbird Watershed. He said, at that time, Lake Thunderbird was having problems with nutrients and dissolved oxygen and if ODEQ had approved the application, it would have made the problems worse. Mr. Worden said OKC, ODOT, and the Oklahoma Turnpike Authority (OTA) entered into an agreement to conduct a total maximum daily load (TMDL) study to coordinate a Watershed Management Plan. He said this was to be completed by April, 2010; however, that has been extended to later this summer. A reservoir modeling effort will be completed by the end of the year with a final report submitted in the summer of 2012. He said turbidity is causing the problem in Lake Thunderbird, not only to water quality standards, but capacity too. He said a report prepared in 2001 indicated 54% more sedimentation in Lake Thunderbird than originally planned. He said the problem with that is the sedimentation is reducing the capacity of the lake, which is critical since it is a major water supply to three cities. He said Norman is taking a very proactive approach with the SWMP.

Mr. O'Leary talked about buffer width a/k/a water quality protection zone and said 100 feet of greenspace buffer actually removes 70% to 75% of nitrogen and phosphorous from the water. Mr. Baxter Vieux of Vieux and Associates, said his company worked with the OCC on a study to target best management practices for the watershed. He said Norman, as mentioned before, is on the impaired water list. He said storm water becomes drinking water so the nature of the water supply is critical for other purposes than just aesthetics. His company analyzed the watershed to understand where the loading of various nutrients and sediment was coming from. He said phosphorus comes from urban runoff of fertilizer that finds its way into the lake, which is already doubled from 2003 projections, which is six times over the water quality standard.

Mayor Rosenthal asked if phosphorous levels can be solved by voluntary controls of fertilizers and teaching the public about what to spread on their lawns. Mr. Vieux said if everyone in Norman joined under voluntary fertilizer reduction, it would only be 15% effective and needs to be 60%.

Mr. O'Leary said the stream planning corridors have been a high priority as an effective method to address water quality issues. He said when Council adopted the resolution on November 10, 2009, accepting the SWMP they basically recognized the following underlying values:

- 2025 Land Use Plan guides all land development
- Preservation of water quality
- Protection of private property from flooding
- Accepted key guiding principle of the GMP
- Adopted the SWMP Action Plan

Mr. O'Leary said the resolution did not commit the City to any funding strategy, enact any new regulation, or require any additional dedication of land, which could come up in the water quality protection zone ordinance.

Mr. O'Leary said the FBF is an area of land along both sides of a drainage corridor that encompasses the areas projected to be inundated by the 1% chance flood event in any given year assuming full build-out watershed conditions in those areas with 40 or more acres of drainage in the Lake Thunderbird watershed. He said Summit Valley Addition is an example of FBF. He said the subdivision was platted ten years ago and has a tributary of Dave Blue Creek that runs through the center of the development and discharges into Lake Thunderbird. He said the development was not designed to comply with the water quality protection zone ordinance because the ordinance did not exist at that time; however, the development complies almost completely, if not over complies with the water quality protection zone concept making it a model development.

Mr. Bob Hanger, City Engineer, said the water quality protection zone would be approximately 100 feet on each side of the FBF or the FEMA floodplains, whichever is the widest. He said the width of the water quality protection zone is decided by stream order, which is a method of numbering streams as part of a drainage basin network. He said the streams used are depicted on the United States Geological Survey (USGS) map and presented examples of water quality protection zone boundaries in Norman. Mr. O'Leary said the issue of the water quality protection zone, up to this point, only applies to the Lake Thunderbird Watershed. He said urban Norman would not be affected by the water quality protection zone as currently developed.

Mr. O'Leary said there are two versions of the ordinance. One is a Zoning Overlay District for Lake Thunderbird watershed and the other ordinance is for subdivision regulations to be used during the platting process. He said Staff has utilized studies from other towns and cities in Oklahoma that have or are working towards water quality protection.

Mr. Hanger said the City would use a three buffer zone system as follows;

- Zone 1 – streamside zone will have very restricted uses
- Zone 2 – midway from the stream with managed forest and restricted uses
- Zone 3 – farthest area from the stream with forest or turf and less restrictions

Mr. O'Leary said the buffer width would be measured from the top of the stream bank, not the FBF, with 100 feet being the standard. He said the ordinances are not retroactive, but new developments would be impacted. He said the ordinances include variance provisions; engineering solutions; buffer averaging; slope standards; stream order; and also allow for clustering of lots. He said there has been discussion and questions regarding Property Owner Association (POA) maintenance and what that would entail. Mr. O'Leary said the City would like the buffer zone to be left as natural as possible and would probably not require maintenance by property owners.

Mayor Rosenthal said the information presented to Council tonight should be presented to the public for feedback prior to the public forum scheduled for March 21, 2011. Councilmember Kovach suggested the information be placed on the City's website as soon as possible for citizens to review. Councilmember Dillingham asked if Staff will have the answer to how many more acres the FBF will require than the FEMA Floodplain maps by the time of the public meeting and Mr. O'Leary said yes, Staff is working on that now.

Councilmember Kovach asked Staff to estimate the cost to treat the Chlorophyll-A levels.

Items submitted for the record

1. PowerPoint presentation entitled, "Storm Water Master Plan Draft Water Quality Protection Zone Ordinances," City of Norman, Cleveland County, Oklahoma, City Council Conference, March 8, 2011
2. Draft ordinance for standards and requirements for a designated water quality protection zone inclusive of the Lake Thunderbird watershed
3. Draft ordinance for a Water Quality Protection Zoning Overlay District
4. Agreement by and among the Central Oklahoma Master Conservancy District and the Oklahoma Department of Environmental Quality effective June 1, 2007
5. Map of the Lake Thunderbird Watershed

The meeting adjourned at 6:27 p.m.

ATTEST:

City Clerk

Mayor