

**NORMAN PLANNING COMMISSION
STUDY SESSION MINUTES**

APRIL 7, 2011

The Planning Commission of the City of Norman, Cleveland County, State of Oklahoma, met in Study Session in the Study Session Conference Room of the Norman Municipal Building, 201 West Gray Street, on the 7th day of April 2011. Notice and agenda of the meeting were posted at the Norman Municipal Building twenty-four hours prior to the beginning of the meeting.

Item No. 1, being:

CALL TO ORDER

Chairman Jim Gasaway called the study session to order at 6:37 p.m.

Item No. 2, being:

ROLL CALL

MEMBERS PRESENT

Tom Knotts
Chris Lewis
Curtis McCarty
Andy Sherrer
Jim Gasaway
Zev Trachtenberg

MEMBERS ABSENT

Cynthia Gordon
Diana Hartley
Roberta Pailles

A quorum was present.

STAFF MEMBERS PRESENT

Susan Connors, Director, Planning &
Community Development
Shawn O'Leary, Director, Public Works
Department
Doug Koscinski, Manager, Current
Planning Division
Larry Knapp, GIS Analyst
Roné Tromble, Recording Secretary
Kathryn Walker, Asst. City Attorney
Jane Hudson, Planner II
Bob Hanger, Storm Water Engineer
Aaron Milligan, Storm Water Pollution
Specialist

Item No. 3, being:

DISCUSSION OF WATER QUALITY PROTECTION ZONE ORDINANCES

Mr. O'Leary explained that these ordinances are the first legislation to come out of the Storm Water Master Plan. He showed a 14-minute public relations video that staff put together regarding the master plan. He also went through a PowerPoint presentation to explain the water quality protection zones, the areas affected, and changes to the zoning ordinance and subdivision regulations.

1. Mr. Knotts asked whether the entire area of the buffer zone, e.g., as depicted on Slide 42, has to be deeded to the City. Mr. O'Leary responded that it would probably be a public drainage easement. If it were developed today, they would be required to dedicate the FEMA floodplain. Mr. Knotts asked whether there would be an opportunity for people to continue some agricultural endeavors, i.e., gardens, etc. Ms. Walker responded that the zoning ordinance amendment goes through some of the uses that are permitted. Agricultural uses existing at the time the ordinance is adopted would be allowed even in Zone 1 right next to the stream, provided it's not an animal feed lot. The purpose really goes back to Imhoff Creek; we do not have drainage easements through a large portion of it to even get back there to help clean out the creek and do things to help the property owners. We want to prevent that type of situation going forward; we want the drainage easements so we can inspect them and do things we need to do to help prevent flooding and other issues. Mr. Knotts commented that we are losing agricultural land, and some of those practices are actually beneficial to water quality. Mr. O'Leary indicated that the buffers could be dedicated as open space on a plat and the developer would decide if they wanted to allow agricultural uses. Ms. Walker added that if there is something that is not covered in the ordinance, the variance process is available.

2. Mr. Trachtenberg asked whether agricultural uses would be controlled by the zone structure. Ms. Walker indicated that they are allowed in Zone 1. Whatever is allowed in Zone 1 is also allowed in Zone 2. Mr. Trachtenberg questioned the use of fertilizer close to the stream. Ms. Walker said they don't want to affect existing agricultural uses, but that would have to be considered through the variance process.

3. Mr. McCarty asked about someone buying property in one of these areas and putting in a sod farm, which typically go into areas along streams that flood most frequently. Mr. Koscinski noted that, unless the property is being platted, there is no new regulation.

4. Mr. Lewis asked what would happen in the case of an approved plat that expires. Mr. O'Leary indicated that it would then be subject to the new ordinances. Mr. Koscinski added that final plats do not expire. Preliminary plats expire after three years if nothing is done, and after five years if some sort of final plat is filed.

5. Mr. McCarty posed a hypothetical where a development is in the final plat on Phase 3, but the preliminary plat for Phase 4 and 5 has expired. Would there be new requirements on those remaining phases? Ms. Walker indicated that is one of the issues that is still being worked out. The Council subcommittee recognizes that as a valid issue that needs consideration. Mr. O'Leary said that would be something that could be argued as a major hardship and go through the variance process. Mr. Koscinski added

that the variance process is established and the Board of Adjustment is in place, but they have never seen a variance of this type. Mr. O'Leary referred to Summit Valley as an example. This only applies to the stream, and there is a lot of development that is not affected by this. Probably one of the first things they did was to build the stream crossing and the road. I don't see us going backwards. If, for some reason, they had not done the proper water quality protection zone, which they probably would do anyway just out of practicality, and this plat expired and came back, I don't see you or us having them rip out the road. But if this section of the plat had not been developed and it expired and came back, you might make them change the look of those lots and move them farther away from the stream.

6. Mr. McCarty commented that we have really good developers and pretty good engineers in Norman. The examples he has seen in the Task Force meetings have all shown very good examples and, for the most part, all have complied. Where do we have the problem? Can you show us a development that has been recently done and how it would be affected? Mr. O'Leary commented that there are some recent examples that are really good. J&J is not perfect, but it is really good. Mr. McCarty added that the engineers today have a lot better data than they had 20 or 30 years ago and it helps them understand the water flow. Mr. Koscinski commented that where this will come into play is in the development of 40-acre tracts. Mr. O'Leary added that the full build-out floodplain doesn't exist in most of the developments. Mr. McCarty said he would really like to see how this would impact something that has recently been done that is a bad example. Mr. Sherrer added he thought that would be helpful for garnering support from the development community. Mr. O'Leary referred to his Slide 41, which shows the currently regulated floodplain and the full build-out floodplain along a section of Little River, and the areas that would not be regulated without these ordinances. Mr. Hanger noted that Greenleaf Trails is one example where the developer did a pretty good job with the two streams through the area, but this would have required the dedicated area to be a little wider. Mr. McCarty asked if staff could do an overlay to see how it would be affected.

7. Mr. Knotts asked if the white lines on Slide 42 depict the ridge lines. Mr. O'Leary responded affirmatively. Mr. Knotts suggested they be included on all the maps because they define the basins and helps people understand where the delineation is.

8. Mr. Trachtenberg commented that what is being set up here is a pretty dynamic, active almost pre-approval process. There is a lot of work between staff and applicants to come up with an idea that will conform, and this seems to provide for even more of that, which is probably a good thing. Can staff get this done, along with everything else that needs to be done? People have complained that this imposes costs on the development side, which may be partly due to increased mapping requirements, with a greater burden on the applicant to provide information. Mr. O'Leary commented that the developers are doing it, anyway. The discussion about costs is more about land costs – taking more land from the development.

9. Mr. Sherrer commented that FEMA maps are updated regularly, and asked if that will also be the case with these maps. Mr. O'Leary indicated FEMA maps are updated about every ten years, most recently in 2008 when they went digital for the first time.

10. Mr. Lewis raised a question about costs to the development community and the net gain/net loss of property that has the ability to be developed. Has staff looked at the community as a whole in terms of net gain/net loss of developable property. Mr. O'Leary said they will get that information. One of the debates has been how much acreage is involved. The current FEMA floodplain in the Lake Thunderbird watershed is about 4% of the total acreage, and the full build-out floodplain is another 3%. The current and future urban service area, not including the country residential, and the net increase in acreage was about .3% (325 acres). The majority of the additional dedication is in the country residential areas. Mr. McCarty added that this doesn't affect most of the developed area of Norman or areas that can be developed; most of the area that is affected is in areas that will not be developed. Mr. Lewis asked if they would actually develop the low-lying areas anyway. Mr. McCarty commented that what we have seen in recent plats is that the answer has been no. Mr. Trachtenberg said it seems what they are saying is that the developers are doing the right thing so why do we need the rule; but what's wrong with the rule if you're already following it? It articulates the guidelines and makes them clear and gives the City a tool if there's somebody that doesn't do it that way.

11. Mr. McCarty, speaking as a builder, said all the builders he knows are all for improving water quality. I don't think there is any debate over a water quality improvement. We need that. Where the big debate is in taking these big areas outside of a FEMA floodplain – 100 foot buffers – and making it a no-build zone. Again, there are some areas that are buildable that maybe have had plats done on one of them. And there are quite a few areas where these lines creep up through really flat areas, and there's engineered solutions to those, and the engineered solutions are working from what we know and have seen. My point is if we're going to do something to improve Lake Thunderbird, why don't we do it in a way that it can be tested? Let's take the detention ponds that are required, put it in a simple ordinance that says check the water coming out of your detention pond and it needs to have less phosphorous and nitrogen in it than whatever number. Give the developers an opportunity to create filtering ponds, which some are trying, versus going in and making some convoluted buffers that go all the way along the creek that are going to be pretty unmanageable. I saw pictures of downed trees; rotting trees produce nitrogen and that is the number one source of nitrogen in streams. We already have FEMA floodplain that's beyond the creek stream. In a 1% rain event, the water is already spreading through the FEMA floodplain and that water is getting filtered. Now we're going to take an area beyond the FEMA floodplain that water never really gets to unless it's in an agricultural development or a field where the water drains down through the field and into the FEMA floodplain and into the stream. In a residential development, the water goes to the street, through pipes, through detention ponds, and from the detention pond straight into the creeks. I just don't see where these buffers are going to do anything to take phosphorous and nitrogen out of residential areas. I would rather see something we can test. Let's take a detention pond and let's require testing of those on a regular basis that the nitrogen and phosphorous levels coming out of them is less than what it's supposed to be. That's how we fix our water, in my opinion. I'm not an engineer or hydrologist; I'm just speaking from experience. In an urbanized area, it's different than a farm area. You have straight land and it does go to a lot of these creeks; that's why those creeks are there. They flow to the low

areas which is where the creeks primarily are. So they probably work there. I would rather see something that is real simple. We had a public meeting and there was a lady from the Lake Thunderbird Conservancy District – she made a comment that I was real curious about and I haven't followed up with it, but she said in the last two years that the water quality has improved in Lake Thunderbird. Ms. Walker added that the discussion has been that the best management practices that are measurable do make a lot of sense. Something that is new to the ordinance since the last Task Force meeting is a reference to the Northcentral Texas Council of Governments, the Dallas/Fort Worth area has a really comprehensive manual that gives measureable outputs from detention ponds. I also wanted to point out that on page 14 of the subdivision ordinance, in (H) we've written a design criteria that requires curbs and gutters and things like that to be modified so we can accommodate these low-impact development strategies. The goal really is to not do what we've always done. Our engineering design criteria need to be flexible to accommodate that. Mr. McCarty commented that he would rather see an ordinance that affects everybody in the community, because we're going to be back in a couple of years hearing something from the EPA about the Canadian River. I would rather see us clean all our water.

12. Mr. Trachtenberg commented that what motivated his first question was a cost of administration question. Wouldn't an enforcement ordinance make more sense than a prevention ordinance? Mr. O'Leary said they had a slide, which they took out of the presentation, about the cost of the different remedies. The most expensive was detention basin regulation; the cheapest was buffers. We're still exploring how they arrived at that information. When we started this four years ago, the stream planning corridors were going to address the Canadian River and Lake Thunderbird. During the storm water master plan work, there was enough push back from the developers, that we moved away from the Canadian. Throughout all the studies and all the different cities' regulations, what we've learned is the most effective and cheapest first step is buffers. I suspect we will eventually get to enforcement; I think this is the first step.

13. Mr. McCarty said he thinks the existing FEMA floodplain is the backbone or the skeleton. I think these ordinances are more like the body. Mr. O'Leary said he sees this as an extension of the FEMA floodplains up into the basin, and instead of just considering today's runoff, we're trying to project out the ultimate runoff. The reason FEMA updates their maps every ten years is that they only model existing runoff, so they have to do it every ten years because it is changing. Ours wouldn't change, because it is already projecting full build-out. Floodplain managers across the country are kind of moving in that direction.

14. Mr. Sherrer asked about the costs associated with this proposal, both land costs and the costs of maintenance. Mr. O'Leary responded that the costs are the land and the maintenance. We think if we do this right the costs of maintenance will be less than a sculptured open space. Mr. McCarty asked if the buffer areas are going to have to be maintained by the HOA. Mr. O'Leary responded affirmatively. The preference would be for the HOA to own and maintain those spaces. Summit Valley obviously is not spending a lot on maintenance of their stream channel today. Mr. McCarty asked if that would be a common area on the plat that would owned by the HOA. Mr. O'Leary responded that it would be a common area that could be called a drainage easement or conservation easement. Mr. McCarty asked if the downed trees and stuff

that is laying around would be acceptable. Mr. O'Leary responded that currently we don't inspect these. The ordinances intend that the City would regulate that through inspections and imposition of maintenance needs, if any, on the owner. We have not done a good job historically and Imhoff Creek is the poster child for that. We have done a terrible job regulating streams and channels. If the water quality protection zones were created we would be inspecting them every year and establishing a standard. Our standard generally is that we want it to be natural, so leave it alone and let it be what it was supposed to be.

15. Mr. McCarty asked how HOAs are going to afford to do this. We spent \$25,000 in one HOA trimming trees after the ice storm. Mr. O'Leary said one of the issues that the storm water master plan addressed was the need for enhanced maintenance. The City needs to do more. If the storm water utility fee is adopted part of it will be used to do sweeps of all the channels, new and old. The City would not do the weekly mowing. Ms. Walker added that the ordinance requires that the POA maintain the non-structural controls. It's going to be the mowing of the buffer and things like that.

16. Mr. Lewis expressed concern about fire hazards created by keeping the buffer areas in a natural state, referring to Slide 31. Ms. Walker reported that she met with the Fire Marshall to discuss the issues from his standpoint. Page 17, Section 19-514(E) has some mowing standards. Firefighters sort of have a 3-zone area around a house. This section mirrors their zones. Mr. O'Leary commented that most of these buffers will probably not be as forested as the ones depicted in the photos of Summit Valley. Mr. Lewis noted the recent incident of a grass fire near Campus Lodge.

17. Mr. Hanger mentioned some other side benefits of buffer areas: it provides the City with access, and provides wildlife habitat.

18. Mr. Trachtenberg asked about flood mitigation, because it seems the engineered solutions don't perform well during flood events. The hardened creeks tend to exacerbate floods. Mr. O'Leary said that, by protecting the stream with full build-out floodplain, we are doing flood control and water quality. That is really where the stream planning corridors started.

19. Mr. McCarty commented that detention ponds also have a problem with sedimentation over time, and a lot of the nutrients collect on the bottom of shallow areas. That can be addressed by dredging, which increases water quality as well as the amount of water it can hold. We probably will never be able to afford to do that.

20. Mr. Milligan commented that sediment transports a lot of phosphorous, which is having a primary impact on the lake. Some of the sediment also comes from stream bank erosion. One of the other benefits of a natural area on the side of the creek is that it helps stabilize the creek banks and provides some meander room for the creek to do what it normally does, and hopefully cut down on the erosion. Mr. Hanger added that it also slows the flow, which leads to less erosion. Mr. Milligan noted that Lake Thunderbird already violates the State water quality standards. The Department of Environmental Quality is currently drafting a document that will be enforced on the City of Norman, as well as the other municipalities with storm water discharges into Lake Thunderbird watershed, and it will require us to correct the problem, and the City will

be tasked with coming up with solutions to this pollution problem in the lake. It may take buffers and low-impact development and sampling and fertilizer education and everything we can do and we still may have trouble meeting the standard. Mr. McCarty commented that Norman only controls about 49% of the water that goes into Lake Thunderbird, with the rest coming from Moore and other areas. Mr. O'Leary added that the State report and mandate will be on Norman, Moore, Oklahoma City, and unincorporated Cleveland County, and all will have to comply. One of the discussions at the Council subcommittee was that we want to lead the way and set the standard for how we're going to do this and encourage them to join us. They're not drinking their storm water; they're drinking other water.

21. Mr. Milligan stated that the most recent data that we got from the Water Resources Board show the trend to be going upward. Mr. O'Leary added that Dr. Vieux's report showed the projection of 30 micrograms/liter and we already have tests that show 60.

22. Mr. McCarty asked for clarification on Table 2 on Slide 34. Mr. Milligan indicated that the table came from a paper done by Dr. Paul Mayer who works at the EPA lab in Ada. He looked at 66 separate buffer studies and characterized them as to what type of buffer they dealt with. Mr. O'Leary said the reason for including the table was to show that it was based on a number of studies.

23. Mr. McCarty asked if our local agricultural needs have less of an impact on water quality than other areas. Mr. Milligan reported that a lot of the studies were done in the upper Mississippi River drainage basin with intensive crop land and fertilization. I would say that with our pasture and light grazing it would be substantially less. The levels of nutrients in areas of intensive crop land are probably similar to what we get from urban runoff. Mr. Knotts said we don't fertilize agricultural crops anywhere near what we use in urban settings. Sod farmers do not over-fertilize.

24. Mr. Trachtenberg mentioned a neighborhood in Seattle that was designed without curbs, with a beautiful swale and gardens.

25. Mr. Knotts noted the work Richard McKown is doing, but it is creating a nutrient sump in a specific location. At some point it will have to be taken out, and it is not a sustainable operation.

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Item No. 4, being:

ADJOURNMENT

There being no further business, the meeting adjourned at 8:43 p.m.


Norman Planning Commission