



**CITY OF LUBBOCK POLICY
for
PLAYA LAKE DEVELOPMENT**

A. PURPOSE

The purpose of this policy is to establish criteria for the development and/or acceptance of playa lake areas as stormwater detention basins or parks. The minimum development standards for stormwater detention basins shall apply to all playa lakes regardless of ownership.

B. HISTORICAL PRACTICE

The Code of Ordinances historically required that lake areas be dedicated as stormwater drainage and impoundment easement areas necessary for flood control and preservation of natural drainage. Playa lake areas could be reviewed by the Parks and Recreation Department for a recommendation to the Parks Board as to the need of the lake area as a City park.

C. DEFINITIONS

Stormwater Detention Basin - A lake area deeded for the primary use of stormwater impoundment. Undeveloped open space activities may also exist.

City Park - An area, which may include a playa lake, defined by the City of Lubbock Civic Services Division as an area providing for public open space and associated recreational activities.

D. AREA OF RESPONSIBILITY

The playa lake ownership policy applies only to those lake areas that are totally within the Lubbock city limits.

E. ELIGIBILITY FOR CITY OWNERSHIP OF LAKE AREAS

Playa lakes are an essential element of drainage systems both in and adjacent to the City of Lubbock. When critical amounts of development have occurred within any particular watershed, the public may benefit from owning the property as part of the overall system. Proposals for ownership shall include a determination by the City Council that a substantial benefit shall accrue to the public. No lake areas will be accepted in relatively undeveloped areas unless circumstances exist which merit an exception.

A playa lake, determined to benefit the public, is eligible for ownership by the City of Lubbock provided that the requirements set forth by this Policy are met.

F. DEVELOPMENT REQUIREMENTS

F.1. Playa Lakes Deeded as Stormwater Detention Basins

F.1.a. Minimum Development Requirements

Playa lakes, regardless of ownership, will meet requirements set forth by the City of Lubbock Code of Ordinances and the Drainage Criteria Manual unless otherwise approved, in writing, by the City Engineer and/or approved by the Planning and Zoning Commission.

In addition, the following shall be done prior to acceptance by the City:

1. The lake basin shall be graded in accordance with City of Lubbock Code of Ordinances and the Drainage Criteria Manual. Any playa lake requested for City acceptance which has side slopes that exceed the maximum slopes allowed by the Code of Ordinances and Drainage Criteria Manual shall be considered on a case by case basis by the City Engineer. The Owner/Developer of a lake area with excessive side slopes may be required to reshape the cut and/or fill slopes of the lake prior to acceptance.
2. Prior to submission of the Erosion Control Plan, (herein so called) Owner/Developer, and the City Engineer shall perform an initial inspection of the subject property. The Owner/Developer shall submit an Erosion Control Plan and install erosion control measures as approved by the City Engineer. The Erosion Control Plan shall include:
 - a. A complete description of the lake area proposed for conveyance.
 - b. A complete description of the problem areas or areas of concern as discussed or noted on field inspection made with Owner/Developer and City Engineer.
 - c. A complete description of any necessary and/or proposed improvements to be made to the subject property. This includes any designs, plans, and specifications for materials and construction of the improvements.

- d. A complete description of the dates of all previous cut and fill of the lake, the predicted peak water elevation of the lake as determined by procedures outlined in the Drainage Criteria Manual, an estimated normal pool elevation of the lake, and other information regarding any previous erosion control measures that have been constructed by the Owner/Developer.
- e. Date of expected completion of the proposed improvements.

If the lake is still in its natural state and has not been modified through a cut and fill operation then some requirements may be waived. In proper locations, opportunities for preserving and maintaining the natural habitat will be considered.

F.1.b. Minimum Water Quality Requirements

The Owner/Developer will be required to sample the water in any playa lake proposed for City ownership. Composite samples shall be taken as described below, and the samples analyzed by a certified laboratory, for the playa lake and will be collected as follows:

1. Composite samples may be collected manually. Equal volume aliquots shall be collected at the time of sampling and then composited in the laboratory or the aliquot volume may be collected and composited in the field.
2. Sampling Duration – Samples shall be collected within 12 hours of a storm event.
3. A minimum of four (4) aliquots, being at least one (1) aliquot from each quadrant of the playa lake, shall be collected for the composite sample.
4. Analysis and collection of samples shall be done in accordance with the methods specified in 40 CFR Part 136. Where an approved method in Part 136 does not exist, then a method approved by the City Engineer can be used.

Tests shall be conducted on the following parameters:

1. Biochemical Oxygen Demand, BOD₅, (mg/l)
2. Chemical Oxygen Demand, COD, (mg/l)
3. Oil and Grease, (mg/l)
4. Total Suspended Solids, TSS, (mg/l)
5. Total Dissolved Solids, TDS, (mg/l)

6. Total Kjeldahl Nitrogen, TKN, (mg/l)
7. Total Nitrate plus Nitrite, (mg/l)
8. Total Ammonia, (mg/l)
9. Total Phosphorus, (mg/l)
10. Dissolved Phosphorus, (mg/l)
11. Total Cadmium, ($\mu\text{g/l}$)
12. Total Chromium, ($\mu\text{g/l}$)
13. Hexavalent Chromium, ($\mu\text{g/l}$)
14. Total Copper, ($\mu\text{g/l}$)
15. Total Lead, ($\mu\text{g/l}$)
16. Fecal Coliform, (colonies/100ml)
17. Fecal Streptococcus (colonies/100ml)
18. Ph, (s.u.)
19. Hardness, as CaCO_3 , (mg/l)
20. Temperature, ($^{\circ}\text{C}$)
21. Diazinon, ($\mu\text{g/l}$)
22. Chlordane, ($\mu\text{g/l}$)
23. 4,4-DDD, ($\mu\text{g/l}$)
24. 4,4-DDE, ($\mu\text{g/l}$)
25. 4,4-DDT, ($\mu\text{g/l}$)
26. Endosulfan Sulfate, ($\mu\text{g/l}$)
27. Toxaphene, ($\mu\text{g/l}$)

Once completed, a summary of the test results shall be furnished to the City Engineer for review. If there appears to be a significant water quality problem, based on the analysis, the City Engineer could require that the problem be corrected, to the best of the Owner/Developers ability, before assuming ownership of the lake area as public property. If the lake bottom is dry then a composite soil sample, as directed by the City Engineer, will be analyzed for the same elements.

F.1.c. Existing Facilities

The Owner/Developer will make the City Engineer aware of any privately constructed facilities (i.e. buildings, parking lots, pumps, aeration devices, etc.) existing within the lake areas. The City Engineer and Parks and Recreation Manager will review the existing facilities to determine if they will be allowed to remain in place. Any facility determined to be of no benefit to the City will be removed by the Owner/Developer prior to acceptance.

Any existing facility that remains in place in order to serve adjacent private property may require a maintenance agreement to be established whereby the private property owner will continue to maintain the existing facility within the lake area.

F.2. Developing Lakes as City Parks

F.2.a. Minimum Development Requirements

If a playa lake falls within an area where the need for park property is indicated in the Parks Master Plan or by the Parks Board, the Owner/Developer may negotiate for the acceptance of the lake property as a park. The Owner/Developer shall coordinate with the Parks and Recreation Manager on any issue pertaining to park development.

If a playa lake area is to be deeded by General Warranty Deed as a park, then the property will meet requirements set forth by the City of Lubbock Code of Ordinances and the Drainage Criteria Manual unless alternatives are approved within a cut and fill plan approved by the Planning and Zoning Commission. The following shall be considered prior to acceptance by the City:

1. A cut and fill plan meeting City of Lubbock Codes of Ordinance and the Drainage Criteria Manual, as well as being suitable to the atmosphere of the proposed park, shall be submitted and approved by the City.
2. Property deeded to the City, as described herein, shall meet the minimum requirements for areas located above high water set forth by the City of Lubbock Parks Master Plan or negotiated with the Parks and Recreation Board.
3. Prior to submission of the Erosion Control Plan (herein so called) Owner/Developer and the City Engineer shall perform an initial inspection of the subject property. The Owner/Developer shall submit an Erosion Control Plan and install erosion control measures as approved by the City Engineer and Parks and Recreation Manager. The Erosion Control Plan shall include:
 - a. A complete description of the lake area proposed for conveyance.
 - b. A complete description of the problem areas or areas of concern as discussed or noted on field inspection made with Owner/Developer and City Engineer.
 - c. A complete description of any necessary and/or proposed improvements to be made to the subject property. This includes any design, plans, and specifications for materials and construction of the improvements.
 - d. A complete description of the dates of all previous cut and fill of the lake, the predicted peak water elevation of the lake as determined by procedures outlined in the Drainage Criteria Manual, an estimated normal pool elevation of the lake, and other information regarding any previous erosion control measures that have been constructed by the Owner/Developer.
 - e. Date of expected completion of the proposed improvements.

4. Improvements within the proposed Park area shall be negotiated and approved by the Parks and Recreation Manager and the Parks and Recreation Board.
5. Any irrigation system, approved by the Parks and Recreation Manager, shall be installed by the Owner/Developer prior to any vegetative cover being placed around the lake area.

Any variances to the policy elements required for a Park shall be approved in writing by the Parks and Recreation Manager and/or the Parks and Recreation Board.

F.2.b. Minimum Water Quality Requirements

The Owner/Developer will be required to sample the water in any playa lake proposed for City ownership. Composite samples shall be taken as described below, and the samples analyzed by a certified laboratory for the playa lake and will be collected as follows:

1. Composite samples may be collected manually. Equal volume aliquots shall be collected at the time of sampling and then composited in the laboratory or the aliquot volume may be collected and composited in the field.
2. Sampling Duration – Samples shall be collected within 12 hours of a storm event.
3. A minimum of four (4) aliquots, being at least one (1) aliquot from each quadrant of the playa lake, shall be collected for the composite sample.
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Tests shall be conducted on the following parameters:

1. Biochemical Oxygen Demand, BOD5, (mg/l)
2. Chemical Oxygen Demand, COD, (mg/l)
3. Oil and Grease, (mg/l)
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7. Total Nitrate plus Nitrite, (mg/l)
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9. Total Phosphorus, (mg/l)
10. Dissolved Phosphorus, (mg/l)
11. Total Cadmium, ($\mu\text{g/l}$)
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13. Hexavalent Chromium, ($\mu\text{g/l}$)
14. Total Copper, ($\mu\text{g/l}$)
15. Total Lead, ($\mu\text{g/l}$)
16. Fecal Coliform, (colonies/100ml)
17. Fecal Streptococcus (colonies/100ml)
18. Ph, (s.u.)
19. Hardness, as CaCO_3 , (mg/l)
20. Temperature, ($^{\circ}\text{C}$)
21. Diazinon, ($\mu\text{g/l}$)
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Once completed, a summary of the test results shall be furnished to the City Engineer for review. If there appears to be a significant water quality problem, based on the analysis, the City Engineer could require that the problem be corrected, to the best of the Owner/Developers ability, before assuming ownership of the lake area as public property. If the lake bottom is dry then a composite soil sample, as directed by the City Engineer, will be analyzed for the same elements.

F.2.c. Existing Facilities

The Owner/Developer will make the City Engineer aware of any privately constructed facilities (i.e. buildings, parking lots, pumps, aeration devices, etc.) existing within the lake areas. The City Engineer and Parks and Recreation Manager will review the existing facilities to determine if they will be allowed to remain in place. Any facility determined to be of no benefit to the City will be removed by the Owner/Developer prior to acceptance.

Any existing facility that remains in place in order to serve adjacent private property may require a maintenance agreement to be established whereby the private property owner will continue to maintain the existing facility within the lake area.

G. ACCEPTANCE STANDARDS FOR DEVELOPING LAKE AREAS

The following standards must be met, or properly secured, prior to the final plat and the conveyance instrument of the stormwater detention basin or park being accepted and recorded:

1. The requirements for minimum development standards for stormwater detention basins are in place and appear to be operating efficiently. If the lake area is to be a City park, any additional improvements as agreed upon by the Owner/Developer and the City shall be installed or properly secured.
2. The water quality tests have been performed and any modifications to the lake area completed and accepted.
3. Existing facilities have been removed or accepted by the City with a maintenance agreement.
4. The entire area is clear of litter. Grass and/or weeds are mowed and no erosion problems are evident.

H. PROCEDURE FOR NOTIFYING PUBLIC OF INTENT FOR LAKE AREAS

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When a preliminary plat is submitted for an area containing a playa lake, it will then be determined if the lake will be a stormwater detention basin or a public park. (Private parks, where the Owner/Developer maintains the property, are also an option.) The Owner/Developer will be required to place signs on-site stating that the lake area will be a stormwater detention area or a city park. The signs would be required to be posted prior to Phase I of the development as a requirement of the proposed final plat and shall remain until the lake area is deeded to the City as a storm water detention basin or park. The size, location, and number of signs shall be determined on a case-by-case basis.

A note will be required on the face of any proposed final plat that the lake will be a City-owned or a privately owned Stormwater Detention Basin, a City Park, or a privately owned park.