OFFICE OF THE CITY MANAGER
LITTLE ROCK, ARKANSAS

BOARD OF DIRECTORS COMMUNICATION
NOVEMBER 19, 2024 AGENDA

Subject:	**Action Required:**	**Approved By:**
An ordinance adopting an updated version of the Little Rock Stormwater and Drainage Manual.	√ **Ordinance** Resolution	
Submitted By: Planning & Development Department		Emily Cox Acting City Manager

SYNOPSIS	Update to the Stormwater Drainage Manual and Ordinances, last updated in 1985. This update is designed to improve the stormwater and drainage design manual to more effectively and adequately address future flood risk, new stormwater practices, and state & federal regulations.
FISCAL IMPACT	None determined.
RECOMMENDATION	Staff recommends approval. The Planning Commission voted to recommend denial by a vote of 4 ayes, 6 nays, and 1 absent.
BACKGROUND	The City of Little Rock (City) has begun the process of updating their Stormwater Management and Drainage Design Manual to improve the effectiveness of their stormwater management program. Stormwater is precipitation that runs off the land and into storm drains, which eventually flow into local waterways. Stormwater can pick up pollutants along the way, such as oil, chemicals, and debris, which can harm aquatic life and contaminate water sources. Effective stormwater management, which is required by state and federal regulations, is critical for protecting public health and the environment. To comply with these regulations, the City of Little Rock has developed a stormwater management program that includes a set of criteria for the design and

BACKGROUND CONTINUED

construction of stormwater infrastructure, such as drains, detention ponds, and rain gardens.

The criteria in the stormwater drainage manual are used by engineers, developers, and contractors to ensure that stormwater infrastructure is designed and built to the highest standards. The manual also provides guidance on best management practices for controlling stormwater pollution and reducing flood risk for future and existing development.

Stormwater management practices, methodologies, and technology are constantly evolving, and the City of Little Rock recognizes the need to update their stormwater drainage criteria manual, which has not been significantly updated since 1985. By updating the manual, the City can ensure that the manual remains effective and adequately addresses new practices including low impact development (LID) and water quality best management practices (BMPs).

Halff Engineering was hired as a consultant for the update. They developed a four-step update process.

1. Review the current manual and ordinances.
    a. Benchmark against other local and regional cities.
    b. Identify gaps and deficiencies in the current manual and ordinance.
2. Gather stakeholder input and determine community priorities.
    a. Held 13 public meetings to receive input and recommendations.
    b. Created a survey to gather need and concerns regarding stormwater management.
    c. Contacted over 250 local engineers, architects, consultants, developers, construction companies, HOA/POAs, community groups, and government officials with updates, notifications and feedback for the manual and ordinances.
3. Draft updated manual and recommend ordinance revisions.
    a. Make manual available online and at additional Public Meetings for input.

4.Present to Mayor and Directors for approval and implementation in January 2025.

BACKGROUND CONTINUED

In updating the Stormwater Management and Drainage Manual, the City of Little Rock tasked Halff Engineering as consultants with the following goals:

- Make sure that the manual remains effective and adequately addresses future flood risk, new stormwater practices, and state & federal regulations.
- To reduce flood risk: require the use of the latest technology, methodologies, and data.
- To improve water quality: Encourage use of low impact development (LID) and green infrastructure.
- To protect streams: Provide additional resources on use of stormwater best management practices (BMPs)

After review of the manual and input from stakeholders, the manual needed to be streamlined to improve readability and usability. The manual must address water quality to include measures to remove pollutants and incentivize green infrastructure and update methods by utilizing the latest methods and expand analysis of storm events and offsite impacts.

Finally, the manual needs to incorporate the following Federal, State and Local regulations:

Federal: Clean Water Act – Sec. 402(p)(3)(b)

Permits for discharges from municipal storm sewers - (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

State: ADEQ General Permit
ARR150000 Part II Section A.4.L

Post-Construction Stormwater Management

A goal of at least 80% removal of total suspended solids from these flows that exceed predevelopment levels should be used in designing and installing stormwater management controls (where practicable). Where this goal is not met, the operator shall provide justification for rejecting each practice listed above.

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Local: ADEQ MS4 Permit
ARS000002 Part 6.2.2

Areas of New Development: Each co-permittee shall utilize a comprehensive master planning process to develop, implement, and enforce controls that will reduce, to the maximum extent practicable, the discharge of pollutants from areas of new development and significant redevelopment after construction is completed.

The following is a summary of the major changes to the Stormwater Management and Drainage Manual:

Rainfall:
The new manual will use Atlas 14 as the baises to measure rainfall instead of Hydro 35 and TP 40.

Detention:
The old manual required detention for the 25-year storm event, and the new manual will require detention for the 2-, 5-, 10-, 25-, 50-, and 100-year storm events.

Water Quality:
The new manual will require treating 1.5 inches of rainfall runoff (or 1.3" for redevelopment) while the old manual did not have any water quality requirements.

Design Storm:
The old manual had design storm range from 10 to 100-year based on roadway category. The new manual will have minimum design storm of 25-year and all will require dedicated 100-year overland flow path.

Adoption of the new manual will require implementation for all projects in January 2025.