LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☒ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☐ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Updated acceptable runoff analysis methodology and software based on watershed size.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):	By how much? *(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)*
☒ Will not impact the cost of construction and/or development	
☐ Will increase the cost of construction and/or development	
☐ Will decrease the cost of construction and/or development	

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

This change should not impact maintenance, construction, engineering analysis, or City cost. A runoff analysis of the watershed was previously required. This revision will change the acceptable methodology in relation to the watershed size. The updated methods will provide more accurate runoff estimation and more consistent submittals.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☐ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Update precipitation data to Atlas 14

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):	By how much? *(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)*
☒ Will not impact the cost of construction and/or development	
☐ Will increase the cost of construction and/or development	
☐ Will decrease the cost of construction and/or development	

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

There is no cost change associated with this revision to the manual. The previous manual uses rainfall precipitation depths sourced from Hydro 35/TP 40 which is an outdated source. NOAA Atlas 14 is the most current and accurate rainfall precipitation depths for Little Rock. Updated rainfall depths increased less than 8% compared to previous data for all design storms.

LRDM Proposed Changes Potential Impacts Form

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Requirement of downstream impact analysis for sites larger than 20 acres

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

- ☐ Will not impact the cost of construction and/or development
- ☒ Will increase the cost of construction and/or development
- ☐ Will decrease the cost of construction and/or development

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

5%

Engineering fees

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

There is no increase to maintenance or construction costs; however, engineering costs will increase due to additional downstream impact analysis. City costs will increase due to the review of the additional analysis. This requirement is new to the manual and modernizes the methods of analysis for site development. The proposed change in the manual clarifies the requirements of *Section 29.102 – Evaluation of downstream flooding* of the City of Little Rock Code of Ordinances. The intent of this requirement is to decrease the potential for downstream flooding post-development. This change is consistent with the City's FPO goals of reducing costly flood mitigation projects funded by public monies.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Require streambank stabilization upstream and downstream of project location.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):	By how much? *(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)*
☐ Will not impact the cost of construction and/or development	
☒ Will increase the cost of construction and/or development	5% Engineering fees 1-2% construction cost
☐ Will decrease the cost of construction and/or development	

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

This requirement may decrease maintenance costs and emergency repairs due to decrease in erosion. Engineering costs will increase due to the additional design procedures. City costs will slightly increase due to the review of the additional protection design. Construction costs may increase due to additional riprap or stabilization material needed to protect upstream and downstream of the site location. In the previous manual, streambank stabilization was required in certain situations. The updated procedures will require the streambank stability to be analyzed.

LRDM Proposed Changes Potential Impacts Form

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☒ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☐ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Updates to computer software for open channel design or analysis.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

☒ Will not impact the cost of construction and/or development

☐ Will increase the cost of construction and/or development

☐ Will decrease the cost of construction and/or development

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

There is not an anticipated increase to either maintenance or construction costs. Engineering costs may decrease because of faster, more repeatable design procedures. Most of the software mentioned in the new manual is free to download and use. City costs will stay the same or slightly decrease in relation to reviewing the models.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☐ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Cross drainage design storm is changing:

- Principal Arterials: from 50-year to 100-year
- Major & Minor Arterials: from 25-year to 100-year
- For all other streets: from 10-year to 25-year

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

☐ Will not impact the cost of construction and/or development

☒ Will increase the cost of construction and/or development

☐ Will decrease the cost of construction and/or development

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

10-15%
Cross drainage pipe cost

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

This change only effects cross drainage (i.e. cross culverts, bridges), the storm system will remain a 25-year design storm. It is anticipated that there will be a decrease in maintenance due to less clogging and minimal to no increase to City review cost and Engineering cost. There will be a minor increase in construction costs as cross drainage pipes will need to be upsized. Increasing the design storm should reduce instances of road overtopping, preventing road closures and providing access for emergency services during flood events.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☒ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Replace maximum allowable discharge for channels with analysis of channel stabilization.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

☐ Will not impact the cost of construction and/or development

☒ Will increase the cost of construction and/or development

☐ Will decrease the cost of construction and/or development

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

5%

Engineering fees

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

Maintenance costs may decrease due to the decrease in erosion. Engineering costs will increase due to the additional analysis required and the possible design of energy dissipaters. City costs will increase due to the additional review of this analysis and inclusion of energy dissipators. Construction costs could increase depending on the need for energy dissipators.

LRDM Proposed Changes Potential Impacts Form

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Detention is required to be designed for the 2-, 5-, 10-, 25-, and 100-yr storm events.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

- ☐ Will not impact the cost of construction and/or development
- ☒ Will increase the cost of construction and/or development
- ☐ Will decrease the cost of construction and/or development

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

10-25%

Detention construction

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

There will be minimal increase to maintenance costs due to the increased size of the ponds. Engineering costs will increase due to additional design storms, pond sizing, outlet design, and overall analysis. City costs will increase due to having to review the above mentioned items. Construction costs will increase due to increases in pond volumes and pipes necessary to accommodate the new required design storms. These cost increases come from requiring the detention to facilitate the 2-, 5-, 10-, 25-, and 100-yr storm events instead of only the 25-yr storm as stated in the previous manual. It is anticipated that an additional 25% volume of water will need to be detained factoring in both updated rainfall data and the increase in design storm.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Require stream buffers based on stream watershed size.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

- ☒ Will not impact the cost of construction and/or development
- ☐ Will increase the cost of construction and/or development
- ☐ Will decrease the cost of construction and/or development

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

There should be little to no increase in maintenance, construction, engineering, or City costs due to this updated requirement. In some instances, the proposed stream buffers may result in less developable area on a site compared to previous requirements. Preserving natural streams have numerous water quality, ecological, and stream stability benefits. Stream buffers should also reduce future maintenance and need for streambank stabilization practices.

LRDM Proposed Changes Potential Impacts Form

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Water quality maintenance.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

- ☐ Will not impact the cost of construction and/or development
- ☒ Will increase the cost of construction and/or development
- ☐ Will decrease the cost of construction and/or development

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

5-10%

Annual maintenance cost

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

Maintenance costs will increase because most water quality structures require some type of maintenance. The manual will require a maintenance plan that identifies the entity responsible for long-term maintenance of water quality control measures and detention facilities. It is not anticipated that the engineering and construction costs will increase because of this requirement. City costs will increase due to the additional item to review.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

- ☐ Modify procedures and standards for workability and administrative efficiency.
- ☐ Eliminate unnecessary development costs.
- ☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.
- ☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Require water quality measures to treat a water quality volume of 1.5 inches of runoff for new development and 1.3 inches for redevelopment.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):	By how much? *(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)*
☐ Will not impact the cost of construction and/or development	
☒ Will increase the cost of construction and/or development	5% engineering fees 3-5% Construction costs
☐ Will decrease the cost of construction and/or development	

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

Engineering costs will increase due to additional analysis for water quality. City costs will increase due to the additional review this analysis. Construction costs will increase due to the added use of stormwater controls, low impact structures, and structural control measures necessary to meet the new requirement. Many water quality control measures can be incorporated into existing requirements. For example, adding water quality measures to detention basins or including bioretention within landscaping requirements may reduce the need for additional control and treatment measures.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☒ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☒ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Change in criteria for when a grading and land alteration permit is required.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

☒ Will not impact the cost of construction and/or development

☐ Will increase the cost of construction and/or development

☐ Will decrease the cost of construction and/or development

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

Maintenance and construction costs will not increase. Engineering costs may increase because in some instances a grading and land alteration permit will be required when previously it was not required. A permit is required for any of the following activities: cut or fill volume greater than 1,000 cubic yards (previously 3,000 cubic yards), a vertical cut greater than 15 feet, clearing that exceeds 1 acre, clearing that is less than 1 acre but part of a larger development, or any land alteration located within the 100-year floodplain. These criteria are consistent with the ADEQ General Permit.

LRDM Proposed Changes Potential Impacts Form

City of LITTLE ROCK

DEPARTMENT OF PLANNING & DEVELOPMENT

SECTION 1 – REASON(S) FOR UPDATE (CHECK ALL THAT APPLY)

☒ Modify procedures and standards for workability and administrative efficiency.

☐ Eliminate unnecessary development costs.

☐ Update the procedures and standards to reflect changes in the law or the state of the art in land use planning and urban design.

☐ See Section 2 (if none of the provided choices in this section apply, please discuss the reasons for the proposed update in Section 2.

SECTION 2 – SUMMARY OF PROPOSED UPDATES WITH SUGGESTED TEXT

Hauling permit no longer required.

SECTION 3 – COST IMPACT STATEMENT

The proposed change to the LRDM (please check appropriate box):

By how much?
(Cost given below is provided strictly as an estimate. Actual cost change will fluctuate based on development site and type.)

☐ Will not impact the cost of construction and/or development

☐ Will increase the cost of construction and/or development

☒ Will decrease the cost of construction and/or development

$50

SECTION 4 – COST IMPACT NARRATIVE AND BACK-UP INFORMATION

Construction costs will decrease because a hauling permit is no longer required.