

**PRIVATE DETENTION BASIN /
STORMWATER QUALITY BEST MANAGEMENT PRACTICE
MAINTENANCE AGREEMENT AND EASEMENT**

This PRIVATE DETENTION BASIN / STORMWATER QUALITY BEST MANAGEMENT PRACTICE MAINTENANCE AGREEMENT AND EASEMENT (Agreement) is made by and between EL PASO COUNTY by and through THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO (Board or County) and [Lorson, LLC](#) (Developer) and [Lorson Ranch METROPOLITAN DISTRICT](#) (Metro District), a quasi-municipal corporation and political subdivision of the State of Colorado. The above may occasionally be referred to herein singularly as “Party” and collectively as “Parties.”

Recitals

A. WHEREAS, the District provides various municipal services to certain real property in El Paso County, Colorado referred to as [Lorson Ranch](#) and

B. WHEREAS, Developer is the owner of certain real estate (the Property or Subdivision) in El Paso County, Colorado, which Property is legally described in [Exhibit A](#) attached hereto and incorporated herein by this reference; and

C. WHEREAS, Developer desires to plat and develop on the Property a subdivision to be known as [Carriage Meadows North Filing No. 1](#) and

D. WHEREAS, the development of this Property will substantially increase the volume of water runoff and will decrease the quality of the stormwater runoff from the Property, and, therefore, it is in the best interest of public health, safety and welfare for the County to condition approval of this subdivision on Developer’s promise to construct adequate drainage, water runoff control facilities, and stormwater quality structural Best Management Practices (“BMPs”) for the subdivision; and

E. WHEREAS, Chapter 8, Section 8.4.5 of the El Paso County [Land Development Code](#), as periodically amended, promulgated pursuant to Section 30-28-133(1), Colorado Revised Statutes (C.R.S.), requires the County to condition approval of all subdivisions on a developer’s promise to so construct adequate drainage, water runoff control facilities, and BMPs in subdivisions; and

F. WHEREAS, the [Drainage Criteria Manual, Volume 2](#), as amended by Appendix I of the El Paso County [Engineering Criteria Manual \(ECM\)](#), as each may be periodically amended, promulgated pursuant to the County’s Colorado Discharge Permit System General Permit (MS4 Permit) as required by Phase II of the National Pollutant Discharge Elimination System (NPDES), which MS4 Permit requires that the County take measures to protect the quality of stormwater from sediment and other contaminants, requires subdividers, developers, landowners, and owners of facilities located in the County’s rights-of-way or easements to provide adequate permanent stormwater quality BMPs with new development or significant redevelopment; and

G. WHEREAS, Section 2.9 of the El Paso County [Drainage Criteria Manual](#) provides for a developer’s promise to maintain a subdivision’s drainage facilities in the event the County does not assume such responsibility; and

H. WHEREAS, developers in El Paso County have historically chosen water runoff detention basins as a means to provide adequate drainage and water runoff control in subdivisions, which basins, while effective, are less expensive for developers to construct than other methods of providing drainage and water runoff control; and

I. WHEREAS, Developer desires to construct for the subdivision one (1) detention basin/stormwater quality BMP(s) (“detention basin/BMP(s)”) as the means for providing adequate drainage and stormwater runoff control and to meet requirements of the County’s MS4 Permit, and to provide for operating, cleaning, maintaining and repairing such detention basin/BMP(s); and

J. WHEREAS, Developer desires to construct the detention basin/BMP(s) on property that is or will be platted as Tract A, Carriage Meadows North Filing No. 1 and as set forth on Exhibit B attached hereto; and

K. WHEREAS, Developer shall be charged with the duty of constructing the detention basin/BMP(s) and the Metro District shall be charged with the duties of operating, maintaining and repairing the detention basin/BMP(s) on the Property described in Exhibit B; and

L. WHEREAS, it is the County’s experience that subdivision developers and property owners historically have not properly cleaned and otherwise not properly maintained and repaired these detention basins/BMPs, and that these detention basins/BMPs, when not so properly cleaned, maintained, and repaired, threaten the public health, safety and welfare; and

M. WHEREAS, the County, in order to protect the public health, safety and welfare, has historically expended valuable and limited public resources to so properly clean, maintain, and repair these detention basins/BMPs when developers and property owners have failed in their responsibilities, and therefore, the County desires the means to recover its costs incurred in the event the burden falls on the County to so clean, maintain and repair the detention basin/BMP(s) serving this Subdivision due to the Developer’s or the Metro District’s failure to meet its obligations to do the same; and

N. WHEREAS, the County conditions approval of this Subdivision on the Developer’s promise to so construct the detention basin/BMP(s), and further conditions approval on the Metro District’s promise to reimburse the County in the event the burden falls upon the County to so clean, maintain and/or repair the detention basin/BMP(s) serving this Subdivision; and

O. WHEREAS, the County could condition subdivision approval on the Developer’s promise to construct a different and more expensive drainage, water runoff control system and BMPs than those proposed herein, which more expensive system would not create the possibility of the burden of cleaning, maintenance and repair expenses falling on the County; however, the County is willing to forego such right upon the performance of Developer’s and the Metro District’s promises contained herein; and

P. WHEREAS, the County, in order to secure performance of the promises contained herein, conditions approval of this Subdivision upon the Developer’s grant herein of a perpetual Easement over a portion of the Property for the purpose of allowing the County to periodically access, inspect, and, when so necessary, to clean, maintain and/or repair the detention basin/BMP(s); and

Q. WHEREAS, Pursuant to Colorado Constitution, Article XIV, Section 18(2) and Section 29-1-203, Colorado Revised Statutes, governmental entities may cooperate and contract with each other to provide any function, services, or facilities lawfully authorized to each.

Agreement

NOW, THEREFORE, in consideration of the mutual Promises contained herein, the sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Incorporation of Recitals: The Parties incorporate the Recitals above into this Agreement.

2. Covenants Running with the Land: Developer and the Metro District agree that this entire Agreement and the performance thereof shall become a covenant running with the land, which land is legally described in Exhibit A attached hereto, and that this entire Agreement and the performance thereof shall be binding upon themselves, their respective successors and assigns.

3. Construction: Developer shall construct on that portion of the Property described in Exhibit B attached hereto and incorporated herein by this reference, one (1) detention basin/BMP(s). Developer shall not commence construction of the detention basin/BMP(s) until the El Paso County Planning and Community Development Department (PCD) has approved in writing the plans and specifications for the detention basin/BMP(s) and this Agreement has been signed by all Parties and returned to the PCD. Developer shall complete construction of the detention basin/BMP(s) in substantial compliance with the County-approved plans and specifications for the detention basin/BMP(s). Failure to meet these requirements shall be a material breach of this Agreement, and shall entitle the County to pursue any remedies available to it at law or in equity to enforce the same. Construction of the detention basin/BMP(s) shall be substantially completed within one (1) year (defined as 365 days), which one year period will commence to run on the date the approved plat of this Subdivision is recorded in the records of the El Paso County Clerk and Recorder. Rough grading of the detention basin/BMP(s) must be completed and inspected by the El Paso County Planning and Community Development Department prior to commencing road construction.

In the event construction is not substantially completed within the one (1) year period, then the County may exercise its discretion to complete the project, and shall have the right to seek reimbursement from the Developer and its respective successors and assigns, for its actual costs and expenses incurred in the process of completing construction. The term actual costs and expenses shall be liberally construed in favor of the County, and shall include, but shall not be limited to, labor costs, tool and equipment costs, supply costs, and engineering and design costs, regardless of whether the County uses its own personnel, tools, equipment and supplies, etc. to correct the matter. In the event the County initiates any litigation or engages the services of legal counsel in order to enforce the Provisions arising herein, the County shall be entitled to its damages and costs, including reasonable attorney fees, regardless of whether the County contracts with outside legal counsel or utilizes in-house legal counsel for the same.

4. Maintenance: The Metro District agrees for itself and its successors and assigns, that it will regularly and routinely inspect, clean and maintain the detention basin/BMP(s), and otherwise keep the same in good repair, all at its own cost and expense. No trees or shrubs that will impair the

structural integrity of the detention basin/BMP(s) shall be planted or allowed to grow on the detention basin/BMP(s).

5. Creation of Easement: Developer hereby grants the County and the Metro District a non-exclusive perpetual easement upon and across that portion of the Property described in [Exhibit B](#). The purpose of the easement is to allow the County and the Metro District to access, inspect, clean, repair and maintain the detention basin/BMP(s); however, the creation of the easement does not expressly or implicitly impose on the County a duty to so inspect, clean, repair or maintain the detention basin/BMP(s).

6. County's Rights and Obligations: Any time the County determines, in the sole exercise of its discretion, that the detention basin/BMP(s) is not properly cleaned, maintained and/or otherwise kept in good repair, the County shall give reasonable notice to the Developer, the Metro District and their respective successors and assigns, that the detention basin/BMP(s) needs to be cleaned, maintained and/or otherwise repaired. The notice shall provide a reasonable time to correct the problem(s). Should the responsible parties fail to correct the specified problem(s), the County may enter upon the Property to so correct the specified problem(s). Notice shall be effective to the above by the County's deposit of the same into the regular United States mail, postage pre-paid. Notwithstanding the foregoing, this Agreement does not expressly or implicitly impose on the County a duty to so inspect, clean, repair or maintain the detention basin/BMP(s).

7. Reimbursement of County's Costs / Covenant Running With the Land: The Developer and the Metro District agree and covenant, for themselves, their respective successors and assigns, that they will reimburse the County for its costs and expenses incurred in the process of completing construction of, cleaning, maintaining, and/or repairing the detention basin/BMP(s) pursuant to the provisions of this Agreement.

The term "actual costs and expenses" shall be liberally construed in favor of the County, and shall include, but shall not be limited to, labor costs, tools and equipment costs, supply costs, and engineering and design costs, regardless of whether the County uses its own personnel, tools, equipment and supplies, etc. to correct the matter. In the event the County initiates any litigation or engages the services of legal counsel in order to enforce the provisions arising herein, the County shall be entitled to its damages and costs, including reasonable attorney's fees, regardless of whether the County contracts with outside legal counsel or utilizes in-house legal counsel for the same.

8. Contingencies of Subdivision Approval: Developer's and the Metro District's execution of this Agreement is a condition of subdivision approval. Additional conditions of this Agreement include, but are not limited to, the following:

- a. Conveyance of [Tract A, Carriage Meadows North Filing No. 1](#) from Developer to the Metro District (which will include a reservation of easement in favor of the County for purposes of accessing, inspecting, cleaning, maintaining, and repairing the detention basin/BMP(s)), and recording of the Deed for the same; and
- b. A copy of the Covenants of the Subdivision, if applicable, establishing that the Metro District is obligated to inspect, clean, maintain, and repair the detention basin/BMP(s).

The County shall have the right, in the sole exercise of its discretion, to approve or disapprove any documentation submitted to it under the conditions of this Paragraph, including but not limited to, any separate agreement or amendment, if applicable, identifying any specific maintenance responsibilities not addressed herein. The County's rejection of any documentation submitted hereunder shall mean that the appropriate condition of this Agreement has not been fulfilled.

9. Agreement Monitored by El Paso County Planning and Community Development Department and/or El Paso County Department of Public Works: Any and all actions and decisions to be made hereunder by the County shall be made by the Director of the El Paso County Planning and Community Development Department and/or the Director of the El Paso County Department of Public Works. Accordingly, any and all documents, submissions, plan approvals, inspections, etc. shall be submitted to and shall be made by the Director of the Planning and Community Development Department and/or the Director of the El Paso County Department of Public Works.

10. Indemnification and Hold Harmless: To the extent authorized by law, Developer and the Metro District agree, for themselves, their respective successors and assigns, that they will indemnify, defend, and hold the County harmless from any and all loss, costs, damage, injury, liability, claim, lien, demand, action and causes of action whatsoever, whether at law or in equity, arising from or related to their respective intentional or negligent acts, errors or omissions or that of their agents, officers, servants, employees, invitees and licensees in the construction, operation, inspection, cleaning (including analyzing and disposing of any solid or hazardous wastes as defined by State and/or Federal environmental laws and regulations), maintenance, and repair of the detention basin/BMP(s), and such obligation arising under this Paragraph shall be joint and several. Nothing in this Paragraph shall be deemed to waive or otherwise limit the defense available to the County pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.* C.R.S., or as otherwise provided by law.

11. Severability: In the event any Court of competent jurisdiction declares any part of this Agreement to be unenforceable, such declaration shall not affect the enforceability of the remaining parts of this Agreement.

12. Third Parties: This Agreement does not and shall not be deemed to confer upon or grant to any third party any right to claim damages or to bring any lawsuit, action or other proceeding against either the County, the Developer, the Metro District, or their respective successors and assigns, because of any breach hereof or because of any terms, covenants, agreements or conditions contained herein.

13. Solid Waste or Hazardous Materials: Should any refuse from the detention basin/BMP(s) be suspected or identified as solid waste or petroleum products, hazardous substances or hazardous materials (collectively referred to herein as "hazardous materials"), the Developer and the Metro District shall take all necessary and proper steps to characterize the solid waste or hazardous materials and properly dispose of it in accordance with applicable State and/or Federal environmental laws and regulations, including, but not limited to, the following: Solid Wastes Disposal Sites and Facilities Acts, §§ 30-20-100.5 – 30-20-119, C.R.S., Colorado Regulations Pertaining to Solid Waste Disposal Sites and Facilities, 6 C.C.R. 1007-2, *et seq.*, Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992k, and Federal Solid Waste Regulations 40 CFR Ch. I. The County shall not be responsible or liable for identifying, characterizing, cleaning up, or disposing of such solid waste or hazardous materials. Notwithstanding the previous sentence, should any refuse cleaned up and disposed of by the County be determined to be solid waste or hazardous materials, the Developer and the Metro District, but not the County, shall be

responsible and liable as the owner, generator, and/or transporter of said solid waste or hazardous materials.

14. Applicable Law and Venue: The laws, rules, and regulations of the State of Colorado and El Paso County shall be applicable in the enforcement, interpretation, and execution of this Agreement, except that Federal law may be applicable regarding solid waste or hazardous materials. Venue shall be in the El Paso County District Court.

15. Limitation on Developer's Obligation and Liability: The obligation and liability of the Developer hereunder shall only continue until such time as the Final Plat as described in Paragraph Three (3) of the Recitals set forth above is recorded and the Developer completes the construction of the detention basin/BMP(s) and transfers all applicable maintenance and operation responsibilities to the Metro District. By execution of this agreement, the Metro District agrees to accept all responsibilities and to perform all duties assigned to it, including those of the Developer, as specified herein, upon transfer of Tract A from Developer to the Metro District.

IN WITNESS WHEREOF, the Parties affix their signatures below.

Executed this _____ day of _____, 20____, by:

Lorson, LLC

By: _____

Jeff Mark, Manager

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by Jeff Mark, Authorized signing Agent, Lorson, LLC.

Witness my hand and official seal.

My commission expires: _____

Notary Public

Executed this _____ day of _____, 20____, by:

Lorson Ranch METROPOLITAN DISTRICT

By: _____

Jeff Mark, President

Attest:

By: _____
Jeff Mark, President

The foregoing instrument was acknowledged before me this _____ day of _____,
20____, by Jeff Mark, President, Lorson Ranch METROPOLITAN DISTRICT

Witness my hand and official seal.

My commission expires: _____

Notary Public

Executed this _____ day of _____, 20____, by:

BOARD OF COUNTY COMMISSIONERS
OF EL PASO COUNTY, COLORADO

By: _____
Craig Dossey, Executive Director
Planning and Community Development Department
Authorized signatory pursuant to LDC

The foregoing instrument was acknowledged before me this _____ day of _____,
2018, by _____, Executive Director of El Paso County Planning and Community
Development Department.

Witness my hand and official seal.

My commission expires: _____

Notary Public

Approved as to Content and Form:

Assistant County Attorney

Exhibit A – Legal Description

November 28, 2017

CARRIAGE MEADOWS NORTH FILING NO 1

BASIS OF BEARING: THE EAST-WEST CENTERLINE OF SECTION 14, T15S, R65W, OF THE 6TH P.M. EL PASO COUNTY, COLORADO AS MONUMENTED. THE QUARTER CORNER COMMON TO SECTION 14 AND SECTION 15 IS A 3.25 INCH ALUMINUM CAP STAMPED "J.R. DEVELOPERS, T15S R65W, E1/4 S15 W1/4 S14, 1986, PLS 10377" FROM WHICH THE CENTER OF SECTION 14 BEARS N89°42'02"E, 2646.02 FEET AND IS MONUMENTED BY A 3.25 IN ALUMINUM CAP STAMPED "KM, T15S R65W, S14, C1/4, 2004, LS 16109".

A PARCEL OF LAND IN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 15 AND IN THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 14, T15S, R65W OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT A POINT ON THE SOUTHERLY LINE OF PARCEL NO. 21 AS DESCRIBED IN WARRANTY DEED UNDER RECEPTION NO. 214104176 IN THE RECORDS OF EL PASO COUNTY, COLORADO SAID POINT BEING THE QUARTER CORNER COMMON TO SECTION 14 AND SECTION 15, T15S, R65W OF THE 6TH P.M., EL PASO COUNTY COLORADO;
THENCE N89-42-02E ALONG SAID SOUTHERLY LINE, 192.66 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 2030.00 FEET, A CENTRAL ANGLE OF 05°03'38", (THE CHORD OF WHICH BEARS S19-09-08W A DISTANCE OF 179.24 FEET), AN ARC DISTANCE OF 179.30 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 1240.00 FEET, A CENTRAL ANGLE OF 21°57'25", (THE CHORD OF WHICH BEARS S10-42-15W A DISTANCE OF 472.29 FEET), AN ARC DISTANCE OF 475.19 FEET;
THENCE S00-16-28E A DISTANCE OF 850.78 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 930.00 FEET, A CENTRAL ANGLE OF 30°42'13", (THE CHORD OF WHICH BEARS S15-37-34E A DISTANCE OF 492.43 FEET), AN ARC DISTANCE OF 498.37 FEET;
THENCE S30-58-32E A DISTANCE OF 128.77 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 580.00 FEET, A CENTRAL ANGLE OF 34°19'25", (THE CHORD OF WHICH BEARS S13-48-49E A DISTANCE OF 342.28 FEET), AN ARC DISTANCE OF 347.45 FEET;
THENCE S03-20-53W A DISTANCE OF 189.10 FEET;
THENCE S89-27-28W A DISTANCE OF 183.12 FEET;
THENCE N87-28-23W A DISTANCE OF 87.83 FEET;
THENCE N47-38-17W A DISTANCE OF 61.43 FEET;
THENCE N83-57-54W A DISTANCE OF 90.63 FEET;
THENCE S43-43-48W A DISTANCE OF 49.76 FEET;
THENCE N84-44-11W A DISTANCE OF 81.43 FEET;
THENCE S89-27-28W A DISTANCE OF 679.00 FEET;
THENCE N35-13-35W A DISTANCE OF 113.92 FEET;
THENCE N14-49-54E A DISTANCE OF 298.16 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 12070.00 FEET, A CENTRAL ANGLE OF 01°57'34", (THE CHORD OF WHICH BEARS N13-51-07E A DISTANCE OF 412.74 FEET), AN ARC DISTANCE OF 412.76 FEET;
THENCE N14-51-00E A DISTANCE OF 109.41 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 5809.75 FEET, A CENTRAL ANGLE OF 00°58'38", (THE CHORD OF WHICH BEARS N14-21-44E A DISTANCE OF 99.09 FEET), AN ARC DISTANCE OF 99.09 FEET;

THENCE N76-07-58W A DISTANCE OF 8.19 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 12070.00 FEET, A CENTRAL ANGLE OF 05°31'33", (THE CHORD OF WHICH BEARS N09-06-53E A DISTANCE OF 1163.65 FEET), AN ARC DISTANCE OF 1164.10 FEET;
THENCE S89-53-02E A DISTANCE OF 62.40 FEET;
THENCE N00-41-16E A DISTANCE OF 57.06 FEET;
THENCE N89-53-02W A DISTANCE OF 56.87 FEET;
THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 12070.00 FEET, A CENTRAL ANGLE OF 01°47'06", (THE CHORD OF WHICH BEARS N05-11-13E A DISTANCE OF 376.01 FEET), AN ARC DISTANCE OF 376.02 FEET TO THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 15;
THENCE N89-28-36E ALONG SAID NORTH LINE 6.30 FEET TO THE SOUTHWEST CORNER OF AFORESAID PARCEL NO. 21 AS DESCRIBED IN WARRANTY DEED UNDER RECEPTION NO. 214104176;
THENCE N89-28-36E ALONG THE SOUTHERLY LINE THEREOF 496.10 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINS A CALCULATED AREA OF 2,096,822 SQUARE FEET (48.136 ACRES), MORE OR LESS.
TOGETHER WITH A PARCEL OF LAND IN THE SOUTHWEST QUARTER OF SECTION 15, BEING A PORTION OF "EXHIBIT C" AS DESCRIBED IN THE POSSESSION AND USE AGREEMENT UNDER RECEPTION NO. 216022299 IN THE EL PASO COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS;

COMMENCING AT THE QUARTER CORNER COMMON TO SECTION 14 AND SECTION 15, T15S, R65W OF THE 6TH P.M., EL PASO COUNTY COLORADO;
THENCE S54°45'03"W, 656.79 FEET TO THE EASTERLY LINE OF SAID "EXHIBIT C" BEING A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF MARKSHEFFEL ROAD;
THENCE SOUTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 12070.00 FEET, A CENTRAL ANGLE OF 00°16'21", (THE CHORD OF WHICH BEARS S06°-13'-04"W, 57.38 FEET), AN ARC DISTANCE OF 57.38 FEET;
THENCE S89-53-02E A DISTANCE OF 62.40 FEET;
THENCE N00-41-16E A DISTANCE OF 57.06 FEET;
THENCE N89-53-02W A DISTANCE OF 56.87 FEET TO THE POINT OF BEGINNING;

SAID PORTION OF "EXHIBIT C" CONTAINS 3,401 S.F. MORE OR LESS.

PREPARED BY:

VERNON P. TAYLOR, COLORADO P.L.S. NO. 25966 DATE
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC
20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903

Exhibit B – Pond Location

Tract A, Carriage Meadows North Filing No. 1

Lorson Ranch Metropolitan District Operations and Maintenance Manual Extended Detention Ponds

Extended detention basins have low to moderate maintenance requirements. Routine and non-routine maintenance is necessary to assure performance, enhance aesthetics, and protect structural integrity. The dry basins can result in nuisance complaints if not properly designed or maintained. Bio-degradable pesticides may be required to limit insect problems. Frequent debris removal and grass-mowing can reduce aesthetic complaints. If a shallow wetland or marshy area is included, mosquito breeding and nuisance odors could occur if the water becomes stagnant.

1. Lorson Ranch Ponds maintained by Lorson Ranch Metropolitan District.

There are multiple ponds within Lorson Ranch that the metro district owns and maintains. The following is a list of the ponds, type of pond, and the name of the subdivision within Lorson Ranch that built the pond. Attached to this manual is a location map of all the ponds owned/maintained by the Lorson Ranch Metropolitan District.

- a. Pond A1 – Extended Detention Basin with WQCV. Pond A1 was built in 2006 as part of the Fontaine Blvd/Old Glory street improvement project. The final drainage report for Fontaine Blvd/Old Glory covers the drainage calculations for this pond.
- b. Pond A2 – Extended Detention Basin (no WQCV). Pond A2 was built in 2006 as part of the Fontaine Blvd/Old Glory street improvement project. The final drainage report for Fontaine Blvd/Old Glory covers the drainage calculations for this pond.
- c. Pond A4 – Extended Detention Basin (no WQCV). Pond A4 was built in 2010 as part of the Pioneer Landing Filing No. 1 development. The final drainage report for Pioneer Landing Filing No. 1 covers the drainage calculations for this pond.
- d. Pond A5 - Extended Detention Basin with WQCV. Pond A5 was built in 2009-2010 as part of the Townhomes at Lorson Ranch Filing 1A development. The final drainage report covers the drainage calculations for this pond.
- e. Pond B1 – Extended Detention Basin with WQCV. Pond B1 was built in 2016 as part of the Pioneer Landing Filing No. 2 development. The final drainage report for Pioneer Landing Filing No. 2 covers the drainage calculations for this pond.
- f. Pond B2 – Extended Detention Basin with WQCV. Pond B2 was built in 2013 as part of the Meadows at Lorson Ranch Filing No. 3 development. The final drainage report for Meadows at Lorson Ranch Filing No. 3 covers the drainage calculations for this pond.
- g. Pond C1 – Extended Detention Basin with WQCV. Pond C1 was built in 2011 as part of the Allegiant at Lorson Ranch development. The final drainage report for Allegiant at Lorson Ranch covers the drainage calculations for this pond.
- h. Pond C3 – Extended Detention Basin with WQCV. Pond C3 was built in 2014 as part of the Meadows at Lorson Ranch Filing No. 4 development. The final

- drainage report for Allegiant at Lorson Ranch covers the drainage calculations for this pond.
- i. Pond G1-G2 – Extended Detention Basin with WQCV. Full spectrum Pond G1-G2 will be built in 2017 as part of the Carriage Meadows South development. The final drainage report for Carriage Meadows South covers the drainage calculations for this pond.
 - j. Pond G3 – Extended Detention Basin with WQCV. Full Spectrum Pond G3 will be built in 2017 as part of the Carriage Meadows South development. The final drainage report for Carriage Meadows South covers the drainage calculations for this pond.
 - k. Pond C5 - Extended Detention Basin with WQCV. Full Spectrum Pond C5 will be built in 2018 as part of the Lorson Ranch East development. The final drainage report for Lorson Ranch East Filing No. 1 covers the drainage calculations for this pond.
 - l. Pond D2 - Extended Detention Basin with WQCV. Full Spectrum Pond D2 will be built in 2018 as part of the Lorson Ranch East development. The final drainage report for Lorson Ranch East Filing No. 1 covers the drainage calculations for this pond.
 - m. Pond CMN-1. Extended Detention Basin with WQCV. Full Spectrum Pond CMN-1 will be built in 2018 as part of the Carriage Meadows North Filing No. 1 development. The final drainage report for Carriage Meadows North Filing No. 1 covers the drainage calculations for this pond.

2. Inspections

Inspection and Frequency

- Annually inspect basins to insure that the basin continues to function as initially intended. The annual inspection should evaluate the forebay, pond side slopes, inflow storm sewer, the spillway condition, the depth of sediment in the forebay, outlet structure, trash rack, downstream storm sewer, and the condition of the downstream face of the pond. A site survey will be the best indication of excessive sediment buildup and degradation of the spillway. In addition, an inspection of the vegetation on the berm, inside the detention area and the downstream face of the spillway should be conducted. Any bare areas should be noted and repaired using native grasses. Any sloughing or erosion of the embankment should be noted and repaired. Items to record will include any items inspected and the mowing frequency of the vegetation on the facility.
- Just before annual storm seasons (that is, April and May) and following significant rainfall events, inspect for litter and debris that may plug outlets. Of notable importance, the inspections should also include the water quality orifice plate and trash rack to ensure plugging has not occurred.
- A baseline survey should be performed at the time of construction and comparison surveys conducted every ten to twenty years after to monitor overall performance of the pond. Results of inspections should be recorded and kept at a central location for review and recording by the district.

Inspection Personnel

A qualified engineer, surveyor, or certified storm water inspector should conduct inspections of the facility.

3.0 Operations

No specific operating instructions are required.

4.0 Maintenance

Maintenance of the Water Quality Pond shall be in accordance with the guidelines included in Table EDB-1, attached.

6.0 EXTENDED DETENTION BASINS (EDB)



Extended detention basins have low to moderate maintenance requirements. Routine and nonroutine maintenance is necessary to assure performance, enhance aesthetics, and protect structural integrity. The dry basins can result in nuisance complaints if not properly designed or maintained. Bio-degradable pesticides may be required to limit insect problems. Frequent debris removal and grass-mowing can reduce aesthetic complaints. If a shallow wetland or marshy area is included, mosquito breeding and nuisance odors could occur if the water becomes stagnant. Access to critical elements of the pond (inlet, outlet, spillway, and sediment collection areas) must be provided. The basic elements of the maintenance requirements are presented in Table EDB-1.

Table EDB-1—Extended Detention Basin Maintenance Considerations

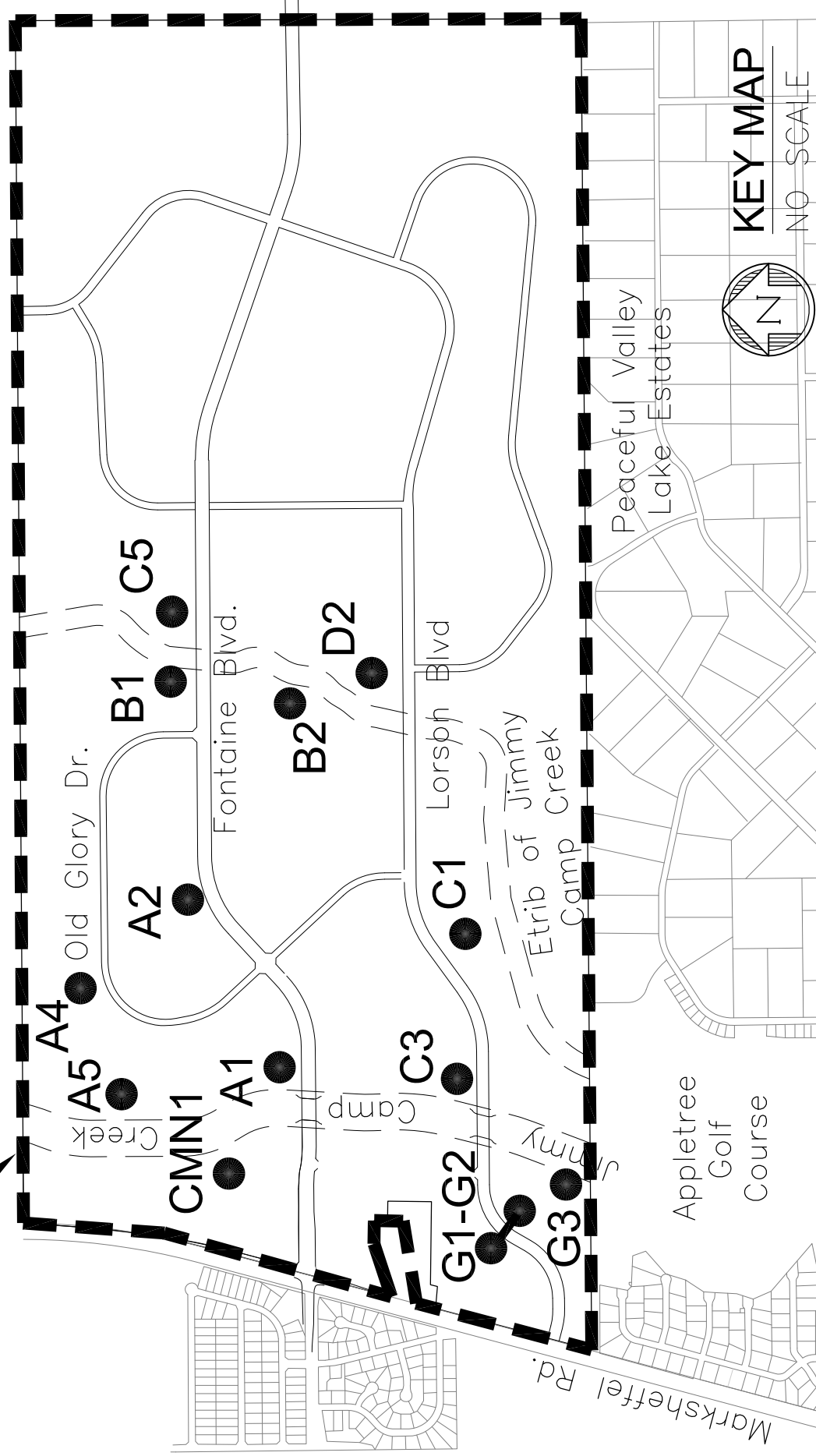
Required Action	Maintenance Objective	Frequency of Action
Lawn mowing and lawn care	Occasional mowing to limit unwanted vegetation. Maintain irrigated turf grass as 2 to 4 inches tall and nonirrigated native turf grasses at 4 to 6 inches.	Routine – Depending on aesthetic requirements.
Debris and litter removal	Remove debris and litter from the entire pond to minimize outlet clogging and improve aesthetics.	Routine – Including just before annual storm seasons (that is, April and May) and following significant rainfall events.
Erosion and sediment control	Repair and revegetate eroded areas in the basin and channels.	Nonroutine – Periodic and repair as necessary based on inspection.
Structural	Repair pond inlets, outlets, forebays, low flow channel liners, and energy dissipators whenever damage is discovered.	Nonroutine – Repair as needed based on regular inspections.

Required Action	Maintenance Objective	Frequency of Action
Inspections	Inspect basins to insure that the basin continues to function as initially intended. Examine the outlet for clogging, erosion, slumping, excessive sedimentation levels, overgrowth, embankment and spillway integrity, and damage to any structural element.	Routine – Annual inspection of hydraulic and structural facilities. Also check for obvious problems during routine maintenance visits, especially for plugging of outlets.
Nuisance control	Address odor, insects, and overgrowth issues associated with stagnant or standing water in the bottom zone.	Nonroutine – Handle as necessary per inspection or local complaints.
Sediment removal	Remove accumulated sediment from the forebay, micro-pool, and the bottom of the basin.	Nonroutine – Performed when sediment accumulation occupies 20 percent of the WQCV. This may vary considerably, but expect to do this every 10 to 20 years, as necessary per inspection if no construction activities take place in the tributary watershed. More often if they do. The forebay and the micro-pool will require more frequent cleanout than other areas of the basin, say every 1 or 2 years.

LORSON RANCH

Banning Lewis Ranch

Rolling Hills Ranch



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LORSON RANCH DETENTION POND LOCATION MAP

SCALE:
NTS

DATE:
DECEMBER, 2017

FIGURE NO.
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