

Project Name | BCWD Permit #25-30 Brixton Townhomes

Date | 6/3/2026

To / Contact info | BCWD Board of Managers

Cc / Contact info | Karen Kill, Administrator

From / Contact info | Julia Lau, EIT / EOR

Regarding | Site Plan and Amenity Updates

Background

The BCWD Board of Managers approved the application for Permit #25-30 with the conditions and stipulations recommended in the engineer's report (attached to this memo) at the February 11th, 2026, board meeting. Conditions 2, 3, 4, 5, 7, and 8 are outstanding.

The applicant submitted a site-layout plan to BCWD on April 24, 2026, that had been revised to meet Stillwater City Council land-use requirements.

Summary of Changes

The updated site layout contains the following deviations from the approved plan:

1. The removal of two townhome units, one from Block 1 and one from Block 5.
2. The addition of a pedestrian trail along the north side of the reuse pond.
3. The addition of an amenity area in the southeast corner of the development.



Rule Analysis

While the modifications to the design and layout of the proposed project modify the analysis of the project's compliance with applicable BCWD requirements (as summarized below), the changes do not mandate, and the applicant is not seeking, approval of a modified erosion and sediment-control plan or stormwater-management plan. That is, the plans that were the basis for BCWD's February conditional approval continue to meet applicable BCWD regulatory requirements.

The total site impervious area is proposed to increase by 0.11 acres (2%) from the plan. Table 1 below outlines the numerical changes in compliance with the stormwater rule under flexible treatment option A.

Table 1: Summary of stormwater analysis compliance

<i>Compliance Category</i>	<i>Original</i>	<i>New</i>
Total Phosphorus Reduction <i>(75% required for FTO A)</i>	76%	75%
Volume retention <i>(0.55" required for FTO A)</i>	0.67"	0.65"
Wetland 1, 2-year Discharge Rate <i>(Existing = 11.53 cfs)</i>	4.47	4.42
Wetland 1, 10-year Discharge Rate <i>(Existing = 24.75 cfs)</i>	6.97	6.87
Wetland 1, 100-year Discharge Rate <i>(Existing = 57.99 cfs)</i>	13.46	13.26
Wetland 2, 2-year Discharge Rate <i>(Existing = 3.95 cfs)</i>	1.26	1.26
Wetland 2, 10-year Discharge Rate <i>(Existing = 8.41 cfs)</i>	2.32	2.32
Wetland 2, 100-year Discharge Rate <i>(Existing = 19.50 cfs)</i>	4.76	4.76

Conclusion

The applicant has submitted a layout revision for the townhome development. All BCWD requirements are met under the revised layout. No action needs to be taken by the BCWD board.

memo



Project Name	BCWD Permit 25-30 Brixton Townhomes	Date	2/17/2026
To / Contact info	BCWD Board of Managers		
Cc / Contact info	Dan Sjoblom, PE / Alliant Engineering		
Cc / Contact info	Karen Kill, Administrator / BCWD		
From / Contact info	Paul Nation, PE; Julia Lau, EIT / EOR		
Regarding	Permit Application No. 25-30 Engineer's Report		

The following review of the above mentioned project located within the legal jurisdiction of the Brown's Creek Watershed District (BCWD) was conducted to determine compliance with the BCWD rules for purposes of the engineer's recommendation to the Board of Managers for its determination of the permit application.

Applicant: Magellan Land Development

Complete Permit Submittal Date: 1/14/2026

Board Action Required By: 3/14/2026

Review based on BCWD Rules effective April 1, 2020

Recommendation: Approve with Conditions

GENERAL COMMENTS

The project is located on 14.52 acres at the southeast corner of the intersection of 80th Street N and Manning Ave N and proposes the subdivision of three existing parcels into 21 townhome blocks, demolition of three existing single-family homes and the construction of a new townhome development.

Existing Conditions: The project area includes sections of two Manage 2 wetlands. Wetland 1 and Wetland 2 are 4.05 and 0.40 acres respectively. Existing drainage is generally from north to south overland flow through grass over D soils and discharging to the 2 wetlands in the southeast and southwest corners of the site. The existing impervious surface on the site consists of 3 residential homes.

Proposed Conditions: The applicant proposes construction of 21 townhome blocks, seven tree trenches, bituminous roadways, 0.61 acres of native vegetative buffers, and an irrigation reuse pond with irrigation system. (Figure 1). The general flow pattern would remain from north to south and into the adjacent wetlands to the south. The project would disturb 12.43 acres, and the total proposed impervious area would be 6.83 acres (47.0%).

Recommendation: The BCWD engineer recommends that the board approve the application with the conditions outlined in the report.



Figure 1: Proposed Site Plan

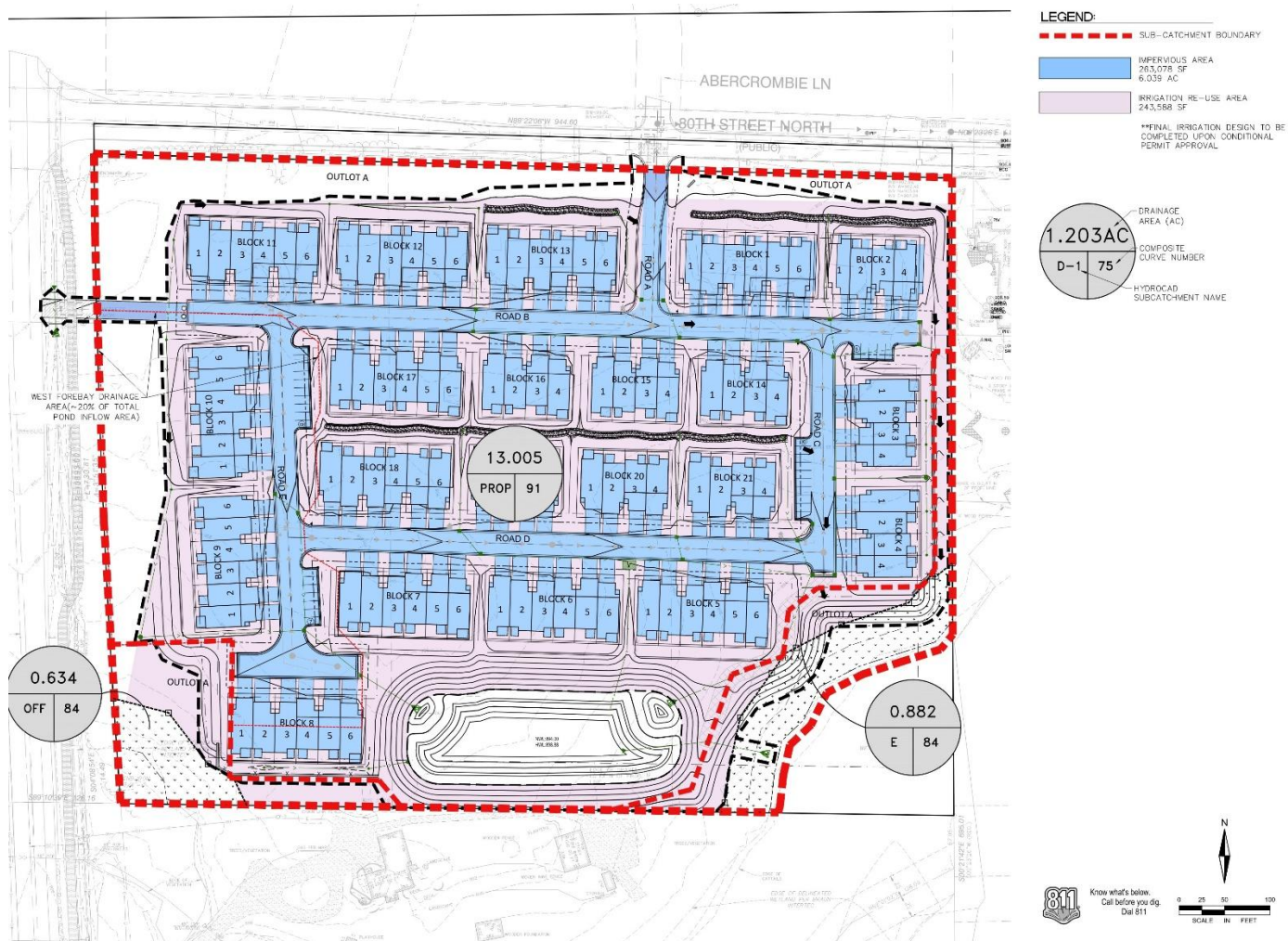


Figure 2: Irrigation Reuse Map

Rule 2.0—STORMWATER MANAGEMENT

Under 2.2(b) of the rule, the proposed project triggers the application of Rule 2.0 Stormwater Management because it creates one or more acres of new and/or reconstructed impervious surface. The site is located within the Diversion Structure Subwatershed, so the stormwater criteria in subsection 2.4.1(b) apply.

The stormwater management plan for the project includes:

- *Constructing a stormwater reuse pond and associated irrigation system for 5.59 acres of green space*
- *Constructing 7 tree trenches with 109 trees*

Under both current and proposed conditions, runoff leaves the site at the following discharge points:

- *“Wetland 1” – The current drainage area is 11.59 acres and will expand to 13.89 acres in the proposed condition, which will include all impervious surface on the site. Runoff will be routed to the reuse basin before reaching Wetland 1.*

- “Wetland 2” – The current drainage area is 3.27 acres and will decrease to 0.63 acres in the proposed condition, just including the onsite area directly upgradient of the wetland.

Rate Control

According to BCWD Rule 2.4.1(b)(i), an applicant must submit a stormwater-management plan providing no increase in the existing peak stormwater flow rates from the site for a 24-hour precipitation event with a return frequency of two, 10 or 100 years for all points where discharges leave the site.

☒ Rule Requirement Met

Existing residential homes were omitted from stormwater modeling calculations, resulting in a conservative estimate in rate control design.

The stormwater management plan developed for the site was evaluated using a HydroCAD model of existing and post-development site conditions. A comparison of the modeled peak flow rate is included in Tables 1 and 2.

Table 1 - Peak Discharge Rate “Wetland 1”

<i>Event</i>	<i>Existing Runoff Rate (cfs)</i>	<i>Proposed Runoff Rate (cfs)</i>
2-year (2.80")	11.53	4.47
10-year (4.17")	24.75	6.97
100-year (7.23")	57.99	13.46

Table 2 - Peak Discharge Rate “Wetland 2”

<i>Event</i>	<i>Existing Runoff Rate (cfs)</i>	<i>Proposed Runoff Rate (cfs)</i>
2-year (2.80")	3.95	1.26
10-year (4.17")	8.41	2.32
100-year (7.23")	19.50	4.76

Volume Control

According to BCWD Rule 2.4.1(b)(ii), an applicant must submit a stormwater-management plan providing retention onsite of 1.1 inches of stormwater volume from the regulated impervious surface.

Flexible treatment options within the diversion structure subwatershed apply when an applicant demonstrates that retention of 1.1 inches of stormwater volume onsite is not reasonably feasible.

☒ Rule Requirement Met

A geotechnical evaluation for the site confirmed the information provided in the Washington County geologic atlas, that the area is a former glacial lake predominantly consisting of clay deposits. All soil borings show clay soils fall into hydrologic soil group D. The applicant explored alternative methods for achieving volume control as described in the analysis in Table 3 below.

Table 3 – BMPs Evaluated

BMP	Utilized?	Why or why not?
Infiltration	No	Hydrologic soil group D.
Harvest and Reuse	Yes	Irrigating all available green space across the site (see Figure 2).
Green Roofs	No	Buildings have pitched roofs which are not conducive to green roofs.
ET/Tree Trenches	Yes	Utilizing ET with 109 tree plantings by creating depressional storage for uptake.
Interception	Yes	Utilized with 109 trees.
Permeable Pavers/ Pavement	No	Hydrologic soil group D.

The permit applicant asserts, and the BCWD concurs, that it is not reasonably feasible to meet the 2.4.1(b)(ii) standard of retention onsite of 1.1 inches of stormwater volume from the regulated impervious surface, and the flexible treatment options in subsection 2.4.3 apply to determine the volume-control (and water-quality) requirements for the project: "... management of volume and water quality from the regulated impervious surface must be provided in accordance with the following priority sequence:

- a. Retention onsite of 0.55 inches of runoff and removal of 75 percent of the annual total phosphorus loading;*
- b. Retention onsite of stormwater volume to the maximum extent practicable and removal of 60 percent of the annual total phosphorus loading.*

The applicant proposes, and the BCWD engineer concurs, that Flexible Treatment Option A can be applied, which requires retention onsite of 0.55 inches of runoff and removal of 75 percent of the annual total phosphorus loading (BCWD Rule 2.4.3(a)). Total phosphorus removal analysis is shown in the Water Quality section and Table 5 below. Volume retention is proposed to be achieved by evapotranspiration and tree interception with the seven tree trenches, and irrigation reuse.

The applicant proposes the following practices to provide volume control:

- 1) Evapotranspiration (ET)** from 109 newly planted trees incorporated as part of the landscaping plan. Stormwater runoff from the buildings will be directed to tree trenches with depressional storage surrounding the base of planted trees that will utilize that stormwater runoff for evapotranspiration. Evapotranspiration was calculated using guidance provided by the Minnesota Pollution Control Agency and accounts for 4,141 cubic feet (CF) of volume control. One of the assumptions made in calculating the volume-control achieved from ET is that the vegetation is 100% mature, which will not be the case for the first five to 10 years.
- 2) Interception** from 109 newly planted trees incorporated as part of the tree trench facilities on site. Using the interception calculation from the Minnesota Pollution Control Agency, the newly planted trees will provide 1,694 CF of volume control.

- 3) **Stormwater Reuse** from the development will be sourced from the reuse basin onsite with a total storage volume of 1.62 ac-ft and used for irrigation on 5.59 acres of the development. It is assumed that an average of 1.15 inch/week during the growing season will be irrigated (1 inch/week during May, June and August, with 1.5 inches/week in July). The reuse system will provide 8,803 CF of volume control. As Table 4 demonstrates, the stormwater management plan exceeds the 0.55-inch requirement in 2.4.3 FTO(a).

Table 4 - Discharge Volume

Volume Control Requirement	Required Volume (cf)	Provided Volume (cf)	% of Required Volume
2.4.1(b)(ii) 1.1" over 6.04 acres of impervious	24,118	14,638	61%
2.4.3(a) FTO(a) 0.55" over 6.04 acres of impervious	12,059	14,638	121%

Water Quality

Flexible Treatment Option A requires removal of 75 percent of the annual total phosphorus loading (BCWD Rule 2.4.3(a)).

☒ Rule Requirement Met

Runoff is being treated for phosphorus with a constructed stormwater re-use pond. The Permit Applicant submitted MIDS modeling demonstrating compliance with Rule 2.4.3(a). The MIDS model uses a Design Level 3 pond which assumes 60% TP removal for the areas draining to the pond. Additional treatment is provided by the tree trenches and irrigation reuse system. The phosphorus removal requirement is met as demonstrated by the results in Table 5.

Table 5 – Total Phosphorus Removal

Practice	TP Inflow Loading (lb/yr)	TP Outflow Loading (lb/yr)	TP Reduction (%)
Stormwater Reuse Pond with Cistern	14.57	3.56	76%

Lake/Wetland Bounce

According to BCWD Rule 2.4.1(b)(iii), an applicant must submit a stormwater-management plan providing no increase in the bounce in water level or duration of inundation for a 24-hour precipitation event with a return frequency of two, 10 or 100 years in the subwatershed in which the site is located, for any downstream lake or wetland beyond the limit specified in Appendix 2.1.

☒ Rule Requirement Met

The Manage 2 wetlands have a permitted bounce for all storm events of pre-development bounce plus 1 foot. To demonstrate compliance, the increase in stormwater volume for the 100-yr storm was divided by the surface area of wetlands onsite to calculate the increase in bounce.

$$\text{Change in bounce} = \frac{\text{Increase in 100 year runoff volume (acre - ft)}}{\text{Wetland surface area (acres)}}$$

The downstream high water level summary shown below in Table 6 demonstrates that the increase in bounce meets the BCWD rules, since the bounce for the 2-year and the 10-year would be less than the 100-year event.

Table 6 - Change in Bounce (ft)

Waterbody	Management Category	100-year		
		Pre-development (af)	Proposed (af)	Change in bounce (ft)
Wetland 1	2	4.36	7.08	0.67
Wetland 2	2	1.13	0.28	-2.13

A HydroCAD model was provided to demonstrate compliance with Rule 2.4.1(b)(iii). A comparison of the hydrographs in Table 7 demonstrates that the period of inundation meets the standards from existing to post-development conditions. Increases in duration of inundation are below the allowable existing plus 2 days (2-year storm) and existing plus 14 days (10-year storm or larger) for Manage 2 wetlands.

Table 7 - Downstream Wetland Inundation Periods (hrs)

Waterbody	2-year		10-year		100-year	
	Pre-development	Proposed	Pre-development	Proposed	Pre-development	Proposed
Wetland 1	13	45	14	48	16	45
Change in Inundation	+32		+34		+29	
Wetland 2	13	9	14	13	16	17
Change in Inundation	-4		-1		+1	

Rule 2.0 Conditions:

- 2-1. Provide BCWD with the final civil plan set (BCWD 2.7.9) with the following revision:
 - Demonstrate the presence of infrastructure (supply lines, sprinkler heads) to irrigate the highlighted areas on the Proposed Drainage map.
- 2-2. Provide a draft stormwater facility maintenance declaration for BCWD approval, then, after approval, provide proof of recordation with Washington County (BCWD 2.6). A template is available under the permit section of the District's website. The maintenance declaration must include the following.
 - Protection of all vegetated areas that must be preserved for irrigation use on the property, and
 - Annual documentation of the volume of water used for irrigation along with the dates during which the irrigation system was active.

- 2-3. Provide documentation as to the status of a National Pollutant Discharge Elimination System stormwater permit for the project from the Minnesota pollution Control Agency and provide the Storm Water Pollution Prevention Plan (SWPPP) as it becomes available (BCWD Rule 2.7.15).

Rule 3.0—EROSION CONTROL

According to BCWD Rule 3.2, all persons undertaking any grading, filling, or other land-altering activities which involve movement of more than fifty (50) cubic yards of earth or removal of vegetative cover on five thousand (5,000) square feet or more of land must submit an erosion control plan to the District, and secure a permit from the District approving the erosion control plan. The proposed project triggers the application of Rule 3.0 Erosion Control because the project will include activities that involve the movement of more than 50 cubic yards and remove vegetative cover on more than five thousand square feet.

☒ Rule Requirements Met with Conditions

The erosion and sediment control plan includes:

- *Silt Fence*
- *Erosion Control Blanket*
- *Rock Construction Entrance*
- *Catch Basin Inlet Protection*
- *Temporary Sediment Basin w/ Skimmer*

To meet the criteria of BCWD Rule 3.2, the erosion and sediment control plan must include:

- *Provide a detail for the Faircloth Skimmer device.*

The following conditions must be addressed in the erosion and sediment control plan to comply with the District's requirements:

Rule 3.0 Conditions:

- 3-1. Provide BCWD with the revised final civil plan set with the detail for the Faircloth Skimmer device (BCWD 3.2.2).

Rule 4.0—LAKE, STREAM, AND WETLAND BUFFER REQUIREMENTS

According to BCWD Rule 4.2.1, Rule 4.0 applies to land that is (a) adjacent to Brown's Creek; a tributary of Brown's Creek designated as a public water pursuant to Minnesota Statutes section 103G.005, subdivision 15; a lake, as defined in these rules; a wetland one acre or larger; or a groundwater-dependent natural resource; and (b) that has been either (i) subdivided or (ii) subject to a new primary use for which a necessary rezoning, conditional use permit, special-use permit or variance has been approved on or after April 9, 2007, (for wetlands and groundwater-dependent natural resources other than public waters) or January 1, 2000 (for other waters).

☒ Rule Requirements Met with Conditions

*Rule 4.0 applies to the site because it is adjacent to Wetland 1 and Wetland 2 and the property is being subdivided after April 9, 2007 (triggers Rule 4.2.1(b)). Under Rule 4.3, a buffer width of 50 feet applies to both Wetland 1 and Wetland 2 because they are Manage 2 wetlands (BCWD 4.3.1). **Fifty-foot buffers***

are proposed around both wetlands 1 and 2, indicated by permanent, free-standing markers at the buffer's upland edge and no more than an interval of 200 feet, with a design and text approved by District staff.

Under Rule 4.4.1, at the time a buffer is created under Rule 4.0, the District may require a planting or landscaping plan to establish adequate native vegetative cover for area that (a) has vegetation composed more than 30 percent of undesirable plant species (including, but not limited to reed canary grass, common buckthorn, purple loosestrife, leafy spurge, bull thistle, or other noxious weeds); or (b) consists more than 10 percent of bare or disturbed soil or turf grass.

Rule 4.0 Conditions:

- 4-1. Provide a buffer declaration in a form acceptable to the District and proof of recordation with Washington County. A template is available under the permit section of the District's website. The buffer declaration must be recorded with the County after a draft is approved by the District (BCWD Rule 4.2.2).
- 4-2. Conduct an assessment of the proposed buffer zone area to determine the vegetative composition of undesirable plant species, bare, disturbed soil or turf grass. Modify the landscaping plan to restore these areas with native vegetation and submit for District review and approval.

Rule 5.0—SHORELINE AND STREAMBANK ALTERATIONS

According to BCWD Rule 5.2, no person may disturb the natural shoreline or streambank partially or wholly below the ordinary high water mark of a waterbody, without first securing a permit from the District.

- ☐ Rule Not Applicable to Permit. *There are no proposed shoreline or streambank alterations.*

Rule 6.0—WATERCOURSE AND BASIN CROSSINGS

According to Rule 6.2, no person may use the beds of any waterbody within the District for the placement of roads, highways and utilities without first securing a permit from the District.

- ☐ Rule Not Applicable to Permit. *There are no proposed watercourse or basin crossings.*

Rule 7.0—FLOODPLAIN AND DRAINAGE ALTERATIONS

According to Rule 7.2, no person may alter or fill land below the 100-year flood elevation of any waterbody, wetland, or stormwater management basin, or place fill in a landlocked basin, without first obtaining a permit from the District. No person may alter stormwater flows at a property boundary by changing land contours, diverting or obstructing surface or channel flow, or creating a basin outlet, without first obtaining a permit from the District.

The proposed discharge rates from the site are less than existing conditions so any excess volume above existing conditions will be discharged at a rate that allows the volume to be conveyed through the existing wetland complex and tributary system. Given this, there is no alteration of stormwater flow at the property boundary triggering the rule. However, the freeboard criteria in subsection 7.3.2 apply through operation of subsection 2.5.4; the freeboard criteria are applied here:

- ☒ Rule Requirements Met

According to BCWD rule 7.3.2 all new and reconstructed buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow (EOF) of a constructed basin.

The 100-year high water elevations, EOFs, and lowest adjacent building elevations were evaluated and meet the District's low floor requirement as demonstrated in Table 8. Stormwater flows at property boundaries remain the same from existing to proposed conditions.

Table 8 - Freeboard Requirement Summary

<i>Stormwater Facility</i>	<i>EOF</i>	<i>100-Year HWL</i>	<i>Allowable Lowest Floor</i>	<i>Lowest Proposed Floor</i>
Stormwater Reuse Pond	899.80	898.88	900.88 9	904.7

Rule 8.0—FEES

Fees for this project as outlined below:

- | | |
|--|---------|
| 1. Stormwater management fee | \$3,000 |
| 2. Erosion control fee for grading | \$1,500 |
| 3. Floodplain and drainage alterations fee | \$500 |

▪ TOTAL FEES	\$5,000
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Rule 9.0—FINANCIAL ASSURANCES

Financial assurances for this project are as outlined below:

- | | |
|---|----------|
| 1. Grading or Alteration (12.43 acres disturbed x \$2,000/acre) | \$24,860 |
| 2. Stormwater Management Facilities (125% of facility cost) | \$TBD |

▪ TOTAL FINANCIAL ASSURANCES (\$5,000 Minimum Performance Financial Assurance)	\$TBD
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An engineer's estimate of the cost of stormwater management facilities has not been provided by the applicant. Once provided, this estimate will be used to determine the required financial assurance.

Rule 9.0 Conditions:

- 9-1. Final estimate of stormwater management facility cost as agreed upon by applicant and BCWD engineer.

Rule 10.0—VARIANCES

According to BCWD Rule 10.0, the Board of Managers may hear requests for variances from the literal provisions of these Rules in instances where their strict enforcement would cause undue hardship because of the circumstances unique to the property under consideration. The Board of Managers may grant variances where it is demonstrated that such action will be keeping with the spirit and intent of

these rules. Variance approval may be conditioned on an applicant's preventing or mitigating adverse impacts from the activity.

☒ Rule Not Applicable to Permit. *There are no requested variances.*

RECOMMENDED CONDITIONS OF THE PERMIT:

The following is a summary of the remaining tasks necessary to bring the project into compliance with the BCWD Rules in all respects other than where variances are requested as discussed above:

1. Demonstrate that the plan has received preliminary plat approval (BCWD Rule 1.3a).
2. Address all stormwater management requirements (Conditions 2-1 to 2-3).
3. Address erosion control requirements (Condition 3-1).
4. Address all buffer requirements (Conditions 4-1 to 4-2).
5. Address financial assurance condition (Condition 9-1).
6. Replenish the Permit fee deposit to \$5,000 (BCWD Rule 8.0). If the permit fee deposit is not replenished within 60 days of receiving notice that such deposit is due, the permit application or permit will be deemed abandoned and all prior approvals will be revoked and collection proceedings will begin on unpaid balances.
7. Provide the required financial assurances (BCWD Rule 9.0):
 - a. Total grading or alteration assurance 12.43 acres (\$24,860).
 - b. Stormwater management facilities assurance (\$TBD).
8. Conditions as requested by the Managers of the Board:
 - a. Determine if any of the heritage silver maples on the site are capable of being saved for their evapotranspiration and infiltration values as part of the stormwater management system.
 - b. Include native vegetation along the south property boundary and around the pond slopes to the extent practicable and include this amendment in the buffer and stormwater declaration.

STIPULATIONS OF APPROVAL:

1. Note that the permit, if issued, will require that the applicant notify the District in writing at least three business days prior to commencing land disturbance. (BCWD Rule 3.3.1)
2. To ensure that construction is carried out according to the approved plan, provide verification that construction standards have been met for all tree trenches and reuse basin. This includes but is not limited to confirmation that under drains, reuse and irrigation, and vegetation establishment procedures have been followed per the approved plan. This can be achieved by scheduling a BCWD inspection during the excavation of the basins, independent geotechnical engineer observation and note of confirmation, or well-documented photographic evidence by the onsite engineer along with collected survey elevations of the basins.
3. Provide the District with As-built record drawings showing that the completed grading and stormwater facilities conform to the grading plan.
4. Provide contact information for the party responsible for long-term maintenance of proposed stormwater facilities.