

STORMWATER FACILITIES PROJECT UPDATE

PRESENTED BY: DILLON FATOUROS, ASSISTANT SECRETARY

NOVEMBER 18, 2025

West Winds
HOA

West Winds Master Homeowners' Association, Inc.

ROAD MAP

- Brief Recap of April 8, 2025, Stormwater Project Announcement and Presentation
- Understanding Stormwater (What, Why, How)
- West Winds Facility Locations
- City of Bozeman Stormwater Division
- Stormwater Facilities vs. Wetlands
- Stormwater Regulations
- 2021 Stormwater Division Report
- Initial Budgeting and Estimated Cost
- Phase One: Tree Removal
- Phase Two: Sediment Removal
- Total Project Cost
- Quick Comparison
- Moving Forward
- Conclusion

WHAT, WHY, HOW



Stormwater facilities manage water from rainfall, snow runoff, and peak-season flooding. They mitigate erosion, protect public infrastructure, and filter pollutants from runoff.

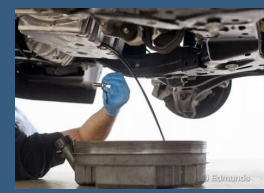


Installed by the subdivision developer during neighborhood development. Critical infrastructure in areas like Bozeman due to wetlands and soil conditions.



Water flows into curbside drains → underground pipes → stormwater basins. Water is slowly released into the ground, where soil naturally filters contaminants.

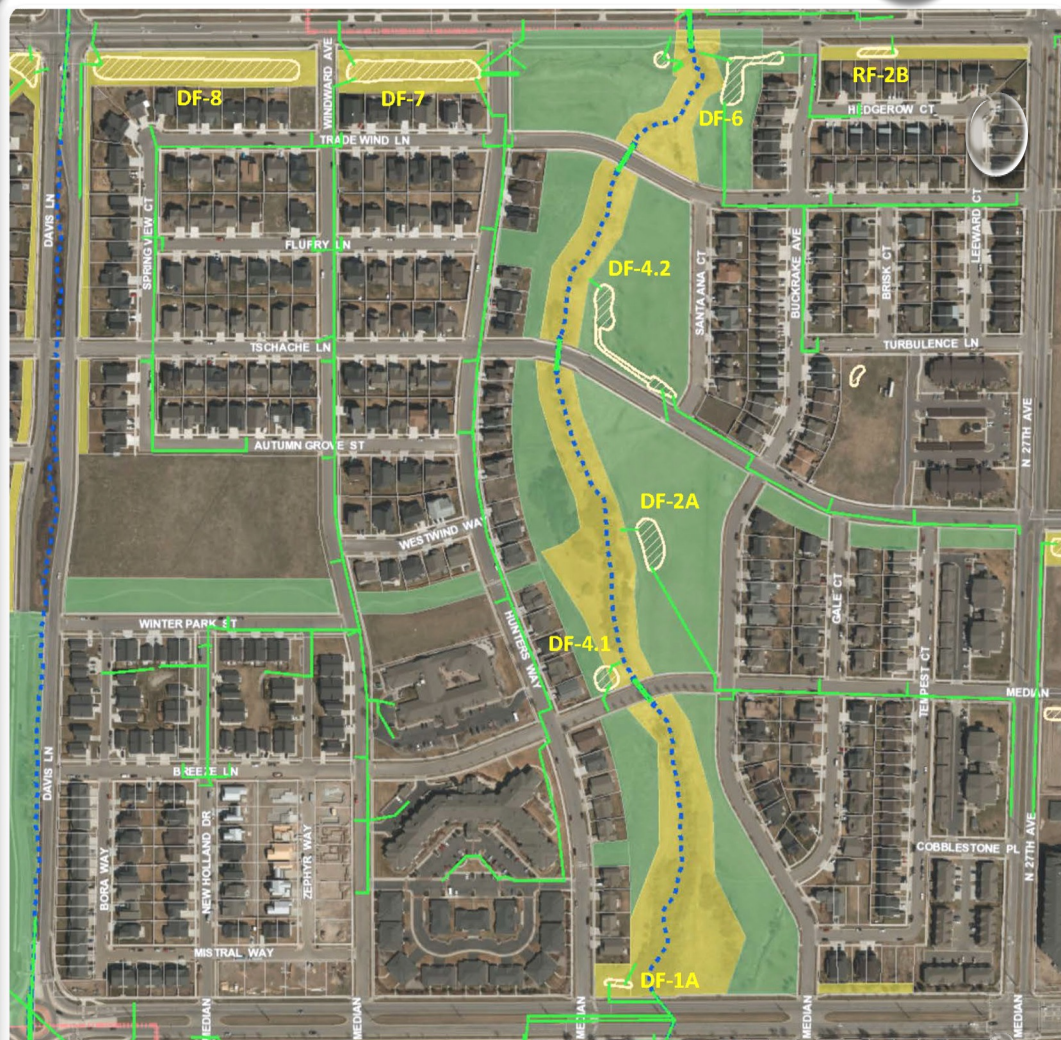
WHAT, WHY, HOW



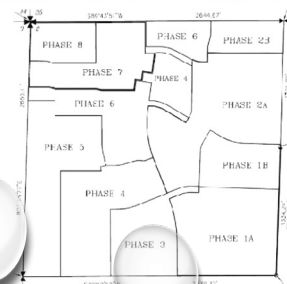
8 STORMWATER FACILITY LOCATIONS

West Winds HOA

- Responsible for **8** stormwater **basins**
- **7** Detention Facilities (DF)
- **1** Retention Facility (RF)



- Bozeman City Park
- West Winds HOA Open Space
- Urban Waterway
- Storm Sewer Conveyance



BOZEMAN MT
Stormwater Division

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CITY OF BOZEMAN STORMWATER DIVISION



“The City of Bozeman’s storm sewer serves two purposes: (1) mitigate flood risk by collecting runoff from streets, parking lots, alleyways, and other hard surfaces, and (2) treat stormwater by capturing sediment, trash, and other pollutants in their sumps. The storm sewer requires regular maintenance, including vacuuming and flushing, to stay functional.”



Stormwater Facilities vs. Wetlands

“[T]hese areas were designed to detain and treat stormwater runoff, there are no legal protections for other considerations. Accumulated sediments and living and dead vegetation constrict the stormwater facility's capacity, which can result in flooding of the streets or the pollutants' inability to be detained as designed.

The HOA was bound by agreement during the development stage to manage and maintain these areas as stormwater facilities, and unfortunately, they have become overgrown [...]

- Russell Smith: City of Bozeman Stormwater Division



BOZEMAN^{MT}
Stormwater Division

STORMWATER REGULATIONS

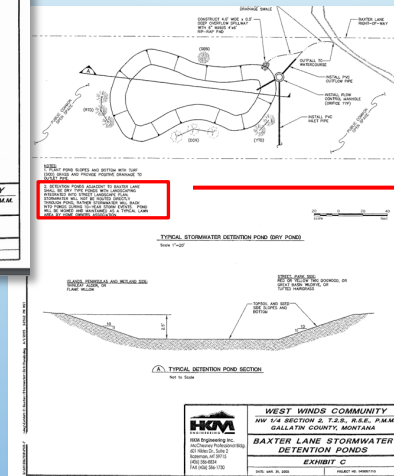
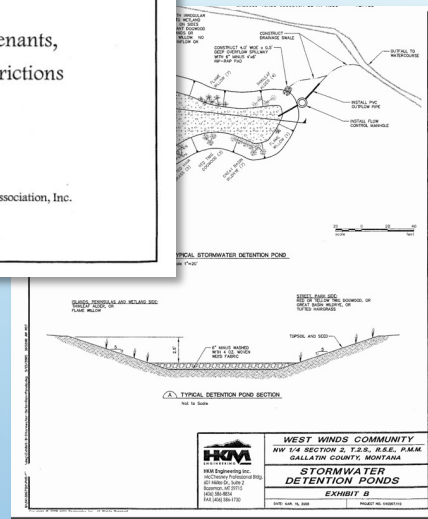
CC&Rs 12.19

Stormwater detention or retention facilities shall be required for all subdivisions and site plans in compliance with the current **City of Bozeman** and **Montana Department of Environmental Quality** regulations. Stormwater management plans shall be submitted to and approved by the Committee concurrently with the City review of subdivision and site plans. Stormwater facilities shall be designed and installed in conformance with the approved **Storm Water Investigation Report prepared by HKM Engineering, Inc.** and approved by the City of Bozeman through the **Master West Winds PUD** review process.



Declaration of Covenants,
Conditions and Restrictions

West Winds Master Homeowners' Association, Inc.

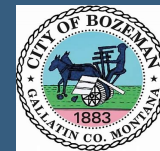


2. DETENTION PONDS ADJACENT TO BAXTER LANE SHALL BE DRY TYPE PONDS WITH LANDSCAPING INTEGRATED INTO STREET LANDSCAPE PLAN. STORMWATER WILL NOT BE ROUTED DIRECTLY THROUGH POND, RATHER STORMWATER WILL BACK INTO PONDS DURING 10-YEAR STORM EVENTS. POND WILL BE MOWED AND MAINTAINED AS A TYPICAL LAWN AREA BY HOME OWNERS ASSOCIATION.

STORMWATER REGULATIONS

Stormwater Division

- CITY OF BOZEMAN CODE (SEC. 40.04.720):
 - ANNUAL SELF-INSPECTION AND DOCUMENTATION
- MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ):
 - DEQ 8 CURRENT REVISED GUIDELINES FOR MONTANA
- FEDERAL ENVIRONMENTAL PROTECTION AGENCY (EPA):
 - APPLIES TO HOA-MANAGED SYSTEMS
 - MUST MAINTAIN AND DOCUMENT ACTIVITIES FOR 5 YEARS



2021 CITY OF BOZEMAN INSPECTION REPORT



- **2021 Bozeman Stormwater Division Inspection** on West Winds stormwater facilities (most recent).
- **No evidence** of stormwater facility maintenance and reporting since their installation.
- **No evidence** of any maintenance preformed since the 2021 city inspection.
- Currently one of the few neighborhoods taking necessary measures to address stormwater facility issues.

BOZEMAN^{MT} Stormwater Division
Stormwater Facility Inspection Form

Section 1: General Information
 Facility ID: 09-022-00046 - (09-7) Facility Type: Surface Detention
 Date/Time: 10/28/21 11:09
 Owner: West Winds Master Homeowners' Assoc., Inc. Contact: Lindsay Freitas; 406-581-0142
 Inspector's Name, contact info: Russ Smith, russ@bozeman.net
 Location/Access info: NE corner subdivision; Baxter & Hunters
 lindsay@hedgepeakproperties.com

Type of Inspection:
☒ Routine, Dry Weather ☐ Routine, Wet Weather ☐ Complaint Driven ☐ Other:

Section 2: Weather and Discharge Information
 Most recent precipitation or melt: > 48 hr
 Temperature: 43°F
 Is a stormwater discharge occurring? ☐ Yes ☒ No
 If yes, what is the source and quality of discharge?
 Is an illegal discharge occurring? ☐ Yes ☒ No
 If yes, what is the source and quality of discharge?

Section 3: Facility Maintenance Priority
☐ Low: Stormwater facility appears to be functioning as designed. Continue scheduled maintenance.
☐ Medium: Stormwater facility requires minor to moderate sediment and vegetation maintenance to mitigate the risk of flooding, waterway pollution, and infrastructure failure.
☒ High: Stormwater facility requires significant sediment dredging, vegetation removal, and/or infrastructure repairs to restore function.
Findings and Recommended Actions: Significant vegetation removal is necessary to return stormwater storage, conveyance and overall basin function.

Inspector's Signature: Russ Smith Date: 10/28/21

Stormwater Facility Inspection Form Page 38 DP-7

| Maintenance | 2.4 | Flow Path | Clogged or obstructed flow path? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Heavy vegetative cover |
|-------------|-----|-------------------------------|--|--|---|
| | 2.5 | Side Slopes | Barren or exposed surfaces on facility's side slopes and bottom? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| | 3.1 | Maintenance Plan or Agreement | Is there a written plan, specific to this facility? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Record Drawings detail maintenance for facilities along Baxter Ln |
| | 3.2 | Implementation | Is there evidence of maintenance? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |

Stormwater Facility Inspection Form Page 39 DP-7

| Elevation | PROPERTY NAME | | | | |
|-----------|-------------------------------|------|---------|-------------------------|--|
| | NE Detention Facility Inlet 2 | 8.41 | 4725.94 | FETS bottom | |
| | Detention Facility Outlet | 9.01 | 4725.98 | FETS bottom | |
| | Outlet - Offset | 8.97 | 4727.32 | | |
| | Wing Wall Top | 7.63 | 4725.81 | | |
| | Wing Wall Notch Bottom | 9.14 | 4729.32 | | |
| | Overflow Top of Bank | 5.63 | 4724.96 | Sidewalk at Hunters Way | |

Stormwater Facility Inspection Form Page 40 DP-7

Stormwater Stormwater DATA
 (SEE SHEET 0-5)
 FUTURE TRASH AND LANE
 Note: Not all conveyances, inlets and outlets shown on design documentation.

Stormwater Facility Inspection Form Page 41 DP-7

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 West Winds Master Homeowners' Association, Inc.

INITIAL BUDGETING & ESTIMATED COST

2025 Budget:

| | |
|-----------------------------|------------------|
| Storm Drain Maintenance: | \$5,000 |
| Reserve Funds: | \$125,000 |
| Total: | \$130,000 |

Initial Estimated Cost:

| | |
|--------------------|------------------|
| Total Cost: | \$129,755 |
| - Tree Removal: | \$76,300 |
| - Vegetation | \$16,855 |
| - Sediment | \$33,970 |



PHASE ONE: TREE REMOVAL

Initial Budgeted Estimate:

| | |
|---------------|-------------|
| Tree Removal: | \$77,300.00 |
|---------------|-------------|

Final Cost:

| | |
|---------------|-------------|
| Tree Removal: | \$21,700.00 |
|---------------|-------------|

| | |
|---------------|-------------|
| Cost Savings: | \$55,600.00 |
|---------------|-------------|



PHASE TWO: SEDIMENT REMOVAL

Initial Budgeted Estimate:

| | |
|--------------------------|--------------------|
| Sediment Removal: | \$35,600.00 |
|--------------------------|--------------------|

| | |
|----------------|--------------------|
| Mowing: | \$16,855.00 |
|----------------|--------------------|

| | |
|---------------|--------------------|
| Total: | \$52,455.00 |
|---------------|--------------------|

Final Cost:

| | |
|--------------------------|--------------------|
| Sediment Removal: | \$32,390.00 |
|--------------------------|--------------------|

| | |
|----------------|--------------------|
| Mowing: | \$14,835.00 |
|----------------|--------------------|

| | |
|---------------------------|--------------------|
| *Sediment Testing: | \$11,809.00 |
|---------------------------|--------------------|

| | |
|---------------|--------------------|
| Total: | \$59,034.00 |
|---------------|--------------------|



ELEMENTS
DESIGN



West Winds
HOA

OVERALL PROJECT COST AND SAVINGS

Initial Estimated Project Cost:

| | |
|--------------------|---------------------|
| Total Cost: | \$129,755.00 |
| - Tree Removal: | \$76,300.00 |
| - Mowing | \$16,855.00 |
| - Sediment | \$33,970.00 |

Final Project Cost:

| | |
|--------------------------|--------------------|
| Total Cost: | \$80,734.00 |
| - Tree Removal: | \$21,700.00 |
| - Mowing | \$14,835.00 |
| - Sediment | \$32,390.00 |
| - Sediment/Soil Testing: | \$11,809.00 |

Project Cost Savings: **\$49,021.00**



QUICK COMPARISON

Moving Forward

BOZEMAN^{MT}
Stormwater Division

Annual Private Stormwater Facility Self-Inspection Checklist

Property owners are responsible for ensuring that stormwater facilities installed on their property are properly maintained and functioning as designed. Annual inspection and maintenance is required under Bozeman Municipal Code Section 40.04.720.

| | |
|-------------------|----------------|
| Facility Address: | Owner Address: |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Inspected by: _____

Date: _____

Please record all facility feature conditions.

| Catch Basins | Y | N | N/A |
|--|---|---|-----|
| Debris around grate? | | | |
| Filter torn or restricting flow? | | | |
| Trash, vegetation or debris collecting in basin? | | | |
| Visible pollution, oil sheen or other discoloration? | | | |
| Sediment >50% of catch? | | | |

| Detention Tanks/ Vaults | Y | N | N/A |
|--|---|---|-----|
| Damage to tank or pipe, inlets or outlets to tank? | | | |
| Blocked air vent? | | | |
| Sediment accumulation? | | | |

| Conveyances (bioswales, ditches, pipes & culverts) | Y | N | N/A |
|--|---|---|-----|
| Debris clogging inlets or outlets? | | | |
| Sediment accumulation? | | | |
| Excessive bare or eroded soils? | | | |
| Trash or debris build-up? | | | |
| Vegetation slowing flow? | | | |

| Vegetation Control | Y | N | N/A |
|---|---|---|-----|
| Excessive vegetation, invasive species? | | | |
| Excessive non-aquatic tree or sapling growth? | | | |
| Large areas of bare or eroded soils? | | | |

Not all facilities have all listed features.

| Stormwater Ponds | Y | N | N/A |
|--|---|---|-----|
| Inlet / outfall structures blocked or damaged? | | | |
| Erosion occurring along berms, spillway, outlets or quarry spalls? | | | |
| Pond walls/embankments slumping or damaged? | | | |
| Trash or vegetative debris build up? | | | |
| Sediment accumulation? | | | |
| Vegetation slowing flow? | | | |
| Visible pollution, oil sheen or discoloration? | | | |

| Other Inspection Items | Y | N | N/A |
|---|---|---|-----|
| Facility access blocked? | | | |
| Facility gates /locks /fence in need of repair? | | | |
| Excessive rodent holes? | | | |

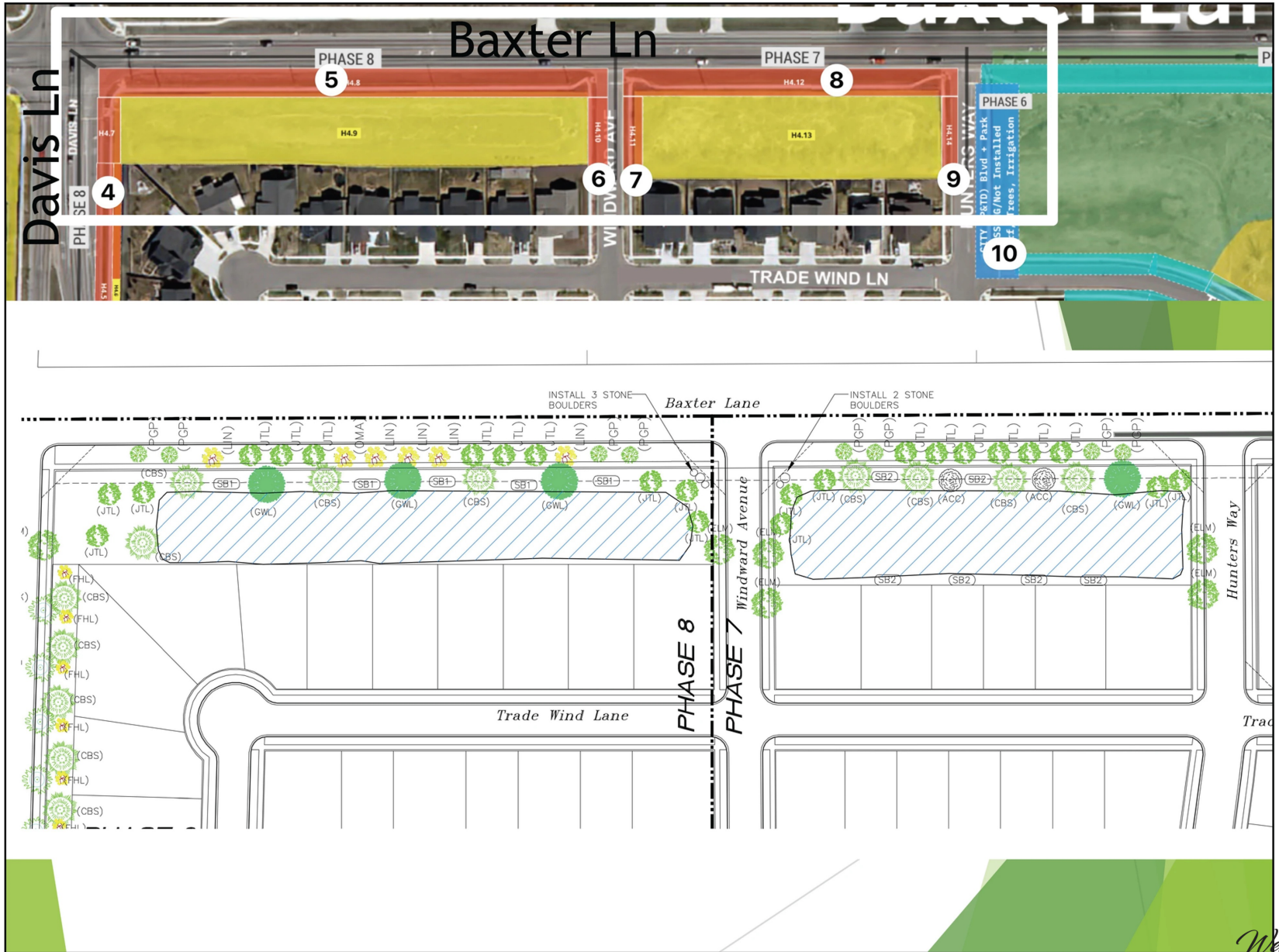
Other Observations

Answering "Yes" to any of these questions indicates that maintenance is required. Please maintain your stormwater facility or call a professional inspector / contractor.

Signature: _____ Date: ____/____/____



Moving Forward – Missing Improvements





West Winds
— HOA —

CONCLUSION & RESOURCES

- Scan the QR code to access the West Winds HOA Website for more information and future updates.
- Or visit the website using the link:
www.westwindshoabozeman.org