Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

BENTON COUNTY SOLID WASTE ADVISORY COMMITTEE

Notice: Meeting provided in-person, telephonically, and via WebEx. An option for viewing live broadcast also is available.

SWAC meetings are held bi-monthly at 10 a.m. the 2nd Wednesday of the month, at 102206 Wiser Parkway within the Benton County Public Services Building.

NOTICE OF MEETING AGENDA

Meeting Title:	Solid Waste Advisory Committee Meeting
Meeting Date:	May 14, 2025
Meeting Time:	10:00 a.m.
Meeting Location:	Hybrid Meeting – In Person: Public Services Building - 102206 Wiser Parkway, Kennewick, WA 99338 or Online Video and Phone Meeting (Webex)
Details:	

Join Telephonically:

Dial 509-222-2397, Enter Meeting Number 2488 927 6251#, and Press # (rather than "Attendee ID Number")

Join via Webex:

https://bentoncounty.webex.com/wbxmjs/joinservice/sites/bentoncounty/meeting/download/662ea2a8e74a4cbd83b17fa1bc1ec070

Live-Broadcast @ link below:

https://video.ibm.com/channel/XUrWnSPGRQc

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

AGENDA

1. **CONVENE**

2. **ROLL CALL**
   Secretary – Verbal Roll Call

AGENCY / COMPANY	REPRESENTATIVE	PRESENT / ABSENT (IN-PERSON, OR REMOTE)
Benton County	Will McKay	
Benton County	Matt Mahoney (Alt.) - Secretary	
City of Benton City	Jessica Wadsworth	
City of Kennewick	Chuck Torelli	
City of Kennewick	Jim Millbauer (Alt.)	
City of Prosser	Don Aubrey	
City of Richland	Theresa Richardson	
City of West Richland	Richard Bloom - Vice Chair	
Basin Disposal	Darrick Dietrich	
Basin Disposal	Rebecca Francik	
Waste Management	Tami Yager - Chair	
Waste Management	Kevin Fuerst (Alt.)	
Public Citizen	Cindy Bluemel	
Agricultural Representative	Anthony Searls	
Benton Conservation District	Kara Kaelber	

Additional Attendees:

AGENCY / COMPANY	REPRESENTATIVE	IN-PERSON, OR REMOTE

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

3. **PUBLIC COMMENT**

4. **APPROVAL OF AGENDA**

5. **APPROVAL OF MINUTES FROM PREVIOUS MEETING: March 12, 2025**

6. **ACTION ITEMS (SWAC/PW Staff Member Presenting)**
   N/A

7. **REPORTS AND DISCUSSION ITEMS (SWAC/PW Staff Member Presenting)**
   A. Lithium/Ion Battery Collection (Department of Ecology)

   B. MRWF Update - Permitting and Opening (Matt Mahoney, Public Works Director)

   C. Benton County Solid Waste Fund and MRWF Biennial Budget 2025-2026 (Matt Mahoney, Public Works Director)

8. **MEMBER COMMENTS**

9. **NEXT MEETING**

10. **ADJOURNMENT**

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

BENTON COUNTY SOLID WASTE ADVISORY COMMITTEE
Meeting Minutes

Meeting Title: Solid Waste Advisory Committee Meeting
Meeting Date: March 12, 2025
Meeting Time: Hybrid Meeting – In Person: Public Services Building - 102206 Wiser Parkway, Kennewick, WA 99338 or Online Video and Phone Meeting (Webex)

1. CONVENE
The meeting was convened at 10:00 a.m. by Tami Yager, Chair.

2. ROLL CALL

AGENCY / COMPANY	REPRESENTATIVE	PRESENT / ABSENT (IN-PERSON, OR REMOTE)
Benton County	Will McKay	Absent
Benton County	Matt Mahoney (Alt.) - Secretary	Absent
City of Benton City	Jessica Wadsworth	Absent
City of Kennewick	Chuck Torelli	Present (Remote)
City of Kennewick	Jim Millbauer (Alt.)	Absent
City of Prosser	Don Aubrey	Absent
City of Richland:	Theresa Richardson	Absent
City of West Richland	Richard Bloom - Vice Chair	Present (Remote)
Basin Disposal:	Darrick Dietrich	Absent
Basin Disposal:	Rebecca Francik	Absent
Waste Management:	Tami Yager - Chair	Present (In-Person)
Waste Management:	Kevin Fuerst (Alt.)	Absent
Citizen	Cindy Bluemel	Present (In-Person)
Agricultural Representative	Anthony Searls	Present (In-Person)
Benton Conservation District	Mark Nielson	Absent

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

Additional Attendees:

AGENCY / COMPANY	REPRESENTATIVE	IN-PERSON, OR REMOTE
Chris Loid	Benton County	In-Person
Clayton Rawlings	Benton County	In-Person
Tyler Mackay	Waste Management	In-Person
Michelle Mulroney	Department of Ecology	Remote
Martin Nelson	City of Kennewick	Remote
Carlo D'Alessandro	City of Richland	Remote

3. **PUBLIC COMMENT**
   No public comment.

4. **APPROVAL OF AGENDA**
   Motion – Chuck
   Second – Richard Bloom
   Motion Passed – Unanimously

5. **APPROVAL OF MINUTES FROM PREVIOUS MEETING:**
   Meeting minutes for March 12, 2025, were approved unanimously.

6. **ACTION ITEMS (SWAC/PW Staff Member Presenting)**
   A. Identification of top three recycling priorities (i.e. Lithium/Ion Batteries, Tires, Paint, etc.) – SWAC Discussion and Decision

      Discussion about Lithium/Ion Batteries – MRWF will not accept and direct them to BatteriesPlus for disposal. Richard and Cindy would like to tour BatteriesPlus facility.

      Michelle Mulroney offered a Department of Ecology presentation at next meeting.

      Discussion about public messaging.

      No action taken.

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

7. REPORTS AND DISCUSSION ITEMS (SWAC/PW Staff Member Presenting)

A. MRWF Update - Permitting and Opening (Clayton Rawlings, Public Works Manager, and Chris Loid, Hazardous Waste Technician Lead)

Presentation by Clayton Rawlings - Discussion

B. Benton County Solid Waste Fund and MRWF Biennial Budget 2025-2026 (Clayton Rawlings, Public Works Manager)

Presentation by Clayton Rawlings – Discussion

The SWAC requested a detailed breakdown of the Solid Waste Budget.

8. MEMBER COMMENTS

Cindy Bluemel – Composting

9. NEXT MEETING

May 14, 2025, at 10:00 a.m. (Hybrid Meeting)

10. ADJOURNMENT

Meeting was adjourned at 11:05 a.m.

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

Agenda Item: 7B

STAFF REPORT

Report To: Solid Waste Advisory Committee

Meeting Date: May 14, 2025

SWAC Contact: Matt Mahoney, Benton County Public Works Director (Secretary)

Agenda Title: MRWF Update - Permitting and Opening

Agenda Action: Information and Discussion

Staff Summary

The Benton County Public Works Department has completed the minor changes to the MRWF Operations Plan, and J-U-B Engineers has completed the required engineering calculations (WAC 173-350-360(5) – Stormwater calculation stamped and signed by a Professional Engineer licensed in the State of Washington.

The new stormwater calculations were required because the original stormwater calculations represented only the necessary stormwater requirements for the building as part of the MRWF Retrofit, did not cover the entire property, and were not stamped and signed by a Professional Engineer licensed in the State of Washington (SEE ATTACHED).

The Operations Plan, and Stormwater Calculations have been submitted to the Benton-Franklin Health District and the Washington State Department of Ecology for what we hope is the final review and granting of the permit (SEE ATTACHED).

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

Agenda Item: 7C

STAFF REPORT

Report To: Solid Waste Advisory Committee

Meeting Date: May 14, 2025

SWAC Contact: Matt Mahoney, Benton County Public Works Director (Secretary)

Agenda Title: Benton County Solid Waste Fund and MRWF Biennial Budget 2025-2026

Agenda Action: Information and Discussion

Staff Summary

The SWAC had requested, during the March 12, 2025, SWAC Meeting, a detailed breakdown of the Benton County Solid Waste Collection Fund for 2025-2026 (SEE ATTACHED).

Along with the previous information, submitted as part of the March 12, 2025, SWAC Meeting, we are presenting a detailed breakdown of the budget for discussion.

Along with a Fee Assessment on solid waste collection, a primary source of funding for the Solid Waste Collection Fund is the Local Solid Waste Financial Assistance (LSWFA) grant program administered through the Washington State Department of Ecology. The 2023-2025 LSWFA Grant is $512,040.50 with a County/City Match of $170,680.17. The calculation for the match contribution by the County and Cities is based on population. The current breakdown is as follows:

• Benton County (17%):	$ 29,783.69
• City of Benton City (2%):	$ 3,021.04
• City of Kennewick (40%):	$ 68,493.95
• City of Prosser (3%)	$ 5,103.34
• City of Richland (29%)	$ 50,145.83
• City of West Richland (8%)	$ 14,132.32
TOTAL MATCH	**$ 170,680.17**

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

AGENDA ITEM: 7C

Solid Waste Collection Fund

2025-2026 Budget (Adopted)

REVENUES

BEGINNING FUND BALANCE	640,000
LSWFA GRANT (ECOLOGY)	652,937
POLLUTION CONTROL & REMEDIATION SERVICES	620,000
SOLID WASTE SERVICES	20,000
MISCELLANEOUS	10,000
TOTAL REVENUES	**1,942,937**

EXPENDITURES

5537100 - POLLUTION CONTROL AND REMEDIATION	
ENDING FUND BALANCE	97
SALARIES	433,233
BENEFITS	181,256
SUPPLIES	281,700
SERVICES	872,392
INTERFUND	158,839
TOTAL	**1,927,420**

5549100 - OTHER ENVIRONMENTAL SERVICES	
SALARIES	13,000
BENEFITS	1,020
SUPPLIES	1,400
TOTAL	**15,420**

5945300 CONSERVATION	
CAPITAL OUTLAYS	0
TOTAL	**0**

TOTAL EXPENDITURES	**1,942,937**

Public Works Department
Matt Mahoney, Public Works Director
Matt Rasmussen, County Engineer

PO Box 1001
Prosser, WA 99350
Phone (509) 786-5611
www.co.benton.wa.us

AGENDA ITEM: 7C

BENTON COUNTY MRWF OPERATION BUDGET

2025-2026 (2 YEARS)

REVENUES

LSWFA GRANT (ECOLOGY)	650,000
POLLUTION CONTROL & REMEDIATION SERVICES	450,000
TOTAL REVENUES	**1,100,000**

EXPENDITURES

SALARIES	433,233
BENEFITS	181,256
SUPPLIES	215,000
SERVICES	224,000
TOTAL EXPENDITURES	**1,053,489**

Memo

Date:	Friday, January 31, 2020
Project:	Moderate Risk Waste Facility Retrofit Design
To:	City of Kennewick Plans Reviewer
From:	David Kuhns, PE (HDR)
cc:	Grant DeJongh, Project Manager (Benton County)
Subject:	Stormwater Requirements

The following memo provides a summary of the interpretation of the stormwater requirements as they apply to the Benton County Moderate Risk Waste (MRW) Facility Retrofit Project.

Governing Design Criteria

City of Kennewick Standard Specifications and Drawings Section 5-8.01 includes the following:

> *"Storm facilities shall be designed to retain and dispose of a 25-year 24-hour storm onsite. Existing upstream flows shall be estimated at the 25-year storm event and incorporated into the storm design and either retained or conveyed through the site."*

Application of Stormwater Requirements

Section 2.6 of the SWMMEW defines redevelopment as:

> *"On a site that is already substantially developed, the replacement or improvement of impervious surfaces, including buildings and other structures, and replacement or improvement of impervious parking and road surfaces, that is not part of a routine maintenance activity. Any new impervious surfaces created by a redevelopment project are subject to the requirements for new development. Impervious surface replacements defined as exempt activities in 2.2 Exemptions and other projects identified as partially exempt in 2.3 Partial Exemptions have reduced requirements."*

All modifications to the site are considered as redevelopment per this definition.

Section 2.3 of the SWMMEW includes the following as partial exemptions to the core elements of the SWMMEW except for Core Element #1 Preparation of a Stormwater Site Plan and Core Element #2 Construction Stormwater Pollution Prevention:

- **Underground Utility Projects**
  Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics
- **Road and Parking Area Preservation/Maintenance**
  Removing and replacing a concrete or asphalt roadway to base course or subgrade or lower without expanding or improving the impervious surfaces

For redevelopment projects, Section 2.6 of the SWMMEW lists a threshold for applying the Core Elements of the SWMMEW as when there is the "*replacement of 5,000 square feet or more of existing PGIS*," where PGIS refers to pollutant generating impervious surfaces as defined in Section 2.5 of the SWMMEW.

The total amount of PGIS being replaced is 3,816 sq.ft. which is under the threshold for requiring core elements of the SWMMEW for redevelopment projects. Therefore, it has been interpreted that no stormwater infrastructure will need to be added as part of the project.

The requirement in Section 5-8.01 of the City of Kennewick Standard Specifications and Drawings to retain the 25-year, 24-hour storm was interpreted to apply for when Core Element #6 (Flow Control) of the SWMMEW is required. As previously stated, since the 5,000 sq.ft. PGIS threshold has not been reached and the Core Elements do not need to be applied per the SWMMEW, it has been interpreted that no provisions need to be added to the existing site to retain and dispose of the 25-year, 24-hour storm.

Summary of Project Areas

The following tables (Table 1 and Table 2) provide a summary of exterior areas being redeveloped as part of the project.

Table 1. Summary of Exterior Project Areas with Redevelopment

Location and Description of Work	Area (sq.ft.)	Existing		Proposed		Notes
		Surface	PGIS?	Surface	PGIS?	
Add asphalt to small gravel area NE of MRW building	74	Pervious		Impervious	Yes	
Removal of roof from former fueling area	1,712	Impervious		Impervious	Yes	
In-kind replacement of existing concrete pavement at load-out area	320	Impervious	Yes	Impervious	Yes	Exempt per SWMMEW 2.6
Demolition of Sign Shop Building (slab will remain)	522	Impervious		Impervious		
Removal of asphalt adjacent to Ely St for construction of landscape strip	2,788	Impervious	Yes	Pervious		
Addition of landscaped area (currently gravel) to landscaped area	1,750	Pervious		Pervious		
In-kind replacement of existing asphalt for construction of utilities	136	Impervious	Yes	Impervious	Yes	Exempt per SWMMEW 2.6
In-kind replacement of existing sidewalk for construction of utilities	24	Impervious		Impervious		Exempt per SWMMEW 2.6
Demolition of Equipment Shed	3,800	Impervious		Pervious		Potentially included in project scope

Table 2. Total Area

	Area (sq.ft.)	
	Existing	**Proposed**
Total Impervious Area (sf)	9,302	2,788
Total PGIS	*3,244*	*2,242*
Total Pervious Area (sf)	1,824	8,338
Total Area	11,126	11,126

Summary of Interpretation for Stormwater Requirements

The total amount of PGIS being replaced is 3,244 sf which is under the threshold for requiring Core Elements of the SWMMEW for redevelopment projects. Therefore, it has been interpreted that no stormwater infrastructure will need to be added as part of the project.

Owner	Benton County	Computed By	M. Kalieva
Plant	Benton Co MRW Retrofit	Date	10/31/2019
Project No.	10179700	Verified By	N. Baummer
Title	Stormwater Calc	Date	11/1/2019
		Page	1

WAC 173-350-360(4)(a)(iii)(A)(II) Provide additional capacity to hold the precipitation from a twenty-five-year storm, in uncovered areas

Per 2019 Stormwater Management Manual for Eastern Washington (SWMMEW) Figure 4.10:

Precipitation$_{25year,24hour}$ = 1.6 in 0.133 ft

Surface Area = 320 ft^2 Per Drawing Sheet C101

Volume of Runoff = Surface Area x Runoff Coefficient x Precipitation

Volume of stm. water = 43 ft^3 319 gallons

WSDOT Type 1 Catch Basin (Standard Plan B-5.20-02): 2'-2"x1'-10"x3'-4"

Volume of catch basin = 13 ft^3 99 gallons Not Sufficient for hold 25-year storm

Use Type 2 Catch Basin - 48" diameter, 5 feet deep (Standard Plan B-10.20-02):

Volume = 63 ft^3 470 gallons Adequate for 25 year storm event

Agenda Item: 7B Attachment

BENTON COUNTY
MODERATE RISK WASTE FACILITY
OPERATIONS PLAN

March 2025

This document has been prepared under the supervision
of a registered Professional Engineer in the State of Washington.

TABLE OF CONTENTS

ANNUAL REVIEW RECORD

1.0 INTRODUCTION 1
2.0 BACKGROUND 1
3.0 OVERVIEW 1
3.1 Facility Location and Description 1
3.2 Site Access and Parking 2
3.3 Facility Layout/Traffic Flow 2
4.0 Site Safety Requirements 2
4.1 Safety and Emergency Plans 3
4.1.1 Personal Protective Equipment 3
4.1.2 Engineering Controls 3
4.1.3 Hygiene Practices 4
4.1.4 Emergency Eyewash and Safety Shower 4
4.1.5 Fire Suppression and Fire Extinguishers 4
4.1.6 Spill Containment Supplies 4
4.1.7 Communications 4
4.1.8 Potential On-Site Hazards 4
4.1.9 General Safety Rules 5
5.0 Waste Handling Procedures 5
5.1 Waste Acceptance Policy 5
5.2 Unacceptable Materials 6
5.3 Unloading Procedures 8
5.3.1 Traffic at Unloading Area 8
5.3.2 Greeting Customers 8
5.3.3 Damage and/or Spills in Customer Vehicles 8
5.3.4 Screening for Unacceptable Materials and Excessive Loads 8
5.3.5 Other Wastes Requiring Special Handling 9
5.3.6 Unloading MRW 9
5.3.7 Procedures for Leaking Containers 9
5.3.8 Procedures for Unlabeled Containers 9
5.3.9 Customer Exiting 9
5.4 Storing and Packing Protocol 9
5.4.1 Sorting and Storage Procedures 9
5.4.2 Material Storage Areas 10

5.4.3 Packing Protocol....11
5.5 Bulking Procedures....12
5.6 Loose Pack Procedures....13
5.7 Storage Cabinet Procedures....13
5.8 Maximum Quantity Limits....13
5.8.1 Quantity Limits for MRW....14
5.9 Identification of Unknown Materials....15
5.10 MRW Left Behind or Dumped....15
5.11 Drum Handling....15
5.12 MRW Shipment....16
5.13 Spill Containment....16
5.14 Spill Response....17
5.15 Emergency Procedures....19
6.0 Record Keeping and Reporting Requirements....19
6.1.1 Routine Reporting....19
6.1.2 Annual Reporting....19
6.2 Facility Inspections....20
6.2.1 Routine Inspections....20
6.2.2 Annual Inspections....20
7.0 Maintenance and Operational Procedures....21
7.1 Preventative Maintenance Procedures....21
7.1.1 Emergency Shower....21
7.1.2 Ventilation Fans....21
7.1.3 Geiger Counter....21
7.1.4 Fire Extinguishers....21
7.2 General Maintenance and Operation....21
7.3 Hours of Operation and Staffing Level....22
8.0 Personnel Duties....22
8.1 Visitor Policy and Site Security....22
9.0 Staff Training....23
9.1 Classroom Training....23
9.2 Field Training....23
9.3 Operations Plan Training....24
9.4 Additional Training....24

APPENDICES

Appendix A – MRWF Vicinity Map, Site Layout, and Traffic Flow

Appendix B – Sample Forms

Appendix C – Closure Plan

ANNUAL REVIEW RECORD

This Operations Plan must be reviewed at least annually by the Benton County MRW owner or operator. Comments and necessary revisions shall be maintained in the table below.

DATE	COMMENTS	REVISION NECESSARY (YES / NO)	SIGNATURE

1.0 INTRODUCTION

The following document details the operating plan for the Moderate Risk Waste Facility (MRWF) for Benton County (County). This operating plan has been developed in accordance with Washington Administrative Code 173-350-360. This operating plan must be kept at the facility for operator reference and readily available for inspection by the Benton-Franklin Health District.

2.0 BACKGROUND

The previous MRWF utilized by the County was lost in a fire in 2010. Prior to construction of a new MRWF, the County provided semi-annual household hazardous waste (HHW) drop-off services for Benton County residents. These services were provided as one day collection events at a few locations within Benton County and were subject to a state grant.

In 2012 a feasibility study identified the existing County Road Maintenance Shops located at 1709 South Ely Street in Kennewick as a potential site for a new MRWF. In 2015, the County maintenance group relocated operations to a new facility on Wiser Parkway south of I-82, west of East Badger Road. The County determined the existing County Road Maintenance Shops would be retrofitted for use as a permanent MRWF to replace the semi-annual HHW drop-off services described above.

3.0 OVERVIEW

The MRWF provides areas for material unloading, collecting/processing, and material storage of Moderate Risk Waste (MRW). MRW consists of conditionally exempt small quantity generator (CESQG) waste and HHW as defined by Washington Administrative Code (WAC) 173-350-100. Reuse of materials received at the MRWF is not permitted.

3.1 Facility Location and Description

The County's MRWF is located at 1709 South Ely Street in Kennewick, WA. The MRWF was developed by retrofitting portions of the former County Road Maintenance Shops and office area (an approximate 3,550 square feet, SF). The remaining areas on the south end of the site, formerly vehicle maintenance bays, may be used for general storage but may not be used for MRW operations or storage.

The MRWF is located inside of a security fence with locking gates and has 24-hour security through the County's contracted security company and the Benton County Sheriff's Department.

The operating hours for public customer disposal at the MRWF are 8:00 AM to 5:00 PM, Wednesday through Saturday. The MRWF may be open on additional days on an as needed basis. Public drop-off of MRW may be suspended during times of normal operation for the preparation and loading of MRW for transportation. Days and hours of operation are determined by the County and may be revised as needed at the discretion of the Public Works Manager.

A Closure Plan will be implemented when site operations have ceased. An example Closure Plan is attached in Appendix C to aid in guidance of development of a site-specific closure plan in accordance with regulatory requirements.

3.2 Site Access and Parking

The site has one entrance and one exit shared by customers, semi-trucks (for material loadout), and employees. The site entrance is from South Ely Street to the north of the facility, with the exit to South Ely Street to the south of the facility. Customers proceed to the unloading zone at the roll-up door near the center of the receiving/processing area on the east side of the MRWF for material unloading.

Semi-trucks enter the site from the site entrance, drive to the east of the MRWF, and turn to the south. Semi-trucks use the paved area to the east of the MRWF for space to back up to the roll-up door near the center of the receiving/processing area on the east side of the facility. A clearance of 13.5 feet is provided for semi-trucks.

Fire access roads (including driveways) are required to maintain an unobstructed width of 20 feet at minimum. The space requirements are provided in the site design, and staff will keep access unobstructed at all hours.

3.3 Facility Layout/Traffic Flow

MRW is stored in the receiving/processing areas within the central portion of the facility. A roll-up door is located at the middle of the receiving/processing area along the eastern MRWF wall for material load in and loadout to transfer trucks. A fire riser room is in the receiving/processing area along the western MRWF wall.

MRWF staff facilities are located to the north of the receiving/processing area, including an office/break room, locker room, and bathroom. Storage and electrical rooms, and an access corridor, are also included to the north of the receiving/processing area. Shop bays to the south of the receiving/processing area are not currently used for MRWF activities, however, will be used for general storage.

Signage and striping are used to direct proper traffic flow, efficient unloading of vehicles, and for site safety, and include the following:

- Pavement striping arrows for proper site traffic flow.
- Speed limit signs for onsite speed restrictions.
- Stop sign at the site exit onto Ely Street.
- Materials accepted signs for customer and staff reference near the MRW unloading area.
- Additional signage may be developed as deemed necessary. Jersey barriers and traffic cones may be placed as needed for additional traffic flow.

4.0 SITE SAFETY REQUIREMENTS

Safety policies, plans and considerations will be always followed and will not be compromised for any reason. If unsafe conditions cannot be corrected in a reasonable amount of time, the site will be closed until such time that it is deemed safe and operable for site staff, customers, and authorized visitors.

4.1 Safety and Emergency Plans

Per WAC 173-350-360, safety and emergency plans are kept onsite and with the County for a minimum of five years and are available upon request by the Benton-Franklin Health District. The plans include:

- A list of all on-site emergency equipment with its capability, purpose, and training requirements.
- A description of actions to take if leaks in containers, tanks, or containment structures are suspected or detected and for other releases (e.g., failure of runoff containment system, gases generated due to chemical reactions or rapid volatilizations).

4.1.1 Personal Protective Equipment

During waste handling activities, all site personnel must wear proper Personal Protective Equipment (PPE). Staff working at the customer unloading area and within the receiving/processing area must don the following PPE at a minimum:

- Tyvek coveralls, employer laundered uniforms and/or coveralls, or aprons with Tyvek sleeves.
- Safety glasses with fixed side shields.
- Latex or Nitrile gloves.
- ANSI-approved safety shoes.

Additional PPE may be necessary as merited by the task and in accordance with Occupational Health and Safety Administration (OSHA) Hazardous Materials and WAC requirements. Examples of additional PPE include filtering face-piece respirators for nuisance particulates and organic vapors, Neoprene or Butyl gloves with extended gauntlets, and rubber aprons. Used PPE is removed and disposed of as MRW prior to leaving the receiving/processing area if contaminated. If PPE is deemed sufficiently clean, it is disposed of as solid waste.

4.1.2 Engineering Controls

Ventilation systems are designed to minimize exposures and prevent the accumulation of flammable gases that could present risk of fire or explosion. During operating hours, the roll-up door may be left open while staff are onsite, increasing ventilation for MRWF staff.

In general, the MRWF is not a bulking facility, but we do believe that it will be necessary in some cases. If consolidation is necessary, any consolidation of flammable liquid MRW shall be processed in a Flammable Consolidation Station. Bulking of flammable liquid MRW shall be performed in a safe and manageable way such that flammable or explosive gases will not exceed 10% of the lower explosive limit (LEL) in the area where flammable liquid MRW is consolidated. An explosive gas monitoring alarm system has been installed to ensure that this requirement is achieved.

Grounding is provided, and bonding must occur between grounding plates, 55-gallon drum, receptacle used to bail into the drum, and funnel while flammable and combustible liquids are consolidated.

4.1.3 Hygiene Practices

Employees who have handled MRW are required to thoroughly wash hands and arms prior to exiting the facility or consuming food or beverages. A sink is in the lavatory at the north end of the facility.

4.1.4 Emergency Eyewash and Safety Shower

A floor-mounted emergency eyewash/shower is included near the northwest corner of the receiving/processing area. The unit is connected to the potable water system and complies with applicable ANSI and WISHA regulations.

4.1.5 Fire Suppression and Fire Extinguishers

Automatic sprinkler protection is provided throughout the building and at overhangs greater than four feet wide. Portable fire extinguishers are mounted to walls within the MRWF, as shown in the site drawings.

4.1.6 Spill Containment Supplies

A floor-mounted spill response kit is in the receiving/processing area and is replaced as needed. Additional spill response kits, spill containment materials, and cleanup supplies are stored in the storage room north of the receiving/processing area.

4.1.7 Communications

A supervised fire alarm system is provided throughout the facility. Intelligent fire alarm modules are provided in the fire riser room to monitor all waterflow, pressure switches, tamper switches, and post indicating valves associated with the fire sprinkler system. Fire alarm manual pull stations and fire alarm audible-visual devices are installed in all occupied spaces of the facility.

4.1.8 Potential On-Site Hazards

Staff working at the MRWF are made aware of potential onsite hazards and trained in preventative methods. Common potential hazards with handling materials at MRW facilities include:

- Back strain through lifting and transportation of materials.
- Contact with customer vehicles.
- Slip, trip, and/or fall hazards.
- Skin contacts and/or inhalation of hazardous materials.

Hazardous materials present potential risks to the MRWF employees and the public. These are identified by hazard class and include, but are not limited to, the following:

- Flammable Materials: Flammable liquids release vapors that will readily ignite at or below 140 degrees Fahrenheit (per DOT regulations).
- Poisons: Materials known to contain oral toxicity, dermal toxicity, or inhalation toxicity
- Corrosives: Materials that can attach and chemically destroy exposed body tissues.
- Oxidizers: Materials that, generally by yielding oxygen, cause or enhance combustion of other materials (49 CFR 173.127).

- Explosives: Chemical compounds or mixtures of substances that can undergo rapid chemical reaction, resulting in combustion or detonation.
- Carcinogens: Substances that may cause cancer or malignant growths.
- Reproductive Hazards: Substances that adversely affect the fetus or reproductive ability.
- Dangerous When Wet: Material that, by contact with water, is liable to become spontaneously flammable or to give off flammable or toxic gases
- Organic Peroxides: Materials that may ignite themselves and burn with a flare-type effect.

4.1.9 General Safety Rules

For the safety of workers, customers, and visitors, the following rules are required at the MRWF:

- Smoking is not permitted within the site property. This applies to customers, site staff, and anyone else on the site property. MRWF staff will instruct customers to extinguish smoking materials prior to unloading waste materials.
- Customers are instructed to turn off their engine and apply their parking brake while in the unloading area.
- No customers are allowed access inside of the MRWF, or to the facility outside of posted business hours.
- No walk-in customers are permitted to dispose of materials at the MRWF.

5.0 WASTE HANDLING PROCEDURES

5.1 Waste Acceptance Policy

Customers include residents or CESQGs of Benton County. Customers may be redirected to the MRWF from the City of Richland's Horn Rapids Landfill to dispose of waste. The Site Supervisor determines if waste will be accepted at the MRWF in accordance with the Solid Waste Permit and regulatory requirements.

A list of commonly accepted materials at the MRWF is described below:

Table 1 - Commonly Accepted Materials at the MRWF	
Acids, including lead acid batteries	Flammables
Antifreeze	Mercury
Bases	Motor Oil[1]
Lead-Acid Batteries[2]	Oxidizers
Compact Fluorescent Lightbulbs (CFLs)	Latex Paints
Oil-Based Paints	Pesticides (and other Garden Grade Chemicals)

1. Motor oil may also be disposed of at the Horn Rapids Landfill, or private corporations such as AutoZone, O'Reilly Auto Parts, or Walmart.
2. Alkaline, Lithium Ion, and Lithium Metal batteries are not accepted (including E-Cigs, vape pens, etc.). Lithium batteries will be directed to Batteries Plus.

Additional items may be collected at the MRWF at the discretion of the Site Supervisor and must meet the characteristics of moderate risk waste.

5.2 Unacceptable Materials

Materials may be encountered by MRWF staff that are not accepted at the facility. Municipal solid waste (MSW), recyclable materials, and construction waste will not be accepted at the MRWF. Typical items received, along with possible staff responses, are detailed below:

Table 2 - Unacceptable Materials Commonly Received at the MRWF	
Appliances	If the unit is in good working order, recommend the customer contact one of the following: Goodwill Richland Store, 201 Wellsian Way, Richland, 99352 (509-946-4575), or Goodwill Kennewick Store, 2905 West Kennewick Avenue, Kennewick, 99336 (509-783-2449), or Habitat for Humanity, 303 Wellsian Way, Richland, 99352 (509-943-5555) If the appliance is not working, recommend the customer contact one of the following for recycling options: Mayflower Metals, 139406 West Johnson Road, Prosser, 99350 (509-778-1664), or Local Boys Metal Recycling, 510 Wellsian Way, Richland, 99352 (509-308-8251)
Asbestos	Instruct customer to call Benton County Clean Air Agency for proper disposal information.
Ammunition, Fireworks, Explosive Devices	Instruct customer to contact local police or fire department for assistance. If these materials are found dumped illegally, staff will contact the Kennewick Police or Benton County Sheriff's Department.
Agricultural and Commercial Grade Chemicals	Instruct customer to contact the manufacturer regarding a take-back program or contact the Washington State Department of Agriculture regarding their Waste Pesticide Program.
Alkaline, Lithium Ion, or Lithium Metal Batteries – Including E-Cigs, vape pens, etc.	Instruct customer to contact a company that is licensed and trained in proper handling and disposal techniques or educate the public that Alkaline Batteries are MSW and can be disposed with other MSW. Instruct customer to contact Batteries Plus for disposal of Lithium batteries.
Incandescent Light Bulbs	Instruct customer to dispose of as MSW.

Flares (Marine, Auto, and other)	Instruct customer to coordinate disposal with local police or fire department.
Medicine	Instruct customer that there is a statewide program to safely dispose of prescription medications and direct them to the website to help them determine the nearest site for them to dispose of prescription medications.
Needles, Syringes	Instruct customer to contact their local waste carrier or Benton-Franklin Health District about proper disposal. These materials will not be accepted at the MRWF.
Paint Brushes, Empty Paint Cans	Instruct customer to dispose of as MSW.
Radioactive Materials, Ammunition	Contact a company who is licensed and trained in proper handling and disposal techniques. If received outside business hours or illegally dumped, contact the Department of Health immediately.
Smoke Detectors	Photoelectric smoke detectors may be disposed of as MSW. Various nationwide programs offer take-back programs for ionization smoke detectors, including the following: American Sensors/Dicon Global (800-387-4219) Firex (800-445-8299) First Alert/BRK (800-323-9005 x2) Recommend customer call programs to determine best action for disposal.
Fire Extinguishers	Instruct customer to contact a company that is licensed and trained in proper handling and disposal techniques.
Compressed Cylinders	Instruct customer to contact a company that is licensed and trained in proper handling and disposal techniques or contact a local welding supply company that may have a compressed cylinder take-back program.

In addition to the items listed above, restrictions are placed on the quantity of material disposal for customers, as described below:

- Limit 20 containers or 50 gallons per visit, including a maximum of 20 gallons (combined) of used oil, antifreeze, or other flammable liquids.
- In accordance with RCW 70A-224-030(5)(c), used oil is restricted to 5 gallons per household per day.
- Individual containers with more than five gallons of material must receive pre-approval by Site Supervisor and the County to be accepted at the MRWF.

5.3 Unloading Procedures

The following includes guidelines for safe unloading of vehicles for customers and site staff.

5.3.1 Traffic at Unloading Area

Customers follow directional traffic arrows painted on the ground. Customers park at the designated unloading area at the east side of the MRWF. A sign describing typical materials accepted and unacceptable materials is readily accessible to the northwest of the unloading area. Customer access is restricted to the unloading area and public outdoor oil and antifreeze collection site. Unauthorized entry into the building is not permitted.

5.3.2 Greeting Customers

Customers are only permitted to unload materials when directed by and under the supervision of MRWF staff. MRWF staff work with customers parked in the unloading area to properly dispose of materials. Guidelines for MRWF staff working with customers are described below:

- Request customers to turn off engines and apply parking brake.
- If necessary, instruct customers that smoking is prohibited on site.
- Ask customers to exit their vehicles to assist in identifying and removing MRW containers during the unloading process.
- Provide responses to customer questions including disposal recommendations for waste not accepted at the MRWF.

If customers have specific comments and/or complaints that they would like documented, MRWF staff will provide an Incident Report form (See Appendix B).

5.3.3 Damage and/or Spills in Customer Vehicles

Before unloading of MRW, MRWF staff perform a visual inspection of the vehicle to determine materials and document any preexisting spills or damage. If materials have been spilled, the emergency response and cleanup procedures detailed in Section 5.15 Emergency Procedures are implemented. Staff complete a Spill Report (See Appendix B) to the best of their ability, noting the date, time, type, and quantity of waste spilled, vehicle license plate, and any other pertinent information.

If deemed safe, MRWF staff may attempt to absorb spilled materials in the customer vehicle (see Section 5.14 Spill Response). If the spill creates a potential fire or health hazard to users of the site, the emergency response, as outlined in Section 5.15 Emergency Procedures, will be implemented. The area may be evacuated, and local professional hazardous material responders will be contacted for assistance.

5.3.4 Screening for Unacceptable Materials and Excessive Loads

MRWF staff review customer materials prior to disposal to identify unacceptable materials, and/or excessive volumes of MRW (see list and corresponding actions in Waste Acceptance section above).

Unauthorized businesses will be denied access to the facility. MRWF customers exceeding the quantity limits without prior approval will also not be permitted to dispose of materials. A form to document customers who are refused service is included in Appendix B.

5.3.5 Other Wastes Requiring Special Handling

Some acceptable wastes require special handling precautions due to toxicity. Anticipated items are described below:

- Calcium Carbide: Place immediately in a plastic container with a secured lid to prevent off-gassing of acetylene. Protect from moisture.
- Hydrofluoric Acid: Immediately place in a secondary container to prevent spills and contact with humans, other materials, or the environment.

5.3.6 Unloading MRW

MRWF staff will unload acceptable MRW materials onto carts for transport to the processing/receiving area. The two-tiered transport carts have a three-inch lip to provide secondary containment for minor spills or leaking containers.

5.3.7 Procedures for Leaking Containers

Leaking or corroded containers are immediately placed in a new container or in a plastic container/bag with absorbent material. MRWF staff may attempt to clean the affected area, if deemed safe.

5.3.8 Procedures for Unlabeled Containers

If unlabeled containers are encountered, MRWF staff will ask the customer for product identification and applications. If the product can be identified, a label will be added to the container using a black or silver permanent marker. If identification is not possible, MRWF staff may contact the County's outside contractor to assist with identification. If identification is not possible, the container will not be accepted.

5.3.9 Customer Exiting

Customers are not permitted to drive away from the unloading area until verbally instructed by MRWF staff. Directional arrows are be painted on the ground to direct customers to the site exit south of the facility.

5.4 Storing and Packing Protocol

5.4.1 Sorting and Storage Procedures

MRWF staff transport carts of MRW from customer vehicles to the receiving/processing area. MRWF staff inspect containers for any leaks, corrosion, or damage. If containers are not compromised, materials are left in their containers as received for primary containment.

MRW staff may only handle leaky, corroded, damaged, or otherwise compromised containers when they have determined safe operation is achievable.

Materials are segregated and loaded into skid totes, 55-gallon drums, or 5-gallon buckets from transport carts. Prior to placement in drums of similar material, waste in leaky or damaged containers must be placed in a new container or be secured within sealed plastic bags with absorbent materials. Drums of material may be stored on the floor of the storage/processing areas, wood pallets, or spill pallets, dependent upon waste type. Drums, buckets, cabinets, and other objects containing MRW must be kept closed during all times that MRW is not removed or added.

Storage methods for commonly accepted materials are described in Table 4. The following criteria must be met for proper container storage:

- Each storage area is clearly signed to show the type of material stored in that area.
- Each container is clearly labeled to identify the material type stored and must be visible and accessible for inspection, as described in the Facility Inspections section.
- Drums have at least one side with a minimum of 30 inches clear aisle space.
- Storage containers are maintained in good condition including, but not limited to, no severe rusting or apparent structural defects.
- Incompatible materials are not mixed or allowed to come in contact with each other.
- At a minimum, secondary containment must be included for all materials within the MRW. For most loose packed and lab packed MRW this is achieved by placing the materials into 55-gallon drums, 5-gallon buckets, skid totes, (or) other non comprimised containers (or) cabinets. Leaking, corroeded, damaged, or otherwise compromised containers will be be sealed in bags with absorbent and loaded into drums, buckets, skid totes or other non compromised containers.
- Spill containment pallets will be on hand and used under any 55-gallon drum, bucket, tote (or) other container that develops a leak while in storage/processing at the MRWF.
- Spill containment pallets are also required under any 55-gallon drum containing bulked liquid MRW, to serve as secondary containment.

5.4.2 Material Storage Areas

The Site Plan indicates material storage areas within the MRWF, which are summarized in Table 4. Descriptions for material storage are included below:

- Mercury Products: Mercury products include thermostats and other mercury containing devices. These materials are sealed in a 55-gallon plastic-lined drum in an approximate 13 SF area.
- Compact Fluorescent Lightbulbs: CFLs are placed in sleeves and laid flat in cardboard or plastic boxes in an approximate 85 SF area. In the event the area is at capacity, MRWF staff may recommend customers dispose of CFLs elsewhere within Benton County. Several sites offer CFL disposal services, including the following:
  - Kennewick Ace Hardware and Sporting Goods, 2831 W Kennewick Ave, Kennewick, 99336 (509-987-1124)
  - Batteries Plus Bulbs, 321 North Columbia Center Boulevard, Kennewick, 9933 (509-783-3400)
- Paints: An approximate 323 SF area is provided for oil-based and latex paint storage. Containers of paint are loose packed in skid totes or 55-gallon drums with containers storing the same materials. Oil-based and latex paint are not stored in the same drums. Drums are placed on spill containment pallets.

- Antifreeze: An area located outside is programmed for bulk antifreeze storage, centrally at the east side of the facility, in 55-gallon drums located in a weatherproof spill containment system with lockable cover.
- Acids and Bases: An approximate 42 SF and 79 SF is programmed for acids and bases storage, respectively. Materials are loose packed in 55-gallon plastic drums. Separation of acids and bases storage is achieved by placement in separate areas.
- Pesticides: Only garden grade chemicals are accepted at the MRWF. Disposal procedures for agricultural and commercial grade chemicals are described in Unacceptable Wastes. Pesticides are sealed in 55-gallon drums in an approximate 83 SF area.
- Flammable Liquids and Solids: An approximate 73 SF area is provided along the west wall of the receiving/processing area for flammables storage, directly north of the fire riser bank. Flammable materials are loaded into 55-gallon drums and placed on spill pallets. Typical flammable materials are described below:
    - *Class I Flammable Liquids*: Liquids with flash points below 73 degrees Fahrenheit (F) and boiling points at or above 100 degrees F. Common examples include gasoline, acetone, Methyl Ethyl Ketone (MEK), alcohol, lighter fluid, camping fuel, toluene, and xylene.
    - *Other Flammable and Combustible Liquids*: Common examples include wood stains, paint thinner, fuel oil, kerosene, and furniture polish.
    - *Flammable and Combustible Solids*: Solid material that is readily combustible or may cause or contribute to fire through friction. Common examples include caulk, tars, waxes, and road flares.
- Batteries: An approximate 44 SF is provided for battery storage at the southeast corner of the receiving/processing area and provides storage for the following lead acid batteries. Alkaline and Lithium Ion/Metal batteries are not accepted at the MRWF.
    - *Lead Acid Batteries*: Automotive, marine, and other lead acid type batteries must be visually inspected for structural integrity. Leaking or cracked batteries are sealed in bags with absorbent materials and placed in 55-gallon plastic-lined drums. Intact lead acid batteries may be stored in plastic-lined drums or placed directly on spill containment pallets.
- Oxidizers are stored in an approximate 21 SF area. Oxidizers may be sealed in 5-gallon buckets in storage cabinets or in 55-gallon drums.
- Used Oil is bulk stored in an area located outside, centrally at the east side of the facility, in 55-gallon drums located in a weatherproof spill containment system with lockable cover.
- Dangerous Waste includes additional materials that do not fit the categories above but satisfy MRW descriptions per WAC 173-350-100 and can be disposed of properly by the contracted vendor. Dangerous wastes are only allowed with the approval of the MRWF Supervisor and are placed in plastic-lined drums.

5.4.3 Packing Protocol

Transportation methods for the materials collected at the MRWF varies and is dependent upon material hazard class, disposal requirements, and collection efficiencies. Recommended packing methods are summarized in the table below. MRW materials must be compatible with their respective storage and containment system. Containers and tanks will remain closed unless adding or removing materials to prevent a release through spillage or evaporation.

Table 3 - Packing Protocol for Commonly Received Materials at the MRWF			
BULK/TANK	**LOOSE PACK**		**STORAGE CABINET[1]**
Motor Oil	Latex Paint	Automotive Batteries	Acids
Antifreeze	Oil-Based Paint	CFLs	Bases
Flammable Liquids & Solids	Flammable Liquids & Solids	Pesticides & Poisons	Reactive/Oxidizers
	Aerosol Containers	Mercury Products	
	Household Bleach	Lead Acid Batteries	
	Antifreeze	PCB Products	

1. Materials identified in the Storage Cabinet column may also be loose packed in drums/containers if storage cabinets are not used within the MRWF.

5.5 Bulking Procedures

Used oil, antifreeze and flammable liquids are anticipated to be bulked at the MRWF. Oil and antifreeze bulk processing will take place outdoors, while flammable liquids will be bulked indoors at a Flammable Consolidation Station (FCS), a bulking station designed with ventilation, gas vapor monitoring, and ground bonding plates. After product identification has been confirmed with the customer and materials have been brought to the processing/receiving area by operators, the following bulking procedures are followed:

- Operators use large capacity funnels with screens for motor oil and antifreeze to remove visible contaminants prior to consolidation. Product with visible contamination will be loose/lab packed and not bulked.
- An oil and antifreeze bulking station will be located outside on a treated and sealed concrete pad, surrounded by impervious surfaces (i.e. concrete, asphalt) that have been treated and sealed, utilizing a covered lockable secondary containment pallet system.
- Flammable liquids may only be bulked in the Flammable Consolidation Station located in the Flammables storage/processing area, into a 55-gallon steel drum. Drum lid must be secured at the end of every shift and may only be removed when actively adding materials. Full drums with lids secured can be stored in the flammable liquids storage/processing area in rows.
- Bulking of flammable liquids must only be done utilizing the FCS, with ground bonding taking place between ground plate, funnels, drum, and baling receptacles. Appropriate PPE must be donned by MRWF personnel while bulking.
- If flammable liquids bulking is suspended for any reason, flammable liquids will not be accepted unless in an approved flammable liquids container sealed without any signs of leakage, then flammables may be loose/lab packed into 55-gallon drums, in an approved container in which the customer will not get returned to them. Customers must be advised of this policy at the time of collection.

- If bulking is suspended during busy periods, containers of used oil, and antifreeze are loose/lab packed into 55-gallon drums in the used oil storage area for transportation. If containers are leaking, corroded, or otherwise damaged, they will be placed in plastic bags with absorbent materials prior to loose/lab packing into 55-gallon drum. Containers of flammable liquids which are found leaking, corroded or otherwise damaged, and/or containers not approved for flammable liquids will not be accepted by MRWF staff.

5.6 Loose Pack Procedures

Loose packing procedures are used for materials within the MRWF that will be placed into skid totes, drums and/or buckets. If staff can confirm the packaging is not leaking, corroded, or otherwise damaged, materials are loose packed directly in the containers in which they were received. Leaky, corroded, or otherwise damaged containers are sealed in bags with absorbent material prior to loose packing. Procedures include the following:

- Skid totes, and Drums/buckets for storage should be clean. Drums/buckets with chemical residues or damage will not be used for loose packing.
- Verify that skid totes, and drums/buckets can be sealed and are leak tight.
- Place similar size/shape products together to prevent voids in containers.
- Do not overfill skid totes, and/or drums/buckets.

5.7 Storage Cabinet Procedures

Storage cabinets may be used for materials that are more toxic or reactive than other MRW. All storage cabinets will be locked when not in use, and prior to the end of every day. Leaky, corroded, damaged, or otherwise compromised containers, will be placed in a plastic bag with absorbent material prior to placement in a storage cabinet.

Storage cabinets may be used for storage of acids, bases, and reactives/oxidizers. If used, cabinets will provide sufficient secondary containment for 10% of the volume of all containers. Materials will be lab packed prior to shipment, either by the Contractor or by MRWF staff with proper training. Lab packing requires a sufficient amount of absorbent be added to prevent and contain spills.

5.8 Maximum Quantity Limits

MRWF staff monitor capacity of materials stored at the facility to comply with fire codes and to provide a safe working environment. If maximum quantities are reached or passed, MRWF staff will immediately contact the contracted vendor for an emergency pick-up of materials. A minimum 30-inch exit width will be always maintained between drums and other storage containers.

If the flammable storage area reaches maximum storage limits, the MRWF is shut down until emergency pickup removes enough material. If quantity limits are reached for other materials, MRWF staff do not accept additional volumes until enough of that material is removed. MRWF may instruct customers for alternative disposal methods as described in this document and per the County Website.

5.8.1 Quantity Limits for MRW

Quantity limits and material storage methods at the MRWF are provided below. Storage locations are shown in the Site Plan (See Appendix A). Material storage is performed in accordance with the MRWF's Solid Waste Permit. Vendor collection is required to remove materials to maintain accordance with quantities noted in the Solid Waste Permit.

Table 4 - Summary of Storage Area and Methods for Commonly Accepted Materials at the MRWF

Material	Approximate Storage Area (SF)	Storage Methods
Antifreeze	62	Loose packed into two rows of three 55-gallon plastic-lined drums.
Used Oil	104	Used oil is bulked into 55-gallon drums used oil tanks. Funnels are used to remove suspended solids during bulking procedures as described in this plan.
Acids	42	Loose packed into one 55-gallon plastic-lined drum.
Bases	79	Loose packed into three 55-gallon plastic-lined drums.
Lead Acid Batteries	44	Loose packed into 55-gallon plastic-lined drums or placed directly on spill containment pallets. See sub-section 5.4.2 for appropriate storage methods.
Compact Fluorescent Lamps (CFLs)	85	Placed in sleeves and laid flat in boxes in the CFL storage area.
Flammables	100	Loose packed into two rows of three 55-gallon plastic-lined drums.
Mercury	13	Loose packed into 5-gallon buckets.
Oxidizers	21	Loose packed into 5-gallon buckets.
Paint	323	Loose packed into two rows of five 55-gallon drums. Aerosol paints are placed in sealed bags prior to placement into drums. Oil-based and latex paint are stored in separate drums.
Pesticides	83	Loose packed into three 55-gallon drums.
Dangerous Waste	13	Sealed in drums, buckets, or storage cabinets.

5.9 Identification of Unknown Materials

Unknowns are identified using the Hazardous Categorization (HAZCAT) or a similar system, and labeled with at least their physical and chemical hazards, their hazard class, and any information provided by the customer. Staff are trained to identify characteristics of unacceptable materials. To help identify materials, staff should follow the procedures below:

- Ask the customer for material identification and/or its uses.
- Check labels for any precautionary words (i.e. Danger, Warning, or Caution).
- Check for explosive or radioactive material indicators, such as visual observations of crystal formation and radiation measurements as indicated using a Geiger counter.

If staff are unable to identify materials following the procedures above, and no explosive or radiological indicators have been identified, the unidentifiable materials may be stored in a flammable/pesticide cabinet until transportation contractor can assist with identification. The MRWF Supervisor can also choose not to accept the unknown material at the MRWF, though an effort to try and identify it first should be made.

5.10 MRW Left Behind or Dumped

MRWF staff are trained to appropriately handle materials if illegal dumping occurs onsite or at nearby properties. MRWF staff periodically monitor the customer parking area, access gates, and the site boundary to ensure materials are disposed of properly. On days the MRWF is closed, the County's contracted 24-hour security service and the County Sheriff's staff monitor the site and will notify MRWF staff of any MRW that is left at the gate or outside of the fenced MRWF area. If materials are left behind, staff don appropriate PPE and process the waste in accordance with typical site disposal procedures. The contracted vendor is contacted to provide on-call service if wastes are disposed of on or near adjacent properties, or if staff cannot safely handle materials left within the facility. The Health Department is notified immediately for any MRW dumped or abandoned after normal business hours.

5.11 Drum Handling

A drum dolly/caddy and forklift are used for transport of drums throughout the site. Staff is required to wear proper PPE when handling dollies, including work gloves.

Safe handling procedures include the following:

- Plan the transportation route before transporting the drum.
- Verify that the route is clear and provides adequate space for safe drum transport, including space for staff moving the drum.
- Confirm that the drum is not leaking, and that the lid is tightly secured. Do not move drums if they are leaking and/or if the lid is not securely fastened.
- Verify that the drum dolly is working appropriately. Inspect wheels for any deficiencies prior to loading drums.

5.12 MRW Shipment

A contractor is utilized for transportation and disposal services of MRW. The contractor may additionally assist with packaging and labeling MRW per the direction of the MRWF Supervisor. Contractor responsibilities are as follows:

- Classifying and properly packaging unknown materials.
- Packaging other materials that are segregated by hazard class.
- Loading, managing, transporting, and disposing of MRW.

The contracted vendor provides transportation for materials collected at the MRWF. The frequency of loadout events is every six to eight weeks but is adjusted as needed to appropriately account for quantity of customers and volume of materials received. MRW shipments are required to be documented on shipping papers in accordance with 49 CFR Subpart C, Shipping Paper, parts 172.200 through 172.204, with the following exceptions:

- Transportation of HHW in a private motor vehicle or vessel including a leased or rented motor vehicle or vessel by a homeowner for noncommercial purposes to an MRW facility.
- Transportation of MRW or HHW in a motor vehicle, aircraft, or vessel operated by a federal, state, or local government employee solely for noncommercial federal, state, or local government purposes.

5.13 Spill Containment

Carts for MRW transportation to storage/processing areas include secondary containment measures. Drums, buckets, totes and cabinets used for materials storage following transport provide adequate containment for secondary containment. Minor spills within the unloading area and processing/receiving area are contained locally using absorbent mats, pads, socks, pillows, blankets, etc.

In accordance with Washington Administrative Code (WAC) 173-350-360(6)(N), any spills or discharges of MRW to the environment will be reported to the Benton Franklin Health Department and Ecology within twenty-four (24) hours.

MRW handling and storage operations are conducted in areas with impervious surfaces (i.e. concrete, asphalt, etc.) that have been treated and sealed, and equipped with, at a minimum, secondary containment. Containment systems are designed as follows:

- MRW Unloading Area: All impervious surfaces (i.e. concrete, asphalt, etc.) within and around the unloading area have been treated and sealed to ensure spills are maintained on the surface for immediate cleanup. Trench drains located in the unloading area are connected to a Type 2 Catch Basin (48-inch diameter, 5-foot depth), via a trench drain catch basin, for stormwater collection. Any spills within the unloading area will be managed in accordance with Section 5.14 Spill Response, to include protective measures to ensure no discharges of MRW into the trench drains and the Type 2 Catch Basin. Any discharges of MRW into the trench drains and Type 2 Catch Basin will be emptied and cleaned immediately after any discharge by the County's outside contractor. The trench drain catch basin is also connected to a 14,000-gallon underground storage tank, via a 4-inch gate valve, located east of the MRWF. Major spills within the unloading area may be diverted to the underground

storage tank, by opening the 4-inch gate valve, only in an emergency. Under normal operations, this valve shall remain closed thus preventing any discharges (i.e. stormwater, minor MRW spills, site cleaning activities, etc.) to the underground storage tank. The 14,000-gallon underground storage tank is sized for the primary intent to hold 20 minutes of fire sprinkler runoff. Therefore, should any discharges of MRW from the unloading area get diverted to the underground storage tank, the tank will be emptied and cleaned immediately after any discharge by the County's outside contractor. Containers brought to the MRW are restricted to volumes of five gallons or less, unless approved by the MRWF Supervisor, and not exceeding 50 gallons of total material. Therefore, the County does not anticipate any discharges into the trench drains or Type 2 Catch Basin. NOTE: The 14,000-gallon underground storage tank is not intended to hold and/or store MRW. Any discharges into the tank must be removed and the tank cleaned immediately after said discharge.

- MRW receiving/processing area: The impervious concrete floor of the receiving/processing area has been treated and sealed to ensure spills are maintained on the surface for immediate cleanup. The Trench drains located in the MRW receiving/processing area are connected to a 14,000-gallon underground storage tank. Under normal operations, the trench drains located in the MRW receiving/processing area will be protected from any discharges (i.e. minor MRW spills, site cleaning activities, etc.) by surrounding the perimeter of the trench drains with absorbent socks and/or blankets. Major spills within the receiving/processing area may be diverted to the underground storage tank, by removing perimeter protection of the trench drains, only in an emergency. The 14,000-gallon underground storage tank is sized for the primary intent to hold 20 minutes of fire sprinkler runoff. Therefore, should any flows from the receiving/processing area get diverted to the underground storage tank, the tank will be emptied and cleaned immediately after any discharge by the County's outside contractor. NOTE: The 14,000-gallon underground storage tank is not intended to hold and/or store MRW. Any discharges into the tank must be removed and the tank cleaned immediately after said discharge.
- Two-tiered Transport Cart: MRW is transported by staff via two-tiered transport carts. The Carts are equipped with a three-inch lip to contain leaking or spilled material. Alternative carts may be used if approved by the Site Supervisor.
- 55-gallon drums, 5-gallon buckets, pails, skid totes, spill pallets, and other non-compromised containers: All are considered adequate secondary containment.

Supplies are readily available for MRWF staff to collect and clean up spills. Drums and small containers are stored on-site for collection of contaminated cleanup supplies and recovered liquids or solids. Spill supplies are described below:

- A spill kit is provided in the receiving/processing area. Additional spill kits are provided in the storage room.
- Shovels, brooms, and absorbent pads are available in the storage room.
- Spill pads are available on the bottom shelf of each two-tiered cart for leaking/compromised containers.

5.14 Spill Response

MRWF staff are trained in emergency response operation to the levels described in WAC 296-824-30005. Staff are qualified to clean up incidental spills that do not result in hazardous exposures. Staff may take defensive measures for hazardous spills but are not permitted to clean up spills outside their capability. The County's outside contractor has been identified to conduct emergency response to hazardous spills, or large spills of materials.

The following describes procedures for anticipated possible spill scenarios within the MRWF property. Procedures below are specific for each scenario. In all spill events, MRWF staff first ensure the safety of customers and staff and shall only mitigate spills if safe to proceed.

- Spill at customer unloading area:
  - MRWF staff deploy materials to restrict movement of the material.
  - Staff identify the waste material spilled and categorize the spill based on hazardous properties.
  - Cleanup only commences if staff determines the cleanup is within their means.
  - Staff complete a Spill Report to detail the circumstances surrounding the spill and the ensuing response.
  - The vehicle must be decontaminated prior to leaving the unloading area.
  - Staff must decontaminate themselves prior to returning to normal work activities.
  - PPE will be disposed of with the spilled materials, and new PPE will be donned by staff prior to returning to work activities.
- Spill or Leaking Drum discovered:
  - From a safe distance, MRWF staff visually inspect the spilled material.
  - Staff determine if cleanup actions may be taken, if the contractor needs to be requested for assistance, or whether the site requires evacuation and immediate notification of emergency personnel.
- Spills within Capability of MRWF Staff:
  - Cleanup is only for spills involving materials with low toxicity that may be handled with standard PPE used at the MRWF. Standard PPE will include gloves, boots, Tyvek suits/coveralls, aprons, and eye protection.
  - Low toxicity liquids are absorbed with absorbent pads, and solids are collected using onsite brooms. Spill material is collected in plastic containers or metal drums.
  - Spills are be rinsed with water if necessary. Residual material is collected with absorbent materials.
  - All contaminated PPE and equipment are collected and placed with the spilled material.
  - Material ID is clearly displayed on the container.
  - Container contents is characterized for proper disposal.
- Spills outside capability of MRWF Staff:
  - If material does not pose immediate danger to life or health or require evacuation, MRWF staff places barricades to minimize expansion of the spill. Examples include use of haz-mat booms and drain blockades. Contacted qualified personnel are contacted to decontaminate the area. Health and safety requirements are the responsibility of the qualified personnel.
  - If material poses immediate danger to life or health, or environment, the area is evacuated immediately.

All spills are documented on a Spill Report form and forward to the MRWF Hazardous Waste Technician Lead and Public Works Manager as soon as possible. In accordance with Washington Administrative Code (WAC) 173-350-360(6)(N), any spills or discharges of MRW to the environment will be reported to the Benton Franklin Health Department and Ecology within twenty-four (24) hours.

5.15 Emergency Procedures

In emergency events, site services cease operation. Staff call fire, police, or emergency services (911). Benton County Fire District #1 and Benton County Emergency Management (or other pre-determined responders as appointed by the County) is notified immediately if a fire, explosion or hazardous waste or substance release threatens public health and safety, or environment. Emergency phone numbers are posted within the receiving/processing area, office area, and at other parts of the site as appropriate.

The Benton-Franklin Health District and Ecology is notified of any spills or discharges of MRW to the environment within 24 hours of knowledge of the event. If a large spill occurs, a hazardous material cleanup contractor is requested to manage the spill.

6.0 RECORD KEEPING AND REPORTING REQUIREMENTS

MRWF staff is trained and familiar with recordkeeping and reporting procedures specified in this plan and in accordance with those described in WAC 173-350-360. The Washington State Department of Ecology (Ecology) requires daily and annual reports be prepared detailing facility activities. Pursuant to WAC 173-350-360, routine and annual reports include information from routine and annual Inspections, shall be maintained onsite for a minimum of five years, and shall be available upon request from the Benton-Franklin Health District. Sample forms are provided in Appendix B.

6.1.1 Routine Reporting

Staff complete a Routine Inspection Log each day prior to operation, and an Inventory Log and MRW Collection Log at the termination of each operating day. Additional forms may be required (i.e. Spill Report) if applicable. Information reported each operating day includes the following:

- Operating hazards observed at the site or within the MRWF.
- Presence of operable safety equipment.
- General facility condition.
- Condition of safety equipment and the facility.
- Types and quantities of MRW being stored at the end of each day.
- Number of households and CESQGs served.
- Customer questions, concerns, or complaints.
- Description of any spills or incidents involving MRW activities.
- Container integrity, including description of secondary containment used.

6.1.2 Annual Reporting

Annual reports are submitted to Ecology and the Benton-Franklin Health District by April 1st on forms supplied by Ecology. Annual reports are maintained in the operating record and include the Annual Inspections. The report details the MRWF's activities during the previous year and must include the following information:

- Name and address of the facility and locations of all collection sites.
- Calendar year covered by the report.
- Annual quantities and types of MRW, in pounds or gallons.
- Number of households and CESQGs served.
- Type of final disposition (for example, recycled, treatment, energy recovery, incineration, or landfilling) by waste type of MRW.
- A description of how operators will maintain operating records on the amounts (weight or volume) and the types of waste received and removed from the facility, including the form or computer printout used to record this information.
- Applicable financial assurance reviews and audit findings in accordance with WAC 173-350-600.
- Any additional information required by the Health Department as a condition of the permit.
- Facility inspection reports, including at least the date of inspection, the name and signature of the inspector, a notation of observations made, and the date and nature of any needed repairs or remedial action.
- Significant deviations from the plan of operation.

6.2 Facility Inspections

WAC 173-350-360 requires routine and annual inspections of the facility. This Plan provides general maintenance and operational guidelines to be followed. Procedures may be updated as necessary to maintain accordance with requirements described in the WAC.

6.2.1 Routine Inspections

In addition to Routine Reports, Routine Inspections will be conducted throughout each operating day. Documentation requirements related to the Routine Inspections are included in the Routine Reporting section. Routine inspections will be performed for:

- Operating hazards.
- Presence of operable safety equipment.
- General facility condition.
- Proper labeling of containers.
- Containers or tanks are closed except when actively adding or removing MRW in order to prevent a release of MRW through evaporation or spillage if overturned.
- Container lids are securely fastened at the termination of daily activities.
- High hazardous materials are always secured.
- Spill pallets are functioning and provide adequate storage in accordance with manufacturer recommendations.
- Spill containment supplies are adequate, and security seals are present on spill kits.
- Adequate supplies of literature are available for public distribution.
- Adequate access to, labeling, and integrity of containers and secondary containment equipment.
- Trench drain at customer unloading area provides at least two feet of freeboard.

6.2.2 Annual Inspections

Annual inspections are conducted by the MRWF Supervisor to determine the condition of the following:

- Containment systems including all readily accessible below floor space, sumps, tanks, and/or spill pallets for deterioration and evidence of containment failure, as may be applicable.
- All ventilation and flammable vapor monitoring systems.
- An annual facility checklist must be completed, signed, and dated by the MRWF Supervisor, and included in the Annual Report. The form is retained with the MRWF files by the County for a minimum five years.

7.0 MAINTENANCE AND OPERATIONAL PROCEDURES

7.1 Preventative Maintenance Procedures

Inspections are required for MRW facilities and equipment at the frequencies described below.

7.1.1 Emergency Shower

Weekly inspections include:

- Visual inspection of the unit, including review for pipe damage, leaks, and proper placement of protective covers. These inspections are performed prior to testing to avoid further damage and risk of injury. Ensure device is free of obstructions.
- Place test kit on the unit and activate unit. Verify water flow is continuous. Valve actuator must activate water flow in one second or less.
- Controlled flow of flushing fluid must be provided to both eyes simultaneously.
- Document test with dates and initials on unit tag to be maintained at the MRWF and by the Department for at least one year.

7.1.2 Ventilation Fans

Annual inspections are performed by the County's maintenance unit. Fans are cleaned and oiled annually, at minimum. Maintenance records are maintained at the MRWF office and with the County for no less than one year.

7.1.3 Geiger Counter

The instrument is factory calibrated per manufacturer specifications. Geiger counters are inspected before each use with check sources, or per manufacturer specifications, whichever is more frequent.

7.1.4 Fire Extinguishers

All portable fire extinguishers are inspected and serviced annually. Equipment is tagged with inspection dates.

7.2 General Maintenance and Operation

In addition to required MRW recordkeeping, regular maintenance and housekeeping is necessary for MRWF safety and operational functionality. At a minimum, the following procedures are followed:

- Provide a debris-free facility, parking area, and site ingress/egress.
- Maintain good operating condition of equipment and return storage to proper locations at the end of each day.
- Identify and eliminate slips, trips, and falls throughout the site, especially at the processing/receiving area and customer unloading area.
- PPE is maintained, readily accessible, and kept in serviceable condition. Contaminated PPE is disposed of appropriately.
- Repair containment berms as needed.
- Monitor facility for leaks, corrosion, and damage. Repair as necessary for safe and efficient site operations.
- Maintain ventilation, lighting, equipment, etc. per manufacturer's recommendations.
- Maintain a clear pathway for emergency operations.
- Close and secure drums always that they are not being filled.
- Properly label drums and containers for wastes in containment.
- Lock facility access gate always that staff is not present

7.3 Hours of Operation and Staffing Level

The operating hours for public customer disposal at the MRWF are 8:00 AM to 5:00 PM, Wednesday through Saturday. The MRWF may be open on additional days on an as needed basis. Public drop-off of MRW may be suspended during times of normal operation for the preparation and loading of MRW for transportation. Days and hours of operation are determined by the County and may be revised as needed at the discretion of the Public Works Manager.

Standard days of operation are determined by the County and posted to the County's website. The MRWF is closed on holidays during which the County does not operate. At a minimum, two MRWF staff are present at all times of operation for safety and site functionality. The MRWF Supervisor is available at an on-call basis and will determine if additional staffing is appropriate during busy periods.

8.0 PERSONNEL DUTIES

Daily operation and technical oversight are provided by a MRWF Supervisor or Lead Hazardous Waste Technician. The facility is staffed by MRWF employees who are properly trained in moderate risk waste procedures, including emergency response. Example tasks for MRWF staff include:

- Accept, sort, and package MRW in accordance with the Plan of Operations.
- Direct MRWF customer traffic.
- Maintain and inspect storage areas before opening daily.
- Monitor, inspect, and replace emergency response and facility operating equipment and supplies.
- Maintain PPE in clean and operable condition.
- Complete all Logs, Reports, and other associated documentation to track materials handled and site operational efficiencies.
- Provide education for customers at the site.

8.1 Visitor Policy and Site Security

Inspections shall be permitted by Ecology or the Benton-Franklin Health District without notice at reasonable times.

Site visitors, other than those inspectors from Ecology or the Benton-Franklin Health District, are required to coordinate and obtain approval from the MRWF Supervisor prior to arrival. The MRWF Supervisor informs staff in advance on any anticipated visits during hours of operation. Visitors must follow safety procedures outline in this Operations Plan and must always don appropriate PPE while on site. Unauthorized visitors are requested to leave the site.

9.0 STAFF TRAINING

MRWF staff are responsible for operating the facility in compliance with applicable safety and environmental regulations and permits. Training is required for staff prior to working at the MRWF, as described below, and staff trained in accordance with the WAC requirements and this Plan are required to be always present onsite when MRW is accepted and handled.

9.1 Classroom Training

MRWF staff are required to complete training requirements of 29 CFR 1910.120 for Hazardous Waste Operations and Emergency Response (HAZWOPER). Copies of 40-hour OSHA HAZWOPER certificates and current 8-hour annual refresher certification must be kept onsite and readily available for review by Ecology or the Benton-Franklin Health District.

Additional training will be completed by MRWF staff as follows:

- NAHMMA 24-Hour Course for MRW Facility Operations
- First Aid/CPR
- Forklift Certification

9.2 Field Training

Staff are required to work at least three days under direct supervisions of a trained, experienced supervisor to obtain competency in the following:

- MRW acceptance and management procedures and identification of dangers and unknown wastes.
- Immediate response to fire, poisoning, accidental injury and damage, and life-threatening occurrences.
- A thorough knowledge of when to act versus when to call in backup assistance, including location of a current emergency notification list and understanding of who to contact in emergency situations.
- Inspection activities for safety hazards and corrective actions.
- Proper application of PPE, including respirators.
- Location and proper use of emergency eye wash and shower.
- Recording of occupational injuries and illnesses.
- Separation of MRW into appropriate packing categories and storage methods within the MRWF.

- Proper bulking procedures for used oil, including identification of suspended materials.
- Secondary containment, including operation and maintenance of spill containment pallets.
- Spill response activities and procedures.
- Use of Geiger counter to screen for radioactive materials.
- Awareness training on the function of the explosive vapor alarm.
- Calisthenics training, including back safety and awareness regarding slips, trips, and falls.
- Lift certification.
- Lock Out/Tag Out procedures.

9.3 Operations Plan Training

Staff are provided with Operations Plan training during classroom sessions and new employee orientation. Staff will be notified when the operating approach is revised as appropriate.

9.4 Additional Training

Staff are provided with on-going training and refresher lessons to stay up to date on skills and qualifications to operate the facility safely and effectively. At the discretion of the MRWF Supervisor, select staff may receive training in DOT regulations, hazard categorization (HAZCAT), high hazard materials, and other topics related to their work tasks.

MRWF staff may be asked for information from customers regarding waste and hazardous materials practices. Staff are provided with training in delivering educational messages to site customers and site visitors.

Appendices

APPENDIX A
MRWF Vicinity Map, Site Layout, and Traffic Flow

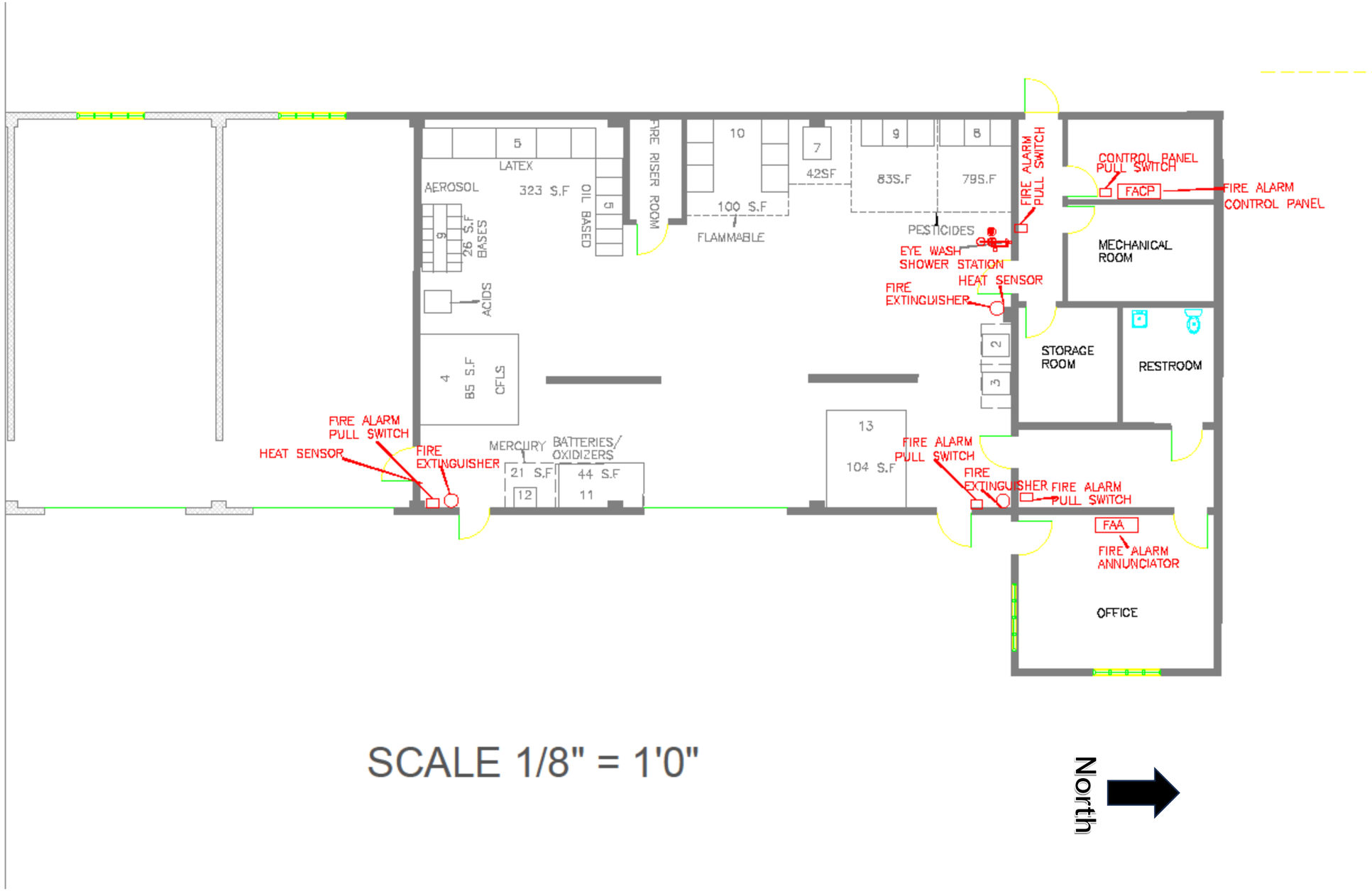
MRWF Vicinity Map

North

Benton County Moderate Risk Waste Facility

1709 S Ely Street
Kennewick, WA 99336

MRWF Site Layout



MRWF Traffic Flow

North

APPENDIX B
Sample Forms

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

DAILY INSPECTION LOG – MUST BE COMPLETED BEFORE OPENING/CLOSING

1. FACILITY INSPECTION AND SAFETY EQUIPMENT CHECKLIST	YES	NO	COMMENTS
CHECK WORK AREAS OF FACILITY. ANY OPERATING HAZARDS PRESENT?	☐	☐	
FLAMMABLE VAPOR METER READS AT OR BELOW 2 PERCENT – **CHECK BEFORE OPENING LOCKER**	☐	☐	
CHECK CONTAINERS. ANY SIGNS OF LEAKING?	☐	☐	
CHECK FACILITY CONDITION. ANY SIGNS OF DAMAGE, DETERIORATION, OR UNSAFE CONDITIONS?	☐	☐	
CHECK DRAIN PLUG – SECURED?	☐	☐	
FIRE EXTINGUISHERS IN PLACE AND CHARGED?	☐	☐	
FIRE EXTINGUISHERS SHAKEN WEEKLY?	☐	☐	
EYEWASH STATION(S) OPERABLE AND TESTED WEEKLY?	☐	☐	
EMERGENCY SHOWER STATION(S) OPERABLE AND TESTED WEEKLY?	☐	☐	
SPILL KITS SUPPLIED AND EASILY ACCESSIBLE?	☐	☐	
PERSONAL PROTECTIVE EQUIPMENT SUPPLIES SUFFICIENT?	☐	☐	
VENTILATION SYSTEM FUNCTIONING PROPERLY?	☐	☐	

2. FACILITY START-UP PROCEDURES TASK	COMPLETE	COMMENTS
TRAFFIC FLOW SIGNAGE IS PROPERLY DISPLAYED	☐	
DRUMS ARE CLEARLY MARKED FOR CONTENTS	☐	
TRANSPORT CARTS ARE OPERABLE AND PREPARED TO RECEIVE WASTE	☐	
STAFF ARE WEARING SPECIFIED PPE	☐	
ADEQUATE SUPPLIES OF LITERATURE ARE AVAILABLE TO THE PUBLIC	☐	

3. FACILITY SHUT-DOWN PROCEDURES TASK	COMPLETE	COMMENTS
ALL WASTE HAS BEEN CONTAINED WITHIN THE FACILITY	☐	
ALL 55-GALLON DRUMS HAVE LIDS SECURED	☐	
ALL CABINET DOORS ARE SECURED	☐	
ALL PORTABLE SIGNAGE HAS BEEN REMOVED AND STORED	☐	
FACILITY HAS BEEN SECURED TO PREVENT UNAUTHORIZED ENTRY	☐	
ALL STAFF HAVE PERFORMED PROPER DECONTAMINATION PROCEDURES	☐	

Signature _____ Date _____

SAMPLE

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

INVENTORY LOG

MATERIAL	LIMIT	UNITS	AMOUNT
1. FLAMMABLES			
OIL BASED PAINT & PRM FLUIDS			
GASOLINE AND SOLVENTS			
AEROSOL CANS - PAINT			
MOTOR OIL			
ANTIFREEZE			
ETHYL ETHER (I-A FLAMMABLE LIQUID)			
2. PESTICIDES			
PESTICIDES – SOLID AND LIQUID			
PESTICIDES – AEROSOL CANS			
3. MISCELLANEOUS			
CORROSIVES (ACIDS AND BASES)			
OXIDIZERS			
4. OUTSIDE			
AUTO BATTERIES (LIMIT TWO PALLETS)			
MOTOR OIL			
ANTIFREEZE			

Special Pickup Request?	
Call	Response

COMMENTS OR CONCERNS
Specify Reason For Any Unscheduled Shutdown: Time:

Signature _____ Date _____

SAMPLE

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

DAILY COLLECTION LOG

1		**26**	
2		**27**	
3		**28**	
4		**29**	
5		**30**	
6		**31**	
7		**32**	
8		**33**	
9		**34**	
10		**35**	
11		**36**	
12		**37**	
13		**38**	
14		**39**	
15		**40**	
16		**41**	
17		**42**	
18		**43**	
19		**44**	
20		**45**	
21		**46**	
22		**47**	
23		**48**	
24		**49**	
25		**50**	

SAMPLE

Digital daily collection logs may be utilized in lieu of this form.

Signature _____ Date _____

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

SPILL REPORT

To be completed in the event a spill occurs. Should a spill constitute an emergency, site staff will follow directions laid out in the Benton County Moderate Risk Waste Facility Operations Plan, Emergency Procedures.

Date of Incident:		**Weather Conditions:**	
Name of Reporter:			
Others Responding:			

Material Spilled:				
Spill Contained? (did not enter drain and/or soil)	**YES:**	☐	**NO:**	☐

Cause of Spill:	
Volume of Spill:	

Surface Type Affected:	
Hazards to Environment:	
Associated Health Risk:	
Required Precautions:	

Vehicle License Plate: (If Applicable)				
Reportable Quantity Met:	**YES:**	☐	**NO:**	☐
List Reportable Quantity:				
Management of Recovered Material?				

For any spills or discharges of MRW to the environment, Benton Franklin Health District and the Department of Ecology will be notified within twenty-four hours of knowledge of an incident.

Signature _____ Date _____

SAMPLE

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

CUSTOMER TURNAWAY FORM

Date:		**Time:**	
Name (Optional):			
Phone or Email (Optional):			

Does customer want to be contacted with disposal information?	**YES:**	☐	**NO:**	☐

Vehicle Make/Model:			
License Plate Number:		**State:**	

Reason:	
Over 50 Gallons Residential or 25 Gallons Business	☐
Unusual Waste – Requires Clearance	☐
Other (Specify Below)	☐

SAMPLE

Signature _____ Date _____

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

PARTICIPANT COMMENT / COMPLAINT FORM

Name:	
Address:	
Phone or Email:	

Nature of Comment / Complaint:

Commentator / Complainant Signature _____ Date _____

Site Staff Summary of Comments / Complaint:

Site Staff Summary of Required Follow-Up Action:

Follow-Up Action on Day of Incident:

Signature _____ Date _____

SAMPLE

BENTON COUNTY WA
Public Works

Solid Waste Division
Moderate Risk Waste Facility

LIABILITY RELEASE FOR PRODUCT EXCHANGE ITEMS

I acknowledge receipt of new or used item(s) through the Benton County Product Exchange Program ("Program").

In exchange for the opportunity to participate in the Program, I hereby release, indemnify and hold Benton County and its agents harmless from any and all responsibility, liability, damages, personal injuries, injury to property, costs and claims of any kind or whatever nature related to receipt, use, or disposition of any item(s) from the Program.

I accept each item "as is" and at my own risk, with no guarantees or express/-implied warranties from Benton County.

I understand that Benton County and its agents make no representations, guarantees or warranties regarding the quality of the items available through the Program and that all new or used items offered through the Program have been provided by the public.

I acknowledge that the item(s) may contain hazardous substances and that no item obtained through the Program is intended for use on food crops. Additionally, I acknowledge that Benton County and its agents do not warrant that (1) the label on any item is accurate; (2) the item is of the original quality; (3) the item contents have been properly stored or transported; or (4) the item can be used without risk to human health or to the environment. I agree that I will not give or sell to anyone else item(s) I have received through the Program.

I also agree that it is my responsibility to use and store the item(s) properly, including keeping item(s) out of reach of children and animals. I will dispose of any unused product properly and safely.

I am at least 18 years of age, I have read and understand this document, and I agree to comply with all its provisions and with all applicable laws and regulations related to the item(s).

SAMPLE

_____
Name (Print Clearly)

_____
Address City State Zip Code

_____ _____
Customer Signature Date

APPENDIX C
Financial Assurance Closure Plan

BENTON COUNTY

MODERATE RISK WASTE FACILITY

FINANCIAL ASSURANCE CLOSURE PLAN

1.0 CLOSURE PLAN

This Closure plan is for clean closure of the *5,600-gallon*(s) household hazardous waste materials (including the outside oil collection site) at Benton County Moderate Risk Waste Facility, a division of Benton County Public Works. The Benton County Moderate Risk Waste Facility is in Kennewick, Washington at 1709 S Ely Street. Closure procedures for the facility is required under WAC 173-303-120 and WAC 173-303-610(2) and (12).

1.1 Moderate Risk Waste Facility Contact Information:

Clayton Rawlings — Public Works Manager
509-546-1782
clayton.rawlings@co.benton.wa.us

Chris Loid — Lead Hazardous Waste Technician
509-440-1791
chris.loid@co.benton.wa.us

1.2 Moderate Risk Waste Facility Operations Description:

The Moderate Risk Waste Facility provides areas for material unloading, collecting/processing, and material storage of Moderate Risk Waste and/or Household Hazardous Waste. The facility separates and stores the following materials:

Commonly Accepted Materials Collected at the MRWF	
Flammables	Poison
Acids, including lead acid batteries	Antifreeze
Bases	Motor Oil
Mercury	Latex Paints
Oil Based Paints	Pesticides

Full list of materials and additional disposal options located in operations plan

Collected materials are stored in 55-gallon drums once properly collected and sealed. All materials have a maximum 275 gallons (5 drums) of stored material at the MRWF with exception of used oil which is 1000 gallons.

The inside of the building is outfitted with appropriate ventilation system to properly regulate air circulation for each listed item that is being collected.

An oil recycling area is also located on the premises. This location is not in the facility building and is in the east parking lot to allow the proper disposal of used and spent oil. The collection area is secured and stabilized by a concrete pad.

Waste is collected by Benton County Moderate Risk Waste Facility staff from customers. Once collected employees take the material to the receiving/processing area. MRWF staff inspect all containers for any leaks, corrosion, or damage. If containers and materials are not compromised, materials are separated and put into their assigned storage area of the facility.

MRW staff may only handle leaky, corroded, damaged, or otherwise compromised containers when they have determined safe operation is achievable. Prior to placement in drums of similar materials, the containers described above are secured within sealed plastic bags with absorbent materials.

Additional items may be collected at the MRWF at the discretion of the Site Supervisor and must meet the characteristics of moderate risk waste.

1.3 Benton County Moderate Risk Waste Facility History and Layout

The MRWF is located at 1709 S Ely Street, Kennewick, Washington, in Benton County. It occupies approximately 3.11 acres of zoned industrial land. The MRWF was developed by retrofitting portions of the former County Road Maintenance Shops and office area (approximately 3,550 SF). The remaining areas on the south end of the site, formerly vehicle maintenance bays, may be used for general storage but may not be used for MRW operations or storage.

Operating hours for the public customer disposal at the MRWF are 8:00 AM to 5:00 PM, Wednesday through Saturday. The MRWF may be open on weekends on an as needed basis. Public drop-off of MRW may be suspended during times of normal operation for the preparation and loading of MRW for transportation. Days and hours of operation are determined by the County and may be revised as needed at the discretion of the Public Works Manager.

The site has one designated entrance and one designated exit. Both the exit and entrance could be used for emergencies. The site entrance is from S Ely Street to the north of the facility, with the exit to S Ely Street to the south of the facility. Customers proceed to the unloading zone at the roll-up door near the center of the receiving/processing area on the east side of the MRWF for material unloading.

MRW is stored in the receiving/processing areas within the central portion of the facility. A roll-up door is located at the middle of the receiving/processing area along the eastern MRWF wall for material load in and loadout to transfer trucks. A fire riser room is in the receiving/processing area along the western MRWF wall.

MRWF staff facilities are located to the north of the receiving/processing area, including an office/break room, locker room, and bathroom. Storage and electrical rooms, and an access corridor, are also included to the north of the receiving/processing area. Shop

bays to the south of the receiving/processing are not currently used for MRWF activities, however, will be used for general storage.

Signage and striping are used to direct proper traffic flow, efficient unloading of vehicles, and for site safety, and include the following:

- Pavement striping arrows for proper site traffic flow
- Signs for proper speeds and traffic flow directions
- Stop sign at the site exit onto Ely Street
- Materials accepted signs for customer and staff reference near the MRW unloading area.
- Additional signs and barriers for the oil collection site

1.4 Maximum Waste Inventory

The maximum amount of Household Hazardous Waste (HHW) that will be present at any one time is 3,500 gallons excluding oil (1,000 gallons) and paint (1,100 gallons). Therefore, the total maximum inventory of HHW materials is 5,600 gallons. Wastes are not accumulated, staged, or stored in the receiving/processing area.

1.5 Closure Activities

The Moderate Risk Waste Facility will be closed in a manner that complies with the performance standard in WAC 173-303-610(2)(a) and, therefore, achieves clean closure.

The objectives of closure activities at the MRWF are as follows:

- Control, minimize, or eliminate, to the extent necessary to protect human health, public safety and the environment, the post-closure escape of HHW, contaminated run-off, or hazardous waste products to the ground, surface water, ground water, or to the atmosphere.
- Remove all HHW and residues and properly dispose of them off site.
- Remove all tank, containers, drums, and other containers that hold or store HHW.
- Decontaminate the concrete containment area for the oil waste or remove any concrete that cannot be decontaminated.
- Return the land and facility to the appearance and use of surrounding parcel areas to extent possible given the nature of previous waste collection and duration of facility operation.
- Removal of all equipment, venting, piping and tools associated with the MRWF.
- Decontaminate all containment structures.
- Notify all corresponding contractors, partners, associates, municipalities, and stakeholders through necessary media outlets.
- Confirm clean closure. Appropriately approved by licensed Engineer.
- Acquire Closure certification

The MRWF is mainly comprised of 55-gallon drums for storing HHW materials. Benton County Public Works plans to decontaminate these materials and storage units to meet the standards from the Department of Ecology and Ben-Franklin Health District. When Ecology confirms that the tanks are decontaminated, Benton County Public Works will consider the drums and storage containers to no longer contain dangerous waste and will sell them for reuse or recycling or will dispose of them at an appropriate off-site disposal facility.

1.6 Inspection

After removing all HHW, containers, and residues, but prior to beginning any decontamination activities, Benton County will visually inspect the facilities containment areas to identify all cracks and other openings through which HHW and debris could be released to the environment. If cracks or other openings are found, Benton County will investigate and evaluate all cracks and openings to determine if release of HHW occurred during operations or during the closure procedures. Benton County also will inspect the area around all of the collection and storage locations to look for staining or other indication of spills or materials releases. When this investigation and evaluation are complete, Benton County will seal or repair all cracks or other openings in the containment system to prevent releases prior to and during decontamination.

Benton County will maintain a record of the location and dimensions of all cracks or other openings identified during his evaluation including photographs that will be submitted to the Department of Ecology and the Ben-Franklin Health District for review for final closure.

1.7 Decontamination

Benton County will decontaminate all tanks, drums, containers, and concrete containment areas during closure.

Drums, containers, and tanks
Interior and exterior surfaces will be decontaminated using water washing and spraying until they meet the clean debris surface standard and meet the specifications of the contracting disposal company that will remove drums, containers, and tanks upon decontamination once confirmed by the Department of Ecology.
When decontamination is complete, wash water will be flushed into the MRWF spill/drainage catch system and delivered to the storage tank. Once decontamination is complete, the wash water will be sampled, analyzed, and evaluated for dangerous waster particles. Once approved HHW materials will be vacuum truck cleaned and the wash water will be disposed of at a Department of Ecology Decant facility.

Concrete containment areas
Benton County intends to leave the concrete containment areas in place after decontamination. Concrete containment surfaces will be decontaminated by water washing with approved degreasing agents. Once complete, wash water will be extracted and stored spill tank.

If more aggressive waste elimination measures are required, Benton County will meet the clean debris surface standard, that is, removal of at least 0.6 cm of concrete using abrasive blasting, scarification or grinding methods. Appropriate safeguards will be used to minimize the release of particles into the air. Removed material will be placed in appropriate containers, sampled and disposed of at a permitted off-site facility.

Concrete containment areas will be considered decontaminated when at least 0.6 cm of the surface layer has been removed and when they have met the clean debris surface standard.

If the clean debris surface standard is not met, Benton County will persist in efforts to meet the clean debris surface standard using physical extraction until it becomes economically infeasible to continue. At that point Benton County will propose a different decontamination method for the Department of Ecology to review and approve.

For this Closure and cost estimate, Benton County has assumed that the concrete containment area can be successfully decontaminated.

1.8 Confirming Clean Closure

Once all closure activities are complete, Benton County anticipates that all Household Hazardous Waste (HHW) and residues will be removed, all systems, components, and equipment will be decontaminated and removed, the concrete containment area will be decontaminated, and any affected environmental locations will be removed or decontaminated so that unrestricted site use is achieved.

All HHW materials covered in this closure plan will be remitted and properly recorded for amounts. All the anticipated HHW materials will be stored inside within the MRWF with each item occupying its own location on concrete flooring. HHW-paint will be the only material that will be stored in a soil location.

All documents, photographs, contracts, receipts and records will be properly filed and stored with Benton County Public Works and will be submitted to the Department of Ecology and Ben-Franklin Health District.

For closure cost estimating, Benton County has assumed full capacity of HHW materials and tank storage cleanup.

1.9 Certification of Clean Closure

Within 60 days of closure of the Moderate Risk Waste Facility, Benton County will submit to the Department of Ecology and Ben-Franklin Health District, by registered mail, certification that the facility has been closed in accordance with this closure plan. The certification will be signed by Benton County Public Works Director.

Additionally, the closure certification will be signed and stamped by a registered professional Engineer who is familiar with Benton County's closure activities.

Benton County will submit the following information to support its closure certification:

- All field notes and photographs related to closure activities, including the results of the inspection of the facility and containment areas for cracks and other openings prior to decontamination.
- A written description, approved by the Benton County Public Works Director of any deviations from the approved closure plan and justifications.
- Documentation of the final disposition of all HHW and HHW residues, including contaminated areas, debris, and treatment residuals.
- All samples for testing and laboratory reports.
- A summary report which identifies and describes the data reviewed by the registered professional engineer that classifies the results of samples taken and confirms closure.
- A description summary report that describes in detail what the facility looks like at completion of closure, including what parts or systems will remain.

When closure is complete, all HHW materials, parts, systems, and equipment will be removed and properly disposed of off-site. The concrete containment area will be completely decontaminated but will remain on site for potential use.

Notification of intent to close will be sent to the Department of Ecology and the Ben-Franklin Health District at least 45 days before beginning final closure of the Moderate Risk Waste Facility. Benton County Public Works will complete closure activities in accordance with the approved closure plan within 180 days. Benton County will submit closure certification to the Department of Ecology and Ben-Franklin Health District within 60 days following completion of closure activities.

2.0 Closure Cost Estimate

Estimated cost totals for closure are attached in this Closure Plan. The information presented for the Closure Plan had been prepared in accordance with WAC 173-303-620(3). The following assumptions were used in developing the cost estimate.

- A third party and Benton County MRWF staff will be used in conjunction to conduct closure activities.
- The maximum HHW volume could be present on site at time of closure.
- The value of recyclable materials is not included in the closure cost estimate.
- Costs will be incurred for management of HHW during closure.
- Closure certification activities will be conducted by a qualified professional engineer registered in Washington State and a certification that closure has been done in accordance with the approved closure plan will be submitted to the Department of Ecology as required in WAC 173-303-610(6).

The closure cost estimate will be adjusted annually for inflation as specified in WAC 173-303-620(3)(c)(i) and (ii). Cost for closure labor, equipment, and analytical services are based on currently available rates. At the time of implementation of this Closure Plan, Benton County reserves the option to use any other appropriately permitted facility for disposal HHW.

Benton County will meet the financial assurance requirements specified under WAC 173-303-620(4) through a MRWF Closure Fund, a restricted contingency fund within the Solid Waste Fund, specified that the only use shall be for the closure of the MRWF. The Benton County MRWF Closure Fund will include the following cost to begin January 13th, 2025, and increase annually according to inflation.

Closure Cost Estimate	
Professional Engineer	$ 5,000
Benton County Public Works Administration	$ 2,250
Decontamination and Lab Testing	$ 6,000
Third Party Closure Costs	$ 46,131
Total Closure Cost	**$ 59,381**

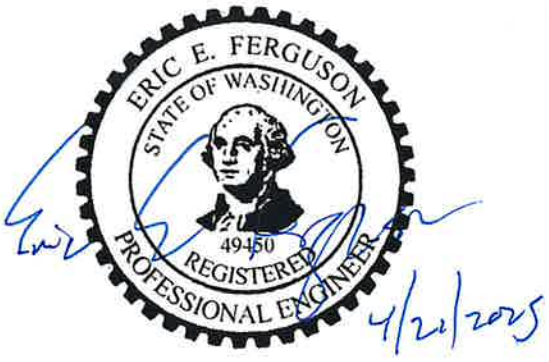
DRAINAGE REPORT

BENTON COUNTY

MODERATE RISK WASTE FACILITY

1709 S. ELY ST.
KENNEWICK, WA

APRIL 2025



Prepared by:

J-U-B ENGINEERS, Inc.
3611 South Zintel Way
Kennewick, Washington 99337

PROJECT DESCRIPTION

The project site is located at 1709 S. Ely Street in Kennewick, Washington. The site is approximately half developed with a maintenance shop, office building, covered storage area, asphalt parking lot, and landscaping consisting of native weeds, grasses, and gravel. This project will construct stormwater facilities to bring the existing site into compliance. There are no new improvements proposed as part of this project.

Figure 1

Table 1 below shows the area of each type of surface currently at the site.

Table 1. Surface Areas

Surface	**(FT^2)**
Roof	9,456
Asphalt	36,713
Sidewalk/Concrete	4,649
Landscaping	63,885

The site is relatively flat with slopes of less than 5% throughout the site about 5 feet of elevation change across the site. The site generally slopes from the west down to the east. According to WebSoil Survey, soils at the site are silty loam (ML) with low infiltration capacity.

STORMWATER DESIGN

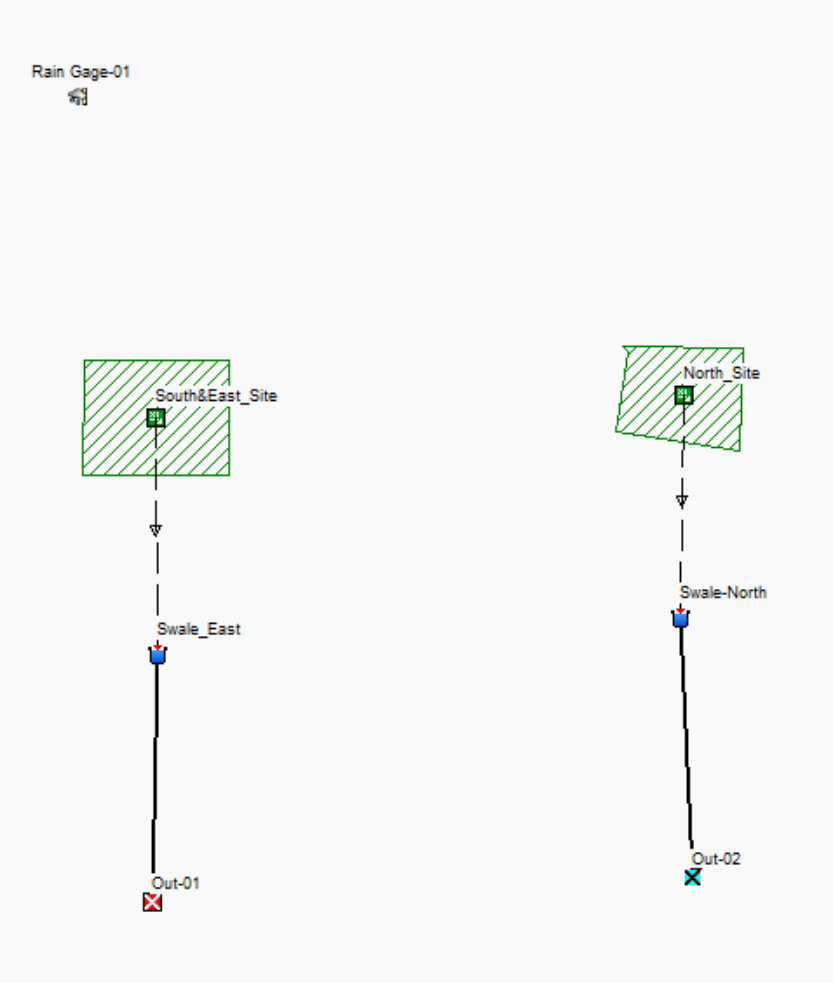
The stormwater design was engineered in accordance with the 2024 Stormwater Management Manual for Eastern Washington (SWMMEW). Stormwater calculations were modeled using Autodesk Storm and Sanitary Analysis (SSA). The stormwater facility was sized using the 25-year 24-hour storm event with design rainfall depth of 1.60 inches and rainfall distribution of SCS Type 1A in accordance with SWMMEW.

Surface water at the site sheet flows across the existing asphalt to the landscaped areas on the east and north sides of the site. Stormwater swales will be constructed at the low end of the landscaped areas to accommodate the 25-year storm event and ensure no stormwater leaves the site. The landscape areas have been modeled as gravel roads with a CN runoff value of 76. While only a portion of the landscape areas are driven on this is a conservative approach. A drainage basin map for the site has been attached to this report for reference. The design of the stormwater swales are summarized in the table below and the calculations may be seen at the end of this report.

Table 2. Stormwater Facilities

	EAST SWALE	NORTH SWALE
Capacity (ft^3)	4,468	1,187
Swale Depth (ft)	2	1
Max Storm Depth (ft)	1.4	0.55
Max Volume in Swale	3,004	652
Freeboard (ft)	0.6	0.45

SSA INPUTS


Rain Gage-01
South&East_Site
Swale_East
Out-01
North_Site
Swale-North
Out-02

Project Description

File Name ..... MRWF_Storm_25yr.SPF

Project Options

Flow Units ..... CFS
Elevation Type ..... Elevation
Hydrology Method ..... SCS TR-55
Time of Concentration (TOC) Method ..... User-Defined
Link Routing Method ..... Kinematic Wave
Enable Overflow Ponding at Nodes ..... YES
Skip Steady State Analysis Time Periods ..... YES

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	**Return Period (years)**	**Rainfall Depth (inches)**	**Rainfall Distribution**
1	Rain Gage-01	Time Series	TS-01	Cumulative	inches	Washington	Benton	**25.00**	**1.60**	**SCS Type IA 24-hr**

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	North_Site	0.84	484.00	82.02	1.60	0.40	0.34	0.05	0 00:06:00
2	South&East_Site	1.80	484.00	87.49	1.60	0.63	1.13	0.24	0 00:06:00

Subbasin Hydrology

Subbasin : North_Site

Input Data

Area (ac)	0.84
Peak Rate Factor	484
Weighted Curve Number	82.02
Rain Gage ID	Rain Gage-01

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Pavement	0.23	-	98
Gravel roads	0.61	A	76
Composite Area & Weighted CN	**0.84**		**82.02**

Subbasin Runoff Results

Total Rainfall (in)	1.6
Total Runoff (in)	0.4
Peak Runoff (cfs)	0.05
Weighted Curve Number	82.02
Time of Concentration (days hh:mm:ss)	0 00:06:00

Subbasin : South&East_Site

Input Data

Area (ac)	1.8
Peak Rate Factor	484
Weighted Curve Number	87.49
Rain Gage ID	Rain Gage-01

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Roof	0.14	-	98
Paved parking & roofs	0.08	A	98
Paved parking & roofs	0.08	A	98
Paved parking & roofs	0.64	A	98
Gravel roads	0.86	A	76
Composite Area & Weighted CN	**1.8**		**87.49**

Subbasin Runoff Results

Total Rainfall (in)	1.6
Total Runoff (in)	0.63
Peak Runoff (cfs)	0.24
Weighted Curve Number	87.49
Time of Concentration (days hh:mm:ss)	0 00:06:00

Storage Nodes

Storage Node : Swale_East

Input Data

Invert Elevation (ft)	0.00
Max (Rim) Elevation (ft)	2.00
Max (Rim) Offset (ft)	2.00
Initial Water Elevation (ft)	0.00
Initial Water Depth (ft)	0.00
Ponded Area (ft^2)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0.5

Storage Area Volume Curves

Storage Curve : Swale-East

Stage (ft)	Storage Area (ft^2)	Storage Volume (ft^3)
0	308	0
2	4160	4468

Output Summary Results

Peak Inflow (cfs)	0.24
Peak Lateral Inflow (cfs)	0.24
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	2.09
Max HGL Elevation Attained (ft)	1.4
Max HGL Depth Attained (ft)	**1.4**
Average HGL Elevation Attained (ft)	0.59
Average HGL Depth Attained (ft)	0.59
Time of Max HGL Occurrence (days hh:mm)	1 00:06
Total Exfiltration Volume (1000-ft^3)	4.105
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0

Storage Node : Swale-North

Input Data

Invert Elevation (ft)	0.00
Max (Rim) Elevation (ft)	1.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	0.00
Initial Water Depth (ft)	0.00
Ponded Area (ft^2)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0.5

Storage Area Volume Curves

Storage Curve : Swale-North

Stage (ft)	Storage Area (ft^2)	Storage Volume (ft^3)
0	475	0
1	1900	1187.5

Output Summary Results

Peak Inflow (cfs)	0.05
Peak Lateral Inflow (cfs)	0.05
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0.88
Max HGL Elevation Attained (ft)	0.55
Max HGL Depth Attained (ft)	**0.55**
Average HGL Elevation Attained (ft)	0.15
Average HGL Depth Attained (ft)	0.15
Time of Max HGL Occurrence (days hh:mm)	1 00:05
Total Exfiltration Volume (1000-ft^3)	1.219
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0

ASPHALT 8,631 SF

ROOF 5,996 SF

CONCRETE 1,382 SF

CONCRETE 3,267 SF

STORAGE 3460 SF

ASPHALT 28,082 SF

LANDSCAPE 37,260 SF

S ELY ST

STORMWATER SWALE
AREA AT TOP: 1,475 SF
AREA AT TOE: 890 SF
SIDE SLOPES: 10:1
ELEVATION TOP: 569.00
ELEVATION TOE: 568.00

LANDSCAPE 26,625 SF

HIGH LIFT CANAL

S DENNIS PL

STORMWATER SWALE
AREA AT TOP: 4,160 SF
AREA AT TOE: 308 SF
SIDE SLOPES: 3:1
ELEVATION TOP: 569.00
ELEVATION TOE: 567.00

0 20 40
SCALE IN FEET

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
3611 S. Zintel Way
Kennewick, WA 99337
Phone: 509.783.2144
www.jub.com

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

REUSE OF DRAWINGS
J-U-B SHALL RETAIN ALL COMMON LAW, STATUTORY, COPYRIGHT AND OTHER RESERVED RIGHTS OF THESE DRAWINGS, AND THE SAME SHALL NOT BE REUSED WITHOUT J-U-B'S PRIOR WRITTEN CONSENT. ANY REUSE WITHOUT WRITTEN CONSENT BY J-U-B WILL BE AT CLIENTS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO J-U-B.

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

BENTON COUNTY
MODERATE RISK WASTE FACILITY

STORMWATER SITE PLAN

FILE : ELY_SHOP_EXHIBIT
JUB PROJ. # :
DRAWN BY: MMW
DESIGN BY: EEF
CHECKED BY:
ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 4/16/2025

DRAWING:
SD-1

SHEET: 1 OF 1

Plot Date:4/16/2025 4:49 PM Plotted By: Eric Ferguson
Date Created:4/16/2025 \\JUB.COM\CENTRAL\CLIENTS\WA\BENTONCOUNTY\PROJECTS\07-24-031 BADGERRECHANNELIZATION\DESIGN\CAD\EXHIBITS\MRW\FIELY_SHOP_EXHIBIT.DWG

Agenda Item: 7C Attachment

Projection	Level	Account Type	Organization	Object	Project	Account Description		Dept Entry 2025-2026	2025-2026 Baseline Budget
20251	Department Entry	E	SW553710	51761		Hazardous Lead Waste Technicin		151,995.00	$151,995.00
20251	Department Entry	E	SW553710	51764		Hazardous Waste Technician		133,176.00	$133,176.00
20251	Department Entry	E	SW553710	51765		Hazardous Waste Technician		141,062.00	$141,062.00
20251	Department Entry	E	SW553710	51905		Temporary Help		7,000.00	$7,000.00
20251	Department Entry	E	SW553710	51925		Overtime		-	$0.00
20251	Department Entry	E	SW553710	52102		Social Security (FICA)		33,142.00	$33,142.00
20251	Department Entry	E	SW553710	52103		Medical Insurance		105,883.00	$105,883.00
20251	Department Entry	E	SW553710	52104		Retirement		41,287.00	$41,287.00
20251	Department Entry	E	SW553710	52119		Paid Family Leave Act		944.00	$944.00
20251	Department Entry	E	SW553710	53101		Supplies		70,000.00	$170,000.00
20251	Department Entry	E	SW553710	53106		Operating Supplies		200,000.00	$300,000.00
20251	Department Entry	E	SW553710	53111		Publications		-	$1,000.00
20251	Department Entry	E	SW553710	53201		Vehicle Fuel		-	$500.00
20251	Department Entry	E	SW553710	53501		Minor Equipment & Small Tools		5,000.00	$10,400.00
20251	Department Entry	E	SW553710	53508		Computer Replacement		6,700.00	$6,700.00
20251	Department Entry	E	SW553710	54103		Professional Services		633,537.00	$1,180,000.00
20251	Department Entry	E	SW553710	54202		Telephone		-	$880.00
20251	Department Entry	E	SW553710	54301		Travel		5,000.00	$1,000.00
20251	Department Entry	E	SW553710	54304		Registration Fees		2,000.00	$1,000.00
20251	Department Entry	E	SW553710	54315		Meals		500.00	$0.00
20251	Department Entry	E	SW553710	54400		Taxes & Operating Assessments		2,000.00	$2,000.00
20251	Department Entry	E	SW553710	54503		Rentals-Office Equipment		-	$1,000.00
20251	Department Entry	E	SW553710	54509		Rentals		2,000.00	$1,000.00
20251	Department Entry	E	SW553710	54701		Utilities		27,000.00	$7,000.00
20251	Department Entry	E	SW553710	54901		Association Dues		7,400.00	$5,000.00
20251	Department Entry	E	SW553710	54907		Other Misc Rentals/Fees		200.00	$0.00
	Department Entry	E	SW553710	54931		Fenced Item Contingency (Ending Fund Balance for Cash Flow)		200,000.00	
20251	Department Entry	E	SW553710	93181		Interfund Supplies		-	$0.00
20251	Department Entry	E	SW553710	93580		New Comptr Hardware & Software		-	$0.00
20251	Department Entry	E	SW553710	93581		IT Computer Replt Assessments		5,594.00	$5,594.00
20251	Department Entry	E	SW553710	94120		Purchasing Services Assessment		-	$0.00
20251	Department Entry	E	SW553710	94180		Legal Services - PA		200.00	$200.00
20251	Department Entry	E	SW553710	94191		IT Administration Assessments		27,849.00	$27,849.00
20251	Department Entry	E	SW553710	94193		E R & R Fund Services		-	$0.00
20251	Department Entry	E	SW553710	94198		Road Fund Services		18,000.00	$16,000.00
20251	Department Entry	E	SW553710	94591		E R & R Replacement Assessment		5,808.00	$5,808.00
20251	Department Entry	E	SW553710	94696		Workers Comp Assessments		24,162.00	$24,162.00
20251	Department Entry	E	SW553710	94697		Insurance Mgmt Assessments		58,663.00	$58,663.00
20251	Department Entry	E	SW553710	94699		Accumulated Leave Assessments		7,585.00	$7,585.00
20251	Department Entry	E	SW553710	94894		E R & R Vehicle Maintenance		4,830.00	$4,830.00
20251	Department Entry	E	SW554910	51905		Temporary Help		13,000.00	$13,000.00
20251	Department Entry	E	SW554910	52102		Social Security (FICA)		995.00	$995.00
20251	Department Entry	E	SW554910	52104		Retirement			$0.00
20251	Department Entry	E	SW554910	52119		Paid Family Leave Act		25.00	$25.00
20251	Department Entry	E	SW554910	53101		Supplies		-	$1,000.00
20251	Department Entry	E	SW554910	53201		Vehicle Fuel		-	$1,000.00
20251	Department Entry	E	SW554910	53501		Minor Equipment & Small Tools		400.00	$400.00
20251	Department Entry	E	SW554910	94696		Workers Comp Assessments			$0.00
20251	Department Entry	E	SW554910	94697		Insurance Mgmt Assessments			$0.00
20251	Department Entry	E	SW554910	94699		Accumulated Leave Assessments			$0.00
20251	Department Entry	E	SW594530	56201		Buildings			$0.00
20251	Department Entry	E	SW594540	56401		Capital Outlay			$0.00
20251	Department Entry	E	SW594540	56410		Capital Outlay - Vehicles			$0.00
							Expenditures	1,942,937.00	2,469,080.00
							Revenue	1,942,937.00	526,143.00