

**Michigan's
Resource Conservation
and Recovery Act**

Work Plan for Fiscal Years 2020 and 2021

State of Michigan



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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Prepared By
Hazardous Waste Section
Materials Management Division
Michigan Department of Environment, Great Lakes, and Energy

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1.0 INTRODUCTION

This Work Plan describes work the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD), is committing to accomplish during Fiscal Years (FY) 2020 - 2021. This work fulfills the MMD's obligations in its role of administering the national Solid Waste Disposal Act in Michigan, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

The Director of EGLE functions as the designated representative of the Administrator of the U.S. Environmental Protection Agency (U.S. EPA).

This Work Plan is organized in four sections, as follows:

Introduction

This section consists of an overview of the Work Plan detailing its organization and the guidance used in its development.

Program Elements

This section identifies the U.S. EPA's FYs 2018 - 2022 national program goal associated with each of the RCRA Work Plan program elements, and discusses EGLE's goal, strategy, objectives and considerations, and work commitments established to meet the U.S. EPA goal.

Waste Minimization

This section identifies EGLE's approach to pollution prevention and sustainability.

Miscellaneous Activities

This section describes other activities EGLE intends to perform in support of the overall program goals.

1.1 Guidance Documents Used to Develop the Work Plan

The U.S. EPA guidance documents used to develop this Work Plan are:

- *FY 2018 - 2022 U.S. EPA Strategic Plan, February 12, 2018, U.S. EPA*
- *FYs 2020 - 2021 National Program Guidance, Draft – April 1, 2019, Office of Land and Emergency Management, U.S. EPA*
- *FYs 2020 - 2021 National Program Guidance, Draft – March 26, 2019, Office of Enforcement and Compliance Assurance, U.S. EPA*

1.2 FYs 2020 - 2021 RCRA Grant Work Year Distribution

The following table shows the distribution of full-time equivalent (FTE), in **work years**, among the various core elements of the Michigan Hazardous Waste Program (HW Program) and Work Plan objectives for FYs 2020 – 2021 that are funded by U.S. EPA's RCRA Subtitle C State Tribal Assistance Grant (STAG) and Michigan's 25 percent match. It is important to note that the table below has been reformatted from what was reflected in historic FY Work Plans; the table now quantifies our work effort on each core element, as FTE in work years, rather than in staff FTEs, and breaks out the percentage of work that is funded by the U.S. EPA. This provides consistency and alignment with the budget narrative in our FY 2020 - 2021s Grant Application and recognizes the overall decrease in program support from the U.S. EPA. Federal dollars support of the state program has declined to about 35 percent and, even including the state match, the total grant is now below 50 percent of the total program costs. The RCRA Total FTE work years of "19" does not include the work completed by EGLE's Senior Environmental Employee (SEE) Program positions that provide critical support for site identification (ID) and biennial reporting; or work associated with vacant positions that the HW Program may not fill in FYs 2020 - 2021, given the federal budget constraints discussed in Section 1.3. It is important to note that the total number of FTE positions that EGLE will have, in FYs 2020 - 2021, to run the core HW Program will likely be reduced from the FTE positions that the HW Program had in

FYs 2018 – 2019. This is reflected in the reduced level of commitment, including the achievement of U.S. EPA’s corrective action (CA) goals for the Government Performance and Results Act of 1993 (GPRA) 2020 priority sites.

RCRA Work Plan Program Element	Whole Work Years
State Authorization	1
Compliance Monitoring and Enforcement Inspections and/or Record Reviews Waste Classification Biennial Report Reviews Laboratory Support Monitoring Performance Reviews and Inspections	5.5
Administrative Controls Operating Licenses/Post-Closure Operating Licenses Closures/Post-Closure Plans Orders/Legally Enforceable Agreements Public Participation – Including Environmental Justice	1.5
CA Planning and Priority Setting (GPRA and Non-GPRA) Public Participation, including Environmental Justice Technical Reviews Oversight Enforcement Support CA Tracking	5.5
Financial Assurance	1
Management and Reporting Administrative Activities – including legislative workgroup for funding Information Management – Waste Data System (WDS)/RCRAInfo Tracking and Database Administration Training (Health and Safety and Technical) Freedom of Information Act Requests Laboratory Coordination Quality Management Plan (QMP) Health and Safety and Emergency Management Coordination Pollution Emergency Alerting System Support	4.5
RCRA Total FTE Work Years	19

1.3 Challenges to Meeting FYs 2020 - 2021 Commitments

Three significant challenges are affecting EGLE's ability to accomplish Work Plan goals on a go-forward basis. These are:

- The continued and increased reduction for Michigan's allocation of the STAG. The U.S. EPA has reduced funding of Michigan's Hazardous Waste Program significantly since 2016. In FYs 2020 and 2021, the STAG will account for approximately 35 percent of the state's program costs. Historically, the U.S. EPA's portion of the grant accounted for 75 percent of the costs to run the program with a 25 percent match from Michigan.
- Changes in the understanding of the significance of the volatilization to indoor air pathway. Recent advances in vapor intrusion (VI) science and toxicology show that soil, groundwater, and indoor air levels for some common hazardous substances, that were previously thought to be protective of human health, are **not** protective. This has resulted in the need to conduct additional corrective actions at many sites to protect human health.
- The findings that perfluoroalkyl and polyfluoroalkyl substances (PFAS) are present in environmental media at a significant number of sites in Michigan and the necessity to evaluate these sites and implement immediate actions to protect public health as warranted.

Significant Reduction in the U.S. EPA STAG Funding Allocation to Michigan

On July 18, 2016, the U.S. EPA notified EGLE that Michigan's STAG funding was to be reduced in a phased manner by approximately \$290,000 per year over the next four years until FY 2020, resulting in approximately a one-third reduction in funding, if FY 2016 is used as a baseline. This level of funding reduction has had an impact upon Michigan's ability to hire new staff to fill existing vacancies and to retain and replace existing experienced CA staff who retire or move on to other employment. Without sufficient staff resources, this funding reduction has directly impacted upon Michigan's ability to meet FY commitments and, specifically, the U.S. EPA's goal of Environmental Indicators (EI) completions at 95 percent of the State of Michigan's GPRA 2020 baseline list of facilities by FY 2020. The issue is further compounded by the VI and PFAS factors that are discussed below. If STAG funding reductions continue, and/or additional U.S. EPA funding reductions are imposed, it may become necessary for EGLE to reopen discussions with the U.S. EPA to identify the commitments that will not be met as proposed in the FYs 2020 – 2021 Work Plan.

Volatilization to Indoor Air Pathway

VI into buildings and residential structures is an important human health exposure pathway that is addressed in CA. Recent advances in VI science and toxicology show that soil, groundwater, and indoor air levels for some common hazardous substances, that were previously thought to be protective of human health, are **not** protective. For example, trichloroethylene (TCE) and tetrachloroethylene (PCE) are commonly detected industrial pollutants in Michigan. The currently promulgated Part 201, Environmental Remediation (Part 201), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), criteria for TCE and PCE soil volatilization to indoor air inhalation and groundwater volatilization to indoor air criteria are both orders of magnitude higher than the proposed VI, groundwater, and soil screening values. Draft indoor air screening values for TCE and PCE are also more conservative, and considered more health-protective than previous indoor air screening values. It is also important to note that the volatilization to indoor air pathway was not well understood when the U.S. EPA initially ranked sites for CA, using the National Corrective Action Prioritization System, and identified the higher priority facilities that are now on the 2020 baseline list. As a result, many low priority non-GPRA facilities where VI may drive risk have received little or no attention. This was recently demonstrated at a closed treatment, storage, and disposal facility (TSDF) in the Grand Rapids Area (Trex Properties, LLC - MID020906764 {Trex}). In this case, the non-GPRA facility (Trex) had been redeveloped for commercial use and was conducting CA under a voluntary agreement. Information submitted by the facility, as part of their RCRA Facility Investigation, showed that sub-slab vapors were present in certain areas of the site at sufficiently high concentrations to be a

potential human health concern. Follow-up indoor air samples collected in coordination with the Michigan Department of Health and Human Services, the local health department, and the U.S. EPA resulted in the mandatory evacuation of the commercially used building and the investigation of surrounding buildings. Similar investigations are now ongoing at two of our GPRA 2020 facilities, Trex-Detroit and L3 Communications, and at other TSDFs that are subject to CA.

Given the new and more advanced criteria now recognized as protective for indoor air, regulatory agencies are now faced with going back and evaluating historic cleanup decisions where volatilization to indoor air was an applicable pathway, to ensure that the CA taken was adequately protective. In addition, the low priority non-GPRA facilities must be screened to determine if volatilization to indoor air may be a significant pathway requiring immediate attention. During FYs 2020 - 2021, EGLE intends to continue reviewing all of Michigan's 237 TSDFs, that are subject to CA, to determine if work activities need to be re-prioritized to immediately address potential human health exposures to vapors. Dependent upon the results from these evaluations, some of the GPRA 2020 CA commitments currently identified in this Work Plan may need to be re-prioritized and work may need to be conducted at non-GPRA facilities where human health could potentially be at risk. In addition, the results from these evaluations may impact GPRA determinations that have already been made, i.e. human exposures controlled determinations that may no longer be accurate. EGLE will keep the U.S. EPA advised if any changes in work priority and Work Plan goals become necessary. EGLE intends to have further discussions with the U.S. EPA regarding how necessary CA conducted at non-GPRA facilities could be used to meet Michigan's grant commitments.

PFAS Initiative

PFAS have been classified by the U.S. EPA as emerging contaminants on the national level. PFAS are a suite of chemicals historically used in thousands of applications throughout industrial, food, and textile industries. They are extremely stable, and do not break down in the environment, and are highly soluble, easily transferring through soil to groundwater. PFAS are used in firefighting foams, food packaging, cleaning products, and various other products. These products, and the associated PFAS, are present in existing landfills and continue to be disposed in landfills throughout Michigan and across the United States. PFAS is also used by industries such as plating, tanneries, and clothing manufacturers, where waterproofing may be required, or a protective film is needed in a manufacturing process. Results from recent environmental studies have confirmed that PFAS are present in soils, groundwater, surface water and/or other media, at large numbers of sites around the state.

On November 13, 2017, given the serious human health and environmental risks posed by PFAS contamination throughout the state, Michigan's Governor, Rick Snyder, issued an executive directive requiring EGLE and several other state agencies to establish a Michigan PFAS Action Response Team (MPART). As per the directive, MPART shall take expedited actions to identify locations impacted by PFAS and initiate environmental response protocols to address the contamination. Given this priority, the MMD has spent considerable time developing an initiative to survey concentrations of PFAS in landfill leachate and landfill groundwater monitoring wells in Michigan. As of April 2018, Hazardous Waste Section (HWS) staff have spent significant hours working on PFAS-related issues. This time has been spent designing a study of PFAS in Michigan landfill leachate, developing the necessary Standard Operating Procedures and Quality Assurance Project Plan for this effort, coordinating with laboratories for PFAS analysis, meeting with representatives of the Michigan Waste and Recycling Association, keeping abreast of changing analytical methods, developing health standards, and coordinating on PFAS issues within EGLE and across State of Michigan government agencies. In addition, a tremendous number of staff hours have been spent integrating PFAS issues into ongoing CA at a variety of sites, including Revitalizing Auto Communities Environmental Response (RACER) Lansing Plants 2, 3, and 6; RACER Coldwater Road; RACER Peregrine; RACER Buick City; RACER Willow Run Powertrain; Chrysler Introl; Wacker Chemical; Lacks Industries (Saranac and Cascade); Selfridge Air National Guard; Adient (Former Universal Die Cast); Chemours Montague; Ford Allen Park Clay Mine; Ford Motor Company – Saline Plant; MRP Properties – Alma; and MacDermid – Ferndale. It is likely that HWS staff time on the PFAS initiative will become even greater in

FYs 2020 – 2021, as PFAS sampling at additional sites becomes necessary and actions to address high concentrations of PFAS must be implemented.

2.0 PROGRAM ELEMENTS

In FYs 2020 - 2021, EGLE will use seven elements in an effective HW Program to manage hazardous waste through a delegation of RCRA authorities.

The RCRA Work Plan Program elements are as follows:

- State Authorization
- Environmental Justice
- Compliance Monitoring and Enforcement
- Administrative Controls
- Corrective Action
- Financial Assurance
- Management and Reporting

This section is organized into the following components:

- The *U.S. EPA FY 2018 - 2022 Strategic Plan* Goal and Objective associated with the HW Program element.
- The EGLE goal for the HW Program element.
- The HW Program strategy, objectives and considerations, and any work commitments for the HW Program element.

2.1 State Authorization

EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

U.S. EPA FY 2018–2022 Strategic Plan, Goal 2 – Cooperative Federalism: Rebalance the power between Washington and the states to create tangible environmental results for the American people.

Objective 2.1: *Enhance Shared Accountability.* Improve environmental protection through shared governance and enhanced collaboration with state, tribal, local, and federal partners using the full range of compliance assurance tools.

EGLE Goal

EGLE is committed to obtaining and maintaining the legal authorities needed to administer a quality state program that is consistent with RCRA regulations, and to identifying process streamlining opportunities.

Strategy

Under federal environmental laws, the U.S. EPA and state share responsibility for protecting human health and the environment. EGLE will work with the U.S. EPA to ensure that Michigan retains authorization to administer the state program.

Objective

EGLE will submit the draft express authorization revision application (EARA) for the 12th amendment to the state rules by early 2020. Work will then begin on the 13th amendment to the rules, which will address RCRA Cluster 27, and subsequent clusters as the process allows.

Work Commitments

Event	Party	Time Frame
Send U.S. EPA next draft rules package	EGLE	Within 60 days of comments receipt
Send U.S. EPA notice of public hearing	EGLE	Before notice is given to public
Send U.S. EPA final rules and draft EARA	EGLE	Within 30 days of rules effective date
Send state written comments on draft EARA	U.S. EPA	Within 60 days of draft EARA receipt
Send U.S. EPA written response to comments on draft EARA and submit final EARA	EGLE	Within 60 days of comments receipt
Send state written comments on final EARA	U.S. EPA	Within 60 days of final EARA receipt
Send U.S. EPA written response to comments on final EARA	EGLE	Within 60 days of comments receipt

If a work commitment will not be met, the following actions will be taken before the commitment date:

- For delays of 30 or fewer days, verbal notification will be provided by EGLE/U.S. EPA to the U.S. EPA/EGLE regulatory specialist.
- If EGLE's/U.S. EPA's actions result in delays of more than 30 days, EGLE/U.S. EPA will provide a written submittal to the U.S. EPA/EGLE regulatory specialist which outlines the basis for the delay and includes a revised work commitment schedule. Delays due to the U.S. EPA's actions do not require EGLE to submit a formal schedule extension request.

Report on Authorized State Program Revisions (RASPR)

EGLE will submit a RASPR by March 1st of each year. It will include: the Federal Register (FR) title, date, and citation; federal statutory basis for revision; RCRA cluster and revision checklist numbers; date by which revisions are required; date appearing on package; effective date of rules; amendment number for package relative to the base program; authorization FR citation and date; authorization effective date; comments; codification FR citation and date; and codification effective date. In cases where the only update to the RASPR would be information regarding final authorization, and the final authorization is pending with the U.S. EPA, the RASPR will be submitted immediately after the final authorization is effective.

2.2 Environmental Justice

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

U.S. EPA FY 2018–2022 Strategic Plan, Goal 2 – Cooperative Federalism: Rebalance the power between Washington and the states to create tangible environmental results for the American people.

Objective 2.2: *Increase Transparency and Public Participation.* Listen to and collaborate with impacted stakeholders and provide effective platforms for public participation and meaningful engagement.

Expanding the conversation on environmentalism and working for environmental justice (EJ) are some of the U.S. EPA's top priorities. Plan EJ 2020, named in recognition of the 20th anniversary of the

issuance of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, is the U.S. EPA overarching strategy for carrying out these priorities. Under Plan EJ 2020, the U.S. EPA is developing an implementation plan relating to considering EJ and permitting. The U.S. EPA, Office of Resource Conservation and Recovery, intends to use these recommendations to establish a mechanism for permitting authorities to meaningfully address EJ in their decisions. As emphasized in the *U.S. EPA FY 2018 - 2022 Strategic Plan* and the FYs 2020 - 2021 National Program Managers Guidance Documents, all U.S. EPA programs are to continue to integrate EJ principles into each stage of the agency's programmatic and regional decision making. In addition, under the federal Title VI of the federal Civil Rights Act of 1964 (Civil Rights Act), recipients of federal funds are prohibited from discriminating based upon race, color, or national origin. Since EGLE is a recipient of federal funds for administration of its RCRA Program, EGLE needs to incorporate EJ into their RCRA Program.

EGLE Goal

EGLE is committed to incorporating EJ into each stage of the RCRA Program.

Strategy

EGLE intends to continue to incorporate EJ into each stage of the RCRA Program by achieving the objectives and work items discussed below.

Objective and Considerations

EGLE recognizes that incorporating EJ into all aspects of the RCRA decision-making process is a top priority to the U.S. EPA. As such, Michigan will continue to work with the U.S. EPA as they roll out tools, to the states, to incorporate EJ into the RCRA Program.

Work Commitments

The state program has expanded its public participation process to integrate EJ principles:

- Included EJ evaluation step into permit application review process.
- Public meetings are video recorded and uploaded to YouTube.
- Licensing and CA information is posted to EGLE's website, and affected municipalities' websites, if granted permission.
- Notifications for information availability and public meetings are provided by mailings to expanded areas surrounding the facilities and by EGLE's electronic listserv.
- Provide translation services to non-English speaking populations.
- Engaging citizens earlier in the permitting process by holding meetings prior to required public hearing.

EGLE commits to continuing these efforts and making changes, as necessary, to enhance effectiveness. Additionally, staff will continue to participate in webinars and conference calls discussing new EJ tools and guidance to keep our public participation process updated with the most current advances.

In addition to the EJ focus in the RCRA Program, there are some agency-wide initiatives in progress. An EJ Coordinator and EJ Steering Committee have been formed to look at EJ issues that affect EGLE, and a grievance procedure that complies with the federal Civil Rights Act has been developed. The RCRA Program will continue to participate in agency-wide EJ initiatives.

2.3 Compliance and Enforcement

U.S. EPA FY 2018–2022 Strategic Plan, Goal 3 – Rule of Law and Process: Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law.

Objective 3.1: *Compliance with the Law.* Timely enforce environmental laws to increase compliance rates and promote cleanup of contaminated sites through the use of all of U.S. EPA's compliance assurance tools, especially enforcement actions to address environmental violations.

Objective 3.2: *Create Consistency and Certainty.* Outline exactly what is expected of the regulatory community to ensure good stewardship and positive environmental outcomes.

EGLE Goal

EGLE's mission is to promote wise use of Michigan's air, land, and water resources to support a sustainable environment, healthy communities, and a vibrant economy. In support of that mission, the MMD's goals are to protect human health and the environment, by ensuring the safe management of hazardous and nonhazardous wastes, to advance sustainable environmental outcomes, and to optimize economic and social outcomes through agency decisions and actions.

Strategy

Consistent with the mission and goals noted above, EGLE's FYs 2020 – 2021 compliance activities will include the following:

- Increasing compliance
- Conducting the inspections required by the U.S. EPA, Office of Enforcement and Compliance Assurance (OECA), and EGLE guidelines for TSDFs, generators, and transporters at the frequency outlined below.
- Increasing presence at small quantity generators (SQG) and conditionally exempt small quantity generators (CESQG) to increase compliance.
- Performing a significant number of SQG and CESQG inspections to further compliance with statutes and rules.
- Improving our compliance and enforcement program through continued attention to inspection quality, identification of violations, and tracking responses to violations. That, coupled with a broader inspection emphasis, will allow staff to provide education, outreach, and compliance assistance, including pollution prevention, waste characterization, and waste minimization information, directly to the regulated community.
- Continuing efforts to identify hazardous waste transporters operating without a registration and permit and/or financial responsibility (i.e., fleet liability coverage for accidental occurrences arising from hazardous materials transportation activities) and follow up as appropriate.
- Developing metrics to measure the effectiveness of the MMD's compliance efforts.

Consistent with Part 111, Hazardous Waste Management, of the NREPA (Part 111), the OECA, and EGLE guidelines, the targeted inspection frequencies will be as follows:

Inspection Type	Targeted Frequency*
Federal facilities	Annually
Active operating TSDFs	Annually at a minimum
Closed TSDFs	Every three years
Large Quantity Generators (LQG)	20 percent annually based upon Biennial Reporting System (BRS) Numbers
Hazardous Waste Transporters	Every three years
Other – SQGs, CESQGs, Used Oil Processors, LIB program, Complaints	As resources allow

** Targeted frequency may be adjusted to account for prioritization and initiatives implemented to achieve the overall goals and strategies of EGLE.*

It is important to note that EGLE is continuing to evaluate whether Michigan should pursue an alternative approach to conducting inspections at 20 percent of our universe of LQG facilities, as calculated using BRS numbers, on an annual basis. The U.S. EPA Compliance Monitoring Strategy for the RCRA Subtitle C Program offers flexibilities for conducting RCRA core program inspections. Michigan will continue to work with the U.S. EPA, Region 5, to exercise flexibility.

Objective and Considerations

EGLE HW Program Objectives include:

- Reducing the generation of hazardous waste.
- Increasing compliance by providing compliance assistance to the regulated community through regular inspections and numerous outreach efforts.
- Encouraging the regulated community to voluntarily discover, disclose, and correct violations before they are identified by regulatory agencies.
- Identifying and ensuring correction of violations in a timely manner to protect human health and the environment, foster HW Program integrity, and deter future noncompliance.

The following factors will be considered as EGLE strives to meet our objectives:

- Inspection planning and priority setting.
- EGLE inspection/records review process; the tools (e.g., inspection checklists) and techniques (e.g., sampling) used as part of the inspection; the accuracy and completeness of inspections and follow up; U.S. EPA communications; and compliance assistance.
- EGLE enforcement activities as indicated by the nature, timeliness, and appropriateness of enforcement actions; the degree of support afforded other enforcement officials; the nature of follow up to enforcement actions; and the effectiveness of enforcement communications with U.S. EPA.

Staffing levels and funding will impact the ability for EGLE to maximize inspections. Decisions about which facilities to inspect will be based on target frequencies, complaints, risk criteria, and management factors, as outlined in each respective district’s neutral inspection criteria plan. The proposed inspection activity is predicated on an effort of approximately 5.5 FTE in work years.

Inspections

EGLE will continue to focus inspections on:

- **TSDFs:** EGLE continues to implement strategies that maximize resources and focus work effort in areas that maximize protection of the environment and public health. It is EGLE's goal to inspect most active TSDFs four times per year. The HWS and the district offices will be coordinating to complete these inspections at some TSDFs. These inspections will include at least one district Compliance and Enforcement Inspection (CEI), and the other inspections will either be a district Focused Compliance Inspection (FCI) or an HWS inspection, such as a Groundwater Monitoring Evaluation (GME), Operation and Maintenance (O&M) Inspection, Post-Closure Cap (PC Cap) Inspection, CA Cover/Cap (CA Cover/Cap) Inspection, Corrective Action Maintenance and Monitoring (Camm) Inspection, or HWS FCI or CA Compliance Inspection. This coordinated approach is intended to provide district staff with more time to complete a greater number of generator inspections, while still maintaining a regular presence at active TSDFs.
- **Generators:** EGLE will strive to conduct annual inspections at 20 percent of Michigan's LQGs based upon the LQG numbers from Michigan's most recent biennial report. FY inspections will be planned, per the LQG numbers, to ensure that these generators are inspected at least once every five years. For FY 2020, RCRAInfo shows that the universe of LQGs, identified through Michigan's 2017 Biennial Report, is 510. It is important to note that EGLE's experience with historic LQG inspections has shown that LQGs generally have a good understanding of the regulations and have few compliance problems. EGLE continues to initiate efforts to visit a greater number of SQGs and CESQGs to provide compliance assistance and conduct inspections, as necessary. As a result, EGLE field staff interacted with many generators that had never been visited and helped the regulated community to better understand hazardous waste management requirements. In FYs 2020 - 2021, EGLE will continue to focus compliance assistance and inspection efforts on SQGs and CESQGs. Experience has shown that these two categories of generators can be combined, for purposes of compliance assistance visits and inspection planning, since it has been found that these sites commonly notify incorrectly. For purposes of FYs 2020 - 2021 planning, EGLE has combined used oil processors, complaint investigations, and facilities regulated under Michigan's Liquid Industrial By-Products law with SQGs and CESQGs; that category is referred to as "Other", as noted in the above-listed table. In FYs 2020 - 2021, EGLE intends to inspect at least 350 to 400 facilities in the "Other" category each FY. EGLE inspections afford effective opportunities to educate and assist facilities to gain and maintain compliance, to identify improved disposal options, and to consider waste minimization.
- **Transporters:** EGLE's goal continues to be inspection of transporters at least once every three years. The following factors will be a consideration when selecting facilities for inspections:
 - Time elapsed since last inspection.
 - Compliance history.
 - Site status in comparison to manifested waste data.
 - Necessity to collect manifest data from non-reporting sites.
 - Necessity to investigate manifest discrepancies.
 - Transporters not properly registered and/or permitted.
 - Complaints.

Compliance Assistance/Education and Outreach

EGLE will continue to effectuate compliance assistance to the regulated community through several means, including:

- Educating the regulated community during inspections and through inquiries to help them achieve compliance (i.e., providing written material on common compliance requirements, such as secondary containment, manifest tracking, and universal waste).
- Educating the regulated community on various hazardous waste topics through workshops and Webinars.
- Placing guidance documents and compliance information on the EGLE Website for ready availability.
- Educating members of the regulated community in the use of the EGLE Website and informational systems.

In FYs 2020 – 2021, EGLE will refresh core webinars in the *Hazardous Waste and Liquid Industrial By-Products Webinar series*. The webinars will be updated to address changes in Michigan's regulations related to hazardous secondary materials, exempt solvent wipes, the e-Manifest system, and the generator improvement rules. Additional outreach will be developed separately for healthcare covering the recent hazardous waste pharmaceutical rulemaking. EGLE will continue to update and market *EGLE's interactive Household Drug Take Back Map* to help residents find drug takeback collections that incinerate their unwanted medications.

EGLE will also develop new resources to assist staff in responding to VI and to enhance the public participation process for licensing decisions. New VI resources will be targeted for homeowners. They will provide additional detail on what VI is, how it occurs, how it is mitigated, and who will have the responsibility to pay for the investigation and mitigation. New public participation resources will be targeted for EGLE staff. The resources will be developed to help staff more efficiently and effectively reach community members affected by licensing actions. The resources will help staff share the right message at the right time using communication methods that reach the affected community, giving them adequate opportunity to have a voice that is considered as part of the license review process.

HW Program Improvements

EGLE is working to accomplish the following HW Program improvements:

- Developing innovative approaches to enhance our ability to conduct field assessments, inspections, and CA oversight at RCRA facilities.
- Developing compliance rate metrics.
- Developing more understandable compliance communications.
- Acknowledgement of in-compliance status.
- Performing SQG introductory inspections.
- Definition of Solid Waste rule implementation.
- Expanded public participation.
- Using existing tools, such as the Biennial Report, and new tools, such as e-Manifest implementation, to identify and improve compliance in problem areas.

EGLE will continue to review and, where identified, improve the overall management and operation of the compliance and enforcement portion of the HW Program, to assist with meeting overall HW Program goals. Staff continues to ensure data quality captured in the Waste Data System (WDS) database. Consistency, timeliness of inspections, education/outreach, and inspection follow up continue to be emphasized. EGLE will continue to implement the initiative to maximize resources and

efficiencies in order to meet TSDf inspection goals, while allowing staff to inspect more SQGs, CESQGs, and other facilities handling hazardous waste and liquid industrial by-product.

EGLE continues to use template letters to help achieve HW Program consistency, and the letters continue to be refined for improved effectiveness and efficiencies. EGLE district and field staff currently use prepopulated Hazardous Waste Inspection Cover Sheets that were implemented to address concerns raised by the U.S. EPA regarding inspection completeness. The cover sheets include fields for facility size, number of employees, facility operation hours, a site diagram, and previously-identified violations. These cover sheets have benefitted staff prior to and during inspections and increased EGLE's ability to accurately identify potential significant non-compliers and changes in processes and waste generation.

EGLE is still in the process of implementing a new software program (nSpect) to improve the accuracy and efficiency of staff field inspections. Once implemented, EGLE anticipates that all inspection forms will be updated and will be loaded onto tablets that will be issued to all field staff. All WDS database information will be loaded into the tablets. The nSpect software program allows for handwriting recognition and GPS coordinates; mapping and photographs can be integrated into the inspection report generated by the program. The inspection report, when completed, is saved as a PDF file for electronic storage or it can be downloaded and printed. Upon return to the office, staff will sync the tablet with WDS and transfer all inspection data into the WDS database. This will allow for timely input of all inspection data into WDS for migration into RCRAInfo. The nSpect software program has the capability of storing and retrieving hazardous waste rules, regulations, and guidelines. It is anticipated that at a future date, when funding allows, the nSpect software program will interface with EGLE's template letters so that accurate demographic and enforcement information are transferred into the letter.

In FY 2017, EGLE, HWS, began using drones in an effort to enhance our ability to conduct field assessments, inspections, and CA oversight at our RCRA sites. The HWS now has staff that are trained Federal Aviation Administration Certified drone pilots. These staff have developed several innovative products to augment our inspection capabilities and increase our ability to make sound compliance decisions. Using drone technology, EGLE staff can now update outdated satellite imagery, take photos and videos that help to determine the perspective size and scope of items, such as fill areas, view facility operations or conditions not accessible from the ground, calculate cut and fill volumes, and build three dimensional (3D) and Digital Elevation Models that represent facility grounds (e.g. size and dimension of piles, building locations, etc.). During FYs 2020 – 2021, EGLE intends to continue to use drones as a tool to conduct inspections and to advance our work in pre-mission planning, mission safety checklists, and efficiencies in post-processing workflow. In addition, EGLE is considering expanding our drones and sensors to include thermal imagery, lidar, and sampling capabilities.

Coordinated District Office, Field Office, and HWS Work Commitments

District Office and Field Office Work Effort

For FY 2020, it is anticipated four FTE per year, in work years, will be devoted to EGLE district and field offices compliance and enforcement activities. This total may be reduced dependent upon vacancies that could result from staff retirements/transfers and the inability to fill positions due to budget constraints. The work performed by these staff include:

- Inspections at TSDfS, LQGs, SQGs, CESQGs, transporters, and other notifiers
- Marketer/oil burner inspections
- Inspections of used oil transporters, used oil transfer facilities, and used oil processor/re-refiners
- Accompany the U.S. EPA on U.S. EPA led inspections
- Complaint investigations

- Compliance assistance visits (inquiries, presentations, etc.)
- Waste characterization reviews
- Record reviews
- Administrative and civil enforcement activities and support
- Criminal case development work/assistance with HW Program improvement activities
- Community-based initiative participation

Coordinated District Office, Field Office, and HWS Inspection Schedule

During FYs 2020 – 2021, district office, field office, and HWS staff will perform the activities identified below.

Total number of inspections to be conducted during the 2-year FY 2020 - 2021 period, i.e. approximately 50 percent of the number for each respective inspection in the table will be completed each FY

District and Field Office Staff		HWS Staff
CEI Category	Number of Inspections*	Number of Inspections*
TSDF	89	24
LQGs	204	0
Transporter	38	0
*Other	700-800	0

*SQGs, CESQGs, Used Oil Processors, Liquid Industrial By-Product program, and complaint investigations.

The TSDF inspections will be conducted within the full enforcement universe of 43 TSDFs (15 of which actively manage hazardous waste). A list of specific facilities and the planned inspections for FY 2020 is provided below. The table reflects a complete list of the facilities in the TSDF full enforcement universe, and it identifies the inspections to be completed in FY 2020. The HWS inspections to be conducted are discussed in greater detail at the end of this section.

Active TSDFs Inspection Schedule for FY 2020 (Number of Inspections)

	Site ID	Current Name	No. of District CEIs	No. of District FCIs	HWS O&M	HWS CAMM	HWS CA Cover/Cap Inspection	HWS PC Cap Inspection	HWS CAC/FCI - Other	District
1	MID092947928	Drug and Laboratory Disposal Inc	1	3						Kalamazoo
2	MID000820381	Pharmacia & Upjohn Company LLC	1							Kalamazoo
3	MIR000001834	U of M Beck Road Facility	1							Jackson
4	MID053343976	MSU Waste Storage Facility	1							Lansing
5	MID000724724	Dow Chemical Main Plant & Incinerator Complex	1		1		1	1		Saginaw Bay

	Site ID	Current Name	No. of District CEIs	No. of District FCIs	HWS O&M	HWS CAMM	HWS CA Cover/Cap Inspection	HWS PC Cap Inspection	HWS CAC/FCI - Other	District
6	MID000809632	Dow Silicones Corporation	1	2	1					Saginaw Bay
7	MID980617435	Dow Chemical Company-Salzburg Landfill	1	2	1					Saginaw Bay
8	MID000724831	Michigan Disposal Waste Treatment Plant	1	3						Southeast Michigan
9	MID060975844	US Ecology Romulus	1	3						Southeast Michigan
10	MID005338801	Gage Products Co	1	3						Southeast Michigan
11	MID048090633	Wayne Disposal Inc	1	2	1					Southeast Michigan
12	MID074259565	US Ecology Detroit North	1	3						Southeast Michigan
13	MID980615298	PSC Environmental Services	1	3						Southeast Michigan
14	MID980991566	EQ Detroit South	1	3						Southeast Michigan
15	MIR000016055	Environmental Geo-Technologies LLC	1	3						Southeast Michigan

Closed/Inactive TSDFs Inspection Schedule for FY 2020 (Number of Inspections)

	Site ID	Current Name	No. of District CEIs	No. of District FCIs	HWS O&M	HWS CAMM	HWS CA Cover/Cap Inspection	HWS PC Cap Inspection	HWS CAC/FCI- Other	District
16	MID980825632	MI Dept/Nat Res Storage Facility Roscommon								Cadillac
17	MID006013643	Warner Lambert Co LLC Former Manufacturing Site								Grand Rapids
18	MID006014666	Lacks Industries Inc						1		Grand Rapids

	Site ID	Current Name	No. of District CEIs	No. of District FCIs	HWS O&M	HWS CMM	HWS CA Cover/Cap Inspection	HWS PC Cap Inspection	HWS CAC/FCI-Other	District
19	MID006014906	Occidental Chemical Corp			1					Grand Rapids
20	MID006025217	Barber Steel Foundry Corp				1				Grand Rapids
21	MID006407597	L-3 Former TDY Vehicle Systems								Grand Rapids
22	MID017079625	GM Components Holdings LLC**								Grand Rapids
23	MID020906764	Trex Properties LLC								Grand Rapids
24	MID080359433	Lacks Industries Inc Saranac								Grand Rapids
25	MID980499735	Mahle Engine Components USA Inc								Grand Rapids
26	MID005057005	Ford River Raisin Warehouse			1					Jackson
27	MID009305665	Ford Motor Company - Saline Plant		1						Jackson
28	MID990760100	Chrysler Introl Division								Jackson
29	MID005356647	DPH ERT Flint Site Plant 400**								Lansing
30	MID005356712	Racer Buick City Plant**								Lansing
31	MID005356860	Racer Coldwater Road Landfill						1		Lansing
32	MID005358130	MRP Alma Facility								Lansing
33	MID082771700	Granger Grand River Landfill						1		Lansing
34	MID980506265	Grand Blanc Landfill								Lansing
35	MID980568620	DPH ERT Flint Site Plant 500**								Lansing
36	MID005513262	Metavation LLC								Saginaw Bay

	Site ID	Current Name	No. of District CEIs	No. of District FCIs	HWS O&M	HWS CMM	HWS CA Cover/Cap Inspection	HWS PC Cap Inspection	HWS CAC/FCI-Other	District
37	MID041793340	Saginaw Nodular Industrial Land**								Saginaw Bay
38	MID985568021	Chemical Analytics Inc								Southeast Michigan
39	MID004508628	Wolf Five LLC (Former Wyckoff Steel Property)								Southeast Michigan
40	MID005356886	Racer Pontiac North Campus		1						Southeast Michigan
41	MID005356910	Racer Fiero Assembly Plant		1						Southeast Michigan
42	MID005378161	Green Clover Property LLC								Southeast Michigan
43	MID009708678	Solutia Inc East Property			1					Southeast Michigan
44	MID061862926	Intertape Polymer Grp								Southeast Michigan
45	MID000810408	Woodland Meadows Landfill North			1					Southeast Michigan
46	MID980568711	Ford Motor Co Allen Park Clay Mine LF								Southeast Michigan
47	MI0571924760	Former US Air Force KI Sawyer AFB								Upper Peninsula

**The U.S. EPA is the lead for CA at these facilities. As such, inspections at these facilities are conducted by U.S. EPA staff.

HWS Technical Reviews and Inspections

GME/O&M Inspection Work: To ensure that land disposal facility owners/operators comply with applicable groundwater monitoring requirements, HWS staff will conduct GME/O&M inspections as shown in the Compliance and Enforcement FYs 2020 – 2021 HWS Work Schedule, which follows this section.

PC Cap Inspection Work: To ensure that TSDf owners/operators comply with post-closure requirements to maintain the final cover on closed/capped units pursuant to the approved design specifications, HWS staff will conduct PC Cap Inspections as shown in the Compliance and Enforcement FYs 2020 - 2021 Hazardous Waste Section Work Schedule, which follows this section.

CA Cover/Cap Inspection Work: To ensure that TSDf owners/operators comply with CA requirements to maintain the final cover on closed/capped CA units, pursuant to the approved design

specifications, HWS staff will conduct CA Cap Inspections as shown in the Compliance and Enforcement FYs 2020 – 2021 Hazardous Waste Section Work Schedule, which follows this section.

CAMM Inspection Work: To ensure that approved institutional and engineering controls are being properly operated, maintained, and transferred (if property transactions occur) at facilities that have a CA550 with controls EI, the HWS conducts CAMM inspections. With the continued GPRA progress on CAs “completed with controls,” EGLE has identified the critical need to conduct these inspections to ensure the long-term effectiveness of the CA. Given that the universe of CAs “completed with controls” is continually expanding, it must be emphasized that the number of CAMM inspections to be conducted each year is increasing, with this work now becoming a significant part of the HWS’s workload.

EGLE has established a goal to inspect each facility that is part of the CAMM universe on a once every three-year frequency. It has been determined that this frequency is necessary if we intend to identify issues of concern and correct problems before the remedy is compromised, and/or human health and/or the environment suffers an impact. To ensure that EGLE maintains a complete list of facilities that are subject to these inspections, a definitive method has been devised to do an annual screening, so that the CAMM universe list is periodically updated, and new facilities that need CAMMs are identified. For FYs 2020 - 2021, HWS staff will conduct CAMM inspections as shown in the Compliance and Enforcement FYs 2020 - 2021 Hazardous Waste Section Work Schedule, which follows this section. In the future, it is expected that there will be a larger number of facilities that become part of the CAMM universe, necessitating higher numbers of inspections to be completed each FY to meet EGLE’s inspection frequency goal. Additionally, EGLE anticipates that staff will be required to complete an increasing number of remediation progress reviews, monitoring data reviews, and financial assurance reviews, each FY, with this expanding universe.

Annual Groundwater Report and Non-Financial Record Reviews: During FYs 2020 - 2021, the HWS will continue to review annual groundwater reports from the facilities where submittals are required, and non-financial records, including data packages and letters responding to EGLE required submittals, to the maximum amount possible.

Waste Delisting Reviews: During FYs 2020 - 2021, upon receipt of a request to redesignate a waste otherwise identified as a hazardous waste, according to the provisions of Part 111, the HWS intends to process the request and issue an approvability determination. In addition, the HWS will review the records and conduct inspections at facilities, with active redesignation approvals, to audit compliance with the redesignation conditions and verification sampling for ongoing waste characterization.

Waste Characterization Reviews and Variance Requests: During FYs 2020 - 2021, the HWS will complete waste characterization and hazardous secondary materials reviews and expeditiously process variance requests as they arrive for EGLE review.

EGLE, Radiological Protection Section (RPS), Hazardous Waste Program Support

EGLE RPS oversees the disposal and processing of naturally occurring radioactive material (NORM) and other radioactive material exempt from U.S. Nuclear Regulatory Commission (U.S. NRC) regulation. EGLE receives requests from Wayne Disposal, Inc., for authorization to dispose of this material in their hazardous waste landfill and from U.S. Ecology Detroit North and the Michigan Disposal Waste Treatment Plant to process these wastes. In FYs 2020 - 2021, EGLE, RPS, intends to provide support to the HW Program by reviewing requests to process and/or dispose of specific NORM and other U.S. NRC-exempted waste streams at these licensed hazardous waste TSDFs and issuing approvals/denials for the requested activities.

EGLE, Law Enforcement Division, Environmental Investigation Section, Hazardous Waste Program Support

The Law Enforcement Division, Environmental Investigation Section, will continue to provide law enforcement support for EGLE hazardous waste regulatory programs through activities such as transport vehicle patrols and investigative services to detect criminal violations of hazardous waste law and prepare cases for prosecution by local, state, or federal officials.

**COMPLIANCE AND ENFORCEMENT
FY 2020 - 2021 HAZARDOUS WASTE SECTION WORK SCHEDULE**

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
FY 2020					
Groundwater O&M Inspections (OAM)					
1	Dow Chemical Company - Salzburg Landfill (Q2)	The Dow Chemical Company	Midland	MID 980 617 435	Joe Rogers
2	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Nathan Erber
3	Woodland Meadows Landfill North	Waste Management of Michigan Inc	Canton	MID 000 810 408	Dale Bridgford
4	Dow Chemical Main Plant and Incinerator Complex (SDF)	The Dow Chemical Company	Midland	MID 000 724 724	Joe Victory
5	Solutia Inc East Property	Solutia Inc	Trenton	MID 009 708 678	Dale Bridgford
6	Wayne Disposal Inc. (Q4)	Wayne Disposal Inc.	Belleville	MID 048 090 633	Joe Rogers
7	Occidental Chemical Corp	Occidental Chemical Corp	Montague	MID 006 014 906	Dale Bridgford
8	Dow Silicones Corporation	Dow Silicones Corp/Dow Chemical	Midland	MID 000 809 632	Nathan Erber
Postclosure Cap Inspections (FCI)					
9	Dow Chemical Main Plant and Incinerator Complex (SDF) (Q4)	The Dow Chemical Company	Midland	MID 000 724 724	Joe Victory
10	RACER Coldwater Road Landfill (Q2)	Revalizing Auto Communities Environmental Response Trust	Flint	MID 005 356 860	Nicole Sanabria
11	Granger Grand River Landfill (Q4)	Granger Land Development Company	Grand Ledge	MID 082 771 700	Dale Bridgford
12	Lacks Industries Inc (Cascade) (Q2)	Lack Industries Inc	Grand Rapids	MID 006 014 666	Dale Bridgford
Corrective Action Cover Inspections (CAC)					
13	Dow Chemical Main Plant and Incinerator Complex (Sites NW) (Q4)	The Dow Chemical Company	Midland	MID 000 724 724	Joe Victory
Corrective Action Maintenance and Monitoring Inspections (CAC)					
14	Black River Public Schools (Q1)	Black River Schools	Holland	MID 006 411 953	Nicole Sanabria
15	Access Business Group LLC (Q3)	Access Business Group LLC	Grand Rapids	MID 006 026 793	Nicole Sanabria
16	Barber Steel Foundry Corp (Q4)	Barber Steel Foundry Corp	Rothbury	MID 006 025 217	Christine Matlock
17	Perma Fix of Michigan Inc (Q4)	Perma Fix of Michigan Inc	Brownstown Twp	MID 096 963 194	Nicole Sanabria

**COMPLIANCE AND ENFORCEMENT
FY 2020 - 2021 HAZARDOUS WASTE SECTION WORK SCHEDULE**

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
FY 2021					
Groundwater O&M Inspections (OAM)					
1	Dow Chemical Company - Salzburg Landfill (Q2)	The Dow Chemical Company	Midland	MID 980 617 435	Joe Rogers
2	Wolf Five LLC (Former Wyckoff Steel Property) (Q2)	Wolf Five Inc	Plymouth	MID 004 508 628	Nathan Erber
3	RACER Coldwater Road Landfill	Revalizing Auto Communities Environmental Response Trust	Flint	MID 005 356 860	Nicole Sanabria
4	Chrysler Introl Division (Q2)	Old Carco LLC	Dexter	MID 990 760 100	Joe Rogers
5	Granger Grand River Landfill	Granger Land Development Company	Grand Ledge	MID 082 771 700	Dale Bridgford
6	Wayne Disposal Inc. (Q4)	Wayne Disposal Inc.	Belleville	MID 048 090 633	Joe Rogers
7	Lacks Industries Inc Saranac	Lacks Industries Inc	Saranac	MID 080 359 433	Dale Bridgford
8	MRP Alma Facility	MRP Properties Co LLC	Alma	MID 005 358 130	Dale Bridgford
Postclosure Cap Inspections (FCI)					
9	Wayne Disposal Inc. (MC VII & IX) (Q4)	Wayne Disposal Inc.	Belleville	MID 048 090 633	Joe Rogers
10	Ford River Raisin Warehouse (CAMUs) (Q1)	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Nathan Erber
11	Dow Chemical Main Plant and Incinerator Complex (Poseyville LF) (Q1)	The Dow Chemical Company	Midland	MID 000 724 724	Joe Victory
12	Dept/Defense Former US Air Force KI Sawyer AFB (Explosives Cell) (Q2)	US Dept/Defense	Gwinn	MIO 571 924 760	Dale Bridgford
13	Michigan Seamless Tube (Surface Impoundment) (Q2)	Michigan Seamless Tube LLC	South Lyon	MID 082 767 591	Joe Rogers
14	Lacks Industries Inc Saranac (Surface Impoundment) (Q4)	Lacks Industries Inc	Saranac	MID 080 359 433	Dale Bridgford
Corrective Action Maintenance and Monitoring Inspections (CAC)					
15	Wolf Five LLC (Former Wyckoff Steel Property) (Q1)	Wolf Five Inc	Plymouth	MID 004 508 628	Nathan Erber
16	Ecorse Commons LLC (Q1)	Ecorse Commons LLC	Romulus	MID 000 809 905	Ronda Blayer
17	Ford Motor Co Allen PK Clay Mine LF (Q2)	Ford Motor Company	Allen Park	MID 980 568 711	Nathan Erber
18	KHI Inc (Q3)	KHI Inc	Holland	MID 006 020 895	Nicole Sanabria
19	Reichhold Inc Ferndale Michigan (Q4)	Reichhold Inc	Ferndale	MID 020 087 128	Andrew Bertapelle
20	Pharmacia & Upjohn Company LLC (Q4)	Pharmacia & Upjohn Company LLC	Portage	MID 000 820 381	Nicole Sanabria

2.4 Administrative Controls

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.2: *Provide for Clean and Safe Water.* Ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites to revitalize and return the land back to communities.

U.S. EPA FY 2018–2022 Strategic Plan, Goal 3 – Rule of Law and Process: Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law.

Objective 3.4: *Streamline and Modernize.* Issue permits more quickly and modernize our permitting and reporting systems.

GPRCA 2020 CA Universe

In March 2013, the U.S. EPA formally revised the GPRCA 2020 CA Universe baseline list of facilities. Historically, Michigan had 119 facilities in their GPRCA 2020 CA Universe. The new baseline added four Michigan facilities and removed four historical facilities, which resulted in no net change to the number of facilities in Michigan's GPRCA CA Universe. Of that 119, EGLE is the lead regulatory agency for CA at 85 of the facilities. EGLE continues to coordinate with the U.S. EPA on an ongoing basis to determine the most appropriate lead agency for the facilities on the GPRCA 2020 CA Universe baseline list of facilities. If agreement is reached with the U.S. EPA to change the lead for a facility, the baseline list will be revised accordingly. EGLE and the U.S. EPA will work together to develop the list of facilities in Michigan to be added to the National RCRA Corrective Action Portfolio, which will comprise the HW Program's workload beyond the 2020 GPRCA Baseline.

GPRCA 2020 Permit Baseline

The cleanup of some of the facilities in the GPRCA 2020 CA Universe is governed through enforceable administrative controls (i.e., issuance/renewal of an operating license/post-closure operating license, certification of clean closure, approval of a post-closure plan equivalent to a post-closure operating license, or entry into a consent order/legally enforceable agreement). Of the 119 Michigan facilities in the GPRCA 2020 CA Universe, the U.S. EPA has identified 60 facilities that are subject to enforceable administrative controls. This subset of the GPRCA 2020 CA Universe is referred to as the GPRCA 2020 Permit Baseline. EGLE and the U.S. EPA will work together to develop the list of facilities to be included in the Program's permitting workload beyond the GPRCA 2020 Permit Baseline.

U.S. EPA Guidance

The U.S. EPA *FYs 2020 - 2021 Office of Land and Emergency Management National Program Draft Guidance, April 1, 2019, and the Section 4 Budget Formulation System (BFS) Codes H4 and HW5* in that guidance, provide the following measures for FY 2020:

“For FY 2020, the U.S. EPA has established a national target to complete permit renewals at 64 hazardous waste facilities.”

“For FY 2020, the U.S. EPA has established a national target to complete initial controls in place to prevent release at 13 hazardous waste units.”

The U.S. EPA developed their *FY 2018-2022 U.S. EPA Strategic Plan* to: (1) refocus the agency back to its core mission; (2) restore power to the states through cooperative federalism; and (3) lead the agency through improved processes and adhere to the rule of law.

Page 16 of the U.S. EPA *FY 2018 – 2022 Strategic Plan* states that the “U.S. EPA will support states to issue, update, or maintain RCRA permits for the approximately 20,000 hazardous waste management facility hazardous waste units”. In addition, page 39 of that same plan states that the U.S. EPA is

committed to working with federal, state, or tribal permitting authorities to speed up the processing of permits and modifications to “create certainty for the business community, leading to more jobs, increased economic prosperity, and streamlined permit renewals, which incorporate up-to-date information and requirements more quickly, thereby improving environmental protection”.

EGLE Goal

In FYs 2020 - 2021, EGLE intends to apply available resources at a pace to issue or update and maintain administrative controls at 100 percent of the 60 facilities in the GPRA 2020 Permit Baseline. This goal is dependent upon resource availability and the competing priority of managing near-term human health risks from PFAS and VI.

Strategy

EGLE intends to process new or expansion applications, to issue/renew operating/post-closure licenses, to clean close regulated units, to approve post-closure plans, to process license modifications, or to enter into CA consent orders/legally enforceable agreements at a pace that will ensure that these administrative controls are maintained for 100 percent of the 60 facilities in the GPRA 2020 Permit Baseline.

GPRA 2020 Permit Baseline by Facility Table

The GPRA 2020 Permit Baseline by Facility Table shows the actual and projected accomplishment dates for each EGLE-lead facility, alphabetically. An explanation of the abbreviated column headings is shown at the top of each page of the table. The table follows this page.

GPRA 2020 PERMIT BASELINE BY FACILITY

The GPRA 2020 Permit Baseline shows the actual/projected accomplishment dates for each facility alphabetically.

Exp=Expansion PM=Project Manager *=License Expiration Date PCP=Postclosure Plan LEA=Legally Enforceable Agreement CC=Clean Closure

	Current Name	Legal Name	City	Site ID	Exp	TSD Op License Issued	TSD Op License Major Mod.	TSD Op License Renewal Submitted	TSD Op License Projected	TSD Exp App Submitted	PC Op License Issued	PC Op License Renewal Submitted	PC Op License Projected	PCP Approved	Order/ LEA Issued	Voluntary Corr. Action Agreement	CC Accepted
1	Access Business Group LLC	Access Business Group LLC	Ada	MID006026793													07/23/2010
2	Alma Facility	MRP Properties Co LLC	Alma	MID005358130											01/30/2003		
3	Anchor Danly Components	Anchor Lamina America Inc	Bellaire	MID006017966										11/27/1994			07/21/1998
4	Automotive Components Holdings LLC - Saline	Automotive Components Holdings LLC	Saline	MID009305665										05/18/2007			
5	Bayer CropScience LP	Bayer CropScience LP	Muskegon	MID080358351											11/20/2003		12/30/2003
6	U of M Beck Road Facility	University of Michigan	Belleville	MIR000001834		03/02/2010			03/02/2020*								
7	Chemical Analytics Inc Romulus	Stericycle Specialty Waste Solutions	Romulus	MID985568021		09/30/2002		04/03/2012	Closed (HSWA License Continuing for CA only)								03/21/2016
8	Chrysler Introl Division	Old Carco LLC	Dexter	MID990760100										09/30/2003			
9	Cyanokem - Detroit	Le Petomane VII Custodial Trust	Detroit	MID098011992													12/19/2002
10	Cytec Industries - Past TSD	Cytec Industries	Kalamazoo	MID005360680											03/06/2013		05/11/1999
11	Trex Properties LLC	Trex Properties LLC	Detroit	MID091605972		01/31/2001		08/09/2010	Opted to close rather than renew						02/18/2014		06/13/2014
12	Detroit Steel Co Trenton	Detroit Steel Co	Trenton	MID017422304											Referred to and accepted by CERCLA		
13	Dow Chemical Co - Salzburg LF	Dow Chemical Co	Midland	MID980617435		09/25/2015			9/25/2025*					12/23/1986			
14	Dow Chemical Co Main PI & Incinerator Complex	Dow Chemical Co	Midland	MID000724724		09/25/2015			9/25/2025*								

GPRA 2020 PERMIT BASELINE BY FACILITY

The GPRA 2020 Permit Baseline shows the actual/projected accomplishment dates for each facility alphabetically.

Exp=Expansion PM=Project Manager *=License Expiration Date PCP=Postclosure Plan LEA=Legally Enforceable Agreement CC=Clean Closure

	Current Name	Legal Name	City	Site ID	Exp	TSD Op License Issued	TSD Op License Major Mod.	TSD Op License Renewal Submitted	TSD Op License Projected	TSD Exp App Submitted	PC Op License Issued	PC Op License Renewal Submitted	PC Op License Projected	PCP Approved	Order/ LEA Issued	Voluntary Corr. Action Agreement	CC Accepted
15	Dow Silicones Corporation	Dow Silicones Corporation	Midland	MID000809632		09/21/2012			9/21/2022*								
16	DPH DAS LLC	DPH DAS LLC	Flint	MID005356647										04/26/2005			
17	Drug & Laboratory Disposal Inc	Drug & Laboratory Disposal Inc	Plainwell	MID092947928		09/25/2012			9/25/2022*								
18	U.S Ecology Detroit North	U.S. Ecology Michigan Inc	Detroit	MID074259565		03/16/1998		09/14/2007	03/31/2020								
	U.S Ecology Detroit North	U.S. Ecology Michigan Inc	Detroit	MID074259565	Y				03/31/2020	03/05/2013							
19	Edwards Oil Service Inc	Edwards Oil Service Inc	Detroit	MID088754668													08/15/2003
20	EQ Detroit South	EQ Detroit Inc	Detroit	MID980991566		03/18/2004		09/11/2008	09/30/2020								
21	USE Romulus	US Ecology Romulus Inc	Romulus	MID060975844		09/30/2015			9/30/2025*								
22	Enthone OMI Inc	Ethone OMI Inc	Warren	MID056717747													11/14/2001
23	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID005057005							11/28/2007	06/16/2017	09/30/2019				
24	Ford Motor Co Allen Park Clay Mine LF	Ford Motor Co	Allen Park	MID980568711										09/30/2004			
25	RACER Coldwater Road LF	RACER Trust	Flint	MID005356860										06/26/2006			
26	Wolf Five LLC (Former Wyckoff Steel Property)	Wolf Five LLC	Plymouth	MID004508628										08/26/1996			
27	Gage Products	Gage Products	Ferndale	MID005338801		03/31/2015			3/31/2025*								
28	General Motors LLC	General Motors LLC	Flint	MID005356951													03/31/1992
29	General Motors LLC	General Motors LLC	Warren	MID050615996		12/05/2001									11/29/2011		01/20/2012
30	GM Components Holdings LLC	GM Components Holdings LLC	Wyoming	MID017079625										09/30/2005			
31	Grand Blanc LF	Grand Blanc LF	Grand Blanc	MID980506265										07/08/2010			
32	Granger Grand River LF	Granger Land Development Co	Grand Ledge	MID082771700							01/25/2012		1/25/2022*				

GPRA 2020 PERMIT BASELINE BY FACILITY

The GPRA 2020 Permit Baseline shows the actual/projected accomplishment dates for each facility alphabetically.

Exp=Expansion PM=Project Manager *=License Expiration Date PCP=Postclosure Plan LEA=Legally Enforceable Agreement CC=Clean Closure

	Current Name	Legal Name	City	Site ID	Exp	TSD Op License Issued	TSD Op License Major Mod.	TSD Op License Renewal Submitted	TSD Op License Projected	TSD Exp App Submitted	PC Op License Issued	PC Op License Renewal Submitted	PC Op License Projected	PCP Approved	Order/ LEA Issued	Voluntary Corr. Action Agreement	CC Accepted
33	Hadley Industries Div of ASI	Hadley Industries	Cadillac	MID982222242													04/30/1999
34	Holcim US Inc - Dundee	Holcim US Inc	Dundee	MID005038500													02/10/1998
35	KHI Inc	KHI Inc	Holland	MID006020895													01/16/2001
36	Lacks Industries Inc	Lacks Industries Inc	Grand Rapids	MID006014666											01/26/1990		06/04/1987
37	Lacks Industries Inc - Saranac	Lacks Industries Inc	Saranac	MID080359433											09/05/1995		05/31/2005
38	Lafarge Midwest Inc	Lafarge Midwest Inc	Alpena	MID005379607													06/04/2001
39	Lake States Wood Preserving	Lake States Wood Preserving	Munising	MID990687964											Referred to and accepted by CERCLA		
40	Macdermid Inc	Macdermid Inc	Ferndale	MID005338371													08/03/1999
41	Mahle Engine Components USA Inc	Mahle Engine Components USA Inc	Muskegon Heights	MID980499735										05/30/2002			
42	Metavation LLC	Metavation LLC	Vassar	MID005513262											11/09/2004		
43	Mi Dept/Nat Res Storage Facility Roscommon	MI Dept/Natural Resources	Roscommon	MID980825632										08/09/2000			
44	Michigan Disposal Waste Treatment Plant	Michigan Disposal Inc	Belleville	MID000724831		10/31/2007		10/31/2016	09/30/2020								
45	Michigan Seamless Tube	Michigan Seamless Tube LLC	South Lyon	MID082767591											04/07/2004		09/24/1998
46	National Standard Company LLC	National Standard Company LLC	Niles	MIT270010549											11/17/1995		03/04/1998
47	Occidental Chemical Corp	Occidental Chemical Corp	Montague	MID006014906											04/29/1993		04/24/1993
48	Dyno Nobel Inc Ishpeming Plant	Dyno Nobel	Ishpeming	MID041413154												04/14/1999	10/17/2000

GPRA 2020 PERMIT BASELINE BY FACILITY

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	Current Name	Legal Name	City	Site ID	Exp	TSD Op License Issued	TSD Op License Major Mod.	TSD Op License Renewal Submitted	TSD Op License Projected	TSD Exp App Submitted	PC Op License Issued	PC Op License Renewal Submitted	PC Op License Projected	PCP Approved	Order/ LEA Issued	Voluntary Corr. Action Agreement	CC Accepted
49	Perma Fix of Michigan Inc	Perma Fix of Michigan Inc	Brownstown	MID096963194											09/20/2006		01/13/2006
50	Pharmacia and Upjohn Co LLC	Pharmacia and Upjohn Co LLC	Portage	MID000820381		12/14/2012			12/14/2022*								06/23/2005
51	PSC Environmental Services	Petro-Chem Processing Group of Nortru LLC	Detroit	MID980615298		12/18/2012			12/18/2022*								11/13/2003
52	Barber Steel Foundry Corp	Barber Steel Foundry Corp	Rothbury	MID006025217										07/27/2011			
53	Rugged Liner Inc	Rugged Liner Inc	Owosso	MID058816927													11/13/2003
54	Safety Kleen Systems Inc	Safety Kleen Systems Inc	Pontiac	MID000722686													11/03/1999
55	Solutia Inc East Property	Solutia Inc	Trenton	MID009708678										03/27/2002			
56	Systech Environmental Corp	Systech Environmental Corp	Alpena	MID981200835													09/21/2001
57	Warner Lambert Co LLC - Former Manufacturing Site	Warner Lambert Co LLC	Holland	MID006013643										05/08/2015			
58	MSU Waste Storage Facility	Michigan State University	Lansing	MID053343976		01/31/2014			01/31/2024*								
59	Wayne Disposal Inc	Wayne Disposal Inc	Belleville	MID048090633		05/04/2012			05/04/2022*								
60	Woodland Meadows LF North	Woodland Meadows LF North	Canton	MID000810408							09/28/2018		09/28/2028*				

Objective and Considerations

In FYs 2020 - 2021, EGLE intends to issue/renew operating/post-closure licenses, to process license modifications, to clean close regulated units, to approve post-closure plans, or to enter into CA consent orders/legally enforceable agreements such that the GPRA “approved controls in place” goals are achieved for 100 percent of the GPRA 2020 Permit Baseline.

EGLE will apply resources and allocate work between the U.S. EPA and other EGLE divisions, as necessary, to achieve the “controls in place” schedules. This effort will involve approximately one FTE in work years. Successfully implementing the schedule allows EGLE to meet the FY 2020 national goal for “approved controls in place” at Michigan’s GPRA 2020 Permit Baseline facilities and lends support to the U.S. EPA for the permitting goals outlined in their FY 2018 – 2022 Strategic Plan. It must be recognized that the ability to evaluate and process timely “controls in place” requires financial assurance reviews, as well as public participation. In addition, the work that resulted from the General Motors’ bankruptcies that took place in FY 2010, the work that needs to be done to redevelop the General Motors sites, now owned by RACER Trust, the staff time necessary to provide support on U.S. EPA lead projects, the staff time that may be necessary to coordinate recommendations for future HW Program funding, the staff time to be devoted to the WDS/RCRAInfo databases, the staff time required by the e-Manifest IT system, efforts to incorporate EJ into each stage of the RCRA Program, and any FTE positions that are vacated and not filled could impact upon EGLE’s ability to meet the “controls in place” projected work schedule.

Work Commitments

Waste Analysis Plan Initiative

To improve the quality and consistency of the Waste Analysis Plans (WAP) in our permits and to streamline the permitting process, the HWS initiated a focused WAP review process for three facilities that are in the process of relicensing. As part of this process, EGLE is engaging with the facilities and the U.S. EPA to update our WAP template and resolve key issues that have hindered relicensing. This process began in FY 2018 and will continue to require commitment of significant resources from EGLE, the U.S. EPA, and the regulated community until the WAP questions are resolved and a better template is put into place to be used for future licensing actions. The outcome of this process should greatly facilitate license reissuance, and result in high quality and consistent WAPs across facilities in Michigan.

Administrative Controls Work Schedule

The Administrative Controls FYs 2020 - 2021 Hazardous Waste Section Work Schedule follows this page.

ADMINISTRATIVE CONTROLS
FY 2020 - 2021 HAZARDOUS WASTE SECTION WORK SCHEDULE

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
FY 2020					
Operating License Renewal Application - Completeness Determination (OP403YE)					
1	U of M Beck Road Facility	University of Michigan	Belleville	MIR000001834	Ronda Blayer
2	Michigan Disposal Waste Treatment Plant	Michigan Disposal Waste Treatment Plant	Belleville	MID 000 724 831	Kimberly Tyson
Operating License Renewal Application - Technical Adequacy Determination (OP150)					
3	EQ Detroit Inc South	US Ecology	Detroit	MID 980 991 566	Andrew Bertapelle
4	Michigan Disposal Waste Treatment Plant	Michigan Disposal Waste Treatment Plant	Belleville	MID 000 724 831	Kimberly Tyson
5	U of M Beck Road Facility	University of Michigan	Belleville	MIR000001834	Ronda Blayer
Operating License Renewal Application - Reissuance Determination (OP205)					
6	US Ecology Detroit North	US Ecology Michigan Inc	Detroit	MID 074 259 565	Rich Conforti
Postclosure Operating License Renewal Application - Technical Adequacy Determination (PC150)					
7	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Andrew Bertapelle
FY 2021					
Operating License Renewal Application - Public Notice Draft Operating License (OP160DP)					
8	EQ Detroit Inc South	US Ecology	Detroit	MID 980 991 566	Andrew Bertapelle
9	Michigan Disposal Waste Treatment Plant	Michigan Disposal Waste Treatment Plant	Belleville	MID 000 724 831	Kimberly Tyson
10	U of M Beck Road Facility	University of Michigan	Belleville	MIR000001834	Ronda Blayer
Operating License Renewal Application - Reissuance Determination (OP205)					
11	EQ Detroit Inc South	US Ecology	Detroit	MID 980 991 566	Andrew Bertapelle
12	Michigan Disposal Waste Treatment Plant	Michigan Disposal Waste Treatment Plant	Belleville	MID 000 724 831	Kimberly Tyson
13	U of M Beck Road Facility	University of Michigan	Belleville	MIR 000 001 834	Ronda Blayer
Operating License Permit Reviewed (OP250)					
14	Dow Chemical Company - Salzburg Landfill	The Dow Chemical Company	Midland	MID 980 617 435	Dan Dailey
Postclosure Operating License Renewal Application - Permit Public Notice - Other (PC160DP)					
15	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Andrew Bertapelle
Postclosure Operating License Renewal Application - Final Permit Effective (PC205)					
16	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Andrew Bertapelle

2.5 Corrective Action

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: Revitalize Land and Prevent Contamination. Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

U.S. EPA Guidance

Page 15 of the FYs 2020 – 2021 *U.S. EPA National Program Guidance, Draft – April 1, 2019*, states:

“U.S. EPA Headquarters and Regions shall:

- For RCRA Corrective Action, lead and collaborate with states to achieve progress toward the FY 2018-2022 long-term performance goal of making 536 additional RCRA Corrective Action facilities RAU. U.S. EPA will develop and lead collaborative implementation with the states of strategies to achieve the RAU Goal.
- Lead and collaborate with states to achieve RCRA cleanup targets for the Corrective Action measures of 1) human exposures under control, 2) migration of contaminated groundwater under control, 3) remedy construction, and 4) cleanup complete.
- Through FY 2020, lead implementation of the RCRA Corrective Action program toward the 2020 performance goals for 2020 baseline facilities.
- Lead the program in assessing the universe of facilities subject to RCRA Corrective Action and identifying new goals for assessment and cleanup of contamination at additional facilities, as appropriate and resources allow.
- Lead implementation of Long-Term Stewardship approaches identified through collaboration with states for future protection of human health and the environment where contamination remains in place at RCRA Corrective Action cleanups.”

Environmental Indicators (EIs)

The RCRA CA Program tracks EIs as the means by which environmental results are measured.

The U.S. EPA National Program Guidance, Draft – April 1, 2019, Section IV. FY 2020 National Program Guidance Measures, identifies the following FY 2020 national targets for RCRA CA EIs:

CA EI	Measures	FY 2020 National Target
Human Exposures Under Control (CA725)	CA1	Human exposures to toxins under control at 41 facilities.
Groundwater Migration Under Control (CA750)	CA2	Migration of contaminated groundwater under control at 61 facilities.
Remedy Construction (CA550) *	CA5RC	Final remedies constructed at 98 facilities
Corrective Action Performance Standards Attained (CA900 or CA999)	CA6	Corrective action performance standards attained at 59 facilities.
Ready for Anticipated Use (RAU)	RSRAU	107 RCRA Corrective Action facilities made Ready for Anticipated Use.

The first two RCRA CA EIs are a means of evaluating and reporting on the acceptability of current site conditions (i.e., they are interim milestones and not final remedy or site closure milestones) and they are defined as follows:

- The Current Human Exposures Under Control (CA725) EI is an assessment of actual current human risks and would typically take the form of a qualitative assessment of the completeness of exposure pathways but, as necessary, may include a traditional quantitative risk assessment.
- The Groundwater Migration Under Control (CA750) EI is strictly a resource protection measure and not a direct measure of human risk. It may include the assessment of impacts of groundwater discharges to surface waters and surface water ecosystems.

These EIs provide an opportunity for facilities and regulators to show meaningful progress that is achievable in the near future. The EIs focus on results (i.e., changes in the quality of the environment) and de-emphasize the CA process. The EIs reflect “current” conditions (i.e., known or expected at the time of the determination), are site-wide determinations, and should reflect all contaminants of concern present above risk-based levels of concern. The EIs cannot be achieved until all aspects of the facility subject to RCRA CA are considered.

The third RCRA CA EI, Remedy Construction, is a significant milestone to the U.S. EPA because it measures the progress of remedy implementation at GPRA 2020 CA facilities. This EI is reported in the national RCRAInfo as follows:

CA550NR – This event code applies when the RCRA facility receives state/U.S. EPA acknowledgement that no construction is necessary beyond what has been implemented prior to the remedy decision (e.g., as in the case of stabilization measures).

CA550RC – This event code applies when the RCRA facility receives state/U.S. EPA written acknowledgement that the approved final remedy that was designed to achieve long-term protection of human health and the environment has been constructed and is fully functional as designed, whether or not final cleanup levels or other requirements have been achieved.

CA550OF – This code applies when the agency has approved written documentation submitted by the facility demonstrating that remedy deferral for a specific operating (manufacturing process) area(s) is appropriate based on defined criteria. For this code to apply, the facility must demonstrate the following:

- There are safety and/or physical limitations that cannot be overcome by engineering and/or scheduling considerations and that preclude reasonable efforts to construct/implement remedies during a specified time period of operation.
- The deferred operating area is not an operating hazardous waste unit/area; the environmental indicators CA725 and CA750 are and will continue to be met relative to the entire facility.
- There are no ongoing releases contributing to contamination and there are no offsite releases; contaminant extent has been delineated, the final remedy has been identified, and financial assurance for the final remedy is in place for all areas at the facility.
- Any necessary institutional controls are in place to prevent unacceptable exposures to contamination and ensure protection of human health and the environment.
- The deferral is only for a specified period of time and shall not extend beyond the active life of the critical process, or integral component, that is the basis for the deferral.

The fourth RCRA CA EI, Corrective Action Performance Standards Attained, has become a significant milestone to the U.S. EPA because it measures achievement of performance standards. This EI is reported in the national RCRAInfo as follows:

CA900CR – This event code applies when the selected remedy for the protection of human health and the environment standard is fully implemented and associated performance standards have been attained with required controls.

CA900NC – This event code applies when the selected remedy for the protection of human health and the environment standard is fully implemented and associated performance standards have been attained with no controls.

CA999NF – This event code applies when the site characterization has demonstrated the attainment of the final RCRA CA goals without any active remediation.

CA999RM – This event code applies when all active remedial measures as specified in the RCRA permit or enforcement order are completed, final RCRA CA goals have been attained, the permit or order has been terminated, and CA at the facility is no longer needed.

The fifth RCRA CA EI, Ready for Anticipated Use, is a U.S. EPA Long-term goal as identified on Page 14 in the *U.S. EPA FY 2018 – 2022 Strategic Plan, February 12, 2018*. This EI is reported in the national RCRAInfo as follows:

CA800YE – This event code applies when the facility or facility area has met the Human Exposures Environmental Indicator (CA725YE); cleanup goals have been achieved for media that may affect current and reasonably anticipated future land uses of the facility so there are no unacceptable risks; and all institutional or other controls, identified as part of a response action or remedy as required to help ensure long-term protection, are in place.

GPRA 2020 CA Universe

Refer to the GPRA 2020 CA Universe discussion, in the Administrative Controls Section of this Work Plan, for details regarding the sites that are in this universe.

The GPRA 2020 CA Baseline by Facility table alphabetically lists each of the 119 facilities that are in the universe, the lead agency for the facility, and the actual EI accomplishment dates for each of the CA goals (CA725, CA750, CA550, CA900/CA999). An explanation of the abbreviated column headings is shown at the top of each page of the table.

The GPRA 2020 CA Baseline by Facility Table follows this page.

GPRA 2020 Corrective Action Baseline By Facility

The GPRA 2020 Corrective Action Baseline by Facility shows the actual/projected accomplishment dates for each facility alphabetically

Definitions: N-Caps-National CA Prioritization System; HE Control=Human Exposures Controlled; GW Control=Groundwater Controlled; Construction Comp=Construction Complete; Lead-C=CERCLA

	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
1	100 E PATTERSON LLC	100 E PATTERSON LLC	EPA	TECUMSEH	MID005049440	Christine Matlock	L							
2	ACCESS BUSINESS GROUP LLC	ACCESS BUSINESS GROUP LLC	State - Hazardous Waste	ADA	MID006026793	Jacob Runge	H	9/30/2002	8/20/2004	7/10/2006	1/30/2008	3/26/2018	9/29/2015	
3	AK STEEL DEARBORN WORKS	AK STEEL CORPORATION	State - Hazardous Waste	DEARBORN	MID087738431	Kimberly Tyson	H	2/8/2005	2/8/2005					
4	AMERICAN AXLE AND MFG INC	AMERICAN AXLE AND MFG	State - Hazardous Waste	THREE RIVERS	MID000718551	Kimberly Tyson	H	12/31/2007	12/31/2007		8/25/2014	8/25/2014	10/1/2014	10/1/2014
5	ANCHOR DANLY COMPONENTS	ANCHOR LAMINA AMERICA INC	EPA	BELLAIRE	MID006017966	Kimberly Tyson	H	6/10/1999	6/10/1999	9/30/1999	9/30/1999			
6	ARKEMA INC	ARKEMA INC	EPA	RIVERVIEW	MID005363114	Christine Matlock	M	9/30/2004	6/22/2005					
7	ASHLAND INC	ASHLAND INC	EPA	LANSING	MID047173653	Richard Conforti	M	4/28/2005	5/26/2005					
8	BARBER STEEL FOUNDRY CORP	BARBER STEEL FOUNDRY CORP	State - Hazardous Waste	ROTHBURY	MID006025217	Christine Matlock	H	7/14/2004	7/11/2011		12/21/2011	8/28/2014	9/30/2015	9/30/2015
9	BASF CORP	BASF CORP	EPA	WYANDOTTE	MID064197742	Jacob Runge	H	6/30/2005	9/30/2005					
10	BASF CORPORATION	BASF CORPORATION	State - Hazardous Waste	MUSKEGON	MID080358351	Jacob Runge		9/14/2005	9/23/2004					
11	BAY CITY INDUSTRIAL LAND	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Superfund	BAY CITY	MID005356688	Ronda Blayer	H	9/27/2007	3/10/2008		9/14/2015	12/17/2017	9/28/2016	
12	BLACK RIVER PUBLIC SCHOOL	BLACK RIVER SCHOOLS	State - Hazardous Waste	HOLLAND	MID006411953	Ronda Blayer	L	9/16/2003	9/16/2003	9/21/2006	3/6/2009	9/16/2003	9/16/2003	9/16/2003
13	BLUE COW INC	BLUE COW INC	State - Hazardous Waste	MIDDLEVILLE	MID060197662	Christine Matlock	H	1/16/1998	1/16/1998	6/13/1996	1/16/1998	4/16/1998		1/16/1998
14	BOSTIK INC	BOSTIK INC	State - Hazardous Waste	MARSHALL	MID060198249	Andrew Bertapelle	M		9/26/2018					
15	CHEMICAL ANALYTICS INC ROMULUS	STERICYCLE SPECIALTY WASTE SOLUTIONS INC	State - Hazardous Waste	ROMULUS	MID985568021	Jacob Runge	L	8/4/1998	8/4/1998	9/1/2010	6/5/2012	9/17/2013		8/4/1998
16	CHRYSLER INTROL DIVISION	OLD CARCO LLC	State - Hazardous Waste	DEXTER	MID990760100	Richard Conforti	M	9/28/2006	8/14/2007	8/28/2014				
17	CITY OF ADRIAN	COUNTY OF LENAWEE	EPA	ADRIAN	MID005044813	Jacob Runge	H	3/30/2005	5/30/2007					
18	CITY OF FLINT	CITY OF FLINT	EPA	FLINT	MID005356654	Daniel (Dan) Dailey	M	10/7/2015						

GPRA 2020 Corrective Action Baseline By Facility

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	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
19	CWC CASTINGS DIVISION PLANT 3	TEXTRON INC	EPA	MUSKEGON	MID006030357	Richard Conforti	H	12/31/2007	12/31/2007					
20	CYANOKEM - DETROIT	LE PETOMANE VII CUSTODIAL TRUST	State - Superfund	DETROIT	MID098011992	Daniel (Dan) Dailey	L							
21	CYTEC INDUSTRIES INC (PAST TSD)	CYTEC INDUSTRIES INC	State - Hazardous Waste	KALAMAZOO	MID005360680	Andrew Bertapelle	L	6/28/2012	9/19/2011	12/3/2008	3/1/2018			
22	DELCO CHASIS INDUSTRIAL LAND	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	EPA	LIVONIA	MID005356621	Jacob Runge	H	3/5/2008	11/16/2004					
23	DELPHI ENERGY & CHASSIS SAGINAW OPERATIONS	DELPHI AUTOMOTIVE SYSTEMS LLC	State - Hazardous Waste	SAGINAW	MID005356845	Andrew Bertapelle	L							
24	DEQ REMED/REDEVELOPMENT-PROD PLATED PLASTICS	MI DEPT/ENVIRONMENTAL QUALITY	State - Superfund	RICHLAND	MID047153077	Jacob Runge	H	7/14/2000	6/12/2001					
25	DETROIT DIESEL CORPORATION	DETROIT DIESEL CORPORATION	EPA	DETROIT	MID005356803	Ronda Blayer	M	12/4/1999	9/2/2003	2/9/2011	12/19/2014			
26	DORE INDUSTRIAL INC	DORE INDUSTRIAL INC	State - Hazardous Waste	BAY CITY	MID005359286	Kimberly Tyson	H	9/21/2006	8/3/2006	9/21/2006	9/30/1999			
27	DOW BAY CITY PLANT	THE DOW CHEMICAL COMPANY	EPA	BAY CITY	MID005380258	Daniel (Dan) Dailey	H	3/13/2007	3/13/2007					
28	DOW CHEMICAL COMPANY-SALZBURG LANDFILL	THE DOW CHEMICAL COMPANY	State - Hazardous Waste	MIDLAND	MID980617435	Daniel (Dan) Dailey	L	9/9/2009	9/9/2009		7/10/2012	6/12/2013		
29	DOW CHEMICAL MAIN PLANT & INCINERATOR COMPLEX	THE DOW CHEMICAL COMPANY	State - Hazardous Waste	MIDLAND	MID000724724	Daniel (Dan) Dailey	H		9/30/2003					
30	DOW SILICONES CORPORATION	DOW SILICONES CORP/DOW CHEMICAL	State - Hazardous Waste	MIDLAND	MID000809632	Kimberly Tyson	M	9/24/1999	9/24/1999		5/25/2012			
31	DPH ERT FLINT SITE PLANT 400	DPH ENVIRONMENTAL RESPONSE TRUST	EPA	FLINT	MID005356647	Jacob Runge	H	9/29/2004	12/28/2006					
32	DPH ERT FLINT SITE PLANT 500	DPH ENVIRONMENTAL RESPONSE TRUST	EPA	FLINT	MID980568620	Daniel (Dan) Dailey	L	6/19/2015						
33	DRUG & LABORATORY DISPOSAL INC	DRUG & LABORATORY DISPOSAL INC	State - Hazardous Waste	PLAINWELL	MID092947928	Kimberly Tyson	M	3/27/1996	3/27/1996		6/13/2011	9/27/2011		

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	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
34	DYNO NOBEL INC - ISHPEMING PLANT	DYNO NOBEL INC	State - Hazardous Waste	ISHPEMING	MID041413154	Jacob Runge	M	9/8/2008						
35	ECORSE COMMONS LLC	ECORSE COMMONS LLC	State - Hazardous Waste	ROMULUS	MID000809905	Ronda Blayer		8/6/2013	9/18/2014	9/3/2015	10/30/2015	12/18/2015	12/22/2015	
36	EDWARD C LEVY CO PLANT 3	EDWARD C LEVY CO	EPA	ECORSE	MID000809665	Richard Conforti	L	11/4/1999	11/4/1999					
37	EDWARD C LEVY CO PLT 6	EDWARD C LEVY CO	State - Hazardous Waste	DETROIT	MID094549425	Andrew Bertapelle	L	11/4/1999	11/4/1999					
38	EDWARDS OIL SERVICE INC	EDWARDS OIL SERVICE INC	State - Hazardous Waste	DETROIT	MID088754668	Andrew Bertapelle	M	7/2/1992	11/22/1993					
39	EI DUPONT DE NEMOURS	EI DUPONT FLINT SITE	State - Hazardous Waste	FLINT	MID005512066	Daniel (Dan) Dailey	L	9/21/2006	1/30/2006	8/14/2006	5/29/2009	4/11/2013		
40	ENTHONE OMI INC	ENTHONE OMI INC	State - Hazardous Waste	WARREN	MID056717747	Kimberly Tyson	L	4/15/2014	4/15/2014		9/21/2015			
41	EQ DETROIT SOUTH	EQ DETROIT INC	State - Hazardous Waste	DETROIT	MID980991566	Andrew Bertapelle	L	8/29/2011	8/23/1996	9/1/2010	6/21/2011	9/27/2011	6/23/2016	
42	FEDERAL-MOGUL POWERTRAIN LLC	FEDERAL-MOGUL POWERTRAIN LLC	State - Superfund	GREENVILLE	MID006021414	Kimberly Tyson	H	3/10/2008	9/22/2015					
43	FLINT GROUP PIGMENTS	FLINT GROUP PIGMENTS	EPA	HOLLAND	MIR000014779	Daniel (Dan) Dailey	H	3/10/2004	6/14/2007	8/20/2009	12/1/2011			
44	FORD MOTOR CO ALLEN PK CLAY MINE LF	FORD MOTOR COMPANY	State - Hazardous Waste	ALLEN PARK	MID980568711	Christine Matlock	M	9/6/2007	1/4/2007	9/30/2004	9/30/2004	11/30/2007	2/15/2017	
45	FORD MOTOR COMPANY - SALINE PLANT	FORD MOTOR COMPANY	State - Hazardous Waste	SALINE	MID009305665	Christine Matlock	M	9/23/2014	9/5/2013		6/29/2017			
46	FORD RIVER RAISIN WAREHOUSE	FORD RIVER RAISIN WAREHOUSE	State - Hazardous Waste	MONROE	MID005057005	Andrew Bertapelle	H	10/1/2001	3/25/2005					
47	FORMER DETROIT COKE CORPORATION SITE	HONEYWELL INTERNATIONAL INC	State - Hazardous Waste	DETROIT	MID099114704	Peter (Pete) Quackenbush	H	9/25/2003						
48	FORMER GM PLANT SAGINAW MALLEABLE IRON	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Superfund	SAGINAW	MID005356696	Daniel (Dan) Dailey	H	11/16/2007	9/15/2006		12/28/2018		4/3/2019	
49	FORMER NATIONAL COPPER PRODUCTS INC	PRAIRIE RONDE REALTY COMPANY	EPA	DOWAGIAC	MID005068507	Daniel (Dan) Dailey	M	6/28/2007	4/7/2008					

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	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
50	FORMER PEREGRINE COLDWATER ROAD SITE	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Hazardous Waste	FLINT	MIR000020743	Jacob Runge		3/21/2014	4/23/2015		9/26/2017	9/27/2018	9/18/2018	
51	FORMER TDY VEHICLE SYSTEMS	TELEDYNE VEHICLE SYSTEMS	State - Hazardous Waste	MUSKEGON	MID006407597	Daniel (Dan) Dailey	H	7/7/2005	7/7/2005	9/4/2018				
52	GAGE PRODUCTS CO	GAGE PRODUCTS CO	State - Hazardous Waste	FERNDALE	MID005338801	Daniel (Dan) Dailey	L	1/9/2014						
53	GENERAL MOTORS LLC - FLINT COMPLEX	GENERAL MOTORS LLC	EPA	FLINT	MID005356951	Richard Conforti	M	11/4/2005	11/4/2005	11/4/2005				
54	GENERAL MOTORS LLC - TECHNICAL CENTER	GENERAL MOTORS LLC	State - Hazardous Waste	WARREN	MID050615996	Jacob Runge	L	3/14/2011	3/17/2011		8/19/2014	9/22/2014	2/29/2016	
55	GM COMPONENTS HOLDINGS LLC	GM COMPONENTS HOLDINGS LLC	EPA	WYOMING	MID017079625	Jacob Runge	H	9/29/2004	12/28/2006					
56	GM LANSING GRAND RIVER	GENERAL MOTORS LLC	State - Hazardous Waste	LANSING	MID005356894	Christine Matlock	M	9/28/2015	9/21/2016					
57	GRAND BLANC LANDFILL	GRAND BLANC LANDFILL	State - Hazardous Waste	GRAND BLANC	MID980506265	Kimberly Tyson	M	8/6/2010	8/6/2010		3/25/2014		9/27/2018	
58	GRANGER GRAND RIVER LANDFILL	GRANGER LAND DEVELOPMENT COMPANY	State - Hazardous Waste	GRAND LEDGE	MID082771700	Christine Matlock	H	9/5/2001	9/5/2001	8/17/2006	9/17/2008			
59	HADLEY INDUSTRIES DIV OF ASI	HADLEY INDUSTRIES	State - Hazardous Waste	LUDINGTON	MID982222242	Jacob Runge	L	9/4/2018	9/5/2018	9/6/2019	9/6/2019	9/23/2019		9/6/2019
60	HENKEL SURFACE TECHNOLOGIES	HENKEL SURFACE TECHNOLOGIES	EPA	MORENCI	MID058723867	Christine Matlock	H	8/24/2004	8/26/2003	6/15/2006	6/27/2006	10/2/2007		
61	HOLCIM US INC.	HOLCIM US INC	State - Hazardous Waste	DUNDEE	MID005038500	Andrew Bertapelle	M							
62	HONEYWELL INTERNATIONAL INC BURDICK AND JACKSON	HONEYWELL INTERNATIONAL INC	EPA	MUSKEGON	MID072575731	Richard Conforti	H	9/27/2007	3/10/2008					
63	INTERTAPE POLYMER GRP	INTERTAPE POLYMER CORPORATION	State - Hazardous Waste	MARYSVILLE	MID061862926	Daniel (Dan) Dailey	L	1/13/2012	1/24/2012		5/9/2013	9/30/2013	10/5/2015	
64	JOHNSON CONTROLS INC	JOHNSON CONTROLS INC	EPA	FOWLerville	MID099124299	Richard Conforti	H	3/31/2004	9/30/2004					
65	KHI INC	KHI INC	State - Hazardous Waste	HOLLAND	MID006020895	Christine Matlock	H	9/6/2001	2/22/2011	10/30/1997	1/16/2001	12/7/2007	5/19/2011	

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	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
66	LACKS INDUSTRIES INC	LACKS INDUSTRIES INC	State - Hazardous Waste	GRAND RAPIDS	MID006014666	Andrew Bertapelle	H	9/29/2003	8/22/2013					
67	LACKS INDUSTRIES INC SARANAC	LACKS INDUSTRIES INC	EPA	SARANAC	MID080359433	Andrew Bertapelle	H	9/30/2004	9/17/2003					
68	LAFARGE MIDWEST INC	LAFARGE MIDWEST INC	State - Hazardous Waste	ALPENA	MID005379607	Daniel (Dan) Dailey	H	5/17/2001	5/17/2001	5/17/2001	5/17/2001	5/17/2001		5/17/2001
69	LAFAYETTE BUILDING	LAFAYETTE BUILDING	State - Hazardous Waste	MOUNT CLEMENS	MID076342708	Jacob Runge	M	8/22/2012	6/6/2012		6/16/2015	7/24/2015		11/6/2009
70	LOC PERFORMANCE PRODUCTS INC	LOC PERFORMANCE PRODUCTS INC	EPA	LANSING	MID005380134	Daniel (Dan) Dailey	H	9/27/2002	10/23/2006					
71	MACDERMID INC	MACDERMID INC	State - Hazardous Waste	FERNDAL	MID005338371	Andrew Bertapelle	M							
72	MAHLE ENGINE COMPONENTS USA INC	MAHLE ENGINE COMPONENTS USA INC	State - Hazardous Waste	MUSKEGON HEIGHTS	MID980499735	Daniel (Dan) Dailey	L	10/3/2002	8/28/2002	12/3/2012	5/9/2013	9/23/2013		
73	MI CONCOURSE LLC	MI CONCOURSE LLC	EPA	PONTIAC	MID980568836	Ronda Blayer								
74	MI DEPT/NAT RES STORAGE FACILITY ROSCOMMON	MI DEPT/NATURAL RESOURCES	State - Hazardous Waste	ROSCOMMON	MID980825632	Richard Conforti	H	9/29/2000	9/29/2000	8/9/2000	2/1/2002	9/13/2012	2/1/2002	
75	MICHIGAN DISPOSAL WASTE TREATMENT PLANT	MICHIGAN DISPOSAL INC	State - Hazardous Waste	BELLEVILLE	MID000724831	Kimberly Tyson	L	5/12/2009	5/12/2009		6/10/2011	9/27/2011	9/25/2018	
76	MICHIGAN SEAMLESS TUBE	MICHIGAN SEAMLESS TUBE LLC	State - Hazardous Waste	SOUTH LYON	MID082767591	Ronda Blayer	H	9/9/2004	9/30/2005	9/28/2018				
77	MIDLINK BUSINESS PARK	5200 EAST CORK ST INVESTORS LLC	State - Hazardous Waste	KALAMAZOO	MID001876663	Jacob Runge	M	9/18/2017	9/14/2018					
78	MODINEER COMPANY	MODINEER CO	EPA	NILES	MIK367427523	Daniel (Dan) Dailey	M							
79	MONTAGUE WORKS	CHEMOURS COMPANY FC LLC	State - Hazardous Waste	MONTAGUE	MID000809640	Ronda Blayer	M	9/24/2013	9/10/2015					
80	MRP ALMA FACILITY	MRP PROPERTIES CO LLC	State - Hazardous Waste	ALMA	MID005358130	Christine Matlock	H	9/27/2004	9/16/2004					
81	MSU WASTE STORAGE FACILITY	MICHIGAN STATE UNIVERSITY	State - Hazardous Waste	LANSING	MID053343976	Kimberly Tyson	H	5/29/1998	5/29/1998		9/19/2012	9/19/2012		3/19/1993
82	NATIONAL STANDARD COMPANY LLC	NATIONAL STANDARD COMPANY LLC	State - Hazardous Waste	NILES	MIT270010549	Andrew Bertapelle	M							

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83	NATIONAL STANDARD NILES CITY COMPLEX	NATIONAL STANDARD	State - Hazardous Waste	NILES	MID005069257	Andrew Bertapelle	M	9/29/2003	9/22/2004					
84	OCCIDENTAL CHEMICAL CORP	OCCIDENTAL CHEMICAL CORP	EPA	MONTAGUE	MID006014906	Daniel (Dan) Dailey	H	9/30/2003	2/24/2000		7/19/2012			
85	PERMA FIX OF MICHIGAN INC	PERMA FIX OF MICHIGAN INC	State - Hazardous Waste	BROWNSTOWN TOWNSHIP	MID096963194	Kimberly Tyson	H	3/24/2004	9/24/2003	5/18/2012	9/24/2012	9/4/2014	11/26/2014	
86	PHARMACIA & UPJOHN COMPANY LLC	PHARMACIA & UPJOHN COMPANY LLC	State - Hazardous Waste	PORTAGE	MID000820381	Christine Matlock	H	3/29/2001	3/29/2001	3/30/2001	3/30/2001	9/28/2012	9/1/2015	
87	PPG INDUSTRIES INC	PPG INDUSTRIES INC	EPA	ADRIAN	MID048788749	Jacob Runge	H	9/27/2007	3/10/2008					
88	PSC ENVIRONMENTAL SERVICES	PETRO-CHEM PROCESSING GROUP OF NORTRU LLC	State - Hazardous Waste	DETROIT	MID980615298	Daniel (Dan) Dailey	M	6/16/1999	6/16/1999	6/16/1999				
89	RACER BUICK CITY PLANT	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	EPA	FLINT	MID005356712	Christine Matlock	H	8/17/2004	9/29/2005					
90	RACER COLDWATER ROAD LANDFILL	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Hazardous Waste	FLINT	MID005356860	Jacob Runge	H	5/29/1998	5/29/1998	10/29/1992	7/31/2014	3/25/2015		1/29/2015
91	RACER FIERO ASSEMBLY PLANT	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	EPA	PONTIAC	MID005356910	Daniel (Dan) Dailey								
92	RACER PLANTS 2 & 3	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Hazardous Waste	LANSING	MID980700827	Christine Matlock	M	9/6/2013	9/18/2014					
93	RACER PONTIAC CENTERPOINT CAMPUS CENTRAL & WEST	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	EPA	PONTIAC	MID005356902	Kimberly Tyson	H	12/6/2000	12/6/2000		9/4/2014		5/4/2015	
94	RACER PONTIAC NORTH CAMPUS	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	EPA	PONTIAC	MID005356886	Daniel (Dan) Dailey	H	3/2/2004	9/29/2004					

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95	RACER SAGINAW NODULAR INDUSTRIAL LAND	RACER PROPERTIES LLC	EPA	SAGINAW	MID041793340	Richard Conforti	H	8/25/2004	9/29/2004					
96	RACER TRUST LANSING PLANT 6 INDUSTRIAL LAND	REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST	State - Hazardous Waste	LANSING	MID005356928	Christine Matlock	M	9/25/2013	9/18/2014		5/24/2018			
97	REICHHOLD INC FERNDALE MICHIGAN	REICHHOLD INC	State - Hazardous Waste	FERNDALE	MID020087128	Andrew Bertapelle	H	5/28/1998	4/24/1998	4/18/2005	5/13/2003	9/15/2006		
98	REMEDICATION & REDEVELOPMENT DIV FENSKE LANDFILL	MI DEPT/NATURAL RESOURCES AND ENVIRONMENT	State - Superfund	GRAND RAPIDS	MID072589328	Kimberly Tyson	H	4/25/2005	9/18/2014					
99	RUGGED LINER INC	RUGGED LINER INC	State - Hazardous Waste	OWOSSO	MID058816927	Jacob Runge	M	8/25/2006	8/4/2006	9/28/2007	7/23/2009	5/9/2013	3/30/2017	
100	SAFETY KLEEN SYSTEMS INC	SAFETY KLEEN SYSTEMS INC	State - Hazardous Waste	MASON	MID981000359	Daniel (Dan) Dailey	H	5/28/1998	5/28/1998	5/28/1996	4/25/1996			
101	SAFETY KLEEN SYSTEMS INC	SAFETY KLEEN SYSTEMS INC	State - Hazardous Waste	PONTIAC	MID000722686	Daniel (Dan) Dailey	M	4/7/2014	7/18/1998	2/11/2004	10/13/2014	9/15/2014	10/13/2014	1/6/2005
102	SELFRIDGE AIR NATIONAL GUARD	US DEPT/DEFENSE	State - Hazardous Waste	SELFRIDGE ANGB	MID099113128	Christine Matlock	H	9/29/2004	9/13/2016					
103	SOLUTIA INC EAST PROPERTY	SOLUTIA INC	State - Hazardous Waste	TRENTON	MID009708678	Andrew Bertapelle	M	9/22/2015	8/27/2014					
104	ST MARYS CEMENT	ST MARYS CEMENT	EPA	DETROIT	MID094553419	Christine Matlock	L	6/30/2003	6/30/2003					
105	SYSTECH ENVIRONMENTAL CORP	SYSTECH ENVIRONMENTAL CORP	State - Hazardous Waste	ALPENA	MID981200835	Daniel (Dan) Dailey	L	8/6/2012	8/6/2012		8/6/2012	10/14/2013		7/20/2015
106	TRANSIGN LLC	TRANSIGN LLC	State - Hazardous Waste	WATERFORD	MID006007967	Daniel (Dan) Dailey	L	8/25/2008	8/25/2008	8/25/2008	9/29/2010	9/18/2012		9/29/2010
107	TREX PROPERTIES LLC	TREX PROPERTIES LLC	State - Hazardous Waste	DETROIT	MID091605972	Richard Conforti	L		2/10/2006					
108	U OF M BECK ROAD FACILITY	UNIVERSITY OF MICHIGAN	State - Hazardous Waste	BELLEVILLE	MIR000001834	Ronda Blayer	M	7/11/2005	7/11/2005	9/21/2006	5/16/2005	5/16/2005	5/16/2005	
109	UNIVERSAL DIE CAST INC	WASHTENAW INDUSTRIAL FACILITY LLC	EPA	SALINE	MID980795512	Christine Matlock	H	9/25/2008						

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	CURRENT NAME	LgName	Lead	City	Site ID	Permit Engineer	N-CAPS	HE Control CA725	GW Control CA750	Remedy Decision CA400	Construction Compl CA550	RAU CA800	Perf Std Attained CA900	Perform Std Attained CA999
110	US ECOLOGY DETROIT NORTH	US ECOLOGY MICHIGAN INC	State - Hazardous Waste	DETROIT	MID074259565	Jacob Runge	L	3/16/1998	3/16/1998	9/1/2010	7/8/2011	9/27/2011		3/16/1998
111	US ECOLOGY ROMULUS	US ECOLOGY ROMULUS INC	State - Hazardous Waste	ROMULUS	MID060975844	Christine Matlock	M	9/24/1999	9/24/1999		7/9/2015			
112	VASSAR ACQUISITIONS LLC	VASSAR ACQUISITIONS LLC	State - Hazardous Waste	VASSAR	MID005513262	Jacob Runge	M	7/13/2011	8/30/2013					
113	WACKER CHEMICAL CORP	WACKER CHEMICAL CORP	State - Hazardous Waste	ADRIAN	MID075400671	Daniel (Dan) Dailey	H	9/27/2007	9/14/2007	11/2/2007	9/28/2012	10/3/2013		
114	WARNER LAMBERT CO LLC FORMER MANUFACTURING SITE	PFIZER/WARNER LAMBERT COMPANY LLC	State - Hazardous Waste	HOLLAND	MID006013643	Andrew Bertapelle	M	11/13/2003	9/21/2004	6/20/2014	1/30/2015			
115	WAYNE DISPOSAL INC	WAYNE DISPOSAL INC	State - Hazardous Waste	BELLEVILLE	MID048090633	Christine Matlock	M	9/9/2009	9/9/2009					
116	WHIRLPOOL CORP ST JOSEPH DIV PLTS 3-6	WHIRLPOOL CORP	State - Hazardous Waste	SAINT JOSEPH	MID005477773	Kimberly Tyson	H	2/27/2001	2/27/2001	11/28/2000	12/27/2002	6/23/2003		6/23/2003
117	WILLOW RUN ARSENAL OF DEMOCRACY LANDHOLDINGS LP	WILLOW RUN ARSENAL OF DEMOCRACY LANDHOLDINGS LP	State - Superfund	YPSILANTI	MID980587893	Richard Conforti	L	3/25/2015	7/16/2015					
118	WOLF FIVE LLC (FORMER WYCKOFF STEEL PROPERTY)	WOLF FIVE LLC	State - Hazardous Waste	PLYMOUTH	MID004508628	Kimberly Tyson	H	2/18/1996	2/18/1996	3/26/2002	8/29/2003	6/12/2013	8/6/2015	
119	WOODLAND MEADOWS LDFL NORTH	WASTE MANAGEMENT OF MICHIGAN INC	State - Hazardous Waste	CANTON	MID000810408	Christine Matlock	L	9/30/2010	9/30/2010	9/30/2010	9/30/2010	8/26/2014	9/28/2018	

EGLE Goal

In FY 2020, EGLE intends to apply available resources at a pace that will enable the meeting of the following milestones for EGLE-lead GPRA 2020 CA Universe sites:

- Human exposures controlled (CA725) at 95 percent of EGLE-lead sites (EI achieved at two additional facilities in FY 2020).
- Contaminated groundwater controlled (CA750) at 88 percent of EGLE-lead sites (EI achieved at two additional facilities in FY 2020).
- Complete construction of final remedies (CA550) at 59 percent of EGLE-lead sites (EI achieved at three additional facilities in FY 2020).
- Achieve performance standards attained (CA900/999) at 39 percent of EGLE-lead sites (EI achieved at four additional facilities in FY 2020).
- EGLE is committed to achieve as many Ready for Anticipated Use (CA800) determinations as time and resources allow. Staff will determine if a GPRA facility that meets the U.S. EPA's definition of RAU indeed meets that definition and, if it does, they will complete a U.S. EPA RAU form for the facility and coordinate with the U.S. EPA to ensure that the achievement is entered in RCRAInfo.

While EGLE continues to work towards accomplishing EI milestones at our GPRA facilities where these goals have not yet been met, it is important for the U.S. EPA to recognize that there is an ever-increasing amount of work to be done at facilities that have achieved CA550s with controls to assure the adequacy of the implemented control(s) and require essential and timely adjustments if/when they become necessary. As EGLE achieves larger CA550 percentages for our GPRA 2020 facilities, the amount of time that must be devoted to oversight will increase and this area of CA will become a significant work element.

Strategy

EGLE will apply resources, as well as allocate the work to be done between the U.S. EPA and other EGLE divisions, in an endeavor to meet EGLE's goal for FYs 2020 - 2021 CA accomplishments. It is important to note that resource reduction and additional workloads (RACER Trust site remediation, operating license expansion applications, operating license renewals, operating license modifications, negotiation of new CA consent orders, staff time to evaluate mechanisms for future HW Program funding, staff time to provide support on U.S. EPA-lead projects, staff time to be devoted to the WDS/RCRAInfo databases, staff time to participate in stakeholder work groups and assist the U.S. EPA in developing the e-Manifest IT system, and troubleshoot any interoperability between Michigan's existing system (WDS) and the new national system, etc.), impact upon EGLE's ability to meet our FY 2020 - 2021s CA goals. In addition, financial assurance review continues to be an important component to the RCRA Program objectives (for operating licenses, post-closure, and CA) and instances involving regulated facilities on the brink of bankruptcy is altering the progress planned for the EGLE-lead GPRA 2020 CA schedule. EGLE also plans to continue to follow through with compliance oversight efforts of implemented CA to ensure adequate operation and maintenance, which is even more critical during difficult economic times. Some bankrupt TSDFs will likely require Comprehensive Environmental Response, Compensation and Liability Act referrals.

Objective and Considerations

EGLE will implement the above described strategy to conduct CA at the GPRA 2020 CA Universe facilities for which EGLE is the lead regulatory agency and to assist the U.S. EPA, as resources allow, to help the U.S. EPA achieve their FYs 2020 - 2021 national CA milestones. It is anticipated that approximately six FTE in work years will be devoted to this effort. Any FTE positions that are vacated and not filled in FYs 2020 - 2021 will affect EGLE's ability to meet our GPRA goal.

EGLE, Remediation and Redevelopment Division (RRD), Part 201 Amendments and their Potential Impact on RCRA/Part 111 Corrective Action in Michigan

In Michigan, Part 111 uses environmental protection standards pursuant to Part 201 for CA. In 2000, the U.S. EPA and EGLE entered into a memorandum of understanding (MOU) to aid in the implementation of RCRA CA requirements, at Michigan facilities, recognizing the use of the Part 201 cleanup criteria and associated processes for Part 111 CA to fulfill the RCRA CA obligations in Michigan. In 2002, the U.S. EPA and EGLE entered into a technical addendum that provided some additional technical detail related to substantive technical requirements. Because Part 201 has undergone several statutory changes since the U.S. EPA and EGLE entered into the MOU and the technical addendum, the agencies have agreed that an update to the MOU is needed.

During FYs 2020 - 2021, the HWS expects to continue to spend significant time working with RRD to support update of the Part 201 generic cleanup criteria that have historically been used for Part 111 CA in Michigan; updated criteria are critical to the updated MOU that is under development. The cleanup criteria rules package will require response to comments and any necessary revisions prior to promulgation.

EGLE has made a commitment to the U.S. EPA to develop a compliance assistance document that will lay out what provisions of Part 201 apply to Part 111 CA. The U.S. EPA has already provided direction on the Michigan Occupational Safety and Health Administration (MIOSHA) provisions found in §324.20120a(18). After EGLE completes the cleanup criteria update and compliance assistance document, the agency will proceed to draft the MOU for U.S. EPA review and comment.

Work Commitments

Mixing Zone Authorizations/Reauthorizations

As a tool to help achieve EI goals at Michigan's GPRA facilities, EGLE is committed to completing mixing zone authorization/reauthorization determinations, as needed, for facilities where contaminated groundwater is venting to surface water at concentrations exceeding applicable Part 201 groundwater/surface water interface criteria.

Coordinated Polychlorinated Biphenyl Cleanups (PCB)

As identified in the *U.S. EPA FYs 2020-2021 National Program Guidance, Draft – April 1, 2019, Office of Land and Emergency Management*, cleaning up contaminated sites and promoting reuse is identified as a key element to be accomplished during these FYs. As part of this work effort, the U.S. EPA has identified the following PCB cleanup goals:

- U.S. EPA Regions and states will implement priority aspects of the PCB cleanup program, which is not delegated to states. The U.S. EPA will continue coordination of Toxic Substances Control Act (TSCA) PCB cleanups with RCRA, Superfund, and state cleanups.
- U.S. EPA Regions will review, and issue, PCB cleanup/disposal approvals as required under Title 40 of the Code of Federal Regulations (CFR), Part 761, Subpart D (TSCA Storage and Disposal), addressing technical issues with applicants and coordinating with states.
- Section IV., FY 2020 National Program Guidance Measures, BFS Codes PC1 and PC3, in the *FYs 2020-2021 National Program Guidance, Draft – April 1, 2019*, identifies the U.S. EPA FY 2020 National Targets for the number of sites receiving TSCA coordinated approvals.

To facilitate PCB clean-ups and eliminate duplication of efforts when PCB remediation is needed at RCRA CA sites, EGLE and the U.S. EPA have been working cooperatively for coordinating approvals, pursuant to 40 CFR Part 261.77 (TSCA coordinated approval), although a formal memorandum of agreement or understanding is not yet in place. Additional projects with coordination of TSCA PCB remediation work are expected during FY 2020 - 2021s. EGLE has been working with the U.S. EPA on many of the conditions for coordinated approvals under Part 111 and Part 201 authorities. Once EGLE

has promulgated updated cleanup criteria for PCBs, the agency intends to provide a draft memorandum to the U.S. EPA for TSCA coordinated approvals so that a formal memorandum of agreement or understanding can be established.

CA Work Schedule

The CA FY 2020 HWS Work Schedule follows this page.

**CORRECTIVE ACTION
FY 2020 HAZARDOUS WASTE SECTION WORK SCHEDULE**

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
Corrective Action Oversight (CA001)					
1	Dow Midland On-site	The Dow Chemical Co	Midland	MID 000 724 724	Dan Dailey
2	Dow Midland Off-site - Midland Area Soils	The Dow Chemical Co	Midland	MID 000 724 724	Dan Dailey
3	Dow Midland Off-site - Tittabawassee River & Floodplain	The Dow Chemical Co	Midland	MID 000 724 724	Dan Dailey
4	Pfizer/Warner-Lambert Co LLC Former Manufacturing Site	Warner Lambert Co LLC	Holland	MID 006 013 643	Andrew Bertapelle
5	Cytec Industries Inc	Cytec Industries Inc	Kalamazoo	MID 005 360 680	Andrew Bertapelle
6	Gage Products Co	Gage Products Co	Ferndale	MID 005 338 801	Dale Bridgford
7	Bostik Inc	Bostik Inc	Marshall	MID 060 198 249	Andrew Bertapelle
8	Former TDY Vehicle Systems (L3 Communications)	Teledyne Vehicle Systems	Muskegon	MID 006 407 597	Dan Dailey
9	Wacker Chemical Corp	Wacker Chemical Corp	Adrian	MID 075 400 671	Dan Dailey
10	Edwards Oil Service Inc. (RTT of Detroit)	Edwards Oil Service Inc	Detroit	MID 088 754 668	Andrew Bertapelle
11	Silbond Corp	Silbond Corp	Weston	MID 005 039 458	Andrew Bertapelle
12	Chrysler Introl Division (CorePointe)	Old Carco LLC	Dexter	MID 990 760 100	Joe Rogers
13	Safety-Kleen Mason	Safety-Kleen Systems, Inc.	Mason	MID 981 000 359	Joe Rogers
14	RACER Trust (Former GM Willow Run Powertrain)	Revitalizing Auto Communities Environmental Response Trust	Ypsilanti	MID 980 587 893	John McCabe
15	Former GM Company Vehicle Operations (Willow Run CVO)	Revitalizing Auto Communities Environmental Response Trust	Ypsilanti	MID 005 356 795	John McCabe
16	Enthone OMI Inc	Enthone OMI Inc	Warren	MID 056 717 747	Kimberly Tyson
17	National Standard Niles City Complex	National Standard Niles City Complex	Niles	MID 005 069 257	Kimberly Tyson
18	Ford Rouge - Severstal	Severstal Dearborn LLC	Dearborn	MID 087 738 431	Kimberly Tyson
19	Macdermid Inc	Macdermid Inc	Ferndale	MID 005 338 371	Andrew Bertapelle
20	National Standard Company LLC	National Standard Company LLC	Niles	MIT 270 010 549	Kimberly Tyson
21	Selfridge Air National Guard	US Dept/Defense	Selfridge ANGB	MID 099 113 128	Art Ostaszewski
22	Ford Motor Company - Saline Plant	Ford Motor Company	Saline	MID 009 305 665	Christine Matlock
23	Alma Facility	MRP Properties Co LLC	Alma	MID 005 358 130	Christine Matlock
24	Ford River Raisin Warehouse	Ford River Raisin Warehouse	Monroe	MID 005 057 005	Andrew Bertapelle
25	Former GM Lansing Car Assembly - Plant 6	Revitalizing Auto Communities Environmental Response Trust	Lansing	MID 005 356 928	Christine Matlock
26	Former GMC & LMC - Lansing Plant 2 & 3	Revitalizing Auto Communities Environmental Response Trust	Lansing	MID 980 700 827	Christine Matlock
27	General Motors LLC - Lansing Plant 1	General Motors LLC	Lansing	MID 005 356 894	Christine Matlock
28	Wayne Disposal Inc Site 1	Wayne Disposal Inc	Belleville	MID 048 090 633	Christine Matlock
29	Former Detroit Coke Corporation Site	Honeywell International Inc	Detroit	MID 099 114 704	Christine Matlock
30	BASF Corp	BASF Corp	Wyandotte	MID 064 197 742	Jacob Runge
31	Former Peregrine Coldwater Road Site	Revitalizing Auto Communities Environmental Response Trust	Flint	MIR 000 020 743	Jacob Runge
32	RACER Coldwater Road Landfill	Revitalizing Auto Communities Environmental Response Trust	Flint	MID 005 356 860	Jacob Runge
33	Dyno Nobel Inc - Ishpeming Plant	Dyno Nobel Inc	Ishpeming	MID 041 413 154	Jacob Runge
34	DPH DAS LLC	DPH DAS LLC	Flint	MID 005 356 647	Jacob Runge
35	Montague Works	Chemours Company FC LLC	Montague	MID 000 809 640	Ronda Blayer
36	Michigan Seamless Tube LLC	Michigan Seamless Tube LLC	South Lyon	MID 082 767 591	Ronda Blayer
37	Trex Properties LLC	Trex Properties LLC	Grand Rapids	MID 020 906 764	Joe Victory
38	Trex Properties LLC	Trex Properties LLC	Detroit	MID 091 605 972	Joe Victory
39	Black River Public Schools	Black River Public Schools	Holland	MID 006 411 953	Ronda Blayer
40	Hayes Lemmerz Tech Svc Inc	Hayes Lemmerz Tech Svc Inc	Ferndale	MID 041 803 123	Joe Rogers

**CORRECTIVE ACTION
FY 2020 HAZARDOUS WASTE SECTION WORK SCHEDULE**

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
41	Lacks Industries Saranac	Lacks Saranac	Saranac	MID 080 359 433	Andrew Bertapelle
42	Lacks Industries Cascade	Lacks Cascade	Cascade	MID 006 014 666	Andrew Bertapelle
43	Solutia Inc East Property	Solutia Inc East Property	Trenton	MID 009 708 678	Andrew Bertapelle
44	Reichhold Inc	Reichhold Inc	Ferndale	MID 020 087 128	Andrew Bertapelle

**CORRECTIVE ACTION
FY 2020 HAZARDOUS WASTE SECTION WORK SCHEDULE**

#	CURRENT NAME	LEGAL NAME	CITY	SITE ID	STAFF
Enforcement Technical Support (CA085)					
45	Montague Works	Chemours Company FC LLC	Montague	MID 000 809 640	Ronda Blayer
46	Safety-Kleen Mason	Safety-Kleen Systems, Inc.	Mason	MID 981 000 359	Joe Rogers
47	Trex Properties LLC	Trex Properties LLC	Detroit	MID 091 605 972	Joe Victory
48	Lacks Industries Saranac	Lacks Saranac	Saranac	MID 080 359 433	Andrew Bertapelle
49	Lacks Industries Cascade	Lacks Cascade	Cascade	MID 006 014 666	Andrew Bertapelle
50	Hayes Lemmerz Tech Svc Inc	Hayes Lemmerz Tech Svc Inc	Ferndale	MID 041 803 123	Joe Rogers
51	Chrysler Introl Division (CorePointe)	Old Carco LLC	Dexter	MID 990 760 100	Joe Rogers
GPRA CA725 Human Exposures Controlled Determination (CA725YE)					
52	National Standard Lake Street	National Standard Lake Street	Niles	MIT 270 010 549	Andrew Bertapelle
53	Bostik Inc	Bostik Inc	Marshall	MID 060 198 249	Andrew Bertapelle
GPRA CA750 Groundwater Controlled Determination (CA750YE)					
54	Gage Products Co	Gage Products Co	Ferndale	MID 005 338 801	Dan Dailey
55	Dyno Nobel Inc - Ishpeming Plant	Dyno Nobel Inc	Ishpeming	MID 041 413 154	Dale Bridgford
GPRA CA400 Remedy Selection Determination (CA400)					
56	Petro-Chem Processing Group of Nortru, LLC	Stericycle Environmental Solutions/PSC	Detroit	MID 980 615 298	Dan Dailey
57	Gage Products Co	Gage Products Co	Ferndale	MID 005 338 801	Dan Dailey
GPRA CA550 Construction Complete Determination (CA550*)					
58	Petro-Chem Processing Group of Nortru, LLC	Stericycle Environmental Solutions/PSC	Detroit	MID 980 615 298	Dan Dailey
59	MacDermid	MacDermid	Ferndale	MID 005 338 371	Andrew Bertapelle
60	Michigan Seamless Tube LLC	Michigan Seamless Tube LLC	South Lyon	MID 082 767 591	Ronda Blayer
61	Remediation & Redevelopment Div Fenske	MI Dept/Natural Resources and Environment	Grand Rapids	MID 072 589 328	Kimberly Tyson
GPRA CA900/CA999 Corrective Action Performance Standards Attained (CA900*/CA999*)					
62	MacDermid	MacDermid	Ferndale	MID 005 338 371	Andrew Bertapelle
63	Safety-Kleen Mason	Safety-Kleen Systems, Inc.	Mason	MID 981 000 359	Joe Rogers
64	Cytec Industries Inc	Cytec Industries Inc	Kalamazoo	MID 005 360 680	Andrew Bertapelle
65	Enthone OMI Inc	Enthone OMI Inc	Warren	MID 056 717 747	Kimberly Tyson
66	Michigan Seamless Tube LLC	Michigan Seamless Tube LLC	South Lyon	MID 082 767 591	Ronda Blayer

2.6 Financial Assurance

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

EGLE Goal

EGLE is committed to ensuring that all owners and operators of TSDFs obtain and maintain sufficient financial assurance to pay for cleanup of accidental releases of hazardous waste constituents during the life of facility operation and to pay for cleanup, closure, and post-closure care in case the responsible party defaults on these regulatory obligations. EGLE has one FTE in work years devoted to financial assurance.

Strategy

EGLE intends to complete financial record reviews (FRR) in accordance with the objectives and considerations identified below.

Objective and Considerations

In FYs 2020 - 2021, EGLE intends to review budgets and expenditures under the settlement and trust agreements for the RACER Trust and for the CorePointe Group (formerly Chrysler Insurance Company), in follow up to the bankruptcies filed in FY 2011. Significant work will be required to review budget proposals and track expenditures, in addition to Work Plan review and implementation oversight.

In FYs 2020 - 2021, EGLE expects to complete FRR at all facilities that maintain financial assurance in Michigan, which currently includes 54 facilities. EGLE will use the state's WDS database to track, update, and verify whether facilities are maintaining financial mechanisms as required by the rules. Compliance and financial capability data from WDS will be translated into RCRAInfo pursuant to Michigan's agreement with the U.S. EPA. EGLE will send letters to owners/operators reminding them to update cost estimates, make payments into trust funds, and/or renew/replace mechanisms prior to their anniversary date. Deadlines will be tracked, and responses will be logged into the WDS database. Owner/operators will be contacted again if no response is received or if the response is inadequate. As some post-closure periods are approaching 30 years, extension of this time-period may need to be pursued in conjunction with perpetual care funds for financial assurance.

This verification and notification process is possible because all TSDFs and financial mechanisms are listed in WDS. The financial mechanisms are reviewed when received and rejected if inadequate. If a mechanism is listed in WDS, it has the proper wording. The major concern is that the mechanism provides sufficient coverage and that it is updated and renewed/replaced on schedule. The database can be used to determine what types of coverage are required, to determine what the owner/operator has submitted to meet those requirements, and to identify the submittal deadlines.

EGLE has found this process is more effective than conducting facility-specific FRR at only a limited number of facilities each year. This process highlights the inadequate financial demonstrations **before they occur**, putting EGLE in a proactive mode.

Work Commitments

In FYs 2020 - 2021, EGLE will complete a FRR for all 54 facilities that maintain financial assurance in Michigan, each FY, and enter data into WDS to demonstrate that the review has been completed. To reflect this in WDS, EGLE will record an "in-compliance" FRR (except when it does not apply) for the active TSDFs in the Compliance and Enforcement Module in WDS. Because of this proactive approach, essentially all Michigan TSDFs will be in-compliance with the financial capability requirements at any given time.

2.7 Management and Reporting

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

EGLE Goal

EGLE's goal is to support waste minimization and resource conservation activities, and to ensure that hazardous wastes are managed in a manner that protects human health and the environment and accomplishments are entered into state and federal databases in a timely manner to track the U.S. EPA milestone progress. EGLE anticipates that approximately eight FTE in work years will be devoted to this effort.

Strategy

EGLE intends to manage the RCRA Program in a manner that encourages resource conservation and recycling, while ensuring human health and environmental protection. EGLE also intends to enter the information, that is needed to reflect Michigan's performance measures towards meeting the applicable U.S. EPA GPRA goals, into the appropriate state and federal databases and to do so in a timely manner.

Objective and Considerations

EGLE will manage the RCRA Program to meet its overall purposes efficiently and effectively despite diminishing resources and funding constraints. However, any vacancies that may exist or occur during FYs 2020 - 2021 may affect the performance of this objective.

The following factors will be a consideration as EGLE strives to meet their objective:

- Accuracy and adequacy of the RCRA Program description contained in the Work Plan.
- Timeliness and accuracy of reports and other information submitted to the U.S. EPA.
- Effect of internal procedures to identify, track, and complete tasks necessary to fulfill the Work Plan.
- Effect of EGLE's administrative records to support compliance and enforcement monitoring, permitting and closure, CA activities, and state authorization.
- Effectiveness of communications with the U.S. EPA relating to management and reporting issues.
- Quality of the staff training program.
- Quality of laboratory support.
- Quality of EGLE's responses to requests for information by the public.

Work Commitments

Baseline Oversight Reporting

EGLE will follow the baseline oversight reporting frequencies identified in the following table:

Reports/Reporting	Frequency
WDS/RCRAInfo (Handler/CME/Permitting/CA)	Monthly
Financial Reporting	Annually at year end
Equipment Inventory	Annually at year end
Report of Staff Vacancies	Annually at year end
RASPR	Semiannually
Training	Semiannually
Waste Minimization	Semiannually
Joint Inspections	Up to ten per year
Conference Calls	
Compliance/Enforcement	Quarterly or as negotiated
Permitting	Quarterly or as negotiated
CA	Quarterly or as negotiated
Authorization	Quarterly or as negotiated
Financial Assurance	Quarterly or as negotiated
WDS	Quarterly or as negotiated
File Audits	
Compliance/Enforcement	Annually
Permitting	Annually
CA	Annually
Meetings (on-site, video conference, and/or conference call)	Annually or as negotiated
Written Evaluation Reports	Mid-year and year end
Capability Assessment	Informal, in conjunction with authorization packages
Picture Reports	Based on WDS data, can be pulled at anytime

Database Management, Records Management, and Reporting

WDS/RCRAInfo Reporting:

Michigan data for the RCRA Program is entered into WDS and translated to the RCRAInfo for Handler, Permitting, CA, Compliance and Enforcement, and Hazardous Waste (biennial) Reporting. Work on translating financial assurance data into RCRAInfo began in FY 2015 and it is expected to be completed in late FY 2019. Direct entry of financial assurance data into RCRAInfo, to address the U.S. EPA data quality of financial assurance data in RCRAInfo, was implemented in July 2016 and it will continue until such time as the data can be translated directly into RCRAInfo. Any disruptions in translation or data comparison reports will be communicated to the U.S. EPA, Region 5.

- Compliance Monitoring and Enforcement Module: EGLE commits to maintaining WDS to reflect current compliance, monitoring, and enforcement activities in Michigan. This data will continue to be translated into RCRAInfo, on a monthly schedule, through the Exchange Network by submitting XML files.
- Handler Module: The U.S. EPA Site ID numbers will continue to be issued through WDS, and the numbers will conform to the required check-digit algorithm. This data will continue to be translated into RCRAInfo, on a monthly schedule, through the Exchange Network by submitting XML files.
- Permit Module: EGLE commits to maintaining WDS to reflect current permitting, closure, and post-closure activities in Michigan, including facilities listed by the U.S. EPA as high priority under the federal GPR. This data will continue to be translated into RCRAInfo, on a monthly schedule, through the Exchange Network by submitting XML files.
- CA Module: EGLE commits to maintaining WDS to reflect CA activities in Michigan, including facilities listed by the U.S. EPA as high priority under the federal GPR. This data will continue to

be translated into RCRAInfo, on a monthly schedule, through the Exchange Network by submitting XML files.

Electronic Document Management:

EGLE is in the process of transitioning to the use of an electronic document management system for the storage and retrieval of documents to include: permits, licenses, correspondences, compliance documentation, inspection records, and etc. in lieu of hard copies. Meanwhile, EGGLE will maintain hardcopies until transition is complete and fully functioning.

E-Manifest IT System Development:

In FYs 2018 - 2019, the U.S. EPA continued e-Manifest system planning through formulation of a system implementation strategy, technical architecture, and a fee rule. Building on system requirements and with additional stakeholder discussions, this technical architecture provides the foundation for full system development/build. The U.S. EPA will continue to work closely with states (and industry users) in building the e-Manifest IT system and will carefully address interoperability between their existing systems and the new national system. Michigan will continue to participate in stakeholder work groups to assist the U.S. EPA in developing the e-Manifest IT system and troubleshoot any interoperability between Michigan's existing system (WDS) and the new national system, to the extent that resources are available to do so.

E-Manifest Implementation:

Each U.S. EPA Region previously assigned a point-of-contact to work with both the e-Manifest team and states on a number of technical, policy, and outreach efforts and activities to be completed prior to system deployment in June 2018. The e-Manifest system launched on June 30, 2018. Michigan continues to actively participate in National Data Calls, Region 5 specific calls and discussions, and e-Manifest listservs and developer calls, as available and appropriate. Michigan continues to work with the regulated community to assist industry users in obtaining appropriate site permissions in RCRAInfo as well as utilizing the e-Manifest system.

Laboratory Support

Estimates for laboratory support needs for FYs 2020 - 2021 are based on data generated by EGGLE's Environmental Laboratory and private sector contract laboratories for past analytical services. Costs are divided into two categories to differentiate between samples collected during: (1) RCRA groundwater inspections (i.e., GMEs, O&Ms, and groundwater assessments) and (2) samples resulting from RCRA compliance and/or CA investigations. Although projected laboratory costs are chiefly for mandatory RCRA inspections, allowance has been included for additional sampling visits in oversight support of RCRA closures, waste classification audits, and RCRA facility assessments. Estimates for laboratory support need to also include the time involved for special support of laboratory expertise regarding specific laboratory technology, methodology, and review of specified portions of Quality Assurance Project Plans.

All samples collected during sampling and compliance inspections will be analyzed in EGGLE's Environmental Laboratory, unless specialized analytical capability, not available through EGGLE's Environmental Laboratory, is required (i.e., high resolution mass spectrography). Samples will be sent to laboratories that participate in the EGGLE RRD, Contract Laboratory Program, for any needed analyses not routinely conducted by EGGLE's Environmental Laboratory. All analyses conducted by EGGLE will be performed in accordance with standard procedures contained in the 2016 (Revision 6) quality assurance manual entitled *Materials Management Division Quality Assurance and Quality Control Manual for the Sampling and Analysis of Environmental Media*. A copy of this manual was originally provided to the U.S. EPA following its completion (with the assistance of the U.S. EPA contractor) in February 1998, and it was officially approved by the U.S. EPA, Region 5, on December 16, 1998. Major updating was completed during FY 2001 (Revision 2). A second major update was completed in FY 2006 (Revision 3). Revision 4 was completed in FY 2009. Revision 5 was completed in FY 2013. Revision 6 was completed on August 31, 2016. Since this manual is lengthy, and the procedures it contains do not frequently change, EGGLE will review this document on a

biennial basis, and perform minor revisions, as needed. EGLE will submit a fully updated copy of the manual to the U.S. EPA every five years (from the date of official U.S. EPA approval), unless substantial changes necessitate a release sooner. In addition to this EGLE reference manual, the *U.S. EPA SW-846 Third Edition, Update IVB*, with revisions, will be used.

Safety Training

The MMD has developed a Health and Safety Program to ensure any staff, that performs duties at facilities where they may be exposed to hazardous chemicals, conducts tasks in the safest manner possible. The MMD Health and Safety Program is designed to comply with MIOSHA standards that includes the Michigan Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations and all applicable EGLE health and safety policies.

- All MMD staff that sample and/or inspect facilities, where hazardous chemicals may be present, must complete at least 24 hours of safety training designed to teach chemical awareness and toxicology and to familiarize them with personal protective equipment that may be required to perform tasks. All staff who have taken this training are required to complete an additional eight hours of safety training, annually, to update their safety skills and to maintain their HAZWOPER certifications. Staff whose work duties require them to wear a respirator must complete an annual 4-hour respiratory protection refresher training, which includes a fit test, and they must be able to demonstrate that they understand and can apply the information learned. All MMD staff that perform field work in a location remote from a medical facility must take Cardiopulmonary Resuscitation (CPR), First Aid, and Automated External Defibrillator (AED) training and maintain their certifications so that they can provide lifesaving skills if an emergency arises.
- All district and HW Program staff persons that may be called upon to participate in an emergency incident involving hazardous chemicals are required to be trained in the National Incident Management System (NIMS) structure for incident response. To meet this requirement, staff must satisfactorily complete the following NIMS online training courses, available through the Federal Emergency Management Agency Emergency Management Institute, and refresh these trainings on a three-year cycle: Introduction to Incident Command System (IS-100), Basic Incident Command System for Initial Response (IS-200), Fundamentals of Emergency Management (IS-230), An Introduction to the Incident Command System (IS-700), and National Response Framework, An Introduction (IS-800).
- The following training needs and costs are projected for FYs 2020 - 2021 based on the current FTE level of staffing, number of staff budgeting a percentage of their time to RCRA activities (i.e., partial RCRA FTEs), and expected training costs:

Training Needs	No. of Staff	Training Cost
8-hour Annual Safety Training	92 staff	\$120.00/person
24-hour Initial Safety Training	8 staff	\$350.00/person
40-hour Initial Safety Training	16 staff	\$425.00/person
Respirator Fit Testing, Respirator Training and Medical Monitoring	44 staff	\$500.00/person
CPR/First Aid Refresher/AED Training	118 staff	\$ 54.00/person
FY 2020 – 2021 SAFETY TRAINING COST		TOTAL: \$49,012.00

3.0 WASTE MINIMIZATION

U.S. EPA FY 2018–2022 Strategic Plan, Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Objective 1.3: *Revitalize Land and Prevent Contamination.* Provide better leadership and management to properly clean up contaminated sites and to revitalize and return the land back to communities.

EGLE Goal

Promote pollution prevention (P2) and the adoption of other sustainable practices throughout all aspects of the RCRA Program with a focus on preventing and minimizing the generation of solid and hazardous waste and supporting an emerging business trend to implement Sustainable Development Unit Goals.

Strategy

P2 is central to all U.S. EPA sustainability strategies, and the U.S. EPA will continue to incorporate these principles into its policies, regulations, and actions. P2, a long-standing priority for the U.S. EPA, encourages companies, communities, governmental organizations, and individuals to prevent pollution and waste by implementing conservation techniques, promoting efficient reuse of materials, making production processes more sustainable, and promoting the use of safety substances. EGLE is committed to collaborating with the U.S. EPA to review P2 results and identify enhanced P2 strategies.

Objective and Considerations

EGLE intends to meet our goal to promote P2 to the maximum extent possible.

The following considerations will impact upon our ability to provide this assistance:

- Limited funding and staff resources.
- The availability of EGLE, MMD, Sustainable Development Unit staff.
- Communication with the U.S. EPA on P2 results and enhanced P2 strategies.

Work Commitments

Pollution Prevention

P2 is a key element for protecting the Michigan environment. The MMD P2 program administers Section 11108 of Part 111 which established the state Waste Reduction Fee. Fees are assessed on businesses according to quantities of hazardous waste solidified or landfilled. Fees collected must be used for activities specified in Part 143, Waste Minimization, and Part 145, Waste Reduction Assistance, of the NREPA.

Part 143 and Part 145 of the NREPA contain the following major components:

- Provide P2 assistance including information, technical, and financial assistance to help businesses, institutions, and communities.
- Application of P2 multimedia compliance assistance to encourage businesses, municipalities, and the public to meet environmental responsibilities in a cost-effective manner.
- Identification of opportunities to encourage P2 through traditional regulatory activities, including permit programs, environmental impact statements, inspections, and enforcement.
- Support the use of sustainability plans, circular economy principles, corporate social responsibility plans, alternative assessments, lifecycle assessments, environmental management systems, materials innovation, and green chemistry as strategies to prevent pollution.

The MMD P2 program continues to focus on voluntary P2 programs as specified in their mission and goals. Current P2 priorities include source reduction, climate change issues, water conservation, green chemistry, and integration of sustainability concepts.

Further information about the MMD P2 program, the P2 Annual Report, as well as other P2 resources, is located on the general P2 Website located at <http://www.michigan.gov/p2>¹.

Sustainable Materials Management

EGLE's Sustainable Materials Management Unit (SMMU), housed within the MMD, focuses on sustainable materials management as it relates to waste issues, particularly waste utilization. This aligns with the efforts of the U.S. EPA and fits with Michigan's 2007 Solid Waste Policy (http://www.michigan.gov/deq/0,4561,7-135-3312_4123-172638--,00.html).

On April 14, 2014, Michigan's Governor Rick Snyder presented his statewide *Proposed Plan of Action on Recycling* (http://www.michigan.gov/deq/0,4561,7-135-70153_69695-313206--,00.html). Guided by EGLE discussions with businesses and the public, the *Proposed Plan of Action on Recycling* identified two key goals to be met: convenient access to residential recycling and market development for recycled products. In addition, the Governor appointed a nine-member Governor's Recycling Council to advise EGLE in implementing the *Proposed Plan of Action on Recycling* to achieve a 30 percent recycling rate within two years.

In FYs 2020 - 2021, it is the SMMU's and the MMD's continuing goal to focus on increasing opportunities and innovation for materials management related activities (i.e. reduce/reuse/recycle) by:

- Continuing to implement a web-based measurement and benchmarking system. Measurement legislation was passed March 29, 2016, as Public Act 55 of 2016 (PA 55). EGLE is utilizing the Re-TRAC system to meet the data collection needs outlined in PA 55; the electronic registration and reporting system was functioning by the close of the FY 2016, so that recycling establishments could become familiar with the system and submit data by the first quarterly report date of February 15, 2017.
- Conducting a significant amount of outreach and education for recycling establishments covered by PA 55. Outreach and education started in FY 2016, when EGLE introduced the initial PA 55 registration system, and these efforts are planned to continue.
- Continuing with efforts to establish a robust statewide education and outreach campaign. A statewide recycling outreach campaign at state parks by the Michigan Department of Natural Resources and the Michigan Recycling Coalition (MRC) was announced at the MRC conference on May 4, 2016. This was just the beginning of state outreach and education efforts to promote increased recycling in Michigan.
- Developing markets. \$2.9 million in market development grants were awarded under the FY 2017 Scrap Tire Market Development Program and the projects that began will continue into FY 2018. A similar level of funding for market development grants should become available in FYs 2020 - 2021.
- Working to increase the number of counties with convenient access to residential recycling to all 83 counties. The current number of counties with convenient access is 35.
- Leading by example. EGLE is continuing to work to increase recycling in state owned buildings and freeway rest areas.
- Discussing whether holding a fourth Governor's Summit on Recycling and sponsorship of partner events will help to further promote aspects of recycling and sustainability.

¹ If clicking the hyperlink does not open the webpage/document, try pasting the link directly into your web browser or contact EGLE for assistance.

- Investing in recycling infrastructure through continuation of a \$1 million appropriation while continuing to grow the recycling grant program.

In FYs 2020 - 2021, the SMMU intends to continue the implementation of Michigan's electronic waste take-back law, administered under Part 173, Electronics, of the NREPA, which became effective in 2008, with a focus on three areas: (1) educating consumers and retailers about the program provisions, (2) compliance assistance for registered recyclers and manufacturers, and (3) define necessary program revisions using internal and external stakeholder workgroups. In addition, the SMMU intends to focus on increasing markets for scrap tires, other than tire-derived fuels; continue to promote additional food waste and organics composting; implement the diverted waste and beneficial reuse legislation; continue to participate with the U.S. EPA's sustainable materials management efforts; and look for opportunities to partner with other U.S. EPA, Region 5, states.

Per capita collection of covered electronic devices (televisions, computers, printers) for recycling is currently below two pounds. EGLE continues to work on educating consumers and retailers about the program requirements, and on compliance assistance for registered recyclers and manufacturers. Senate Bill 922 was introduced on April 28, 2016, providing for proposed electronics program amendments identified through stakeholder efforts. The proposed bill includes provisions for a formal stakeholder workgroup to delve further into some issues in the program before proposing solutions.

The Solid Waste and Sustainability Advisory Panel (SWSAP) along with the Governors Recycling Council (GRC) have issued reports (see below). The groups have now been combined and EGLE is coordinating the new group, referred to as the Solid Waste and Recycling Advisors (SWRA), as the process of comprehensive review of Michigan's solid waste statute moves forward. The SWRA intends to shift the historic vision of solid waste management away from waste disposal systems, and view the management of materials more holistically, e.g. through options for waste reduction, material utilization, etc. These concepts will be incorporated into county planning to help drive more sustainable choices for managing materials throughout their lifecycle. The SWRA continues to work with EGLE towards its goals and they are prioritizing recommendations and developing plans for implementation. Along these lines, Michigan's solid waste statute (Part 115, Solid Waste Management, of the NREPA) is currently being evaluated for potential revisions.

SWSAP Report

http://www.michigan.gov/documents/deq/deq-wmrpd-SWSAP_Report_FINAL_555407_7.pdf

GRC Report

http://www.michigan.gov/documents/deq/deq-wmrpd-GRC_Report_FINAL_555408_7.pdf

4.0 MISCELLANEOUS ACTIVITIES

Senior Environmental Employees (SEE) Program

EGLE is seeking U.S. EPA In-Kind Funding for the critical five SEE FTEs to support Michigan's HW Program. The employees will continue to work in the following areas: (1) handler information and user charges, (2) Site ID and data collection, (3) RCRAInfo data collection, verification, entry, reporting, and research, 4) biennial reporting, and (5) district inspections. One SEE employee will continue to be used by EGLE, Warren District Office, to conduct certain oversight inspections.

Remediation Advisory Team (RAT) and Technical and Program Support (TAPS) Teams

During FYs 2020 - 2021, HWS staff will continue to coordinate and participate on the RAT to review remediation proposals, develop guidance to aid staff in reviewing remedial investigations and remediation reports, and provide opinions on technical issues related to remediation activities. The RAT is also available to U.S. EPA project managers; the RAT chairperson sends monthly reminders to U.S. EPA staff to announce upcoming meetings and ask for agenda items. In addition, assigned HWS staff will continue to participate on EGLE's, RRD, TAPS teams to keep apprised of Part 201 guidance

and to maintain as much consistency between Part 111 and Part 201, as possible, and allowed by RCRA.

EGLE Quality Management Plan (QMP)

The QMP is a document mandated by the U.S. EPA for all entities that receive federal funds and collect and/or review environmental data. The QMP outlines all the significant processes in an organization and documents the steps taken to ensure quality in those processes (including organizational policies, standard operating procedures, the process to ensure that competent staff are hired and remain qualified, etc.). As a recipient of federal funds, EGLE has an approved QMP for the agency. The most recent update of the QMP, dated January 19, 2018, was approved by the U.S. EPA on February 28, 2018. The approval of this QMP will be valid for up to five years, through February 28, 2023.

The QMP outlines specific steps EGLE takes to ensure quality in the collection, analysis, and review of environmental data. Specific portions of the QMP relating to MMD programs include the *MMD Quality Assurance/Quality Control Manual for the Sampling and Analysis of Environmental Media*, and EGLE Policy 09-020, *Policy on Quality Assurance Project Plans*. MMD staff use these and other components of the QMP to ensure that environmental data collected by staff, or by the regulated community, are suitable for their intended uses. The most recent update and revision of the *MMD Quality Assurance/Quality Control (QA/QC) Manual for the Sampling and Analysis of Environmental Media* was completed in FY 2016, and a copy was distributed to all MMD field staff on September 9, 2016. Staff are currently drafting *Standard Operating Procedures for PFAS Compounds* which will be appended to the 2016 QA/QC Manual in the near future, and the MMD has set a goal by 2021 to incorporate it into the revision of the QA/QC Manual.

The MMD adheres to EGLE's QMP portions that describe the process of hiring staff. The Michigan Department of Civil Service (MDCS) establishes job classifications and eligibility requirements for all positions in state government. Prior to hiring, individual position descriptions are reviewed and approved by EGLE, Office of Human Resources, and the MDCS, to ensure that the education and experience requirements meet the job classifications. Once hired, the manager or supervisor ensures that staff follows the training plan for their position. To ensure that EGLE employees maintain adequate qualifications to perform their job duties, tenured staff undergoes performance evaluations annually, and new staff undergoes probationary performance evaluations at the 3-month, 6-month, and 1-year benchmarks. Through this process, the supervisor evaluates how the staff person is performing relative to their job objectives (essential duties of the job) and competencies (behaviors and attributes of the position). An unsatisfactory performance, if noted, is immediately addressed to maintain a quality work force. EGLE also retains a training database to document continued staff training. In addition, the HW Program is subject to external audits and evaluations by entities, such as the Michigan Auditor General, the Office of Internal Audit Services, and the U.S. EPA to ensure that their HW Program remains of high quality. The HW Program is required to participate in the development and revision of the EGLE QMP.