



# Objectives and Targets Guide

Iowa Solid Waste

Environmental Management System



IOWA DEPARTMENT OF  
NATURAL RESOURCES



Gresham  
Smith

## TABLE OF CONTENTS

Introduction.....	3
What is an EMS? .....	3
Objectives and Targets Overview.....	4
Objectives.....	5
Targets.....	6
Metrics.....	8
Action Plans.....	10
Monitoring and Measurement.....	11
Reevaluation and Modification .....	12
Reporting.....	14

## RESOURCES

The following are available on the Iowa DNR EMS Participants webpage

(<https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Waste-Planning-Recycling/Solid-Waste-EMS/EMS-Participants>):

- Objectives and Targets Template
- Glossary of Terms
- Examples of Procedures
- EMS Annual Report Form

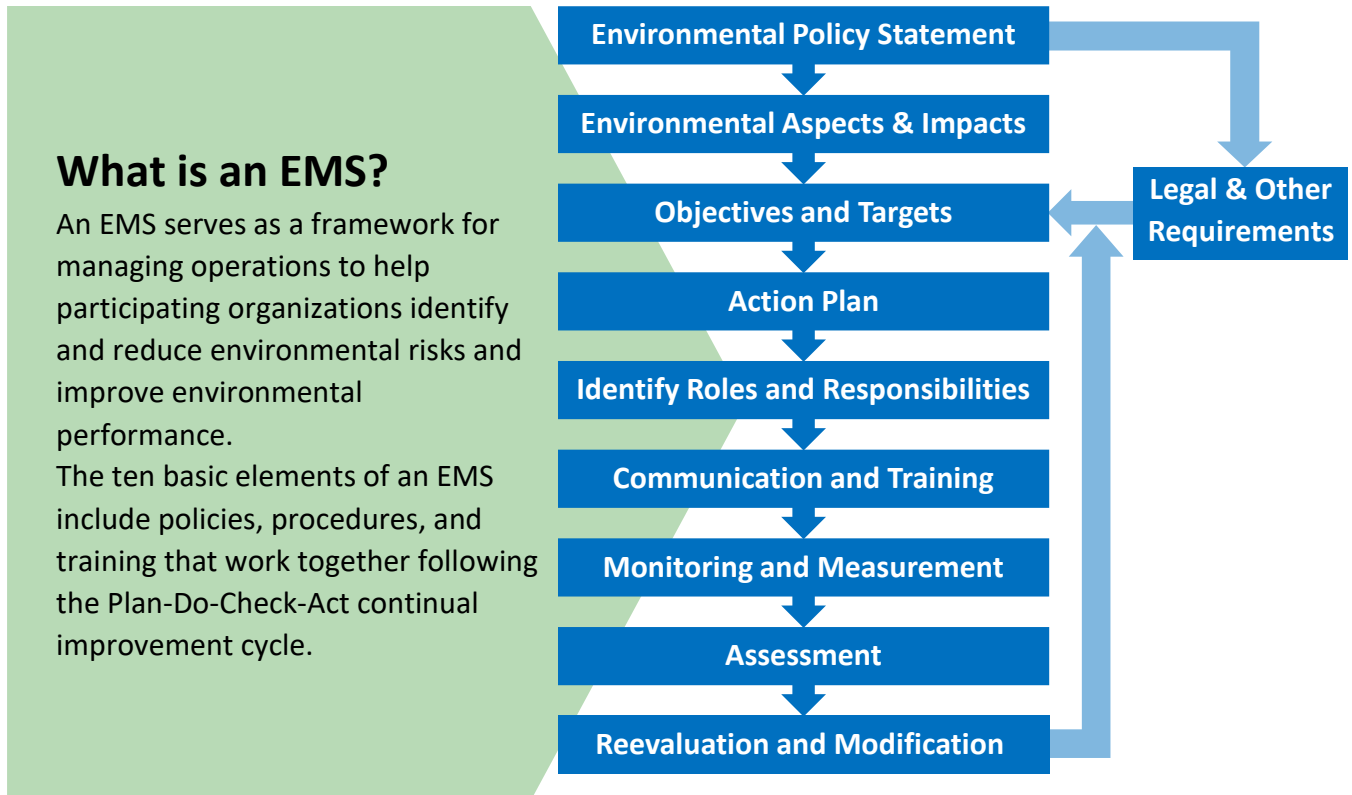
The following are available on the Iowa DNR Solid Waste Policy Rules webpage

(<https://www.iowadnr.gov/Environmental-Protection/Land-Quality/Solid-Waste/Solid-Waste-Policy-Rules>):

- Iowa Code 455J
- Iowa Administrative Rules Chapter 567-111

## Introduction

The Iowa Department of Natural Resources (DNR) has developed this practical guide for certain elements of an Environmental Management System (EMS), known as objectives and targets, to support solid waste agencies participating in Iowa DNR’s EMS program defined under Iowa Code 455J and Iowa Administrative Rules Chapter 567-111. For each of the selected EMS elements, this guide defines the EMS element, provides guidance on how to plan and implement the element, presents applicable real-world examples and points to additional resources available from DNR.

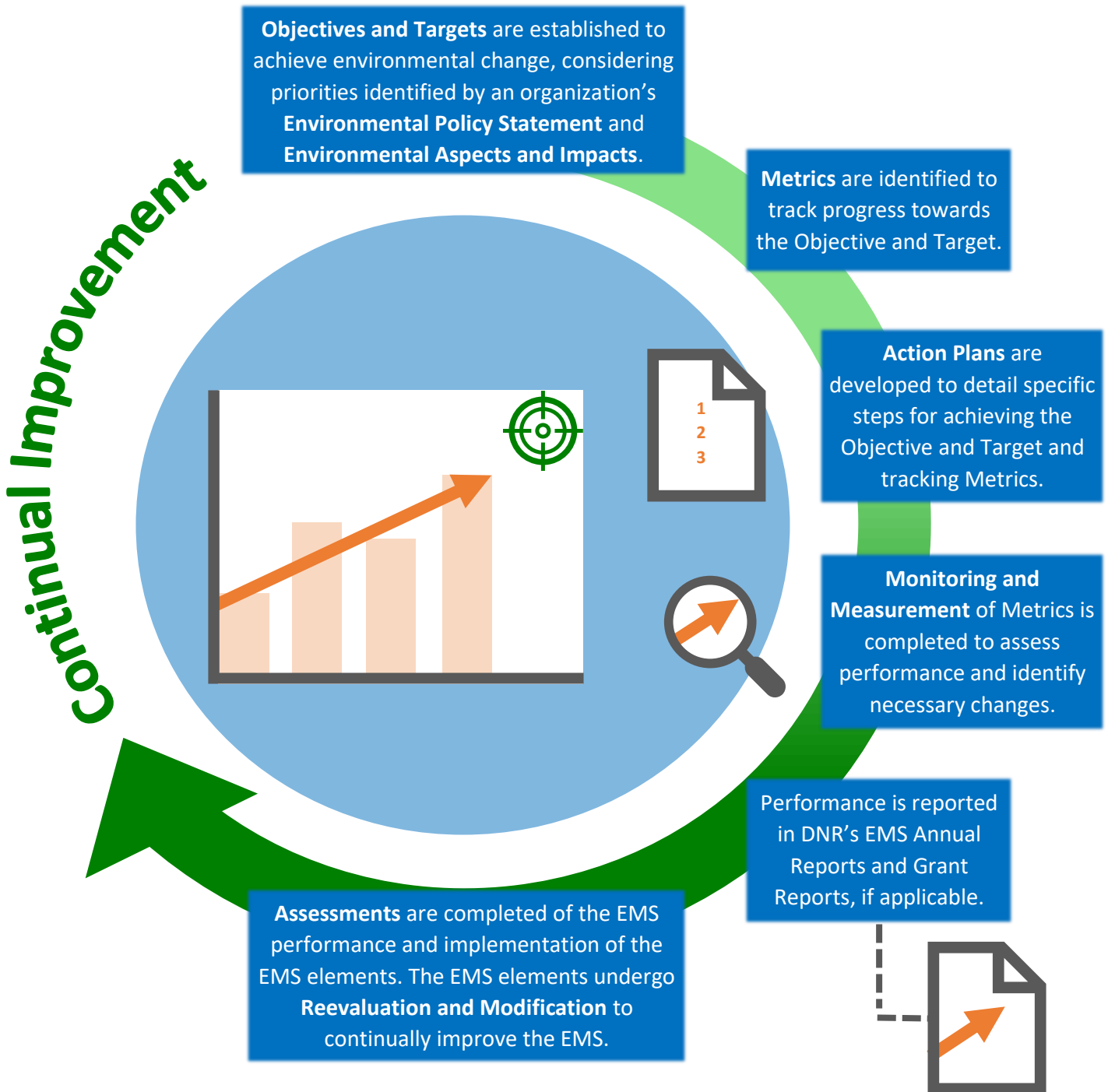


The goal of EMS implementation is to encourage responsible environmental management while promoting continuous improvement in six plan component areas.

- Organics Management** (Icon: Maple leaf)
- Household Hazardous Material Collection** (Icon: House with exclamation mark)
- Water Quality Improvement** (Icon: Water drop)
- Greenhouse Gas Reduction** (Icon: GHG cloud)
- Recycling Services** (Icon: Recycling symbol)
- Environmental Education** (Icon: Person at a screen)

## Objectives and Targets Overview

The EMS elements contained within this guide work together to help an organization set and achieve environmental goals. These elements work in concert with each other to form a continual, systematic process.



## Objectives

*Goals are set focusing on environmental change.*

Objectives are goals set to achieve an environmental change. EMS designation requires organizations to actively pursue environmental improvements in the six plan component areas, so objectives must address each area. Objectives should consider the commitments of the organization’s environmental policy statement and the priorities identified as the organization’s significant environmental aspects.

### How to set objectives

- Base objectives on the following:
  - Adhering to your written Objectives and Targets Procedure, if applicable.
  - Maintaining consistency with your Environmental Policy Statement.
  - Conforming with Iowa Code 455J.3.
  - Addressing significant aspects and impacts on your List of Environmental Aspects and Impacts from each of the six plan component areas.
- Identify an overall result of intended environmental change (i.e., objective).

Resources
<ul style="list-style-type: none"> <li>• Iowa Code 455J.3</li> <li>• Objective and Target Template</li> </ul>

Action	Subject	Aspect	Adoption Date
<i>Reduce</i>	<i>Greenhouse gas emissions</i>	<i>Building Air Emissions</i>	<i>6/1/2019</i>



- Document objectives along with any modifications (see the Objective and Target Template for a suggested format).

Objectives must be set, documented, reviewed and kept current. An organization must have a process in place to do so. A written procedure is recommended but is not required. Next, targets are established.

### Example Objectives:

	Improve organics management
	Improve/increase household hazardous materials collection
	Improve water quality/decrease degradation

	Reduce greenhouse gas emissions
	Improve/increase recycling services
	Improve/increase environmental education

## Targets

*Achievable approaches are set to reach environmental goals.*

For each objective, a quantifiable performance requirement, known as a target, must be set to demonstrate the intended outcome of the objective. A target needs to be tracked over time, and therefore should include quantities, locations and time periods. It should be realistic and reasonably accomplished with available resources. To justify the target and show continuous improvement, a baseline point or range should be identified for comparison. Targets should be S.M.A.R.T.



Additionally, a mix of target time lengths should be considered, including the following:

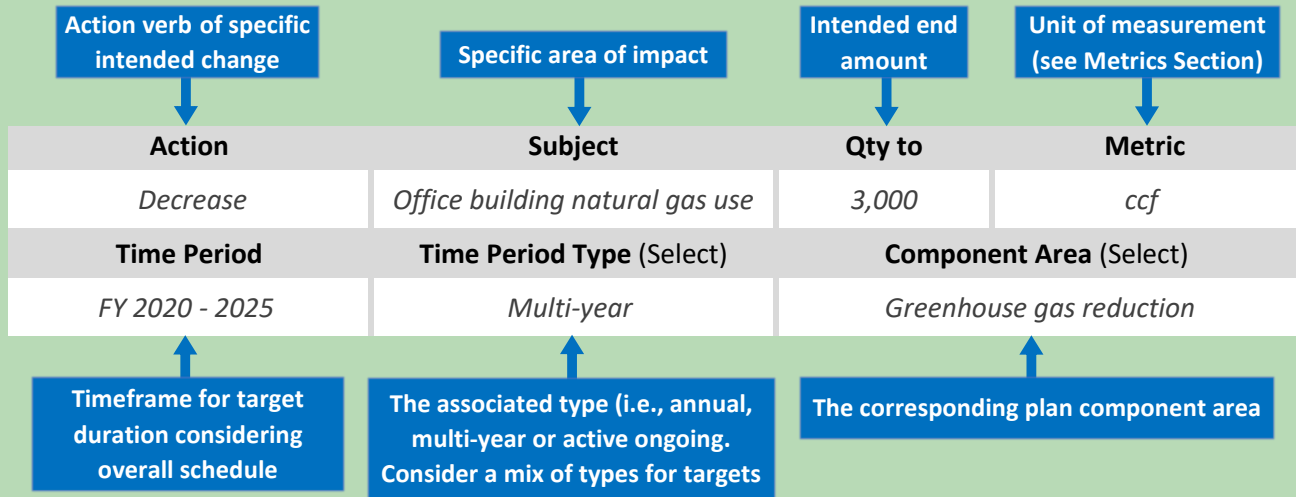
	Definition	Example
<i>Annual</i>	A conventional target scheduled for up to 2 years in which the first year may establish a baseline	Increase the number of households subscribed to organics curbside collection by 5% to 105 households in 2022 as compared to the 100 households in 2021.
<i>Multi-year</i>	A target that justifiably spans 3-5 years to allow for adequate time to complete significant milestones	Increase the number of households subscribed to organics curbside collection by 100% to 200 households in 2024 as compared to the 100 households in 2021. Milestones may include rolling-out 33 collection bins each year and buying an organics collection truck.
<i>Active ongoing</i>	A target that continues implementation of an existing program, in which the target is updated annually	Increase the number of households subscribed to organics curbside collection as compared to the previous year, using a baseline of 100 households in 2021. Then, each year update specifics such as for fiscal year (FY) 2022 the target is a 5% increase over FY 2021 to 105 households. After evaluating FY 2022, it may be determined to set the FY 2023 target for a 10% increase over FY 2022 to 115 households in FY2023, etc.

**How to set a target**

**Resources**

- Objective and Target Template

- Base targets on the following:
  - Adhering to your written Objectives and Targets Procedure, if applicable.
  - Addressing the objective.
- Identify a justified performance requirement (i.e., target) to meet the objective. An objective may have more than one target, depending on the detail needed. Include enough detail in the description to be measurable and explained thoroughly, including:



- Identify a justified baseline with a time period and quantity for target comparison.
- Document the target, baseline and any modifications (see the Objective and Target template for a suggested format).

Targets must be set, documented, reviewed and kept current. An organization must have a process in place to do so. A written procedure with the process for objectives is recommended but is not required. Next, metrics are set.

**Example Targets:**

Increase compost distribution from site 1 to 11,700 tons by FY2022

Decrease natural gas use in office building to 3,000 ccf annually by end of FY2025

Increase Very Small Quantity Generator access to 20 appointments by 2024

Increase interaction to 250 residents within 1 month of recycling campaign launch

Increase litter removal from waterways to 200 pounds in 2021

Increase website traffic to 300 users by end of 2021

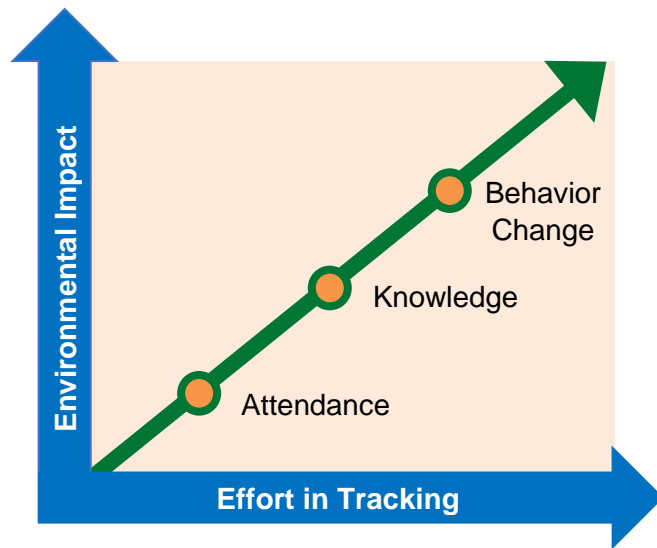
## Metrics

*Data is needed to track progress towards reaching environmental goals.*

Each target must have an associated unit of measure, known as a metric, such as volume, weight, duration, distance, etc. The metric serves as an indicator of performance to meet the objective. Metrics should be a practical measurement that staff or a contractor can collect during the regular course of business.

Consideration should be given to metrics that more accurately measure the intended outcome. Although some metrics may be easier to track, metrics that require more effort may demonstrate the environmental change better.

Using environmental education for example, attendance at an educational event can be tracked easily, but tracking behavior changes as a result of the lesson will demonstrate the environmental change better as illustrated to the right.



### How to set a metric

- Base metrics on the following:
  - Adhering to your written Objectives and Targets Procedure, if applicable.
  - Addressing the objective and target.
- Identify a unit of measure (i.e., metric) as a volume, weight, duration, distance, quantity, etc. (e.g., pounds, tons, linear feet, cubic yards, engagements, participants, etc.) that can be tracked to adequately demonstrate the intended objective. See example metrics by component area. Targets and metrics beyond the component areas can be incorporated (e.g., safety, efficiency, economic impact, etc.)
- Document the metric and any modifications (see the Objective and Target template for a suggested format).

Resources
<ul style="list-style-type: none"> <li>• Objective and Target Template</li> </ul>

Metrics must be set, documented, reviewed and kept current. An organization must have a process in place to do so. A written procedure with the process for objectives and targets is recommended but is not required. Next, Action Plans are generated.



### Example Metrics:



- Tons (of yard waste diverted)
- Tons (of food waste collected)
- Pounds (of food waste prevented)
- Number (of residents served)



- Tons (of CO<sub>2</sub> equivalents)
- Kilowatt hours (of electricity)
- Gallons (of fuel consumed)



- Pounds or tons (of HHM collected)
- Number (of new or returning customers)



- Tons (of recyclables collected listed by each material, e.g., plastic, glass, asphalt shingles, e-waste, etc.)
- Number (of residents served)



- Miles (of stream cleanup)
- Tons (of litter collected during cleanups)
- Cubic yards (of soil loss prevented)
- Acres (of soil stabilization)



- Knowledge increase (by pre- and post-test)
- Change in behavior
- Number (of attendees at education events)
- Number (of media engagements/circulations)

## Action Plans

*Specific steps are identified and acted on to work towards reaching environmental goals.*

Action plans serve as roadmaps for achieving objectives and targets. For each target, an action plan lists specific steps to be taken and identifies assigned responsibilities, associated due dates and resources needed. This helps to create a process for reporting and tracking.

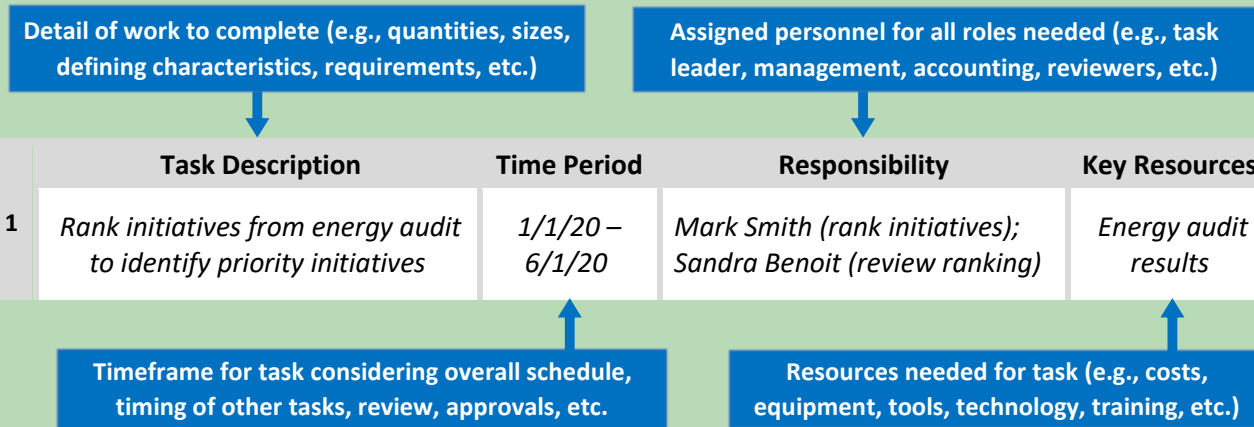
As the specific steps will likely involve various people and resources, it is recommended to include a complete team in creating the action plan. Technical experts and past projects can be used as a guide. Action plans should be detailed enough for the organization and should reflect limitations of staff, budget and resources. Consideration should be taken to make sure the action plan is reasonable and includes sufficient contingencies.

### How to create an action plan

- Base action plans on the following:
  - Adhering to your written Objectives and Targets Procedure, if applicable.
  - Addressing the objective and target.
- Identify an overall approach for achieving the objective and target with specific sequential tasks to support the overall approach.

**Resources**

- Objective and Target Template



- Document the Action Plan (see the Objective and Target template for a suggested format).

Action Plans must be set, documented, reviewed and kept current. As plans change or additional information becomes available, the Action Plan should be updated. Documentation of revisions including dates and personnel reviewing or approving changes should be included as well as notes on how the baseline was established and how data is collected. A written procedure with the process for objectives and targets is recommended but is not required. Next, the metrics are monitored and measured.

## Monitoring and Measurement

*Data is collected and analyzed to determine progress.*

A process must be established to monitor and measure metrics of the objectives and targets. In practice, this means that data on each metric must be tracked, documented over time and analyzed to determine progress. An organization should carefully consider how to objectively collect and analyze data. This may vary by metric. In some cases, progress may be shown by completion of a task, such as developing a report or training of staff, that are one-time instances.

In general, the following guidelines identify how to demonstrate active pursuit for each target type:

Annual	Documented completion of target through metrics.
Multi-year	Continued progress is shown through achieving milestone tasks within the Action Plan (e.g., establish baseline, acquire equipment, complete design plans, etc.), cumulating in the completion of a long-term target through metrics.
Active ongoing	Documented progress by building on achievements through metrics for a series of years.

### How to establish a monitoring and measurement process:

- Base the monitoring and measurement process on the objective, target, metric and action plan.
- Identify a process for collecting meaningful data on each target/metric, considering the following:
  - How can data be collected?
  - How often will data be collected?
  - How can data accuracy be ensured?
  - How can data be stored?
  - What can proper maintenance of measuring tools (e.g., scales, gauges, etc.) be ensured?
  - How and when will data be analyzed and reported?
- Routinely gather and record accurate data on your target/metric.
- Compile the data. Consider utilizing tables, charts, graphs or other tools to easily convey the data and show relationships or correlations among data points.
- Analyze the data for trends and anomalies. Document any known factors contributing to trends or anomalies for reference.

### Resources

- Monitoring and Measurement Procedure Examples

Organizations must develop a written procedure to document their monitoring and measurement process, including how to identify, collect and analyze data. The procedure must be reviewed and kept current. Next, the analyzed data is used to evaluate effectiveness.

## Reevaluation and Modification

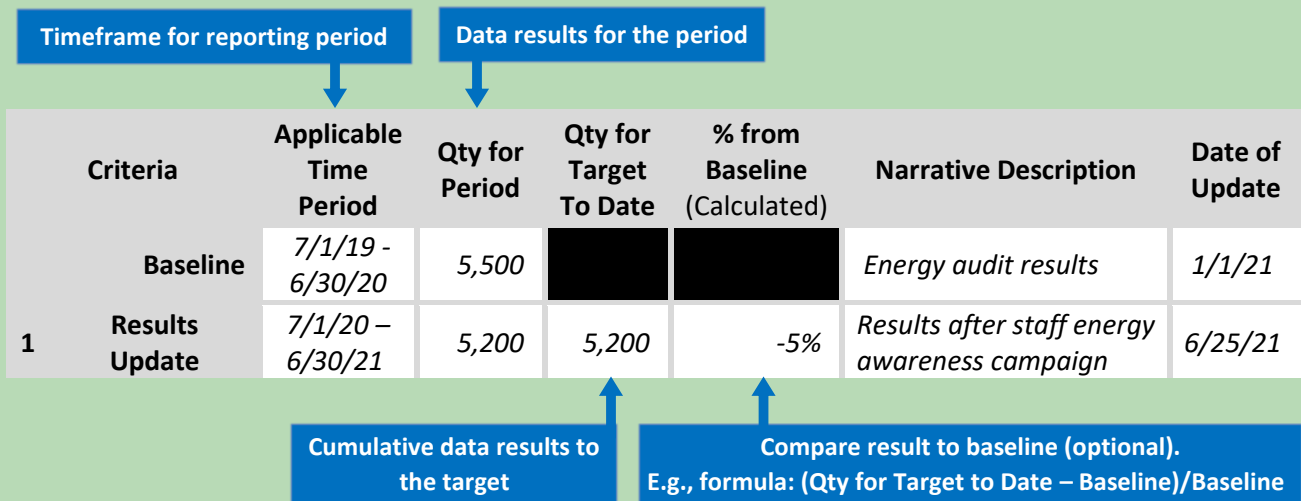
*Performance is evaluated to identify necessary changes.*

Elements of the EMS are reevaluated periodically to determine effectiveness and modified as part of the continual improvement process. As it relates to objectives and targets, analyzed metric data from the monitoring and measurement process is reviewed to determine progress, evaluate effectiveness of the objective and target, and identify trends or other factors that require adjustment. This process can help an organization identify potential areas of weakness with the EMS and implement changes needed to strengthen the EMS.

### How to evaluate and respond to monitoring and measurement data:

- Base the evaluation on the target/metric data.
- Identify results periodically, including each fiscal year by June 30<sup>th</sup>, and compare to baseline.

Resources
<ul style="list-style-type: none"> <li>• Reevaluation and Modification Procedure Examples</li> </ul>



- Compare the progress to your target and baseline and evaluate conditions that may affect future progress, considering the following:
  - Is the task on schedule?
  - Have milestones been hit?
  - Will staff be available to complete tasks?
  - Do changes to staffing or roles/responsibilities need to be made?
  - Are there unanticipated equipment needs?
  - Are there any foreseeable setbacks?
  - Does the Action Plan need to be updated to reflect changes in the plan?
  - Do Objectives or Targets need to be updated?

- Act accordingly as a result of the comparison by continuing to follow the action plan or revising the action plan (e.g., reassign tasks, modify the schedule, etc.) or objectives or targets, as needed.
- Document changes in the action plan and communicate changes.
  - Report progress to Senior Management for review on a defined routine basis. Provide relevant details on the data for context.
  - Incorporate changes required as a result of feedback from Senior Management review, following the guidance under Step 2.

Organizations must establish a Reevaluation and Modification process that includes how elements of the EMS will be periodically reviewed and identified changes will be acted on. A written procedure is strongly recommended but not required. Next, performance is reported to DNR.

## Reporting

*Performance is reported to DNR.*

Performance on objectives and targets must be included in the EMS Annual Reports that are due to DNR each September 1<sup>st</sup>. Additionally, if financial assistance was provided through the DNR grant program, progress must be reported per the grant agreement. These reports provide DNR with the necessary information to evaluate performance.

Organizations should consider how best to convey information so that it is clear, concise and meets all of the required elements. Information should be presented with relevant details to allow DNR to understand the context behind any setbacks or changes to the plan.

### How to report on objective and target performance:

- Base the report on the target/metric data results and Action Plan.
- Identify the following parameters:

#### Resources

- EMS Annual Report Form
- EMS Grant Agreements

<b>Common Name for Objective/Target</b>						
<b>Objective Description</b>						
<b>Action</b>			<b>Subject</b>			
<b>Target 1 Description</b> (Add sections for additional targets as needed.)						
<b>Action</b>			<b>Subject</b>		<b>Qty to</b>	<b>Metric</b>
<b>Time Period</b>		<b>Type</b> (Annual, Multi-Year or Active On-going)			<b>Component Area</b>	
<b>Results/Baseline</b> (Include results specific to Report FY. As an option, add rows for results previous to Report FY and periodic benchmarks.)						
<b>Criteria</b>	<b>Applicable Time Period</b>	<b>Qty for Period</b>	<b>Qty for Target to Date</b>	<b>% from Baseline</b> (Calculated)	<b>Notes (Optional)</b>	
1	Baseline					
1	Results Update	FY___				
<b>Will target continue beyond Report FY?</b>						
<b>Closure Status</b> , if applicable (Exceeded, Met, Partially Met, Not Met or Discontinued)						
<b>Associated EMS Grant number</b> , if applicable						

- Narrative of relevant information for context. Besides environmental impact, consider including economic impact; experienced successes and/or setbacks; reasoning for changes; and future plans.
- Consider including photos, charts, graphs, or other elements to help visualize the information.

Organizations must provide EMS Reports to DNR annually, per Iowa Administrative Rules Chapter 567-111. Grant reports must be submitted where applicable.