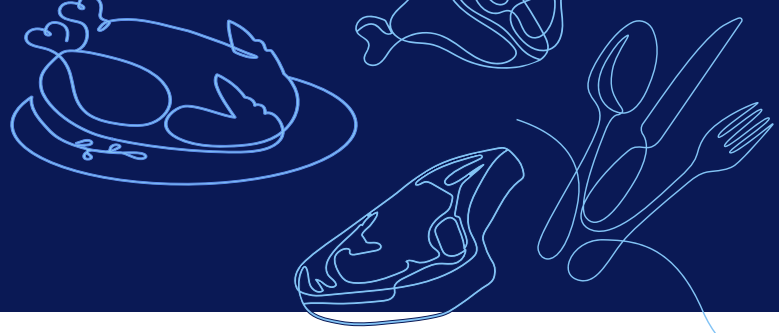
Meat Institute

Nourishing Today
Sustaining Tomorrow

2026 Water & Waste Metrics & Guidance



Instructions:

- Select *Yes*, *No*, or *Not Reporting* for each metric.
- In the reporting portal, the question mark (?) after each metric provides interpretation guidance, best practices, and applicable resources.

1. Is a waste management program in place to prevent waste generation when possible and manage significant impacts from waste generated?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Best Practices:

- Have a written program for waste management.
- Tracking waste generated by type (suggest measuring by diversion rate or intensity by waste type).
- Meeting or in alignment with meeting the company goal. Suggest measuring the *diversion rate = waste diverted/total waste generated.*

Resources:

- Food Loss and Waste Accounting and Reporting Standard (FLW Standard) https://www.flwprotocol.org/
- WRI's Report on the FLW Standard https://www.wri.org/research/food-loss-and-waste-accounting-and-reporting-standard
- Circular Economy Leadership Canada https://www.circulareconomyleaders.ca/
- Circular Economy Action Plan for Canada https://www.circulareconomysummit.ca/action-plan

2. Is a waste reduction and/or diversion goal in place for food and non-food waste?

☐ Yes ☐ No ☐ Not Reporting

If yes. list USDA ID(s) below

Best Practices:

- Written program for food and non-food waste diversion.
- Tracking food and non-food waste disposed, diverted, and landfilled. Establishment can track absolute volume and waste-to-landfill intensity. Facilities outside of the establishment would cover outside storage facilities owned and operated by the company.
- Examples: Decrease production-related food waste by 15% over the next year by optimizing manufacturing processes, improving quality control, and finding alternative uses for by-products. Could measure as increase in food waste diversion; decrease in landfilled food waste; or as increase in food waste diversion rate.
- Food Loss: USDA's Economic Research Service (ERS) defines food loss as the edible amount of food, postharvest, that is available for human consumption but is not consumed for any reason. Reference WRI Food Loss and Waste Protocol.
- Food donations count as food waste diversion of a product. Include annual volume in tracking of diversions.
- Industry goal is to move up the EPA Food Recovery Hierarchy (see link below), as much as possible.

Resources:

- Food Loss and Waste Protocol
- EPA Food Recovery Hierarchy
- A National Strategy to Reduce Food Waste at the Consumer Level |The National Academies Press
- AMERIPEN Quantifying the Value of Packaging as a Strategy to Prevent Food Waste in America Study
- Ellen MacArthur Foundation – Circular Economy for Food

3. Is a water use (quantity) program in place?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Best Practices:

- Program includes establishment baselines for overall volume and intensity of wastewater discharge. It has goals to reduce the total water used. Incorporates goals or plans on recapture and reuse.
- Tracking water intake, use and discharge, and calculate the water use intensity measured by revenue and/or pound of product.
- Is the establishment meeting the goals measured by intensity as defined by source in the written water use program?

Resources:

- EPA Compliance Inspection Manual for National Pollutant Discharge Elimination System (NPDES)
- EPA National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Guidance
- EPA Industrial Stormwater Monitoring and Sampling Guide (April 2021)
- Stormwater Discharges from Industrial Activities-Fact Sheets and Guidance
- Meat, Poultry & Dairy SASB Standard

4. Is a water quality program in place?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Note: Metric refers to wastewater discharge control and the like.

Best Practices:

- Have a written program to proactively improve water quality coming into an establishment and discharged from an establishment.
- Measuring water quality in routine compliance. This could include wastewater discharge intensity. This could include reducing wastewater contaminants as it pertains to your plant (e.g. the Biological Oxygen Demand (BOD) Chemical Oxygen Demand (COD), total suspended solids (TSS) or other nutrients) as well as odors and emissions of greenhouse gases (GHGs), typically, methane.
- Example: A water quality program for a pork slaughter and processing facility would include discharge levels of water pollutants/contaminants like ammonia, phosphorus, nitrogen, suspended solids, airborne odors, and methane. There would also be an associated policy that promotes improvements in these areas. Improvements could come from pre-discharge treatment on-site or other water quality mitigation strategies that reduce nutrient and pollutant load in discharged wastewater.

Resource

- UN SDG 6 – Clean Water & Sanitation

5. Is a water use goal established with reduction goals by source?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Management refers to water intake into and discharge out of the facility. Water sources to consider include surface water, ground water, and third-party (municipal) water. Other program criteria to consider may be how you are minimizing withdrawal from sources or areas with water stress.

Resources:

- GRI 303-1 (all water)
- GRI 303-2 (from water stressed areas)
- Meat, Poultry & Dairy SASB Standard
- WBCSD Resource Library
- WRI Water Risk Atlas (baseline water stress by region)
- UN SDG 6 – Clean Water & Sanitation
- CDP – Water Security 2023 Reporting Guidance
- Climate Disclosure Standards Board (CDSB) Framework: Application guidance for water-related disclosures
- UN Global Compact Water Resilience Coalition

6. Has a water risk assessment been completed for the establishment?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Note: This is based on your region of operation. The water risk could be a matter of too much or not enough.

Best Practices:

- Complete a watershed-based risk assessment(s) for the establishment(s).
- For establishments in a stressed water area, implement a contextually relevant water stewardship plan.
- Report annual water use through a regulatory body, ESG reporting, etc.

Example: A Water Risk Assessment (WRA) is conducted by a third party to determine the water risk profile of an operation/business based on geographic location and local/regional watershed. Potential risk factors include water stress and depletion, drought or flood risks, and ecosystem effects. A WRA should look at both upstream and downstream risks, indicating both water usage and water discharge risks.

Resources:

- GRI 303: Water and Effluents (2018)
- Meat, Poultry & Dairy SASB Standard
- UN SDG 6 – Clean Water & Sanitation
- WWF Water Risk Filter Map
- WRI Water Risk Atlas (baseline water stress by region)
- CDP – Water Hub
- Alliance for Water Stewardship (AWS Standard 2.0 & Guidance Doc.)
  - AWS Certification
  - Alliance for Water Stewardship (a4ws.org)

7. Is a water use (quantity) goal established?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Example: This could be a goal at an enterprise level, watershed, or establishment. A water use goal for a processor could be to "reduce overall water consumption by 15% within the next two years compared to the previous baseline, achieved through implementing water-efficient equipment, optimizing cleaning processes, and maximizing wastewater reuse."

Key points about this example:

- Specific target: It sets a clear percentage reduction goal, making progress measurable.
- Timeframe: The goal includes a deadline for achieving the reduction.
- Multiple strategies: It outlines potential approaches like upgrading equipment, optimizing cleaning procedures, and reusing wastewater.

Other examples of water use goals for processors could be:

- Reduce water intensity per unit of product by 10%
  - » This focuses on lowering the amount of water used to produce each product unit.
- Achieve a 50% wastewater recycling rate
  - » This aims to reuse a significant portion of the water used in the production process.
- Implement a zero liquid discharge (ZLD) system for specific production lines
  - » This would strive to eliminate all wastewater discharge from certain processes.
- Factors to consider when setting a water use goal:
  - » Industry type: Different industries have varying water usage profiles.
  - » Local water availability: Water scarcity in a region might influence the stringency of the goal.
  - » Technological feasibility: Consider available water-saving technologies and their potential impact.
  - » Cost-effectiveness: Analyze the cost of implementing water conservation measures against potential savings

Resources:

- EPA: Lean & Water Toolkit: Chapter 2 Water Use and Water Waste at Industrial Facilities
- EPA: Water Resilience - Chemical Suppliers and Manufacturers Locator Tool
- EPA: Water Reuse for Industrial Applications Resources

8. Is a water quality goal established?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Example: This could be a goal at an enterprise level, watershed, or establishment.

Resources:

- EPA: Water Quality Standards: Regulations and Resources
  - » Water Quality Standards Academy – Support Development of Water Quality Standards
- GRI 303: Water and Effluents (2018)
- GRI 306: Waste 2020
- Meat, Poultry & Dairy SASB Standard

9. Is there an established Environmental Management System?

☐ Yes ☐ No ☐ Not Reporting

If yes, list USDA ID(s) below

Best Practices:

- Explore/develop an EMS to manage the Company and/or the establishment's environmental footprint.
- Conduct an annual review of compliance obligations.
- Building upon lessons learned from an audit conducted by an independent accredited organization.

Resources:

- EPA Environmental Management Systems
- ISO 14001 and related standards — Environmental Management

Additional Resources

- Meat Institute's Sustainability Committee
- Meat Institute's Environmental Awards – Apply Annually between January 1 – 31
- MPP Effluent Limitation Guidelines
- US Roundtable for Sustainable Beef (USRSB) Packer Processor Toolkit
- EPA's Green Chill Resources & Reports - Any applicability to meat industry (those with retail counters)
- US Department of Energy Better Building Challenge

Waste Resources

Things to consider in a solid waste program to track and include goals for:

- **Sent to disposal:** landfill or incineration without energy recovery.
  - » Global Company or Global Reporting: Suggest measuring in metric tons (MT) of waste.
  - » US Based Company: Suggest measuring in US tons.
- **Landfill diversion:** reuse, recycling, rendering, energy recovery, composting, beneficial land application, etc.
  - » Global Company or Global Reporting: Suggest measuring in metric tons (MT) of waste.
  - » US Based Company: Suggest measuring in US tons.
- **Landfilled Waste Intensity** = US tons waste sent to landfill / lbs. of product produced
  - » Note: If you don't want to commit to lbs. for denomination, you can use "weight of product produced".
- **Percentage of Waste Landfilled** = US tons waste sent to landfill / US tons total waste disposed
  - » Usually when we talk about "intensities," we are referring to per product or per weight of product produced (Option #1 above).
- **Note:** Waste to Energy (WtE) practices are not considered "disposal" by the US EPA. WtE practices are categorized as industrial use and not to be lumped in with landfill.
- Definitions: GRI 306: Waste (2020);
- GRI 306: Waste 2020 Updated Reporting Standard Leaflet
- GRI 301: Materials (2016)
- UN SDG 8.4 Domestic material consumption
- UN SDG 12.5 - Waste Diversion Standards | UN SDG 21.5 Indicators & Targets
- ReFED's Roadmap to Reduce US Food Waste by 20 Percent (2016)
  - » ReFED's 2030 Roadmap for Manufacturers
- Diversion Measurement: *Diversion Rate = waste diverted / total waste generated.*

Industry Target: The Meat Institute will support 100% of members to reduce impacts on climate, land, air, and water, and increase transparency consistent with global science-based practices