

Sustainability in Northwest Food Processing

PNWER Annual Summit

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Environmental & Sustainability**

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Northwest Food Processors Association (NWFPA)

- Established in 1914
- 3rd largest northwest manufacturing industry
- 500+ members
- 153 food processors
- >250 facilities
- 13 staff
- 18 board members
- 9 committees



NWFPA Sustainability Philosophy

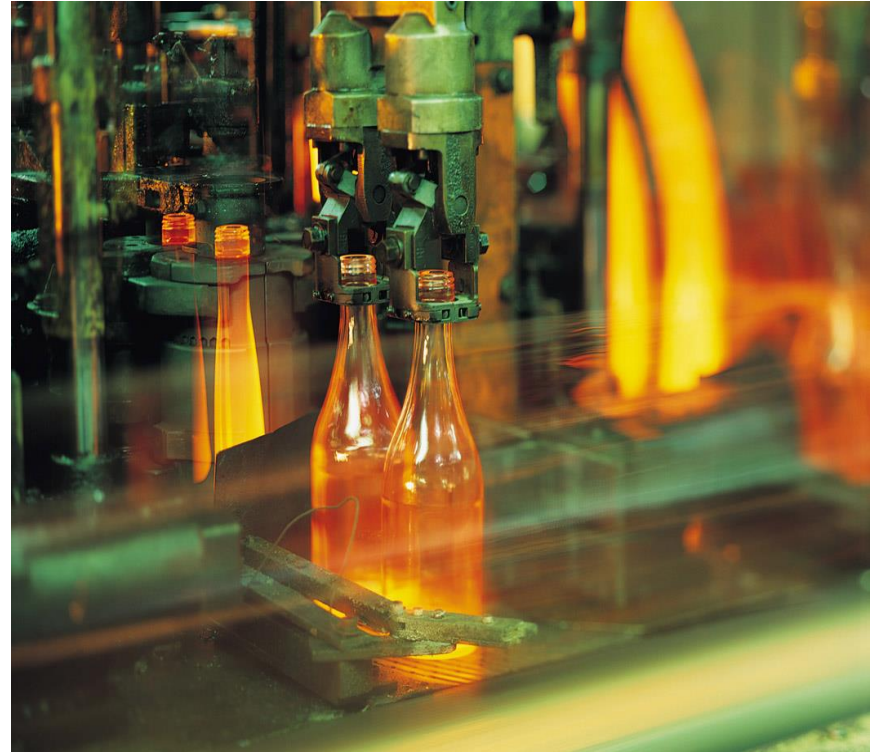
- *“Sustainability is the overarching philosophy that guides our efforts in all areas of concern. Sustainable practices ensure the continued viability of the food industry.”*
- The question for food processors today is not *if*, but *how*, they should manage their activities sustainably.

NWFPA Committee Priorities

- **Sustainability** -- Support members in development and implementation of Sustainability plans and actions: tools, metrics, resources, identify technologies (energy, water, air, waste)
- **Environmental** – identify technologies and strategies for water efficiency and compliance
- **Energy** – facilitate awareness and access to innovations and “new” and emerging technologies

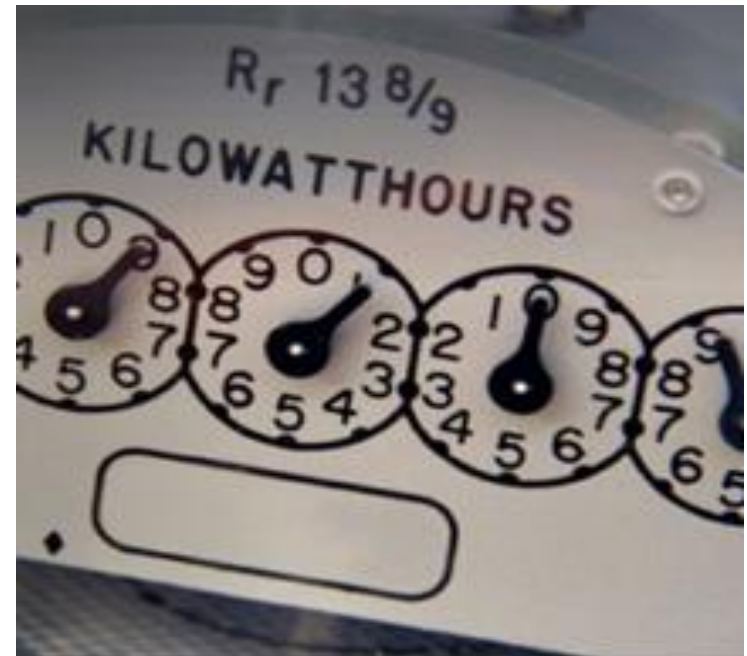
NWFPA Energy Goal

Reduce member-wide energy intensity by 25% in 10 years and by 50% in 20 years



Energy Intensity Baseline & Tracking

- Energy Intensity = BTUs per pound of product
- Collect energy use and production data
- Set 2009 as Baseline
- Track goal progress against the Baseline
- 151 food processing facilities participating in 2016



Industry-wide Energy Intensity Performance



107%



105%



101%



100%



100%



97%



91%



90%

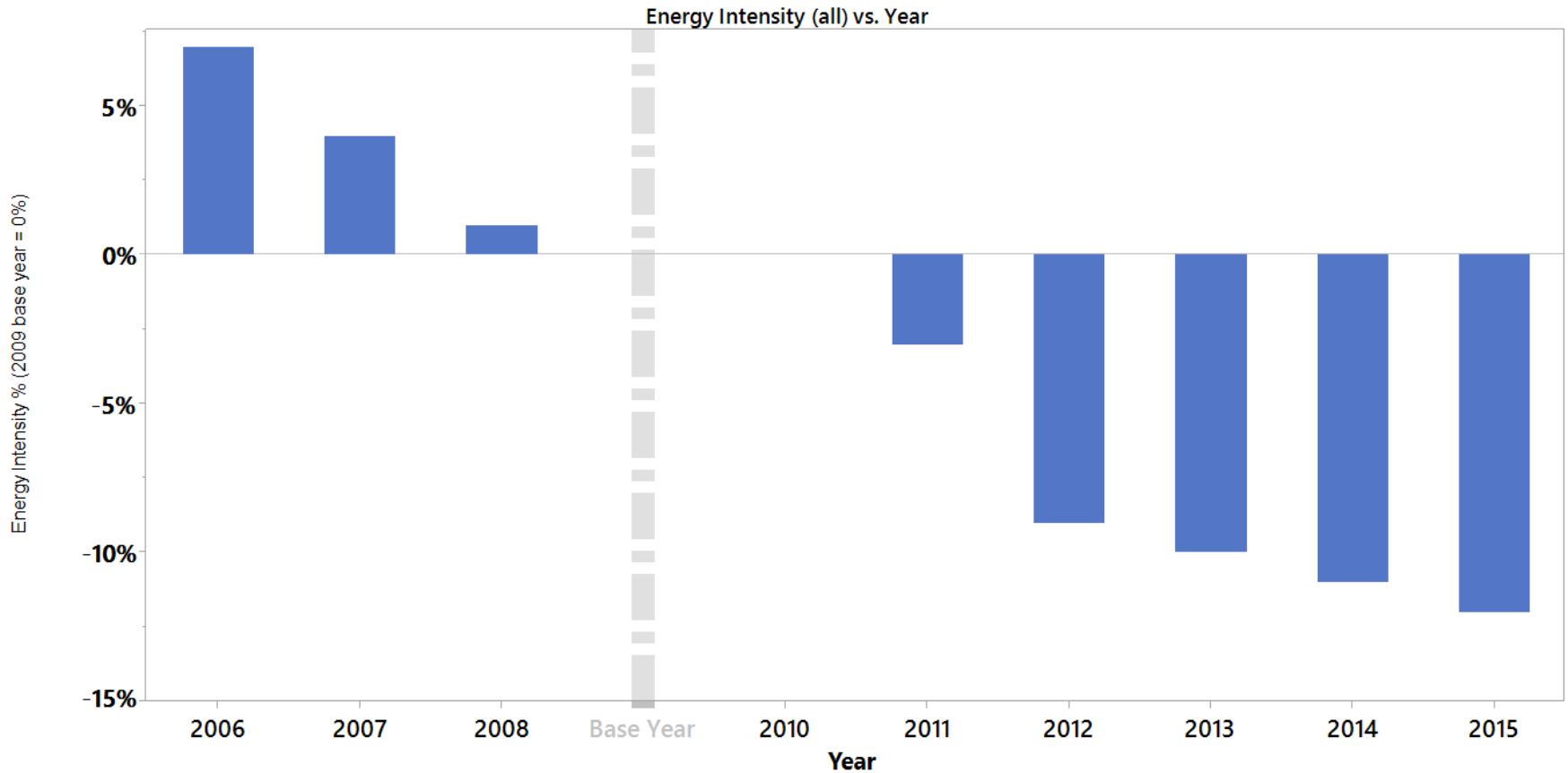


89%



88%

Average Intensity:



Goal Progress

- Tracking at >2.0% per year over 6 years
- Year-to-year improvement continues, but lower rates than earlier years (data set issues)
- Still on track to meet the goal
- Individual facilities savings of 15%, 17%, 21%, 32%

Sustainability Guide

NORTHWEST FOOD PROCESSORS ASSOCIATION

Guide to Sustainability Planning

KEY STEPS TO EARLY SUCCESS



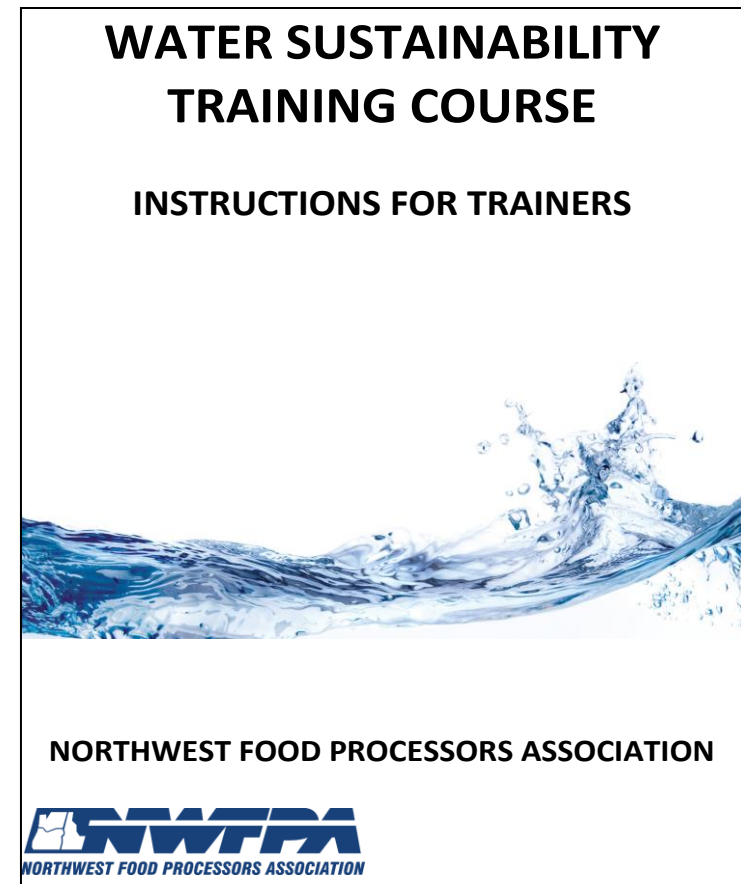
GUIDE OBJECTIVE

The intent of this Sustainability Guide is to assist food processors in developing individualized sustainability plans to meet the needs of their companies, their communities, and their consumers. A Sustainability Plan is the roadmap to move a company toward sustainability over the long-term. It provides a systematic approach to achieving the goals set forth in the Plan and follows the "plan-do-check-act" process loop.

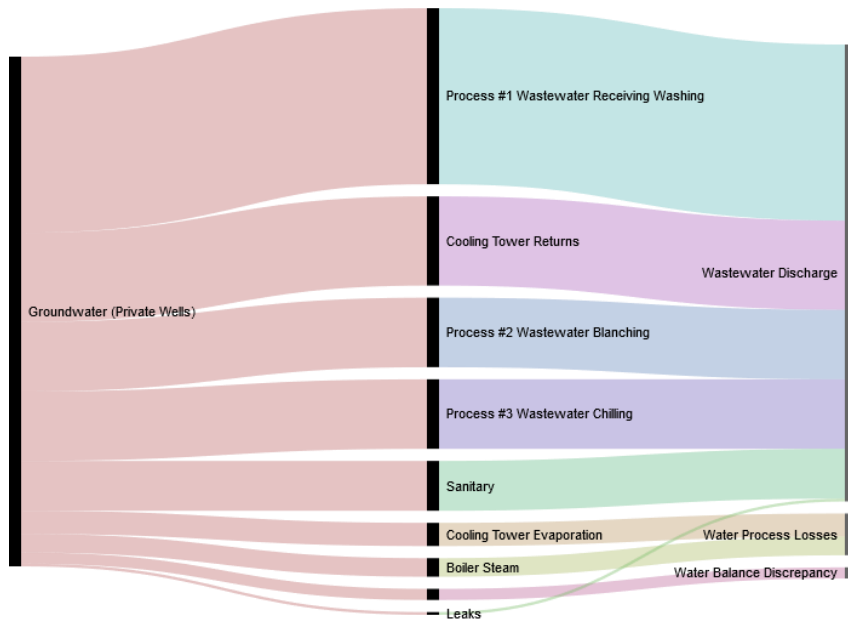
- A step by step guide to creating or refining a sustainability program.
- Available for download at:
<https://www.nwfpa.org/planning-and-resources>

Water Sustainability Training

- Instructions for trainers
- 3 slide modules
- Workbook & Exercise
- Case Studies
- Download at:
<https://www.nwfpa.org/water>



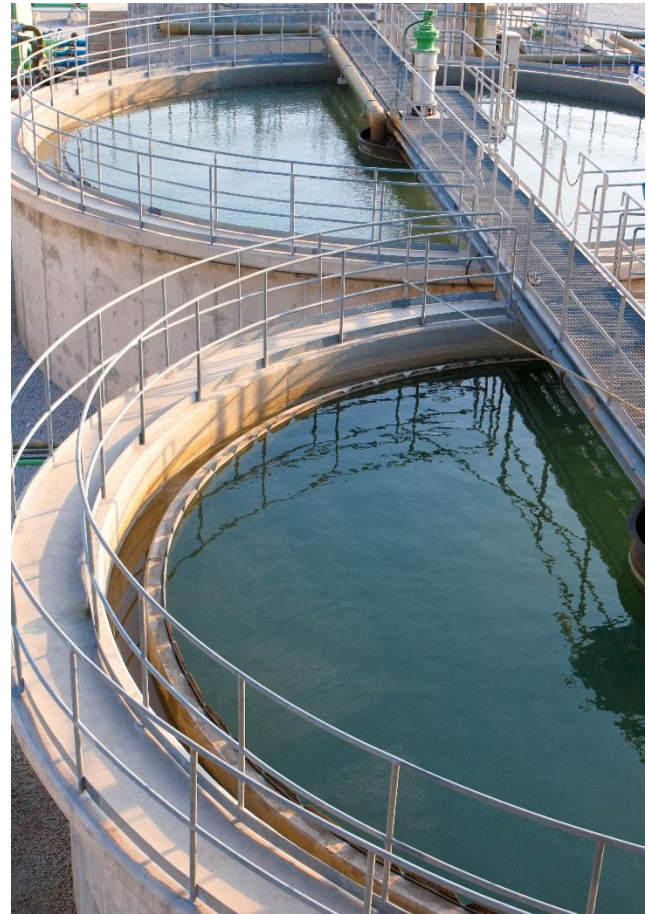
1 – Watershed & Water Balance



- Source and abundance of your water
- Site use – amount of use, type of use, amount of losses, amount of discharge
- Water Balance Exercise

2 – Water Economics, Risks & Quality

- Water and energy costs and areas of conservation
- Production water needs present & future
- Quality issues, discharges, regulations

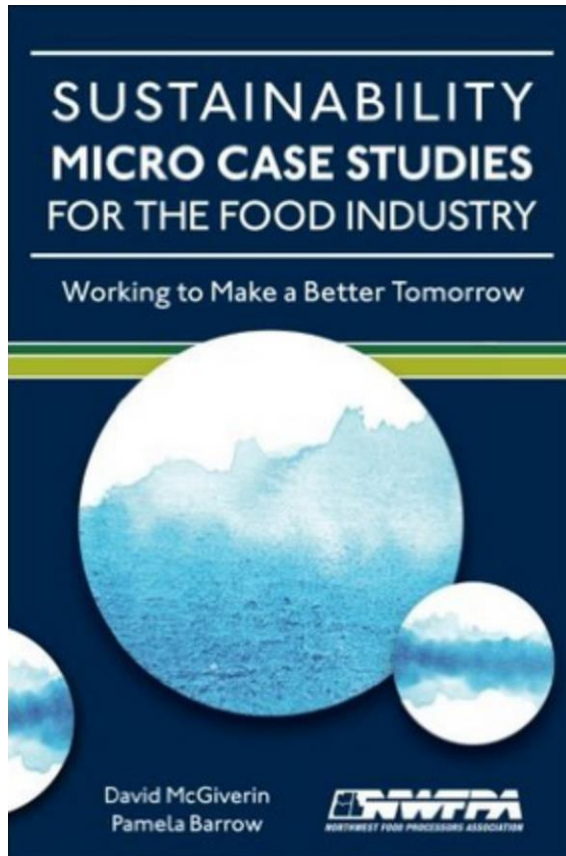


3 – Water & Energy Management Opportunities



- Water conservation & efficiencies
- Recycling & reuse
- Quality improvements
- Goal setting & metrics
- Case studies

Sustainability Micro Case Studies



- 76 real-life sustainability cases
- Actions, practices & results
- A vehicle for sharing & a catalyst for action
- Available from Amazon.
Link at:
<https://www.nwfpa.org/sustainability>

Organically Grown Company

- Replaced diesel fuel used to cool parked reefer trailers with shore power electricity
- Installed docking stations at 17 loading docks and plug-ins on its trailers
- Reduced emissions: 139 MT CO₂; 2.19 MT CO; 0.03 tons PM; 0.02 MT ROG
- \$23K in fuel savings (electricity is ~ 1/3 cost of diesel); expect savings 60% higher 2nd year.

J.R. Simplot Company - Canada

- Convinced composting contractor to construct a large-scale industrial facility and proved a viable solution in cold weather climate
- Engaged other local industrial and agricultural operations to contribute organic wastes
- Produced saleable Class A compost material; diverted thousands of tons of organic waste; reduced costs complexity of waste management and minimized environmental impacts.

Western Polymer Corporation

- Reduced freshwater use from an over-used aquifer by modifying processes, installing water-efficient starch cleaning equipment, and recycling water before land application.
- Freshwater consumption was reduced by 21,466,000 gallons/year. Wastewater discharge was reduced by 88%.
- Solid waste (starch residue) was reduced by 85%. The remaining 15% goes to animal feed.

Technology Acceleration

- Identify industry challenges
- Identify needs and solutions
- Link food processors with solution providers



Technology/Energy/Environmental Committees: Needs & Solutions

- Water & Wastewater
- Biodigesters + scalable for small companies
- Anaerobic digesters/biogas/waste to energy
- Ways to recycle wastewater
- Wastewater treatment alternatives
- Solids/nutrient (N & P) removal technologies
- Tertiary polishing – making potable water out of wastewater

NWFPA Activities

- Establish water intensity goal, tracking and roadmap
- Focus on water-energy nexus
- Partner with organizations to bring training, technical assistance and technologies to food processors



NWFPA Sustainability Summit



- September 13, 2017
- McMenamins Edgefield Hotel, Troutdale, OR
- Register at:
<http://cvent.com/events/2017-sustainability-summit/>

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