



Rhode Island / New England Better Bev Green Craft Beverage Recognition



Environmental Best Practices Checklist

The Rhode Island Department of Environmental Management (RIDEM) takes action towards pollution prevention and promoting sustainable brewing practices. This checklist will assist breweries with addressing potential areas of pollution, reducing waste, increasing reuse and recycling, and work toward creating a sustainability culture amongst employees and patrons. The overall goal of this checklist is to ensure continuous improvement within the brewing industry. RIDEM strongly encourages all breweries to participate and be recognized for their sustainable operating practices.

Benefits that you will receive by participating in the Better Bev Green Craft Beverage Program:

1. A Rhode Island/New England Better Bev Green Craft Beverage Recognition Award.
2. Rhode Island DEM Green Hospitality Certification Program decal to use for your marketing and advertising.
3. Free on-going technical assistance from RIDEM on how to continue to reduce your environmental impact.
4. A listing on RIDEM Green Breweries webpage.

This checklist covers a variety of topics and best management practices (BMPs) and has points associated with each item. Facilities can choose which activities to implement. A total score of 70 points or higher is required. Use this form to conduct a self-assessment of your brewery and to guide you through the process of becoming recognized as a "Green Brewery". This checklist provides examples of some of the free statewide resources available (utility company incentives, Toxic Use Reduction Institute, Center for EcoTechnology, state funding opportunities). Please note the RIDEM does not recommend any one business or organization over another.

Information and data on a facility's annual water-to-beer ratio, energy, water, and CO2 usage will be reviewed as well as other supporting documentation. The overall goal is to ensure continuous improvement by measuring and quantifying a brewery's environmental efforts. A new application must be submitted every three years and show improvement from previous submissions by adopting additional actions and/or attaining more points. The checklist and program may be modified as the industry evolves, and new technologies become available.

Please download and complete the checklist and electronically submit when complete. If you run into any issues during submittal or need assistance in filling this out, please contact:

RIDEM Green Breweries
Rhode Island Department of Environmental Management
Office of Customer and Technical Assistance
235 Promenade Street Providence, RI 20908
401-222-4700
DEM.GreenBreweries@dem.ri.gov



Rhode Island / New England Better Bev Green Craft Beverage Recognition Checklist



Please download and electronically submit completed checklist.
If you have any issues or questions regarding the checklist or submittal process, please contact:
DEM.GreenBreweries@dem.ri.gov

BREWERY NAME:		DATE APPLICATION COMPLETED:	
ESTABLISHMENT PHYSICAL ADDRESS:		ESTABLISHMENT MAILING ADDRESS:	
CITY:	ZIP CODE:	CITY:	ZIP CODE:
BREWERY CONTACT:		BREWERY CONTACT EMAIL:	
BREWERY CONTACT PHONE:		BREWERY WEBSITE:	
APPLICATION SUBMITTED BY:			
BUSINESS TYPE: Please Check All That Apply			
<input type="checkbox"/> BREWERY <input type="checkbox"/> WINERY <input type="checkbox"/> DISTILLERY – SPECIFY SPIRIT(S) PRODUCED:			
<input type="checkbox"/> CIDER <input type="checkbox"/> MEAD <input type="checkbox"/> HARD SELTZER <input type="checkbox"/> OTHER – SPECIFY PRODUCT:			
LOCATION IS: <input type="checkbox"/> OWNED <input type="checkbox"/> RENTED			
LOCATION HAS: <input type="checkbox"/> PUBLIC RESTROOMS <input type="checkbox"/> PUB/TASTING/TAP ROOM <input type="checkbox"/> KITCHEN(S)/FOOD PREP AREA			
<input type="checkbox"/> RESTAURANT <input type="checkbox"/> EVENT CENTER <input type="checkbox"/> LODGING/GUEST ROOMS <input type="checkbox"/> FARM <input type="checkbox"/> OTHER:			
ESTIMATED PRODUCTION DATA (BARRELS/YEAR):		OR ESTIMATED PRODUCTION DATA (GALLONS/YEAR):	
ELECTRICITY PROVIDER:		FUEL PROVIDER AND TYPE:	
BUSINESS USES:			
<input type="checkbox"/> SEPTIC SYSTEM <input type="checkbox"/> MUNICIPAL WASTEWATER TREATMENT <input type="checkbox"/> ON-SITE ALTERNATIVE WASTEWATER TREATMENT PLEASE DESCRIBE ON-SITE WASTEWATER TREATMENT (IF APPLICABLE):			
TYPE OF REFRIGERANT USED IN WALK-IN COOLER/REFRIGERATION:			
<input type="checkbox"/> R404A <input type="checkbox"/> R410A <input type="checkbox"/> R407C <input type="checkbox"/> R134A <input type="checkbox"/> R717 <input type="checkbox"/> R449/LOW GDP <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER – PLEASE SPECIFY:			
BRIEFLY DESCRIBE ANY LONG-TERM OR SHORT-TERM ENVIRONMENTAL GOALS AND SUSTAINABILITY MISSION STATEMENT, IF ANY:			
MONTHLY OR ANNUAL TRACKING: <input type="checkbox"/> WATER USE <input type="checkbox"/> CO2 USAGE <input type="checkbox"/> ENERGY USAGE <input type="checkbox"/> WASTE DISPOSED/DIVERTED/REUSED TRACKING METHOD:			
Please disclose any previous environmental regulatory issues and what you have done to address them (attach additional pages if necessary).			

SECTION 1: RAW MATERIALS (MAX 30 POINTS)

Resources:

- [Northeast Grain Shed](#)
- [Sq. Ft calculator](#)
- [Craft Malt Finder - Craft Maltsters Guild to find local/regional malt](#)

Percentage of grain/malt that is locally sourced (within 250 miles)

- | | | | |
|-----|-----------------------------------|------|------------------------------------|
| 10% | <input type="checkbox"/> 1 Point | 60% | <input type="checkbox"/> 6 Points |
| 20% | <input type="checkbox"/> 2 Points | 70% | <input type="checkbox"/> 7 Points |
| 30% | <input type="checkbox"/> 3 Points | 80% | <input type="checkbox"/> 8 Points |
| 40% | <input type="checkbox"/> 4 Points | 90% | <input type="checkbox"/> 9 Points |
| 50% | <input type="checkbox"/> 5 Points | 100% | <input type="checkbox"/> 10 Points |

Supplier: _____

Percentage of grain/malt that is organic or supporting regenerative agriculture

- | | | | |
|-----|-----------------------------------|------|-----------------------------------|
| 20% | <input type="checkbox"/> 1 Point | 80% | <input type="checkbox"/> 4 Points |
| 40% | <input type="checkbox"/> 2 Points | 100% | <input type="checkbox"/> 5 Points |
| 60% | <input type="checkbox"/> 3 Points | | |

Supplier: _____

Percentage of grain/malt that is regionally sourced (250-500 miles)

- | | | | |
|-----|-----------------------------------|------|-----------------------------------|
| 20% | <input type="checkbox"/> 1 Point | 80% | <input type="checkbox"/> 4 Points |
| 40% | <input type="checkbox"/> 2 Points | 100% | <input type="checkbox"/> 5 Points |
| 60% | <input type="checkbox"/> 3 Points | | |

Supplier: _____

Percentage of locally sourced hops (within 250 miles)

- | | | | |
|-----------|-----------------------------------|------------|-----------------------------------|
| 10 - 25% | <input type="checkbox"/> 1 Point | 50% - 75% | <input type="checkbox"/> 3 Points |
| 25% - 50% | <input type="checkbox"/> 2 Points | 75% - 100% | <input type="checkbox"/> 4 Points |

Supplier: _____

Brew special release beer(s) that highlight local ingredients (max 3 Points)

Please list brew(s):

- | | |
|-------|----------------------------------|
| _____ | <input type="checkbox"/> 1 Point |
| _____ | <input type="checkbox"/> 1 Point |
| _____ | <input type="checkbox"/> 1 Point |

Miscellaneous raw materials efficiency/conservation measure (e.g., re-pitching yeast)

Please list measure(s):

- _____ 1 Point
- _____ 1 Point
- _____ 1 Point

Section 1: Raw Materials Sub-Total _____

SECTION 2: WATER USE (MAX 26 POINTS)

Resources:

- EPA [WaterSense](#) products, best practices

Water to beer ratio below industry average of 7:1

- 7:1 ratio 2 Points
- 6:1 ratio 4 Points
- 5:1 ratio 5 Points
- 4:1 ratio 8 Points

Track water use at least quarterly through metering/utility bills and setting reduction goals.

- Tracking and setting reduction goals 2 Points
- Annual tracking 1 Point
- OR
- Quarterly tracking 2 Points

Reuse water (reuse final rinse for other initial rinses, etc.)

- Reuse water 2 Points
- Recycle loop for rinsing 2 Points

Use an ionized air rinsing system instead of water rinse 3 Points

Use SOPs for general cleaning and high-pressure low-flow spray hose nozzle, broom/squeegee to reduce water use.

- Have and use a written SOP for general cleaning 2 Points
- Use high-pressure low-flow spray hose nozzle 1 Point
- Use broom/squeegee 1 Point

Miscellaneous water conservation or efficiency measure(s) (e.g., low flow toilets, aerators, automatic shut off sensor faucets)

Please list measure(s):

- _____ 1 Point
- _____ 1 Point
- _____ 1 Point

Section 2: Water Use Sub-Total _____

SECTION 3: WASTEWATER REDUCTION AND STORMWATER MANAGEMENT (MAX 24 POINTS)

Resources:

- [RI wastewater case studies/videos](#)
- [RI RIPDES Program](#)
- [Industrial Pretreatment Fact Sheet – Breweries, Distilleries and Wineries](#)

Compliance with municipal stormwater/wastewater regulations

- Aware of and in compliance with municipal stormwater regulations 2 Points
- Aware of and in compliance with municipal wastewater regulations 2 Points

Side stream yeast, hops and trub for off-site disposal

- Send side stream yeast, hops and trub to anaerobic digester or composting 4 Points

Innovative practices to prevent wastewater generation/discharge and/or stormwater run-off

- Intentionally avoiding the use of phosphoric acid 2 Points
- Turning bright tanks without using any chemicals 2 Points

Please list any additional innovative practice:

- _____ 2 Points

Neutralize pH of cleaning/sanitizing wastewater before discharging

- 2 Points

Miscellaneous wastewater side streaming/treatment and/or stormwater run-off measure(s)

- Off spec beer collected and reused by distillery 2 Points
- Rainwater collection 2 Points
- Low impact development techniques 2 Points
- Install wastewater pretreatment on-site 2 Points

Section 3: Wastewater Reduction and Stormwater Management Sub-Total _____

SECTION 4: ENERGY/EMISSIONS (MAX 64 POINTS)

Resources & Examples:

- [RI Energy RISE free energy audits](#)
- [RI energy Tips for Businesses](#)
- [RI Commerce Energy Fund](#)
- [ENERGY STAR equipment](#)
- [Energy Star Treasure Map for Microbreweries](#)
- [USEPA – Brewing up energy savings](#)
- [The Southern New England Industrial Assessment Center for Free Audits and consulting](#)
- [Barrington Brewery Solar hot water example](#)
- [Island Dog Brewery using Fermentation Board](#)
- [CO2 Capture at Grey Sail Brewery](#)
- [CO2 Capture equipment](#)
 - [Earthy Labs](#)
 - [Dalum Beverage Equipment](#)

Natural Gas

Electric or Steam Brewing (More efficient for systems up to 10-barrels)

- Setting goals 1 Point
- Steam Brewing 3 Points
- OR
- Electric Brewing 3 Points

Use efficient hot water heating (e.g., on demand tankless, heat pump, solar, etc.)

Please list method:

3 Points

Electricity

Percentage of electricity sourced from renewables (on-site power, community solar, other PPA/RECs)

- | | | | |
|-----|-----------------------------------|------|------------------------------------|
| 10% | <input type="checkbox"/> 1 Point | 60% | <input type="checkbox"/> 6 Points |
| 20% | <input type="checkbox"/> 2 Points | 70% | <input type="checkbox"/> 7 Points |
| 30% | <input type="checkbox"/> 3 Points | 80% | <input type="checkbox"/> 8 Points |
| 40% | <input type="checkbox"/> 4 Points | 90% | <input type="checkbox"/> 9 Points |
| 50% | <input type="checkbox"/> 5 Points | 100% | <input type="checkbox"/> 10 Points |

What we are doing: _____

Use electric powered delivery vehicles and machinery (e.g., electric forklift, floor scrubbers, pallet jacks, lawn equipment, pressure washers, etc.)

Please list:

1 Point

1 Point

1 Point

Install Electric Vehicle (EV) charges for public/employees

1 Point

Use Energy Star equipment (office, kitchen, other)

Please list equipment:

1 Point

1 Point

CO2 Use and Emissions/Refrigeration

Install a CO2 Recovery System and reuse CO2

Balance fermenter and bright by connecting them during processing 2 Points

Use spunding valves 3 Points

OR

CO2 Recovery 5 Points

Track CO2 use/ratio below industry average of 6.7 lbs/bbl

Ratio is 6 lbs/bbl 1 Point

Ratio is 5 lbs/bbl 2 Points

Ratio is 4 lbs/bbl or below 3 Points

Post "no idling" signs for fleet vehicles, guest vehicles, delivery trucks, and tour buses

1 Point

Use nitrogen where possible in operations instead of CO2

- Push beer with nitrogen 1 Point
- Purge tanks with nitrogen 1 Point
- Purge kegs with nitrogen 1 Point
- Maintain head pressure with nitrogen 1 Point

Regularly check for refrigerant leaks/use refrigerant tracking technology

- Floating head pressure controls 1 Point
- Monthly check for refrigerant leaks 1 Point
- OR
- Using refrigerant tracking technology 2 Points

Conservation/Efficiency

Track energy use/ratio below industry average (50-66 kWh+Therms) per bbl

- Tracking energy use/bbl 1 Point

Please check energy ratio below industry average, if applicable:

- | | | | |
|-------------|-----------------------------------|----------------------|-----------------------------------|
| Ratio is 66 | <input type="checkbox"/> 1 Point | Ratio is 54 | <input type="checkbox"/> 4 Points |
| Ratio is 62 | <input type="checkbox"/> 2 Points | Ratio is 50 or below | <input type="checkbox"/> 5 Points |
| Ratio is 58 | <input type="checkbox"/> 3 Points | | |

Free Energy Audit from utility company or Energy Treasure Hunt and implemented recommendations

- Energy audit/Energy Treasure Hunt 3 Points

Conservation measures in place (e.g., programmable thermostats, occupancy sensors, LED lighting, insulation, natural lighting, refrigerator curtains, recover/recycle heat, etc.)

Please list any conservation measures:

- _____ 2 Points
- _____ 2 Points
- _____ 2 Points

Perform regular maintenance

- Change HVAC filters every other month 1 Point
- Set compressor to minimum pressure needed and isolate when not actively in use 1 Point
- Check for leaks 1 Point
- Address leaks immediately 1 Point
- Added expansion tanks 1 Point

Miscellaneous energy efficiency/conservation or emission reduction measure(s)

- High-efficient HVAC 1 Point
- Fabric filters to control particulate matter emissions from grain handling and drying 1 Point

Please list any additional measures:

- _____ 1 Point

Section 4: Energy/Emissions Sub-Total _____

SECTION 5: CLEANING AND SANITIZING (MAX 22 POINTS)

Resources & Examples:

- [Island Dog Alternative Cleaner Trial](#)
- [Toxic Use Reduction Institute Safer Chemical Guide for Breweries](#)
- [Alternative Cleaners, Sanitizers – TURI webinar](#)
- [Merrimack Ales safer cleaner, sanitizer example](#)
- [Green Seal, EcoLogo, EPA Safer Choice, Design for the Environment products](#)

Develop SOPs for cleaning & sanitizing/properly store chemicals

- Cleaning SOP 1 Point
Sanitizing SOP 1 Point

Please attach SOP to checklist

Use TURI recommended (or other less toxic) cleaning products

- Conducted TURI assessment 2 Points
Using TURI recommended cleaning products 2 Points

Use TURI recommended (or other less toxic) sanitizing products

- Conducted TURI assessment 2 Points
Using TURI recommended sanitizing products 2 Points

Dilutions are standardized (they are automated, come ready to use, not diluted by workers)

- Regular titrations 1 Point
OR
Dilutions are standardized 2 Points

Cleaning is automatic and regularly verified (meters calibrated, manual titration) 2 Points

Reuse cleaning solutions and sanitizing rinse 2 Points

Ordering cleaners and sanitizers in refillable containers

- Cleaners are ordered in refillable containers 1 Point
Sanitizers are ordered in refillable containers 1 Point

Miscellaneous green cleaning/sanitizing practices

Please list any practices:

- _____ 2 Points
_____ 2 Points

Section 5: Cleaning and Sanitizing Sub-Total _____

SECTION 6: SOLID WASTE REDUCTION (MAX 21 POINTS)

Resources & Examples:

- [Commercial Recycling in RI](#)
- [RI Universal Waste Law](#)
- [Free Waste Audits – Center for Eco Technology for RI businesses, CET List of Rhode Island Service Providers](#)

Spent grains used for animal feed, upcycled, compost

Spent grains used for animal feed locally or upcycling 5 Points

OR

Spent grains used for composting or anaerobic digestion 4 Points

Track waste generation/ratio at or below industry average (26 lbs per barrel) 1 Point

Separating waste for reuse and recycling, use proper signage, be aware of and in compliance with RI's commercial organics recycling law, kitchen food waste diverted from trash

Recycle 1 Point Signage 1 Point

Reuse 1 Point Organics recycling awareness 1 Point

Food waste diversion (composted or hauled to anaerobic digester) 1 Point

Reusable serve and drinkware

Reusable serve and drinkware in taproom 1 Point

Reusable serve and drinkware in beer garden 1 Point

Reusable serve and drinkware in events 1 Point

Reuse of any item(s) that would otherwise become single-use waste (e.g., polypropylene grain bags)

Please list any reused items:

_____ 1 Point

_____ 1 Point

_____ 1 Point

Electric hand dryers in bathroom(s) instead of paper towels 1 Point

Miscellaneous recycling waste and reduction measures (e.g., shrink wrap recycling, donations)

Please list any measures:

_____ 1 Point

_____ 1 Point

_____ 1 Point

Section 6: Solid Waste Reduction Sub-Total _____

SECTION 7: PACKAGING FORMAT AND MATERIALS (MAX 38 POINTS)

Resources & Examples:

- [PakTech plastic can carrier recycling](#)
- [BarTrack Sensor Technology webinar recording](#)
- [Pallet Wrapz, ReUSA-Wraps examples of reusable pallet wrap](#)

Percentage of beer sold on-premises draft in refillable kegs

- | | | | |
|-----|-----------------------------------|------|------------------------------------|
| 10% | <input type="checkbox"/> 1 Point | 60% | <input type="checkbox"/> 6 Points |
| 20% | <input type="checkbox"/> 2 Points | 70% | <input type="checkbox"/> 7 Points |
| 30% | <input type="checkbox"/> 3 Points | 80% | <input type="checkbox"/> 8 Points |
| 40% | <input type="checkbox"/> 4 Points | 90% | <input type="checkbox"/> 9 Points |
| 50% | <input type="checkbox"/> 5 Points | 100% | <input type="checkbox"/> 10 Points |

On-premises beer is served straight from bright tank(s)

- | | | | |
|-----|-----------------------------------|------|-----------------------------------|
| 25% | <input type="checkbox"/> 1 Point | 75% | <input type="checkbox"/> 3 Points |
| 50% | <input type="checkbox"/> 2 Points | 100% | <input type="checkbox"/> 4 Points |

Percentage of distribution beer sold in refillable kegs

- | | | | |
|-----|-----------------------------------|------|-----------------------------------|
| 25% | <input type="checkbox"/> 1 Point | 75% | <input type="checkbox"/> 3 Points |
| 50% | <input type="checkbox"/> 2 Points | 100% | <input type="checkbox"/> 4 Points |

Percentage of distribution beer sold locally (within 250 miles)

- | | | | |
|-----|-----------------------------------|------|-----------------------------------|
| 25% | <input type="checkbox"/> 1 Point | 75% | <input type="checkbox"/> 3 Points |
| 50% | <input type="checkbox"/> 2 Points | 100% | <input type="checkbox"/> 4 points |

Use pre-printed cans instead of shrink-wrap or vinyl label

- | | |
|--------------------------------|-----------------------------------|
| Less than 50% pre-printed cans | <input type="checkbox"/> 1 Point |
| More than 50% pre-printed cans | <input type="checkbox"/> 2 Points |

Use a centrifuge to increase wort yield 3 Points

Install a system to reduce beer waste and track beer loss (e.g., BarTrack) 3 Points

Retail to-go beer available in refillable bottle/growler format 2 Points

Can carriers: biodegradable, reuse take-back program, recycle take-back program

- | | |
|--|-----------------------------------|
| Recycle can carriers | <input type="checkbox"/> 1 Point |
| OR | |
| Using reusable or biodegradable can carriers | <input type="checkbox"/> 2 Points |

Miscellaneous packaging and materials practice (e.g., grain silo, reusable pallet wraps)

Please list practices below:

_____ 2 Points

_____ 2 Points

SECTION 8: ENVIRONMENTAL CULTURE (MAX 22 POINTS)

Resources & Examples:

- **Sustainability Mission/Vision examples**
 - [Throwback](#)
 - [Hill Farmstead](#)
 - [Catskill](#)
- [Portico's Handprint](#)
- [B-Corp](#)
- [1% For the Planet](#)
- [Allagash's Green Team](#)

Sustainability credential such as B-Corp, 1% FTP, etc.

Please list sustainability credential:

3 Points

Participation in RI/NE Better Bev Recognition Program and/or Benchmarking

Participation 2 Points

Benchmarking and providing data to RIDEM 2 Points

Using sustainable suppliers: Safer Choice cleaners, FSI certified paper products, other

Please provide supplier:

1 Point

1 Point

Partnership/collaboration with environmental/conservation group

Please provide name of each partnered organization:

1 Point

1 Point

Active environmental sustainability program (education/training with staff e.g., GreenTeam monthly meeting)

Active environmental sustainability program 2 Points

Promote verifiable sustainability efforts on website or social media

Mission statement 1 Point

Social media posts to educate public 1 Point

Efforts to reduce miles driven by trying to attract cyclers, public transportation, incentivize carpooling for employees/patrons, etc.

1 Point

1 Point

Miscellaneous sustainability focused actions/measures

- Educating customers about sustainable living 1 Point
- Encouraging reuse and recycling 1 Point
- Landscaping with native/pollinator friendly plants 1 Point
- Supporting diversity – DEI, Pink Boots, etc. 1 Point

Please list any additional measure:

_____ 1 Point

Section 8: Environmental Culture Sub-Total _____

SECTION 9: OTHER INITIATIVES (MAX 2 POINTS)

Please list other sustainability initiatives:

_____ 1 Point

_____ 1 Point

Section 9: Other Initiatives Sub-Total _____

Please add up ALL points, and enter the total **Total Points:** _____

- **70 Points qualifies for an automatic certification**

THANK YOU FOR YOUR PARTICIPATION!

Note: This project was funded by a US EPA Pollution Prevention grant. Environmental Checklist developed by UMass, Boston, with modifications by CTDEEP and RIDEM.

If you run into any issues during submittal or need assistance in filling this out, please contact:

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