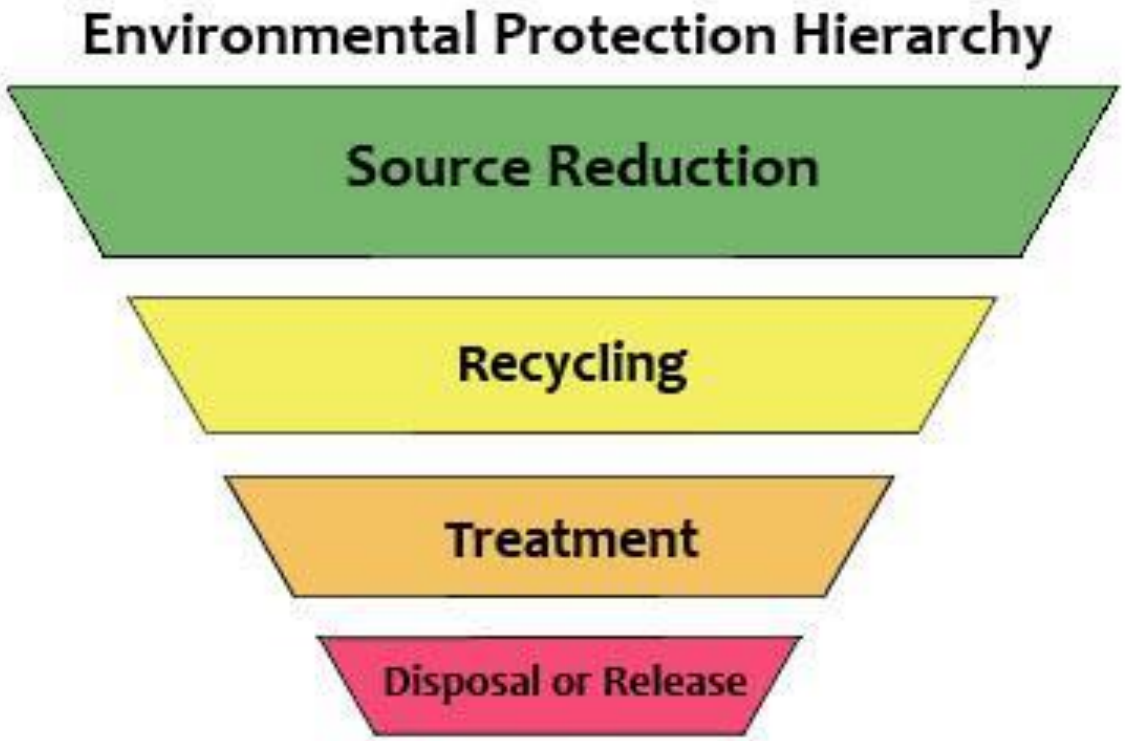
Oregon Applied Sustainability Experience

DEQ
State of Oregon Department of Environmental Quality

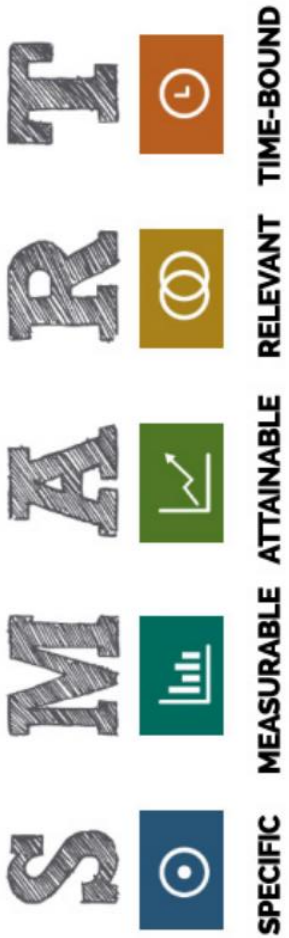
Sea Grant Oregon
Coastal Science Serving Oregon

OASE Overview & Goals

EPA Pollution Prevention Grant



OASE Program Goals

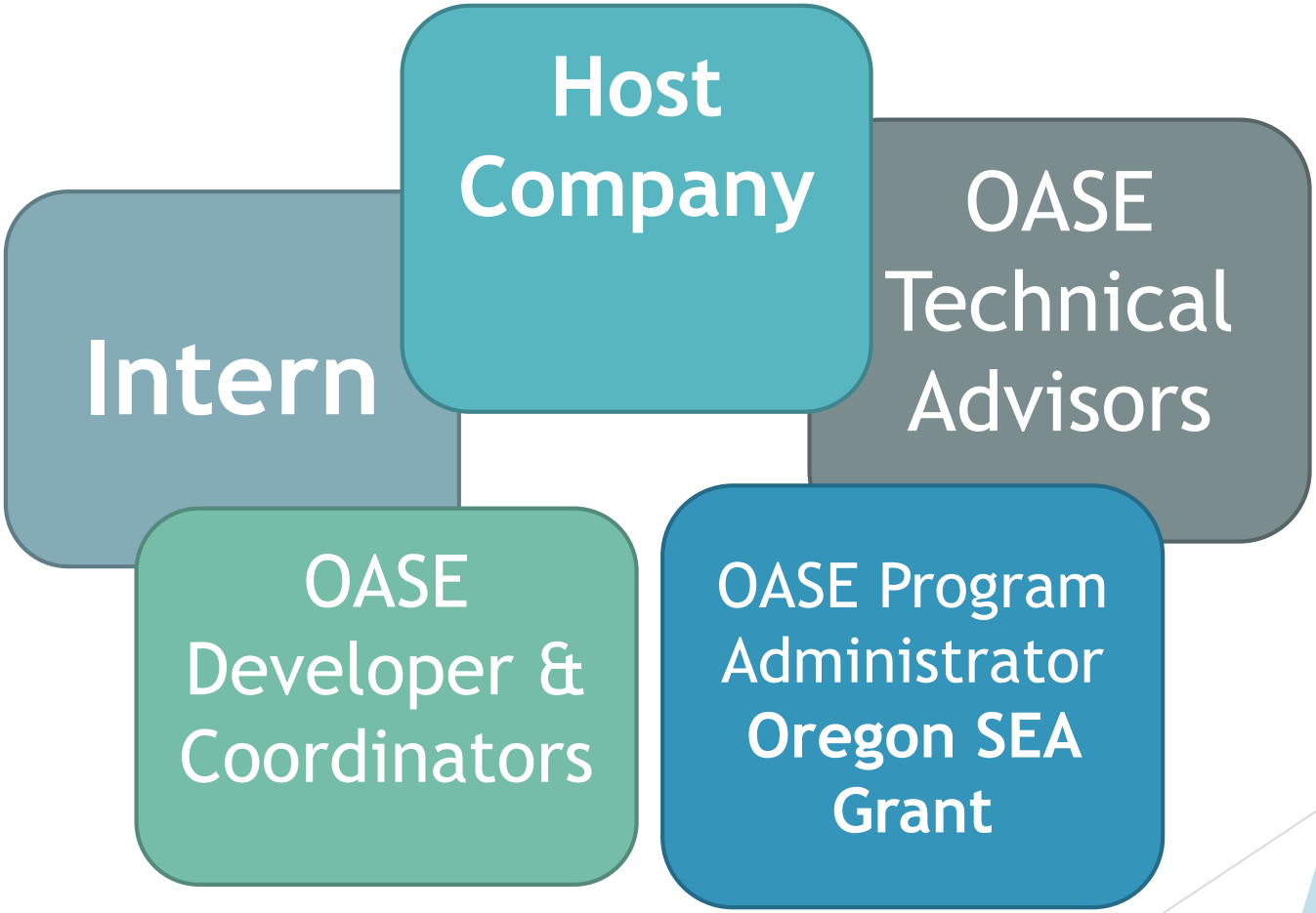


Business: Environmental and Economic benefits

Students:

Experience, professional networks

OASE Project Team



Development Team

- Oregon DEQ-*Lisa Cox, Sr. Toxics Reduction Analyst*
- Oregon State University-*Lynn Merritt Ekstedt, Corporate Relations Manager*
- Oregon SEA Grant-*Sarah Kolesar, Oregon Sea Grant Research and Scholars Program Leader*
- Portland State University-*Fletcher Beaudoin, Assistant Director Institute for Sustainable Solutions*

Program Elements

Business Elements
Eligibility
Project proposals
Cost-Sharing
Site Coordinator
Project Agreement
Evaluations

Intern
Eligibility
Field of Study
Interview
Training
Paired with Advisor
Final Report

Program Tools

Training
Hands-on orientation

Handbook
Forms
Applications
Report
Examples
Details on expectations

Other States
National forum

Support-lessons learned, forms and

OASE Training

2017 OASE Pilot Project

OASE Student Projects

Estimated Results Summary

-Savings of nearly $900,000;

-60 million gallons of water;

-reduce 8.5 tons in solid or hazardous materials;

-and integrate life cycle concepts into product design and packaging choices

OASE Student Projects

Tamae Spruell hosted by Lamb Weston-Frozen Potato Products

LambWeston®

SEEING POSSIBILITIES IN POTATOES

OASE Student Projects

- *Tamae Spruell hosted by Lamb Weston- Frozen Potato Products*

Summary				
NO	Project list	Potential water savings(GPY)	Cost to implement	Status
1	Human factors	N/A	Up to $1,000	Recommended
2	Wet graders sprays	498,960	Up to $1,000	Recommended
3	Belts at L4	465,696	Up to $1,000	Recommended
4	L1 blancher belt sprays	N/A	Up to $10,000	Recommended
5	Starch and lamb gun system	N/A	Up to $20,000	Recommended
6	Tanks in general	5,771,103	$100 to $5,000	Recommended

OASE Student Projects

Kyle Elliot hosted by West Linn Paper-West Linn

OASE Student Projects

Kyle Elliot hosted by West Linn Paper-West Linn

Projects	Cost to test/ implement	Potential Annual Savings	Environmental Impact	Status
TSS Feed Reduction/ Retention Aid	$0/Low Overhead	$328,140 at 80% reduction	Reduces solid waste by 80%	Was to be tested/ implemented
Efficiency Increase/ Nikuni Pump	$0/$10,000	$205,088 at 5% increase	Reduces solid waste by 48.86%	Was to be tested/ implemented

OASE Student Projects

Adra Gullidge hosted by EcNow Tech-Albany

OASE Student Projects

Adra Gullidge hosted by EcNow Tech-Albany

Summary

-Scoping Life Cycle Assessment
-Working with NW Green Chemistry to integrate green chemistry concepts

-Following up with Pollution Prevention Audit

OASE Student Projects

Adra Gullidge hosted by EcNow Tech-Albany

Project	Annual Cost Savings	Environmental Results	Status
Update office Lighting	$5,203.44 47,304 kWh	Mercury Free 30% more efficient Longer Lifespan	Recommended
Composting Machine	Not explicit Will at least cut ¼ of garbage bill.	Divert trash from landfill to future soil	Recommended
Solar Panels	About $8,374 Over 25 years: $209,341	•7.03 × 10-4 metric tons CO2 / kilowatt-hour of energy produced • 4.9-6.9 (metric tons/year) of carbon emission reduction	Recommended

OASE Student Projects

Vinny hosted by Hummingbird Wholesale-Eugene

OASE Student Projects

Vinny Ferrero hosted by Hummingbird Wholesale-Eugene

Alt. Packaging	Current Packaging	CO_2 Emission Change (kg)	Cost Difference ($)
Clear Bags - GR11	Elkay Bag (5 lb)	-325.5	+1806
Clear Bags - GC11	Elkay Bag (5 lb)	+388.5	+1806
TekPak CKP	Elkay Bag (5 lb)	+5954	+12,936
TekPak Polybag	Elkay Bag (5 lb)	+168.0	+6216
Glass Jar	Pak-Sel Cello Bag	+4464	+5104
PCP Bag	Elkay Bag (5 lb)	-430.5	-

OASE Student Projects

Alan Haynes hosted by Craft Brew Alliance-Portland

OASE Student Projects

Alan Haynes hosted by Craft Brew Alliance-Portland

Project	Cost to Implement	Cost Savings	Environmental Results	Status
Putting Yeast to Waste Liquids Tank	$0	@$20,000/month	4 consecutive BOD/TSS measurements down by 30%+	Implemented
Spent Grain Dewatering	$30,000	$100,000	5 Tons BOD/ 3.5 Tons TSS	Recommended
Solids Monitoring	$6,000	N/A	Potential to track and eliminate problematic behaviors	Recommended

Future of Oregon Applied Sustainability Experience

2018

8 Businesses will host summer interns

Seeking:

-New Partnerships

-Funding


Discussion

Contact information

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