



Pictured Rocks Natl. Lakeshore Environmental Leadership

Presented by
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Pictured Rocks Natl. Lakeshore Environmental Leadership

Why is being environmentally
responsible so important?

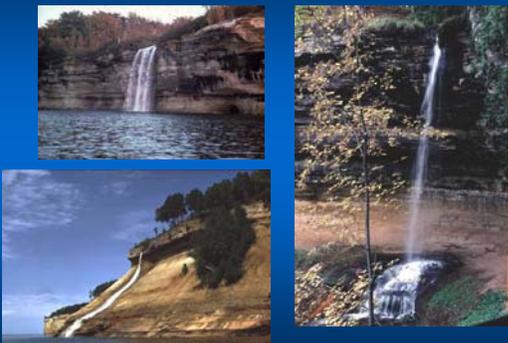


Administrative Mandates, Directives and Policies

Administrative mandates, directives and policies
direct the Federal Government to be a leader in
Environmental
Stewardship.



Does the question even need to be asked?





Should the question be, “why aren’t we doing more?”



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Program Elements



Photovoltaics

Au Sable Light
Station



5.0 kW system
with remote
located array



Photovoltaics

Sullivans Ranger Cabin

2.0 kW Collector
Shingle Roof System



Photovoltaics

Solar Powered Pumphouses



Seven 24 and 48 Volt Solar
Powered Water Systems in
Campgrounds and Day Use
Areas



Waste Reduction and Recycling





Do what is necessary to make it happen !



Alger Community Recycling developed through partnership with:

- National Park Service
- US Forest Service
- City Government
- Township Government
- University Extension Office



“Right Light” your facilities



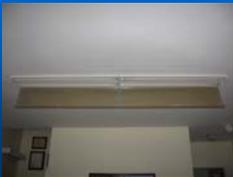
- Determine light requirements
- Reduce/Eliminate unnecessary lighting
- Protect Night Skies



Reduce Lighting Energy Requirements



- Replace Incandescents with Compact Fluorescents (75% reduction)
- Replace T-12 with T-8 fixtures (50% reduction)



Product Standardization



Inventory Reduction



Environmental Practices

Solar Charged Electric Vehicle



No-Salt Winter Road Sanding



Re-Think Routine Activities

Reduced Mowing



Electric Recharging Mower





Fleet Management



30 MPG +



Green Procurement



We have choices!



Reduced Toxins



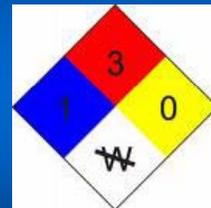
Safer for Employees and
the Environment



How Low Can You Go!

Ammonium Hydroxide	
HEALTH	2
FLAMMABILITY	0
REACTIVITY	0
<small> • Irritant Hazard • Highly Irritant • Moderate Irritant • Severe Irritant • Corrosive Hazard </small>	Personal Protection J

Get those numbers down



Try to "Zero Out"



2002 White House Closing the Circle Award



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Bio-Fluids Substitution Program



Bio-Lubricants and Fluids Substitution Program

- Bio-Diesel (B-20)
- Soy Hydraulic Fluid
- Soy Trans-hydraulic Fluid
- Soy Trans-hydrostatic Fluid
- Soy 2-cycle Oil
- Soy Bar and Chain Oil
- Soy Chassis Grease
- Soy Parts Washing Fluid
- Soy Penetrating Lubricant
- Soy Cleaners and Solvents
- Soy Crankcase Oil



Bio-Diesel (B-20)

- Diesel Trucks and Heavy Equipment (6)
- Diesel Engine Pickup Trucks (6)



Soy Hydraulic Fluid

- Dump Trucks (3)
- Snow Plows (4)
- Backhoe/loaders (2)
- Vehicle Lifts (2)



Soy Trans-hydraulic Fluid

- Backhoe/Grader and Crawler/Dozer (4)
- Utility Tractors (2)



Soy Trans-hydrostatic Fluid

- Garden Tractor/Mowers (3)



Soy 2-Cycle Engine Oil

- Mower/Trimmers
- Snowmobiles
- Patrol Boats
- Chainsaws





Soy Bar and Chain Oil



Chain oil goes directly from the chain into the environment!



Soy #2 Chassis Lubricant



Soy Parts Washing Fluid

- 300 degree flash point
- Low VOC and health hazard
- Performance equal to petroleum solvents



Soy Penetrating Lubricant

- Penetrates between threads
- High flash point
- Low evaporation
- Residual lubrication
- Water displacing



Soy Cleaners and Solvents

A wide variety of soy-based products are now available



Soy Crankcase Oil

Pictured Rocks is successfully testing soy-based engine oil in seven park vehicles.

(Industry efforts are underway to bring this product to consumers in the near future.)





Publicity

Take the opportunity to show others what you are doing.



Final Thoughts

38

- Select a practice that is the most impacting and mitigate it...

Final Thoughts

39

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- Substitute something green at similar cost...

Final Thoughts

40

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- Substitute something green at similar cost...
- Start small and grow the program...

Final Thoughts

41

- Select a practice that is the most impacting and mitigate it...
- Substitute something green at similar cost...
- Start small and grow the program...
- Blend employee safety and environmental leadership...

Final Thoughts

42

- Select a practice that is the most impacting and mitigate it...
- Substitute something green at similar cost...
- Start small and grow the program...
- Blend employee safety and environmental leadership...
- Begin with something visible and cheerlead the heck out of it...



For additional information contact:

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Check out our "Sustainable is Attainable" web link at
www.nps.gov/piro/parkmgmt/green.htm