

US EPA ARCHIVE DOCUMENT



Greening the Chumash Casino EPA Webinar

Presented By:
Josh Simmons
Environmental Director
Santa Ynez Band of Chumash Indians
August 18, 2010



SANTA YNEZ
BAND OF
CHUMASH
INDIANS

Presentation Outline

- **Background**
- **Water Resources**
- **Energy Resources**
- **Green Cleaning**
- **Waste Management**
- **Transportation**
- **Benefits**



Chumash
Casino

RESORT





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Water Resources

➤ Tribal WWTP

- Serves Entire Reservation
- Parking Structure Stormwater Collection
- Greywater Recycling



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Water Resources

- **Tribal WWTP**
- **Stormdrain Filtration Inserts**
- **Drip, Greywater Irrigation**
- **Landscaping: native, low-water plants**
- **Low Flow Toilets & Showerheads**
 - **Waterless Urinals**





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Water Resources

- **Tribal WWTP**
- **Stormdrain Filtration Inserts**
- **Drip, Greywater Irrigation**
- **Landscaping: native, low-water plants**
- **Low Flow Toilets & Showerheads**
- **R/O Dry Beds**
- **Water Efficient Appliances**
 - **Washing Machines**
 - **Dishwashers**



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Energy Resources

- **Variable Frequency Drives (VFDs)**
 - **Chilled Water Pumps (primary, secondary, return)**
 - **Hot Water Pumps / Boilers**
 - **Condenser Fans**
 - **Air Ventilation**
 - **Water Features Pumps**
 - **Pool & Hot Tub Pumps**
 - **RO System**





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Energy Resources

- **Variable Frequency Drives (VFDs)**
- **HVAC Efficiency**





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Energy Resources

- **Variable Frequency Drives (VFDs)**
- **HVAC Efficiency**
- **Metering, Software, and Controls**





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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
 - **\$109k annual savings (0.45 yr)**



Dyson Airblade



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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
- **Lights – CFLs and LEDs**
 - **Outdoor**
 - **Decorative**



KICHLER
LIGHTING 





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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
- **Lights – CFLs and LEDs**
 - **Recent LED Conversion on Casino Floor**
 - **Energy savings:**
 - ❖ **630+ MWh per yr**
 - ❖ **\$63,000+ per yr**
 - **5-8x longer bulb life**



Kree DR-1000

Cree LR6-DR1000 Series LED Module used to replace T5 HO fluorescents and halogens in lower ceilings



90 W Halogen PAR 38 Reflector Lamp



120W Incandescent BR40 Reflector Lamp



32 W Compact Fluorescent Luminaire

SustainableLEDDesign

COOPER Lighting

Halo 1200 Series LED Module used to replace twin lamp fluorescents



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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
- **Lighting**
- **Occupancy Sensors**
- **Building Shell**
 - **Dryvit Outsulation**
 - **Reflective Firestone EPDM liner**





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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
- **Light Bulbs – CFLs and LEDs**
- **Building Shell**
- **Energy Efficient Appliances, etc.**
 - **Energy Star**
 - **Turbo Pot**





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Energy Resources

- **Variable Frequency Drives**
- **HVAC Efficiency**
- **Metering, Software, and Controls**
- **Air Hand Dryers**
- **Light Bulbs – CFLs and LEDs**
- **Building Shell**
- **Energy Efficient Appliances, etc.**
- **Pool & Spa Heating**
 - **STA-RITE Max-E-Therm**





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Green Cleaning

➤ Green Seal Certified Cleaners





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Green Cleaning

- Green Seal Certified Cleaners
- Systematic Cleaning Chemical Mgmt





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Green Cleaning

- **Green Seal Certified Cleaners**
- **Systematic Cleaning Chemical Mgmt**
- **Microfiber Mops**
- **Automated Escalator Cleaners**
- **Air Scrubber**





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Green Cleaning

- **Green Seal Certified Cleaners**
- **Systematic Cleaning Chemical Mgmt**
- **Microfiber Mops**
- **Automated Escalator Cleaners**
- **Air Scrubber**
- **Battery Operated Cleaning Equipment**



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- **Green Seal Certified Cleaners**
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- **Air Scrubber**
- **Battery Operated Cleaning Equipment**
- **Chip Cleaning**



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procare
Janitorial Supply

Funkhouser's Finest

CHIP CLEANER

Ready-To-Use
Deep Cleaning Formula
Extends Chip Life

NET CONTENTS: 1-GALLON (3.785 LITERS)

WARNING:
Eye and skin irritant.
Keep out of reach of children.
See back panel for additional precautionary and practical treatment statements.





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Green Cleaning

- **Green Seal Certified Cleaners**
- **Systematic Cleaning Chemical Mgmt**
- **Microfiber Mops**
- **Automated Escalator Cleaners**
- **Air Scrubber**
- **Battery Operated Cleaning Equipment**
- **Chip Cleaning**
- **Air Freshener Removal**
- **HVAC VOC Sensors**



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Waste Management

- **Waste Management & Recycling**
 - **Source Separation**
 - **Offsite Separation**





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Waste Management

- **Waste Management & Recycling**
- **Composting & Mulch**
 - **Food Scraps**
 - **WWTP Bio-solids, Green waste**





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Waste Management

- **Waste Management & Recycling**
- **Composting & Mulch**
- **Kitchen FOG Management**
 - **Source separation and collection**





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Waste Management

- **Waste Management & Recycling**
- **Composting & Mulch**
- **Kitchen FOG Management**
 - **Chemsafe grease traps**
 - **Rhino particulate remover**



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Waste Management

- **Waste Management & Recycling**
- **Composting & Mulch**
- **Kitchen FOG Management**
- **Green Purchasing**
- **Pallet / Packaging Reuse**





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Waste Management

- **Waste Management & Recycling**
- **Composting & Mulch**
- **Kitchen FOG Management**
- **Green Purchasing**
- **Pallet / Packaging Reuse**
- **Office Waste Management**
 - **Paperless Records**
 - **Recycled Content Paper**
 - **Double Sided Printing**



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Waste Management

- **Uniform & Clothes Hanger Recycling**
- **Reusable Laundry Service Bags**
- **Bulk dispensing of toiletries**





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Waste Management

- **Uniform & Clothes Hanger Recycling**
- **Reusable Laundry Service Bags**
- **Bulk dispensing of toiletries**
- **Furniture Donations**
- **In-House Furniture Upholstering**





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- **Uniform & Clothes Hanger Recycling**
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- **Bulk dispensing of toiletries**
- **Furniture Donations**
- **In-House Furniture Upholstering**
- **Sectional Carpeting**
 - **InterfaceFlor carpet tiles**



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Waste Management

- **Uniform & Clothes Hanger Recycling**
- **Reusable Laundry Service Bags**
- **Bulk dispensing of toiletries**
- **Furniture Donations**
- **In-House Furniture Upholstering**
- **Sectional Carpeting**
- **Reusable Dishware & Silverware**
- **Drinking Water Filtration & Bottling**



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Transportation

- **Customer & Employee Shuttle Buses**
 - **Eliminated 700,000 car trips in 2009**

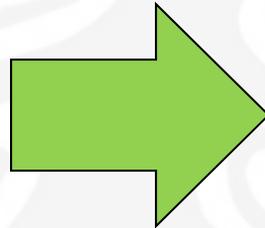




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Transportation

- **Customer & Employee Shuttle Buses**
- **Biofuel**





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Benefits

- **Cost Savings**
- **Reduced Environmental Impacts**
- **Safer, Healthier Workplace**
- **Increased Employee Productivity**
- **Higher Customer Satisfaction**
- **Positive Public Relations**
- **Green Marketing Opportunities**
- **Awards and Recognition**
 - 2007 Santa Barbara County Green Award Program
 - 2009 EPA Region 9's Environmental Achievement Award Program
 - 2009 CIWMB's Waste Reduction Program Award



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Thank You Questions?

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