

# **E-WASTE BEST MANAGEMENT PRACTICES FOR LOCAL GOVERNMENT**



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# PROJECT BACKGROUND

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## ⌘ CIWMB Survey of Local Government to Determine Assistance Needs

### ☑ Compliance

- ☑ CUPA, LEA

### ☑ Recyclers

- ☑ HHW, Landfill, Solid Waste

# SURVEY RESULTS



⌘ Financial Assistance

⌘ Environmentally Sound Management

⌘ Guidance Documents

# E-WASTE IS U-WASTE

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## ⌘ Universal Waste Criteria

- ☒ low risk in accumulation/transport
- ☒ large number and variety of generators
- ☒ U-waste regs. would improve compliance

# U-WASTE REGULATIONS LESS STRICT

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- ⌘ Notification Vs. Permit
- ⌘ No EPA ID Number
- ⌘ Longer Accumulation/Storage Times
- ⌘ No DOT Labeling/Placarding/Containers
- ⌘ Bill of Lading Vs. Manifest

# U-WASTE IS HAZ WASTE

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⌘ If not properly recycled:

- ☑ all hazardous waste regulations apply
- ☑ local government is e-waste generator
- ☑ cradle to grave responsibility
- ☑ Superfund liability (CERCLA)

# E-WASTE MANAGEMENT



- ⌘ Broker
- ⌘ Direct Reuse or Refurbishment
- ⌘ Component Recovery
- ⌘ Raw Material Recovery
- ⌘ End Markets

# SELECT AN E-WASTE RECYCLER

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- ⌘ Use a RFP instead of a Bid Process
  - ☑ Most advantageous, not lowest cost
  - ☑ Enlist expertise of others
  - ☑ Regulatory compliance, OSHA requirements
  - ☑ Environmental Management Systems
  - ☑ Downstream auditing/tracking capability
  - ☑ Recycler due diligence of end markets

# ENVIRONMENTALLY SOUND MANAGEMENT

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- ⌘ Regulatory Compliance
- ⌘ Follow Agreed Upon Standards
  - ☑ Down Stream Material Tracking
  - ☑ Impact on Environment
  - ☑ Business Practices
- ⌘ Independent Third Party Certification
  - ☑ Third Party Audits

# PLANNING AN E-WASTE PROGRAM

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⌘ Determine what is best for your community

- ☑ Program Goals

- ☑ Evaluate Existing Infrastructure

- ☑ Match Program Design with Local Needs

- ☑ Select Lead Agency

  - ☑ HHW

  - ☑ Landfill, Transfer Station

  - ☑ Recycling Center

# COLLECTION MODELS

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- ⌘ Drop-off Event (one-day or multiple days)
- ⌘ Permanent Collection Facility
- ⌘ Curbside Collection
- ⌘ Retail Collection
- ⌘ Nonprofit/Thrift Retail Collection

# PROGRAM PLANNING

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- ⌘ Site Selection and Layout
- ⌘ Staffing and Training Needs
- ⌘ Collection Equipment Needs
- ⌘ Estimation of Participation
- ⌘ Controlling Costs

# PUBLICITY AND OUTREACH

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- ⌘ Relationship between convenience, outreach, and participation
- ⌘ What to include in outreach messages
- ⌘ Media resources

# DATA COLLECTION & REPORTING

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## ⌘ State Reporting Requirements

- ☑ DTSC Report of Activities

- ☑ Form 303

- ☑ SB 20 Reimbursement Reporting

- ☑ CIWMB Grant Reports

## ⌘ Contract Requirement to Prepare Reports

## ⌘ Need to Retain Documents for 3 Years

# DATA COLLECTION & REPORTING

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- ⌘ Contract Management
- ⌘ Stakeholder Reports
- ⌘ Program Evaluation
- ⌘ Comparison to Other Programs

# OPERATIONAL CONSIDERATIONS

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- ⌘ General Site Procedures
- ⌘ Personal Protective Equipment
- ⌘ On-site Segregation and Storage
- ⌘ Packaging and Transportation
- ⌘ Recycling Certificates/Tracking  
Documentation

# FINAL THOUGHTS

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- ⌘ E-Waste is Hazardous Waste
- ⌘ Government has long-term liability
- ⌘ Government has deep pockets (taxpayers)
- ⌘ Select the best recycling contractor
- ⌘ Monitor the contract
- ⌘ Due diligence at all levels

# GOLD Refining: Electronic Scrap

Gold Refining Formula and  
100+ Pictures of Gold Refining

[Ideasman@adelphia.net](http://Ideasman@adelphia.net)

[ItsOnEbay.com](http://ItsOnEbay.com)

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# Noble Metals Recovery, L.L.C.





# PH CONTROL IN POOLS MURIATIC ACID 20° BAUME

**DANGER & POISON**

**MAY BE FATAL IF SWALLOWED. CAUSES SEVERE BURNS  
VAPOR HARMFUL, KEEP OUT OF REACH OF CHILDREN**

**MAY BE FATAL IF SWALLOWED. CAUSES SEVERE BURNS. VAPOR HARMFUL. DO NOT BREATHE AND  
DO NOT TOUCH. DO NOT TOUCH OR SWALLOW. DO NOT MIX WITH OTHER LIQUIDS OR SOLIDS. DO NOT  
FIRST AID: INTERNAL: Flush with water for 15 minutes. INTERNAL: Flush with water for 15 minutes.  
Follow with Milk of Magnesia, beaten eggs, or mineral oil. Call physician immediately. DO NOT  
for 15 minutes. Call prompt medical attention.**

**OTHER USES: Pool cleaning. Clean tiles, stone and other  
surfaces. Remove grout between tiles. Use a mixture of  
MURIATIC ACID with fine to tan grade of sand. Scoop sand in  
a bucket, return proceeding. Clean and rinse quickly with water, the  
sand to see glass and other protective clothing is recommended.  
ALWAYS ADD ACID TO WATER.**



Read Carefully Examine  
the Back Panel

NET CONT. 1 U.S. GAL. (12.8 FL. OZ.)

HYDROCHLORIC ACID (31.45% HCL) (S.G. 1.179)

# INDUSTRIAL GRADE SODIUM NITRATE



5.1

UN 1450

NET CLASS 5.1

Product Name	_____
Quantity	_____
Classification	_____
Remarks	_____

50 LBS (22.68 kg) NET



# UREA 46-0-0

GRANULAR  
LAWN FOOD/STRAW REMOVAL  
Total Nitrogen (N).....46.00%

50 lb/22.6 kg NET WT.

THE FERTILIZER FARM COMPANY, INC.  
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