

Eco-Industrial Park Feasibility Study

Alameda County Waste Management Authority
Source Reduction and Recycling Board

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**Eco-
Development
Associates**

A Local Resource Recovery Eco-Industrial Park can:

- ✓ Support local business stability and growth
- ✓ Provide for more waste diversion
- ✓ Be a magnet for new technologies,
industrial jobs
- ✓ Revitalize urban land
- ✓ Demonstrate environmentally sound
industrial activity

Definitions

- ✓ Industrial Ecology
 - ✓ framework for analysis
- ✓ Eco-Industrial Park
 - ✓ businesses working together
 - ✓ environmental and economic benefit
- ✓ Resource Recovery
 - ✓ making use of by-products

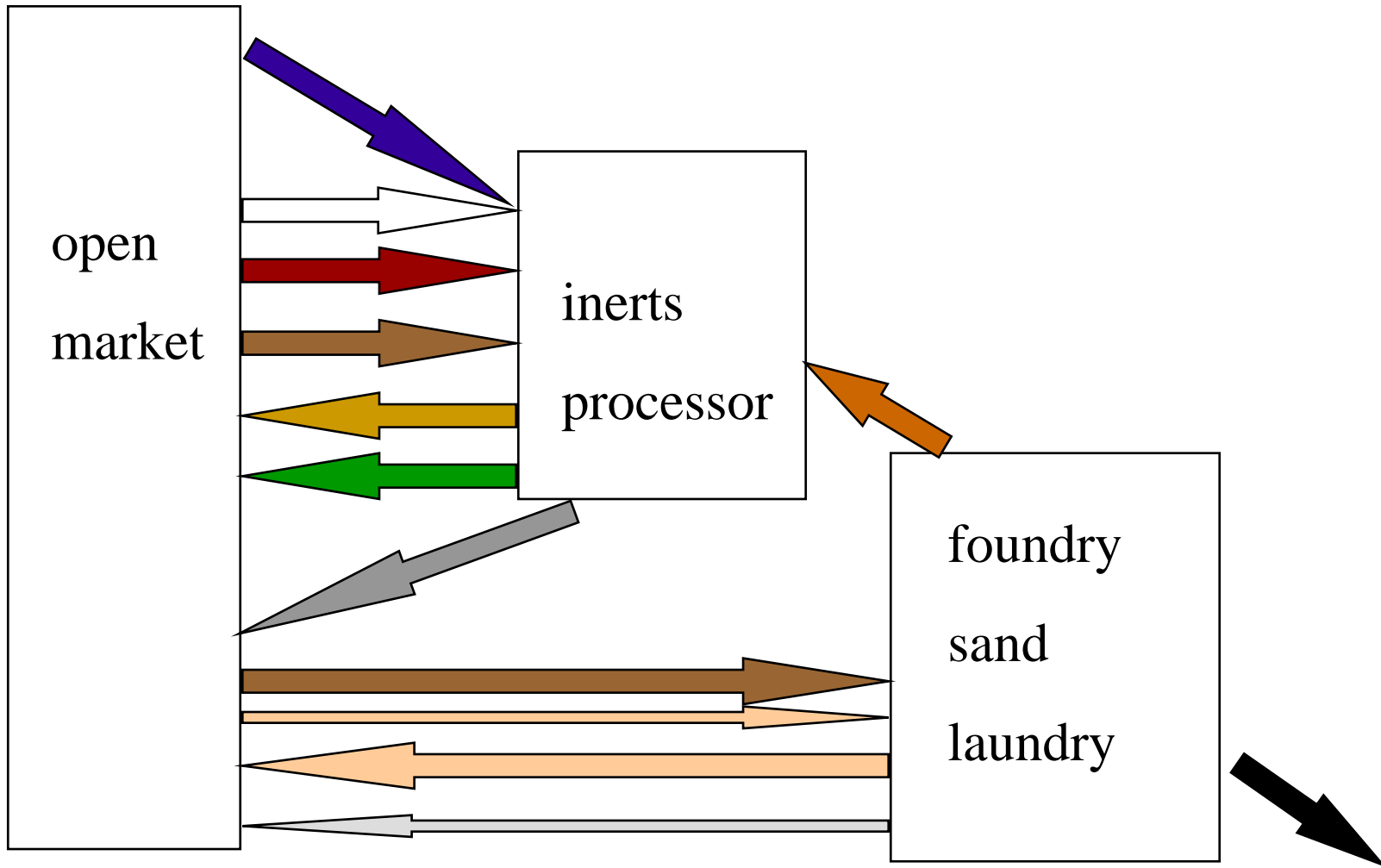
Key Questions

- ✓ Can a Resource Recovery Eco-Industrial Park succeed in the East Bay?
- ✓ What would an appropriate mix of businesses be?
- ✓ Where might it be located?

Examples

- ✓ Kalundborg, Denmark
 - ✓ evolved gradually for 25 years
- ✓ Baltimore
 - ✓ urban revitalization
 - ✓ strong involvement by Cornell University
- ✓ Chattanooga
 - ✓ multi site, staged growth plan
 - ✓ includes former military base

Assembling the Components



Core Businesses

- ✓ Inerts processing
- ✓ Foundry sand
- ✓ Soil blending
- ✓ Site remediation
- ✓ Compost preparation
- ✓ MRF/Transfer
- ✓ Paper sort/bale
- ✓ Mini paper mill
- ✓ Salvage / reuse
- ✓ Plastics recycling
- ✓ Tire processing

Ancillary Activities

- v EIP management
- v Facility & equipment maintenance
- v Transportation
- v Training


Future Potential

- ✓ Traditional manufacturing
- ✓ Bio-diesel
- ✓ Crumb rubber
- ✓ Cellulose to ethanol
- ✓ Automobile “deconstruction”
- ✓ Electronics dismantling
- ✓ Plastic + wood fabrication

Optimum Configuration

- ✓ Minimize transport costs:
 - ✓ one site if possible
 - ✓ if two sites, group businesses carefully
- ✓ Anchor tenants
 - ✓ inerts, compost prep, MRF
- ✓ “Virtual” EIP
 - ✓ appropriate startup mechanism
 - ✓ better suited for high-value-added industries

Financial Feasibility

- ✓ Inerts processing
 - ✓ Foundry~~X~~ sand
 - ✓ Soil blending
 - ✓ Site~~X~~ remediation
 - ✓ Compost preparation
 - ✓ MRF/Transfer
 - ✓ Paper sort/bale
 - ✓ Mini~~X~~ paper mill
 - ✓ Salvage~~X~~ reuse
 - ✓ Plastics recycling
 - ✓ Tire processing
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Benefits

- ✓ Waste diversion
- ✓ Local tax-related revenue: ~\$350K/yr
- ✓ Possible equity revenue
- ✓ Urban revitalization
- ✓ 280 jobs (direct & indirect) from resource recovery
- ✓ Additional jobs: management, maintenance

Challenges

- v Costs: cost of living / housing
- v Permits
- v Risks of interdependence
- v Community acceptance

Steps Toward Acceptance

- ✓ Incorporate Environmental Values into Site Management and Permitting
- ✓ Outreach to Local Community
- ✓ Purpose of Facility: Resource Conservation

Current Local Projects

- ✓ Levine-Fricke Eco-Parks @ OAB
 - ✓ teamed with United Indian Nations
 - ✓ manufacturing / green business emphasis
- ✓ San Leandro SMaRT
 - ✓ outgrowth of existing uses
 - ✓ processing recyclables
 - ✓ green waste trans-shipment
 - ✓ tire grinding

Site Search Results to Date

- ✓ Key siting criteria
- ✓ 32 potential sites identified
- ✓ Information still arriving
- ✓ Preliminary prioritizing, subject to revision

Recommendations

- ✓ Authority / Recycling Board - key role
- ✓ EDAB: facilitate
- ✓ Working Group
 - ✓ define project details
 - ✓ support Private Industry Committee
 - ✓ Permit Consolidation Zone
 - ✓ community & academic involvement
- ✓ EIP Management Plan