Assessing and Building Capacity: Use of the Solid Waste Sustainable Evaluation Tool

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Agenda

• Sustainability Background
• Meaning & Priorities
• Solid Waste Approach
• Sustainable Waste Management Program
• Region 8 Pilot
• Sustainable Evaluation Tool Demonstration
• Next Steps
• Questions
Intergenerational Equity
Brundtland 1987 "development which meets the needs of the present without compromising the ability of future generations to meet their own needs”

Biogeophysical
Critical limits of natural capital (carrying capacity); weak/strong
More narrowly defined and prescriptive

Multiple Objectives
Integration and tradeoffs of co-existing factors (TBL dimensions - people, planet, prosperity)
More flexible and inclusive
Typology of Eco-Values

Environmental Worldviews

**Planetary Management**
- We are apart from the rest of nature and can manage nature to meet our increasing needs and wants.
- Because of our ingenuity and technology, we will not run out of resources.
- The potential for economic growth is essentially unlimited.
- Our success depends on how well we manage the earth's life-support systems mostly for our benefit.

**Stewardship**
- We have an ethical responsibility to be caring managers, or stewards, of the earth.
- We will probably not run out of resources, but they should not be wasted.
- We should encourage environmentally beneficial forms of economic growth and discourage environmentally harmful forms.
- Our success depends on how well we manage the earth's life-support systems for our benefit and for the rest of nature.

**Environmental Wisdom**
- We are a part of and totally dependent on nature, and nature exists for all species.
- Resources are limited and should not be wasted.
- We should encourage earth-sustaining forms of economic growth and discourage earth-degrading forms.
- Our success depends on learning how nature sustains itself and integrating such lessons from nature into the ways we think and act.
Chronology of Environmental Priorities

A Timeline of U.S. Environmental Progress

19th CENTURY
Focus on land conservation

20th CENTURY
Focus on risks due to pollution

21st CENTURY
Life cycle thinking
Global collaboration
Market-based incentives
Integrated interdisciplinary solutions
Investments in sustainable systems
Policy Implications

- Local conditions
- Cultural context
- Hierarchy level
- Spatiotemporal scale
Sustainability

• What does “sustainability” mean to you and your community?
• Are there barriers--what, where, why?
• What resources/tools are needed to address?
Tribes have identified solid waste issues as a top priority.

2005 - 2007 Region 8 led the effort between EPA Regions and HQ, other federal agencies and tribes to work together to identify ways to address solid waste issues in Indian country.

Result: Workgroups formed and developed tools
- IWMP
- Sustainable Evaluation Tool
Integrated Waste Management Plan

• A long-term plan that characterizes the current waste management program and assesses future waste management options for the tribal community
• The template identifies the 5 critical elements
• Not just a description of standard operating procedures for handling the current waste stream!

A complete IWMP includes descriptions of:
1. Community service area
2. Tribe's solid waste program structure and administration
3. Tribe's current and proposed waste management practices
4. Description of the funding and sustainability, and the long-term goals of the Tribe's solid waste program.
5. Demonstration of approval of the plan by appropriate tribal council or governing body.
Sustainability Working Group

• Sustainability Workgroup est. 2006

• ‘Help tribes create sustainable, well-managed *infrastructure systems* in order to ensure that reservation populations receive basic public services in a manner that is *environmentally* protective and *economically* viable’

• Need to *comprehensively* evaluate the sustainability of a solid waste management program.
What is a Sustainable Solid Waste Management Program?

- Sustainable waste management systems tend to share attributes in 7 key indicator areas:
  - Planning
  - Financial viability
  - Management
  - Staffing
  - Operations
  - Coordination
  - Compliance & Enforcement
Goals of the Tool:

• Evaluate a *current* program for evidence of the 7 key indicators of a sustainable program

• *Self Assessment* to supplement other review processes or establish a baseline

• Report *results* to identify areas of success and weakness
Pilot Testing

- R8 Tribes volunteered to participate in a pilot study to test the tool

- Tribes completed the Sustainable Evaluation Tool with initial assistance and facilitation from EPA

- Some of the Tribes have completed the tool independently and shared results
Summary of Pilot Results

- Averaged results indicated that planning and compliance & enforcement are areas with the weakest scores and the greatest need for assistance.

- Results are used to identify areas of opportunity for targeted assistance, specific areas where training, technical assistance, and financial resources would have the greatest impacts.
### Overall Scores & Summary of Results

<table>
<thead>
<tr>
<th>Key Indicator/Rank (lowest to highest)</th>
<th>% of Total Possible</th>
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<tbody>
<tr>
<td>Planning (2)</td>
<td>51.9%</td>
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<tr>
<td>Financial Viability (5)</td>
<td>60.2%</td>
</tr>
<tr>
<td>Management (7)</td>
<td>80.8%</td>
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<tr>
<td>Staffing (6)</td>
<td>70.1%</td>
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<tr>
<td>Operations (4)</td>
<td>59.9%</td>
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<tr>
<td>Coordination (3)</td>
<td>53.0%</td>
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<tr>
<td>Compliance &amp; Enforcement (1)</td>
<td>47.2%</td>
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<tr>
<td><strong>Overall Score</strong></td>
<td><strong>59%</strong></td>
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## Planning

### Evaluation Criteria

- Integrated waste management plan is in place (with good information on demand for services and expected changes over time).
- A capital improvements plan is in place.
- Operation and maintenance plans are in place.
- IWMPs are integrated with other tribal plans (such as natural resources, housing, hotel/casino expansions, etc.).
- Plans take into account the impact of future development on the waste management program or utility.
- There is evidence that plans are being used for decision-making.
- Plans are revisited and updated on a regular basis.

### Recommendations

- Provide technical assistance for drafting plans (IWMP, capital improvement plans, staffing plans, operations and maintenance plans).
- Identify plan implementation best practices and provide support to revisit and update plans on a regular basis.
- Discuss strategies for tracking plan implementation.
- Share resources for how to calculate potential impacts of future development.
- Evaluate model plans and their role in established programs.
### Financial Viability

#### Evaluation Criteria

- **Budget** – Waste management program has annual operating budget (with contingencies and equipment costs built in).
- User fees and other income sources are adequate to cover costs.
- Reliable federal or other non-tribal sources are available to help fill necessary gaps in funding.
- **Rates** are fair, affordable, and adjusted as needed.
- **Equitable** provisions are made for people who can’t afford to pay and the lost revenue is provided to the waste management program or utility from another source.

#### Recommendations

- Support for development of a rate structure that includes rates that are affordable and adjust as needed.
- Provide planning support to develop adequate reserve accounts for contingencies and capital improvements.
- Share approaches and tactics for how equitable provisions are made for the elderly and low income.
- Discuss how collaboration between tribal departments and tribal enterprises can provide in-kind solutions with cash value to reduce costs.
- U.S. Department of Agriculture Rural Development (USDA RD) grant application process.
<table>
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<th>Evaluation Criteria</th>
<th>Recommendations</th>
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<td>Utility board (or other authority independent of Council) has <em>power</em> to make decisions.</td>
<td>Discuss the benefits of a utility board or independent body and strategies for developing such a board.</td>
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### Staffing

**Evaluation Criteria**

- A staff *training* plan is developed and followed.
- Staffing is appropriate (both in terms of number and skill mix) to meet program needs.

**Recommendations**

- Create templates and model staff training plans to support staff training plan development.
- Conduct trainings in a forum, which maximizes staff time and financial resources.
## Operations

### Evaluation Criteria

- Operations are cost **effective** and meet demand (no gaps in service occur).
- *Waste minimization and pollution prevention* are incorporated to extent feasible.
- Operations are regularly **evaluated and improved** as needed.

### Recommendations

- Provide training on how to conduct a comprehensive evaluation of the waste system.
- *Best practices* for implementing measures to reduce waste or pollution.
- Identification of resources for addressing unresolved problems.
# Coordination

## Evaluation Criteria

- There is good coordination with Council and other tribal departments that manage or generate waste (e.g. Health, BIA, Housing, Casino)
- Effective outreach is made to stakeholders regarding rates, services, billing and collection policies, etc. and stakeholders support the program.

## Recommendations

- Discussion of best practices for coordination with other tribal departments.
- Best practices for coordination with stakeholders to create a sustainable program that is consistent with tribal mission and beliefs.
- Implementation support for changes in long standing behavior and practices.
## Compliance & Enforcement

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<th>Recommendations</th>
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<td>• A tribal enforcement program is in place and effective (including tribal laws and a court system that understands and appreciates waste issues).</td>
<td>• Refer to <em>model codes</em> and provide waste code development training.</td>
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<td>• Provide code implementation support and best practices.</td>
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<td>• Enforcement <em>training</em> including a “train the trainer” for enforcement officers to share their knowledge of enforcement with tribal police and courts.</td>
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Tool Demonstration

- **Why should I use it?** Understand your program, bring departments together, baseline, leverage $, improve Tribal/EPA efforts; Tribal champions
- **How does it work?** User-friendly format, spreadsheet
- **Who uses the tool?** Tribes nationally, other groups
- **What is the scoring system?** 102 questions in 7 categories (no=0; yes but inadequate=1; yes adequate/effective=2; not applicable); Total/204-(2*NA)
- **Where can I learn more?** EPA Region 9 contacts
- **When should I start?** If already completed, review results; if not, we will coordinate meeting
Questions & Contact Info

EPA Region 9

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Think globally, act locally, and plan regionally