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MUNICIPAL WASTE MANAGEMENT - GOOD PRACTICES

COUNCIL FOR SCIENTIFIC RESEARCH

WASTE FLOW DIAGRAM

This document aims to cover good practices in each of the stages of waste management, from the point of collection through transport, storage and treatment to final disposal. The principles of the waste hierarchy which include waste minimisation, re-use and recycling, is supported to reduce disposal at landfill. Some examples may work well in certain areas and not in others. Municipalities should determine the suitability of specific programmes for their specific circumstances. The Integrated Waste Management Plan (IWMP) can evaluate and recommend the most appropriate systems for each municipality.

In South Africa the majority of waste ends up in landfills as mixed waste (thick grey arrow in the waste flow diagram). Reduce, re-use and recycling activities should be encouraged (the green arrows), which will result in a smaller waste stream to landfill (the black arrows).

The Purpose and function of waste facilities:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Material Recovery Facility (MRF)</th>
<th>Buy-back</th>
<th>Transfer stations</th>
<th>Central collection facilities</th>
<th>Drop off</th>
<th>Gardens waste</th>
<th>Landfills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of waste</td>
<td>Mixed municipal waste, Mixed recyclables</td>
<td>Recyclables</td>
<td>Mixed waste</td>
<td>Mixed waste</td>
<td>Recyclables</td>
<td>Garden waste</td>
<td>Mixed waste, Building rubble, Garden waste</td>
</tr>
<tr>
<td>Who brings waste?</td>
<td>Waste collectors, Community</td>
<td>Community</td>
<td>Waste collectors, Contractors, Community</td>
<td>Community</td>
<td>Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where comes the waste from?</td>
<td>Recyclers, Municipality</td>
<td>Municipality, private companies</td>
<td>Municipality</td>
<td>Recyclers, Municipality</td>
<td>Municipality, Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where does the waste go to?</td>
<td>Recycling plant or Landfill</td>
<td>Recycling plant or Landfill</td>
<td>Landfill or MRF or Transfer station</td>
<td>Recycling plant</td>
<td>Composting facility or landfill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose of facility</td>
<td>Waste separation</td>
<td>Recycling and re-use</td>
<td>Optimising transport system</td>
<td>Collection from inaccessible areas</td>
<td>Recyclables and biodegradable waste</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Safe" disposal