

# **Recycling in Jordan Activity**

Waste Management Plans' (WMP) Guidelines

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# **Table of Contents**

Tal	ole of	Contents	2
Lis	t of T	ables	3
Lis	t of F	igures	4
Lis	t of A	Abbreviations	5
1	Intro	oduction	6
1.1	Ge	neral Framework & Scope of the Project	6
1.2	Sco	ope of the Report	7
1.3	Leç	gal Framework	8
2	Was	te Management Plans' Guidelines	10
2.1	Sec	ction: Executive Summary	10
2.2	Sec	ction 1. Introduction	10
	2.2.1	Section 1.1. Scope	10
	2.2.2	Section 1.2. Establishment's General Information	11
	2.2.3	Section 1.3. Establishment's Description	11
2.3	Sec	ction 2. Waste Generation	14
2.4	Sec	ction 3. Current Waste Management System	16
	2.4.1	Section 3.1. Waste Segregation, Collection and Storage	16
	2.4.2	Section 3.2. Waste Reuse, Recycle, Recovery and Disposal	19
2.5	Sec	ction 4. Waste Management Plan Goals, Targets and Measures	22
	2.5.1	Section 4.1. Goals, Targets and Measures	22
	2.5.2	Section 4.2. Waste Prevention	24
2.6	Sec	ction 5. Proposed Waste Management System	27
	2.6.1	Section 5.1. Proposed Waste Segregation, Collection and Storage	27
	2.6.2	Section 5.2. Proposed Waste Reuse, Recycle, Recovery and Disposal	31
2.7	Sec	ction 6. Implementation Plan	34
2.8	Sec	ction 7. WMP Monitoring	35

## **List of Tables**

Table 1: Waste Generation
Table 2: Waste Collection and Storage
Table 3: Reuse / Recycle / Recovery / Disposal Operations implemented in the establishment (internal operations)
Table 4: Reuse / Recycle / Recovery / Disposal Operations provided by external registered and licensed service provider / providers (external operations)
Table 5: Waste Prevention Practices
Table 6: Proposed Waste Collection and Storage
Table 7: Proposed Reuse / Recycle / Recovery / Disposal Operations implemented in the establishment (internal operations)
Table 8: Proposed Reuse / Recycle / Recovery / Disposal Operations provided by external registered and licensed service provider / providers (external operations)
Table 9: Implementation Plan

# **List of Figures**

Figure 1: Process flow diagram	13
Figure 2: Waste flow diagram	15
Figure 3: Storage area layout	18
Figure 4: Proposed storage area layout	30

#### Page: 5 of 37

## **List of Abbreviations**

**CA** Contracting Authority

**EHS** Environmental, Health, and Safety

**EWC** European Waste Codes

**HDPE** High-Density Polyethylene (HDPE)

**LDPE** Low-Density Polyethylene

**MoENV** Ministry of Environment

**PET** Plastics (Polyethylene Terephthalate

PP Polypropylene

**PS** Polystyrene

R and D Recovery and Disposal

**SoW** Scope of Work

**USAID** United States Agency for International Development

WG Waste Generators

WM Waste Management

**WMP** Waste Management Plan

**WMS** Waste Management System

## 1 Introduction

## 1.1 General Framework & Scope of the Project

The consulting services under the title "Recycling in Jordan Activity", hereafter called "the Project", are part of the overall project entitled "Recycling in Jordan Activity" that was launched by the United States Agency for International Development (USAID) and implemented by Chemonics International Inc in 2020.

The Recycling in Jordan Activity partnering with the Ministry of Environment, the Greater Amman Municipality, and private sector recycling companies to increase the commercial sector's utilization of recycling services in Amman. Through a market-based approach, the USAID Recycling in Jordan Activity seeks to improve and expand private-sector recycling markets, increase demand for and utilization of recycling services within Amman's commercial sector, and improve business enabling environment for recycling services and material markets. As the recycling sector becomes more competitive, the activity will capitalize on opportunities to boost the commercial sector's demand for recycling services.

The objective of this consultancy is to support the Ministry of Environment (MoENV) in:

- ✓ Drafting instructions for commercial waste separation, sorting, and recycling best practices for all types of waste stream;
- Preparing guidelines for the obligatory waste management plans, including templates, for waste generators in accordance with article (16) of the waste law regarding the content of the waste management plan; and
- ✓ Producing a qualification criterion for individuals and entities eligible to compose Waste Management Plans (WMP) for waste generators.

To carry out the Project, Chemonics International Inc, hereafter called "the Contracting Authority" (CA), awarded Mr. Constantinos Nicolopoulos, hereafter called "the Consultant", following a technical and financial proposal submission and evaluation.

As it is envisaged in the Project's Scope of Work (SoW), the implementation of this assignment consists of the following tasks and deliverables:

#### Tasks:

- Task 1: Identify and review best available commercial waste separation, sorting, and recycling
  practices in the context of any relevant legislative and regulatory framework.
- Task 2: Contextualize commercial recycling best practices to the Jordanian Commercial Sector.
- Task 3: Present findings of Tasks (1) & coincide recommendations of Task (2) with MoENV and any other related entities.
- Task 4: Coordinate closely with the Local Legal Expert in preparing instructions for waste recycling.
- Task 5: Draft WMP guidelines, incorporating templates, applicable for all categories.
- Task 6: Compile a qualification criterion for individuals and entities eligible to compose WMP.

Page: 7 of 37

#### **Deliverables:**

- D1: Comprehensive report and presentation on outcomes of Tasks (1) & (2) in English.
- D2: Instructions for Waste Recycling (legal instrument) in English.
- D3: Waste Management Plans' (WMP) Guidelines in English.
- D4: Qualification criterion for WMP providers in English.
- D5: Instructions for Waste Recycling in Arabic, Waste Management Plans' (WMP) Guidelines in Arabic, Qualification criterion for WMP providers in Arabic.

The document at hand is the Deliverable D3 entitled "Waste Management Plans' (WMP) Guidelines".

## 1.2 Scope of the Report

This report aims to provide guidelines to Waste Generators, excluding households, that generate more than 100 tons annually of non-hazardous waste and any quantity of hazardous waste with the exception of Construction and Demolition Waste, with respect to the development of their **Waste Management Plans** (WMP).

The WMP Guidelines has been prepared in accordance with the requirements provisioned in the relevant Jordanian legal framework.

The Guidelines include templates. For each section, the reporting structure is detailed along with additional guidance notes where deemed necessary.

Waste Generators (WG) in Jordan refer to all non-residential entities, including commercial sector, private businesses, industrial/manufacturing plants, public institutions (government building, public schools/universities, foreign embassies, public hospitals), civil society and religious institutions (community centres, mosques, churches), urban/peri-urban farms, and home-based businesses, and medical waste produced by hospitals, pharmacies, and medical offices.

The waste streams generated by the Waste Generators, prioritized for this assignment, according to the SoW, comprise:

- Paper/Cardboard
- Plastics (Polyethylene Terephthalate (PET), High-Density Polyethylene (HDPE), Polyvinyl Chloride (PVC), Low-Density Polyethylene (LDPE), Polypropylene (PP), Polystyrene (PS))
- Metals (Ferrous metals, Non-ferrous metals)
- Glass
- Organics (Organic waste "food waste", Cooking oil)
- E-waste
- Textile waste
- Old tires
- Hazardous Waste

## 1.3 Legal Framework

The Government of Jordan has recently enacted a new **Waste Management Framework Law No.16** in March of 2020. The law mandates in Article 16 a set of obligations for large waste generators, producing more than 1000 tons per year of non-hazardous wastes and any amount of hazardous waste, with the exception of Construction and Demolition Waste:

## A. Preparation of Waste Management Plans, comprising the following:

- Documenting the generated waste to include the source, quantities, types and components of the waste.
- Precautionary measures and procedures to prevent or reduce waste generation.
- Demonstrate all operations of waste separation, especially hazardous waste from other reusable or recyclable waste.
- Description of the waste storage mechanism and demonstrating it on the site.
- The methods used to treat waste and disposing it.
- Determining the routes of waste transport vehicles.

#### B. Submission of the Waste Management Plans to MoENV upon request.

**C.** Updating the Waste Management Plans every (5) years or when there is a significant change in the waste-generating operations, whichever comes first and provide the concerned authorities with these plans upon request.

Furthermore, MoENV has also recently issued **bylaw No.85** in 2020 for the **Waste Management Environmental Information and Monitoring System** - in accordance with article 4 of the Environmental Protection Law, No. 6 of 2017 - where it obliges waste generators, producing more than 100 tons per year of waste, to register in the system and obtain an environmental identification number. Particularly, Article 5 of the bylaw stipulates the following:

- **A-** Establishments that generate more than (100) tons annually of non-hazardous waste and any quantity of hazardous waste excluding households shall commit to the following:
  - 1. Registering in the waste management information system.
  - 2. Acquiring an Environmental Identification Number.
  - 3. Registering information as required in paragraph (A) of Article (6) of the bylaw.
  - **4.** Presenting annual reports to the Ministry that includes waste management activities and plans, either through the information system or directly to the Ministry.

C- Establishments referred to in paragraph (A) of this article shall present its waste management plans within six months from the date of registering in the information system.

Page: 9 of 37

The Jordanian legal framework mandates that **waste generators**, excluding households, that generate more than **100 tons annually** of non-hazardous waste and any quantity of hazardous waste with the exception of Construction and Demolition Waste, must submit to MoENV a **Waste Management Plan**, within six months from the date of registering in the Environmental Information and Monitoring System, which must be review every 5-years or when there is a significant change in the waste-generating operations. The plan should comprise the following:

- 1. Waste generated (sources, quantities, types, and composition)
- 2. Measures and procedures to prevent or reduce waste generation
- 3. Waste separation system
- 4. Waste storage system
- 5. Waste treatment and disposal
- 6. Waste transportation

## 2 Waste Management Plans' Guidelines

## 2.1 Section: Executive Summary

[Guidance: Fill out all required information marked using blue font text in the template]

[Insert: Provide the executive summary of the Waste Management Plan (WMP). This section should summarise at least the following:

- Scope of the WMP;
- Establishment's Waste Generation;
- Establishment's Current Waste Management System;
- Goals, Targets, and measures of the WMP (including Waste Prevention);
- Establishment's Proposed Waste Management System (WMS);
- Implementation Plan;
- WMP Monitoring.]

## 2.2 Section 1. Introduction

## 2.2.1 **Section 1.1. Scope**

[Guidance: Fill out all required information marked using blue font text in the template]

The scope of the Waste Management Plan (WMP) is to describe the principles, procedures and management of the waste generated by the [Insert: name].

[Insert: Outline the scope and objectives of the WG establishment].

The WMP outlines measures to manage and mitigate waste generation and resource consumption during the operation of the establishment. The aim of the WMP is to improve the overall waste management, by applying the statutory waste management hierarchical approach:

- Waste prevention reduction and improve resource efficiency;
- Reuse:
- Recycling;
- Recovery;
- Disposal.

The waste hierarchy ranks waste management options in order of their general environmental desirability with avoiding the generation of waste being the most preferred option and disposing of waste being the least preferred. A circular economy complements the waste hierarchy – it aims to keep materials and energy circulating in the economy for as long as possible.

Page: 11 of 37

The WMP is prepared according to Article 16 of the Waste Management Framework Law No.16 of 2020, and Article 5 of the Bylaw No.85 of 2020.

#### 2.2.2 Section 1.2. Establishment's General Information

[Guidance: Fill out all required information marked using blue font text in the template]

Establishment's address [Insert] Establishment's phone [Insert] number Establishment's fax [Insert] Establishment's email [Insert] Commercial registration or [Insert] or [Insert] or [Insert] **Establishment commercial** name or Professional license Establishment's type of [Insert] activity Establishment's owner [Insert] **Contact Information** [Insert] Person responsible for WM [Insert] **Contact Information** [Insert] **Environmental Identification** [Insert] Number

## 2.2.3 Section 1.3. Establishment's Description

[Guidance: Fill out all required information marked using blue font text in the template]

Establishment's location (GPS [Insert] Co-ordinates)

Size of the building (m²) [Insert]

Page: 12 of 37

**Zoning** (e.g., light, or heavy industrial zoning)

[Insert]

## **Description of Surroundings**

[Insert]

(Make reference to an aerial photograph or a copy of the facility's building plan. Images sourced from online sources such as Google Earth are acceptable)

**Description of Operations and** 

[Insert]

Activities (Include brief summary and overview of processes and main products manufactured/materials managed, as well a process flow diagram)

Mark Mark Andrews (AMAR) O. 11 II and	Revision: 00
Waste Management Plans' (WMP) Guidelines	<b>Page:</b> 13 of 37
[Insert: Process flow diagram]	

**Recycling in Jordan Activity** 

Version: 03

Figure 1: Process flow diagram

Page: 14 of 37

## 2.3 Section 2. Waste Generation

[Guidance: Fill out all required information marked using blue font text in the template]

Waste generated from the entire operational process of the establishment is documented.

**Table 1: Waste Generation** 

#### **Waste Generation**

#	Source of Waste <sup>(1)</sup>	No. of Waste Categories	Description of Waste Type <sup>(2)</sup>	Code of Waste Type	Hazardous Waste (Y/N)	Hazardous Waste Characteris tics H's <sup>(3)</sup>	Hazardous Waste Categories that are to be Controlled Y's <sup>(4)</sup>	Estimated Waste Quantities (tn/yr)
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
							Total	[Insert]

Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table.]

The waste flow diagram on the basis of the establishment's process flow diagram illustrates the point of origin within the establishment processes of the reported waste quantities.

<sup>(2)</sup> According to the European Waste Codes (EWC). Please refer to Sheet "EWC".

Codes for Hazardous Waste Characteristics according to Table 2 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020 Table 2"

Hazardous Waste Codes annex according to the Instructions of 2019 on the management and handling of hazardous waste. Please refer to Sheet "Hazardous Waste Codes"

**Recycling in Jordan Activity** 

Version: 03

Revision: 00

Figure 2: Waste flow diagram

[Guidance: The waste flow diagram shall include the establishment's processes and the waste generated by each process (quantities, tn/y) described by their waste code, e.g., [Reception of raw material]  $\rightarrow$  15 01 02 plastic packaging (100tn/y)]

Page: 16 of 37

## 2.4 Section 3. Current Waste Management System

This Section provides a general overview of the collection, storage, transportation, processing, and disposal systems of non-hazardous and hazardous waste streams generated by the establishment.

## 2.4.1 Section 3.1. Waste Segregation, Collection and Storage

[Guidance: Fill out all required information marked using blue font text in the template.]

[Insert: technical description on how each waste type is handled, collected, and transported at the storage area, waste types that are separately collected and stored, technical characteristics/specifications of the equipment and storage area (e.g., indoor/outdoor, ventilation, paving materials, space requirements, capacity, etc.), compliance with EHS¹ Guidelines and relevant legislative provisions.]

The establishment's waste storage is located [Insert] and accommodates the equipment and areas summarised in Table 2. Figure 3 shows the location and layout of the storage area.

.

<sup>&</sup>lt;sup>1</sup> IFC International Finance Corporation, World Bank GROUP, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Environmental, Waste Management, 2007, https://www.ifc.org/wps/wcm/connect/456bbb17-b961-45b3-b0a7-c1bd1c7163e0/1-6%2BWaste%2BManagement.pdf?MOD=AJPERES&CVID=ls4XT4R

Waste Management Plans' (WMP) Guidelines

Version: 03

Revision: 00 Page: 17 of 37

## **Table 2: Waste Collection and Storage**

## **Waste Collection and Storage**

#	Source of Waste <sup>(1)</sup>	No. of Waste Categories	Description of Waste Type <sup>(2)</sup>	Code of Waste Type	Hazardous Waste (Y/N)	Equipment Type / Capacity	Length (m)	Width (m)	Diameter (m)	No. of Equipment	Area (m²)
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
									Total	[Insert]	[Insert]

Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"

According to the European Waste Codes (EWC). Please refer to Sheet "EWC".

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

**Recycling in Jordan Activity** 

Version: 03

Figure 3: Storage area layout

Page: 19 of 37

## 2.4.2 Section 3.2. Waste Reuse, Recycle, Recovery and Disposal

[Guidance: Fill out all required information marked using blue font text in the template.

Definitions according to the Waste Management Framework Law No.16/2020:

- Reuse: any process that allows the waste to be used for the very same purpose it was originally used for
- Recycle: Any process by which Waste is treated to be Reused for the very same purpose or for other purposes.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse.
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law.

Given that any of the aforementioned activities are being implemented through an external registered and licensed service provider who is appointed or will be appointed to Transfer / Storage waste pending any of the relevant Recovery and Disposal operations or is appointed or will be appointed to treat waste with any of the relevant Recovery and Disposal (R and D) operations, a detailed description of the activities should be provided.

In case, any of the aforementioned activities are being implemented within the said establishment, a detailed description of the activities should also be provided.]

[Insert a detailed description of the Transfer / Storage / Reuse / Recycle / Recovery / Disposal operations that are currently implemented by external registered and licensed service provider / providers or that are implemented within the establishment, including:

- Quantities of each type of waste that is either transferred, stored, reused, recycled, recovered, or disposed of;
- List of the registered and licensed service providers per waste type (including contracts);
- Description of the transportation means per waste type (routing, vehicles, frequency, etc.) of the external service provider / providers;
- Description of the Storage / Reuse / Recycle / Recovery / Disposal operations per waste type comprising technical, environmental, and social aspects;
- Permit / License for R and D operations within the establishment.]

Table 3 summarises the R and D operations currently implemented in the establishment and Table 4 the R and D operations currently provided by external registered and licensed service provider / providers with regards to the generated waste of the establishment:

Page: 20 of 37

Table 3: Reuse / Recycle / Recovery / Disposal Operations implemented in the establishment (internal operations)

## Reuse / Recycle / Recovery / Disposal Operations (Internal Operations)

#	Source of Waste	No. of Waste Catego ries <sup>(1)</sup>	Descrip tion of Waste Type <sup>(2)</sup>	Code of Waste Type <sup>(2)</sup>	Hazard ous Waste (Y/N)	Total Estimate d Waste Quantiti es (tn/yr) (3)	Waste Collecti on and Transpo rtation - Details of provider	1 <sup>st</sup> Facility Receivin g Waste Quantiti es - Details	Compos ition of Waste Type to Reuse <sup>(4)</sup>	Estimate d Waste Quantiti es to Reuse <sup>(4)</sup> (tn/yr)	Compos ition of Waste Type to Recyclin g <sup>(5)</sup>	Estimate d Waste Quantiti es to Recyclin g <sup>(5)</sup> (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Energy Recover y (7)	Estimate d Waste Quantiti es to Energy Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Other Recover y (7)	Estimate d Waste Quantiti es to Other Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Disposal	Estimate d Waste Quantiti es to Disposal	R / D Code <sup>(6)</sup>
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
					Total	[Insert]	-	-	-	[Insert]	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-

- Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"
- According to the European Waste Codes (EWC). Please refer to Sheet "EWC".
- Total generated quantities based on "Waste Generation" Sheet.
- Reuse: Any process that allows the waste to be used for the very same purpose it was originally used for (Waste Management Framework Law No.16 of 2020)
- Recycle: Any process by which waste is treated to be Reused for the very same purpose or for other purposes (Waste Management Framework Law No.16 of 2020)
- Any of the operations mentioned under Table No. (3) and No. (4) appended to the Waste Management Framework Law No.16 of 2020.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse (Waste Management Framework Law No.16 of 2020)
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law (Waste Management Framework Law No.16 of 2020)

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

Table 4: Reuse / Recycle / Recovery / Disposal Operations provided by external registered and licensed service provider / providers (external operations)

## Reuse / Recycle / Recovery / Disposal Operations (External Operations)

#	Source of Waste	No. of Waste Catego ries <sup>(1)</sup>	Descrip tion of Waste Type <sup>(2)</sup>	Code of Waste Type <sup>(2)</sup>	Hazard ous Waste (Y/N)	Total Estimate d Waste Quantiti es (tn/yr) (3)	Waste Collecti on and Transpo rtation - Details of provider	1 <sup>st</sup> Facility Receivin g Waste Quantiti es - Details	Compos ition of Waste Type to Reuse <sup>(4)</sup>	Estimate d Waste Quantiti es to Reuse <sup>(4)</sup> (tn/yr)	Compos ition of Waste Type to Recyclin g <sup>(5)</sup>	Estimate d Waste Quantiti es to Recyclin g <sup>(5)</sup> (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Energy Recover y (7)	Estimate d Waste Quantiti es to Energy Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Other Recover y (7)	Estimate d Waste Quantiti es to Other Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Disposal	Estimate d Waste Quantiti es to Disposal (8) (tn/yr)	R / D Code <sup>(6)</sup>
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
					Total	[Insert]	-	-	-	[Insert]	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-

- Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"
- According to the European Waste Codes (EWC). Please refer to Sheet "EWC".
- Total generated quantities based on "Waste Generation" Sheet.
- Reuse: Any process that allows the waste to be used for the very same purpose it was originally used for (Waste Management Framework Law No.16 of 2020)
- Recycle: Any process by which waste is treated to be Reused for the very same purpose or for other purposes (Waste Management Framework Law No.16 of 2020)
- (6) Any of the operations mentioned under Table No. (3) and No. (4) appended to the Waste Management Framework Law No.16 of 2020.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse (Waste Management Framework Law No.16 of 2020)
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law (Waste Management Framework Law No.16 of 2020)

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

Page: 22 of 37

## 2.5 Section 4. Waste Management Plan Goals, Targets and Measures

## 2.5.1 Section 4.1. Goals, Targets and Measures

[Guidance: Fill out all required information marked using blue font text in the template.

The Current WMS analysis discussed above, will have achieved preliminary identification of WM gaps that exist within the establishment. During the process, possible interventions will also have been identified. Setting of goals, targets and measures should therefore be seen as a way towards addressing such gaps.

This section shall set out goals to achieve sustainable and integrated waste management, by preventing waste generation, increasing reuse, recycling, composting, and reducing the amount of waste disposed off at landfills.

The proposed goals should be in line with the main principles of WM:

- Waste Hierarchy: Waste prevention and re-use are the most preferred options, followed by recycling (including, composting), then recovery e.g., energy recovery, while waste disposal through landfills should be the very last resort.
- Circular Economy: Tackles global challenges like climate change, biodiversity loss, waste, and pollution. The model involves using resources efficiently and prioritizing renewable inputs, maximizing a product's usage and lifetime in order to extract the maximum value, and recovering and reusing by-products and waste to make new materials or products.
  - In this context, the 3 R's" approach (Reduce Reuse Recycle), is redefined, by increasing the number of actions to achieve more efficient Waste Management. Circular economy is structured around a philosophy based on the so known "7Rs": Refuse or Rethink or Redesign Reduce Reuse Repair Refurbish Recover Recycle.
- Green Growth and Circular Economy: Managing the life cycle of natural resources, from extraction through the design and manufacture of products, to what is considered as waste is essential to green growth and part of developing a resource-efficient, circular economy where nothing is wasted. Smarter design allowing products to be repaired, re-used, remanufactured, and then recycled again.

Boosting sustainable growth:

- Resource efficiency: Using resources more efficiently for a greener, more competitive economy.
- Eco-innovation: Enabling green growth and the transition towards a more circular economy.
- O Raw Materials: Ensuring that the use of raw materials does not deplete the planet's resources.
- Production: Promoting greener products and supporting greener companies and organisations.
- Consumption: Providing transparent information to consumers enabling them to make greener choices.
- Waste prevention and management: Reducing waste and improving waste management.
- Extended Producer Responsibility: The primary responsibility for reducing impacts of a product and its packaging lies with the producers (developer, manufacturer) and all entities involved in the

chain of the product (processors, traitors, sellers, importers, etc.). The extended producer responsibility concept puts the responsibility for the financing of prevention collection, re-use, recycling, and responsible end-of-life disposal of waste on producers.

- Polluter-Pays Principle: The costs of waste management, including costs for the necessary infrastructure and its operation, should be borne by the original waste producer or by the current or previous waste holders.
- Proximity Principle: Enabling disposal or waste recovery in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure high level of protection for the environment and public health.
- Precautionary Principle: In order to avoid the threat or danger to the environment deriving from waste, measures shall be taken even if full scientific certainty is not available.
- Sustainable Systems: Develop systems to be adaptable, flexible, scalable, resilient, and appropriate to local ecosystem limits.
- Closed Loop Systems: Design systems to be closed loop rather than linear in their use of resources.

The Plan's targets should be specific, measurable, achievable, realistic, and time bound. They may include intermediate targets which mark the progress towards the achievement of set goals. The following but not exhaustive list presents main targets:

- to set standards for WM within the Jordanian legislative and regulatory framework;
- to ensure suitable infrastructure/equipment is in place for a coordinated approach to WM;
- to prioritise waste prevention, reduction, separation, and recycling;
- to ensure that each waste stream i.e., non-hazardous, and hazardous is dealt with in an appropriate manner;
- to promote waste source separation;
- to ensure WMS is designed and operated in a responsible and environmentally sound manner;
- to promote internal training, education, and awareness regarding WM;
- to ensure compliance and implementation of WMP by all relevant stakeholders.

Identify a series of short and long-term targets. This will ensure that not only the legislative requirements and the establishment's goals are met, but also that the available resources (including finance and personnel) are used as effectively as possible. The targets should be quantifiable, if applicable, and have clear timelines. Appropriate measures should be assigned to the targets. Clarifications and details, on how each target is implemented or is proposed to be implemented, should be also included. With regards to already implemented measures refer to the appropriate section of the WMP (Section 3). An example is presented below.

Page: 24 of 37

Goals	Targets	Measures /Procedures
Promote recycling	Increase the recycling rate from 10% in 2021 to 20% by 2025 and to 30% by 2030	<ul> <li>Expand commingled recycling (paper/cardboard, plastics, metals).</li> <li>Equipment Procurement. Ensure bin colour and signage is consistent throughout the establishment.</li> <li>Internal training, education, and awareness.</li> </ul>
	Increase the recycling rate from 20% in 2025 to 30% by 2030	<ul> <li>Separate collection of recyclables e.g., paper/cardboard, plastics, metals.</li> <li>Equipment Procurement. Ensure bin colour and signage is consistent throughout the establishment.</li> <li>Internal training, education, and awareness.</li> </ul>

The formulation of the potential measures should be based on the evaluation of the collected data (current WMS). Through the assessment of several options, considering technical, environmental, economic, and financial aspects, the proposed measures to implement the waste management hierarchy principles and to promote circular economy will emerge.]

[Insert: goals, targets, and measures of the WMP]

#### 2.5.2 Section 4.2. Waste Prevention

[Guidance: Fill out all required information marked using blue font text in the template.

The following but not exhaustive list presents several measures to prevent waste generation:

- Upgrade process equipment
- Upgrade supply / raw materials
- Alternative non hazardous raw materials
- Conduct training
- Include quality checks in processes
- Reduce packaging materials
- Return packaging
- Redesign your process flow
- Clean, organized establishment and effective inventory control]

According to Section 4.1, targets, and measures with regards to Waste Prevention (also referred as Source Reduction and Waste Minimization) are set aiming to reduce, before a substance, material or product has become waste:

Page: 25 of 37

- the quantity of waste, including through the reuse of products or the extension of the life span of products;
- the adverse impacts of the generated waste on the environment and human health;
- the content of harmful substances in materials and products.

Considering the aforementioned targets, and measures, the following table defines in detail, current and proposed practices to reduce the amounts of waste generated by type, by changing the design, manufacture, purchase, or use of materials or products.

Waste Management Plans' (WMP) Guidelines

Version: 03 Revision: 00

Page: 26 of 37

**Table 5: Waste Prevention Practices** 

#### **Waste Prevention Practices**

ш	Activities to	Status (Proposed /	Start Date (1)	Targeted	Code of	Nature of Waste		mount of evented <sup>(3)</sup>		mount of evented <sup>(4)</sup>	Reaso ns for	Other
#	Prevent Waste	Implemente d)	Start Date **	Waste Type (2)	Waste Type (2)	Prevention (One-off / Continuous)	tn	tn/month	tn	tn/month	Termin ation <sup>(5)</sup>	Remar ks
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]

If the activity has not commenced, please report the planned start date.

According to the European Waste Codes (EWC). Please refer to Sheet "EWC".

If "Nature of Waste Prevention is One-off, please report under "tn", otherwise under "tn/month".

To be filled only if "Status" is "Implemented".

Please clarify the reasons for the termination of the activity.

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

## 2.6 Section 5. Proposed Waste Management System

[Guidance: Fill out all required information marked using blue font text in the template.]

The following sections provide the Proposed WMS based on the provisions analysed in Section 4 of the WMP.

## 2.6.1 Section 5.1. Proposed Waste Segregation, Collection and Storage

[Guidance: Fill out all required information marked using blue font text in the template.

Storage areas are where the waste containers from across the establishment are stored. Well-designed storage areas eliminate potential issues with conflicting uses of areas as well as minimise the impacts of inappropriately stored containers. This is particularly important for establishments situated within mixed-use developments. Establishment's design needs to incorporate sufficient space to store, in separate containers, the volume of different types of waste likely to be generated during the period between waste collections. Space should also be included for appropriate signage to clearly identify how to use the equipment. When calculating the storage space requirements, the following parameters should be considered:

- Waste and recycling generation rates
- Frequency of collection
- Suitable waste and recycling storage equipment
- Access to the storage area
- Collection service type, including the access requirements for collection vehicles (such as width and height of gates).
- Flexible design in relation to size to ensure future uses for the establishment are not limited.

Waste collection and storage design should also consider environmental and social issues i.e., noise, odour, hygiene, vermin, illegal activities, health, safety.

The waste collection from the registered and licensed service provider requires further consideration. Containers may be taken and emptied directly from the storage area or transported to a separate collection point where they will be emptied by the service provider. If the storage is located away from the collection point, a responsible individual will be needed to transport waste. Furthermore, the following recommendations should be considered:

- The collection point is preferably located on a level surface. It should have an access-way rated for use by heavy vehicles and enough space for bins to be manoeuvred. It should be accessible during collection times and not located behind locked gates.
- The collection point should not be located near intersections, ramps, round-a-bouts, pedestrian crossings, building awnings, overhead wires, overhead structures, service ducts and pipes. Not be restricted by parked cars or vehicle loading or unloading bays, etc. It should not require vehicles to reverse or impede the normal operations of the establishment.]

Waste Management Plans' (WMP) Guidelines

Version: 03 Revision: 00 Page: 28 of 37

[Insert: Recommendations with regards to collection and storage scheme considering the relevant proposed measures (Section 4). Include a technical description on how each waste type will be handled, collected, and transported at the storage area, waste types that will be separately collected and stored, technical characteristics/specifications for the upgrade of equipment / storage area (e.g., indoor/outdoor, ventilation, paving materials, space requirements, capacity, signage, etc.), compliance with EHS<sup>2</sup> Guidelines and relevant legislative provisions.]

The establishment's waste storage will be located [Insert] and will accommodate the equipment and areas detailed in Table 6. Figure 4 shows the location and layout of the storage area.

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<sup>&</sup>lt;sup>2</sup> IFC International Finance Corporation, World Bank GROUP, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Environmental, Waste Management, 2007, https://www.ifc.org/wps/wcm/connect/456bbb17-b961-45b3-b0a7-c1bd1c7163e0/1-6%2BWaste%2BManagement.pdf?MOD=AJPERES&CVID=ls4XT4R

Waste Management Plans' (WMP) Guidelines

Version: 03

Revision: 00 Page: 29 of 37

## **Table 6: Proposed Waste Collection and Storage**

## **Proposed Waste Collection and Storage**

#	Source of Waste <sup>(1)</sup>	No. of Waste Categories	Description of Waste Type <sup>(2)</sup>	Code of Waste Type	Hazardous Waste (Y/N)	Equipment Type / Capacity	Length (m)	Width (m)	Diameter (m)	No. of Equipment	Area (m²)
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
									Total	[Insert]	[Insert]

Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"

According to the European Waste Codes (EWC). Please refer to Sheet "EWC".

[Guidance: A template spreadsheet is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

**Recycling in Jordan Activity** 

Version: 03

Figure 4: Proposed storage area layout

## 2.6.2 Section 5.2. Proposed Waste Reuse, Recycle, Recovery and Disposal

[Guidance: Fill out all required information marked using blue font text in the template.

Definitions according to the Waste Management Framework Law No.16/2020:

- Reuse: any process that allows the waste to be used for the very same purpose it was originally used for
- Recycle: Any process by which Waste is treated to be Reused for the very same purpose or for other purposes.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse.
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law.

Given that any of the aforementioned activities are proposed to be implemented, considering the relevant proposed measures, through an external registered and licensed service provider who will be appointed to Transfer / Storage waste pending any of the relevant Recovery and Disposal operations or will be appointed to treat waste with any of the relevant Recovery and Disposal (R and D) operations, a detailed description of the activities should be provided.

In case, any of the aforementioned activities are proposed to be implemented within the said establishment, considering the relevant proposed measures, a detailed description of the activities should also be provided.]

[Insert a detailed description of the Transfer / Storage / Reuse / Recycle / Recovery / Disposal operations that will be implemented by external registered and licensed service provider / providers or that will be implemented internally (within the establishment), including:

- Quantities of each type of waste that is either transferred, stored, reused, recycled, recovered, or disposed of;
- List of the registered and licensed service providers per waste type (including contracts);
- Description of the transportation means per waste type (routing, vehicles, frequency, etc.) of the external service provider / providers;
- Description of the Storage / Reuse / Recycle / Recovery / Disposal operations per waste type comprising technical, environmental, and social aspects;
- Permit / License for R and D operations within the establishment.]

Table 7 summarises the R and D operations that are proposed to be implemented in the establishment and Table 8 the R and D operations that are proposed to be provided by external registered and licensed service provider / providers with regards to the generated waste of the establishment:

Revision: 00 Waste Management Plans' (WMP) Guidelines

Page: 32 of 37

Version: 03

Table 7: Proposed Reuse / Recycle / Recovery / Disposal Operations implemented in the establishment (internal operations)

## Proposed Reuse / Recycle / Recovery / Disposal Operations (Internal Operations)

#	Source of Waste	No. of Waste Catego ries <sup>(1)</sup>	Descrip tion of Waste Type <sup>(2)</sup>	Code of Waste Type <sup>(2)</sup>	Hazard ous Waste (Y/N)	Total Estimate d Waste Quantiti es (tn/yr) (3)	Waste Collecti on and Transpo rtation - Details of provider	1 <sup>st</sup> Facility Receivin g Waste Quantiti es - Details	Compos ition of Waste Type to Reuse <sup>(4)</sup>	Estimate d Waste Quantiti es to Reuse <sup>(4)</sup> (tn/yr)	Compos ition of Waste Type to Recyclin g <sup>(5)</sup>	Estimate d Waste Quantiti es to Recyclin g <sup>(5)</sup> (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Energy Recover y (7)	Estimate d Waste Quantiti es to Energy Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Other Recover y (7)	Estimate d Waste Quantiti es to Other Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Disposal	Estimate d Waste Quantiti es to Disposal	R / D Code <sup>(6)</sup>
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
					Total	[Insert]	-	-	-	[Insert]	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-

- Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"
- According to the European Waste Codes (EWC). Please refer to Sheet "EWC".
- Total generated quantities based on "Waste Generation" Sheet.
- Reuse: Any process that allows the waste to be used for the very same purpose it was originally used for (Waste Management Framework Law No.16 of 2020)
- Recycle: Any process by which waste is treated to be Reused for the very same purpose or for other purposes (Waste Management Framework Law No.16 of 2020)
- Any of the operations mentioned under Table No. (3) and No. (4) appended to the Waste Management Framework Law No.16 of 2020.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse (Waste Management Framework Law No.16 of 2020)
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law (Waste Management Framework Law No.16 of 2020)

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

Revision: 00 Waste Management Plans' (WMP) Guidelines

Page: 33 of 37

Version: 03

Table 8: Proposed Reuse / Recycle / Recovery / Disposal Operations provided by external registered and licensed service provider / providers (external operations)

## Proposed Reuse / Recycle / Recovery / Disposal Operations (External Operations)

#	Source of Waste	No. of Waste Catego ries <sup>(1)</sup>	Descrip tion of Waste Type <sup>(2)</sup>	Code of Waste Type <sup>(2)</sup>	Hazard ous Waste (Y/N)	Total Estimate d Waste Quantiti es (tn/yr) (3)	Waste Collecti on and Transpo rtation - Details of provider	1 <sup>st</sup> Facility Receivin g Waste Quantiti es - Details	Compos ition of Waste Type to Reuse <sup>(4)</sup>	Estimate d Waste Quantiti es to Reuse <sup>(4)</sup> (tn/yr)	Compos ition of Waste Type to Recyclin g <sup>(5)</sup>	Estimate d Waste Quantiti es to Recyclin g <sup>(5)</sup> (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Energy Recover y (7)	Estimate d Waste Quantiti es to Energy Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Other Recover y (7)	Estimate d Waste Quantiti es to Other Recover y (7) (tn/yr)	R / D Code <sup>(6)</sup>	Compos ition of Waste Type to Disposal	Estimate d Waste Quantiti es to Disposal (8) (tn/yr)	R / D Code <sup>(6)</sup>
1	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
2	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
3	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
4	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
5	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
6	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
7	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
8	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
9	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
10	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]
					Total	[Insert]		-	-	[Insert]	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-	-	[Insert]	-

- Waste Category according to Table 1 of Waste Management Framework Law No.16/2020. Please refer to Sheet "Law No.16 of 2020\_Table 1"
- According to the European Waste Codes (EWC). Please refer to Sheet "EWC".
- Total generated quantities based on "Waste Generation" Sheet.
- Reuse: Any process that allows the waste to be used for the very same purpose it was originally used for (Waste Management Framework Law No.16 of 2020)
- Recycle: Any process by which waste is treated to be Reused for the very same purpose or for other purposes (Waste Management Framework Law No.16 of 2020)
- Any of the operations mentioned under Table No. (3) and No. (4) appended to the Waste Management Framework Law No.16 of 2020.
- Recovery: Any of the operations mentioned under Table No. (3) appended to this Law, including Reuse (Waste Management Framework Law No.16 of 2020)
- Disposal: Any of the operations mentioned in Table No. (4) appended to this Law (Waste Management Framework Law No.16 of 2020)

[Guidance: A spreadsheet template is attached to "Waste Management Plans' (WMP) Guidelines", providing guidance for the completion of the Table]

Page: 34 of 37

## 2.7 Section 6. Implementation Plan

[Guidance: Fill out all required information marked using blue font text in the template.

A plan must be developed to implement the proposed measures. The Implementation plan should consist of a number of activities, aimed at achieving the identified goals, targets and measures with defined budget provisions and responsibilities.

The plan should address at least the following issues:

- A list of all goals, targets and measures considered and agreed upon for implementation;
- A breakdown of all activities needed for the implementation of the measures with clear target dates by which such activities will have to be completed;
- A breakdown of financial requirements for each activity;
- Institutional and organisational arrangements.

An example is given below.]

Goals	Targets	Measures	Activities	Section	Responsibilities	Estimated Budget	Due Date
		DA41	[A1]		[e.g., General Manager, Operational Manager, Sector Manager, etc.]	[xxx JOD]	[xx/xx/xxxx]
FO41	(T4)	[M1]	[A2]	[Waste Storage Area]	[e.g., General Manager, Operational Manager, Sector Manager, etc.]	[xxx JOD]	[xx/xx/xxxx]
[G1]	[T1]	[MO]	[A3]		[e.g., General Manager, Operational Manager, Sector Manager, etc.]	[xxx JOD]	[xx/xx/xxxx]
		[M2]	[A4]		[e.g., General Manager, Operational Manager, Sector Manager, etc.]	[xxx JOD]	[xx/xx/xxxx]

The Plan for the implementation of the proposed measures is provided hereunder.

**Table 9: Implementation Plan** 

Goals	Targets	Measures	Activities	Section	Responsibilities	Funding Needs	Due Date	
[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	[Insert]	

Page: 35 of 37

## 2.8 Section 7. WMP Monitoring

[Guidance: Fill out all required information marked using blue font text in the template.

The WMP should be reviewed and revised periodically whenever new information on waste management practices, standards, legislation etc. or if there are any changes that must be made to the Plan. The plan should be reviewed on a yearly basis and a 5 yearly basis. Therefore, a procedure to review and update the WMP should be developed. It is proposed in this guideline that existing internal monitoring and reporting mechanisms be utilised and where they do not exist, be established.

Monitoring should focus on goals and targets of the WMP to ensure that corrective measures are taken immediately to address any challenges. The following aspects in particular should be monitored:

- Implementation schedule of the proposed activities.
  - Monitor if activities are still on schedule;
  - Monitor if activities are meeting the target dates as set out in the project implementation plan;
  - Monitor the proposed activities that are out of schedule, and report the reasons for delays and corrective measures that are necessary to address the delays;
- Legislative developments.
  - Monitor all relevant legislative developments or changes that need to be considered for incorporation into the plan.
- Best available technology or best available techniques.
  - Monitor all relevant best available technologies/techniques that need to be considered for incorporation into the plan.
- Training of personnel.

The following reporting structure is provided for detailing monitoring and review responsibilities.

Review	Are these still relevant ?	Required Amendment s (Y/N)	If Yes, provid e details	On Schedul e	If Not, provid e details	Require d Actions	Responsibl e Person	Next Revie W
Implementatio n schedule				-	-			
Activity 1	-	-	-					
Activity 2	-	-	-					
Activity 3	-	-	-					
Legislative Developments				-	-			
Best available technology or best available techniques				-	-			
Training of Personnel				-	-			
Goals, Targets, Measures				-	-			

## **Recycling in Jordan Activity**

Waste Management Plans' (WMP) Guidelines

Version: 03 Revision: 00

Page: 36 of 37

[Insert: the monitoring procedure and schedule with regards to the implementation of the WMP.]



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