## *Module 3-6*

***Recycling Overview***

## Objectives

**Identify types of pavement recycling**

**Describe recycling practices**

**Describe recycling equipment**

**Selection of recycling options**

**Define recycled pavement mixture design techniques**

**Describe benefits, costs, and performance of recycling operations**

## Introduction

**Recycling - A rehabilitation alternative**

- **34 states using some form of recycling**
- **$100 million in annual savings**
- **Recycling is not a new concept**

## Major benefits

**Reduced cost**

**Preservation of existing pavement geometrics**

**Conservation of aggregates and binders**

**Preservation of the environment**

**Energy conservation**

## Types of pavement recycling

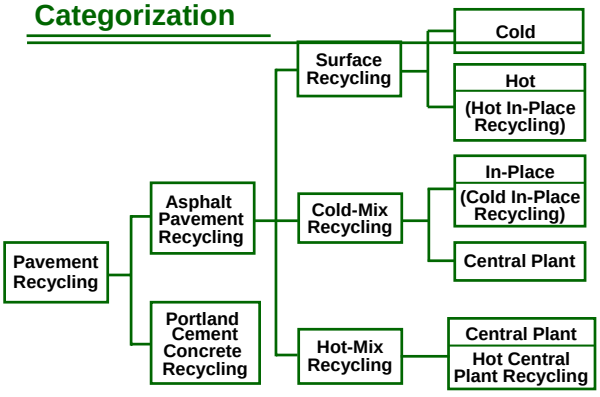
**Surface recycling**

**Cold recycling**

**Hot recycling**

**Portland cement concrete recycling**

## Categorization



## Definitions

Recycled asphalt pavement (RAP)

Reclaimed aggregate material (RAM)

Recycled hot-mix asphalt

Asphalt recycling agent

Asphalt modifier

## Selection of Recycling as a Rehabilitation Alternative

Condition of existing pavement

Traffic levels

Expected life

Costs

Time required for rehabilitation

## Surface Recycling

- Advantages
- Disadvantages

## In-place Recycling

- Advantages
- Disadvantages

## Central Plant Recycling

- Advantages
- Disadvantages

| Module | Title |
|---|---|
| 3-7 | Hot in-place recycling |
| 3-8 | Cold in-place recycling |
| 3-9 | Hot central plant recycling |
| 4-12 | Rigid pavement recycling |