



KARUK TRIBE

TRANSPORTATION SYSTEM MAINTENANCE PLAN

This guidance document will be used in coordination with the Transportation System Maintenance Plan template and Maintenance Log Template.



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Purpose of the Guidance Document

This guidance document provides instructions on how to use the Maintenance Plan and Equipment Maintenance Log templates. These templates can be modified and used as tracking tools by the Karuk Tribe in coordination with its transportation system plans and operations. The tools may be useful for other tribes in California. There are two versions of the Maintenance Plan template, including one with the option of drop-down lists. To learn more about how to add drop-down lists in Excel, go to the Tips and Tools section of this document.

How to Use the Maintenance Plan Template

The Karuk Tribe's transportation system consists of facilities that are spread over 3 locations and 115 miles. The existing facilities include routes, parking lots, signage, drains, and inlets. Most of the routes are paved with asphalt, and some are unpaved. The Maintenance Plan was developed in an Excel spreadsheet. There are three sheets, one for each of the 3 locations. The sheets can be renamed by the specific location. Routes and/or facilities can be added under each line item. This template is intended to have tasks so they can be exported into a task budget for estimating projecting costs. The template includes the following top, main headings.

Maintenance Plan Template Headings							Winter	Spring	Summer	Fall
Task	Activity	Tribal Personnel	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials/Supplies	Dec-Feb	Mar-May	Jun-Aug	Oct-Dec

The Activity Heading is broken down by maintenance activities for routes, equipment (inventory, upkeep, and replacement) signage, emergencies, and training (maintenance and safety) in the Tribe's existing and planned facilities. There are five sub-headings in the Activity column. The five activity sub-headings are as follows:

- Routine and Preventative
- Periodic
- Emergency
- Equipment
- Training

The maintenance activities can be tracked by season/month/day; personnel in charge of maintenance and/or other personnel such as contractors or from other tribal departments; use of equipment and materials/supplies; and whether the equipment is tribally owned and/or rented. The route names and other facility names can be added in the rows and sub-tasks to meet the Tribes' needs. Below is an example of how the template can be filled in.

Maintenance Plan Template Headings							Winter	Spring	Summer	Fall
Task	Activity	Tribal Personnel	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials/Supplies	Dec-Feb	Mar-May	Jun-Aug	Oct-Dec
Ex:	Vegetation Clearing	John Doe	Engineer Contractor	mechanical weed control, deck mowers	In-house	Shovels, tree shears, grapples, fuel	X	X	X	X

How to Use the Equipment Maintenance Log

An equipment maintenance log is a document that records activities that have been performed on an asset or equipment. The Equipment Maintenance log in this document contains information about scheduled maintenance for all of the road maintenance equipment used by the Tribe. This log ensures that the Tribe's transportation maintenance team services their machinery within the specified interval to keep them operating efficiently.

To help make sure that maintenance tasks are done diligently, records in the form of maintenance logs need to be created and updated. Being aware of the current condition of the assets is a step towards improving the overall department performance and ensuring safe working conditions.

The following table is an example of the Equipment Maintenance Log Template. The Main headers provide information about the equipment: equipment name, serial number, location, manufacturer, manufacturer part number, manufacturer contact details, date manufactured, and date in service.

For similar types of equipment, to prevent confusion about which maintenance log refers to which piece of equipment, it is better to keep separate logs. For example, two same-sized excavators from the same manufacturer will differ in serial number and/or location.

Equipment Maintenance Log			
Name of Equipment		Manufacturer's contact details:	
Label or ID#:		Date of purchase:	
Serial number:		Person responsible for equipment:	
Manufacturer:		Date put into service:	



The second part allows entries of maintenance activities. Details about the maintenance activity are listed: the date when it was performed; and a description of the maintenance activity; the person who performed the activity; the date; and person responsible for validating that the maintenance procedures were performed correctly. Additionally, the next scheduled maintenance planned date for any required action and other remarks can also be added for reference.

Date:	Maintenance Description	Maintenance performed by:	Date of validation before put into service:	Validation performed by:	Next maintenance planned on (date):	Remarks:

Tips and Tools

Drop-Down List's may help the crew work more efficiently in worksheets/spreadsheets in Excel because it allows people to pick an item from a list.

Instructions for setting up a list: In a new worksheet, type the entries you want to appear in your drop-down list. Ideally, you'll have your list items in an Excel table. If you don't, then you can quickly convert your list to a table by selecting any cell in the range, and pressing **Ctrl + T**. When your data is in a table, then as you add or remove items from the list, any drop-downs you based on that table will automatically update.

1. Select the cell in the worksheet where you want the drop-down list.
2. On the ribbon, click the **DATA** tab, and click **Data Validation**.
3. In the dialog, set **Allow** to **List**.
4. Click in **Source**.
5. In this example, we are using a comma-delimited list. The text or numbers we type in the **Source** field are separated by commas.
6. Click **OK**. The cells now have a drop-down list.

To view this process in a video, [click here](#)

There is software available to accurately track historical accounts of maintenance activity such as [CMSS software](#).

SAMPLE Maintenance Plan Template

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							2020											
Task	Activity	Tribal Personnel Assigned	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials & Supplies	Winter			Spring			Summer			Fall		
	<u>Routine & Preventative</u>						Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
1	Vegetation																	
1.1	Inspect Vegetation																	
1.2	Mowing of Vegetation																	
1.3	Tree and Brush Trimming																	
1.4	Maintenance of Vegetation																	
1.5	Removal of Vegetation																	
1.5.1	BIA Route 1075 – Vegetation Clearing	John Doe	Engineer Contractor	Mechanical weed control, deck mowers		Shovels, tree shears, grapples, fuel	X			X			X			X		
1.6	Addition of Vegetation																	
1.7	Litter Removal																	
2	Ditches & Culverts																	
2.1	Inspect Ditches and Culverts																	
2.2	Clearing of Ditches and Culverts																	

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3	Traffic Control																	
3.1	Inspect Traffic Signs/Controls																	
3.2	Repair of Traffic Signs/Controls																	
3.3	Inspect Road Markings																	
3.4	Repair of Road Markings																	
3.5	Inspect Parking Markings																	
3.6	Repair of Parking Markings																	
4	Roadway Facilities																	
4.1	Inspect Sidewalks																	
4.2	Repair of Sidewalks																	
4.3	Inspect Pavement and Shoulders																	
4.4	Clearing of Pavement and Shoulders																	
4.5	Shoulder Grading																	
4.6	Pothole Patching																	
4.7	Crack Sealing																	
4.8	Repair of Cut and Fill Slopes																	

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5	Other																	
5.1	(Other)																	
5.2	(Other)																	
5.3	(Other)																	
5.4	(Other)																	
Task	Activity	Tribal Personnel Assigned	Other Personnel	Tribal Equipment	Rental or Other Equipment	Material & Supplies	Winter			Spring			Summer			Fall		
Periodic							Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
6	Periodic																	
6.1	Regraveling																	
6.2	Surface Dressing																	
6.3	Resealing																	
6.4	Overlay																	
6.5	Addition/Change of Traffic Signs/Controls																	
6.6	Addition/Change of Road Markings																	
6.7	Addition/Change of Parking Markings																	
6.8	Addition/Change of Sidewalks																	
6.9	(Other)																	
6.10	(Other)																	
6.11	(Other)																	
6.12	(Other)																	

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Task	Activity	Tribal Personnel Assigned	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials & Supplies	Winter			Spring			Summer			Fall		
Emergency							Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
7	Emergency																	
7.1	Placement and Removal of Emergency Signage/Devices																	
7.2	Removal of Debris and Obstacles from Natural Causes																	
7.3	Repair of Damage from Natural Causes																	
7.4	Repair of Damage Caused by Traffic Collisions																	
7.5	(Other)																	
7.6	(Other)																	
7.7	(Other)																	
Task	Activity	Tribal Personnel Assigned	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials & Supplies	Winter			Spring			Summer			Fall		
Equipment							Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
8	Equipment																	
8.1	Inventory Equipment																	
8.2	(Equipment Name)																	

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	Maintenance																	
8.3	(Equipment Name) Maintenance																	
8.4	(Equipment Name) Maintenance																	
8.5	(Equipment Name) Maintenance																	
8.6	(Equipment Name) Replace																	
8.7	(Equipment Name) Replace																	
8.8	(Equipment Name) Replace																	
8.9	(Equipment Name) Replace																	
Task	Activity	Tribal Personnel Assigned	Other Personnel	Tribal Equipment	Rental or Other Equipment	Materials & Supplies	Winter			Spring			Summer			Fall		
<u>Training</u>							Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
9	Training																	
9.1	(Training Type)																	
9.2	(Training Type)																	
9.3	(Training Type)																	
9.4	(Training Type)																	

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9.5	(Training Type)																	
9.6	(Training Type)																	
9.7	(Training Type)																	

Equipment Maintenance Log

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RESOURCES

Video: [Create and manage drop-down lists - Excel](#)

Video: [Create and manage drop-down lists settings - Excel](#)

Video: [Manage drop-down lists - Excel](#)