



**CITY OF MONTROSE**  
**STREET & TRAIL SWEEPING OPERATIONS PLAN**

January 2023

A handwritten signature in black ink, appearing to read "J. Scheid", is positioned above a horizontal line.

Jim Scheid,  
Public Works Manager

A handwritten signature in black ink, appearing to read "Nik Pridy", is positioned above a horizontal line.

Nik Pridy,  
Streets Division Superintendent

A handwritten signature in blue ink, appearing to read "Daniel Payne", is positioned above a horizontal line.

Daniel Payne  
Parks & Special Projects Division Superintendent

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## INTRODUCTION

The annual Street & Trail Sweeping Plan is managed by the Street Maintenance Division and Parks & Special Projects Division within the Public Works Department. The intent of the Street and Trail Sweeping Plan is to articulate the scope, frequency, and schedule of sweeping operations within the city. This program is responsible for sediment and debris removal on all municipal streets, alleys, parking lots, and concrete recreation trails within the City of Montrose's jurisdiction. The primary goal of the plan is to reduce sediment loading into the Uncompahgre River and contributing tributaries while providing aesthetically pleasing transportation and recreation infrastructure for the Montrose community and visitors. Efficient, effective sweeping promotes community health and safety and instills community pride. Air and water pollution is also reduced with comprehensive sweeping programs. The annual tracking of debris collected from our roadways demonstrates that this Sweeping Plan prevents approximately 900 tons, or 20.25 tons/mile, of debris and particulate matter from becoming airborne or reaching natural watercourses.

The city maintains an active Municipal Separate Storm Sewer System (MS4) permit through the Colorado Department of Public Health and Environment – Water Quality Control Division (CDPHE-WQCD), which allows land-disturbing activities associated with routine maintenance operations to be conducted without acquiring individual activity permits. Regularly scheduled sweeping is a regulatory requirement identified in this permit. The city is committed to meeting the environmental quality goals of the MS4 program.

The [Street & Trail Sweeping Plan](#) is available for review and download on the [Public Works Department webpage](#). Public Works staff will review and revise the Plan at least annually or as necessary. Specific sweeping routes and schedules will be reviewed and updated, as necessary.

## PROGRAM OBJECTIVES AND PRIORITIES

The City of Montrose transportation network consists of approximately 20 centerline miles of major arterials (150 pass miles), 36 centerline miles of minor arterials (143 pass miles), 9 centerline miles of collector roads (34.96 pass miles), 115 centerline miles of local roads (334.74 pass miles), and 15.6 acres of public parking lots. Scheduled sweeping of this network equates to approximately 662.78 pass miles. A pass mile is defined as one sweeper pass along one mile of transportation network. Larger roads, such as major arterials, can take up to eight passes before the full road surface has been swept.

The city's recreation trail network includes approximately 36 miles of concrete walking, jogging, and bicycling trails. Scheduled sweeping of this network equates to approximately 72 pass miles. Trail sweeping equipment is narrower than street sweeping equipment, therefore, more pass miles are required to efficiently sweep trail areas.

Street and trail cleanliness is subjective and formal cleanliness standards do not exist. The City of Montrose has adopted best practices and established realistic sweeping routes and schedules to ensure program goals are met. Sweeping operations are weather dependent, but typically begin in late April and end in late November. Sweepers hold water that is applied for controlling dust while operating and must either be stored indoors or fully winterized and decommissioned during the winter months to prevent equipment damage. Currently, one of the three street sweepers is designed to sweep without water, leaving only one sweeper that is available for year-round sweeping operations.

During the regular sweeping season, major arterials are swept twice per month, minor arterials once per month, collector roads every two months, and residential streets twice a year. Paved alleys and public parking lots are swept as necessary. Concrete recreation trails are swept once every four months during warm weather. Fall sweeping, particularly in the older, established residential neighborhoods, is scheduled to collect leaf debris from streets and curb flow lines. Residents are urged to collect and dispose of the leaves to help maintain street drainage, and are instructed to **never** blow leaves into the roadway.

Sweeping service levels ultimately determine program staffing and equipment requirements. Significant growth in the transportation network (streets and trails) reduces the service level unless staffing and equipment levels grow proportionately.

## **SWEEPING ORGANIZATION**

The Street & Trail Sweeping Program is managed within the City of Montrose Public Works Department. The street operations superintendent manages all elements of the street sweeping plan other than recreation trails. The parks & special projects superintendent manages all plan elements associated with recreation trail maintenance.

The Street Maintenance Division includes two team leaders, and eleven workers. Supplemental employees are hired seasonally as needed. Employees are cross-trained to complete all functions assigned to the division, including sweeping. Field operations are generally executed by a single team consisting of three sweepers/operators working together in designated areas. Each sweeper operator is required to maintain a valid Colorado commercial driver's license.

Street Maintenance Division personnel are also responsible for snow and ice removal. During winter storms, sweeping operations cease and division personnel participate in snow and ice removal operations. Street Division workers are the backbone of the division by completing the day-to-day operations and report directly to Street Division team leaders. The team leaders provide in-field support and hands-on supervision for the division workers and report directly to the street division superintendent. The superintendent provides administrative support for the team leaders and reports directly to the Public Works manager. This organizational structure ensures an efficient supervisory span of control.

The Parks & Special Projects Division includes one team leader, six workers, and one continuous part-time worker. Supplemental employees are hired seasonally as needed. Employees are cross-trained to complete all functions assigned to the division, including trail sweeping. Recreation trails are typically swept by one worker operating a small utility vehicle with a front rotary broom or other equipment designed to remove debris. Although not required for the operation of small utility vehicles, each worker is required to maintain a valid Colorado commercial driver's license.

Parks & Special Projects Division personnel also assist with snow and ice removal. During winter storms, sweeping operations cease and division personnel participate in snow and ice removal operations. Parks & Special Projects Division workers are the backbone of the division. They complete the day-to-day operations and report directly to the team leaders. The team leaders provide in-field support and hands-on supervision for the division workers and report directly to the Parks & Special Projects Division superintendent. The superintendent provides administrative support for the division supervisors and reports directly to the Public Works manager. This organizational structure ensures an efficient supervisory span of control.

## **SWEEPING OPERATIONS**

The street sweeping team works together to clean designated areas of the city. This coordination and teamwork ensure operations are completed quickly and efficiently. When sweeper debris tanks are full, material is temporarily stockpiled at various city storage lots. Each site is physically constructed to prevent debris migration during and after windy or erosive precipitation events. This material is stockpiled for no more than thirty (30) days before being permanently deposited at the Montrose County Landfill. The landfill maintains an active Colorado Department of Public Health and Environment (CDPHE) permit authorizing permanent storage of sweeping debris and its use as a daily cover. City employees are authorized to permanently dispose of sweeper material at the Montrose County Landfill with a Hazardous Waste Manifest.

Continuous sweeping operations are not cost-effective or typically warranted. Inclement weather significantly influences the Street & Trail Sweeping Program schedule. Ice and snow accumulation, particularly in residential areas, restrict sweeping activities from late fall through late spring. Major arterial roads, such as Main Street, Townsend Avenue, and San Juan Avenue, are swept twice each month. Minor arterial roads, such as Park Avenue, Hillcrest Drive, and East Oak Grove Road, are swept monthly. Collector roads, such as North 9<sup>th</sup> Street and Odelle Road, are swept once every two months, and residential streets are swept twice each season. Paved alleys and public parking lots are swept as needed. Concrete recreation trails are swept once every four (4) months.

Sweeping productivity is measured in pass miles swept, which is recorded remotely through an automated vehicle locating system (Zonar) that is installed on street sweepers but not on recreation trail sweeping equipment. This system not only tracks miles each sweeper travels, but also records broom activation/deactivation. Productivity can be influenced by inclement weather, equipment malfunctions, and staffing shortages. Productivity is tracked annually and compared to previous years to create predictable trends. Typical annual pass miles are approximately 2,500 to 3,000. As the transportation network grows, the sweeping level of service will decline unless budget, staffing, and equipment resources grow proportionally.

Sweeping operations, by nature, are hard on equipment. For this reason, street sweepers are replaced more frequently than most fleet assets. New street sweeper prices vary between \$300K - \$400K. Operators and fleet mechanics maintain these assets meticulously to extend their service life as long as possible. Street sweepers require a significant amount of maintenance; primarily the replacement of brushes. They operate continually in dusty, dirty environments. Nearly 40% of the Street & Trail Sweeping Program's total annual budget is

designated for maintenance and repair of sweepers. Minor maintenance, such as greasing and daily cleaning, is performed by the sweeper operators. Major repairs and/or maintenance are performed by the Fleet Division or outside entities. Staging and routine maintenance is typically performed at the Public Works facility located at 1221 6450 Road.

City staff makes every effort to inform residents and business owners of street sweeping schedules to encourage them to remove vehicles from streets prior to sweeping operations. Streets sweeping operations are not effective when parked vehicles prevent sweepers from removing debris from curb flowlines and street surfaces. As a last resort, the Public Works Department has the authority to implement, post, and enforce “No Parking” signage to clear streets of vehicles prior to street sweeping operations.

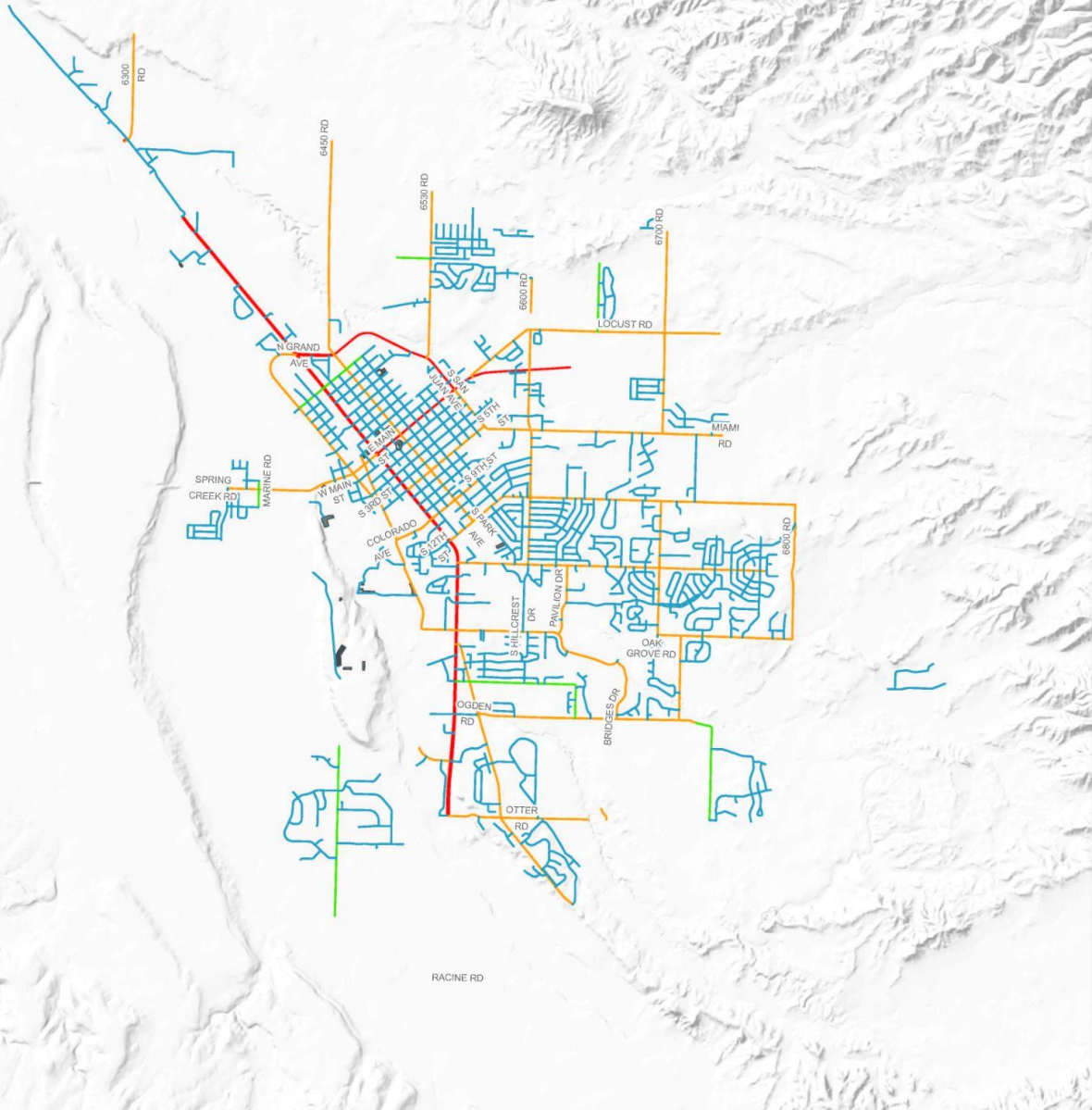
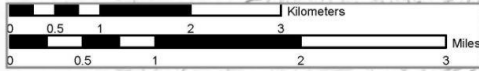
The Annual Street Sweeping Schedule is posted to the City of Montrose website each year in January and is updated as needed throughout the year. Reminders are posted on the City of Montrose website home page periodically. Announcements are made during televised City Council meetings prior to beginning street sweeping operations in a new portion of the city. Signs are posted at strategic locations to inform residents of upcoming street sweeping operations. Commercial, business, and industrial district streets are swept early in the morning to minimize business impacts.

## **STREET SWEEPING ROUTES**

The Annual Street Sweeping Operation Schedule Map divides the city into four districts: North, South, East, and West. Each area contains similar route mileage and can be swept in approximately the same amount of time. All streets in each area are swept including arterials, collectors, residential streets, municipal parking lots, and paved alleys. Street sweeping for special events is completed on an as-needed basis.

The Annual Street Sweeping Operation Schedule Map and Recreation Trail Sweeping Operation Schedule Map are available for review and download on the City of Montrose website at: [www.CityofMontrose.org/Streets](http://www.CityofMontrose.org/Streets)

# City of Montrose Street Sweeping



- Bi-Weekly Sweeping
- Monthly Sweeping
- Bi-Monthly Sweeping
- Twice Annual Sweeping

