

Public Works

TRANSPORTATION: Snow Plowing March 2, 2022



STATS

Total number of county maintained roads

Total number of miles plowed in mountain areas

Total number routes plowed in mountains Total number of snow equipment

Supervisorial District 1 (Wrightwood only) Supervisorial District 2 Supervisorial District 3 2769 miles 432miles

39

68 (normal)

97 (severe)

39 miles 248 miles 145 miles



DEPARTMENT WEBPAGE RESOURCES



Vision

Lead the way to a thriving diverse community through innovation in public works, fiscal responsibility, and environmental stewardship.

Mission

To enhance the quality of life for our diverse communities by developing and maintaining public infrastructure, and providing a variety of municipal services that complements our natural resources and environment.

Values

The embodiment of our core values will allow us to have a positive IMPACT on the citizens of our community:

- Integrity
- Mutual Respect
- Public Safety



Residents near the El Dorado / Apple Fire Burn Scars should prepare now.



Interactive maps, report road or flood problems, view road closures & verify roads are in County maintained road system (CMRS)



Snow Removal

Enter your address in the search box on far right hand side o the following link to find out if you are on a Public Works or Special Districts maintained Road:

http://sbcountydpw.maps.arcgis.com/apps/OnePane/basicviewer/index.html? appid=14153b8ad79c4a79be1edc33ea909670

For Public Works Maintained Road Requests click here:

Contact Us

If you would like us to treat your complaint **confidentially**, we will respect your request, but still have the option to contact you for further information and/or to update you with the status of your request. If you wish to remain anonymous, comments cannot be fully investigated due to lack of ability for clarification of comments (if needed) but will be investigated as much as possible with details provided. Thank you.

For Special Districts Maintained Road Requests click here:

http://www.specialdistricts.org/index.aspx?page=183

General Information

Snow removal operations are part of the County road budget which is financed through our share of State allocations from gasoline sales taxes and vehicle registration fees. Over 2,800 miles of County roads must be maintained throughout the year with these rather limited funds.

The necessity for serving mountain area residents in a comparatively short, but devastating snow season can seriously affect the road maintenance program for the entire County. We ask your patience and understanding during these times.

Remember that the snow operators make multiple passes to fully open the roads. The following is the progression of the openings:

Passable: Less than 8" of snow on road. Open to travel with properly equipped vehicle. (Chains on all drive wheels.)

Open: Plow has made at least one pass on road.

Clear: Plow has made at least two passes on road. Plowed to maximum width to allow two-way traffic.

Please wait until at least two passes before shoveling your driveway and when shoveling, shovel from left to right as you face the street.

During large events, primary roads are first priority over secondary roads. The first course of action during these large events is to open primary roads with one pass, to provide access for emergency personnel. Full width and secondary roads will be completed within 48 hours.

Cinders are not placed on every road and are not a substitute for cautious driving, chains, snow tires, and properly equipped vehicles. See "Snow Removal Guide" below for further information.

GIS Maps Published by the County of San Bernardino Department of Public Works



County Closed Road map



County Maintained Road Syste...



County Snow Removal Roads



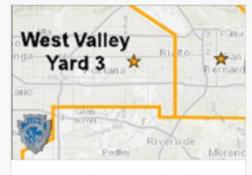
Flood Control Facilities



Flood Control Right of Way

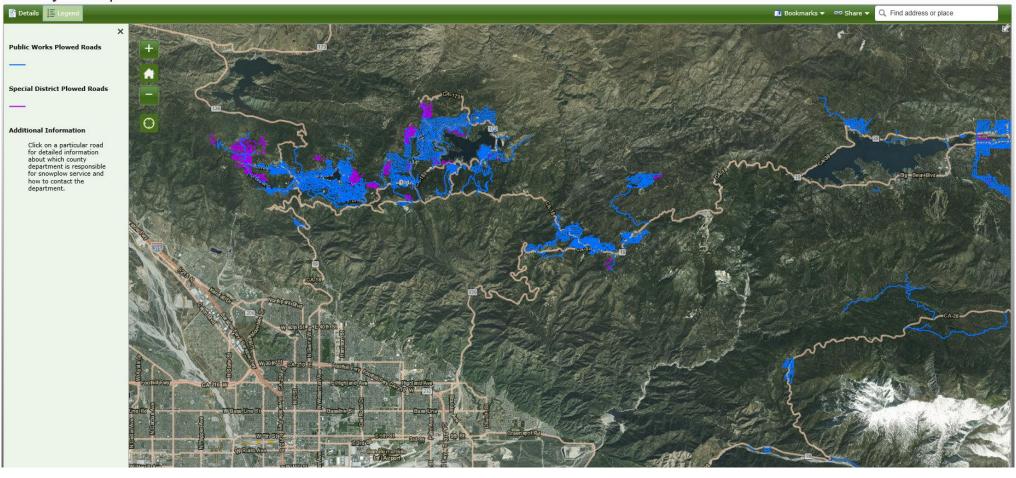


SWMD Waste Disposal Sites



Transportation Road Yards Map

County Snowplow Roads



- Roads are plowed to achieve an open and passable condition
- Snow plowing equipment makes a pass in each direction and proceeds on the established routes.
- This continues until snow stops falling.
- The plow routes include Primary and secondary roads in the most efficient route sequence.
- When the snow stops falling and all roads are open, the plowing efforts turn to a widening phase where the road is returned to the full width. Cindering selected roads begins.

• For consecutive storms forecasted, Snow blowing operations commence to allow for the

additional snow accumulation.



• Snow removal completion guidelines (after end of storm)

Depth of Snow During Storm	Approximate Time to Complete the open and passable phase (clear phase which includes widening, will continue after the hours indicated below)
0" through 10"	24 hours
10 ½" through 20"	36 hours
20 ½" through 30"	48 hours
30 ½" through 40"	72 hours
40 ½" and up	96 hours

AS THE STORM INCREASES

- Primary Routes receive a dedicated plow truck. Work continues on secondary roads.
- Routes can be divided up further with more equipment (DPW or on-call contractors)
- Additional equipment, personnel, service = more funding



DPW uses a variety of equipment based on road being plowed









Graders Loaders

Snow Blowers

Dump trucks (18 to 24 inches snow maximum)

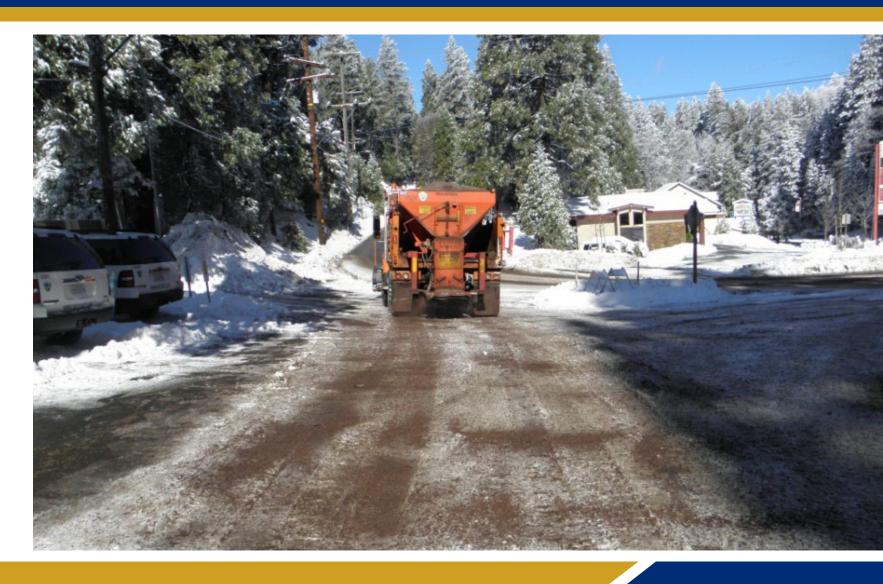
LABOR FOR OUR SNOW AREAS

- DPW uses a variety of its labor resources for plowing:
 - Routes are created so a typical twelve hour shift can make 1 pass through the route -1 operator per route per shift.
 - Crews are split in two 12 hour shifts
 - 23 seasonal equipment operators are hired each year to supplement
 - DPW shifts specified valley operators (e.g. traffic striping crew) to supplement snow removal
 - Valley crews and desert crews are generally flood fighting with certain crews designated for snow area assistance



MATERIAL FOR OUR SNOW AREAS

 DPW cinders to improve traction on icy roads. After widening Is complete, cindering phase is initiated. Only roads that are steep or roads requested by CHP are cindered. De-icing products are mixed with cinders to help with ice conditions. Cinders are not a substitute for safe driving and properly prepared Vehicle. Four wheel drive, snow tires, chains are the standard.



CURRENT COST SAVING MEASURES

- **Berm removal** after storm STOPS DPW has snow blowers to assist with limited berm reduction. DPW does not haul snow away.
- **Driveway clearing** usually on private property. DPW does not perform this service
- Cindering DPW applies cinders on select roads. Not all roads are cindered
- Anti Ice/Deice products used in limited amounts. Local mountain weather patterns are not ideal for these types of programs used in eastern states with flatter conditions and more predictable patterns necessary for preparation and timing for advanced application.
- Equipment moved from desert areas to snow areas during winter
- Schedule Shifts in advanced to reduce overtime
- Seasonal employees and borrowing operators from valley yards





Public Works

SPECIAL DISTRICTS: Snow Plowing

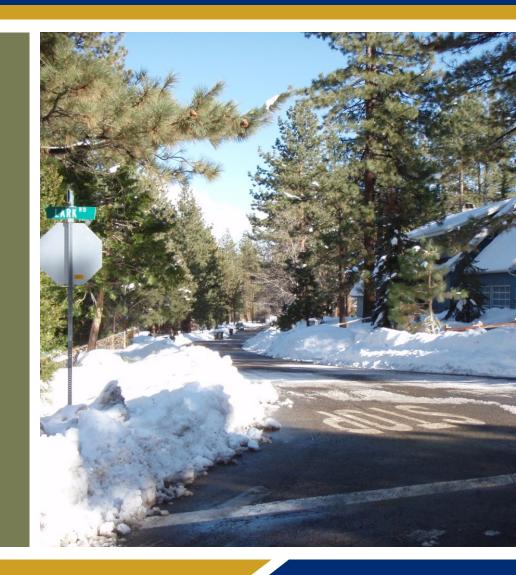


STATS

lotal number of county service areas	
And zones receiving snow removal services:	30
Total number of miles plowed in mountain areas	83.94 miles
Total miles of DPW roads plowed:	19

Total snow equipment by contractor	10 (normal)
	12 (heavy)
Total snow equipment by special districts	2 (normal)
	4 (heavy)

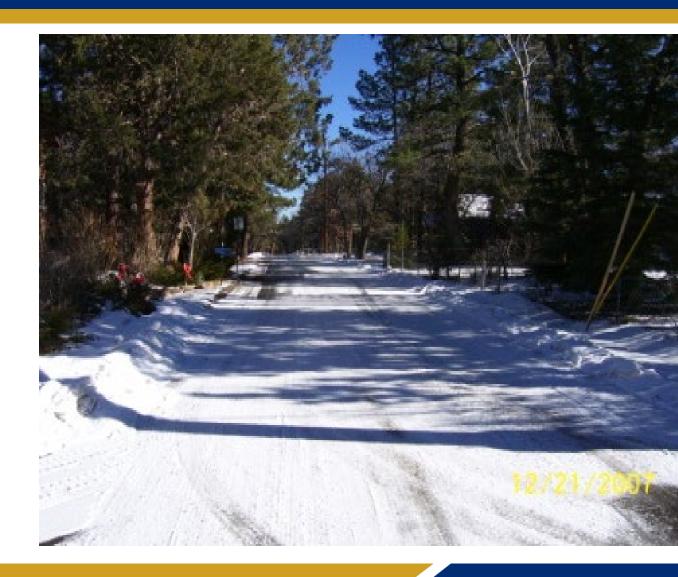
Supervisorial district 1 (Wrightwood only)	7.42 miles
Supervisorial district 2	41.78 miles
Supervisorial district 3	34.74 miles



COUNTY SERVICE AREA/ZONE FUNDING

- Each County Service Area or Zone is funded through either a share of general property tax (if the CSA or Zone was formed prior to Proposition 13) and/or through a land-based charge or special tax. The amount of tax or charge is based upon the level of service provided ie. berm removal for snow service, new road paving, slurry seals, etc.
- The revenue requirements are mandated by County Service Area Law (Government Code Section 25210 et seq.) and Proposition 218 (Article XIII C and D of the California Constitution).
- Each County Service Area/Zone has its own budget.
- The total revenue for the 30 County Service Areas and Zones receiving snow removal services is \$2.3m.
- In FY 2017/2018 Special Districts expended \$1.5million on snow removal and cindering
- In FY 2018/2019 Special Districts expended \$1.9 on snow removal and cindering
- In FY 2019/2020 Special Districts expended \$223,777 on snow removal and cindering.

- When snow levels reach 2 3 inches, snow plows are activated on paved roads.
- When snow levels reach 4 6 inches, snow plows are activated on dirt roads.
- While it is snowing, plows make one or two passes on the roadways depending on road width.
- After the storm, the snow plows return to widen the roadways and complete berm removal if that service is provided.
- Once roadways are cleared and widened, cindering services are provided.
- All steep roadways receive cindering services.



 Snow removal Schedule Per Requirements in Snow Plow Contracts

Depth of Snow	Snow Plowing
During Storm	Schedule
2" - 3"	Plows are
	activated
2" - 8"	Every 8 Hours
8" – 20"	Every 12 Hours
Greater than 20"	Every 24 Hours
Clean Up,	Within 24 hours
Widening and	after the storm
Berm Removal	is over



Equipment for County Service Areas/Zones

A variety of equipment is used based snow conditions:







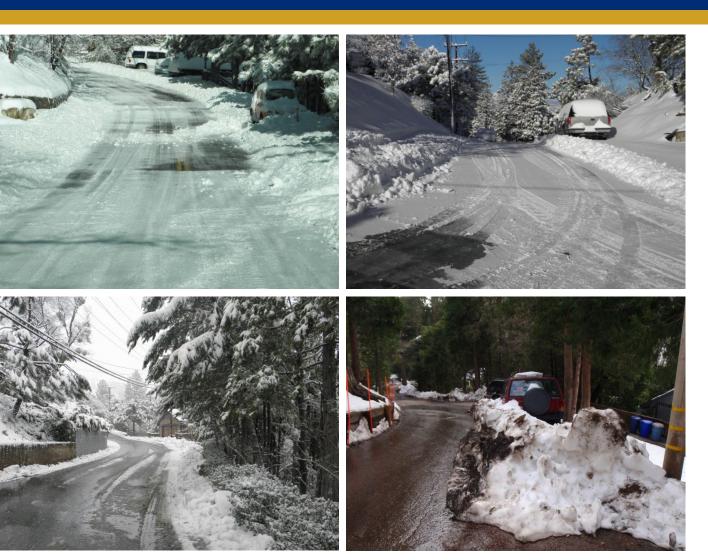
Graders Loaders

Plow trucks (18 to 24 inches snow maximum)

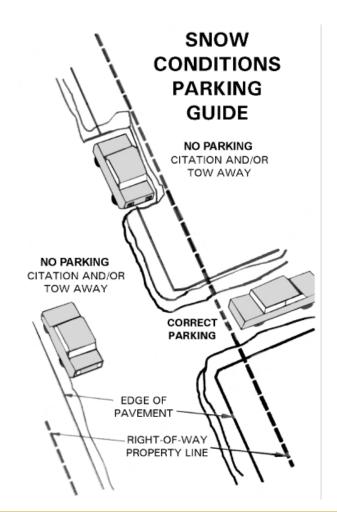
ISSUES FOR SNOW REMOVAL

- **Berm Removal** Some County Service Areas /Zones provide berm removal to all residents, and one Zone provides berm removal to disabled and elderly residents only.
- **Driveway clearing** Special Districts does not perform this service
- Anti Ice/Deice products used in limited amounts. Local mountain weather patterns are not ideal for the types of programs used in eastern states with flatter conditions and more predictable patterns necessary for preparation and timing for advanced application.
- County Service Area/Zone Financing As a result of Proposition 218 in order to increase a charge or tax in an area, an election must be passed by either the registered voters or property owners. Some County Service Areas and Zones have had the same charge in place since the 1980s or even earlier. If the tax or charge is not increased Special Districts Department has no other alternative but to dissolve the district. This will result in a loss of snow removal services.
- Roadway Obstructions The mountain standards for encroachments is 3 feet from the roadway. Due to the narrow district roads, many property owners have items within three feet of the roadway. Staff places an encroachment notice on these items and if they are damaged by the snow plow the County Service Area/Zone does not assume liability.

ISSUES FOR OUR SNOW AREAS



 Parked cars, narrow roads, limited alternative routes (one way in/out), steep roads, utility line and tree obstructions





SAN BERNARDINO COUNTY ORDINANCE 2024 Restricts parking on the mountain streets when snow conditions exist, generally from October 15 through April 15 every year



