



Legislative Fiscal Bureau

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June, 2021

Joint Committee on Finance

Paper #609

State Highway System - Salt Funding (Transportation -- State Highway Program)

[LFB 2021-23 Budget Summary: Page 587, #8]

CURRENT LAW

The state highway maintenance and traffic operations program is responsible for a variety of activities related to the upkeep of state highways, including winter maintenance such as snow plowing and ice removal. Most routine maintenance work is performed by counties under contract with the state, who are later reimbursed by the Department of Transportation (DOT) from a separate appropriation. Although winter maintenance is categorized as routine, the material cost of the deicing salt is paid from the highway system management and operations appropriation. The Department attempts to reduce materials costs through large-scale purchases of deicing salt, which it then provides to counties for use on state highways.

DISCUSSION POINTS

1. The state highway maintenance and traffic operations program is responsible for a variety of activities related to the upkeep of state highways and highway rights-of-way, including minor repair of pavements and bridges, winter maintenance (such as snow plowing and ice removal), mowing and vegetation management, and the maintenance of highway rest areas and waysides. Most of this work is performed by counties under contract with the state. Counties are reimbursed for state maintenance work based on three criteria: (a) county labor costs; (b) county machinery costs; and (c) materials supplied by the county, with the exception of deicing salt. The Department attempts to reduce materials costs through large-scale purchases of deicing salt, which it then provides to counties for use on state highways. The highway system management and operations appropriation funds non-routine traffic operations and system management activities, including bridge maintenance. Highway traffic operation functions include: (a) pavement marking activities, such as centerline or painting

crosswalk lines; (b) the installation, replacement, or maintenance of highway signs; (c) traffic control signals; and (d) highway lighting. Also included under the highway system management and operations program is the state traffic operations center support, bridge maintenance and operation, roadside facilities operations, program staff costs, and purchase of deicing salt used for winter maintenance. Although winter maintenance is categorized as routine, the material cost of the deicing salt is paid from the highway system management and operations appropriation. Because all of these activities are funded from the same appropriation, increasing costs for a certain activity requires utilizing funds that then cannot be used for a different activity. For example, increasing salt costs would erode the amount of funding available for these other purposes absent an appropriation increase.

2. The Department's records indicate that the price of salt has increased in recent years. Over the past 10 years (from \$58.55 per ton in 2010-11) the average annual increase has been 3.2%. However, over the past three years, the price of salt has increased from \$67.60 per ton in 2017-18 to \$80.09 in 2020-21, a total increase of 18.5%. Table 1 displays the cost of salt since 2011-12.

TABLE 1

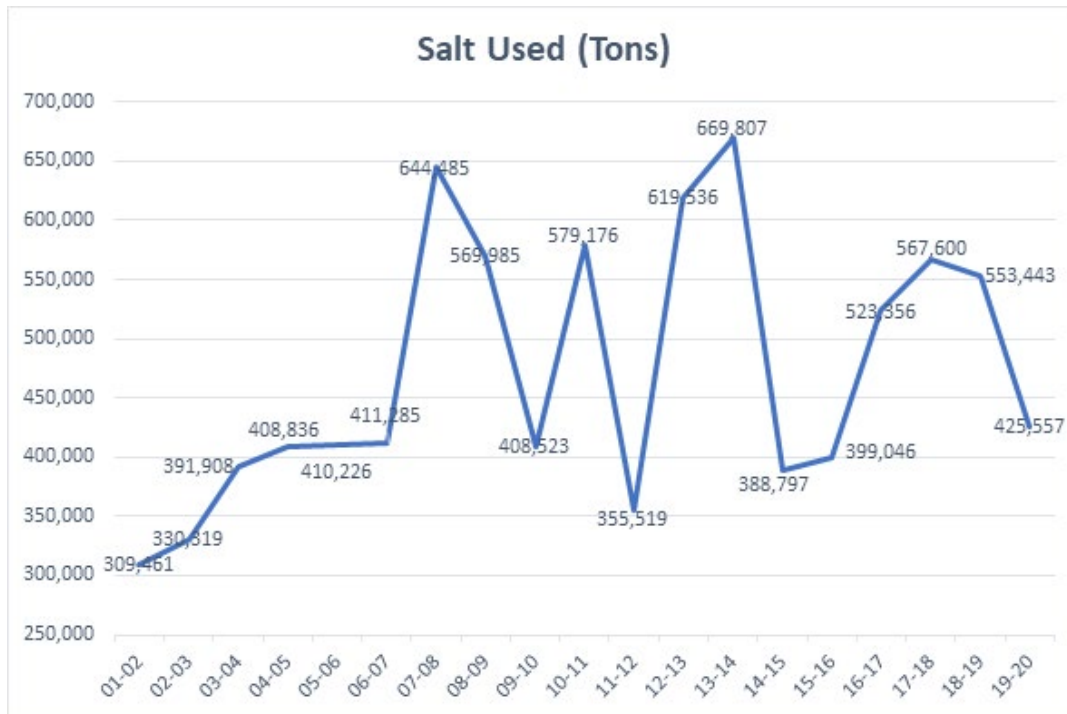
Average Statewide Price of Salt

<u>Year</u>	<u>Price per Ton</u>	<u>Price Change</u>	<u>Annual Percentage Change</u>	<u>Cumulative Percentage Change</u>
2011-12	\$59.18	\$0.63	1.1%	NA
2012-13	58.34	-0.84	-1.4	-1.4
2013-14	60.78	2.44	4.2	2.7
2014-15	69.01	8.23	13.5	16.6
2015-16	71.35	2.34	3.4	20.6
2016-17	68.74	-2.61	-3.7	16.2
2017-18	67.60	-1.14	-1.7	14.2
2018-19	73.51	5.91	8.7	24.2
2019-20	77.10	3.59	4.9	30.3
2020-21	80.09	2.99	3.9	35.3

3. Figure 1 below, provided by the Department, displays the amount of salt used from 2001-02 to 2019-20, which varies substantially from year-to-year and is difficult to predict. For example, during this time the Department has used as little as 309,461 tons in 2001-02 and as much as 669,807 tons in 2013-14. The average amount of salt used during this time is 471,956 tons. Each year, the Department determines the greater amount between 150% of the 5-year average salt use or the most salt used on record for each specific county, and aggregates these county-level amounts to determine the total statewide amount of salt to purchase. The Department then coordinates with its regional offices to allocate salt to specific counties. Using this methodology, the Department's current goal is to contract for 787,000 tons of salt statewide in order to have sufficient salt available even under extreme scenarios. In doing so, each year the Department is planning to purchase the difference between its inventory (currently approximately 215,000 tons) and its 787,000 ton goal. Because the cost of salt generally increases year over year, the Department often purchases salt at the end of winter

for the next season, further making an estimate of how much salt is needed difficult.

FIGURE 1



*Provided by DOT

4. Due to frequent price changes and unpredictability regarding how much salt will be needed, the actual funding needed for salt is difficult to estimate and can vary substantially from year to year. From 2011-12 through 2019-20, the annual percent change in the actual cost for salt (price x quantity used) has varied significantly from year to year. Table 2 displays the cost of salt used by the Department each year from 2011-12 through 2019-20.

TABLE 2**Cost of Salt Used
(Price x Quantity Used)**

<u>Year</u>	<u>Price per Ton</u>	<u>Tons Used</u>	<u>Annual Cost</u>	<u>Annual Percentage Change</u>
2011-12	\$59.18	355,519	\$21,039,600	NA
2012-13	58.34	619,536	36,143,700	71.8%
2013-14	60.78	669,807	40,710,900	12.6
2014-15	69.01	388,797	26,830,900	-34.1
2015-16	71.35	399,046	28,471,900	6.1
2016-17	68.74	523,356	35,975,500	26.4
2017-18	67.60	567,600	38,369,800	6.7
2018-19	73.51	553,443	40,683,600	6.0
2019-20	77.10	425,557	32,810,400	-19.4

5. The Department currently has an annual salt budget of \$35 million, which was increased in 2016-17 from \$25 million. However, due to the price of salt and actual salt used, this budget amount was insufficient to cover the cost of salt used for five of the last eight years, including three of the last four. The Department estimates it will need a total of \$47,510,900 in 2021-22 and \$48,118,100 in 2022-23 for salt purchases. As a result, the Governor recommends increasing funding by \$12,510,900 in 2021-22 and \$13,118,100 in 2022-23 to fund the increased costs of salt needed to maintain state highways. These amounts were derived by the Department by subtracting the current salt inventory of 215,000 tons from its annual goal of having 787,000 tons available to determine how much salt is needed to attain its goal, and assuming a 5% increase in salt prices each year along with a nearly 3.5% annual reduction in salt use in 2021-22 and 2022-23 (DOT assumes a reduction in salt use resulting from the Department's investment in brining equipment, which reduces the amount of salt needed). [Alternative 1]

6. Under the base level funding currently included in the substitute amendment to Assembly Bill 68/Senate Bill 111, expenditures from the transportation fund are significantly higher than under the Governor's recommendations. The Governor's recommendations reduced SEG funding to the state highway improvement program and replaced that funding with bonding. Further, while the 2019-21 budget increased revenues to the transportation fund, the coronavirus pandemic has dampened the impact of those revenue increases to the fund, as well as to ongoing base level revenues. The Committee already took action to reduce transportation fund appropriations, including adopting standard budget adjustments and reestimates of sum sufficient debt service appropriations that reduced appropriations by \$46.5 million in 2021-22 and \$31.4 million in 2022-23. Despite these actions and slightly higher estimated revenues, prior to Committee actions on the remainder of the transportation budget the estimated 2022-23 ending balance is -\$32.3 million. Thus, the availability of SEG funding to provide an ongoing increase in the Department's salt budget may be limited.

7. Using other reasonable methodologies to estimate how much funding will be needed for salt purchases in the biennium could lower the increase needed to be provided in the budget. For example, instead of aggregating each county's greater amount between the most salt used on record

and 150% of each county's most recent five-year average, DOT could instead use these formulas on a statewide basis. However, one difficulty with using a statewide methodology would be that it would require additional logistical planning for the Department to allocate funding to individual counties from the statewide inventory. Using the greatest amount of salt used statewide, 669,807 tons in 2013-14, and assuming the average 20-year annual salt price increase of 5.3% each year, the Department would need a total of \$38,362,900 in 2021-22 and \$40,403,400 in 2022-23. This would require additional funding for the Department's highway maintenance and traffic operations SEG appropriation of \$3,362,900 in 2021-22 and \$5,403,400 in 2022-23. [Alternative 2]

8. Alternatively, using 150% of the most recent statewide five-year average salt use, the annual salt goal would instead be an estimated 740,700 tons of salt each year. Using this methodology, the Department would need a total of \$44,342,800 in 2021-22 and \$46,701,300 in 2022-23. This would require additional funding for the Department's highway maintenance and traffic operations SEG appropriation of \$9,342,800 in 2021-22 and \$11,701,300 in 2022-23 [Alternative 3].

9. If the Committee wanted to limit the funding increase provided to the Department for salt purchases, but wanted to more likely ensure that the Department would have an adequate amount of salt for even extreme winters, it could provide enough funding to fund the maximum amount of salt used statewide, plus an additional 5%. Using this methodology, the Department's goal would be an estimated 703,300 tons of salt available, which would require funding of \$41,187,800 in 2021-22 and \$43,378,500 in 2022-23. This would require additional funding to the Department's highway maintenance and traffic operations SEG appropriation of \$6,187,800 in 2021-22 and \$8,378,500 in 2022-23. [Alternative 4]

10. If the Committee has concerns regarding providing DOT additional SEG funding given the challenges facing the transportation fund following the coronavirus pandemic, it could choose to take no action [Alternative 5]. However, if the costs needed for salt continues to increase, the Department will have less funding available for other highway maintenance activities in future years such as pavement marking, roadside facility repairs, and sign repairs. Similarly, when the Department increased its internal annual salt budget from \$25 million to \$35 million beginning in the 2017-18 fiscal year, it was not provided an appropriation funding increase at that time, thus was forced to reduce funding for other activities in its maintenance program.

ALTERNATIVES

1. Provide \$12,510,900 in 2021-22 and \$13,118,100 in 2022-23 to fund the increased costs of salt needed to maintain state highways.

ALT 1	Change to Base
SEG	\$25,629,000

2. Provide \$3,362,900 in 2021-22 and \$5,403,400 in 2022-23 to fund the increased costs of salt needed to maintain state highways.

ALT 2	Change to Base
SEG	\$8,766,300

3. Provide \$9,342,800 in 2021-22 and \$11,701,300 in 2022-23 to fund the increased costs of salt needed to maintain state highways.

ALT 3	Change to Base
SEG	\$21,044,100

4. Provide \$6,187,800 in 2021-22 and \$8,378,500 in 2022-23 to fund the increased costs of salt needed to maintain state highways.

ALT 4	Change to Base
SEG	\$14,566,300

5. Take no action (DOT would have to use existing funding to cover any increased costs for salt purchases).

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