



TOWN OF LEDYARD
CONNECTICUT
PUBLIC WORKS DEPARTMENT

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2023
YEAR-END REPORT
for the
LEDYARD PUBLIC WORKS DEPARTMENT

by
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Director of Public Works
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INTRODUCTION

The purpose of this report is to provide a summary of the accomplishments and advancements of the Public Works Department during 2023 and outline expectations for the year ahead.

EXECUTIVE SUMMARY

2023 was marked both by well-below-average winter weather and no major tropical storm impacts. We continued to deal with the lingering effects of widespread tree kill. The Department continued to keep pace with essential infrastructure maintenance needs and was able to tackle a large project related to Thames View Pentway reconstruction. The Department continued to make substantial strides in both facilities and fleet maintenance and improvements.

In 2022 funding for the road restoration program was subject to the normal annual appropriation process; \$982,000 was budgeted (out of \$1,115,000 requested according to projected needs), of which about 69% were grant funds. This appropriation met the benchmark needs to maintain average road surface rating (RSR), but also bears vulnerability to State budget cuts that may affect grant fund appropriations.

A requisite balance between structural repair and preservation techniques was applied, resulting in an increase in the Town's average RSR to 86.5 at the end of the construction season. This is the highest ever achieved and there were no roads left below an RSR of 50 and only three (3) below 60.

The waste volume in our curbside/municipal service remained flat. That represents a second year of reprieve in the recent trend. Additionally, in keeping with SCRRRA's long-term budget, another increase in tipping fee charged to member towns for MSW was approved at \$67.81 per ton effective July 1, 2024. Bulky waste disposal rates increased significantly, which was anticipated. Cost increases can be expected to continue their steady increase going forward, especially as the State has failed in its long-term planning for waste management State-wide.

OPERATIONS

Street Sweeping and Catch Basin Cleaning

The Department completed sweeping in a timely fashion. The annual basin cleaning requirements for 2023 were fully met. These tasks are a vital component of a comprehensive maintenance program that will meet the formal requirements of the EPA's Phase II Stormwater regulations. This year was the first year of renting a sweeper and contracting out catch basin cleaning. We experienced significant issues with the particular sweeper we rented and will be changing the supplier for 2024.

Drainage Repairs and Improvements

As is typical every year, several catch basins were reconstructed or replaced, with associated piping work, which represented the essential annual needs. And this year we undertook significantly more drainage preparation work in support of resurfacing efforts.

Road Resurfacing/Preservation

Paving continued in accordance with the Pavement Management Program capital plan. The specific efforts accomplished included nearly 3 miles of resurfacing, including roads in the Norman Drive subdivision, Jessica Lane (under a 50% cost share plan with the MPTN), Pond Park Pentway (partial), and Thames View Pentway (total reconstruction). In addition, 7+ miles of road were microsurfaced, comprising Long Cove and Whalehead roads. Including the crack sealing efforts applied to nearly 21 miles of roadway, road surface management expenditures were more than \$1.5M.

Curbing/Driveway Aprons

In combination, the well-below-average winter plowing needs and concerted efforts to minimize contact yielded the lowest total of curbing repairs (less than 250 linear feet) in the 28 years of record keeping.

Guiderail Placement/Replacement

Guiderail installation, except for minor maintenance, is contracted out, and only a minor amount was needed in 2023. The significant amount of old-style rail remains and is in present need of replacement along Sandy Hollow Road. This has been identified in the Capital Improvement Plan since FY12 but has not been funded.

Roadside Vegetation Control

- *Spraying*: The Department uses a contracted guiderail weed-control spraying program. This has been highly effective in reducing the overgrowth of vegetation near guiderails, and thus increasing the efficiency of mowing efforts.
- *Mowing*: In conjunction with road right-of-way clearing efforts, roadside mowing has been very thorough and effective, but it has been difficult to meet the town-wide needs as quickly as regrowth overtakes progress, especially in a wetter than normal summer. In 2023 we applied two to three mowing passes to main roads as well as a single pass to all subdivisions. The Department added the supplemental capacity of a small Kubota tractor with sickle bar mower attachment that assisted in keeping pace with mowing needs.
- *Brush/Tree Trimming*: Road right-of-way clearing touch-up efforts were intensively applied to several main roads as we continue with our annual plan in keeping up. Systematic tree canopy clearing continued with efforts at Lambtown Road, Lantern Hill Road, Long Cove Road, and Military Highway.

Sign Maintenance and Installation

As a result of achieving substantial compliance with federal mandates as of 2014, signs and markings work has been incorporated into the periodic and seasonal work cycles of the Highway Division. This involves miscellaneous sign repairs and replacements. We met essential needs in 2023 as they arose. The B & G Division tackled the neediest spots for stop bar painting, as well as all crosswalks.

Snow Removal

Winter weather demands for the 2021/2022 season were considerably lower than average. This mitigated breakdown of snow removal equipment, though the stretching of the life cycles of the larger trucks will likely require certain major refurbishment actions going forward.

Buildings and Grounds Maintenance

With the proactive attention that has been applied to the Town's facilities for the last several years, in addition to keeping pace with essential duties and emergent conditions, the B & G Division wrapped up several lighting and HVAC upgrade projects and transitioned to the major upgrade project at Town Hall. The full list and status of facilities needs is provided in the Comprehensive Municipal Facilities Capital Needs Report. A wide array of other improvements is being undertaken through the general fund, as well.

EQUIPMENT

The Public Works Department utilizes reserve funds for appropriations for its vehicle and equipment needs. It is essential that the reserve funds continue to be funded in accordance with the long-range plan to avoid the difficulties associated with a peak and valley approach to capital equipment rotation and improvements. Intermediate refurbishment is being utilized to help extend life expectancy.

Heavy Equipment. In 2023 the realignment of our heavy equipment fleet was advanced with the arrival of a rubber-tired excavator, which has greatly enhanced our in-house capacity for major drainage work and other tasks for which additional attachments will be added. Refurbishment will continue to be used extensively to extend the life of certain major assets, like the roadside mower and brush chipper. This has allowed us to defer replacement of several pieces of equipment.

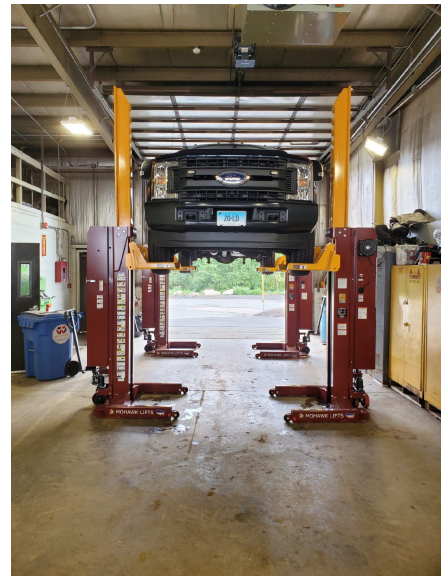
Large Trucks. Historic capital funding for Large Trucks was adjusted to return from a 25-year replacement cycle to a 20-year cycle. It will take several years to slide into this arrangement. A 20-year replacement interval still stretches the standard envelope, so we continue to rely on targeted refurbishment. A new truck is presently on order.

Small Trucks. The reserve fund for small trucks covers a wider variety of vehicles. Though standard replacement cycles form the foundational basis for the funding plan, flexibility has been (and will continue to be) employed to best align the fleet with needs. This has involved repurposing lower-use assets in conjunction with replacement. Replacement of a pick-up truck is being pursued.

PUBLIC WORKS FACILITIES

Concerted efforts over the last several years have kept pace with aging-related refurbishment and have noticeably improved the aesthetics of the facility generally, particularly at the Transfer Station, which received a replacement Attendant's Shed this year. Also, this past year saw the retirement of the original drive-on heavy truck lift and replacement with a four-column mobile lift that has greatly enhanced vehicle and equipment maintenance flexibility and efficiency.

Though the capital needs at the Highway Garage from a facilities' standpoint have largely been addressed, there remain wear and deterioration issues with the original pavement at the facility and Transfer Station areas. This is addressed in the Comprehensive Municipal Facilities Capital Needs Report, but completion is dependent on funding.

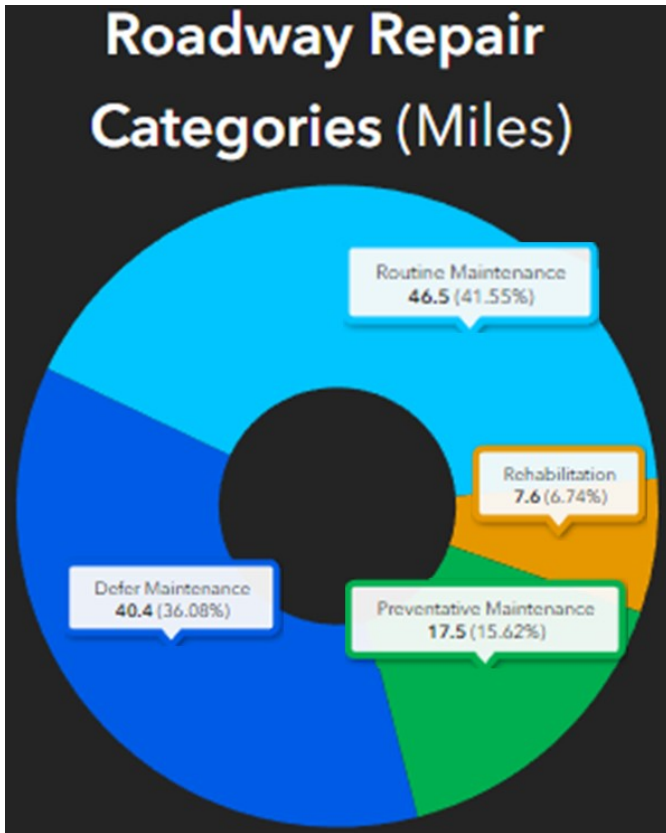


OUTLOOK

Even as road miles have increased nearly 20 miles since the mid-1980's, while manning has decreased by roughly a third during the same period, the Department has generally been able to keep pace with essential routine infrastructure maintenance. Some progress has been made in chipping away at the backlog of more major work, though a lot of important tasks are deferred and continue to expand as deterioration advances or needs otherwise become evident.

Pavement Management

An annual capital budget amount of about \$1.1M is needed (as confirmed in the latest Pavement Management Program study) to maintain the status quo road conditions in Ledyard. This level of funding has increased and will generally trend upward according to inflation. The required amount of capital road funding has rarely met annual needs. Efforts continue to leverage other funding sources and intermediate treatment methods to render annual funding as effectual as possible. There has been an understandable reliance on State grant funding, which will always bear a measure of uncertainty.



As seen in the adjacent chart, the Town’s road network, by repair needs, is in very good shape, with only 7.6 miles out of 112 (or less than 7%) in need of structural repair (i.e., major resurfacing).

Recent operational budget and TAR funding have continued to be adequate to meet routine infrastructure needs. This has been largely based on stable TAR funding at recent historical levels. Absent TAR funding, several vital annual infrastructure maintenance efforts will either be curtailed or must find alternative local or other funding. In the long run, the absence or reduction of TAR funding will severely hamper annual maintenance initiatives. Such shortfalls would have to be made up in other ways to meet essential infrastructure needs.

Department Manning

It is apparent at times that Public Works manpower resources are stretched thin at times; it is a challenge in some areas to keep up with essential maintenance demands, considering the

increased and growing roadway infrastructure and the increasingly complex buildings and grounds needs. The manning level of 17 employees remains considerably down from its peak in the 1980’s of around 25. Though this gap has been somewhat bridged with organizational streamlining, improved equipment and facilities, and structural advances in infrastructure, there are areas and times where gaining further ground must be deferred to simply keeping up with essential needs.

Contracting Out

Where workload conditions allow, the Department seeks to accomplish as much work, including larger projects, in-house. But to meet certain road infrastructure and buildings maintenance demands, contract services have been routinely used, if funding permits, simply based on scope/nature of work versus Department resources and capacity. Such tasks have included large drainage repairs and improvements, large tree removal, guiderail installation, roadside spraying, road line striping, catch basin cleaning, various road resurfacing efforts from road crack sealing to paving, and various facilities and fleet renovation and maintenance tasks.

Sanitation Services

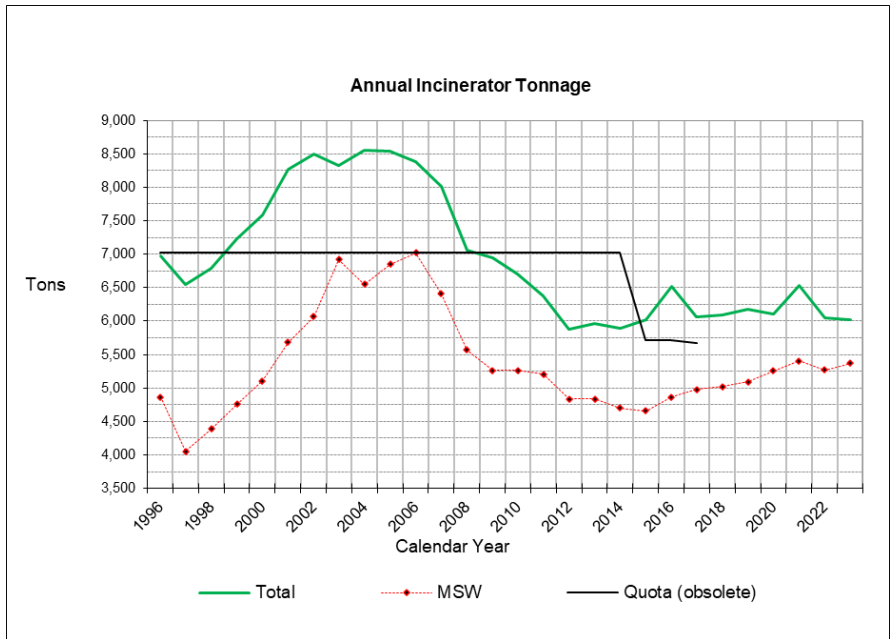
SCRRA continues to substantially subsidize disposal costs for Incinerator waste and many other items. Because of this, we have benefited from the stability of costs in the area of sanitation services. This has started to change as SCRRA’s revenue stream has been significantly reduced, facilities close, fees in various areas increase, and agreements expire and are renegotiated.

Because of present policy and legal obligations, this area of the budget is least discretionary—any cost increases have been absorbed on a compulsory basis. The Town can control certain aspects of cost associated with local contracts, e.g., curbside collection, the present contract for which extends through June 2025. At that point, a significant increase in the cost of these services is possible.

The contract for recyclables disposal was renegotiated and renewed in 2020 by SCRRA with Cassela for Single Stream recycling. The terms of the contract involve a substantial increase in cost, which SCRRA has been fully subsidizing. This subsidy is subject to change or elimination.

Through careful management and present SCRRA subsidies, expenses associated with the Transfer Station operations have remained stable and historically low, but this also is subject to the shifting dynamics in waste stream management and associated cost increases. Because of the constantly shifting/changing conditions in the realm of waste stream management, our local practices must remain open to review and change.

Ledyard’s incinerator MSW waste stream trends are depicted here. Favorable gains related to commercial tonnage backcharging and securing better curbside collection contract terms had been realized through 2015. But a notable upward trend in residential MSW had been seen from this point forward. There was a leveling in 2022, though this may not represent a permanent change in trajectory.



As mentioned above, the Town is benefiting substantially from the subsidizing of several

Transfer Station/waste collection services. For years this has included hazardous waste collection with progressive addition of collection and disposal of tires, ewaste, fluorescent light bulbs, mattresses, waste oil, antifreeze, and small propane tanks, as well as Freon evacuation and the grinding of bulk brush. The net savings (cost avoidance plus revenue) to Ledyard has increased to more than \$60K annually.

Transfer of non-hazardous paint is also free to the Town through a direct agreement with PaintCare. Additionally, through an arrangement with the neighboring farm, leaf disposal costs the Town nothing. This represents an annual savings of at least \$20K. So, without the above arrangements, disposal costs for the Transfer Station would add at least \$80K to the tax levy.

Regulatory Compliance and Administrative Services

The Town's Public Works administrative and engineering needs require selected consulting support in meeting essential program requirements. Meeting engineering needs will continue to be a matter for consideration of balance between in-house resources and consulting services.

Consulting costs increased significantly starting in FY18 to address increased MS4 program requirements. The Town has made great strides in meeting our compliance goals, but the costs remain substantial. These costs have been uneven year-to-year, and have declined on balance, but we are still in the relatively early stages of establishing the necessary structural aspects of the foundation of our local program. It cannot be overemphasized how sprawling and expensive MS4 compliance has become.