



**TOWN OF LEDYARD**  
**CONNECTICUT**  
**PUBLIC WORKS DEPARTMENT**

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2022  
YEAR-END REPORT  
for the  
LEDYARD PUBLIC WORKS DEPARTMENT

by  
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February 3 2023

## **INTRODUCTION**

The purpose of this report is to provide a summary of the accomplishments and advancements of the Public Works Department during 2022 and outline expectations for the year ahead.

## **EXECUTIVE SUMMARY**

2022 was marked by a historically average winter. On the other side, it was a year free of major tropical storm impacts. We continued to deal with recovery from Gypsy Moth tree kill and the damage from the Emerald Ash Borer that followed. The Department continued to keep pace with essential infrastructure maintenance needs and were able to tackle a large project related to compliance with the MS4 mandate to disconnect impervious areas from watersheds. The crew converted a detention basin on Eagle Ridge Drive to a retention basin, holding back thousands more gallons of stormwater runoff for infiltration.

In 2022 funding for the road restoration program was subject to the normal annual appropriation process; \$950,000 was budgeted (out of \$1,115,000 requested according to projected needs), of which about 83% 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, even though there were a few deferred resurfacing jobs which resulted in a slight dipping of the Town's average RSR to 84.0 at the end of the construction season. Nevertheless, we have reduced the number of roads below a 50 RSR to four (4) (all local streets, including the three deferred roads) comprising less than 1% of the total length of our road network. All of these roads are presently targeted for resurfacing in 2023.

The waste volume in our curbside/municipal service was actually flat from the previous year. That represents a pause 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. An additional \$2 was added, bringing the rate to \$61.25 per ton will be effective July 1, 2023. Other areas of waste management remained stable, but cost increases may be anticipated going forward.

## **OPERATIONS**

### Street Sweeping and Catch Basin Cleaning

The Department completed sweeping in a timely fashion. The annual basin cleaning requirements for 2022 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. As part of a major shift in operations, the Department liquidated the aging sweeper and catch basin cleaner assets. We will utilize a rental sweeper for sweeping and contract out our catch basin cleaning starting in 2023.

### 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. We completed the first leg of a significant drainage improvement project that will continue early in 2023 in support of resurfacing Thames View Pentway.

### Road Resurfacing/Preservation

Paving continued in accordance with the Pavement Management Program capital plan. The specific efforts accomplished included just over 1 mile of resurfacing, including Crocker Hill Rd, Oak Hills Trail, Lorenz Industrial Parkway, Commerce Ct, Homestead Pentway (partial), and a needy section of Whalehead Rd. In addition, 5 miles of road were microsurfaced, comprising Pumpkin Hill, Rose Hill, and Spicer Hill (N) roads. Including the crack sealing efforts applied to about 14.3 miles of roadway, road surface management expenditures were nearly \$870K.

### Curbing/Driveway Aprons

We experienced an average plowing season, but due mostly to efforts to minimize contact, the winter yielded a relatively minor length of curbing repair of about 1,100 linear feet.

### Guiderail Placement/Replacement

Guiderail installation, except for minor maintenance, is contracted out, and only a minor amount was needed in 2022. 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 2022 we applied two mowing passes to main roads as well as a single pass to all subdivisions. The Department had added the supplemental capacity of a mower attachment to the skid steer that we intended to deploy starting in 2022, but it proved not to be effective and was returned for a full refund. We have instead acquired a smaller multi-use tractor which will be outfitted with a sickle-bar attachment for this year.
- *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 Military Hwy.

### 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 2022 as they arose. The B & G Division finished the balance of stop bars and crosswalks painting that remained from 2022.

### Snow Removal

Winter weather demands for the 2021/2022 season were at the historical average. There were limited breakdowns 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

Significantly greater management and proactive attention 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 tasks related to capital building projects and at the new Town Green. This approach is ongoing with several lighting and HVAC upgrade projects in process. 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 2022 the anticipated realignment of our heavy equipment fleet was executed. The sweeper and catch basin cleaner were sold and a rubber-tired excavator was ordered. Its arrival is imminent. Refurbishment will continue to be used extensively to extend the life of certain major assets, line 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 was purchased in 2022 with the next one scheduled for 2023.

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. A replacement B & G service vehicle was just received. The signs & markings flat bed was liquidated and not replaced, providing some offsetting revenue.

## **FACILITIES**

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. Concerted efforts over the last several years have noticeably improved the aesthetics of the facility generally, particularly at the Transfer Station.

Additional areas of improvement that will improve its function will be defined and undertaken for the Transfer Station, as funding allows.

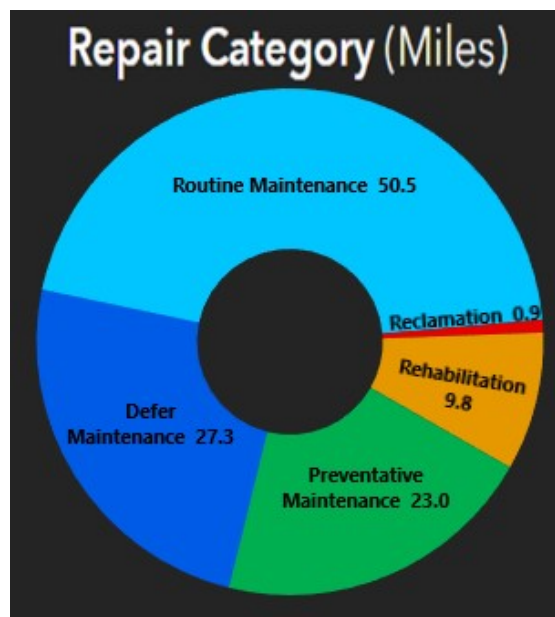
## **OUTLOOK**

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 as the extra burdens of storm cleanup have allowed, though a lot of important tasks continue to be deferred.

An annual capital budget amount of about \$1M is needed 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 10.7 miles out of 111.5 in need of structural repair (i.e., rehabilitation or reclamation). This ratio would have been better if roads had not been deferred in 2022, but it should continue notably in 2023.

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. This has been especially true when we have been hit by significant severe weather impacts, clean-up of which has occupied the crew for up to several weeks. After many years, an additional position was added in 2022.

### **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. Relative to road maintenance needs alone, such tasks have included large drainage repairs and improvements, large tree removal, guiderail installation, roadside spraying, road line striping, and various road resurfacing efforts from road crack sealing to paving. In 2023 we will shift catch basin cleaning to this list.

### **Sanitation Services**

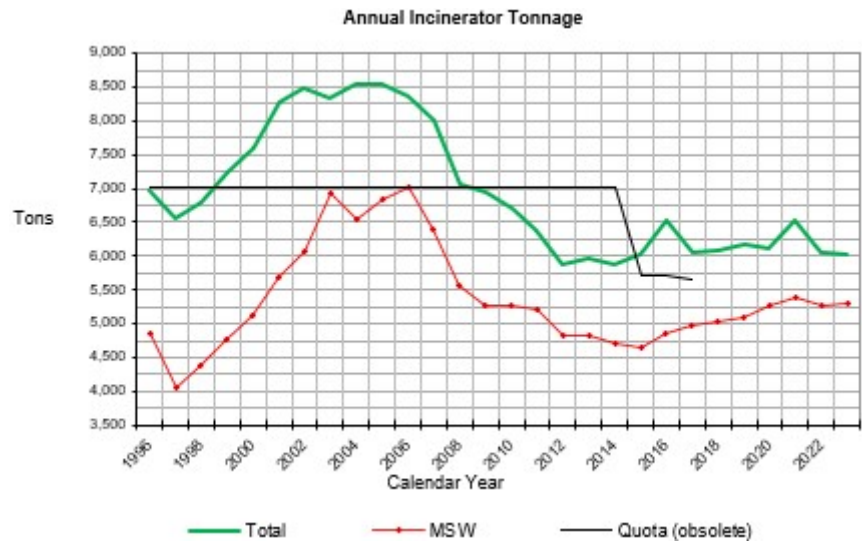
SCRRA continues to substantially subsidize disposal costs for Incinerator waste and many other items. Because of this, we have benefited from stability of costs in the area of sanitation services. This has started to change as SCRRA’s revenue stream has been significantly reduced, facilities close, fees 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. In keeping with this, we will be exploring options in securing a longer-term stability in this area of high proportion of waste management costs.

The contract for recyclables disposal was renegotiated and renewed in 2020 by SCRRA with Cassela for Single Stream recycling. With market conditions improving, SCRRA is now seeing modest income, whereas for several years it had been absorbing disposal costs when markets were a net expense versus a revenue.

Through careful management and present SCRRRA 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 benefitting substantially from the subsidizing of several Transfer Station/waste collection services. For years this has included hazardous waste collection and now includes 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 have 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 have been substantial. These costs have been uneven year-to-year, and may ultimately level off, but we are still in the relatively early stages of establishing the necessary structural aspects of foundation of our local program. It cannot be overemphasized how sprawling and expensive MS4 compliance has become.