Township of Mahwah
Solid Waste Study

Prepared by
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EXECUTIVE SUMMARY

The purpose of this Study was to consider alternate methods for the collection of Solid Waste Trash in the Township of Mahwah.

Solid Waste sometimes referred to as Household Trash is currently being collected (and delivered to the landfill) by a private company, Suburban Disposal which was selected after a Bid Process a few years ago.

The cost for this service is:

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</thead>
<tbody>
<tr>
<td>2019</td>
<td>$1,060,000</td>
</tr>
<tr>
<td>2020</td>
<td>$1,080,000</td>
</tr>
</tbody>
</table>

These amounts do NOT include “Tipping Fees” charged by the landfill. (The contract ends February 28, 2021)

Jersey Professional Management (JPM) was hired by the Mayor and Township Council of the Township of Mahwah to determine if alternate methods of collection of solid waste would be cost effective, in other words, less expensive and – or more efficient.

The 2 primary alternatives are:

Collection by Township Employees
with traditional back loading packer trucks,
with 2 or 3 employees per truck

Collection by Township Employees
with automated side loading trucks
with only 1 employee per truck

If we were to summarize our overall findings, it is noteworthy that no official that we interviewed from any town, currently collecting trash with old packer trucks recommends going to this method.

On the other hand, virtually ALL Municipal Officials in Towns with automated trucks with Township employees with 1 employee per truck recommend this method, and are pleased with the transition that their Town made from the old system to the new automated system for collection.

The final factor is cost:
1. In rounded numbers, collection using Township Employees with standard rear loading packers:
   
<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$1,216,000</td>
<td>approximate cost</td>
</tr>
<tr>
<td>2020</td>
<td>-$1,080,000</td>
<td>current contract</td>
</tr>
<tr>
<td></td>
<td>$ 136,000</td>
<td>INCREASE cost</td>
</tr>
</tbody>
</table>

2. Automated side loading trucks with Township Employees, with 1 employee per truck

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$1,080,000</td>
<td>current contract</td>
</tr>
<tr>
<td>2020</td>
<td>-$ 850,000</td>
<td>approximate cost</td>
</tr>
<tr>
<td></td>
<td>$ 230,000</td>
<td>REDUCED cost</td>
</tr>
</tbody>
</table>

(approximately 20% reduction in cost)*

*The JPM Study Team has conservatively calculated this reduced cost and, it is possible, even likely, the actual annual savings could be much higher, as much as $400,000 per year.

The JPM Study Team recommends that the Mahwah Mayor and Township Council Members consider the option of collecting household trash using Township Employees with automated side loading trucks. The transition would likely take 1 to 2 years to implement, commencing in the year 2021.

Respectfully Submitted,

Dan Mason
Jersey Professional Management
August 2019

cc: JPM Senior Manager Leslie Shenkler
    JPM Senior Manager Joseph Verruni
    JPM Senior Manager Andrea Wardrop
INTRODUCTION

On April 12, 2019, Jersey Professional Management (JPM) submitted a proposal to Mayor John F. Roth and Township Business Administrator Quentin Wiest to provide Management Consulting Services, involving the analysis of the existing method and possible alternative methods, related to Solid Waste Collection in the Township of Mahwah. This proposal was accepted and JPM was authorized to proceed.

STUDY METHODS

Jersey Professional Management Senior Manager Joe Verruni and Senior Manager Leslie Shenkler were the primary authors of this report, along with the assistance of JPM President Dan Mason. Both Senior Managers have significant experience in Public Works operations generally, and solid waste collection systems specifically.

Most of the Mahwah data collection was handled by Mahwah Township management staff.

JPM Study Team also made contact with 6 area municipalities to review, analyze and discuss the methods they use to collect their solid waste.

The report that follows represents a comprehensive analysis of all the data that was collected. The presentation of this report is intended to guide the Township of Mahwah Elected Officials and management personnel to consider the best practices that have been identified to provide the residents of the Township with a quality level of solid waste collection services, delivered in a cost-effective fashion.

SOLID WASTE COLLECTION PRACTICES NATIONALLY AND IN NEW JERSEY

In the State of New Jersey, the usual practice for the collection of household solid waste has involved a 2X per week collection. With the advent of mandatory recycling in the mid 1980’s, a wide variety of approaches were taken in terms of frequency, source separation, and organized (municipal, county, or private) handling of the collection of recyclables. Similarly, the handling of bulk waste has varied widely. Bulk waste could include chairs, tables, washers, dryers, etc.

The advanced standard practice with regard to the collection of household solid waste has largely transitioned to a one time per week frequency, often utilizing one-person automated collection vehicles. Recyclables are typically bi-weekly and are frequently co-mingled (single stream recycling). If bulk collection services are provided, they are often limited just to a spring and fall clean-up. Although many towns still collect bulk waste monthly or quarterly; bulk trash
TOWNSHIP OF MAHWAH
SOLID WASTE STUDY

is defined as non-perishables typically not included in normal weekly household waste. This could include chairs, tables, washers, dryers, etc. This model is gradually becoming popular in New Jersey as municipalities reexamine their operations in an effort to improve service, efficiency and to realize cost savings.

Private solid waste collection firms in New Jersey have been slower to embrace the automated collection practice. It is believed that this is largely attributable to the limited permissible length of public contracts for this service (five year maximum) which is only one-half the life of the specialized vehicles required.

The high capacity containers (96 gallon) utilized in automated collections have an even longer life.

Particularly with smaller firms, this capital cost commitment is too great of a risk to assume.

CURRENT MAHWAH SOLID WASTE COLLECTION PROGRAM

Mahwah Township presently utilizes the most common New Jersey model. The classes of Solid Waste and how they are handled is set forth as follows:

Household Solid Waste: 2X per week, curbside collection, limited to residential properties. Rear loading vehicles are utilized and staffed by a minimum of 1 driver and 1 collection worker. A private sector company has been hired to do this.

Municipal Solid Waste: Collections are also made at public sites, such as the Municipal Building, Firehouses, schools and parks (utilizing dumpsters). Collections are scheduled as needed and are adjusted seasonally.

Commercial Solid Waste: This class of solid waste (not including recycling) is handled directly between the commercial building management, and private solid waste collection contractors.

Recyclables - A 2X per month collection is limited to residential properties. The 2 categories collected on are (1) newspapers and (2) co-mingled containers (glass, aluminum, plastics and bi-metal cans). The curbside collection is supplemented by a 6-day per week drop-off program, which is an unmanned operation at the Township DPW facility. Additionally, on Saturday, a second drop-off site is staffed at one of the Township Firehouses, since Mahwah is geographically a large community of 26 square miles.
TOWNSHIP OF MAHWAH
SOLID WASTE STUDY

Bulk material: There is a 1X per week curb side collection limited to residential properties. Provisions have also been made for residents to deliver this material. Bulk collection is also provided 1X per week at Condos.

Mahwah DPW has 43 current full-time employees (including 3 Foremen) and hires 10-14 seasonal/temporary workers each year. 7 of the 43 are assigned to recycling. Also, DPW has 2 clerical employees.

CONTRACTOR PROVIDES MUNICIPAL SOLID WASTE COLLECTION SERVICES

The Population of Mahwah is 25,890; the area is approximately 26 square miles. Mahwah is the largest municipality in area within Bergen County.

Currently, all household trash is picked up under a contract with Suburban Disposal. The Contractor celebrates only 6 holidays per year. Generally, they use 1 or 2 laborers and 1 driver for each rear loading packer truck.

Mahwah Township does not pick up commercial solid waste, however Mahwah does pick up commercial recycling, (single stream and cardboard) 2X per month.

- Trash is collected curbside 2X per week; Bulk is collected the second day of the weekly collection EVERY WEEK. Only 3 bulk items can be place at the curb each week.
- Metal and White Goods picked up the 4th week of the month; (after the second pick up of the week). Refrigerators and air conditioners (containing freon) are also picked up, upon request.
- Dumpsters are purchased by each Condo Association. The Dumpsters are on wheels and must be wheeled out of the Condo Trash Shed by the trash collector in order to have the packer truck lift them to be emptied.

There are approximately 4,600 single to four family units, and 4,700 condos in Mahwah; plus, collection at 6 public schools and a variety of 32 other public spaces i.e., Municipal Building, Parks, Ambulance, Fire Houses, etc.

Costs for the current Contractor (Suburban Disposal Inc.) for household trash collection (including Bulk trash, not including recycling) are as follows:

<table>
<thead>
<tr>
<th>For the year 2019:</th>
<th>$1,060,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the year 2020:</td>
<td>$1,080,000</td>
</tr>
</tbody>
</table>

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TOWNSHIP OF MAHWAH
SOLID WASTE STUDY

PRIMARY FUTURE OPTIONS

The variations available to handle the collection of solid waste are many; however, this analysis was limited to these methods, as follows:

Option 1  Continuation of Private Contract
This approach was evaluated primarily to establish a baseline relative to the true cost presently involved in the collection of solid waste.

   For the year 2019  $1,060,000
   For the year 2020  $1,080,000

Option 2  Continuation of Current Private Contract, however, modified to a 1X Per Week collection
This is the national norm in terms of frequency - The initial objection generally raised relates to a perceived health concern. However, utilizing this approach we have not found a health risk to exist in other municipalities.

Option 3  Automated Collection with Township Employees, 1X Per Week Collection
Tinton Falls was one of the first municipalities to adopt this approach. It has become widely accepted in Tinton Falls and is actually warmly embraced. This approach is used in Tinton Falls for household solid waste collection as well as a single stream recycling collection. Other municipalities such as Neptune, Wall Township, Eatontown, Paramus, and Hackensack have also adopted this approach.

Option 4  Automated Collection, with Township Employees, 2X Per Week Collection
This is not a common practice in New Jersey.

Option 5  Automated Collection, with Township Employees, with 2X Per Week Collection
May through September, and 1X Per Week Collection October through April.

Option 6  Standard Collection with Township Employees

The Township of Mahwah would use Township employees to provide Solid Waste Services (includes recycling):

Mahwah celebrates 14 holidays per year, if Mahwah went to trash collection by Township employees, the Township would likely use the same routes as Suburban; however, this would require additional equipment and staff (see costs below).
As suggested by the DPW Director, collection of household trash with Township employees would require the following pieces of new equipment and employees:

**TOWNSHIP OF MAHWAH SOLID WASTE COLLECTION STUDY**

**Overview of New Equipment and Payroll Costs**

**Proposed Equipment Needs**

<table>
<thead>
<tr>
<th>Item Description</th>
<th># required</th>
<th>Initial cost per</th>
<th>Total</th>
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<tbody>
<tr>
<td>Front End Loader</td>
<td>2</td>
<td>$240,000</td>
<td>$480,000</td>
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<tr>
<td>Packer/Collection Trucks</td>
<td>4</td>
<td>$250,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Pick Ups</td>
<td>3</td>
<td>$55,000</td>
<td>$165,000</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$1,645,000</strong></td>
<td><strong>$1,645,000</strong></td>
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*ESTIMATED TO BE BONDED OVER 10 YEARS* $200,000 per year cost

**Proposed Payroll Costs - Additional Staff Required**

<table>
<thead>
<tr>
<th>Position Description</th>
<th># required</th>
<th>Fully Loaded Payroll Costs per Individual</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Foreman</td>
<td>1</td>
<td>$133,551</td>
<td>$133,551</td>
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<tr>
<td>Class 3 Laborers</td>
<td>10</td>
<td>$88,301</td>
<td>$883,007</td>
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</table>

**Total** $1,016,558

Annual - Total Estimated Equipment and Labor Costs: **$1,216,558**

Private 2020 Contracted Cost

Increased Cost

$1,080,000

$136,558
TOWNSHIP OF MAHWAH
SOLID WASTE COLLECTION STUDY

Debt Service Payments
Traditional Financing (assuming 4% Interest)

$1,645,000

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt Service</th>
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<tbody>
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<td>3</td>
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<tr>
<td>9</td>
<td>$202,814</td>
</tr>
<tr>
<td>10</td>
<td>$202,814</td>
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</tbody>
</table>

*rounded amount equals $200,000 per year*
### TOWNSHIP OF MAHWAH
### SOLID WASTE STUDY

<table>
<thead>
<tr>
<th>Foreman Fully Loaded Payroll Costs</th>
<th>Average Salary</th>
<th>Employer FICA</th>
<th>Estimated Employer Pension</th>
<th>Estimated Health Benefits</th>
<th>Ch. 78 Employee Portion</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$ 87,241</td>
<td>$ 6,674</td>
<td>$ 12,309</td>
<td>$ 22,200</td>
<td>$(7,548)</td>
<td>$ 128,424</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DPW Recycling Class 3 Laborer/Collector</th>
<th>Average Salary</th>
<th>Employer FICA</th>
<th>Estimated Employer Pension</th>
<th>Estimated Health Benefits</th>
<th>Ch. 78 Employee Portion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 49,736</td>
<td>$ 3,805</td>
<td>$ 7,018</td>
<td>$ 22,200</td>
<td>$(3,108)</td>
<td>$ 82,759</td>
</tr>
</tbody>
</table>

Salary - Foreman - averaged three Foreman salaries from 2019 payroll schedule provided by Business Administrator, Quentin Wiest, 06/06/2019 email. Final 2019 column was used for the individual salaries.

Estimate of Employer Pension Cost - JPM used a figure of 14.11% of salary based upon municipal averages from State of NJ Pensions for 2019.

Health benefit estimates are for family coverage. Assumption that Mahwah is in Year 4 of the Ch. 78 grid for employee portion of total health care premium.

$ 1,850.00  monthly premium
12 Months
$22,200.00  Annualized cost
Currently, Trash is collected curbside, **2X per week**;

*Consider that trash be picked-up **1X per week**; however, between Memorial Day and Labor Day and Christmas Day/New Year’s Day, collection could be extended to **2X per week**.

Currently, up to 3 pieces of bulk trash are picked up **1X per week**.

*Consider that bulk trash be picked up **2X per year, or 1X per month**; one day for Spring cleanup and one day for Fall clean-up. (Special additional pick-ups for “move-ins/move outs” can be arranged by email with DPW staff).

Currently Metal and “White Goods” (refrigerators and air conditioners) are picked at the curbside during the 4th week of the month;

*Consider that “white goods” be picked up by DPW **only when requested**.

**Mountain Located Residences**

On a tour with the DPW Director of the northwestern and western sections of Mahwah, it is apparent that the roads are steep, with tight lanes for two-way traffic. In fact, some areas only have a single lane for traffic. These roads wind through the mountains. Only **small trash pickup trucks** are used in these difficult areas; When the pickup truck is full it meets up with a packer truck to unload; this condition is especially difficult during winter months with snow and ice conditions. There are no guard rails on a majority of these roads and the drop off is approximately 500-800 feet down the mountain to a wide stream. New additional pickup trucks would be used to collect the trash at those mountain located residences, and then unloaded to a packer truck in the area.
MUNICIPALITIES CONSIDERED FOR COMPARISON

The Borough of Glen Rock and the Village of Ridgewood are two Bergen County communities which collect household trash with Municipal Employees and were analyzed for comparison purposes.

THE BOROUGH OF GLEN ROCK

The JPM Study Team visited the Borough of Glen Rock on June 18, 2019. Glen Rock has a population of 11,800 with an area of 2.2 square miles. JPM Study Team met with the Borough Administrator.

Glen Rock is one of the municipalities in Northern New Jersey that utilizes municipal staff to provide trash collection. Household Trash collection includes rear yard pick up. The sanitation staff has 11 staff members, 9 are required for regular rear yard collection, however 2 employees are “swing employees,” and are assigned to regular DPW for the days that they are not needed in Sanitation. The Borough does not pick up commercial trash.

Glen Rock utilizes 3 employees per truck, and regular trash is picked up 2X per week.

Bulk trash is curbside once a month, recycling is weekly and is also curbside.

In addition to residential pick up, the municipality also picks up trash from the 5 local schools as part of a “Shared Service Agreement”.

Additional Information for Glen Rock Operations

- Municipal trash collection with Municipal Employees is “Way too much of a liability” (according to Borough Officials) as it results in accidents, injuries, etc. The Borough is plagued with downtime for both equipment and/or staff; collection day staff are difficult to schedule.
- Employees are covered by “workers compensation” and the State Health Benefit Plan.
- There are 3 men assigned to a truck; when the daily trash collection is completed, the men go home, (even if they only worked 3 or 4 hours). If they work more than 8 hours per day, they get overtime.
- There are no provisions for other DPW staff to assist the sanitation staff.
TOWNSHIP OF MAHWAH
SOLID WASTE STUDY

- There is no “light” duty for injuries
- There are days scheduled for trash collection when only 5 workers (out of 9) show up for work
- This year there is discussion to hire seasonal help to assist with trash collection.
- The last collection truck (packer) cost approximately $214,000.
- Sanitation staff is not responsible for snow removal.

Conclusion

As a result of scheduling issues, injuries, maintenance of vehicles, costs and other liabilities, the Borough Administrator would not recommend going from contractor trash collection to collecting trash with municipal employees.

THE VILLAGE OF RIDGEWOOD

JPM Study Team visited the Village of Ridgewood on June 20, 2019. The population of Ridgewood is 25,000; the land area is 5.8 square miles.

The JPM Study Team spoke with the Village Manager, the Director of Operations, and the Supervisor of Sanitation.

The Village has been using municipal employees for trash collection since 1971.

The Sanitation Division is a separate Division of DPW and has 18 full time staff for trash collection with 2 part-timers on 6 routes (part timers are used to fill in for vacation, sick absences and injuries). There are 3 men per truck and trash collection is rear yard collection, including dumpsters; (yes, dumpsters).

- Household trash is collected 2X per week; Bulk trash is collected 1X per month at curbside; and recycling is collected 2X per month, also at curbside.

- Trash collection is considered a “task”. When any trash collector employee finishes their route, they go home regardless if they worked 3, 4 or 8 hours. They get paid for a full day. Any time over 8 hours is overtime.

Packer trash trucks cost an estimated at $225,000; and the wait time for delivery is long. Ridgewood has two full time diesel mechanics, 1 part time diesel mechanic and 10 packer trucks. Two of these packer trucks are 10 years old.
TOWNSHIP OF MAHWAH
SOLID WASTE STUDY

All Ridgewood staff at the meeting agreed “maintenance is a headache” and filling in for injuries is difficult.

- Truck drivers and laborers receive extra pay to go to the tipping station:
  - Truck drivers: $1.00 per hr.
  - Laborers: $1.50 per hr.
- Current Tipping fee: $70.00 per ton (however Ridgewood expects that number to increase to $100 per ton in a new contract).

Note, Ridgewood uses the weight station in Garfield which is owned by IWS Transfer Systems (the same company that is used by Mahwah, but at a different location).

In Glen Rock and Ridgewood, the sanitation staff has “too many injuries”. Since Ridgewood does rear-yard for all trash pick-ups, their packer trucks are modified with equipment at the rear of the truck that allows the truck to back into the driveway and lift a dumpster to unload trash.

Ridgewood also has a section of the Village with hilly terrain, which Ridgewood has to “spec” modifications of trucks to provide extra torque to navigate the terrain.

The trip to Garfield IWS station takes anywhere from 1 to 1 1/2 hours round trip.

According to the Village Manager, she believes that Ridgewood residents would give up ‘other things’, but not rear yard collection.

Additional information from Ridgewood Operations

**Ridgewood Solid Waste Operations**

19 employees including 1 supervisor, 5 truck drivers and 13 laborers. Laborers hold CDL’s and sometimes serve as drivers.

2019 Salary & Wage Budget: $1,557,290, of which $82,000 is for OT.
2019 Other Expenses Budget: $14,522.

2019 Budgeted Disposal Fees/Dumping Fees: $625,000, paid at contract price of $66.95 per ton. This is the last year of their contract and expect prices to go up in 2020.
Automated Solid Waste and Recycling Collection

Automated collection is becoming common practice.

As part of the JPM Study Team analysis of the current system the alternative of collecting municipal waste with Township employees (as an alternative to the traditional 2 or 3 person per truck collection system) was evaluated. This automated system, utilizing side load single person trucks is an option that the JPM Study Team suggests be considered by the Township of Mahwah.

The JPM Study Team looked at 3 similar municipalities in New Jersey for comparison as shown below:
Wall Township’s experience was similar to both Paramus and Tinton Falls. All 3 municipalities had some apprehension to changing from the old system. They all have found that the automated system has become widely accepted and is actually embraced by the residents. One municipality believes that it is the most frequent compliment received by Elected Officials involving a municipal program.

Scheduling varies among the municipalities. Paramus has 2X per week pick up, Wall and Tinton Falls 1X per week. All have indicated that with 96-gallon containers, 1X per week is sufficient. However, this could be implemented on an annual basis, or with seasonal summer pick up 2X per week. Currently a driver can pick up between 800 and 1000 homes in a day, including 2 trips to the landfill.

By having 1X per week pick up much more time can be devoted to machinery upkeep and other preventive maintenance functions. Wall Township uses the containers with a microchip installed to prevent theft and to keep track of recycling and proper placement.

Each truck has a camera and a system to press 1 of 3 buttons. These report back to the Public Works Supervisor indicating:

1. **No receptacle present.** This reduces the amount of times management is told that a stop was missed.

2. **Broken receptacle needing repairs.**

3. **Improper waste or this house is not recycling.**
   A supervisor will then visit the resident.
There are automated trucks designed for two stream recycling applications. They present certain challenges such as longer stops; split bodies do not fill up at the same rate for landfill runs and therefore not recommended by the JPM Study Team.

It is recommended that another truck or splitting weeks for recycling be considered. Container size can be determined by the Mahwah Township Administration if bi-weekly recycling is considered. One week, would be for glass and bimetal, the next week for paper and cardboard.

Some notes on the automated system:

- There would be no change in the supervisory staffing
- Current recycling manpower should be sufficient to staff the collection of municipal solid waste and recycling program
- There could be other employees trained for this operation utilized to cover for vacation, sick time etc., supplemented with part time employees
- The volume of material collected at each stop would equate to the volume previously placed at the curb for collection.
- **NOTE** The JPM Study Team’s recommendation that the bulk collection frequency be modified to a monthly collection is a part of this analysis.
- Trucks could be outfitted for snow plowing in emergency situations.

Based upon the Wall Township and Paramus experience it has been determined that **5 trucks would need to be dispatched each morning, 3 to 5 days per week to handle the collection of household solid waste and, 2 trucks would need to be dispatched each morning to handle the collection of recyclables. This would require 7 collection workers if all automated trucks were utilized.**
COST ASSOCIATED WITH CONVERTING TO AN AUTOMATED SYSTEM

TOWNSHIP OF MAHWAH
SOLID WASTE COLLECTION STUDY

Costs Associated with Conversion

<table>
<thead>
<tr>
<th></th>
<th># of Units</th>
<th>Price per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated Truck</td>
<td>7</td>
<td>$300,000</td>
<td>$2,100,000</td>
</tr>
<tr>
<td>Garbage Cans</td>
<td>9,400</td>
<td>$67</td>
<td>$629,800</td>
</tr>
<tr>
<td>Recycling Cans</td>
<td>18,800</td>
<td>$67</td>
<td>$1,259,600</td>
</tr>
<tr>
<td>Total Cost</td>
<td></td>
<td></td>
<td>$3,989,400</td>
</tr>
</tbody>
</table>

*Rounded to $4 million for debt service calculating

It is likely that not all property owners will select a 96 gallon container for both recycling and municipal waste, therefore, lowering the acquisition price for containers. The Township could offer a 62 gallon alternative.
DEBT SERVICE

Debt Service on $4,000,000 for 10 years

Mahwah has an extremely good bond rating that may lower these estimates; for the purpose of this analysis, there are several funding scenarios provided.

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt Service</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>10</td>
<td>$ 493,164</td>
</tr>
</tbody>
</table>

*rounded amount equals $500,000 per year*
Annual Cost Analysis

Cost $

Debt Service  $ 500,000
Contingency - 20%  $ 100,000

Annual Expenditure  $ 600,000

Contingency includes parts, service gasoline, broken container repairs, etc.

SAVINGS PROJECTION:  OPTION 3 VS. CURRENT PRACTICE

$ 1,080,000  Current Private Sector Contract – 2020

$ 600,000  Option #3 - Automated Collection with Township Employees 1X per week

$ 480,000  Net Annual Savings

NOTES:

1.  Conservative estimates; the savings may be greater.

2.  Estimated $300,000 per new truck; expect $245,000

3.  Estimated 4% interest rate; expect 3%
Under an automated collection system, there are a number of additional factors that should be considered including the following:

- The budget includes approximately 700 extra trash receptacles and 700 extra recycling containers. Some would presumably be sold to residents requesting an additional container and some would be held as spares. Storage space would need to be identified for the spare containers.

- There may be a modest increase in fuel costs, however the same number of vehicles that are currently departing the Public Works Facility for recycling, will also be departing under this scenario.

- Overtime would likely have to be incurred for the initial distribution and tracking (serial number connected to a house number) of the containers. This service can also be contracted out as part of the collection container bid process.

- A policy decision would need to be made regarding
  - if there would be the ability for residents to purchase an additional container.
  - if there would be any additional charge for the collection of an additional container.

- As the receptacles age, there would be a need to service the receptacle (replace wheels, patch holes, etc.).

- The mountain roads (where there are approximately 200 residential units) need an alternative system which must be developed, but equipment does exist to address this need. (Such as pickup trucks)

- Not factored into the above cost analysis is revenue derived from the sale of recyclable materials. The revenue derived from the sale of materials collected at the recycling centers would not change.
ACKNOWLEDGEMENT

The information and assistance provided by the Business Administrator, Administrative Staff, Department of Public Works, and other Township Employees and Officials are greatly appreciated; the cooperation from the Management Team has been excellent. The JPM Study Team sincerely thanks everyone who assisted us with this Solid Waste Study for the Township of Mahwah.

Respectfully Submitted,

[Signature]

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The following link is provided for a first-hand look at how the automated solid waste collection truck operates:

https://www.youtube.com/watch?v=34g02sQRlok