

## **Draft Report**

### **Garbage and Recycling Recommendations, Part 1**

#### **Government, Infrastructure and Public Services Working Group**

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Special Board  
Comprehensive Plan/Local Waterfront Revitalization Plan  
Village of Cold Spring

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*(The Village of Cold Spring has received N.Y. State Hudson River Valley Greenway and N.Y. Department of State grants.)*

## Scope of Report

This report outlines partial recommendations for garbage collection, specifically arrangements for recycling, in Cold Spring. Final recommendations covering hazardous material disposal and the collection of rubbish from households and businesses will be covered in a separate report.

## Recommendations

From a strictly economic point of view, if the only choice for the village were the current collection method, the village would be better off simply disposing of all recyclables with ordinary trash. This would save the labor and expense of the Friday recycling collection, easily covering the higher per ton disposal cost at Wheelabrator (\$77/ton versus \$55/ton average paid to Royal). Fortunately for the environment, there is a better solution. (See the Addendum 1 for all calculated savings.)

*Recommendation #1: Deliver all recyclables directly to Hudson Baylor after each collection.*

Based on the capacity of the truck and the volumes of recyclables, it should be possible to collect all paper, drive it to Newburgh, and return for commingled materials. The paper would yield at current rates about \$50/ton, while we would pay Hudson Baylor \$25/ton for the commingled materials. The attached chart shows the calculations, showing savings to the village of about \$6,000 per year. The village would spend 3 additional man-hours per week driving the materials to Newburgh (two round trips of 15.7 miles one-way).

The rates Hudson Baylor pays for mixed Residential paper is based “loosely” on an index tracking the value of such paper delivered to Newark, NJ. While the price fluctuates, there is reason to believe it will remain high for some time. Demand from China is rising, due to the construction of modern paper mills and rapid economic growth. While demand increases, newsprint consumption has declined by 30% since 2000, reducing the supply available to recycle.

Delivering directly to Hudson Baylor is a simple matter of establishing an account (which should take no more than an hour) and starting the deliveries.

*Recommendation #2: Collect all recyclables once every other Friday.*

By collecting recyclables every other week, the village would make better use of the labor of collection and equipment. Because the capacity of a truck is less than the volume of commingles (25 cubic yards), it will take two trips to Hudson Baylor for the commingleds, and, with the paper, three trips every other Friday. The village should also distribute larger bins for the commingleds and ask residents to use the smaller bins for paper. The village would save \$15,000/yr over current procedures, and 300 hours of labor per year.

Addendum 1, Calculation of Savings

| Evaluation of Options  |               |            |                           |         |                |
|--|---------------|------------|---------------------------|---------|----------------|
| Estimated Annual Savings if Delivered weekly by Village Directly to Hudson Baylor: |               |            |                           |         |                |
| Recycled Material  |               |            |                           |         | Annual         |
| Lab/Dep/Op   | 35%           | \$77,733   |                           |         | \$27,312       |
| Addl Labor (1.5 hrs round trip x 2)  |               | \$25       | 3                         | \$75    | \$3,900        |
|  | Miles - 1 way | Gas Price  | MPG                       |         |                |
| Gas (2 round trips)  | 15.7          | \$4.00     | 6                         | \$41.87 | \$2,177        |
|  |               | Wt in tons | Rate                      |         |                |
| Additional Op Exp  | 62.8          |            | \$1.00                    | \$63    | \$3,266        |
| ChargesTon Commingle   |               | 83         | \$25.00                   |         | \$2,075        |
| Revenue/ton mixed resi   |               | 125.3      | -\$50.00                  |         | -\$6,265       |
|  |               |            | Cost to Recycle, Dir Del. |         | \$32,464       |
|  |               |            | Dir. Del. Cost/ton        |         | \$156          |
|  |               |            | <b>Annual Savings</b>     |         | <b>\$6,090</b> |

Alternate Week option, Recycling with direct delivery to Hudson Baylor

|                                     |               |                                 |                           |           |                 |
|-------------------------------------|---------------|---------------------------------|---------------------------|-----------|-----------------|
| Labor (hrs x rate)                  | 2,069         | 25                              | \$51,725                  |           |                 |
| Depreci (Price/Life)                | \$230,000     | 15                              | \$15,333                  |           |                 |
| Op Exp (Mi x rt/mi)                 | 5,000         | \$1.00                          | \$5,000                   |           |                 |
|                                     |               | Total                           | \$72,058                  |           |                 |
| Wheelabrator                        |               |                                 |                           |           |                 |
| Wheelabrator rate/ton               |               | \$77                            |                           |           |                 |
| Annual Garbage Wt                   |               | 863                             | \$66,451                  |           |                 |
| Lab/Dep/Op                          | 60%           | \$72,058                        | \$43,465                  |           |                 |
| Cost of Garbage                     |               |                                 |                           | \$109,916 |                 |
| Cost Per Ton of Garbage             |               |                                 | \$127                     |           |                 |
| Recycling                           |               |                                 |                           |           |                 |
| Recycled Material                   |               |                                 |                           |           | Annual          |
| Lab/Dep/Op                          | 26%           | \$72,058                        |                           |           | \$18,563        |
| Addl Labor (1.5 hrs round trip x 3) |               | \$25                            | 4.5                       | \$113     | \$2,925         |
|                                     | Miles - 1 way | Gas Price                       | MPG                       |           |                 |
| Gas (3 round trips)                 | 15.7          | \$4.00                          | 6                         | \$62.80   | \$1,633         |
|                                     |               | Wt in tons                      | Rate                      |           |                 |
| Additional Op Exp                   | 62.8          |                                 | \$1.00                    | \$63      | \$1,633         |
| ChargesTon Commingle                | \$25.00       | 83                              | \$79.81                   |           | \$2,075         |
| Revenue/ton mixed resi              | -\$50.00      | 125.3                           | -\$240.96                 |           | -\$6,265        |
|                                     |               |                                 | Cost to Recycle, Dir Del. |           | \$20,564        |
| Yard Refuse & Events Clean up       |               |                                 |                           |           |                 |
| Lab/Dep/Op                          | Total est Hrs | 14%                             | \$72,058                  |           |                 |
| Est. Total Cost                     |               |                                 |                           | \$10,030  |                 |
|                                     |               | Est. Total MSW Disposal         |                           |           | \$140,510       |
|                                     |               | <b>Estimated Annual Savings</b> |                           |           | <b>\$14,917</b> |

Labor and Capital Expense Assumptions, Garbage and Recycling Collection

Assumed Allocations of time, Colleciton labor  
 Assumed Baseline, weekly, for 80 hrs per 2 week period

**Regular collection**

| Rubbish         | # Empl. | # Hrs. | Rubbish | Recycle | Weekly | Annual        |       |
|-----------------|---------|--------|---------|---------|--------|---------------|-------|
| Mon             | 3       | 1.5    | 4.5     | 0       |        |               |       |
| Tue             | 3       | 4.5    | 13.5    | 0       |        |               |       |
| Wed             | 1       | 1.5    | 1.5     | 0       |        |               |       |
| Thu             | 0       | 0      | 0       | 0       |        |               |       |
| Fri             | 3       | 2      | 4.5     | 16      |        |               |       |
| <b>totals</b>   |         |        | 24      | 16      | 40     | 2,080         |       |
| <b>Seasonal</b> |         |        | Leaves  | Events  | # Wks  |               |       |
| Wednesday       | 3       | 4      | 12      |         | 8      | 96            |       |
| Satur (event)   | 3       | 8      |         | 24      | 8      | 192           |       |
|                 |         |        |         |         |        | 288           |       |
|                 |         |        |         |         |        | Total est Hrs | 2,368 |

Allocation: Rubbish: 53% Recycle: 35% Yard/evt 12%

With Everyu Other Week Collection of Recycling

**Regular collection**

| Rubbish         | # Empl. | # Hrs. | Rubbish | Recycle | Avg/wkly | Annual        |       |
|-----------------|---------|--------|---------|---------|----------|---------------|-------|
| Mon             | 3       | 1.5    | 4.5     | 0       |          |               |       |
| Tue             | 3       | 6      | 18      | 0       |          |               |       |
| Wed             | 1       | 1.5    | 1.5     | 0       |          |               |       |
| Thu             | 0       | 0      | 0       | 0       |          |               |       |
| Fri             | 0       | 0      | 0       | 20.5    |          |               |       |
| <b>totals</b>   |         |        | 24      | 20.5    | 34.25    | 1,781         |       |
| <b>Seasonal</b> |         |        | Leaves  | Events  | # Wks    |               |       |
| Wednesday       | 3       | 4      | 12      |         | 8        | 96            |       |
| Satur (event)   | 3       | 8      |         | 24      | 8        | 192           |       |
|                 |         |        |         |         |          | 288           |       |
|                 |         |        |         |         |          | Total est Hrs | 2,069 |
|                 |         |        |         |         |          | Hrs Save/Yr   | 299   |

Allocation: Rubbish: 60% Recycle: 26% Yard/evt 14%

Equipment Assumptions  
 First Truck \$103,000  
 Second Truck \$127,000  
 \$230,000

Assume 6 mpg  
 Assumes 15 Yr Life of Each Truck,  
 Operating expense of \$1/mile, fuel \$4/g

