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NYSDEC

DEC 14 2012

DIRECTOR'S OFFICE  
DIV. OF MATERIALS MANAGEMENT  
December 12, 2012

Salvatore Envolina, P.E.  
Director, Division of Materials Management  
NYSDEC  
625 Broadway  
Albany, NY 12233-7253

Dear Mr. Ervolina,

Please find enclosed the final draft of the Putnam County Solid Waste Management Plan (PCSWMP) in for your review. The Department has addressed all NYSDEC's previous comments and believes that this final draft is approvable.

As requested by Ms. Theresa Laibach, NYSDEC Regional Recycling Specialist, the PCSWMP is being submitted to you in hardcopy form and on a flash drive. A hard copy and an electronic version (by e-mail) are also being forwarded Ms. Laibach at this time.

Please do not hesitate to contact me if you have any questions.

Yours truly,

Robert Morris, PE.  
Dir. of Environmental Health

RM/jmg

cc: Allen Beals, MD, Commissioner of Health  
✓ David Vitale, Bureau Director, Permitting and Planning  
Martin Brand, NYS DEC Region 3 Division of Materials Management Supervisor  
Theresa Laibach, Regional Recycling Specialist  
Michael Budzinski, P.E., Director of Engineering  
Mary Rice, Environmental Health Educator

**PUTNAM COUNTY  
SOLID WASTE MANAGEMENT PLAN  
  
PUTNAM COUNTY, NEW YORK**

Prepared for  
Putnam County  
August 2012

Prepared by  
The Putnam County Department of Health

and



90 Crystal Run Road,  
Suite 201  
Middletown, NY 10941

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## EXECUTIVE SUMMARY

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The enactment of the Resource Conservation and Recovery Act (RCRA) by the federal government in 1976 required all states to develop comprehensive solid waste management plans.

The Putnam County Solid Waste Management Plan (SWMP) is formulated upon two main goals for the handling of its solid waste, which are as follows:

1. Reduce the quantity of municipal solid waste (MSW) sent for disposal, and
2. Work toward implementation of a uniform MSW program throughout all of the municipalities in the County.

The reduction of solid waste is also one of the main objectives in the management of solid waste under the New York State Solid Waste Management Policy established in the New York Environmental Conservation Law, so the first goal certainly aligns well with New York State's highest solid waste management goal.

As part of the County's evaluation of solid waste handling options to determine which would make the most sense for Putnam County, a number of alternatives have been considered, including: allowing the municipalities to continue handling solid waste as they are currently doing, implementing incentive based programs, drop-off centers for MSW and recyclables, curbside pick-up, and the use of variable pricing programs with or without the internalization of all waste management by the County. Based on a review of the alternatives and the goals of Putnam County, it was concluded that a combination of universal curbside pick-up by existing waste management fleets, and variable pricing or pay-as-you-throw, would work best in meeting both of the County's main goals. This should also be the least disruptive method for the most residents of Putnam County.

A number of statewide New York State Department of Environmental Conservation (NYSDEC) efforts have led to the reduction in generation of solid waste, and have contributed toward meeting waste reduction goals, including encouraging the adoption of quantity-based, user fee disposal programs which encourage individuals to dispose of less waste. To this end NYSDEC is encouraging all municipalities to use the US Environmental Protection Agency's (USEPA) Save Money and Reduce Trash (SMART) program, also known as Pay As You Throw (PAYT), which encourages the reduction of the amount of MSW sent for disposal by increasing reuse, recycling, and composting. The SMART/PAYT system requires residents to pay for disposal based on the quantity of solid waste they discard.

In conjunction with the implementation of a SMART program, the County recommends that each of the municipalities in the County move toward adopting community wide curbside pick-up. Current practices vary widely throughout the County, with some towns providing community wide curbside pick-up for all residents, either by municipal workers or by contract with a private hauler. Residents of other towns must find their own solution for waste disposal, usually through individual private contract. Community wide curbside pick-up will create a platform for efficient waste removal throughout the County by limiting the number of trucks traveling the same streets, and reducing costs for manpower and equipment, as well as saving fuel, and reducing vehicle emissions and greenhouse gasses. This standardization among the individual municipalities within the County would facilitate a consistent educational message, and thus attain another goal of the SWMP.

At the present time, curbside solid waste removal occurs once or twice a week in all of the County municipalities either by municipal employees, private haulers contracted by the municipality, or haulers hired directly by the residents. Revenues to pay for these services come either from a portion of the property taxes paid by residents or a fixed fee that does not vary with respect to the amount of garbage taken away. A relatively small percentage of residents manage their solid waste individually through local drop-off centers.

None of the current curbside collection methods in use provide an incentive to reduce waste. Only the residents who use the drop-off centers and pay by the bag have a financial incentive to throw away less waste and increase recycling. With the property tax method of payment, residents never even see a bill and for the most part have no idea of the cost of garbage removal. In areas of the County where individual contracts are used, the residents do know their waste removal costs, and while they may be able to shop for a better price, there is no incentive to reduce the amount of waste put out for disposal. While all of the municipalities in the County have implemented mandatory recycling to reduce the amount of garbage generated, residents are not incentivized to optimize their recycling efforts.

## **Options Evaluated**

### **Current Status**

- At the present time, each of the municipalities within the County handles solid waste in various ways, although they are required to comply with State and County regulations. Continuing with the current practices as an alternative was eliminated from final consideration because the current methods of handling solid waste do not encourage residents or businesses to recycle more and reduce the amount of waste being generated for disposal. The various programs also make it difficult to provide County wide education and technical assistance and make it difficult for the County to enforce differing solid waste programs.



## **Waste Disposal or Processing Facility Construction**

- Putnam County exports virtually all solid waste for disposal or processing. Because of the relatively small size of Putnam County and the corresponding amount of waste that is generated within the County, it would be difficult to justify the cost to build and operate an in-county waste disposal or processing facility. Further, the constraints placed on Putnam County by the New York City Watershed, and the limited available space, would make it difficult to site a solid waste disposal or processing facility in the County. Nearby out-of-county disposal facilities have sufficient capacity to accept waste from Putnam for the foreseeable future, thereby making the construction of such a facility within the County unnecessary. Flow controls, legal provisions that allow state and local governments to designate the processing and disposal sites for collected materials by mandating that all waste be brought to municipal facilities, would provide no financial benefit to Putnam County since there are no such County owned facilities. In addition, while permitted by the US Supreme Court in 2007, there are ongoing challenges to these regulations. Even if a financial benefit existed, flow control would be extremely difficult to put in place in Putnam County due to the proximity of existing disposal facilities.

For these reasons, the cost of siting, permitting, constructing, and operating a solid waste disposal or processing facility would result in a significant increase in the cost to the residents of Putnam County for the handling of its solid waste. As such, building and operating in-county solid waste facilities would not make financial sense, and this option was removed from further consideration.

## **Incentive Based Program**

- Incentive based programs such as Recycle Bank are run by private companies that form partnerships with municipalities to encourage recycling and waste reduction. Residents put recyclable materials in a single bin that is weighed when it is picked up. Solid waste for disposal is put in a separate container. Residents are rewarded for recycling with points which can be redeemed for goods and services based on recycling weight, which is tracked using identification chips in each house's recycling bin. When the recyclables are collected, the bins are scanned and weighed at the curb and the points are credited to the homeowner's account. As a result, the more you recycle the more reward points you earn. According to Recycle Bank, communities in which their programs have been instituted have reported recycling rates of up to 90%. Recycle Bank makes its money from the municipalities, based on number of households involved in the program, as well as from negotiated fees for the additional recyclable commodities that are collected. There is a capital outlay, which is required to obtain the containers and equipment to scan and weigh them, that could be onerous for the haulers. While this system provides an incentive for recycling certain specific materials, it

sidesteps the larger goal of reducing waste altogether, by failing to address other large components of the waste stream. New York State's goal of "Beyond Waste" emphasizes that no material for which there is another use or outlet should be included in MSW for disposal in landfill or incineration. Organic waste, for example, can and should be composted to reclaim the nutrients and provide soil enhancement. Used clothing can be donated for reuse or shredded as fiber for a number of industrial uses, and yet these and other reclaimable materials are found consistently in curbside "garbage." Programs that incentivize the reduction of the residual MSW target the actual goal of reducing the volume of waste material. Programs that reward bottle and can recycling address only one component.

### **Community Drop-Off Centers**

- Community drop-off centers often provide an option for the handling of solid waste. In some rural areas, drop-off centers can handle large portions of the residential solid waste. Drop-off centers exist in a number of municipalities in Putnam County providing residents of those communities with alternative means of handling the bulk waste and/or recyclable materials. Since the County does not operate transfer stations and only the volunteer run Kent Recycling Center offers an opportunity for residential MSW drop-off, the institution of a requirement for each town to open a drop-off center was rejected as an alternative. In addition, this option for handling solid waste can be too inconvenient for many, resulting in low use rates in some areas. It would also require facilities to be open more often than they are now, if a solid waste drop-off option were added, resulting in additional costs. Additional constraints also exist in some areas in the County within the NYC Watershed, limiting the siting of new solid waste facilities. The SWMP encourages communities to continue operating drop-off centers, and where possible consider the drop-off centers as locations for mandatory yard waste composting. The possibility for the expansion of other types of materials collected at drop-off centers is somewhat limited by the capabilities and proximity of downstream sites to accept and process the materials.

### **Universal Municipally Arranged Curbside Pick-Up**

- Universal curbside pick-up of solid waste and recyclables is the type of service many urban and suburban communities have enjoyed since municipalities began providing solid waste removal services. Typically, a municipality will either provide the service using municipal employees, or use a private hauler to provide the waste removal services and the costs for these services are generally included in the annual tax bill. Universal municipally arranged curbside pick-up was considered because it would reduce the need for community drop offs since every resident would have waste removal; it would be more convenient for residents who would no longer have to arrange separately for waste collection services; it would reduce traffic, save fuel, and reduce pollution; and it would potentially

reduce solid waste disposal costs to residents. By itself, however, it would do little or nothing to reduce solid waste disposal quantities. Residents with curbside pick-up generally have few restrictions on the amount of solid waste that they can put out for disposal. While this option would address the need for equitable service provision, without the inclusion of some incentive program it would have little chance of reducing the amount of solid waste sent out of Putnam County for disposal.

### **SMART Program**

- Under a SMART program using variable-rate pricing, customers are provided an economic incentive to reduce the waste they throw away because their garbage bills increase with the volume or weight of waste they put out for disposal. Variable-rate pricing creates incentives for re-use and additional recycling as a means of reducing waste. Variable-rate programs are very flexible and have been implemented by communities in many forms. There are approximately 335 communities in New York State which have instituted SMART programs. In these communities, residential recycling rate increases of 30% to 60% have been reported and the average amount of solid waste landfilled in communities with SMART programs has been reduced by the same amount. Consumer surveys in these communities show that when residents pay for waste disposal based on the amount of garbage that they throw away, in addition to increasing recycling, composting yard waste, and eliminating junk mail deliveries, their purchasing behavior is influenced by the incentive to reduce household garbage by buying less wasteful packaging.

Therefore, after considering all of the options described above, it was determined that the best way to reduce waste sent for disposal is to institute county-wide curbside waste pick-up in conjunction with an incentivized SMART program, as recommended by NYSDEC. Since Putnam County has no viable option for disposal within the County, the reduction of waste sent out of County for disposal will be key to the County's ability to manage its waste today and into the future.

The willingness exists in the community to "do the right thing" in terms of recycling, as long as the instructions are clear, and compliance is not too burdensome. The County's goal will be to work towards standardizing collection practices throughout the 6 Towns and 3 Villages, in order to provide each resident in Putnam County the same access to recycling options. The intent is to steadily increase the availability of recycling options, thus increasing the quantity of recovered materials. Standardization will also simplify educational efforts, and to make enforcement of infractions much easier and more uniform.

As standardization and education increase, compliance should as well. While market fluctuations may affect the speed of compliance, the trend is expected to be favorable to

recycling initiatives. Regardless of markets however, established recycling behaviors will continue once the public has become familiar with regulations, as long as those regulations are enforced. The County intends to provide a consistent educational message as to the importance of recycling, with information regarding new options as they become available, and will follow the education with enforcement as necessary.

# 1 PLANNING UNIT (COUNTY) DESCRIPTION

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## 1.1 Putnam County

For the purposes of this document, the Planning Unit has been determined to be the County of Putnam. Putnam County is located in the lower Hudson Valley of New York State, and the county seat is Carmel. The total area of Putnam County equates to 246 square miles. The terrain of the county is generally hilly, particularly the western portion of the county nearest the Hudson River, which is part of the Hudson Highlands. Putnam is bordered by Dutchess County (North), Fairfield County, Connecticut (East), Westchester County (South), and the Hudson River and Orange County (West). The county has six public school districts: Brewster, Carmel, Garrison, Haldane, Mahopac, and Putnam Valley. Mahopac is the largest school district in Putnam County, with four elementary schools, a middle school, and a high school. The only hospital is Putnam Hospital Center located in Carmel. Three state parks occupy 20,522 acres, with other parks and protected areas covering several thousand additional acres. Bodies of water cover approximately 6% of the County.

## 1.2 New York City Watershed

Approximately two-thirds of the county is located in the New York City Watershed (Watershed), and the county is known for the large number of reservoirs associated with New York City's drinking water supply. Some of the largest reservoirs include: Croton Falls in Carmel and Southeast; Bog Brook, Diverting, East Branch, and Middle Branch in Southeast; West Branch in Kent and Carmel; and Boyds Corner in Kent. Only the Town of Philipstown and the villages of Cold Spring and Nelsonville are located completely outside of the Watershed. Of the five towns in the New York City Watershed, four are entirely or almost entirely within the Watershed including:

- Town of Patterson, 100%
- Town of Southeast, including the Village of Brewster, 99%
- Town of Carmel, 91%
- Town of Kent, 84%
- Town of Putnam Valley, 9%

### 1.3 Points of Interest

Donald J. Trump State Park is a 436-acre state park located in Putnam Valley and the Town of Yorktown in Westchester County, which was donated to the State of New York in 2006. To date, the park has no plans to develop trails or special areas.

Clarence Fahnestock Memorial State Park is a 14,086-acre New York state park which straddles the Putnam and Dutchess County border. The park has hiking trails, an environmental center, a beach on Canopus Lake, and fishing on four ponds and two lakes. Most of the park is in northern Putnam County between the Taconic State Parkway and US Route 9.

Hudson Highlands State Park is a non-contiguous state park, consisting of parcels located on the east shore of the Hudson River. The park is a mostly undeveloped preserve of nearly 6,000 acres, consisting of a series of separate parcels of land stretching from Annsville Creek in Peekskill, north to Dennings Point in Beacon.

Wonder Lake State Park is over 700 acres situated within the towns of Patterson and Kent. The State of New York is creating trails for visitors to use.

The Cranberry Mountain Wildlife Management Area is a New York State Preserve consisting of 453 acres in Patterson, behind the Thunder Ridge Ski Area. There are hiking trails throughout.

The Great Swamp covers over 6,000 acres in Putnam and Dutchess Counties, and is one of the largest freshwater wetlands in the state. It drains through the towns of Patterson and Southeast, emptying the southern portion of the wetland into the East Branch Reservoir of the Croton Watershed.

The Michael Ciaiola Conservation Area in Patterson is, at over 800 acres, the largest piece of the Putnam County Park System. On the Connecticut and Dutchess County borders, the park has hiking trails meandering by beautiful gorges and waterfalls. The 163 acre area of Veterans' Memorial Park in Kent, offers hiking, swimming, and fishing, as well as monuments and a museum dedicated to those who have served in the armed forces. Other parcels in the Park System bring the total protected County land to almost 3,000 acres.

The Ice Pond Conservation Area, on Ice Pond Road in the Town of Patterson, is part of the Great Swamp, and consists of 104 acres open for hiking, fishing, and historical and environmental study.

An additional 17 parcels totaling 413.9 acres are held by the Putnam County Land Trust, and preserved as open space.

The Thunder Ridge Ski Area, a small ski resort located in Patterson, has 30 trails and 3 lifts.

## **1.4 Infrastructure**

Two interstate highways pass through Putnam County. The east-west Interstate 84 runs north-south in Putnam, coming in from the north near Ludingtonville, and connecting to the southbound Interstate 684 in the Town of Southeast toward the Connecticut border. The Taconic State Parkway, another high-speed through road, runs north-south through central Putnam County. US Route 9 runs north-south in the western part of the county, paralleled by NY Route 9D along the Hudson River. NY Route 22 runs north-south in the eastern part of the county. NY Route 301 runs east-west from Cold Spring to Carmel. The short NY 403 connects Routes 9 and 9D near Garrison. NY Route 52 enters alongside I-84 from Dutchess County, to end at US Route 6 south of Carmel. East of Brewster, US Route 6 joins US Route 202 and leaves the county and state concurrently aside the interstate.

## **1.5 Municipalities Within The Planning Unit**

The Planning Unit consists of the entire County of Putnam which is comprised of six towns and three villages as follows:

- Town of Carmel
- Town of Kent
- Town of Patterson
- Town of Philipstown
  - Village of Cold Spring
  - Village of Nelsonville
- Town of Putnam Valley
- Town of Southeast
  - Village of Brewster

### **1.5.1 Town of Carmel**

The Town of Carmel is the county seat of Putnam. Carmel is located on the southern border of the county, and includes Mahopac and Mahopac Falls. The town hall is located within the hamlet of Mahopac. The town has a total of 40.7 square miles, with 36.1 square miles of land area and 4.6 square miles of water, including portions of the West Branch reservoir, considered to be a high priority watershed area.

## **1.5.2 Town of Kent**

The Town of Kent is located in the north-central part of Putnam County and is home to several lakes, some of which are reservoirs for New York City. Acreage in the town has been purchased for conservation by New York City through the Watershed Preservation Program. Kent includes the area known as Lake Carmel, which is a high density residential lake community development. The town has a total of 43.2 square miles, with 40.6 square miles of land area and 2.5 square miles of water, including Boyd's Corner Reservoir and portions of West Branch Reservoir, considered high priority Watershed areas.

## **1.5.3 Town of Patterson**

The Town of Patterson is located in the northeast part of the county on the border of Connecticut. Patterson includes Putnam Lake, which is a high density residential lake community development. The town has a total of 32.9 square miles, with 32.3 square miles of land area and 0.6 square miles of water.

## **1.5.4 Town of Philipstown**

The Town of Philipstown is located in the western part of Putnam County along the Hudson River. The town has a total of 51.5 square miles, with 48.8 square miles of land area and 2.7 square miles of water.

The Town of Philipstown includes the villages of Cold Spring and Nelsonville.

### **1.5.4.1 Village of Cold Spring**

Cold Spring or Cold Spring-on-Hudson is a village located on the Hudson River in the Town of Philipstown. The village borders the Hudson River to the west and is bound by the Hudson Highlands State Park to the north. The village has a total of 0.60 square miles, with 0.59 square miles of land area and 0.01 square miles of water.

### **1.5.4.2 Village of Nelsonville**

Nelsonville is a village located in the Town of Philipstown and is directly east of the Village of Cold Spring and south of Hudson Highlands State Park. The village has a total of 1.0 square miles which is totally comprised of land.



### **1.5.5 Town of Putnam Valley**

Putnam Valley is located in the southwest part of Putnam County, and includes the Lake Peekskill area, which is a high density residential lake community development. The town has a total of 43.0 square miles, with 41.4 square miles of land area and 1.6 square miles of water.

### **1.5.6 Town of Southeast**

The Town of Southeast is located in the southeastern part of the county. It is the second largest town by population in Putnam County. The town contains several reservoirs that supply New York City. The town has a total of 35.0 square miles, with 32.1 square miles of land area and 2.9 square miles of water. Southeast includes the Village of Brewster.

#### **1.5.6.1 Village of Brewster**

Brewster is a village located in the Town of Southeast and is the most densely populated portion of the township. The village has a total of 0.5 square miles, virtually all of which is comprised of land.

Table 1-1: Summary of Municipalities in Putnam County

	Putnam County	Municipalities Within The Planning Unit								
		Town of Carmel	Town of Kent	Town of Patterson	Town of Philipstown	Village of Cold Spring	Village of Nelsonville	Town of Putnam Valley	Town of Southeast	Village of Brewster
Population <sup>1</sup>	99,710	34,305	13,507	12,023	9,662	2,013	628	11,809	18,404	2,390
Population Density /sq. mi.	431.7	950.3	332.7	372.2	198.0	3,411.9	628	285.2	573.3	4,780
Number of Housing Units	38,224	12,348	5,508	4,272	4,164	981	260	4,837	7,095	961
Total Area, sq. mi.	246	40.7	43.2	32.9	51.5	0.60	1.0	43.0	35.0	0.5
Land, sq. mi.	231	36.1	40.6	32.3	48.8	0.59	1.0	41.4	32.1	0.5
Water, sq. mi.	15	4.6	2.5	0.6	2.7	0.01	0	1.6	2.9	
Public School Districts		Mahopac Central School District Carmel Central School District	Carmel Central School District	Brewster Central School District Carmel Central School District Pawling Central School District	Haldane Central School Garrison Union Free School Lakeland			Putnam Valley Central School District	Brewster Central School District	
Private Schools		St. James							Melrose School Green Chimneys School	

**Notes:**

<sup>1</sup> Based upon the 2010 Census

## 2 SOLID WASTE QUANTITY AND TYPES

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### 2.1 Municipal Solid Waste

Municipal Solid Waste (MSW), otherwise known as trash or garbage, generally consists of everyday items which are found in household, commercial and institutional wastes such as product packaging, food scraps, newspapers, corrugated cardboard and other paper products, plastics, clothing, leaves and grass clippings, (yard trimmings), furniture, bottles and cans, appliances, and batteries. MSW may also include small quantities of household hazardous materials which can include oil based paints, cleaning products, automotive fluids, and caustics, as well as household consumer electronics which often contain hazardous materials. Not included are materials that also may be disposed of in landfills, but are not generally considered MSW, such as construction and demolition debris, municipal wastewater treatment sludges, and non-hazardous industrial wastes.

According to USEPA's 2009 figures, paper and cardboard make up the largest component of MSW (28.2%), followed by food scraps (14.1%), and yard trimmings (13.7%). Glass, metals, plastics, and wood each make up between 4.8 and 13.7% of the total MSW and rubber, leather, and textiles make up 8.3% of the MSW generated in the United States. Other miscellaneous waste materials make up the remaining 3.5% of the MSW waste stream.

### 2.2 Commercial and Institutional Waste

Commercial and institutional waste is often a significant portion of the solid waste stream, even in small cities and suburbs, often making up between 35 and 45 percent of the solid waste stream. In contrast to most residential waste, commercial material is nearly always collected by the private sector, and municipalities have been slower to target this waste stream for recovery.

Commercial waste is solid waste generated by stores, offices, restaurants, warehouses, and non-manufacturing activities at industrial facilities, and is a subcomponent of MSW. Institutional waste is solid waste that is generated at schools and prisons, and non-medical waste from hospitals and other health care facilities, and is also a subcomponent of MSW. Commercial and institutional wastes typically are fairly similar in overall composition to MSW generated by residential units.

## 2.3 Industrial Waste

Industrial waste is solid waste that is the by-product of manufacturing or industrial processes, but it does not include hazardous waste. This waste stream can be significant depending on the industries present. This material is different from MSW in that it does not include food and other wastes typically generated in the home and can include large quantities of materials which can be generated by the following: electric power generation; fertilizer/agricultural chemicals; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay and concrete products; textile manufacturing; transportation equipment. Industrial waste generation is not considered a significant portion of Putnam County's waste stream.

## 2.4 Construction and Demolition Debris

Construction and demolition (C&D) debris is defined as uncontaminated solid waste consisting of the debris generated during the construction, renovation, and demolition of buildings, roads, and bridges. C&D debris often contains bulky, heavy materials that include:

- concrete and bricks,
- wood from buildings,
- asphalt from roads,
- roofing shingles and other roof coverings,
- plaster and gypsum wall covering material,
- metals,
- glass,
- plastics,
- salvaged building components such as doors, windows, and plumbing fixtures,
- trees, stumps, earth and rock from clearing sites.

In New York State, solid waste that is not considered to be C&D debris, even if it is associated with construction or demolition of structures or roads includes, but is not limited to, asbestos waste, garbage, corrugated cardboard, fluorescent lights and ballasts, electrical transformers, carpeting, furniture, appliances, tires, drums, containers greater than ten gallons in size, any containers having more than one inch of residue remaining on the bottom, and fuel tanks. Additionally, solid waste that would otherwise be considered C&D debris that has been processed making individual waste components

unrecognizable, other than at a NYSDEC approved C&D debris processing facility, is no longer classified as C&D debris.

Reducing and/or recycling C&D debris conserves landfill space and reduces the environmental impacts associated with producing the materials. It can also reduce building project expenses with the reduction of purchase and disposal costs.

## 2.5 Regulated Medical Waste

Regulated medical waste (RMW) consists of any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, including infectious animal wastes, human pathological waste, human blood and blood products, needles and syringes (sharps), and cultures and stocks (microbiological materials) generated in research or health care. Each of these materials requires a different type of treatment to destroy pathogens or disease-causing organisms prior to disposal at an authorized solid waste management facility. Such treatment can be achieved, depending on the waste type, through autoclaving, incineration, or with an alternative treatment technology (e.g., microwave, chemical disinfection, electro-thermal and steam-thermal inactivation) approved by New York State.

Approximately 18,000 RMW generators in New York State dispose of approximately 200,000 tons of RMW per year. RMW includes, but is not limited to:

- blood-soaked bandages,
- culture dishes and other glassware,
- discarded surgical gloves,
- discarded surgical instruments,
- discarded needles used to give injections or draw blood (e.g., medical sharps),
- cultures, stocks, swabs used to inoculate cultures,
- removed body organs (e.g., tonsils, appendices, limbs),
- discarded lancets.

Putnam Hospital Center, the only Hospital in the county, treats a portion of the medical waste it generates in an on-site autoclave. Material in excess of the capacity of the facility is collected intact, along with the treated material, by Healthcare Waste Solutions, and is transported to a Healthcare Waste Solutions facility in Oneonta. The approximate total amount of RMW generated is 8,000 to 10,000 lb/month.

## **2.6 Pharmaceuticals**

A variety of pharmaceuticals are now being found in surface waters, groundwater, and drinking water supplies around the country, which has raised concerns about the potential environmental and health impacts associated with them. Historically, flushing unused and unwanted prescription and over the counter medications down the drain was considered the best way to keep these materials away from children, teenagers, and others who might accidentally or intentionally ingest them. As a result, the chemicals which make up these pharmaceutical products are released to the environment through disposal in private septic systems and wastewater treatment plants which are not capable of destroying many of them. While some natural processes are able to break down or degrade these substances and/or dilute their concentrations, many of the chemicals accumulate in the tissues of animals and plants. Low levels of antibiotics, hormones, contraceptives, and steroids have been found in rivers and streams tested around the country and trace level concentrations of chemicals from medications have been found in aquatic species. As such, the potential exists for detrimental effects on both animals and human health.

Pharmaceutical waste is not one single waste stream, but many different waste streams due to the complexity and assortment of the chemicals from which the wide variety of medications available are made. Pharmaceutical wastes are generated through activities at health care facilities, pharmacies, nursing homes, veterinary clinics, and from personal medications and outdated pharmaceuticals from individual households.

Putnam Hospital Center uses a company approved by the New York State Department of Health (NYSDOH) for reverse distribution of unused pharmaceuticals. Credit for the returned goods goes to the hospital, with a portion of the credit covering the take-back fee.

For several years, Putnam County has sponsored Medication Take-back events for residents. This award winning program is the product of a collaboration with the Solid Waste Management section of the Putnam County Health Department, the Putnam County Sheriff's Department, and a group of organizations that includes the Putnam Hospital Center, the Putnam County Youth Bureau, and the local branch of the National Council on Alcoholism and Other Drug Dependencies.

## **2.7 Hazardous Waste**

Businesses and industries at times dispose of chemical wastes that, because of the dangers they pose, are regulated as hazardous wastes and are subject to stringent management standards.

## 2.8 Waste Tires

In New York State, an estimated 18 to 20 million waste tires are generated each year (approximately one tire per person per year). In June 2002, NYSDEC prepared a waste tire stockpile inventory which identified approximately 95 locations, containing an estimated 29 million waste tires. As of December 2010, NYSDEC had identified an additional 54 locations, bringing the total to 149 sites containing an estimated 34 million waste tires. Mahopac Auto Wreckers in the Town of Carmel is the only known waste tire stockpile in Putnam County. Cleanup of this site was completed in 2011 with the removal of approximately 1.85 million tires.

## 2.9 Household Hazardous Waste

Household hazardous waste (HHW) consists of waste materials generated in the home that would be regulated as hazardous wastes if generated by commercial or industrial sources.

Household products often contain many of the same chemicals contained in industrial waste, but all household wastes are exempt from State and federal hazardous waste regulations. Homes, sheds, basements and garages contain potentially hazardous chemicals that should be handled and discarded with special care. Examples of HHW include oil-based paints, pesticides, automotive fluids, home hobby chemicals, and compact fluorescent bulbs (CFLs). When handled improperly, HHW can be harmful to the environment and public health. Many households discard these wastes in the trash or store them for long periods of time, unless special HHW collection programs are sponsored by their local government. As part of the trend towards Product Stewardship or Extended Producer Responsibility (EPR), CFLs and rechargeable batteries can also be taken to Home Depot or Lowe's for recycling. Other manufacturers and retailers are beginning to recognize the need to assist with providing better solutions for end-of-product-life management. Environmental waste companies can also collect hazardous material, although this alternative can be expensive. At the two Household Hazardous Waste Cleanup days sponsored by the County in 2011, the materials presented in Table 2-1 below were collected, and kept from improper disposal:

**Table 2-1: 2011 Household Hazardous Waste Cleanup Quantities**

Material	Amount	Unit
Antifreeze	165	gallons
Fluorescent Bulbs	8	cartons
Oil Based Paint	2,090	gallons
Pesticides	605	gallons
Other Household Waste (Solids)	3	cubic yards
Other Household Hazardous Waste (Liquids)	990	gallons

**Table 2-2: MSW Composition  
Materials Generated and Recovered**

**Year 2010**

(Page 1 of 2)

Material	Waste Generation Composition (%)			Generation (Tons)	Recovered (Tons)
	EPA Percentages	NYS Percentages	Putnam Percentages	Putnam County	Putnam County
Newspaper	4.30%	4.06%	3.64%	2,610	976
Corrugated Cardboard	12.30%	10.00%	9.84%	7,053	1,068
<b>Other Recyclable Paper</b>					
Paperboard	2.30%	2.29%	2.27%	1,630	0
Office Paper	2.40%	2.86%	2.33%	1,666	17
Junk Mail	2.30%	2.11%	2.07%	1,481	15
Other Commercial Printing	2.50%	2.24%	2.00%	1,435	0
Magazines	1.00%	1.00%	0.93%	666	7
Books	0.50%	0.46%	0.41%	295	0
Bags	0.40%	0.39%	0.37%	263	0
Phone Books	0.30%	0.27%	0.30%	215	0
Poly-Coated	0.20%	0.23%	0.21%	149	0
<b>Other Recyclable Paper (Total)</b>	<b>11.90%</b>	<b>11.85%</b>	<b>10.89%</b>	<b>7,799</b>	<b>38</b>
<b>Other Compostable Paper</b>	<b>4.20%</b>	<b>6.68%</b>	<b>6.47%</b>	<b>4,638</b>	<b>0</b>
<b>Total Paper</b>	<b>32.70%</b>	<b>32.59%</b>	<b>30.85%</b>	<b>22,099</b>	<b>2,082</b>
<b>Ferrous/Aluminum Containers</b>					
Ferrous Containers	1.10%	1.11%	1.08%	770	187
Aluminum Containers	0.70%	0.48%	0.48%	347	125
<b>Ferrous/Aluminum Containers (Total)</b>	<b>1.80%</b>	<b>1.59%</b>	<b>1.56%</b>	<b>1,118</b>	<b>311</b>
<b>Other Ferrous Metals</b>	<b>5.10%</b>	<b>4.34%</b>	<b>5.35%</b>	<b>3,830</b>	<b>826</b>
<b>Other Non-Ferrous Metals</b>					
Other aluminum	0.20%	0.25%	0.24%	175	0
Automotive batteries	0.50%	0.39%	0.58%	419	0
Other non-aluminum	0.60%	0.33%	0.36%	256	0
<b>Other Non-Ferrous Metals (Total)</b>	<b>1.30%</b>	<b>0.97%</b>	<b>1.19%</b>	<b>851</b>	<b>0</b>
<b>Total Metals</b>	<b>8.20%</b>	<b>6.90%</b>	<b>8.09%</b>	<b>5,799</b>	<b>1,137</b>
<b>PET Containers</b>	1.10%	1.01%	0.88%	628	272
<b>HDPE Containers</b>	0.90%	0.85%	0.82%	591	272
<b>Other Plastic (3-7) Containers</b>	0.20%	0.19%	0.19%	138	0
<b>Film Plastic</b>	2.20%	5.75%	5.66%	4,057	0
<b>Other Plastic</b>					
Durables	4.10%	3.18%	3.10%	2,221	0
Non-Durables	2.20%	1.77%	1.69%	1,210	0
Packaging	1.40%	1.29%	1.27%	907	0
<b>Other Plastic (Total)</b>	<b>7.70%</b>	<b>6.24%</b>	<b>6.06%</b>	<b>4,338</b>	<b>0</b>
<b>Total Plastics</b>	<b>12.10%</b>	<b>14.04%</b>	<b>13.61%</b>	<b>9,751</b>	<b>544</b>
<b>Glass Containers</b>	4.50%	3.98%	3.88%	2,777	700
<b>Other Glass</b>	0.80%	0.39%	0.37%	262	0
<b>Total Glass</b>	<b>5.30%</b>	<b>4.37%</b>	<b>4.24%</b>	<b>3,039</b>	<b>700</b>
<b>Food Scraps</b>	12.50%	17.65%	13.86%	9,933	
<b>Yard Trimmings</b>	12.80%	5.02%	8.83%	6,329	292
<b>Total Organics</b>	<b>25.30%</b>	<b>22.67%</b>	<b>22.70%</b>	<b>16,261</b>	<b>292</b>



**Table 2-2: MSW Composition  
Materials Generated and Recovered  
Year 2010**  
(Page 2 of 2)

Material	Waste Generation Composition (%)			Generation (Tons)	Recovered (Tons)
	EPA Percentages	NYS Percentages	Putnam Percentages	Putnam County	Putnam County
Clothing Footwear, Towels, Sheets	3.70%	3.78%	3.87%	2,774	0
Carpet	1.20%	1.40%	1.53%	1,094	0
<i>Total Textiles</i>	<b>4.90%</b>	<b>5.18%</b>	<b>5.40%</b>	<b>3,868</b>	<b>0</b>
<i>Total Wood</i>	<b>5.60%</b>	<b>3.49%</b>	<b>3.94%</b>	<b>2,822</b>	<b>0</b>
C&D Materials	0.30%	4.47%	4.14%	2,963	0
Other Durables	0.50%	1.68%	1.60%	1,148	0
Diapers	1.50%	1.69%	1.67%	1,197	0
Electronics	1.20%	1.41%	1.59%	1,139	83
Tires	1.90%	1.00%	1.61%	1,152	0
HHW	0.20%	0.30%	0.33%	239	0
Fines	0.30%	0.19%	0.23%	164	0
<i>Total Miscellaneous</i>	<b>5.90%</b>	<b>10.74%</b>	<b>11.17%</b>	<b>8,001</b>	<b>83</b>
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>71,641</b>	<b>4,839</b>
Construction & Demolition Debris				48,926	9,398
Sewage Sludge				263	0

## **2.10 Biosolids Management**

Most septage, sewage, and sludge collected in Putnam County by private contract is eventually disposed of in one of two locations in Connecticut: Danbury Water Pollution Control Plant, or Naugatuck Treatment Company. This disposal process has been working successfully for the treatment of biosolids generated in the County. The County will begin to investigate the final treatment processes utilized and recommend either composting or anaerobic digestion if less desirable methods are currently in use. Sludge from municipal waste water treatment plants is trucked out of state to various landfill locations.

## **2.11 Waste Generation and Recovery**

A summary of waste generated in Putnam County and quantity and types of material recovered, based on the data available, is provided in Table 2-2.

## 3 EXISTING PROGRAM DESCRIPTION

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### 3.1 SWM Facility Inventory

Putnam County is an exporter of solid waste, having few in-County disposal options. While the County does not operate any solid waste facilities, a number of private and Town operated facilities exist in Putnam County. A list of SWM facilities in Putnam County is provided in Table 3-1.

**Table 3-1: SWM Facility Inventory**

Facility Name	Facility Type	Expected Life	Operating Status
Kent Recycling Center	SW Transfer Station	Indefinite	Active Registered
Putnam Valley Transfer Station	SW Transfer Station	Indefinite	Active Registered
Mahopac Septic	Septage Transfer	Indefinite	Active Regulated
Stuart Bates Septic	Septage Transfer	Indefinite	Active Regulated
Tyndall Septic	Septage Transfer	Indefinite	Active Regulated
Kent Recycling Center	Recyclables Handling	Indefinite	Active Registered
Patterson Recycling Center	Recyclables Handling	Indefinite	Active
Putnam Valley Recycling Center	Recyclables Handling	Indefinite	Active
Patterson Blacktop	C&D Debris (limited)	Indefinite	Active
Mike's Blue Wheel	Mulch Facility	Indefinite	Active

#### 3.1.1 Putnam County

As with the collection of MSW, many of the recycling efforts in Putnam County are lead by each municipality; County law does, however, require all waste generators to source separate, and all waste transporters operating in the County are required to collect source separated material from their accounts and keep those recyclable materials separate from other solid waste. At the present time, residential recycling includes the curbside pickup of plastic, glass, and metal containers, and paper and cardboard. Types of plastics and papers acceptable for recycling vary by hauler due to the differing capabilities of transfer stations or processing facilities located outside of Putnam County. All waste generators, residential or other, must comply with source separation regulations, regardless of contract arrangement. Specific recycling services provided by Putnam County are identified in Section 3.2.1.

#### 3.1.2 Town of Carmel

All private haulers that pick up refuse and recyclables in the Town of Carmel are required to be licensed by the Town. Licenses are renewed annually and are approved by the Carmel Town Board. Residents, businesses, schools, and other entities arrange for

curbside pickup by individual contract with private haulers. The Town of Carmel Recycling Center was closed in June of 2001.

The County arranges a container for the collection of electronic waste (e-waste) at the Putnam County Salt Shed on Route 6N in Mahopac Falls.

Residents will find additional information at <http://www.carmelny.org/>, or by contacting the Town Supervisor's Office at (845) 628-1500.

### **3.1.3 Town of Kent**

Curbside pickup of MSW and recyclable materials is provided for residents within the Lake Carmel Sanitation District. Yard waste pickup is performed for residents within the Lake Carmel Sanitation District on Fridays beginning the first week in April and continuing through December 15. Christmas trees are picked up on Fridays approximately 2 weeks after Christmas.

Residents outside of the Lake Carmel Sanitation District must either contract with private hauling companies for the removal of MSW and recyclable materials or take these materials to the Kent Recycling Center.

The Kent Recycling Center accepts MSW, bulk items, and recyclables from Kent residents. Residents pay an annual fee to use the facility, plus a fee based on the type of material brought for disposal. The drop-off center in Kent also provides residents of that community who are members (they pay an annual fee of \$50) with the option of disposing of household solid waste for an additional fee levied by the bag. The Kent Recycling Center is remarkable in its ability to sort materials into very specific categories and distribute them for reuse. This has been accomplished through the efforts of a very dedicated group of volunteers, and may require the hiring of additional staff to duplicate the process at other locations where volunteers are not available. The Recycling Center is open on Saturday from 9AM to 1PM. Bagged MSW can be disposed of for a nominal fee, and recyclables can be disposed of at no charge. Bulk items, including air conditioners and other items containing freon can be disposed of at a nominal cost. The facility also has available at no charge, donated books, toys, furniture, tools, and other items. Commercial establishments and school districts contract with private haulers for the removal of solid waste.

The County arranges a container for the collection of e-waste at the Recycling Center.

More information can be found at <http://www.townofkentny.gov/recycling.htm> or by contacting the Town Office at (845) 225-3643.

### **3.1.4 Town of Patterson**

The Town of Patterson is comprised of two garbage districts. District 1 includes most of the Putnam Lake area, and is serviced by a private solid waste hauler to remove residential MSW and recyclables. District 2 includes all parts of the town outside of the

Putnam Lake area. The residential MSW and recyclables within District 2 are collected by municipal employees. The solid waste collection is paid for via Town property taxes. The Town limits disposal to 3 cans or bags (45-gallon maximum) of MSW per household per week.

Residents who obtain a permit from the Town can drop off recyclables or bulk items, including air conditioners and other items containing Freon, at the Patterson Recycling Center on Thursday between 12 noon and 3PM, and Friday and Saturday between 8AM and 3PM for a nominal fee. The Recycling Center also accepts leaves and grass clippings (no twigs, branches or logs) from permit holders. Putnam Lake area residents may also use a monthly drop-off service at the VFW Hall on Fairfield Drive at Doansburg Road on the second Saturday of each month. This service is available between 10AM and 1PM for magazines, catalogs, and junk mail. A Recycling Center permit is not required to use this service. Commercial establishments and school districts within the Town of Patterson contract with private haulers for the removal of solid waste.

The County arranges a container for the collection of e-waste at the recycling center.

More information can be found at <http://www.pattersonny.org/> or by contacting the Town Clerk at (845) 878-6500.

### **3.1.5 Town of Philipstown**

Residents, schools, and commercial enterprises in the Town of Philipstown contract with private haulers individually for the removal of MSW and recyclables. A town-wide clean-up is held once a year when residents can bring bulk items to a designated location for removal and disposal. Residents can bring scrap metal and white goods such as washing machines, refrigerators, and Freon-free air conditioners to the Philipstown Landfill every Saturday from 9:00AM to 3:00PM. In the fall, leaves are also accepted. A permit must be obtained in advance from the Town and there is a nominal charge per car or truck load. Residents may also bring paper, cardboard, and combined cans and bottles for drop-off at no charge.

The County arranges a container for the collection of e-waste at the town recycling center.

More information is available at <http://philipstown.com/> or by contacting the Town Clerk at (845) 265-3329.

#### **3.1.5.1 Village of Cold Spring**

The Village provides residential MSW and recyclable materials pickup once per week, including multi-unit residential buildings and complexes. Residents must place recyclables in recycling containers and leave them at the curbside. Paper and cardboard must be bundled. The village picks up leaves and brush in the fall and picks up Christmas trees at the curb after Christmas for mulch. Commercial establishments within the Village of Cold Spring contract with private haulers for the removal of solid waste.

More information on waste disposal and recycling in the Village of Cold Spring can be found at [http://www.coldspringny.gov/Pages/ColdSpringNY\\_Highway/index](http://www.coldspringny.gov/Pages/ColdSpringNY_Highway/index) or from the Village Clerk at (845) 265-3611.

### 3.1.5.2 Village of Nelsonville

The Village of Nelsonville contracts with a private hauler to manage all residential MSW and recyclables removal and provides residents with 2 bulk pickup days per year. Village employees pick up leaves and Christmas trees. Commercial establishments contract with private haulers for the removal of solid waste.

More information can be obtained at <http://villageofnelsonville.org/> or from the Village Clerk at (845) 265-2500.

### 3.1.6 Town of Putnam Valley

MSW and recyclables are collected by town employees in the Lake Peekskill area, and there are 7 special districts which contract with a private hauler for curbside waste and recyclables collection. Residents in the districts receive curbside bulk pickup once per year. Leaves in biodegradable bags are picked up from residents in the Lake Peekskill District in the spring and in October and November. The remainder of residential properties contract individually with private haulers for the removal of waste and recyclables. Putnam Valley provides its residents with the opportunity to drop off bulk waste materials at the Highway Department on the third Saturday of the month in April, June, August, and October between the hours of 8:45 and 11:45 in the morning, for a nominal fee. No construction and demolition debris or hazardous materials are accepted. Most metal is accepted free of charge including stoves, dishwashers, hot water tanks, holding tanks, metal sinks, tubs, bathroom fixtures, lawn machinery, empty propane tanks, car/truck batteries and any predominantly metal item. Tires, as well as appliances containing Freon, are accepted on the above referenced days for a nominal fee. Commercial establishments and school districts in the Town of Putnam Valley contract individually with private carters for waste removal.

The County arranges a container for the collection of e-waste at the highway garage on Oscawana Lake Road.

More information can be found at <http://www.putnamvalley.com/bulkdropoff.htm> or by contacting the Town Supervisor's Office at (845) 526-2121.

### 3.1.7 Town of Southeast

The Town of Southeast contracts with a private hauling company to provide residential MSW collection, recycling, and bulk waste removal services to all residents of the Town. Bulk waste pickup is provided twice a year for residents. The Town does not remove Freon containing appliances. Residents must have a State authorized Freon specialist remove the Freon and tag the appliance before it will be picked up. Commercial

establishments and school districts in the Town of Southeast contract individually with private carters for waste removal. Leaf pickup is provided by the Town to registered residents using biodegradable bags purchased from the Town. Christmas trees are picked up during the first 2 weeks of January. The Town does not accept other yard waste, such as grass clippings, twigs, or branches.

The County arranges a container for the collection of e-waste at the highway facility on Palmer Road.

Additional information about the Southeast Refuse Collection District can be found at [http://southeastny.virtualtownhall.net/Public\\_Documents/SoutheastNY\\_Special/2008%20Garbage%20Flyer%20Final.pdf](http://southeastny.virtualtownhall.net/Public_Documents/SoutheastNY_Special/2008%20Garbage%20Flyer%20Final.pdf), or by contacting the Special Districts Administrator at (845) 279-8206.

### 3.1.7.1 Village of Brewster

The Village of Brewster contracts with a private hauler to manage all residential MSW and recyclables removal and provides residents with 2 bulk pickup days per year, including multi-unit residential buildings. Yard Waste is collected by the Village Department of Public Works. Commercial establishments contract individually with private haulers for waste removal.

Additional information is available at <http://www.brewstervillage-ny.gov/> or by contacting the Village Clerk at (845) 278-3760.

## 3.2 Existing Efforts to Recover Recyclables

### 3.2.1 Code of Putnam County

The Code of Putnam County, Chapter 205, Solid Waste (County Code 205), states that its purpose is to “require source separation of recyclable materials to the maximum extent possible on the part of each and every household, business and institution in Putnam County.” County Code 205 regulates the collection, transportation, and disposal of solid waste and recyclable materials, and requires the permitting of all haulers who operate within Putnam County. The laws place requirements on the haulers to provide the County with documentation on the types and volume of waste generated as well as the disposal locations, and requires that recyclable materials be collected and transported separately. In 2011, sixty-six permits were issued for the collection and transport of a variety of materials.

County Code 205 also requires that each Town and Village within Putnam County shall be responsible for controlling the collection of recyclables within its jurisdiction, and in addition, each municipality is to provide the County with a plan that includes source separation of recyclable material. These plans must “require regular source separation by all waste generators within the municipality, and regular, reliable collection of recyclable materials by registered waste collectors from each property that generates such material

within the municipality.” Municipal plans had not, in the past, been submitted to the County.

### **3.2.2 Towns**

Some towns have recycling centers where residents can drop off recyclable materials at no charge or for a nominal fee. The County has provided each town with an e-waste container for the recycling of electronic items at no cost to the Towns, and runs periodic household hazardous waste collection days. White goods are accepted in some municipally operated bulk pickups and at some drop-off centers.

Yard waste is not accepted by most area transfer stations either in or out of county, and therefore not accepted by most private haulers. While some municipalities or districts provide for the collection of leaves and/or Christmas trees, there is little true organics management. The lack of appropriate and comprehensive yard waste management is a significant concern. Two municipalities, the Towns of Kent and Southeast, are actively investigating the possibility of establishing composting facilities to handle yard waste from residents, and may serve as pilot programs for additional towns.

Currently, municipal collection of leaves and Christmas trees is performed in the Lake Carmel Sanitation District in the Town of Kent, the Lake Peekskill District in the Town of Putnam Valley, the Town of Southeast including the Village of Brewster, and the Villages of Cold Spring and Nelsonville in the Town of Philipstown. Lake Carmel chips the collected trees and deposits both the chips and fall leaves at a site on Ressique Street. Yard waste from the Lake Peekskill District is taken to Westhook Sand and Gravel for composting. Leaves from Southeast go to a town highway facility to decompose, and Christmas trees go to Westwood Organic Facility in Armonk for composting. In the Town of Patterson, Christmas trees are collected by the Highway Department. The Villages of Cold Spring and Nelsonville both allow collected leaves to decompose naturally at municipal sites. Both of the previously mentioned villages chip collected Christmas trees, and Cold Spring makes the resulting mulch available to residents.

There are three active permitted septage/sludge transfer stations in Putnam County: Mahopac Septic, Stuart Bates Septic, and Tyndall Septic. Material deposited there, or in other area transfer stations, is eventually landfilled out of state. Westchester does not accept septic/sludge waste from outside the county, and facilities in Dutchess have limited ability to accept it. As a result, much of the septage, sewage, and sludge generated in Putnam County is disposed of in one of two locations in Connecticut: Danbury WPCP, and Naugatuck Treatment Company, prior to reaching a final landfill destination. This disposal process has been working successfully.

Putnam Hospital Center, the only Hospital in the county, treats a portion of the RMW waste it generates in an on-site autoclave. Material in excess of the capacity of the facility is collected intact, along with the treated material, by Healthcare Waste Solutions. It is transported to a Healthcare Waste Solutions facility in Oneonta. The approximate amount of medical waste generated is 8,000 to 10,000 lb/month, total. Putnam Hospital Center and all other facilities in the County that generate RMW are responsible for the proper management and disposal of all medical wastes generated at their facility.



Schools play an important role in promoting recycling. Waste reduction and recycling are critical elements of a well-rounded education that incorporates good social and environmental behaviors. In September 2007, the NYS Education Commissioner sent a letter to all NYS schools informing them of their responsibility to reduce waste and promote recycling. Many of the schools in the County have incorporated recycling education in their curricula, and several are beginning to address other concerns such as food waste reduction. Green Chimneys, a residential school in Patterson, has been investigating a food scrap recycling program and is currently seeking funding for a digester that may become a model for other organizations. Through the Green Schools Task Force, additional information will be gathered from all school districts to determine current practices, and to investigate how both recycling rates and environmental education can be enhanced.

## 2011 SURVEY OF PUTNAM COUNTY SCHOOLS

### MATERIALS COLLECTED FOR RECYCLING

District	Fiber	Comingled	Refundable	Batteries	Cartidges	Food Waste
<b>BREWSTER</b>						
High School	Y	Y				
Middle School	Y	Y				
C. V. Starr	Y	Y				
Garden Street	Y	Y				
JFK	Y	Y				
<b>CARMEL</b>						
High School	Y	Y			Y	
Middle School	Y	Y			Y	
Kent Elementary	Y	Y			Y	
Kent Primary	Y	Y			Y	
M. Patterson	Y	Y			Y	
<b>MAHOPAC</b>						
High School	Y	Y			Y	
Middle School	Y	Y				
Austin Road	Y	Y				
Fulmar Road	Y	Y				
Lakeview	Y	Y				
Mahopac Falls	Y	Y				
<b>HALDANE</b>						
High School	Y	Y				
Middle School	Y	Y				
Elementary	Y	Y				Y
<b>PUTNAM VALLEY</b>						
High School	Y	Begin Fall 2011	Begin Fall2011			
Middle School	Y	Y	Y			
Elementary	Y	Y	Y			

## 2011 SURVEY OF PUTNAM COUNTY SCHOOLS

### MATERIALS COLLECTED FOR RECYCLING

District	Fiber	Comingled	Refundable	Batteries	Cartridges	Food Waste
GARRISON	Y	Y		Y	Y	
GREEN CHIMNEYS	Y	Y				
MELROSE	Y	Y				
ST JAMES	N	N				

### 3.2.3 Putnam County Recycling Services

#### 3.2.3.1 Household Hazardous Waste

Putnam County provides for the disposal of household hazardous waste by scheduling one or two days during the year when residents can drop off these materials for safe removal and disposal. The number of collection days is partially dependent on the availability of NYSDEC funding. Materials accepted at the County household hazardous waste days include, but are not limited to, the following:

#### **Cleaners**

- Drain/Oven Cleaners
- All-Purpose Cleaners
- Rug & Upholstery Cleaners
- Furniture Polishes & Waxes
- Metal Polishes
- Spot Cleaners/Removers

#### **Pesticides**

- Mothballs
- Rodent Poisons
- Ant, Wasp, Roach Spray
- Insecticides
- Herbicides/Fungicides
- Flea Powder or Sprays

#### **Paint & Preservatives**

- Oil-Based Paints
- Solvents, Thinners, etc.
- Wood Preservatives

#### **Automotive Products**

- Waxes & Polishes
- Antifreeze
- Gasoline/Kerosene

#### **Home Hobby Supplies**

- Photography Chemicals
- Chemistry Kits

#### **Cosmetics**

- Nail Polish Remover
- Hair Dyes
- Hair Sprays

In order to reinforce the goals of sustainability and Product Stewardship, residents are being directed to use current legal waste stream disposal options, and new ones for additional materials as they become available.

### 3.2.2.1 Electronics Collection

The County has contracted with a company specializing in the collection and dismantling of discarded electronic equipment, to provide e-waste containers for the recycling of electronic items at no cost to each of the Towns. When the containers are full, the contractor removes the collected material, providing year-round uninterrupted e-waste disposal capability. The location and hours of operation of the containers in each Town is provided in the Table 3-2 below.

**Table 3-2: E-Waste Container Locations**

<b>Town</b>	<b>Container Location</b>	<b>Hours of Operation</b>
Carmel	Salt Shed Rte 6N, Mahopac	Set by Town
Kent	Kent Recycling Center Ray Singer Ct, Carmel	Set by Town
Patterson	Patterson Recycling Center Cornwall Hill Rd, Patterson	Set by Town
Philipstown	Recycling Center Lane Gate Rd. Cold Spring	Set by Town
Putnam Valley	Highway Garage, Oscawana Lake Rd, Putnam Valley	Set by Town
Southeast	Highway Facility, Palmer Rd. off Rte 22, Brewster	Set by Town

### 3.2.2.2 Other Items

It has become increasingly clear that the true cost of manufactured items must include the cost of disposal once the product has reached the end of its useful life. The concept of “Product Stewardship,” or “Extended Producer Responsibility (EPR)” has evolved to take this into account. Manufacturers are being asked, and in some cases, required by law, to develop and support a mechanism by which consumers can responsibly dispose of unwanted items. These items are then reprocessed so that the component materials can be reclaimed and reused. Plastic bags are a perfect example of this. An eyesore on the roadside, and a danger to wild life, used plastic bags were a problem in need of a solution. The New York State “Plastic Bag Reduction, Reuse and Recycling Act” which became effective in 2009, mandates that large retailers must provide in-store bins for recycling plastic bags. Collected, these bags now supply material for the manufacture of composite decking and fencing. Because the material in plastic bags is petroleum based, reusing the material also conserves this valuable resource.

Similarly, programs now exist for the responsible recycling of electronic equipment, rechargeable batteries, and compact fluorescent light bulbs, as well as long standing programs for used oil, waste tires, and lead acid batteries.

Other states have, or are considering, programs to collect additional materials, including paint and used carpeting.

Large retailers such as Best Buy, Staples, and Radio Shack accept a number of products for recycling. Disposal opportunities and locations are expanding all the time, so no list will contain all current options. Some, however, are listed below:

**Old cell phones** may be donated to organizations for reuse. They are also accepted by cell phone service providers or may be put in the e-waste container in each town.

**Lead-acid batteries** (most car batteries) are accepted for recycling by establishments that sell them. New York State Law requires a \$5.00 deposit on the sale of every new battery.

**Other Batteries:** Retailers that sell rechargeable batteries and/or equipment using portable rechargeable batteries, such as cordless power tools, cellular and cordless phones, laptop computers, camcorders, digital cameras, and remote control toys, accept used rechargeable batteries for recycling. This includes the following types of batteries: Nickel Cadmium (Ni-Cd), Nickel Metal Hydride (Ni-MH), Lithium Ion (Li-Ion) and Small Sealed Lead (Pb). Customers should bring their old batteries to the returns desk. Domestically produced alkaline and carbon zinc household batteries no longer contain mercury and can be disposed of with MSW. Large numbers of used alkaline batteries should not be disposed of together. Used batteries are often not completely dead, and disposing of a number of used batteries together can bring these "live" batteries into contact with one another, creating safety risks.

**Waste Tires** are accepted by tire dealers for a nominal fee. Putnam County Code 205 regulates the proper disposal of waste tires.

**Used Oil:** State law requires that establishments that sell more than 1,000 gallons of motor oil per year must accept up to 5 gallons of used oil per person per day.

**Plastic grocery bags** are accepted for recycling by supermarkets and other large retail stores. The New York State's Plastic Bag Reduction, Reuse and Recycling Act became effective January 1, 2009, which requires certain retail and grocery stores to set up a plastic carry out bag recycling program for their customers. Stores with 10,000 square feet or more of retail space, and chains which operate five or more stores with greater than 5,000 square feet of retail space, and which provide plastic carry out bags to customers, are required to comply with the law.

**Bottles:** New York State's expanded Bottle Bill, enacted in 2009, provides for a deposit and a refund on containers for the following: carbonated soft drinks, soda water, beer, water, mineral water, and wine products (not wine itself).

**Wire Hangers** in good condition will be accepted by most dry cleaners.

**Shredded paper** should be accepted by haulers providing curbside pick-up. Individual haulers should be contacted for specifics.

**Compact fluorescent light (CFL) bulbs** can be recycled at some store locations. Currently Home Depot, Ikea, and Lowe's will also accept CFLs at the return desk.

**Other materials:** As options for the reuse or recycling of additional materials become available, that information will be provided to the public.

### **3.3 Markets for Recovered Recyclables**

Markets for recyclable materials fluctuate in the same manner that other commodities do. Most of the recyclables generated in the County are collected by private haulers which typically utilize facilities or markets offering them the optimum financial benefit in order to increase profit margins and/or maintain competitiveness. Municipalities that currently utilize municipal workers to collect and manage waste and recyclables seek competitive bids for management of the collected recyclables, whether it be at a materials recovery facility (MRF) operated in a nearby county or a facility that will utilize the material.

Economic factors are the most significant influence restricting the market development for recyclable materials. With the dramatic downturn in demand for recyclable materials in 2008, prices collapsed, acting as a disincentive for source separation on the part of haulers and recycling centers. By the spring of 2009 prices for many of the materials were trending upward, and higher values have been seen again in more recent years. As with other commodities, supply and demand will continue to drive a cyclical pricing pattern, however, as more markets are developed for recycled material it is anticipated that severe market downturns will have a less significant impact on the collection of these items.

#### **3.3.1 Available and Potential Recyclables Markets**

Largely because of land use restrictions and the relatively small geographic area covered by the Planning Unit, markets within the County are almost non-existent. As an export County, Putnam can provide material to neighboring facilities with excess capacity. Available potential markets for recyclables are identified in Table 3.3.

#### **3.3.2 Restrictions on Recyclables Markets**

Convenience – The separation of material for recycling either by individual materials or dual stream (paper materials and glass, plastic, metals) has been cited by residents as a deterrent to recycling. The Town Recycling Centers/Transfer Stations are only open for a very limited number of hours per week which makes it inconvenient for residents who wish to utilize these facilities. At the present time, some haulers provide a single stream recycling option, allowing residents to place all recyclables in one container. While somewhat more convenient, there is a potential drawback to single stream collection. Recyclable materials are commodities, and they have value as raw material for manufacturing products, This value can be significantly lowered however, if the material is contaminated. Broken glass mixed with paper, for example, can increase the amount of unusable material to as much as 16% to 27% according to two single stream studies. This residual material is then landfilled, making the increase in the amount of recyclables collected questionable.

Glass – There is currently little demand for recovered glass as there are few current manufacturing processes that can utilize the process other than road construction, fill, and some concrete building supplies. A few companies also tumble glass to produce decorative mulch or grind it to produce blasting material. Recycled glass consists of crushed glass cullet, and must be of high quality for most high grade applications. For certain uses, the crushed glass must have a maximum particle size of 10 mm, and must not contain more than five percent, by volume, of deleterious material (typically paper and plastic). The New York State Department of Transportation allows contractors to include three to six percent crushed glass as fine aggregate for all hot mix paving projects. Recycled glass can also be used as an additive in subbase and earthwork items.

Haulers – Solid waste haulers currently pick up different recyclables based on the capability of the materials recovery facilities utilized. If area facilities expand their ability to process additional materials, more can be removed from the waste stream. (See Tables 3-3 and 3-4).

Laws – New York State laws do not define materials that must be recycled, which would help to ensure standardization and improve economies of scale, however the NYSDEC SWMP proposes the recommendation of legislation “explicitly mandating the basic materials that must be recycled throughout the state.”

New York City Department of Environmental Protection (NYCDEP) – With few exceptions, the NYCDEP prohibits the siting or expansion of composting facilities or solid waste management facilities within 1,000 feet of a reservoir, reservoir stem or controlled lake, or within 250 feet of a watercourse or wetland. It also prohibits the siting or expansion of recycling centers within these boundaries that handle non-putrescible wastes or collect batteries or waste oil. As two thirds of Putnam County lies within the NYCDEP Watershed, there are significant restrictions on the future siting of these types of facilities.



Table 3-3: Available Recyclable Markets

Market	Newsprint	Corrugated	Mixed Paper	Metals	Glass	Plastic	C & D	Compost
<u>Hudson Baylor Corporation</u> Newburgh, John Formisano (914) 760-2622	•	•	•	•	•	•		
<u>Patterson Blacktop</u> Kurt Gabrielson, Plant Manager, 628-3425							•	
<u>Mike's Blue Wheel Service</u> Bryant Pond Road, Mahopac Mike (cell) (914) 490-1947								•
<u>Kent Recycling Center</u> Route 52 & Horsepound Road, Kent Jim Baker, 225-7901	•	•	•	•	•	•		
<u>Patterson Recycling Center</u> Cornwall Hill, Patterson Frank Farrell, 878-495	•	•	•	•	•	•		
<u>Millennium Paper Recycling</u> 25 N. Airmont Rd., Suffern (845) 369-3111	•	•	•					
<u>Dutchess County Resource Recovery Agency</u> Sand Dock Road, Poughkeepsie (845) 463-6020	•	•	•	•	•	•		
<u>Rockland County MRF</u> Torne Valley Rd., Hillburn (845) 753-2200	•	•	•	•	•	•		
<u>Westchester County MRF</u> Stew Leonard Drive Yonkers	•	•	•	•	•	•		



## **4 FUTURE PLANNING UNIT PROJECTIONS AND SOLID WASTE CHANGES**

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### **4.1 Solid Waste Projections**

Solid waste projections, including population projections are presented on Table 4-1. Population projections were based upon existing census data and the logarithmic growth equation.

### **4.2 Anticipated Changes to the Planning Unit**

Significant developmental changes are not anticipated for Putnam County since much of the County's buildable land has been developed. Approximately two-thirds of the county is situated in the New York City Watershed, which places significant additional restrictions and requirements on development. In addition to NYCDEP regulations, NYSDEC, the Army Corps of Engineers, and the U.S. Fish and Wildlife Service may impose additional development requirements. Additionally, development is also restricted by the 3 state parks within the County, and by the numerous resevoirs and lakes. While the County itself has no zoning restrictions, each town has zoning regulations limiting certain projects. The majority of non-residential new development being proposed is commercial in nature, most of which consists of retail and office space.

The following sections identify development projects currently in the planning stages or under construction.

#### **4.2.1 Expected Residential Development**

Below are known residential development projects which are substantial in size. Small subdivision projects before the local planning boards were not included.

##### **Town of Carmel**

The Fairways – 150 unit Senior Housing development. Project approved in 2007.

Gateway Summit – 150 unit Senior Housing development. Project approved in 2007.

Carmel Centre – 381 unit Senior Housing development. Project approved in 2006.

Putnam Community Foundation – 120 unit senior housing. Project approved in 2010.

Hughson Commons – 150 unit Senior Housing development. Project approved in 2011

### **Town of Philipstown**

Quarry Pond – 80 senior housing and 10 affordable housing units. The project was approved in 2008.

A build-out analysis of the Town of Philipstown found that 1,780 additional single family units could be constructed under current zoning regulations (Build-Out Analysis, GREENPLAN, Inc., October 2006).

### **Town of Southeast**

Meadows at Deans Corner – 103 lot residential subdivision that is currently under construction. The project was approved in 2005.

The Campus at Fields Corners – 143 lot residential subdivision. Project approved in 2006.

Mt. Ebo Senior Housing – 168 unit senior housing development. Project approved in 2006.

## **4.2.2 Planned/Proposed Commercial Development**

### **Town of Carmel**

Hotel, Banquet, and Conference Center – 123 room hotel and 400 seat banquet and conference center. Approved in 2008.

### **Town of Kent**

Rt. 311 Star Plaza – Proposed 35,000 square feet of retail sales.

Rt. 311 Patterson Crossing - two (2) proposed restaurants.

### **Town of Patterson**

Patterson Crossing Retail Center – 382,000 square foot office/retail complex. Project approved in 2010.

### **Town of Southeast**

Stateline Retail Center – Proposed 210,000 square foot office/retail complex. Approved in 2010

Best Western Hotel – Proposed 48 room hotel.

#### **4.2.3 Proposed Industrial Development**

There is no industrial development planned for Putnam County at this time.

### **4.3 Special Conditions That May Affect any of These Characteristics**

The New York City Water Supply watershed, which includes all areas that drain into the reservoirs, extends into 5 of the 6 towns in Putnam County, with Philipstown being the only town in the county lying completely outside of the watershed. Restrictions regarding development within the watershed are dictated by Article 96, Section 18 of the Rules and Regulations for the Protection from Contamination, Degradations and Pollution of the New York City Water Supply and its Sources. NYCDEP regulates the design, construction, implementation, and maintenance of some activities, such as land clearing, construction of impervious surfaces, site grading for management of stormwater runoff, and subsurface sewage treatment systems.

The NYC Water Supply watershed reservoir system includes the Croton System and the Catskill/Delaware System. The municipalities that have all or portions of their community situated within the watersheds of the New York City water supply systems are shown on Table 4-2.

### **4.4 Projections of Changes to the Waste Streams**

No significant changes to the types or quantities of material which make up the waste stream from Putnam County are anticipated, however it is expected that the quantity of recyclable material kept from other MSW will increase with planned educational efforts, the increased enforcement of current and future regulations, and the anticipated move towards standardization.

### **4.5 Effects of Changes on the Current and Proposed Management Practices**

It is anticipated that increased recycling efforts and participation on the part of residential and commercial waste generators, as well as increased involvement of the municipalities, will result in a reduction in the amount of MSW sent out of the County for disposal. This will be due to educational programs and oversight by the County. As the volume of recycled material collected increases, identifying and expanding markets for those items will increase in importance. More effort will need to be expended in identifying the best financial return for the County while ensuring, insofar as it is possible, the responsible disposal of any hazardous components.

**Table 4-1: Solid Waste Projections**

Putnam County

Municipal Solid Waste (MSW) Combined Composition Analysis and Projections

Table with columns: Material, Tons Generated, % of Total, 2010 (Actual), 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020. Rows include Newspaper, Corrugated Cardboard, Other Recyclable Paper, Ferrous/Aluminum Containers, Other Non-Ferrous Metals, PET Containers, HDPE Containers, Glass Containers, Food Scraps, Yard Trimmings, Total Organics, Total Textiles, Total Wood, C&D Materials, Diapers, Electronics, Tires, HHW, Fines, Total Miscellaneous, Total.

Summary Table with 4 columns: Description, 2010 (Actual), 2011, 2012. Rows include Population (Actual & Projected), MSW Generated (tons), MSW Diverted (tons), MSW Disposed (tons), Per Capita MSW Generated (lbs), Per Capita MSW Diverted (lbs), Per Capita/year MSW Disposed (lbs), Per Capita/day MSW Disposed (lbs).

**Table 4-2: Summary of NYC Water Supply Watershed Reservoir System**

NYC Water Supply Watershed Reservoir System	Watershed Area (sq. mi.)	Town of Carmel	Town of Kent	Town of Patterson	Town of Putnam Valley	Town of Southeast	Village of Brewster
<b>Reservoir in Croton System <sup>1</sup></b>							
Croton Falls	16	•				•	
Diverting	8					•	
East Branch <sup>2</sup>	75			•		•	•
Middle Branch <sup>3</sup>	21		•	•		•	
Amawalk <sup>4</sup>	20	•					
Titicus <sup>5</sup>	24					•	
Bog Brook	38					•	
<b>Croton/Delaware System <sup>6</sup></b>							
Boyds Corners <sup>7</sup>	22	•	•		•		
West Branch	20	•	•				

**Notes:**

- <sup>1</sup> The Croton System also includes the Cross River Reservoirs and the Muscoot Reservoir which are located within Westchester County.
- <sup>2</sup> The East Branch watershed's drainage basin also includes portions of the Town of Pawling in Dutchess County.
- <sup>3</sup> The Middle Branch watershed's drainage basin also includes portions of the Town of Beekman and East Fishkill in Dutchess County.
- <sup>4</sup> The Amawalk watershed's drainage basin also includes portions of the Town of Somers in Westchester County.
- <sup>5</sup> The Titicus watershed's drainage basin also includes portions of the Towns of Lewisboro and North Salem in Westchester County and Ridgefield in Fairfield County, Connecticut.
- <sup>6</sup> The Croton/Delaware System also includes the Kensico Reservoir located within Westchester County.
- <sup>7</sup> The Boyds Corner watershed drainage basin also includes portions of the Town of East Fishkill in Dutchess County.



## 5 TECHNOLOGY EVALUATION

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### 5.1 Treatment, Storage, and Disposal of Solid Waste

The treatment, storage, and ultimate disposal of solid waste is regulated in New York State under New York Codes, Rules and Regulations (NYCRR) Title 6 NYCRR Part 360. The collection and transportation of industrial-commercial waste, waste tires, medical waste, septic wastes, and sludge is regulated under Part 364, and regulations associated with the collection and transportation of used oil are specified in Parts 364 and 374 (Section 2.5). Disposal activities involving those wastes are regulated under Parts 360, 373 and 374.

The following sections provide an evaluation of the various technologies used for the storage, treatment, and disposal of solid waste within Putnam County.

#### 5.1.1 Landfills

Modern landfills are engineered facilities that are located, designed, operated, and monitored to ensure compliance with federal and state regulations. Today, solid waste landfills are designed and constructed in such a way that they protect the environment from contaminants which may be present in the solid waste stream. Landfills use liners and leachate collection systems to prevent the contaminants from escaping into the environment and impacting underlying groundwater, gas collection systems to eliminate the release of greenhouse gasses and other chemical pollutants to the atmosphere, engineering techniques to reduce leachate generation, and capping systems to limit the amount of leachate generated upon closure. MSW landfills receive household, commercial and institutional waste, and can also be permitted to receive non-hazardous sludge, industrial solid waste, and construction and demolition debris.

#### In-County Landfills

There are no active landfill facilities in Putnam County. The 13 publicly and privately owned inactive landfills within Putnam County have all been closed. The inactive landfill sites in the County are listed in Table 5-1.



**Table 5-1: Public and Private Landfills in Putnam County**

Facility Name	Town	Responsible Party	Status
Town of Carmel Landfill	Carmel	Town	Engineered Cap
Putnam County Landfill	Carmel	County	Contract signed. To be completed by 5/12
Town of Kent Landfill	Kent	Town	Engineered Cap
Education Alliance	Patterson	Private	Inactive
Fair Street Landfill	Patterson	Private	Inactive
Patterson E.S. Landfill	Patterson	Private	Engineered Cap
Prisco Landfill	Patterson	Private	Under DEC Enforcement
Kessman/Cross County LF	Patterson	Private	Engineered Cap
Town of Philipstown LF	Philipstown	Town	Engineered Cap
Fahnestock State Park LF	Putnam Valley	NYSOPRHP	Soil Cap
Orlando Landfill	Putnam Valley	Private	Inactive
Town of Southeast LF	Southeast	Town	Engineered Cap
Stoneleigh Avenue Site	Southeast	NYCDEP	Inactive

All new solid waste management facilities, or altered or modified existing solid waste management facilities within the limiting distance of 300 feet of a watercourse or New York State regulated wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, are required to submit a Stormwater Pollution Prevention Plan (SPPP) for NYCDEP review and approval pursuant to section 18-41 (d) of the Watershed Regulations.

### **Out-Of-County Landfills**

Based upon information current at the time of the preparation of this SWMP, there are 27 active MSW landfills, 116 registered land clearing debris landfills, 19 regulated active construction and demolition (C&D) debris landfills, 13 active industrial/commercial landfills, and 3 active ash monofills located in the State of New York.

The landfills which accept MSW that are the closest to Putnam County include the following municipal landfills:

- City of Albany Landfill, Albany, NY (115 miles)

- Town of Colonie Landfill, Cohoes, NY (115 miles)
- Delaware County Landfill, Walton, NY (125 miles)

The closest private landfill facility to Putnam County is Seneca Meadows Landfill located in Waterloo, New York approximately 260 miles from the County offices.

### **Registered C&D Debris Landfills**

The landfills which accept construction and demolition debris that are the closest to Putnam County include the following:

- City of Albany Landfill, Albany, NY ( 115 miles)
- Town of Colonie, Cohoes, NY (117 miles)
- Burton Clark C&D, Dehli, NY (130 miles)
- Delaware County Landfill, Walton, NY (125 miles)
- Santoro C & D Landfill, Schenectady, NY (120 miles)

### **5.1.2 Transfer Stations**

Transfer stations are solid waste management facilities, regulated by NYSDEC, where municipal solid waste is unloaded from collection vehicles and briefly held while it is reloaded onto larger long-distance transport vehicles for shipment to landfills or other treatment or disposal facilities. By combining the loads of several individual waste collection trucks into a single shipment, money can be saved on the labor and operating costs of transporting the waste to a distant disposal site, and reduce the total number of vehicular trips to the disposal site. As of October 2010, there were 166 permitted transfer stations and 359 registered transfer stations operating in New York State. The registered transfer stations each receive less than 12,500 tons (50,000 cubic yards) of MSW per year. All the remaining transfer stations are permitted. In 2009, the regulated transfer stations in New York State handled approximately 10 million tons of solid waste.

There are 3 active permitted transfer stations in Putnam County authorized to accept septage and sewage treatment plant sludge:

- Mahopac Septic, Inc., Mahopac, NY
- Stuart W. Bates, Inc., Brewster, NY
- Tyndall Septic Systems, Brewster, NY

There are 2 active registered MSW transfer stations within the County:

- Kent Transfer Station, Kent Lakes, NY
- Putnam Valley Transfer Station, Putnam Valley, NY

The facilities in Kent and Putnam Valley accept bagged MSW from residents of their respective towns only. There are no active permitted transfer facilities in Putnam County for MSW, C&D debris, or industrial/commercial waste.

### 5.1.3 Waste To Energy Facilities

Waste-to-Energy (WTE) is defined as a solid waste management strategy by which local governments or private operators combust or incinerate waste materials to generate steam to fuel heating systems or generate electricity, and which results in the reduction of the volume of MSW by approximately 80 to 90%. Typically, WTE facilities will also remove metal from the ash for recycling.

Over one-fifth of the municipal solid waste incinerators in the United States use refuse derived fuel (RDF). In contrast to mass burning, where the MSW is introduced "as is" into the combustion chamber, RDF facilities are equipped to recover recyclables such as metals, cans, and glass first, then shred the combustible fraction into fluff before incineration.

Burning waste at extremely high temperatures also destroys chemical compounds and disease-causing bacteria. Testing of the resulting ash is performed to ensure that it is non-hazardous and can be sent to a landfill for disposal. About 10% of the total ash generated in this manner in the United States is used for beneficial purposes such as daily cover at landfills and for materials used in road construction. The remainder of the ash is landfilled.

There are 10 WTE facilities in New York with a collective annual permit limit of approximately 4,000,000 tons per year. The facilities include:

- Hempstead (Westbury, Nassau County)
- Islip (Suffolk County)
- Babylon (East Northport, West Babylon, Suffolk County)
- Huntington (Suffolk County)
- Dutchess County Resource Recovery Agency (Poughkeepsie, Dutchess County)
- Charles Point/Wheelabrator Westchester (Peekskill, Westchester County)
- Wheelabrator Hudson Falls (Hudson Fall, Washington County)
- Onondaga County (Jamesville, Onondaga County)

- Oswego County (Fulton, Oswego County)
- Covanta Niagara, L.P. (Niagara Falls, Niagara County)

The WTE facilities which accept MSW that are closest to Putnam County are:

- Charles Point/Wheelabrator Westchester, Peekskill (4 miles)
- Dutchess County Resource Recovery Agency, Poughkeepsie (11 miles)
- Wheelabrator Bridgeport, Bridgeport Connecticut (45 miles)
- Covanta Energy, Bristol Connecticut (50 miles)
- Covanta Projects-Wallingford, Wallingford Connecticut (60 miles)

The Charles Point Resource Recovery facility in Peekskill, Westchester County, (also known as Wheelabrator Westchester, or Westchester RESCO), currently receives waste generated in Putnam County from several independent haulers. The Charles Point facility, which is permitted to handle 710,000 tons of MSW per year, and is currently running at close to capacity. The Dutchess County Resource Recovery Agency (DCRRA) facility, located to the north in Poughkeepsie and permitted to burn 166,440 tons of MSW per year, has very limited capacity. In 2010, DCRRA accepted 2,387 tons from Putnam, all from one hauler.

The three closest WTE facilities in neighboring Connecticut are capable of handling over a combined 1.2 million tons of MSW per year, including up to 237,250 tons at the Covanta Bristol facility, 153,300 tons at the Covanta Wallingford facility, and 821,250 tons at the Wheelabrator Bridgeport facility. According to the Connecticut Resource Recovery Agency these facilities are privately owned as allowed in their operating agreements, which may enable them to more readily accept waste from out of state sources (CRRRA, 2007).

#### **5.1.4 Regulated Medical Waste**

There are a variety of regulated medical waste (RMW) materials which typically require different types of treatment to destroy pathogens or other disease-causing organisms prior to disposal at authorized solid waste management facilities. RMW refers to waste products that cannot be considered general solid waste, produced from healthcare premises, such as hospitals, clinics, or dentist offices. Examples of RMW include blood, blood products and blood contaminated materials, potentially contaminated "sharps" such as needles and scalpels, infectious animal wastes, discarded tissue or body parts, and cultures and other microbiological materials generated in research or health care. The treatment of RMW is typically accomplished through autoclaving, incineration, or an

alternative treatment technology such as microwaving, chemical disinfection, electro-thermal, or steam-thermal inactivation.

New York State has approximately 18,000 RMW generators which produce an estimated 200,000 tons of regulated medical waste per year. There are 30 RMW commercial storage, treatment and destruction facilities in New York which require a NYSDEC Part 360 permit to operate, with throughput capacities of up to 96 tons per day. These commercial facilities are required to adhere to strict standards to ensure that the waste is properly treated before disposal. Following treatment, RMW can be disposed of at authorized solid waste management facilities. Additional material is autoclaved by the waste generator, or is transported out of state for disposal.

### **5.1.5 Household Medical Waste**

People with a wide variety of health conditions manage much of their own routine care at home. As a result, these members of the community create a lot of medical waste which could put others at risk if not disposed of properly. While New York State law allows for the disposal of personally generated needles and syringes (sharps) with household trash, if not disposed of properly, waste handlers and workers at sewage treatment plants are put at risk of disease or injury. Proper ways to handle and dispose of sharps generated at home which offer protection to both the residents and the waste handlers include:

- Store sharps in puncture-proof plastic containers with tight screw tops such as plastic soda or bleach bottles, or use a special sharps container.
- Label containers "Contains Sharps" with a waterproof marker.
- Immediately place used sharps into containers and cap. Do not clip, bend or recap needles as this can lead to injury.
- Keep containers away from children.
- When full, cap tightly and seal the container with tape.
- Place in household trash.

Other options for the disposal of household generated sharps include contacting your doctor, pharmacy, or clinic to ask if they accept properly-contained sharps for disposal or check with the American Diabetes Association at (914) 631-6048 regarding sharps disposal programs. Putnam Hospital Center accepts sharps as long as they do not contain medication.

### **5.1.6 Pharmaceutical Waste**

In the past, unused pharmaceuticals were commonly disposed of by dumping them down the drain or, in the case of hospitals or other large institutions, incineration onsite. As a result of the Clean Air Act, many hospital incinerators were closed and some hospital

drug waste is now discarded as infectious or biomedical waste. Putnam Hospital Center utilizes a reverse distribution company for the disposal of its unused pharmaceuticals. USEPA has been working with the American Hospital Association to evaluate pharmaceutical waste disposal and hospital waste streams, and many states are reviewing pharmaceutical waste disposal practices to bring them into line with evolving best-management practices.

Because pharmaceuticals are chemicals, the USEPA has the authority to regulate their disposal through the Federal Resource Conservation and Recovery Act (RCRA). Although these regulations have been in effect for many years, pharmacists and other health care professionals typically do not receive any information during their training regarding the requirements of RCRA.

Due to increasing awareness about the potential effects of medications on aquatic life and the potential impacts on drinking water supplies, NYSDEC recommends that individuals dispose of unused and unwanted pharmaceuticals with their household waste. Individuals should follow the directions on their prescriptions, which will reduce the quantity of many unused medications, such as antibiotics, which typically are to be finished. Other disposal options include local collection events or contacting your pharmacy. If disposing of waste pharmaceuticals, including over the counter medications, with the trash, citizens should:

- Mix the medications with an undesirable material such as salt, ashes, dirt, cat litter, or coffee grounds to prevent their misuse.
- Hide and seal medications in an outer container, such as sealable bag, box or plastic tub to prevent discovery and removal from the trash.
- Dispose of medications as close to collection day as possible.
- Do not conceal discarded drugs in food waste, to prevent consumption by scavenging humans, pets, or wildlife.
- Avoid crushing pills as some medications can be harmful in powder form, and some drugs can be harmful if handled by people other than those for whom they are prescribed.
- Do not flush medications as this would put them directly into the ground water and/or water supply.

The NYSDEC Drug Management and Disposal Act requires every pharmacy registered and every retail business that sells drugs, to post a notice on the proper storage and disposal of drugs, including over-the-counter and prescription medications as well as vitamins and supplements.

The guidance and the required notice can be downloaded from the NYSDEC website at <http://www.dec.ny.gov/chemical/67736.html>, and the poster must be conspicuously

displayed. In a pharmacy setting, the notice should be legible to a consumer at the pick-up counter. In a retail setting, the notice should be posted at one of the following locations: at the checkout counter; on or above aisles where drugs are displayed; or as a shelf-label or other in-aisle placement with the display of drugs.

## **5.2 Alternative Recyclables Recovery Programs**

Recycling programs can include a wide range of materials and many different alternative methods. Communities usually identify what will be included in their programs and how the programs will be run, based on a combination of economics, markets for the various materials, ease of establishment and operation, and mandated requirements. The following are some examples.

### **5.2.1 Recycling**

The primary mandate of the 1988 New York State Solid Waste Management Act was to reduce the amount of solid waste being sent to landfills and incinerators. Source separation and recycling programs are key components to reducing the amount of solid waste requiring disposal.

#### **5.2.1.1 Materials Recovery Facilities**

Materials such as newspaper, corrugated cardboard, other waste paper, and commingled recyclable metal, plastic, and glass are collected separately from other solid wastes and are processed at material recovery facilities (MRF). Improvements in recycling technologies and equipment can allow for the collection of commingled recyclable materials in many cases, making the process more user friendly. In New York State, General Municipal Law Section 120-aa, mandated that by September 1, 1992, all municipalities in the state adopt a local law or ordinance requiring that all solid waste be source separated into recyclable, reusable, or other components for which economic markets exist. Putnam County Code 205 (see Appendix C) addresses this mandate by requiring that all waste must be source separated by the waste generator, and must also be collected and transported separately by the hauler. The environmental and public health benefits of recycling materials include energy savings; pollution reduction, reducing the volume of waste requiring disposal, and the conservation of natural resources.

In 2008, New York State's recycling program reduced the need for the use of virgin materials, saved over 6.7 million cubic yards of landfill space by paper recycling alone, reduced greenhouse gas emissions by 12.8 million metric tons of CO<sub>2</sub> equivalent, and saved 99 trillion BTUs of energy.

MRFs receive recyclables that have been separated from the waste stream for further separation or processing. MRFs serve as a processing link for many municipalities and businesses to allow them to get their materials into the recycling system. These facilities are required to be registered with (rather than permitted by) NYSDEC. While there are no active registered MRFs within the County, the following are municipally operated registered recycling centers operating within the County:

- Kent Recycling Center – Ray Singer Ct, Route 52, Kent Lakes: (845) 225-3954
- Patterson Recycling Center – Cornwall Hill Road, Patterson: (845) 878-4956
- Philipstown Recycling Center – Lane Gate Road, Cold Spring: (845) 265-3329

Most recyclable material collected in the County is taken by private haulers to transfer stations in nearby counties.

#### 5.2.1.2 Dual Stream Collection

Probably the most popular form of curbside recycling of containers and paper in the United States involves what is referred to as “dual stream” recycling. Residents are asked to sort plastic, glass, and metal containers in one curbside bin and newspaper, magazines, mail, and other paper in another. The bins are usually color-coded and both bins are placed at the curb on pick-up day. Most communities where dual stream recycling service is offered use trucks equipped with 2 compartments to allow workers to collect separated recyclables in a single truck.

#### 5.2.1.3 Single Stream Collection

A growing trend in curbside recycling programs is the use of “single stream” recycling of paper and plastic, glass, and metal containers. Single stream recycling allows all of these materials to be commingled in single containers which are often large wheeled covered carts having a 65 or 94 gallon capacity. The carts can be wheeled to the curb versus lifted, and residents do not have to separate materials into two recyclable streams. Haulers typically favor single stream recycling because it results in fewer trucks and pick-ups, and reduced labor and injuries since many of the trucks transfer the materials mechanically. As single stream recycling programs are instituted they can result in increased recycling rates due to the larger bins and removal of requirements to separate materials. A problem with the institution of single stream recycling is the need for a nearby materials recovery facility (MRF) which is equipped to handle and effectively separate commingled single stream recyclables into the individual commodity components. In addition, mixing materials increases contamination, potentially making the material less desirable to end users. Clean material commands a higher price, therefore recycling centers where each commodity is kept separate (even glass separated



by color) will be able to increase revenue in this way. As mentioned in section 3.3.2, collecting all recyclable material together does not necessarily reduce waste if the contaminated residual is still landfilled.

#### 5.2.1.4 Organic Waste Recovery

Organic waste, which can be up to 25% of the MSW waste stream, consists of kitchen waste such as potato peelings and other vegetable scraps, waste food such as leftovers from restaurants and spoiled fruit and vegetables from markets, yard trimmings such as leaves, grass clippings and hedge trimmings, and industrial waste from agricultural and food processing facilities. Agricultural operations produce large amounts of organic waste, however, these materials typically are not mixed with MSW since most farmers compost it themselves. Composting is the aerobic decomposition of biodegradable organic matter, producing compost from decaying vegetable and other plant materials. The decomposition is performed primarily by aerobic bacteria, yeasts and fungi. Composting considerably speeds up the natural process of decomposition as a result of the higher temperatures generated. Although composting has historically been associated with creating garden-ready soil, it is becoming more important in the reduction of solid waste.

In New York State, approximately 1.1 million tons of yard waste were generated in 2009. Since some yard waste is already collected separately, increasing the recycling of yard waste can provide a practical solution for communities to manage a significant portion of their solid waste stream by means other than disposal. Composting and chipping are cost-effective ways of turning leaves, brush, grass clippings, and other plant wastes into useful materials such as compost and mulch. Many communities have composting locations where municipal collection of leaves is brought and residents can drop off yard waste.

Food residual wastes from institutions such as hospitals, prisons, schools, and nursing homes, can be collected and composted. While household food organics collection and recycling has not been significant in the United States to date, Europe has been at the forefront of the collection and processing of source separated household organics. In the mid-1980's Germany, Austria, Switzerland, and the Netherlands initiated trials for composting domestic organic wastes. Significant improvements to the collection systems in Europe, along with improved participation rates and processing technologies have led to significant increases in the diversion of organic waste from their MSW stream.

In the United States, household food waste composting programs have been in place since the 1990's on the west coast. Oregon began permitting compost facilities in 1999, at which time 24 facilities composted about 300,000 tons of organic materials. In 2007, 46 facilities were permitted, and more than 525,000 tons of materials were received by compost facilities in Oregon, with an increase in the types of materials collected for composting. In New York, composting facilities may be subject to regulation under portions of the State's solid waste regulations to ensure the facilities properly handle the

materials. Currently, there are 63 facilities permitted for composting in New York State, 26 compost biosolids, 34 compost yard wastes, and 3 compost food and other mixed wastes. Organics Management Facilities (OMF) are facilities which receive and process organic wastes through methods such as composting, land application, chemical stabilization, pelletization, and digestion to put organic material to beneficial use. Most types of OMFs are required to be authorized by the NYSDEC, although there are many exemptions within the regulations for specific materials and/or quantity of material processed, depending on the environmental impact of that material. In 2010, biosolids processed for beneficial reuse equaled 106,000 tons of material.

Individual homeowners can also compost vegetative waste, leaves, and lawn cuttings, thus removing these materials from the waste stream and keeping them out of the landfills. Backyard composting can be accomplished in a number of ways. One or more small bins can be constructed in an out of the way location, with material deposited there turned periodically with a shovel or pitch fork. Plastic bins can also be purchased at garden supply centers or on line. Many of these are designed to pivot so that the compost is turned over by rotating the bin. Turning aerates the material and assists decomposition. Another option is vermicomposting, or composting with worms. This involves the use of red worms or “red wigglers” to decompose the material. This method requires a little more attention since it’s necessary to keep the worms healthy, but it is an option to consider. All methods involve balancing carbon rich (“brown”) material such as dry leaves, with nitrogen rich (“green”) material such as kitchen scraps. Compostable material on a small scale should include only vegetable waste, no meat, dairy, or fats. Moisture content is important as well. The compostable material should be as damp as a wrung out sponge. In addition to reducing the amount of waste sent to landfills, home composting provides an excellent product for use in gardens, reducing the need for additional purchased compost. Composting is a major focus of NYSDEC, both because organics comprise about 25% of the waste stream, and because converting this waste to a useful product is relatively simple.

No municipal composting programs currently exist in Putnam County. Many communities outside Putnam County operate municipal yard waste composting facilities where leaves and or grass cuttings are brought and composted, reducing the amount of these materials being sent to the landfills. It may be possible to increase some small scale composting in some local communities, providing that NYCDEP regulations can be met. Finished compost is often made available to residents free of charge. Different composting techniques include:

- Windrow – suitable for yard waste composting
- Aerated Static Pile – suitable for yard waste composting
- In-Vessel – Can be utilized to compost municipal solid waste in vessel. Delaware County has an active program
- Anaerobic Digestion

### 5.2.1.5 C&D Debris Collection and Processing

Construction and demolition debris (C&D) is uncontaminated solid waste produced during the construction, renovation, or demolition of buildings and other structures, and from land clearing. The components of C&D debris typically include asphalt, bricks, concrete, soil, rock, wood, metal, drywall, plumbing fixtures, non-asbestos insulation, roofing, shingles, plate glass, carpet, and electrical wires. As of October 2010, there were 250 registered C&D processing facilities and 72 regulated (permitted) C&D processing facilities in New York. The registered C&D debris landfills are required to be 3 acres or less and to have, at a minimum, a compacted soil liner. The permitted C&D debris landfills are generally greater than 3 acres and are required, at a minimum, to have a single composite liner with a leachate collection and removal system. The only registered C&D debris recycling facility in Putnam County is Patterson Blacktop in Carmel, which accepts only waste asphalt and concrete for use as aggregate in the manufacture of asphalt.

Reducing and recycling C&D debris materials conserves landfill space, reduces the environmental impact of producing new materials, creates jobs, and can reduce overall building project expenses through avoided purchase/disposal costs. USEPA has developed goals for the reduction and utilization of C&D debris including:

- Characterize, measure, and increase knowledge and understanding of the C&D debris materials waste stream;
- Promote research and development on best practices for C&D debris materials reduction and recovery;
- Foster markets for construction materials and other recycled materials that can be incorporated into building products;
- Work with the construction, remodeling, and demolition industries to implement more resource-efficient practices; and
- Incorporate C&D debris materials into broader "green building" programs.

C&D debris materials can be recovered through reuse and recycling. In order for materials to be reusable, contractors generally must remove them intact (windows and frames, plumbing fixtures, floor and ceiling tiles) or in large pieces (drywall, lumber) which in many cases result in additional labor efforts to remove nails or make repairs. Many materials can be salvaged from demolition and renovation sites and sold, donated, stored for later use, or reused on the current project. Used building materials stores around the country buy and/or accept donations of used building materials such as plumbing fixtures, doors, cabinets, windows, carpeting, bricks, light fixtures, ceiling and floor tiles, wood, HVAC equipment, and decorative items like fireplaces and stonework. Contractors can avoid the cost of removal by allowing private companies to salvage materials from the site. Organizations that have space may consider storing high-value materials for later projects. The County will provide information to contractors, builders, home improvement stores, and others regarding options for reuse or recycling of building

materials. Some area organizations which deal in the re-use of building materials are listed below:

- Hudson Valley Materials Exchange, New Paltz, New York – (845) 255-8456 <http://www.HVMaterialsExchange.com/>
- Westchester ReStore, New Rochelle, New York – (914) 636-8335
- Danbury, Connecticut ReStore (203) 205-0952 <http://housatonichabitat.org>

In order to be recyclable, materials must be separated from contaminants (trash, nails, and broken glass, etc.). This can be accomplished if contractors have their workers sort materials as they remove items from buildings or as debris is produced. Many contractors use labeled roll-off containers for the storage of source-separated materials. For projects where onsite source separation is not possible, contractors can use C&D debris material processing firms who remove the C&D debris and process it at their off-site facility.

#### 5.2.1.6 Sewage Sludge Processing

Sludge that accumulates as a result of treatment of wastewater must be disposed of in a safe manner. Digestion is used to reduce the amount of organic matter and disease-causing microorganisms present in the solids. The most common treatment options include anaerobic digestion, aerobic digestion, and composting. Anaerobic digestion is a bacterial process that is carried out in the absence of oxygen. One major feature of anaerobic digestion is the production of biogas, which can be used in generators for electricity production and/or in boilers for heating purposes. Biogas is suitable for use as a fuel because it is approximately 65% methane. Aerobic digestion is a bacterial process occurring in the presence of oxygen. Under aerobic conditions, bacteria rapidly consume organic matter and convert it into carbon dioxide, water, and residuals. The operating costs are characteristically much greater for aerobic digestion because of the energy costs needed to add oxygen to the process. Composting is also an aerobic process that involves mixing the sludge with sources of carbon such as sawdust, straw, or wood chips. In the presence of oxygen, bacteria digest both the wastewater solids and the added carbon source which results in the generation of heat. The material can be turned into fertilizer and sold to local farmers and turf farms as a soil amendment or fertilizer, reducing the amount of space required to dispose of sludge in landfills. Sludge from municipal waste water treatment plants is currently trucked to processing facilities, and ultimately, according to NYSDEC records, out of state to various landfill locations. The County will begin to investigate final treatment processes utilized and recommend either composting or anaerobic digestion if less desirable methods are currently in use.

### 5.2.1.7 Electronics Recycling

As a result of the constant changes and improvements being made to electronic equipment today, the electronic equipment used by individuals, businesses, and government agencies quickly becomes obsolete. When this electronic equipment is replaced, the owners have 3 choices:

- Resell, donate, upgrade, or repair it
- Dismantle and recycle components
- Dispose of the obsolete equipment

Because many of the components contained in discarded electronic equipment contain heavy metals and other toxic materials, the NYSDEC considers these items as a separate waste category, known as electronic waste or “e-waste.” While current e-waste disposal regulations do not apply to individuals, a significant percentage of discarded equipment is generated by this group. Quantity generators of e-waste must dispose of it as they would other hazardous material.

Effective April 1, 2011, New York State enacted the Electronic Equipment Recycling and Reuse Act, governing the management of used electronic equipment. The law amends current NYSDEC regulations and is intended to streamline the management of this waste stream, whether regulated as hazardous waste or solid waste, so that collection and recycling will become more efficient and safer. Responsibility for ensuring access to take-back programs will be the responsibility of the manufacturers.

The large number of cell phones and other mobile devices in circulation also present the potential for impacts to the environment associated with the improper handling of equipment no longer in use. Cell phones contain hazardous materials including lead, mercury, beryllium, arsenic, cadmium, and antimony. Because of their size, cell phones are easily discarded with MSW. If disposed of in landfills, these metals can leach into groundwater. Every year, more than 130 million cell phone devices are taken out of service in the United States and are either donated for reuse, recycled, or disposed of in the solid waste stream.

Under the New York State Wireless Recycling Act, effective January 1, 2007, all wireless telephone service providers that offer phones for sale will accept cell phones for reuse or recycling, usually at the establishment where new phones are purchased. Many organizations also collect cell phones as donations for refurbishment and redistribution. As long as a cell phone has been deactivated from service, there are no security or privacy concerns. When the phones are refurbished, they are completely cleared and reprogrammed, erasing any trace of the original ownership.

The companies and websites that will pay for used electronics increases constantly, and a computer search for recycling used electronics will provide current information on this option.

To address the need to dispose of these items in an environmentally responsible way, the County has arranged for the placement of a container specifically for the collection of e-waste in each of the six towns, so that residents have a convenient and accessible drop-off location. In 2008, the first year of the e-waste pilot program, over 100,000 pounds of electronic waste were removed from the Municipal Solid Waste Stream through this program. In 2009, the amount diverted was 166,964 pounds, and the 2010 figures are shown in Table 5-2.

**Table 5-2: 2010 Putnam County E-Waste Collection**

<u>Municipality</u>	<u>Pounds</u>
Town of Kent	35,340
Town of Patterson	28,072
Town of Philipstown	32,767
Town of Putnam Valley	24,580
Town of Carmel	61,019
Town of Southeast	28,300
<b>TOTALS</b>	<b>210,078</b>

#### 5.2.1.8 Used Oil Recycling

Waste or used oil is any oil, whether refined from crude oil or synthetic, that has been contaminated by physical or chemical impurities as a result of its use. Used oil is generated at vehicle repair shops, fleet maintenance facilities, and government vehicle maintenance shops. Used oil generated at these facilities is typically either burned onsite as fuel oil or is sent offsite for recycling. Used oil is also generated by private citizens who change the motor oil in their own vehicles.

The mismanagement of used motor oil can be a serious environmental problem. If waste oil from individuals leaks onto pavement or the ground, or washes into sewers, it can adversely affect water treatment plants or go directly into the watershed and contaminate the drinking water supply.

All motor oils have the potential to be recycled, saving energy and reducing environmental pollution. The properties that make oil an effective lubricant also make it ideal for recycling. Oil does not wear out, it becomes contaminated and the additives in it are used up. As such, used oil can be sent to a refinery that specializes in processing used oil and it can be re-refined into lubricating base oils that can be used to formulate engine oils meeting American Petroleum Institute (API) specifications. Used oil can also be

reprocessed and used in furnaces for heat or in power plants to generate electricity for homes, schools, and businesses, which is what is done with the majority of used oil that is collected.

Used motor oil that is collected by individual "do-it-yourselfers" is critical to the used oil recycling system. Any service establishment that sells at least 500 gallons per year of new oil, and retailers selling at least 1,000 gallons per year, must accept from the public up to five gallons per person per day of used oil. By dropping off used motor oil individuals help prevent pollution and conserve energy.

#### 5.2.1.9 Waste Tire Recycling

The Waste Tire Management and Recycling Act of 2003 added Title 19 to Article 27 of NYSDEC Environmental Conservation Law. This Act requires that a fee of \$2.50 per new passenger vehicle tire (including tires and spares on newly purchased vehicles) be collected by tire dealers. Of that amount, \$2.25 per tire is provided by the tire dealer to the Department of Taxation and Finance to be placed into the Waste Tire and Recycling Management Fund which is dedicated to be used for the clean up of tire stockpiles and market development programs for scrap tires. The Act also prohibited the disposal of tires (including parts of tires) in any landfill in New York State. Today, most waste tires are collected at stores and shops that sell new tires.

Approximately 290 million scrap tires are generated each year in the United States, with over 20 million generated in New York alone. The states have played a major role in tackling this problem by regulating the hauling, processing, and storage of scrap tires, and by working with the tire industry to recycle and beneficially use scrap tires, through developing markets for the collected scrap tires. Markets for waste tires include: tire derived fuel, civil engineering projects, ground rubber for molded rubber products and rubber-modified asphalt, exports, cut/stamped/punched products, and agricultural and other miscellaneous uses. Waste tires may be recycled or reused as highway crash barriers, for boat bumpers at marine docks, and for a variety of agricultural purposes.

The first step in the recycling of the majority of tires today involves shredding. The shreds or chips can be used as a fuel or as feedstock for new production, which is a proven technology with existing markets, and there is potential for new products and markets. The process involves the grinding up of used tires into small chunks, approximately 2 to 6 inches in size. Depending on the use, the tire chunks can then be fed through a series of additional grinders to reduce them into crumb rubber approximately  $\frac{3}{8}$  of an inch in size. During this process, the steel which makes up the belts is separated and removed using magnets. The final product is a mixture of rubber crumbs which can be reused in playground mats, construction products, and rubber modified asphalt. Other possible methods of recycling tires or returning the material which tires are made from to their original components include using high-power ultrasound to devulcanize the rubber; pyrolysis to heat the used tires in a closed, oxygen-free environment and melt them down

into the components; and microwaving to convert tires into their original components. None of these methods are used at full scale facilities in the U.S. at this time.

Waste tires can also be retreaded. Retreading involves removing the outside, or tread, of the scrapped tire and adding a new tread. Retreading saves millions of gallons of oil each year, because it takes approximately 7 gallons of oil to retread a waste tire compared to 22 gallons to produce a new tire. Most tires that are retreaded are used in the trucking, aircraft, construction, and agriculture industries, and on government vehicles. The benefits of retreading tires include:

- Requires 70% less oil for production, saving resources.
- Contains 75% post-consumer material.
- Costs 30% to 70% less than making a new tire.
- Saves landfill space.

## **5.3 Other Waste Management Systems**

### **5.3.1 Curbside Pick-Up**

Curbside pick-up involves the placement of solid waste at the curb in cans or bags where it is typically removed once or twice a week for disposal. Over the last 20 years or so, curbside pick-up has included the collection of recyclable materials such as paper, cardboard, plastic, metal, and glass. Curbside pick-up can include either the traditional removal of unlimited quantities of waste materials, or any number of alternative programs which have been developed to encourage a reduction in the amount of MSW sent for disposal.

Municipal Contract – Many municipalities provide solid waste removal and disposal services to all or most of the residential properties within their jurisdictions, using either municipal employees or a private hauler or haulers who serve all or portions of the community. Multi-family condominium and apartment complexes are typically excluded from these services and must retain their own contractors to remove the MSW and recyclable materials from their complexes. If a municipality provides curbside pick-up using an outside hauler or haulers, the contracts for the service are put out to bid and one or more are selected to service all or portions of the community. Whether the municipal employees or contracted hauling companies provide the curbside pick-up, the residents using the service have traditionally paid for it through their taxes. This arrangement is modified when a SMART program is implemented.

Free Market – Free market curbside pick-up typically occurs in municipalities where the service is not provided by the community either through the use of municipal employees or private haulers, and residents must contract individually with private haulers. In this



system, private haulers set the rates for the pick-up and disposal of MSW and recyclables based on what the local market will bear, and may include either the removal of unlimited quantities of waste materials, or an alternative program developed to encourage a reduction in the amount of MSW sent for disposal.

### 5.3.2 Unit Pricing

Unit pricing or variable-rate pricing systems have been developed to encourage residents to reduce the amount of MSW sent for disposal by reducing costs for those who dispose of less waste. The USEPA's Save Money And Reduce Trash (SMART) program, sometimes referred to as pay-as-you-throw (PAYT), encourages the institution of solid waste collection and disposal pricing based on the quantity of waste sent for disposal. While all of the municipalities in the County have implemented mandatory recycling to reduce the amount of garbage generated, residents have no financial incentive to maximize their recycling efforts. In communities with PAYT/SMART programs, the residents are charged for the collection and disposal of MSW based on the amount of waste they generate. PAYT/SMART programs create a direct economic incentive for residents to recycle more and to generate less waste by treating solid waste services just like electricity, gas, and other utilities. Households pay a variable rate depending on the amount of service they use.

While most communities with PAYT programs charge residents a fee for each bag or can of waste they generate, some communities bill residents based on the weight of their trash. With either method, the SMART programs are simple and fair. The households that generate and throw away less waste, pay less for the service.

USEPA supports this approach to solid waste management because it encompasses three interrelated components that are key to successful community programs:

1. Environmental Sustainability - Communities with PAYT/SMART programs typically report significant increases in recycling and a reduction in the amount of MSW collected for disposal. Less waste and more recycling result in fewer natural resources used, as well as fewer greenhouse gas emissions associated with the manufacture, distribution, use, and disposal of products.
2. Economic Sustainability - PAYT/SMART enables communities to reduce MSW management expenses. PAYT/SMART programs can generate the revenues needed to cover solid waste costs, including the costs of recycling and composting programs. Citizens benefit through the opportunity to control their own waste disposal costs.
3. Equity - PAYT/SMART programs are fair. When the cost of managing MSW is hidden in taxes or charged at a flat rate, residents who recycle and prevent

excessive waste generation and disposal subsidize others who are wasteful. Under PAYT/SMART programs, residents pay only for what they throw away.

A key to making PAYT/SMART work is providing opportunities for people to do something with their trash other than throwing it out. Waste reduction and recycling education programs, reuse facilities, expansion of curbside collection services, yard and other organic waste composting programs are needed to allow PAYT/SMART programs to be successful.

PAYT/SMART programs in which residents are charged based on the volume of solid waste they generate have had dramatic impacts on residential waste diversion rates in many communities nationwide. PAYT/SMART programs are being used in over 7,000 communities in the United States. Residential recycling rates have increased by up to 30% in some of the communities with PAYT/SMART programs. Some communities which implemented PAYT/SMART programs have reduced trash collection from weekly to biweekly pickups, as volumes are too low to justify weekly collection. The average amount of solid waste landfilled per household in some PAYT/SMART communities has had up to a 60% reduction. A recent EPA analysis has shown that PAYT/SMART is a key component of the discard management programs of communities diverting 50% or more of their waste stream. Currently no SMART programs have been implemented in any municipality within Putnam County, however the towns of Patterson and Philipstown have expressed an interest in further investigating the concept.

### **5.3.3 Drop-Off Centers**

Many communities have drop-off centers where residents can dispose of solid waste and/or manage recyclable materials that they have generated. These can be either county or town run facilities and can either be manned by volunteers, municipal, or contracted employees, or can be self service centers (typically for recycling only). At centers where solid waste is accepted there is typically a per bag or weight based fee that users are charged. Recyclable materials are usually accepted at no charge to residents who use the drop-off centers for recyclables that have been generated at their residences. Residential drop-off centers which accept solid waste will be run in connection with a transfer station. Recycling drop-off centers can be co-located with a transfer station or they can be located at other government facilities such as a town hall or DPW garage, or arrangements can be made to locate them on private property in places such as shopping centers or other commercial locations. Many drop-off centers require a yearly fee for a permit and then charge a per item fee dependent on the type of waste being dropped for disposal.

### **5.3.4 Recycle Bank**

Recycle Bank is a private enterprise that forms partnerships with municipalities that want to encourage recycling. Members of the community put all of the recyclable waste materials in a single bin which is weighed when it is picked up. Residents are rewarded for their recycling with Recycle Bank Points which can be redeemed for goods and services from both local and national retailers and restaurants, as well as food and other household items. The points that are earned are based on each household's recycling weight, which is tracked using a Radio Frequency Identification chip embedded in each household's recycling bin and connected to the corresponding individual account. Each week, when the recyclables are collected, the bins are scanned and weighed at the curb. The system records the weight, converts it to points, and credits that amount directly to the appropriate homeowner's account. As a result, the more you recycle the more rewards you earn.

According to Recycle Bank, communities in which their programs have been instituted have reported recycling rates of up to 90%. Recycle Bank makes its money from the municipalities themselves, who pay it based on number of households involved in the program. In addition, the company negotiates with the recyclers in the area a fee for the additional recyclable materials that are collected, assuming that there is an increase in the materials coming in. In order for a Recycle Bank program to be established in a community there must be a single stream recycling facility in proximity to it since the system collects the materials in a single bin.

Recycle Bank focuses only on the commingled and fiber segments of the waste stream. It provides no incentive for reducing the amount of other materials that can and should be diverted.

## **5.4 Cost Analysis**

Costs for the management and removal of solid waste are borne by both governments and residents. These costs are distributed as follows:

### **Costs to the County**

- Costs associated with educational programs and other assistance provided to the municipalities.
- Enforcement action costs.
- The bagging of waste and recyclables by maintenance staff or cleaning service in each County building.
- The contract with the hauler responsible for emptying the dumpsters.
- The provision of HHW days for County residents.

- Litter patrol performed by Putnam Associated Resource Center (PARC) employees.
- Disposal costs associated with the Adopt A Highway program.
- Salary and benefits for the Environmental Health Educator position.
- Salaries for time devoted to the programs by the Legislature, the County Executive, the Commissioner of Health, the Director of Environmental Health, the Director of Engineering, the Law Department, the Purchasing Department, and administrative support.

### **Costs to the Municipalities**

- Operations
- Maintenance
- Administration
- Insurance

### **Costs to Residents**

- Curbside removal by individual contract or through taxes
- Fees for participation in local recycling center

Most municipal waste collection programs use employees who perform other tasks when not involved with the collection of MSW or recyclable materials. Cost evaluations are done periodically to determine if the costs of these services are in line with those that would be incurred if they were contracted out to private haulers.

Table 5-3 presents the cost to residents for curbside collection when arranged or provided directly by the municipality through taxes. Table 5-4 presents the cost to residents for curbside collection by individual contract with private haulers. The haulers included in this table collect the largest volumes of waste through individual residential contracts. There are many smaller haulers, not listed in Table 5-4, that operate within Putnam County.

Putnam County allocates funding to the Department of Health which is earmarked for administration of solid waste and recycling responsibilities. The County will evaluate the availability of grant monies to cover portions of the expenses associated with the programs instituted as part of the SWMP to reduce solid waste disposal volumes, and will actively seek federal and state grants that may be available. Other financing mechanisms that will be considered and used to meet the anticipated costs will include taxes, fees charged to haulers, and funds generated through the sale of any recyclable materials, such as scrap metal.

## **5.5 Neighboring Jurisdiction Impacts**

Adjacent solid waste jurisdictions include the neighboring counties of Westchester to the south, Dutchess to the north, Orange to the west, and Fairfield County Connecticut to the east. Other nearby jurisdictions within 30 miles of Putnam County include Sullivan, Ulster, and Rockland Counties in New York, Litchfield and New Haven Counties in Connecticut, and Bergen, Passaic, and Sussex Counties in New Jersey. Additionally, while a small portion of the Bronx in New York City and northern Nassau County on Long Island lie within 30 miles of Putnam County, these jurisdictions have not been incorporated into this discussion. To date, facilities in neighboring areas which have handled waste and recyclable material from Putnam County have expressed a continuing interest in receiving material generated in Putnam.

### **5.5.1 Participation of Neighboring Jurisdictions**

Currently all MSW and recyclable material collected from Putnam County is sent out of the County to facilities in Orange, Westchester, and Dutchess Counties in New York, and Litchfield and New Haven Counties in Connecticut. For the most part, the transfer stations and disposal facilities receiving the waste, and the MRFs accepting the recyclables from Putnam County are privately owned and operated. Putnam County participates, as an invited agency, with neighboring jurisdictions in the Solid Waste Management subcommittee of the Hudson Valley Regional Council (HVRC). HVRC was created under Articles of Agreement written and agreed upon by the seven HVRC county legislatures: Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester Counties in 1977, however Putnam is not currently a partner agency. Articles 12-B and 5-G of the New York State General Municipal Law gave affiliated municipalities (in this case counties) the legal authority to create regional or metropolitan planning boards and joint-purpose municipal corporations.

Neighboring counties have discussed the possibility of managing yard waste on a regional basis. To date no suitable site has been identified. Participation with the Hudson Valley Regional Council allows collaboration and the facilitation of discussions about this and other waste disposal concerns as they may arise. No comments have been received on this Plan from any of these neighboring jurisdictions.

### **5.5.2 Limitations Imposed on Neighboring SWM Programs**

Since there are no solid waste disposal facilities or MRFs located within Putnam County, all of the waste generated in the county must be sent out of its jurisdiction. At present, all of the facilities receiving MSW, recyclable materials, septage, and other waste materials have sufficient capacity to handle all of the waste being sent to them from Putnam County and elsewhere. The material generated by Putnam County has been actively

sought by neighboring counties with excess capacity, therefore, there are no limitations imposed on neighboring jurisdictions as a result of this Plan.

**Table 5-3: 2012 Cost to Residents for Curbside Collection Arranged or Provided by Municipality**

Entity	MSW		Recyclables		Volume	Price/ Month	Tax/ Month	Price/ Year
	Once per week	Twice per week	Once per week	Every 2 weeks				
<b>Town of Patterson</b>								
District 1, Putnam Lake (Private Hauler)	X		X			\$16.25		\$195
District 2 (Town employees)	X		X			\$28.75		\$345
<b>Town of Putnam Valley</b>								
Putnam Valley District (Private Hauler)	Taxes vary for each of the 7 districts and by assessed value, and include a variety of unrelated services.							
Lake Peekskill Improvement District (Town employees)	Taxes vary by assessed value, and include a variety of unrelated services.							
<b>Town of Kent</b>								
Lake Carmel Sanitation District	Residents are charged based on assessed value, not on cost of service. (\$1.98/\$1,000 of assessed value)							
Outside of Carmel Sanitation District	Residents contract individually with private haulers.							
<b>Town of Carmel (1)</b>								
<b>Town of Southeast</b> (Private Hauler)		X	X		(2)	\$18.35		\$220
<i>Village of Brewster</i> (Private Hauler)		X	X			\$22		\$264
<b>Town of Philipstown (1)</b>								
<i>Village of Cold Spring</i> (Town employees)	Municipal workers provide curbside collection for all residents. Budget lines for MSW and recycling do not capture true cost.							
<i>Village of Nelsonville</i> (Private Hauler)	X		X			\$23.23		\$264

**Notes:**

1. The Town of Carmel and Philipstown contract individually with private haulers. The Town of Carmel has capped allowable charges at \$29/month for 1 x week pick up, and \$34.50/month for 2 x week pick up.
2. Limited to four 32 gallon containers per pickup.

Table 5-4: 2011 Cost to Residents for Curbside Collection by Private Haulers

Entity	MSW		Recyclables		Volume	Price/ Month	Tax/ Month	Price/ Year
	Once per week	Twice per week	Once per week	Every 2 weeks				
<b>Private Haulers</b>								
Bria Carting	X		X			\$36.50	\$3.06	\$475
<b>Mid-Hudson</b>								
Option A	X			X		\$29.50	\$2.30	\$382
Option B		X		X		\$35.75	\$2.83	\$463
<b>Royal Carting</b>								
Option A	X		X		95 gal	\$32.00	\$2.68	\$416
Option B	X		X		65 gal	\$29.00	\$2.43	\$377
<b>Miele Sanitation</b>								
Option A		X	X			\$26.00	\$2.18	\$338
Option B	X		X			\$20.00	\$1.68	\$260



## **6 NEW LAWS AND REGULATIONS / LEGAL/INSTITUTIONAL ANALYSIS**

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The fundamental objective of the 1988 New York State Solid Waste Management Act was to reduce the amount of solid waste disposed of in landfills and incinerators. The State recognized that source separation and recycling programs would be key elements in the reduction of the volume of waste requiring disposal. In order to meet the goal of reducing the amount of solid waste disposal, municipalities are required to enact local recycling laws.

### **6.1 Laws, Rules, Regulations, or Ordinances Which Could Limit Program**

No current laws, rules, regulations or ordinances have been identified which could limit the program with the exception of possible facility siting limitations with respect to composting facilities, due to the New York City watershed restrictions. Putnam County Code 205 regulates the collection, transportation, and disposal of solid waste and recyclable materials, and requires the permitting of all haulers who operate within Putnam County. The law places requirements on the haulers to provide the County with documentation on the types and volume of waste generated as well as the disposal locations, and requires the source separation of recyclable materials.

In addition to Putnam County Code 205, each municipality within the County has local laws or ordinances pertaining to handling of solid waste and recyclable materials. The current rules for data reporting requirements from the haulers will be enhanced, to revise the data collection tool included with the waste hauler permit application, and education provided regarding the importance of this information, which should improve the quality of the collected data.

### **6.2 Schedule and Description of Local Laws or Ordinances for the Implementation of Programs in the County**

New York State General Municipal Law § 120-aa (GML § 120-aa) mandated that all municipalities in the state adopt a local law or ordinance by September 1, 1992, requiring that recyclable, reusable or other components be separated from other solid waste. GML § 120-aa further states that components of the solid waste stream to be recycled can include paper, glass, metals, plastics, garden, and yard waste, where economic markets exist. Other components of municipal solid waste also may be included as markets for different materials develop, or as determined by the municipality. Municipalities must also abide by County and State laws regarding solid waste and recycling.

Putnam County Code 205 provides laws regarding the collection, transportation, and disposal of solid waste and recyclable materials. The County Laws specify that

transporters must obtain a County Waste Hauler Permit, and file an Annual Report that includes the types and volumes of waste collected and the disposal locations. County Code 205 states that its purpose is to “require source separation of recyclable materials to the maximum extent possible on the part of each and every household, business and institution in Putnam County.” County Code 205 also requires each municipality to provide the County with a plan that includes source separation of recyclable material and that these plans “require regular source separation by all waste generators within the municipality, and regular, reliable collection of recyclable materials by registered waste collectors from each property that generates such material within the municipality.” Enhancements to the hauler licensing requirements and the list of designated mandatory recyclables will be instituted in accordance with the implementation schedule in Chapter 8, and program development. Additionally, laws or regulations related to the institution of PAYT/SMART programs will be developed as necessary, as the program develops in each town and village.

## **6.3 Collection and Disposal Options**

### **6.3.1 Incentive Based Pricing**

Incentive based pricing or pay-as-you-throw (PAYT) programs, use unit pricing or variable-rate pricing systems to encourage residents to reduce the amount of MSW sent for disposal. USEPA’s Save Money And Reduce Trash (SMART) program is a PAYT program that encourages the institution of solid waste collection and disposal pricing based on the quantity of waste sent for disposal. As with utilities, residents are charged a base rate for service provided to the home, in this case the curbside pick up of waste. There is an additional cost for the removal of non-recyclable waste, creating a direct economic incentive for residents to recycle more and to generate less waste. Currently, residents living in the Town of Kent who do not live within a Solid Waste District or do not contract with a private hauler, can take their own bagged waste and recyclables to their local drop off center which essentially operates under a pay-as-you-throw scenario, with residents paying for the waste that they dispose of by the bag.

Currently, residents who must contract individually for curbside waste collection are generally paying a premium over those living in towns or districts where this service is provided through taxes. Moving towards universal curbside collection should therefore benefit those outside of the covered districts. Some private haulers have begun to take steps towards variable rate pricing by offering different prices for once or twice a week pick up, or by reducing prices for smaller collection bins. It should be possible to build on this practice when implementing a SMART program.

In order for a SMART program to work County-wide, governmental and private haulers would have to make changes to the way that they operate. Some SMART programs charge the residents for disposal by weight. This would entail upgrading current

equipment to be able to weigh solid waste at each location and record it by location, or purchasing new equipment with those capabilities. Other SMART program options that do not require capital outlays for new equipment include variable can and prepaid bag or tag systems. The variable can system allows residents to determine the number and size of the cans they will use and bills them on that basis. If a resident concludes that he or she needs more or fewer containers, the subscription rate can be modified to meet the changing needs. With the prepaid bag system, residents purchase special bags that must be used for disposal. Using a prepaid tag system, residents affix tags that have been purchased to the waste can or bag, which is then removed upon collection. In all of these systems, the cost of collection and disposal is included in the unit cost, and participation would be required for curbside pick-up. These SMART programs could easily be implemented in Solid Waste Districts where municipal employees are used for collection, and could also be used in Districts where private haulers are used. These SMART programs would be more difficult to institute in areas where individual residents contract independently for solid waste collection, however in those municipalities, the haulers could be required, by municipal law, to utilize a prepaid system. This requirement has been written into local laws in other areas.

The institution of a SMART program on a County-wide basis would require the development and passage of a new State or County law requiring such a program be established by each municipality. At this time, Putnam County has decided that County-wide SMART could not be instituted without further education for town officials, residents, and haulers. Buy-in from municipalities and residents is essential, however it is anticipated that once the benefits are explained, compliance will follow. Implementation will be a goal for the entire County, and educational efforts will focus on encouraging one or more towns to pilot the program.

### **6.3.2 Hauler Licensing or Districting**

The County and the Towns of Carmel and Putnam Valley currently license haulers who operate within their jurisdiction. Some of the municipalities within the County also have formed one or more Solid Waste Districts. Within the Solid Waste District, the collection of MSW and recyclables is regulated in that all of the residential properties within the District have their solid waste handled by a single entity, whether by municipal employees or a private hauler that has been contracted to remove and dispose of all of the solid waste and recyclables. The County now requires the submission of data on the collection, quantity, and disposal of all solid waste generated within the County, as well as the same information on the disposition of recyclable material generated in the County as part of the annual licensing. Previous data collection has not been perceived as reliable, but this new data will be used to determine the effectiveness of the County's effort to increase the quantity of recyclable materials recovered and decrease the amount of solid waste sent outside of the County for disposal.

### **6.3.3 Flow Control**

Solid waste flow control refers to state or local laws that direct where solid waste can be processed and/or disposed of. In April 2007, the U.S. Supreme Court ruled that local governments are permitted to institute solid waste flow control to government-owned and operated disposal facilities. It was determined that flow control laws that favor government-owned and operated disposal facilities do not discriminate against interstate commerce. It has also been argued that the Court's decision would allow for flow control to publicly-owned disposal facilities that are operated by private contractors.

Since the County does not own or operate either a solid waste processing or a disposal facility, the institution of solid waste flow control within Putnam County was not considered as an option.

### **6.3.4 Other Incentive Based Programs**

Recycle Bank, a private enterprise that forms partnerships with municipalities to encourage recycling, (see Executive Summary, Other Options Evaluated) or other systems like it, requires the participation of an entire municipality. Since not all of the municipalities provide curbside solid waste pickup for all of their residents this type of program is not an option at this time.

## 7 INTEGRATED SYSTEM SELECTION

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Putnam County's goal is to reduce the amount of solid waste sent for disposal through increased recycling by standardizing collection practices throughout the towns. With the implementation of universal curbside collection throughout the County, each resident will be provided the same access to recycling options. Standardization will also simplify educational efforts, and make enforcement of infractions easier and more uniform. The County intends to provide a consistent educational message as to the importance of recycling, with information regarding new options as they become available.

As standardization and education efforts are increased, compliance with the SWMP should increase as well. While market fluctuations may affect the speed of compliance, with demand driving supply, the trend is expected to be favorable to recycling initiatives.

### 7.1 Integrated System Selection

While the overarching goal of the County is to reduce waste by standardizing collection practices, the individual municipalities will continue to provide solid waste collection and disposal services as currently practiced, while moving towards implementation of uniform curbside collection and a SMART program. Several options were considered in determining the best way to achieve the stated goals. Current practice is not serving all residents equally well, and in most cases is not providing an incentive for waste generators to reduce waste. The construction of facilities is neither necessary, due to the existence of adequate disposal sites in neighboring counties, nor feasible, due to cost factors and siting difficulties. Putnam County will offer educational programs and literature to the municipalities, schools, and institutions throughout the County so that improvements can be made to reduce the amount of waste sent for disposal.

#### 7.1.1 Universal Curbside Collection

The County believes that ultimately, County-wide curbside collection of MSW and recyclable material, along with the implementation of a SMART program, is the optimal method for the removal and disposal of solid waste. This position is fully endorsed by NYSDEC. Universal collection at every residential property will ensure that the best price for waste removal is available to the residents of the County and eliminate the need for drop-off facilities for those who are not provided the service. For municipalities that do not use municipal employees for solid waste collection, contracting with a private hauler to provide curbside pickup of MSW and recyclables for the entire municipality, or districts within the municipality, should allow for greater monitoring of compliance.

Other options were considered before determining that municipally arranged universal curbside collection provides the most complete and least expensive option for residents. Given the size of the county, the size of the population, and land use restrictions imposed by other governmental agencies, the construction of any large disposal facility is neither necessary nor financially feasible. Drop-off centers, while very effective when well run, would still not meet the needs of those unable to access them.

While the SWMP does not specifically require municipally sponsored universal curbside collection or the creation of Solid Waste Districts in those areas where residents must contract individually for curbside pickup, the County will work with the municipalities to encourage the consolidation and further regulation of the service in those areas. The County requires each municipality to submit a SWMP which will provide the basis for assessing steps needed to provide adequate service in all areas.

### **7.1.2 Commercial, Institutional, and Multifamily Residential**

All commercial and institutional, and most multi-family residential solid waste generators, will continue to contract individually with haulers for the removal of solid waste and recyclable material. The County Solid Waste education efforts will include programs and literature geared toward commercial, institutional, and multifamily residential buildings and complexes. The educational efforts will focus on the fact that recycling is mandatory for all in the County, and that commercial and institutional establishments and multifamily residential buildings must have adequate recycling bins and capacity to comply with the law. The County will perform random inspections of schools, commercial, institutional, and multi-family residential facilities to ensure that recycling is being performed in accordance with County regulations. Enforcement of the solid waste program and mandatory recycling for all waste generators will be through provisions in County Code 205. County Code 205 has been revised to permit enforcement under the direction of the Putnam County Commissioner/Director of Health. Enforcement will begin with warnings, but provision is also made for the imposition of penalties should violations persist.

The use of variable rate programs based on the volume or weight of solid waste at multifamily residential buildings can be more challenging. In theory, the use of dumpsters provides some degree of incentive because the charges are based on volume, and the cost for removal is passed along to the residents through rent in apartment buildings, and common charge fees in condominium complexes. If the residents reduce the amount of solid waste generated for disposal, a savings could be attained. A breakdown of the incentivization for reducing waste may occur however, due to anonymity and a lack of accountability. The County Environmental Health Educator will work with municipalities, haulers, multi-family residential building owners and superintendents to help devise methods specific to various types of multi-family dwellings to provide individual financial incentives.

### **7.1.3 Reasons for Selection**

Putnam County plans to support County wide curbside solid waste collection and a SMART program for the following reasons:

- Lower cost to residents.
- Increased collection efficiency.
- Increased recycling percentage.
- Ease of adding additional recyclables and compostables into the program.
- Increased ability to expand market development opportunities with consistent source of materials.
- Assurance that all solid waste is handled and disposed of properly.
- Reduction of air pollution and truck traffic.
- Uniform requirements and limitations.

### **7.1.4 Capacity of Disposal Facilities and Recyclables Recovery Program**

Because Putnam County has no solid waste disposal facilities or recyclable materials recovery facilities (MRFs), the County does not have control over either the size or capacity of the facilities at which the waste and recyclables are processed, or their ultimate destination. Putnam County requires through its permitting process that all haulers operating in the County identify the names of the transfer stations, disposal facilities, and/or MRFs that they use. On their permit applications, they must demonstrate that the facilities they use have sufficient capacity to handle the quantity and type of material that the haulers will deliver. At the present time, there is sufficient capacity in the private sector to handle the County's waste volume. As such, the County is not considering operating solid waste facilities.

## **7.2 Procedures for Implementation of the Recovery Program**

The goal of the County is to optimize the collection of recyclable materials through the standardization of the collection process among the municipalities in the County, and to provide a financial incentive to residents to reduce the volume of solid waste they generate through the institution of a SMART program. Education programs will be used to reinforce the guidelines established, resulting in the reduction of waste sent for disposal. At this time, the individual towns and villages within the County will continue to provide solid waste and recyclables collection services as currently practiced, while following State and County laws and regulations, and meeting the requirements set forth in this SWMP. Inquiries to the County about waste disposal options make it clear that there is a desire to dispose of waste material in a responsible manner. By standardizing

collection practices, the County will be able to increase educational efforts and allow for consistent enforcement of regulations.

## **7.2.1 Plan and Scope of Operation**

### **7.2.1.1 Components of the Waste Stream**

- **MSW**

Every waste generator in the County, whether residential, commercial, institutional or industrial has access to a mechanism for the disposal of MSW whether by municipal service or private contract. The most significant problem with the management of this waste stream is a lack of enforcement regarding source separation, and the inclusion of inappropriate material. The County will address this using a multi-pronged approach. Education will be provided to waste generators, haulers, and municipalities regarding the state and County laws covering source separation, and this message will be reinforced as necessary. Ongoing non-compliance will be dealt with through the provisions of County Code 205. The institution of SMART programs in the towns and villages will also provide a financial incentive to reduce waste, and the County will work with each town and village to implement this system.

- **Recyclables**

This segment of the waste stream is changing constantly and rapidly. While as recently as two years ago, most haulers collected only plastics #1 and #2 along with cans and glass bottles, the larger haulers are now accepting plastic containers #1 through #7. A large, single stream MRF was opened in Beacon in 2012, and many haulers can now accept single stream material. The County will assist haulers with education to customers as additional changes are made. The County will also partner with organizers of special events to provide for the collection of recyclables and increase public awareness of the need to dispose of material properly.

- **Organics**

Because organic waste is such a large component of the waste stream, and because there is currently no large scale disposal site for this material, finding or developing solutions for this will be challenging.

Food waste is an especially problematic material. It's generated on both large and small scales, and will attract rodents and insects if not collected and disposed of quickly. Commercial collection requires an infrastructure that includes sealed



collection vehicles and a large scale composting facility. The need for frequent collections also requires sufficient participation to make routes profitable for waste haulers. While the County will work with haulers and large food waste generators, as well as with other counties in the region, to develop this infrastructure, it is anticipated that this will be a long process. Emphasis in the early years of the SWMP will be on backyard composting for residential generators, and on school composting.

Yard waste, while approximately equal in volume to food waste, presents an easier target. For homeowners, grass clippings and leaves can be mulched on site and several towns have at least some leaf pick up plans. Leaves can also be mixed with food waste in a back yard composting system. Some towns or districts have leaf collection programs, but none have managed composting programs. The County will work with these districts, and with towns and villages willing to site a pilot program, to formalize composting to create a useable/marketable product.

- **e-waste**

Electronic waste is currently collected in containers that the County has arranged to place in each town. The material is then packaged and transported to a dismantling facility compliant with NYS regulations. The recently enacted Electronic Equipment Recycling and Reuse Act may, in the future, provide additional options for disposal of these items in Putnam County.

- **Pharmaceutical Waste**

For the past two years, the County has provided for two medication collection events per year for residents. This is done in collaboration with the Putnam County Sheriff, Putnam Hospital Center, and Putnam Communities that Care, a coalition of agencies that includes the Putnam County Youth Bureau and the National Council on Alcoholism and Other Drug Dependencies. Putnam Ridge, (a Skilled Nursing Facility), the Department of Corrections, and Arms Acres, (a drug treatment facility), in Putnam are designated as Class 3A facilities and can participate in a pick up of unused medications, conducted periodically by the NYSDEC. Other facilities that may not fit into either of these categories will be identified to see whether other solutions need to be found.

- **Hazardous Waste**

Household Hazardous Waste collection events have been held in Putnam County once or twice a year beginning in 1988. Material accepted at these events changes over time as new problematic materials require a disposal method, or as more convenient and inexpensive solutions are found. The County intends to continue this practice as long as it is financially feasible.

- **Conditionally Exempt Small Quantity Generators (CESQG)**

While residents have a HHW disposal option provided by the County, and large generators of hazardous waste contract with permitted waste removal companies for this service, entities that generate small quantities of these substances have few outlets for appropriate disposal. A Small Quantity Generator is defined as one that generates 100 kg or less of hazardous waste per month, or 1 kg or less of acutely hazardous waste per month. The County will investigate the number of CESQGs that would be interested in having the County arrange a drop off option for them in conjunction with a HHW collection.

- **C&D Debris**

The first step in determining how best to deal with this waste stream will be to analyze the components. Many of the materials included in the category of C&D debris are recyclable as long as they are either collected separately or sorted at a transfer station. These include reclaimed asphalt, concrete, roofing shingles, gypsum board, glass, metals, and a number of other materials. The County will also investigate C&D processing facilities in the region in order to improve the percentage of material salvaged for recycling.

When this background information has been established, the County will begin to work with town building departments to educate contractors on proper disposal options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated.

- **Sewage/Septage/Sludge**

Currently all sewage, septage, and sludge collected within the County is trucked out of state to processing facilities, and ultimately, according to NYSDEC records, to landfills in the southern US. While there is no immediate need for a change in disposal practices, the County is mindful of the need to ensure that current processing facilities maintain the capacity to receive waste generated here. The County will also advocate for composting or anaerobic digestion to reduce the dependency for landfills.

#### 7.2.1.2 Management Tools

- **Creation of Task Forces**

In order to accomplish the County's stated goals, it will be necessary to work collaboratively with all categories of waste generators and collectors, as well as municipalities, organizations, and concerned individuals. Because of limited resources, the County will need to focus considerable effort on educating all

parties on the benefits of responsible disposal practices, and build cooperation among groups. To accomplish this, the County initially plans to form three groups as follows:

The County will form a Solid Waste Task Force comprised of representatives from the towns, interested haulers, and other large stakeholders, to provide a forum for the discussion of emerging concerns and prepare for County initiatives such as the implementation of a variable rate pricing system. Topics to be covered in early meetings will include County Codes relating to solid waste, waste hauler permits, enforcement, variable rate pricing, and the collection of organics and C&D debris.

A separate Municipal Working Group will focus on local SWMPs as required by County Code, and on variable rate pricing. This group will also provide a forum for the discussion of managed municipal composting sites and other initiatives that may cross town lines.

The County will work closely with the schools through a Green Schools Task Force, with both a curriculum and a facilities component. Responsibility for recycling in the schools is shared by students and staff, and some schools have been more successful than others in working out the division of labor. Schools will be encouraged to develop composting programs, with assistance provided as needed. Age appropriate lesson plans are available from a number of sources, and these and other resources will be shared in this group. Information on contests, seminars, and grants will also be provided to the schools.

- **Formation of Alliances**

Again, limited resources make it crucial that the County partner with local organizations in areas of shared concern. Cornell Cooperative Extension has experts in backyard composting and rain barrel construction, and they host the annual Putnam County 4-H Fair, providing an opportunity to reach a wide audience with current solid waste issues. The Putnam County Communities That Care Coalition, Putnam County Sheriff's Department, and Putnam Hospital Center have for several years partnered with the County in providing an opportunity for residents to dispose of unwanted medications in a safe manner. This collaboration will continue for the foreseeable future. Chambers of Commerce and Rotary and Lions Clubs have been eager to provide for recycling at special events. Habitat for Humanity stresses green building practices and deconstruction and reuse of materials rather than demolition and disposal of C&D debris. Strengthening all of these partnerships will enhance solid waste management within the County.

- **Education**

Education as a precursor to enforcement will be necessary in all areas of solid waste management.

Outreach to the public sector will include promoting recycling at public events, holding seminars as needed for specific groups or on specific topics, updating information on the webpage, and responding to questions as they arise.

In addition to the Green Schools Task Force, outreach to schools will include participation in environmental activities, assisting with composting and/or food waste collection programs, providing information on grants and seminars, and curriculum assistance as requested.

- **Enforcement**

Because in past years enforcement of existing Solid Waste Codes had been lacking, a number of preliminary steps need to be taken before this aspect of the Plan is up to speed. Revision of the County Codes has begun and is being updated as needed. Current Codes have been distributed to all permitted haulers, and have been posted on the website. All haulers who handle solid waste within Putnam County must be permitted by Putnam County. The waste hauler permitting process has been tightened, and haulers believed to be operating in the County without a permit are contacted and informed of the regulations.

Under the County's revised SWMP, the required permitting process will increase the responsibility of waste and recyclables haulers to document their in-county operations to track the quantities and types of materials brought to recycling facilities as well as the amount of waste transported for disposal to each of the facilities that their firm utilizes.

The next step will be to focus on education for all categories of waste generators. Residents are for the most part familiar with the requirement to source separate though compliance is inconsistent. Enforcement for this group will begin with reminders and advance to "oops" stickers or other similar steps. Other businesses and institutions may believe that the regulations apply only to residential waste. For these entities the education process may be longer before enforcement actions can be taken.

- **Continuing Education**

The County recognizes the importance of continuing education in the field of solid waste as new technologies and materials enter the market place. To this end the County will continue to participate in conferences, trainings, and regional meetings to maintain an understanding of best practices.

- **Compliance Report**

The County will provide an update on the progress made in following the SWMP in every odd numbered year, to identify problem areas and to report accomplishments.

### **7.2.2 Equipment to be Used**

At present, it is anticipated that the municipalities which provide curbside MSW and recyclable material collection using municipal employees will continue doing so using the equipment currently on hand. Private haulers operating in the County are also anticipated to continue using equipment used at the present time for residential, commercial, and institutional solid waste and recyclable material collection. It is anticipated that all waste and recyclable collection equipment will be maintained in proper working condition and replaced as necessary in order to manage uninterrupted material collection activities. Some equipment changes may be made as SMART programs are instituted, depending on which are ultimately employed. Any changes of this nature would typically occur as equipment replacement becomes necessary. Towns that provide curbside collection of yard waste and Christmas trees will either use existing town owned equipment to manage these materials or will purchase equipment for the composting program which is able to handle movement, turning, and possibly screening the material. Specialized equipment is available for collection and windrow turning, but is not necessary. The NYSDEC Municipal Waste Reduction & Recycling grants program is available for the County and the municipalities to obtain funding for new or expanded projects of this sort. The program provides assistance for projects that enhance the municipal recycling infrastructure, through the purchasing of equipment or construction of facilities, including state-of-the-art composting facilities.

### **7.2.3 Collection Arrangements**

Because the SWMP does not specifically require municipally sponsored universal curbside collection or the creation of Solid Waste Districts in those areas where residents contract individually for curbside pickup, the County will work with the municipalities to encourage the consolidation and further regulation of the service in those areas, and provide any needed assistance in the creation of Solid Waste Districts. At the outset of the implementation of this plan, existing collection agreements are expected to continue. This aspect of the plan will be implemented over the next several years in order for existing agreements to be modified to be in compliance with the plan. The lack of appropriate and comprehensive yard waste management is a significant concern, and will be one of the first issues addressed in the planned Municipal Working Group.

In less rural portions of the towns and villages where yard waste cannot be dealt with on individual properties, towns and villages will be encouraged to arrange for the collection of yard waste. Each town will be encouraged to establish a composting program for yard trimmings. The County will work with the towns and villages, and provide education on

composting and assistance in setting up yard waste composting facilities. School districts, businesses, and other institutions in the County will be encouraged to manage their yard waste either on site, through the local composting facilities as the Towns begin operating them, or under contract with private haulers.

As residential collection moves towards standardization, programs will be expanded to provide education to school districts, businesses, and other institutions in an effort to reduce MSW generated and reclaim as much recyclable material as possible. Enforcement of the solid waste program and mandatory recycling for all waste generators will be accomplished through enforcement of the provisions of County Codes.

#### **7.2.4 Processing and Storage Procedures**

The Towns of Kent, Patterson, and Philipstown operate drop-off facilities where recyclable materials can be disposed of by residents. The Towns of Patterson and Philipstown Recycling Drop-Off Centers are registered with the NYSDEC. The Town of Kent Recycling Center is registered with the NYSDEC as a transfer station since it accepts bagged MSW from residents of the Town in addition to accepting recyclable material.

All of the other recyclable processing and storage facilities used to handle Putnam County materials are located outside of the County and its jurisdiction. Haulers operating in the County use facilities located in other New York counties as well as in the State of Connecticut. All facilities receiving materials from Putnam County must adhere to State and local regulations. Putnam County requires that the names of the facilities that are proposed to be used are included on the permit applications along with letters indicating the ability and willingness of these destinations to accept the material. While the County does not have the ability to inspect facilities outside of the County, it requires that all facilities used for the processing and storage of recyclable materials from Putnam County hold all required current State and local permits and registrations necessary to operate as a solid waste management facility.

When Town yard waste composting facilities are established, they will be operated in accordance with New York State regulations (NYCRR 360-5). Many households do not have the space to compost large quantities of organic yard waste, such as leaves and branches. The County, working with the NYSDEC, will provide education and assistance to the towns in the planning, design, and operation of the composting facilities. It is anticipated that two municipalities, the Towns of Kent and Southeast, will serve as initial pilot programs for additional towns.

Food scrap collection and processing options will be researched, and programs will be encouraged as equipment is purchased and infrastructure becomes available. As yard waste composting sites are developed, small scale food waste composting will be

developed as part of these facilities. Implementation of a SMART program will make adding additional categories of material much easier.

### **7.2.5 Market Agreements**

Recyclable materials are brought to private processing facilities, which have agreements with other private entities that purchase different recyclables for use as materials for the manufacture of new products. The County has no control over these agreements, and monies received or spent on the handling of various recyclable materials are often driven by different commodities markets. The County will work with Empire State Development and with regional groups to develop information on market options, and will provide this information to the towns through the Municipal Working Group.

Currently Putnam County has contracted with WeRecycle for the placement and removal of collection containers for used electronics equipment, or e-waste. WeRecycle is a fully licensed recycler having a NYSDEC C7 permit. Agreements for the collection and recycling of consumer electronics are evaluated annually by the County.

### **7.2.6 Funding Sources**

Funding for all County Departments depends largely on taxes. This will continue to be the primary source for solid waste activities. The County will pursue grants available through the NYSDEC, and will also inform the Towns and Villages of the same. When market conditions are favorable, revenue from the sale of recyclable materials will at least in part fund the collection and removal of recyclable materials. Funding for the removal of these materials from non-residential properties will continue to come from fees that are paid for the service. Information provided by the County on PAYT systems established for residential waste may reduce the cost of waste collection for businesses as well.

### **7.2.7 Entity Responsible for Operations and Management**

Each municipality within the County is responsible for the implementation of the SWMP within its jurisdiction and for ensuring that its operation and management is in accordance with State and local regulations. According to County Code § 205-11 A. (1), all municipalities must submit to the County a plan to provide for source separation, and collection or drop-off of recyclable materials. Adherence to this Code will now be required, with notice given to the municipalities, and follow up in the Municipal Working Group. Enforcement of this requirement will be accomplished through provisions of County Codes. The County is responsible for ensuring that the municipalities operate in accordance with the SWMP, and for providing support and education to the municipalities. Representatives designated by each municipality will meet regularly with Putnam County to discuss solid waste issues in the County and the changes to the way in

which solid waste, recyclables, and organics are handled in Putnam County. As the SWMP is implemented, quarterly meetings are anticipated. Once the initial components outlined in the SWMP have been started, the frequency of these meetings may be reduced to semi-annual or annual as needed.

### **7.2.8 Availability of Staff for Implementation**

It is anticipated that in municipalities where town or village employees provide curbside collection services, these employees will continue to provide the service. In those municipalities that choose to undertake the curbside collection of MSW and recyclable materials or where service areas will be expanded, it is possible that additional employees and equipment may be required. These needs will be reevaluated as new programs, such as organics diversion, become feasible. Municipalities contracting with private haulers for the collection of MSW and recyclable materials will rely on the use of employees retained by the contractor.

Putnam County provides education and support to the residents and the municipalities within the County. It is recognized that the plan outlined in this document is an ambitious one for current County staffing. The County will be relying on the Towns for the implementation of programs determined to be beneficial, however progress will be evaluated on an ongoing basis to determine whether additional resources may be required, either by identifying additional partners, or from a review of staffing needs. The initial target for additional staffing is the enforcement effort.

## **7.3 Public Sector**

Each municipality within the County either currently has an individual responsible for managing or coordinating the handling of solid waste and recyclable materials generated within its jurisdiction, or will appoint a person to this position. The solid waste coordinator from each municipality will be responsible for ensuring compliance with the SWMP. Each municipal plan will consider disposal options for all types of waste, including organics and C & D debris, with a focus on reuse and recycling of these materials. The County will work with municipal sewage treatment facilities to discuss alternatives to landfill for the final disposal of biosolids.

A Municipality Working Group will be established made up of representatives from the towns and villages to discuss implementation of the SWMP as the County moves towards implementation of a SMART program, and to provide assistance to the municipalities associated with their solid waste and recycling education needs. At the present time, for example, while portions of certain municipalities provide for the collection of yard waste, there is no true management of the material. The Municipality Working Group will provide the participants an opportunity to discuss this and other issues affecting them related to solid waste management and the SWMP. The Municipality Working Group



will allow the members to share ideas and actions taken and what the results of those actions are. Communication among the members of this group will provide them with information on plans and activities in the County and afford them with the opportunity to combine efforts and share resources whenever possible.

The County will establish a Green Schools Task Force with representation from all districts within the County to work on environmental issues, policy, and curricula. The County will provide education and training to faculty and custodial staff on how the school districts can comply with the requirements of the SWMP, initiate composting programs similar to the one being considered at the Green Chimneys School, and promote purchasing of recycled content products for use in the schools. Like the Municipality Working Group, the Green Schools Task Force will provide a forum for communication among the school districts as to how each is addressing various solid waste issues.

A Solid Waste Task Force will also be initiated by the County, which will be comprised of representatives from the towns and villages, permitted haulers operating in the County, and other large stakeholders, to prepare for a SMART initiative and other emerging solid waste concerns. Meetings with business owners and selected staff will be held to identify problems and provide education and assistance to ensure compliance with the SWMP and provide answers and direction for assorted recycling inquiries. The County will work with pharmacies and other health care related facilities regarding State requirements to post medication disposal information.

## **7.4 Private Sector Management**

A number of municipalities within the County currently rely on private haulers to collect the MSW and recyclable materials, either through contracts for solid waste districts or through their residents contracting directly with individual haulers. In areas included in solid waste districts, residents contact the municipality if there is a problem with the hauler, and the municipality is responsible for resolving any problem with the hauler. Municipalities who contract with private haulers can use legal actions to require the hauler to adhere to the obligations set forth in the agreement between the municipality and the hauler, and the municipalities also have the ability to revoke those contracts when a hauler is not meeting its obligations or not managing the waste in accordance with State and local laws.

In areas where residents contract individually, it is the resident's responsibility to resolve any problems that they might have. Individual residents and businesses that contract privately with haulers have the right to change haulers if they are not satisfied with the service they receive and/or the conditions in the agreement that they have with the hauler are not met. The municipalities and the County both have the ability to revoke permits or cancel contracts of haulers who are not responsive to complaints and/or are determined to

be not adequately managing a waste stream or complying with all State or local laws and regulations. In Municipalities with solid waste districts where a contracted hauler is removed for not performing adequately, revocation of a required permit, or operating contrary to State or local laws and regulations, a new hauler will be retained through either an emergency authorization or a new bidding process.

## **7.5 Private Sector Responsibilities**

The County will, through the waste hauler permit reporting, identify large generators of C & D debris, MSW, organics, and regulated medical waste. Once identified, educational presentations to generators of specific materials can be prepared. Enforcement steps are included in County Code 205 to address continuing instances of non-compliance.

Through the Solid Waste Task Force, the County will assist commercial waste generators of C&D debris with information regarding the reduction, reuse, and recycling of C&D debris. The County will also collaborate with organizations such as Habitat for Humanity to promote responsible waste management.

The sole hospital in the county will be provided with information regarding potential reduction of regulated medical waste. Medical practices and facilities will be contacted regarding reverse distribution options for unused pharmaceuticals. There are four class 3A nursing facilities in Putnam in the East of Hudson (EOH) watershed area that are served by a take-back program for unused medications. They are Putnam Nursing and Rehabilitation, Armes Acres, Putnam County Department of Corrections, Putnam Ridge, and Green Chimneys. The only facility outside of the watershed without a current disposal option is St. Christopher's Inn. The County will work with them to determine what other options might exist.

Schools, nursing homes, restaurants, and grocers will be encouraged to participate in organics collection programs as they become feasible.

All private sector waste generators will be subject to the same enforcement procedures that apply to any other waste generator.

Private sector haulers and operators of transfer stations and material recovery facilities are required to operate in accordance with all applicable State and local laws and regulations. All private sector haulers operating within Putnam County must comply with County permitting requirements and all responsibilities specified in the contracts under which they operate. Putnam County will provide assistance to all municipalities with the identification of private haulers who have had problems meeting their responsibilities in the County or elsewhere. Since all material recovery facilities and disposal facilities are located outside of the jurisdiction of Putnam County, enforcement of State and local laws and regulations for these facilities is the responsibility of the State and local municipalities in which they are located. The Putnam County permitting process places

the responsibility of ensuring that all waste generated and collected in Putnam County is brought to facilities with all required State and local permits on the private haulers. Haulers bringing waste from Putnam County to an unpermitted facility or a facility which has had its permit expire or revoked, risk the loss of their permits to transport solid waste in Putnam County.

## 8 IMPLEMENTATION SCHEDULE

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### 8.1 Implementation Schedule

The SWMP will be implemented beginning in 2011 as presented in the Implementation Schedule. The tasks that will be completed as part of implementation of the SWMP have been broken up into the following categories:

- SWMP
  - Implementation (2011)
  - Compliance Report (every odd numbered year)
  - Draft new SWMP (2020)
- Working Groups
  - Solid Waste Task Force
  - Municipality Working Group
- NYS Code Enforcement: Enforcement:
  - Enforcement of NYS Plastic Bag Reduction Law
  - Medication Disposal Information Law
- County Code Enforcement
- SMART Program
- Enforcement
  - Waste Hauler Permitting
- Public Education
  - General Public
  - Schools
- Special Wastes
- Organic Waste
  - Food Scraps
  - Yard Waste
- Waste Tires
- Used Oil

- C&D Collection and Processing
- Septage, Sewage, and Sludge
- Continuing Education

The following summarizes the activities that will be performed under each of the above tasks by year. Table 8-1: Implementation Schedule is included in Appendix D and details each of the tasks of the SWMP on a quarterly basis for the 10 year life of the SWMP.

# 2011 Implementation Schedule

## SWMP

- > Implementation

## Working Groups

### ***Solid Waste Task Force:***

- > Meet with representatives from towns, haulers, large stakeholders to prepare for SMART initiative and other emerging concerns, assist towns with solid waste and recycling education needs

## Working Groups

### ***Municipality Working Group:***

- > Towns to identify representatives to discuss implementation of proposed County move towards implementation of SMART program
- > Representatives from all 6 towns and 3 villages, to prepare for implementation of SMART program.

## NYS Code Enforcement

### ***Medication Disposal Information Law:***

- > Identify covered locations
- > Provide education to covered locations

## County Code Enforcement

- > Provide municipalities with date for submission of plan to provide for source separation and collection and/or drop-off of recyclable materials as required by County Code
- > Distribution of revised Code to municipalities and waste haulers
- > Posting of link to Code on County webpage

## SMART Program

- > Introduce program to individual municipalities, discuss volunteer towns for pilot program
- > Introduce program to SW Task Force
- > Promote voluntary pilot program in 1 - 2 towns
- > Hold seminar for permitted haulers in Putnam to introduce SMART concept
- > Provide education / assistance to towns for SMART programs
- > Encourage additional participation, with the goal of implementation in all towns by 1/1/2015

# 2011 Implementation Schedule

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Develop policy and procedure for enforcement of waste hauler compliance with County Solid Waste Code and State Recycling Law
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Implementation of education and assistance program for waste haulers
- > Analysis of data from waste haulers to identify problem areas

## **Public Education**

### ***General Public:***

- > Meet with town boards to discuss and promote recycling
- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Conduct at least one seminar for the public on backyard composting

## **Public Education**

### ***Schools:***

- > Establish/maintain list of contacts of all school personnel responsible for environmental curriculum
- > Establish/maintain list of contacts of all school personnel responsible for waste disposal / management
- > Establish Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed

# 2011 Implementation Schedule

- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Provide education and promote purchasing of recycled content products to schools
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Participate with at least two schools in green event activities

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs

## **Organics**

### ***Yard Waste:***

- > Begin discussion of yard waste disposal concerns / solutions with Municipal Group and SW Task Force
- > Provide towns and schools with information about yard waste composting
- > Meet with town(s) volunteering to work on yard waste solutions
- > Assist with composting activities in pilot programs

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns



# New Initiatives in 2012

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance

## **Enforcement**

- > Begin inspection of waste hauler collection practices
- > Begin inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Begin "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Begin education regarding source separation requirements to commercial establishments and multi-family residences

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Conduct at least one seminar for the public on SMART programs
- > Conduct at least one seminar for commercial establishments on recycling and purchasing of recycled content items
- > Conduct at least one seminar for the public on hazardous wastes

## **Public Education**

### ***Schools:***

- > Educate schools about reducing cafeteria waste in schools
- > Work with science teachers to promote "green chemistry" curriculum in order to reduce hazardous waste disposal needs

## **Organics**

### ***Food Waste:***

- > Conduct educational outreach to large food generators at hospitals, nursing homes, independent living facilities, office for aging

# New Initiatives in 2012

## Organics

### *Yard Waste:*

- > Assist with implementation of recycling plan by towns for at least some components of yard waste
- > Measure/report effectiveness of yard waste programs

# 2012 Implementation Schedule

## Working Groups

### ***Solid Waste Task Force:***

- > Meet with representatives from towns, haulers, large stakeholders to prepare for SMART initiative and other emerging concerns, assist towns with solid waste and recycling education needs
- > Continue to discuss the SMART initiative and other emerging concerns

## Working Groups

### ***Municipality Working Group:***

- > Representatives from all 6 towns and 3 villages, to prepare for implementation of SMART program.

## NYS Code Enforcement

### ***Medication Disposal Information Law:***

- > Identify covered locations
- > Provide education to covered locations
- > Inspect covered locations

## County Code Enforcement

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## SMART Program

- > Provide education / assistance to towns for SMART programs
- > Encourage additional participation, with the goal of implementation in all towns by 1/1/2015

## Enforcement

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Begin inspection of waste hauler collection practices
- > Begin inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Begin "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Begin education regarding source separation requirements to commercial establishments and multi-family residences

# 2012 Implementation Schedule

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Meet with town boards to discuss and promote recycling
- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Conduct at least one seminar for the public on backyard composting
- > Conduct at least one seminar for commercial establishments on recycling and purchasing of recycled content items
- > Conduct at least one seminar for the public on hazardous wastes

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Provide education and promote purchasing of recycled content products to schools
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Work with science teachers to promote "green chemistry" curriculum in order to reduce hazardous waste disposal needs

# 2012 Implementation Schedule

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Conduct educational outreach to large food generators at hospitals, nursing homes, independent living facilities, office for aging

## **Organics**

### ***Yard Waste:***

- > Provide towns and schools with information about yard waste composting
- > Meet with town(s) volunteering to work on yard waste solutions
- > Assist with composting activities in pilot programs
- > Assist with implementation of recycling plan by towns for at least some components of yard waste
- > Measure/report effectiveness of yard waste programs

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2013

## **SWMP**

- > Compliance Report

## **SMART Program**

- > Evaluate 1st year of any existing pilot program(s)

## **Enforcement**

- > Begin enforcement for waste hauler violations
- > Implement "oops" sticker practice for commercial establishments
- > Begin education of source separation of multi-family dwellings

## **Public Education**

### ***General Public:***

- > Conduct at least one seminar on recycling for institutions (hospitals, nursing homes, adult care facilities)
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Promote "green art" year rewarding projects using found materials

## **Organics**

### ***Food Waste:***

- > Assist large food generators with implementation
- > Expand educational outreach to schools

## **C&D Collection and Processing**

- > Conduct analysis of C&D waste stream
- > Investigate area C&D processing facilities
- > Prepare educational material on deconstruction and outlets such as ReStore

# 2013 Implementation Schedule

## **SWMP**

- > Compliance Report

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **Working Groups**

### ***Municipality Working Group:***

- > Representatives from all 6 towns and 3 villages, to prepare for implementation of SMART program.

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Evaluate 1st year of any existing pilot program(s)
- > Provide education / assistance to towns for SMART programs
- > Encourage additional participation, with the goal of implementation in all towns by 1/1/2015

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Begin enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences

# 2013 Implementation Schedule

- > Implement "oops" sticker practice for commercial establishments

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Conduct at least one seminar for the public on backyard composting
- > Conduct at least one seminar on recycling for institutions (hospitals, nursing homes, adult care facilities)
- > Conduct at least one seminar for commercial establishments on recycling and purchasing of recycled content items
- > Conduct at least one seminar for the public on hazardous wastes
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Provide education and promote purchasing of recycled content products to schools
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts



# 2013 Implementation Schedule

- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Promote "green art" year rewarding projects using found materials
- > Work with science teachers to promote "green chemistry" curriculum in order to reduce hazardous waste disposal needs

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Conduct educational outreach to large food generators at hospitals, nursing homes, independent living facilities, office for aging
- > Assist large food generators with implementation
- > Expand educational outreach to schools

## **Organics**

### ***Yard Waste:***

- > Provide towns and schools with information about yard waste composting
- > Meet with town(s) volunteering to work on yard waste solutions
- > Assist with composting activities in pilot programs
- > Assist with implementation of recycling plan by towns for at least some components of yard waste
- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Conduct analysis of C&D waste stream
- > Investigate area C&D processing facilities
- > Prepare educational material on deconstruction and outlets such as ReStore

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2014

## **SMART Program**

- > Report to municipalities on program(s) and progress
- > Evaluate 2nd year of any existing pilot program(s)
- > Review and address any remaining obstacles to implementation of SMART program in all towns

## **Enforcement**

- > Begin inspections of commercial establishments for source separation compliance

## **Public Education**

### ***Schools:***

- > Continue focused educational theme initiatives as progress is made towards increasing amounts and types of materials recycled

## **Organics**

### ***Food Waste:***

- > Expand educational outreach to groceries

### ***Yard Waste:***

- > Implement / expand composting activities in any pilot programs

## **C&D Collection and Processing**

- > Work with town building departments to educate contractors on proper disposal options, including reduction, reuse and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated.

# 2014 Implementation Schedule

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **Working Groups**

### ***Municipality Working Group:***

- > Representatives from all 6 towns and 3 villages, to prepare for implementation of SMART program.

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Evaluate 1st year of any existing pilot program(s)
- > Provide education / assistance to towns for SMART programs
- > Report to municipalities on program(s) and progress
- > Evaluate 2nd year of any existing pilot program(s)
- > Encourage additional participation, with the goal of implementation in all towns by 1/1/2015
- > Review and address any remaining obstacles to implementation of SMART program in all towns

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up

# 2014 Implementation Schedule

- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Begin inspections of commercial establishments for source separation compliance
- > Continue "oops" sticker practice for commercial establishments

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Conduct at least one seminar for the public on backyard composting
- > Conduct at least one seminar on recycling for institutions (hospitals, nursing homes, adult care facilities)
- > Conduct at least one seminar for the public on hazardous wastes
- > Continue education for residents of multi-family units regarding source separation requirements
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

# 2014 Implementation Schedule

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Provide education and promote purchasing of recycled content products to schools
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Promote "green art" year rewarding projects using found materials
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Conduct educational outreach to large food generators at hospitals, nursing homes, independent living facilities, office for aging
- > Assist large food generators with implementation
- > Expand educational outreach to schools
- > Expand educational outreach to groceries

# 2014 Implementation Schedule

## **Organics**

### ***Yard Waste:***

- > Provide towns and schools with information about yard waste composting
- > Meet with town(s) volunteering to work on yard waste solutions
- > Implement / expand composting activities in any pilot programs
- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2015

## **SWMP**

- > Compliance Report

## **SMART Program**

- > Measure / evaluate progress of SMART program in all towns
- > Expect implementation of SMART program in all towns

## **Public Education**

### ***General Public:***

- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences

## **Organics**

### ***Food Waste:***

- > Expand to restaurants

## **Organics**

### ***Yard Waste:***

- > Review and address any remaining obstacles to implementation of recycling plan by all towns for additional components of yard waste

# 2015 Implementation Schedule

## **SWMP**

- > Compliance Report

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **Working Groups**

### ***Municipality Working Group:***

- > Representatives from all 6 towns and 3 villages, to prepare for implementation of SMART program.

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Provide education / assistance to towns for SMART programs
- > Report to municipalities on program(s) and progress
- > Evaluate 2nd year of any existing pilot program(s)
- > Measure / evaluate progress of SMART program in all towns
- > Expect implementation of SMART program in all towns
- > Review and address any remaining obstacles to implementation of SMART program in all towns

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code



# 2015 Implementation Schedule

- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance
- > Continue "oops" sticker practice for commercial establishments
- > Continue inspection of source separation of multi-family dwellings

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts

# 2015 Implementation Schedule

- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Assist large food generators with implementation
- > Expand educational outreach to schools
- > Expand educational outreach to groceries
- > Expand to restaurants

## **Organics**

### ***Yard Waste:***

- > Expand composting activities in any pilot programs
- > Measure/report effectiveness of yard waste programs
- > Review and address any remaining obstacles to implementation of recycling plan by all towns for additional components of yard waste

## **C&D Collection and Processing**

- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options, including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2016

## **Working Groups**

### ***Municipality Working Group:***

- > Merge with SW Task force in 2016.

## **SMART Program**

- > Continue annual review and report of progress towards reducing waste

## **Enforcement**

- > Begin inspection of source separation in multi-family dwellings

## **Organics**

### ***Food Waste:***

- > Conduct education to municipalities and residents
- > Provide education & assistance with food scraps collection

# 2016 Implementation Schedule

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **Working Groups**

### ***Municipality Working Group:***

- > Merge with SW Task force in 2016.

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Provide education / assistance to towns for SMART programs
- > Report to municipalities on program(s) and progress
- > Evaluate 2nd year of any existing pilot program(s)
- > Measure / evaluate progress of SMART program in all towns
- > Continue annual review and report of progress towards reducing waste

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up

# 2016 Implementation Schedule

- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance
- > Continue "oops" sticker practice for commercial establishments
- > Begin inspection of source separation of multi-family dwellings

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Continue education for residents of multi-family units regarding source separation requirements
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts

# 2016 Implementation Schedule

- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Expand educational outreach to schools
- > Expand educational outreach to groceries
- > Expand to restaurants
- > Conduct education to municipalities and residents
- > Continue Education & assistance with food scraps collection

### ***Yard Waste:***

- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options, including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2017

## **Organics**

### ***Food Waste:***

- > Pilot food scrap collection curbside in 1 town

## **Sewage/Septage/Sludge**

- > Investigate final disposition treatment of sewage, septage, and sludge

# 2017 Implementation Schedule

## **SWMP**

- > Compliance Report

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Provide education / assistance to towns for SMART programs
- > Report to municipalities on program(s) and progress
- > Measure / evaluate progress of SMART program in all towns
- > Continue annual review and report of progress towards reducing waste

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance



# 2017 Implementation Schedule

- > Continue "oops" sticker practice for commercial establishments
- > Continue inspection of source separation of multi-family dwellings

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and

# 2017 Implementation Schedule

types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Expand to restaurants
- > Conduct education to municipalities and residents
- > Pilot food scrap collection curbside in 1 town
- > Continue Education & assistance with food scraps collection

## **Organics**

### ***Yard Waste:***

- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Conduct analysis of C&D waste stream
- > Prepare educational material on deconstruction and outlets such as ReStore.
- > Work with town building departments to educate contractors on proper disposal options including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Sewage/Septage/Sludge**

- > Investigate final disposition treatment of sewage, septage and sludge

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2018

## **Organics**

### ***Food Waste:***

- > Evaluate pilot curbside collection
- > Expand curbside collection to additional town(s)

## **Sewage/Septage/Sludge**

- > Advocate for composting or anaerobic digestion of material if other processes are used.
- > Assist towns with identifying disposal options view.

# 2018 Implementation Schedule

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Measure / evaluate progress of SMART program in all towns
- > Continue annual review and report of progress towards reducing waste

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance
- > Implement "oops" sticker practice for commercial establishments
- > Continue inspection of source separation of multi-family dwelling

# 2018 Implementation Schedule

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Continue education for residents of multi-family units regarding source separation requirements
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and

# 2018 Implementation Schedule

types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Conduct education to municipalities and residents
- > Evaluate pilot curbside collection
- > Expand curbside collection to additional town(s)
- > Continue Education & assistance with food scraps collection

## **Organics**

### ***Yard Waste:***

- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Conduct analysis of C&D waste stream
- > Investigate area C&D processing facilities
- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options, including reduction, reuse and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated.

## **Sewage/Septage/Sludge**

- > Advocate for composting or anaerobic digestion of material if other processes are used.
- > Assist towns with identifying disposal options

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# 2019 Implementation Schedule

## **SWMP**

- > Compliance Report

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Measure / evaluate progress of SMART program in all towns
- > Continue annual review and report of progress towards reducing waste

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance
- > Continue "oops" sticker practice for commercial establishments
- > Continue inspection of source separation of multi-family residences

# 2019 Implementation Schedule

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notices to customers, PSAs
- > Continue education for residents of multi-family units regarding source separation requirements
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and types of materials recycled



# 2019 Implementation Schedule

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Expand curbside collection to additional town(s)
- > Continue Education & assistance with food scraps collection

## **Organics**

### ***Yard Waste:***

- > Measure/report effectiveness of yard waste programs

## **C&D Collection and Processing**

- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Sewage/Septage/Sludge**

- > Investigate final disposition treatment of sewage, septage, and sludge
- > Advocate for composting or anaerobic digestion of material if other processes are used
- > Assist towns with identifying disposal options

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

# New Initiatives in 2020

## **SWMP**

- > Draft and adopt a new SWMP

## **SMART Program**

- > Report on progress made during past ten years

## **Organics**

### ***Food Waste:***

- > Investigate additional resources as needed
- > Implement food scrap collection in all towns

## **Organics**

### ***Yard Waste:***

- > Report on progress made during past ten years

# 2020 Implementation Schedule

## **SWMP**

- > Draft and adopt new SWMP

## **Working Groups**

### ***Solid Waste Task Force:***

- > Continue to discuss the SMART initiative and other emerging concerns

## **NYS Code Enforcement**

### ***Medication Disposal Information Law:***

- > Inspect covered locations

## **County Code Enforcement**

- > Review of Code to determine revisions needed to increase compliance
- > Distribution of any revision of Codes to municipalities and waste haulers
- > Posting of any updates to Code on County webpage

## **SMART Program**

- > Measure / evaluate progress of SMART program in all towns
- > Continue annual review and report of progress towards reducing waste
- > Report on progress made during past ten years

## **Enforcement**

- > Provide education to residents about source separation requirements and consequences of failure to comply; hauler notices to customers, website
- > Provide education / assistance regarding expectations and enforcement steps to waste haulers in seminar
- > Respond to complaints, provide assistance
- > Post list of permitted haulers on County webpage
- > Provide education regarding expectations and enforcement steps to waste haulers as part of permit application
- > Continue inspection of waste hauler collection practices
- > Continue inspection of waste hauler collection vehicles and facilities for compliance with County Code
- > Continue enforcement for waste hauler violations
- > Continue "oops" sticker portion of enforcement policy for residential curbside pick-up
- > Continue education regarding source separation requirements to commercial establishments and multi-family residences
- > Continue inspections of commercial establishments for source separation compliance

# 2020 Implementation Schedule

- > Continue "oops" sticker practice for commercial establishments
- > Continue inspection of source separation of multi-family dwelling

## **Enforcement**

### ***Waste Hauler Permitting:***

- > Revision of waste hauler permitting process, review of permitting fees
- > Waste hauler permit applications to require submission of data on amounts and types of waste collected in the previous year, and location of disposal sites
- > Analysis of data from waste haulers to identify problem areas
- > Provide continuing education and assistance to waste haulers

## **Public Education**

### ***General Public:***

- > Promote recycling in public events / forums
- > Respond to complaints, provide assistance
- > Conduct at least one seminar for the public on SMART programs
- > Expand efforts to educate residents regarding mandatory source separation; website, hauler notice to customers, PSAs
- > Continue annual seminar series for the public on specific topics
- > Continue annual seminar series for specific audiences
- > Conduct at least one seminar for multi-family residence managers on recycling and source separation

## **Public Education**

### ***Schools:***

- > Maintain list of contacts of all school personnel responsible for environmental curriculum
- > Maintain list of contacts of all school personnel responsible for waste disposal / management
- > Maintain Green Schools Task Force with representation from all districts to work on environmental issues, policy, and curricula
- > Add school resources and events to County webpage, update as needed
- > Maintain communication with all schools regarding grant information, available programs, and resource material
- > Work / meet with each school to discuss waste reduction, recycling and related concerns
- > Provide assistance to schools for waste hauler contracts
- > Educate schools about reducing cafeteria waste in schools
- > Participate with at least two schools in green event activities
- > Continue focused educational theme initiatives as progress is made towards increasing amounts and

# 2020 Implementation Schedule

types of materials recycled

## **Special Wastes**

- > Provide at least one Household Hazardous Waste collection opportunity per year for residents
- > Investigate / identify other special needs

## **Organics**

### ***Food Waste:***

- > Evaluate existing programs
- > Continue expansion to additional towns
- > Continue Education & assistance with food scraps collection
- > Investigate additional resources as needed
- > Implement food scrap collection in all towns

## **Organics**

### ***Yard Waste:***

- > Measure/report effectiveness of yard waste programs
- > Report on progress made during past ten years

## **C&D Collection and Processing**

- > Prepare educational material on deconstruction and outlets such as ReStore
- > Work with town building departments to educate contractors on proper disposal options including reduction, reuse, and recycling options. Building permit restrictions/requirements relating to reuse and recycling will be evaluated

## **Sewage/Septage/Sludge**

- > Investigate final disposition treatment of sewage, septage, and sludge
- > Advocate for composting or anaerobic digestion of material if other processes are used
- > Assist towns with identifying disposal options

## **Continuing Education**

- > Participation in regional conferences and trainings to obtain information on evolving solid waste management technology and practices
- > Participation in regional meetings with local counties to investigate opportunities for collaboration and develop solutions to shared concerns

## 9 EXPORT CERTIFICATION OF CAPACITY

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### 9.1 Certification of Disposal Capacity From Destination Facilities

All waste is exported outside of Putnam County for processing or disposal. As such, assurance of reliable waste management services will hinge upon the availability of out-of-county transfer and disposal facilities which are not within the jurisdiction and control of Putnam County. This plan section provides the practical and administrative approach to assuring adequate disposal outlets for waste generated within the County.

From a purely practical position, waste management within Putnam County has been and will continue to be a free market system. As such, if one or more haulers are not available to collect waste in the County, there are multiple other firms that can be relied upon to provide this service. Since there are fewer disposal facilities than there are haulers and since multiple haulers utilize common disposal facilities, the lack of availability of a destination facility would have a more dramatic impact on waste management within the County.

At this time certification of disposal capacity from destination facilities is not available. Waste collected from the towns and villages within Putnam County is collected by multiple waste collection service providers each utilizing one or more outlets as the final destination for waste material disposal. Putnam County, through its waste hauler permitting program is in the process of acquiring data from each waste hauler on the identity of the destination facilities. Beginning in 2010, as a component of the County's waste hauler permitting program the waste haulers have been required to provide letters from the disposal facilities attesting to the disposal capacity of the destination facilities that they utilize.

#### 9.1.1 Landfill Facilities

Within a 30 mile radius of Putnam County there are no active solid waste landfills. The nearest private commercial landfill is believed to be the Seneca Meadows Landfill in Waterloo, New York a distance of approximately 260 miles from the County. The permit for the landfill was reviewed. The permit for Seneca Meadows expires on October 10, 2017.

Although the permit for Seneca Meadows expires in 2017, the landfill facility has capacity that extends beyond the life of the permit and therefore, although a permit renewal cannot be guaranteed, it is expected that the facility's permit will be renewed.

Keystone Landfill and Alliance Landfill are two private commercial landfills located in northeast Pennsylvania approximately 120 and 130 miles respectively from Putnam County. Most Connecticut landfills are municipally owned, and are not able to accept any material from out of state.

### **9.1.2 Transfer Facilities**

The absence of an operating solid waste landfill in close proximity to the County requires the transfer of waste prior to disposal at an available landfill facility. As a result, availability and capacity of a transfer facility is required in addition to capacity at the destination facility.

With the exception of the Kent Recycling Center which accepts bagged waste from residents of Kent and the Putnam Valley Transfer Station which handles only MSW from the Lake Peekskill solid waste district, there are no active solid waste transfer facilities within Putnam County. Most of the waste collected within Putnam County is transferred at the Mt. Kisco Transfer Station in Mt. Kisco, NY, the Bria facility in Somers, New York, the Royal facility in Hopewell Junction, New York, or the transfer station at White Street in Danbury, Connecticut owned and operated by Winters Brothers. The state issued permits for these facilities have been reviewed. Based upon this review, the Mt. Kisco facility permit expires on December 4, 2013, and the Bria facility permit is approved through December 31, 2014. The Royal facility permit will expire on April 15, 2012, and is awaiting renewal. Although there is no guarantee that the permits for these facilities will be renewed, barring specific regulation violations, renewal of the permits is anticipated. The Winters Brothers White Street facility will continue to accept waste from Putnam County.

### **9.1.3 Waste-to-Energy Facilities**

Two waste-to-energy (WTE) facilities, also called resource recovery facilities or burn plants, are located within 30 miles of Putnam County. Both the Charles Point Resource Recovery facility (also referred to as “Wheelabrator”) in Peekskill, New York and the Dutchess County Resource Recovery facility in Poughkeepsie, New York have been contacted regarding availability of excess capacity for waste from Putnam County. The Dutchess County facility reported that their facility is dedicated to the management of wastes generated within Dutchess County and is at or near capacity. The Charles Point facility indicated that a portion of the Putnam County waste stream is managed by this facility through select independent haulers. At present, this facility has excess capacity and could accept a nominal amount of additional waste from Putnam County.

The permits for both facilities were reviewed. The permit for the Dutchess County facility expired on September 13, 2011, but the facility has approval to operate under the State Administrative Procedures Act (SAPA) while the application is being reviewed.

The permit for the Charles Point facility expires on April 11, 2012. At this time, although there is no guarantee that these permits will be renewed, barring specific regulation violations, renewal of the permits is anticipated.

Resource recovery facilities also exist in Connecticut and on Long Island. These facilities have not been considered as a significant back-up disposal resource because excess capacity at these facilities is typically limited. Additionally, Long Island facilities were not considered for back-up because of the logistics associated with transport of materials through metropolitan New York. The 3 closest WTE facilities in neighboring Connecticut (in Bridgeport, Wallingford, and Bristol), are capable of handling over 1.2 million tons of MSW per year. Historically, these facilities were developed to handle waste generated within the State of Connecticut and have been operated by private entities under contract with the Connecticut Resource Recovery Agency. Currently excess capacity is limited, however all three facilities are now privately owned, and they along with facilities in Hartford, Lisbon, and Preston may be considered as possible destinations for waste generated in Putnam County should the situation change.

#### **9.1.4 Recycling Facilities**

Availability of recycling facilities is closely linked to recycling markets. When recycling markets are strong, facilities are eager to accept material and tipping fees are for the most part non-existent. When recycling markets weaken as they did in 2008, the ability to ship accumulated recycled materials declines and tipping fees are often imposed and/or increased. Realistically, as long as a market exists for recycled materials, a secondary means of managing recyclables will exist for Putnam County. The challenge for the county comes only when the recycling facilities normally serving the county become unavailable in a weak recycling market.

Collections of recyclable materials within Putnam County are managed both as curbside recycling as well as at town sponsored recycling facilities. In a weakened recycling market, curbside recycling will continue to be collected by the independent waste collection contractor who will manage recycling outlets and/or adjust the cost of service as appropriate to continue service. Town sponsored recycling facilities may need to arrange with another collection contractor to pick up and manage recyclables from the town facilities. Putnam County will work to gather and compile data and information on recycling markets, and share that information with the municipalities and businesses in the County, and with the haulers operating in the County to advance recovery of recyclable materials generated in the County. The County, through its efforts with Empire State Development and the Municipal Working Group will assist with joint marketing efforts where possible among the municipalities by serving as an information resource. The County will work with the towns to establish a list of alternate collection contractors that can be contacted in the event that a substitute is necessary, and will provide assistance with contracts if possible.



### **9.1.5 E-Waste Facilities**

Putnam County arranges to have electronic waste (e-waste) containers in each of the towns within the county. These e-waste containers are linked directly to the vendor who provides the disposal/recycling service for e-waste. Because of the nature of the commodity, e-waste recyclers do not require a solid waste facility permit for the performance of the e-waste recycling operations. However, e-waste recyclers transporting material in New York State are required to have a c7 notification for used electronics collection/dismantling/recycling from NYSDEC.

Putnam County has secured from its e-waste recycling vendor, who has a NYSDEC C7 permit, a letter certifying its ability to continue to collect and manage e-waste generated within Putnam County for the next five years.

Recent legislation passed by NYS requires manufacturers of covered electronic equipment to take back used equipment as of April 1, 2011. The law reads in part as follows: "Beginning April first, two thousand eleven, a manufacturer of covered electronic equipment must accept for collection, handling and recycling or reuse electronic waste for which it is the manufacturer." The law also requires manufacturers to take back equipment manufactured by other companies when new, similar equipment is being purchased. Manufacturers will be held to minimum collection standards, and must provide at least one convenient collection method within the county. (See Environmental Conservation Law Article 27 Title 26, Electronic Equipment Recycling and Reuse).

### **9.1.6 Setpage, Sewage, and Sludge**

Residential material is transported outside of the County for final disposition. Some of the towns currently have Waste Water Treatment Plants (WWTPs) or Sewer Districts producing material that is currently landfilled out of state. The County will work with these programs to improve final disposal methods. The County will investigate other recovery options, such as composting and anaerobic digestion, on behalf of the WWTPs and sewer districts, and attempt to arrange options in concert with existing disposal contract expiration dates.

### **9.1.7 Construction and Demolition Debris**

Currently there is little information as to the composition of C&D waste in the County. Data collection will be specifically enhanced through the hauler licensing program. These efforts will begin in 2013. After identification of types and volumes of components, an education program will be developed to discuss deconstruction and reuse of some of these materials.

### **9.1.8 Waste Tires and Used Oil**

Waste tires and used oil are returned to retailers and repair shop facilities who sell oil or tires as required by State law. In addition, used motor oil and tires may be brought to the Patterson Recycling Center and used tires can be brought to the Kent Recycling Center. Moving forward, the County will complete a survey of facilities within the County that collect and dispose of waste oil and used tires to determine compliance with existing laws and provide education and assistance as needed.

## 10 ADMINISTRATIVE STRUCTURE

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### 10.1 Roles and Responsibilities

The administrative structure responsible for ensuring the implementation of Putnam County's Solid Waste Management Plan will be Putnam County (the Planning Unit). The County will work with the Towns and Villages of the County to assist them with their solid waste and recycling operations by providing education and information. Assistance will also be provided for the disposal of certain waste categories deemed to be difficult to handle at the town level, such as household hazardous, electronic, or pharmaceutical waste. The County will also facilitate a Municipal Working Group designed to discuss and develop solutions for emerging issues.

Figure 1 presents the organizational chart implementing the solid waste management plan. The County Executive oversees the Department of Health which will be responsible for implementing and updating the SWMP for the County. The Solid Waste Management and Recycling program is part of the Division of Environmental Health, and is overseen by the Director of Environmental Health. The Commissioner of Health, along with the Director, will work with the Director of Engineering and the Environmental Health Educator in implementing the plan, and in working with the Towns and Villages of the County.

The primary duty of the Environmental Health Educator will be implementation of the SWMP. This individual will be responsible for hauler licensing, annual reporting, and information needed to keep the SWMP current and ready for annual updates. This individual will work directly with Town Supervisors and officials from the Villages to assist them with solid waste and recycling needs, in addition to assisting the municipalities in enforcing the laws and codes pertinent to the SWMP. Additionally, education and public outreach on solid waste and recycling issues will be a key responsibility of the Environmental Health Educator to ensure the Plan's success. The Putnam County Department of Health will be responsible for enforcement of the SWMP. Responsibility for implementation also includes outreach to waste generators, haulers, waste management facilities, schools, residents, and interested organizations and agencies. Collaboration will be encouraged and facilitated wherever possible, since this is the only way successful implementation of the Plan will be accomplished. The County's website will be enhanced and updated as needed to provide a cost-effective and convenient means of public outreach.

## 10.2 Management System

Attainment of the goals of Putnam County's SWMP will be a long-term and ongoing process which will require a commitment from both the County and the municipalities. Realizing the objectives and goals of Putnam County's SWMP's will be a function of effective management and sufficient organizational capacity to implement the proposed waste reduction, recycling and solid waste management system program.

The components of an effective management system are as follows:

- **Ongoing communication and coordination with the Towns and Villages**

Communication, consensus, and coordination raise the probability of success and the level of impact, and build political support among decision makers and the legislature for future efforts. The absence of these elements will result in wasted resources.

- **Agreement regarding the overall solid waste management goals and priorities**

The County will work with the Towns and Villages towards developing and maintaining common goals for recycling and solid waste management. The goals and priorities will be periodically revised to reflect changing circumstances and needs.

- **Current and accurate market knowledge and assessment**

The County will research the available markets and assess the appropriateness to the County's needs. Up-to-date market knowledge and assessment will be used to proactively make appropriate adjustments in ongoing activities, as necessary.

- **Focused approach to strategy and program development**

A well-designed and managed SWMP is comprised of programs and services that target key barriers and opportunities, utilizing tools that are appropriate for addressing them, and run by organizations capable of effectively utilizing the selected tools. Program priorities and the overall strategy for using program resources will be regularly reviewed and updated.

- **Effective implementation management**

Implementation management consists of program planning and budgeting, fulfillment of assigned roles and responsibilities, and coordinating actions of organizations and staff. Ideally, this involves the cost-effective allocation of financial and human resources available for solid waste management, overseen and

guided by an appropriate coordinating mechanism that includes the key responsible organizations.

- **Regular monitoring of the goals and objectives**

Regularly monitoring the goals and objectives of the SWMP will ensure the success of the plan. To the extent possible, program data and information that would facilitate evaluation will be collected as part of ongoing operations and regularly reviewed.

- **Informed , enthusiastic organizations and staff**

Effective solid waste management requires an ongoing focus on building and maintaining institutional capacity for intelligent action. In particular, Towns and Villages should: keep abreast of solid waste management developments and issues, supporting staff in being proactive in identifying and responding to new information regarding barriers, opportunities, program impacts, and effective practices; hire and retain staff that are knowledgeable, flexible, adaptable, and eager to learn; and provide sufficient funding to develop and sustain the necessary staff capacity and program resources. To the extent possible, efforts should be structured so that they can continue without interruption when staff turnover does take place.

## LIMITATIONS

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The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

## REFERENCES

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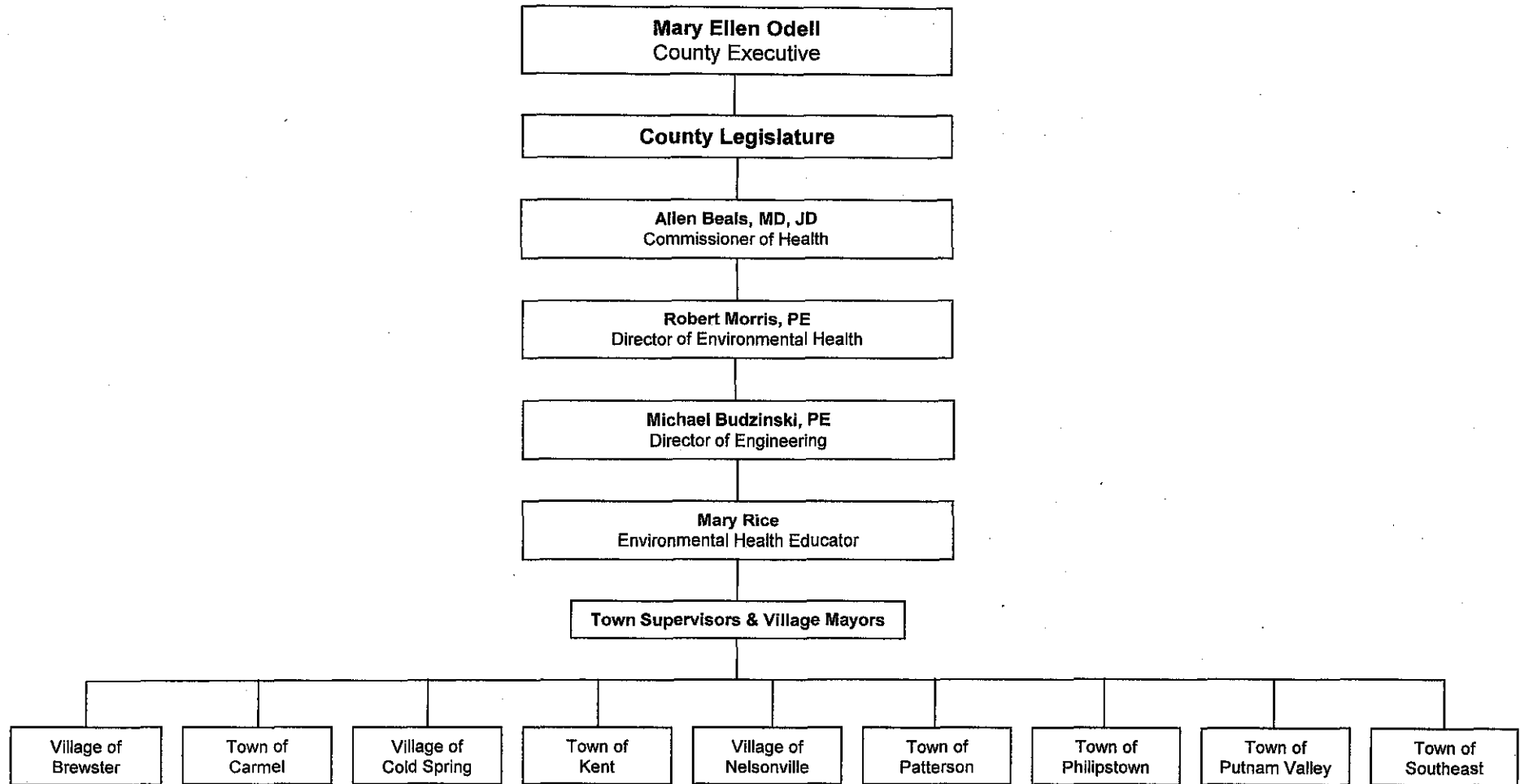
## FIGURES

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**Figure 1  
Organizational Chart**



**APPENDIX A**

**PUBLIC COMMENT SUMMARY**

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## PUBLIC COMMENT SUMMARY

The Putnam County Draft Solid Waste Management Plan was sent to all Putnam County Town Supervisors, the Putnam County Legislature, the County Executive's Office, and the New York City Department of Environmental Protection (NYSDEP) for review and comment.

A response was received from NYCDEP requesting that in four sections of the Plan the impact of NYCDEP regulations be clarified. These modifications were made using language from Section 18-41 of the *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources*.



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February 4, 2010

Ms. Jennifer S. Bumgarner, County Attorney  
Putnam County Department of Law  
48 Gleneida Avenue  
Carmel, New York 10512

Re: **Notice of Intent to be Lead Agency  
Putnam County Solid Waste Management Plan  
Putnam County, NY  
DEP log# 2010-MUL-0060-SQ.1**

Dear Ms. Bumgarner:

The New York City Department of Environmental Protection (NYCDEP) has reviewed the Putnam County's Notice of Intent to be Lead Agency for the above-referenced project. NYCDEP does not object to the Putnam County Legislature acting as Lead Agency for the Coordinated Review of the proposed action pursuant to the New York State Environmental Quality Review Act (SEQRA).

The proposed action involves the preparation and adoption of an updated Solid Waste Management Plan for Putnam County, New York

Based on review of the materials received, NYCDEP respectfully submits the following for your consideration:

1. Section 3.3.2, *Restrictions on Recyclable Markets*, the Solid Waste Management Plan (SWMP) notes "NYCDEP" as a restriction to expanding these markets; however, this section incorrectly represents NYCDEP authority in this regard. For accuracy and clarity concerning NYCDEP regulatory authority with respect to solid waste facilities, the SWMP should be revised to include language directly from Section 18-41 of the *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources* (Watershed Regulations) [see attached]. Section 18-41 specifically defines and addresses requirements applicable to recycling and composting facilities.
2. Section 4.2, *Anticipated Changes to the Planning Unit*, includes a statement that aside from the suggestion that "much of the County's buildable land has been developed...approximately two-thirds of the county is situated in the New York City Watershed which places significant additional restrictions and requirements on development." Perhaps a more comprehensive summary that includes references to local, county and state land use regulations, in addition to the NYCDEP

## Final Regulations

environment (including into groundwater), from industrial facilities, including vehicle washing facilities, and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) Any new point source, excluding point sources otherwise regulated pursuant to these rules and regulations, is prohibited from discharging into a reservoir or controlled lake, reservoir stem, or wetland.

### Section 18-41 Solid Waste

(a) Siting or horizontal expansion of a junkyard or a municipal solid waste landfill, within the limiting distance of 250 feet of a watercourse or wetland, or the siting or horizontal expansion of a junkyard or a solid waste management facility within the limiting distance of 1000 feet of a reservoir, reservoir stem or controlled lake is prohibited except for:

- (1) Recyclable handling and recovery facilities that handle non-putrescible solid waste, such as newspapers, magazines, corrugated boxes, glass, cans and plastic, but not non-putrescible solid waste such as batteries, car batteries, and waste oil;
- (2) Composting facilities for individual households for personal use;  
or
- (3) Expansion of the existing permitted municipal solid waste landfill located within Delaware County.

(b) Discharge of solid waste directly into any watercourse, wetland, reservoir, reservoir stem or controlled lake is prohibited. For purposes of this subdivision, solid waste includes materials that are otherwise exempt from compliance with 6 NYCRR Part 360, as described in 6 NYCRR Part 360-1.2(a)(4). This subdivision shall not apply to discharge of treated leachate in accordance with the requirements of these rules and regulations and a valid SPDES permit.

(c) Only construction and demolition debris that is recognizable uncontaminated concrete, asphalt pavement, brick, soil, stone, trees or stumps, wood chips, or yard waste may be used as fill in the watershed.

## Final Regulations

(d) All new solid waste management facilities, or altered or modified existing solid waste management facilities within the limiting distance of 300 feet of a watercourse or wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, are required to submit stormwater pollution prevention plans to the Department for review and approval, in accordance with Section 18-39(b)(3)(v) of these rules and regulations.

### Section 18-42 Agricultural Activities

Any intentional, knowing or reckless act or omission that in the course of an agricultural activity significantly increases pollutants in the water supply is prohibited.

### Section 18-43 Pesticides

(a) Unless otherwise permitted by these rules and regulations, the discharge or use, or storage of pesticides which is reasonably likely to lead to a discharge, of pesticides into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) Reference is made to the Pesticide Standards set forth in Appendix 18-D to these rules and regulations. The Department states its intention to seek:

- (1) Promulgation by the New York State Department of Environmental Conservation of appropriate State regulations, applying such standards to the watershed; and
- (2) Delegation of appropriate authority, from the State, to administer and enforce such regulations in the watershed.

### Section 18-44 Fertilizers

(a) The requirements of this section shall not apply to the application or storage of fertilizers for:

- (1) An agricultural activity performed in compliance with State or Federal law; and

3. Section 4.3, *Special Conditions That May Affect Any Of These Characteristics*, again incorrectly references the requirements and ultimately, the implications of the Watershed Regulations. Specifically, this section includes the following statement: "the regulations stipulate the type of development that can exist within the watershed and surrounding areas, in addition to steep slope requirements." The Watershed Regulations do not "stipulate the type of development that can exist within the watershed" nor are the Watershed Regulations applicable beyond the topographic boundaries of the New York City Water Supply watershed. Rather, NYCDEP regulates the design, construction, implementation and maintenance of a limited number of activities, such as land clearing, construction of impervious surfaces, and subsurface sewage treatment systems in an effort to ensure the high quality of a regional drinking water supply. Furthermore, other than specific limitations on the placement of new subsurface sewage treatment systems reflective of New York State Public Health Law, there are no explicit "steep slope requirements" found in the Watershed Regulations. As such, this section should be revised accordingly.

4. Section 5.1.1, *In-County Landfills*, and the Table 5.1 list of inactive landfills within Putnam County, the SWMP should note the following:

All new solid waste management facilities, or altered or modified existing solid waste management facilities within the limiting distance of 300 feet of a watercourse or New York State regulated wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, are required to submit stormwater pollution prevention plan (SPPP) for NYDEP review and approval pursuant to Section 18-41(d) of the Watershed Regulations.

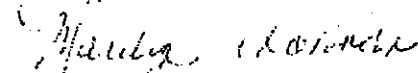
The above requirement is particularly important concerning any proposed plans to alter, modify or otherwise consolidate the Putnam County Landfill in the Town of Carmel.

Table 5.1 describes the status of the Putnam County Landfill as "under investigation."

NYCDEP is available for further consultation on the matters raised in this letter and expects to be fully involved in the SEQRA process as an Involved Agency. Please notify me of any public meetings regarding this project so that NYCDEP may participate fully in this process. In addition, please copy me on behalf of NYCDEP on all correspondence related to the SEQRA review between your agency and the applicant

Thank you for the opportunity to provide comments. Please contact Ms. Cynthia Garcia of my staff at (914) 773-4455 if you have any questions or care to discuss the matter further.

Sincerely,

  
Marilyn Shpanahan  
SEQRA Coordination Section

**APPENDIX B**

**SEQR**

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State Environmental Quality Review  
**NEGATIVE DECLARATION**  
Notice of Determination of Non-Significance

Project Number

Date: April 6, 2010

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The County of Putnam as lead agency, has determined that the proposed action described below will not have a significant environmental impact and a Draft Impact Statement will not be prepared.

**Name of Action:**

Putnam County Solid Waste Management Plan Update

SEQR Status: Type 1   
Unlisted

Conditioned Negative Declaration:  Yes  
 No

**Description of Action:**

The Solid Waste Management Plan for the County of Putnam is being revised and updated to cover the ten year period from 2010 to 2019. The Plan will focus on two goals: to reduce the quantity of municipal solid waste (MSW) sent off for disposal, and to work toward implementation of a uniform MSW collection program throughout each of the municipalities in the County. The County proposes the use of a SMART/PAYT system in all municipalities to increase recyclables collection, reduce MSW, and provide uniformity in collection practices. This will be accompanied by increased education to all parties, and consistent enforcement when necessary.

Location: (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

The County of Putnam

**Reasons Supporting This Determination:**

(See 617.7(a)-(c) for requirements of this determination ; see 617.7(d) for Conditioned Negative Declaration)

The revised Solid Waste Management Plan will not involve the construction of any Material Recovery Facilities (MRF) or Transfer Stations. Waste will continue to be disposed of by transportation to locations outside of the County.

**If Conditioned Negative Declaration**, provide on attachment the specific mitigation measures imposed, and identify comment period (not less than 30 days from date of publication in the ENB)

**For Further Information:**

Contact Person: Vincent Tamagna, Chairman, Putnam County Legislature

Address: 40 Gleneida Avenue, Carmel, New York 10512

Telephone Number: (845) 225-3641

**For Type 1 Actions and Conditioned Negative Declarations, a Copy of this Notice is sent to:**

Chief Executive Officer , Town / City / Village of

Other involved agencies (If any)

Applicant (If any)

Environmental Notice Bulletin, 625 Broadway, Albany NY, 12233-1750 (Type One Actions only)

617.20  
Appendix A  
State Environmental Quality Review  
FULL ENVIRONMENTAL ASSESSMENT FORM

Purpose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

- Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.
- Part 2: Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.
- Part 3: If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

---

**THIS AREA FOR LEAD AGENCY USE ONLY**

**DETERMINATION OF SIGNIFICANCE -- Type 1 and Unlisted Actions**

Identify the Portions of EAF completed for this project:       Part 1       Part 2       Part 3  
 Upon review of the information recorded on this EAF (Parts 1 and 2 and 3 if appropriate), and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the lead agency that:

- A. The project will not result in any large and important impact(s) and, therefore, is one which will not have a significant impact on the environment, therefore a negative declaration will be prepared.
- B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore a **CONDITIONED** negative declaration will be prepared.\*
- C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore a positive declaration will be prepared.

\*A Conditioned Negative Declaration is only valid for Unlisted Actions

Putnam County Solid Waste Management Plan Update

\_\_\_\_\_  
Name of Action

Putnam County Legislature

\_\_\_\_\_  
Name of Lead Agency

Vincent Tamagna

\_\_\_\_\_  
Chairman

\_\_\_\_\_  
Print or Type Name of Responsible Officer in Lead Agency

\_\_\_\_\_  
Title of Responsible Officer

\_\_\_\_\_  
Signature of Responsible Officer in Lead Agency

  
\_\_\_\_\_  
Signature of Preparer (if different from responsible officer)

website

\_\_\_\_\_  
Date

**PART 1--PROJECT INFORMATION**  
Prepared by Project Sponsor

**NOTICE:** This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable; so indicate and specify each instance.

Name of Action Putnam County Solid Waste Management Plan Update

Location of Action (include Street Address, Municipality and County)

Putnam County

Name of Applicant/Sponsor Putnam County Legislature

Address 40 Glencida Avenue

City / PO Cannel State New York Zip Code 10512

Business Telephone (845) 225-8690

Name of Owner (if different) \_\_\_\_\_

Address \_\_\_\_\_

City / PO \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Business Telephone \_\_\_\_\_

Description of Action:

Preparation and adoption of an updated Solid Waste Management Plan (SWMP) for the County of Putnam.

Please Complete Each Question--Indicate N.A. if not applicable

**A. SITE DESCRIPTION**

Physical setting of overall project, both developed and undeveloped areas.

1. Present Land Use:  Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Other NA

2. Total acreage of project area: NA acres.

APPROXIMATE ACREAGE	PRESENTLY	AFTER COMPLETION
Meadow or Brushland (Non-agricultural)	_____ acres	_____ acres
Forested	_____ acres	_____ acres
Agricultural (includes orchards, cropland, pasture, etc.)	_____ acres	_____ acres
Wetland (Freshwater or tidal as per Articles 24,25 of ECL)	_____ acres	_____ acres
Water Surface Area	_____ acres	_____ acres
Unvegetated (Rock, earth or fill)	_____ acres	_____ acres
Roads, buildings and other paved surfaces	_____ acres	_____ acres
Other (indicate type) _____	_____ acres	_____ acres

3. What is predominant soil type(s) on project site? NA
- a. Soil drainage:  Well drained \_\_\_\_\_ % of site  Moderately well drained \_\_\_\_\_ % of site.  
 Poorly drained \_\_\_\_\_ % of site
- b. If any agricultural land is involved, how many acres of soil are classified within soil group 1 through 4 of the NYS Land Classification System? \_\_\_\_\_ acres (see 1 NYCRR 370).
4. Are there bedrock outcroppings on project site?  Yes  No NA
- a. What is depth to bedrock NA (in feet)
5. Approximate percentage of proposed project site with slopes:  
 0-10% NA %  10- 15% NA %  15% or greater NA %
6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or National Registers of Historic Places?  Yes  No
7. Is project substantially contiguous to a site listed on the Register of National Natural Landmarks?  Yes  No NA
8. What is the depth of the water table? NA (in feet)
9. Is site located over a primary, principal, or sole source aquifer?  Yes  No NA
10. Do hunting, fishing or shell fishing opportunities presently exist in the project area?  Yes  No NA

11. Does project site contain any species of plant or animal life that is identified as threatened or endangered?  Yes  No **NA**

According to:

NA

Identify each species:

12. Are there any unique or unusual land forms on the project site? (i.e., cliffs, dunes, other geological formations?)

Yes  No **NA**

Describe:

NA

13. Is the project site presently used by the community or neighborhood as an open space or recreation area?

Yes  No **NA**

If yes, explain:

NA

14. Does the present site include scenic views known to be important to the community?  Yes  No

NA

15. Streams within or contiguous to project area:

NA

a. Name of Stream and name of River to which it is tributary

16. Lakes, ponds, wetland areas within or contiguous to project area:

NA

b. Size (in acres):

17. Is the site served by existing public utilities?  Yes  No NA
- a. If YES, does sufficient capacity exist to allow connection?  Yes  No
- b. If YES, will improvements be necessary to allow connection?  Yes  No
18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?  Yes  No NA
19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617?  Yes  No NA
20. Has the site ever been used for the disposal of solid or hazardous wastes?  Yes  No NA

**B. Project Description**

1. Physical dimensions and scale of project (fill in dimensions as appropriate).
- a. Total contiguous acreage owned or controlled by project sponsor: NA acres.
- b. Project acreage to be developed: NA acres initially; NA acres ultimately.
- c. Project acreage to remain undeveloped: NA acres.
- d. Length of project, in miles: NA (if appropriate)
- e. If the project is an expansion, indicate percent of expansion proposed. NA %
- f. Number of off-street parking spaces existing NA; proposed NA
- g. Maximum vehicular trips generated per hour: NA (upon completion of project)?
- h. If residential: Number and type of housing units:
- |            | One Family | Two Family | Multiple Family | Condominium |
|------------|------------|------------|-----------------|-------------|
| Initially  | <u>NA</u>  | <u>NA</u>  | <u>NA</u>       | <u>NA</u>   |
| Ultimately | <u>NA</u>  | <u>NA</u>  | <u>NA</u>       | <u>NA</u>   |
- i. Dimensions (in feet) of largest proposed structure: NA height; NA width; NA length.
- j. Linear feet of frontage along a public thoroughfare project will occupy is? NA ft.
2. How much natural material (i.e. rock, earth, etc.) will be removed from the site? NA tons/cubic yards.
3. Will disturbed areas be reclaimed  Yes  No  N/A
- a. If yes, for what intended purpose is the site being reclaimed?
- 
- b. Will topsoil be stockpiled for reclamation?  Yes  No
- c. Will upper subsoil be stockpiled for reclamation?  Yes  No
4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? NA acres.

5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?

Yes  No

6. If single phase project: Anticipated period of construction: NA months, (including demolition)

7. If multi-phased: NA

a. Total number of phases anticipated \_\_\_\_\_ (number)

b. Anticipated date of commencement phase 1: \_\_\_\_\_ month \_\_\_\_\_ year, (including demolition)

c. Approximate completion date of final phase: \_\_\_\_\_ month \_\_\_\_\_ year.

d. Is phase 1 functionally dependent on subsequent phases?  Yes  No

8. Will blasting occur during construction?  Yes  No

9. Number of jobs generated: during construction NA; after project is complete NA

10. Number of jobs eliminated by this project NA

11. Will project require relocation of any projects or facilities?  Yes  No

If yes, explain:

12. Is surface liquid waste disposal involved?  Yes  No

a. If yes, indicate type of waste (sewage, industrial, etc) and amount \_\_\_\_\_

b. Name of water body into which effluent will be discharged \_\_\_\_\_

13. Is subsurface liquid waste disposal involved?  Yes  No Type \_\_\_\_\_

14. Will surface area of an existing water body increase or decrease by proposal?  Yes  No

If yes, explain:

15. Is project or any portion of project located in a 100 year flood plain?  Yes  No NA

16. Will the project generate solid waste?  Yes  No NA

a. If yes, what is the amount per month? NA tons

b. If yes, will an existing solid waste facility be used?  Yes  No

c. If yes, give name \_\_\_\_\_; location \_\_\_\_\_

d. Will any wastes not go into a sewage disposal system or into a sanitary landfill?  Yes  No



e. If yes, explain:

17. Will the project involve the disposal of solid waste?  Yes  No

a. If yes, what is the anticipated rate of disposal? \_\_\_\_\_ tons/month.

b. If yes, what is the anticipated site life? \_\_\_\_\_ years.

18. Will project use herbicides or pesticides?  Yes  No

19. Will project routinely produce odors (more than one hour per day)?  Yes  No

20. Will project produce operating noise exceeding the local ambient noise levels?  Yes  No

21. Will project result in an increase in energy use?  Yes  No

If yes, indicate type(s)

22. If water supply is from wells, indicate pumping capacity NA gallons/minute.

23. Total anticipated water usage per day NA gallons/day.

24. Does project involve Local, State or Federal funding?  Yes  No

If yes, explain:

Putnam County has funded the preparation of the updated SWMP.

25. Approvals Required:

		Type	Submittal Date
City, Town, Village Board	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
City, Town, Village Planning Board	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
City, Town Zoning Board	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
City, County Health Department	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Other Local Agencies	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Other Regional Agencies	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYCDEP	
State Agencies	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC	
Federal Agencies	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

C. Zoning and Planning Information

1. Does proposed action involve a planning or zoning decision?  Yes  No

If Yes, indicate decision required:

- |   |   |  |                                      |
|---|---|--|--------------------------------------|
| <input type="checkbox"/> Zoning amendment | <input type="checkbox"/> Zoning variance    | <input type="checkbox"/> New/revision of master plan | <input type="checkbox"/> Subdivision |
| <input type="checkbox"/> Site plan        | <input type="checkbox"/> Special use permit | <input type="checkbox"/> Resource management plan    | <input type="checkbox"/> Other       |

2. What is the zoning classification(s) of the site?

NA

3. What is the maximum potential development of the site if developed as permitted by the present zoning?

NA

4. What is the proposed zoning of the site?

NA

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?

NA

6. Is the proposed action consistent with the recommended uses in adopted local land use plans?

Yes

No

NA

7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action?

NA

8. Is the proposed action compatible with adjoining/surrounding land uses within a ¼ mile?

Yes

No

9. If the proposed action is the subdivision of land, how many lots are proposed? NA

a. What is the minimum lot size proposed? \_\_\_\_\_

10. Will proposed action require any authorization(s) for the formation of sewer or water districts?  Yes  No

11. Will the proposed action create a demand for any community provided services (recreation, education, police, fire protection)?

Yes  No

a. If yes, is existing capacity sufficient to handle projected demand?  Yes  No

12. Will the proposed action result in the generation of traffic significantly above present levels?  Yes  No

a. If yes, is the existing road network adequate to handle the additional traffic.  Yes  No

D. Informational Details

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

E. Verification

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name Vincent Tamagna Date \_\_\_\_\_

Signature \_\_\_\_\_

Title Chairman, Putnam County Legislature

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment.

## PART 2 - PROJECT IMPACTS AND THEIR MAGNITUDE

Responsibility of Lead Agency

**General Information (Read Carefully)**

- I In completing the form the reviewer should be guided by the question: Have my responses and determinations been reasonable? The reviewer is not expected to be an expert environmental analyst.
- I The Examples provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.
- I The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- I The number of examples per question does not indicate the importance of each question.
- I In identifying impacts, consider long term, short term and cumulative effects.

**Instructions (Read carefully)**

- a. Answer each of the 20 questions in PART 2. Answer Yes if there will be any impact.
- b. Maybe answers should be considered as Yes answers.
- c. If answering Yes to a question then check the appropriate box(column 1 or 2)to indicate the potential size of the impact, if impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check column 1.
- d. Identifying that an impact will be potentially large (column 2) does not mean that it is also necessarily significant. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- e. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.
- f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the Yes box in column 3. A No response indicates that such a reduction is not possible. This must be explained in Part 3.

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

**Impact on Land**

1. Will the Proposed Action result in a physical change to the project site?

NO  YES

**Examples that would apply to column 2**

- |  |                          |                          |                              |                             |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Construction on land where the depth to the water table is less than 3 feet.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Construction of paved parking area for 1,000 or more vehicles.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Construction that will continue for more than 1 year or involve more than one phase or stage.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Construction or expansion of a sanitary landfill.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Construction in a designated floodway.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

2. Will there be an effect to any unique or unusual land forms found on the site? (i.e., cliffs, dunes, geological formations, etc.)

NO  YES

• Specific land forms:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Impact on Water**

3. Will Proposed Action affect any water body designated as protected? (Under Articles 15, 24, 25 of the Environmental Conservation Law, ECL)

NO  YES

Examples that would apply to column 2

• Developable area of site contains a protected water body.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Dredging more than 100 cubic yards of material from channel of a protected stream.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Extension of utility distribution facilities through a protected water body.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Construction in a designated freshwater or tidal wetland.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

4. Will Proposed Action affect any non-protected existing or new body of water?

NO  YES

Examples that would apply to column 2

• A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Construction of a body of water that exceeds 10 acres of surface area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

1 Small to Moderate Impact      2 Potential Large Impact      3 Can Impact Be Mitigated by Project Change

5. Will Proposed Action affect surface or groundwater quality or quantity?

NO       YES

Examples that would apply to column 2

- Proposed Action will require a discharge permit.    Yes  No
- Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action.    Yes  No
- Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity.    Yes  No
- Construction or operation causing any contamination of a water supply system.    Yes  No
- Proposed Action will adversely affect groundwater.    Yes  No
- Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.    Yes  No
- Proposed Action would use water in excess of 20,000 gallons per day.    Yes  No
- Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.    Yes  No
- Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons.    Yes  No
- Proposed Action will allow residential uses in areas without water and/or sewer services.    Yes  No
- Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.    Yes  No
- Other impacts:    Yes  No

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

6. Will Proposed Action alter drainage flow or patterns, or surface water runoff?

NO     YES

Examples that would apply to column 2

- |  |                          |                          |                              |                             |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action would change flood water flows                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action may cause substantial erosion.                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action is incompatible with existing drainage patterns. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow development in a designated floodway. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts:   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**IMPACT ON AIR**

7. Will Proposed Action affect air quality?

NO     YES

Examples that would apply to column 2

- |   |                          |                          |                              |                             |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action will induce 1,000 or more vehicle trips in any given hour.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in the incineration of more than 1 ton of refuse per hour.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow an increase in the amount of land committed to industrial use.                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will allow an increase in the density of industrial development within existing industrial areas.               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts:  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**IMPACT ON PLANTS AND ANIMALS**

8. Will Proposed Action affect any threatened or endangered species?

NO     YES

Examples that would apply to column 2

- |   |                          |                          |                              |                             |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Reduction of one or more species listed on the New York or Federal list, using the site, over or near the site, or found on the site. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|



	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Removal of any portion of a critical or significant wildlife habitat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

9. Will Proposed Action substantially affect non-threatened or non-endangered species?

NO  YES

Examples that would apply to column 2

• Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

**IMPACT ON AGRICULTURAL LAND RESOURCES**

10. Will Proposed Action affect agricultural land resources?

NO  YES

Examples that would apply to column 2

• The Proposed Action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Construction activity would excavate or compact the soil profile of agricultural land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• The Proposed Action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• The Proposed Action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

**IMPACT ON AESTHETIC RESOURCES**

11. Will Proposed Action affect aesthetic resources? (If necessary, use the Visual EAF Addendum in Section 617.20, Appendix B.)

NO  YES

Examples that would apply to column 2

• Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Project components that will result in the elimination or significant screening of scenic views known to be important to the area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

**IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES**

12. Will Proposed Action impact any site or structure of historic, prehistoric or paleontological importance?

NO  YES

Examples that would apply to column 2

• Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Any impact to an archaeological site or fossil bed located within the project site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

**IMPACT ON OPEN SPACE AND RECREATION**

13. Will proposed Action affect the quantity or quality of existing or future open spaces or recreational opportunities?

NO  YES

Examples that would apply to column 2

- |   |                          |                          |  |
|---|--------------------------|--------------------------|--|
| • The permanent foreclosure of a future recreational opportunity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • A major reduction of an open space important to the community.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • Other impacts:  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |

**IMPACT ON CRITICAL ENVIRONMENTAL AREAS**

14. Will Proposed Action impact the exceptional or unique characteristics of a critical environmental area (CEA) established pursuant to subdivision 6NYCRR 617.14(g)?

NO  YES

List the environmental characteristics that caused the designation of the CEA.

Examples that would apply to column 2

- |   |                          |                          |  |
|---|--------------------------|--------------------------|--|
| • Proposed Action to locate within the CEA?                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • Proposed Action will result in a reduction in the quantity of the resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • Proposed Action will result in a reduction in the quality of the resource?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • Proposed Action will impact the use, function or enjoyment of the resource? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| • Other impacts:  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes <input type="checkbox"/> No |

1	2	3
Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change

**IMPACT ON TRANSPORTATION**

15. Will there be an effect to existing transportation systems?

NO     YES

Examples that would apply to column 2

- |  |                          |                          |                              |                             |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Alteration of present patterns of movement of people and/or goods. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will result in major traffic problems.             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts:   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**IMPACT ON ENERGY**

16. Will Proposed Action affect the community's sources of fuel or energy supply?

NO     YES

Examples that would apply to column 2

- |   |                          |                          |                              |                             |
|---|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences or to serve a major commercial or industrial use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts:  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**NOISE AND ODOR IMPACT**

17. Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?

NO     YES

Examples that would apply to column 2

- |  |                          |                          |                              |                             |
|--|--------------------------|--------------------------|------------------------------|-----------------------------|
| • Blasting within 1,500 feet of a hospital, school or other sensitive facility.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Odors will occur routinely (more than one hour per day).   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Proposed Action will remove natural barriers that would act as a noise screen.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Other impacts:   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

1  
Small to  
Moderate  
Impact

2  
Potential  
Large  
Impact

3  
Can Impact Be  
Mitigated by  
Project Change

**IMPACT ON PUBLIC HEALTH**

18. Will Proposed Action affect public health and safety?

NO  YES

- Proposed Action may cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.  Yes  No
- Proposed Action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, irritating, infectious, etc.)  Yes  No
- Storage facilities for one million or more gallons of liquefied natural gas or other flammable liquids.  Yes  No
- Proposed Action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste.  Yes  No
- Other impacts:  Yes  No

**IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD**

19. Will Proposed Action affect the character of the existing community?

NO  YES

Examples that would apply to column 2

- The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.  Yes  No
- The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.  Yes  No
- Proposed Action will conflict with officially adopted plans or goals.  Yes  No
- Proposed Action will cause a change in the density of land use.  Yes  No
- Proposed Action will replace or eliminate existing facilities, structures or areas of historic importance to the community.  Yes  No
- Development will create a demand for additional community services (e.g. schools, police and fire, etc.)  Yes  No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Proposed Action will set an important precedent for future projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Proposed Action will create or eliminate employment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Other impacts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

20. Is there, or is there likely to be, public controversy related to potential adverse environment impacts?

NO     YES

**If Any Action in Part 2 is Identified as a Potential Large Impact or If you Cannot Determine the Magnitude of Impact, Proceed to Part 3**

## Part 3 - EVALUATION OF THE IMPORTANCE OF IMPACTS

### Responsibility of Lead Agency

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

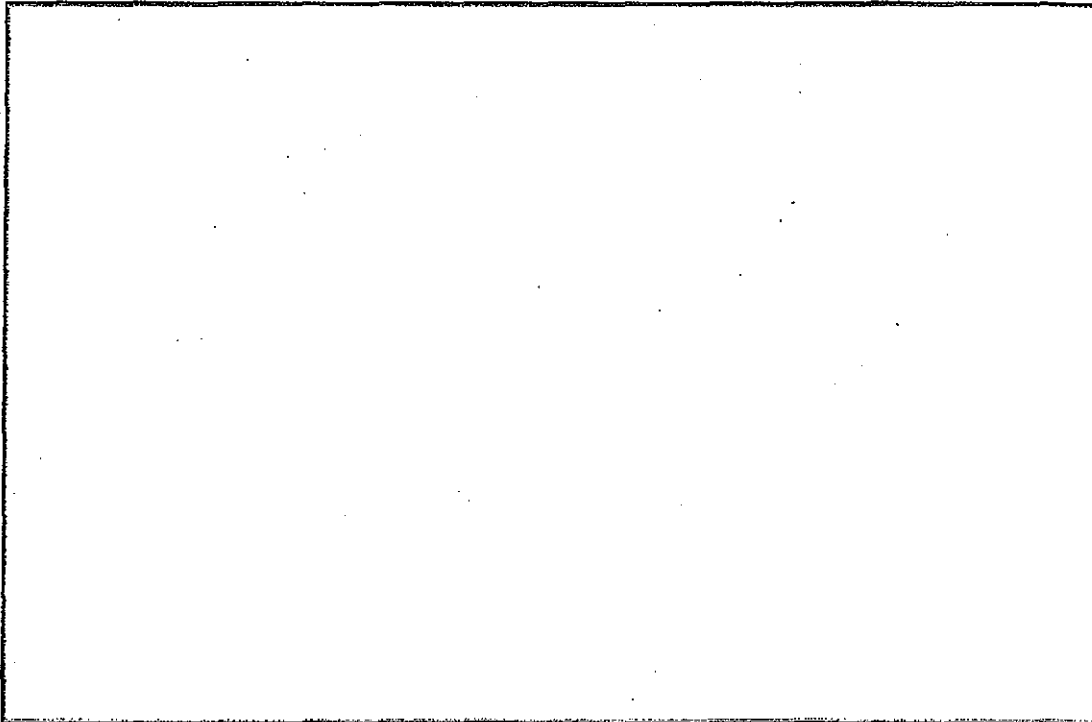
**Instructions** (If you need more space, attach additional sheets)

Discuss the following for each impact identified in Column 2 of Part 2:

1. Briefly describe the impact.
2. Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s).
3. Based on the information available, decide if it is reasonable to conclude that this impact is important.

To answer the question of importance, consider:

- ! The probability of the impact occurring
- ! The duration of the impact
- ! Its irreversibility, including permanently lost resources of value
- ! Whether the impact can or will be controlled
- ! The regional consequence of the impact
- ! Its potential divergence from local needs and goals
- ! Whether known objections to the project relate to this impact.







**PUTNAM COUNTY LEGISLATURE**

Resolution #97

Introduced by Legislator: Sam Oliverio, Jr. on behalf of the Health, Social, Educational & Environmental Committee at a Regular Meeting held on April 6, 2010.

page 1

**APPROVAL/PUTNAM COUNTY LEGISLATURE AS LEAD  
AGENCY/SEQR/SOLID WASTE MANAGEMENT PLAN**

WHEREAS, the Solid Waste Management Plan for the County of Putnam (hereinafter the "Updated Plan") is currently being revised and updated to cover the ten year period from 2010 to 2019; and

WHEREAS, the Updated Plan will not involve the construction of any Material Recovery Facilities or Transfer Stations within Putnam County; and

WHEREAS, pursuant to Part 617 of the implementing regulations pertaining to SEQRA, the Putnam County Legislature, as an "Involved agency", has determined that the adoption of the Updated Plan constitutes an "Unlisted" action, as defined in 6 NYCRR Parts 617.2(ak); and

WHEREAS, in accordance with the requirements of SEQRA, Parts 1 and 2 of a Full Environmental Assessment Form ("Short EAF") have been prepared to describe the potential environmental impacts and mitigation measures associated with adoption of the Updated Plan; and

WHEREAS, pursuant to 6 NYCRR Part 617.6 the adoption of the Updated Plan requires a coordinated review with all "involved agencies", as such term is defined in 6 NYCRR Part 617.2(s); and

WHEREAS, on or about January 15, 2010, in accordance with the requirements of SEQRA, the Putnam County Legislature provided a copy of Part 1 of the Full EAF to all involved and/or interested agencies, including the Town of Carmel; the Town of Southeast; the Town of Patterson; the Town of Kent; the Town of Putnam Valley; the Town of Philipstown; the Village of Brewster; the Village of Cold Spring; the Village of Nelsonville; and the N.Y.C. Department of Environmental Protection; and

Vote:

State Of New York

352

County of Putnam

I hereby certify that the above is a true and exact copy of a resolution passed by the Putnam County Legislature while in session on April 6, 2010.

Dated: April 8, 2010

Signed: \_\_\_\_\_

M. Chris Marrone  
Clerk Of The Legislature Of Putnam County

PUTNAM COUNTY LEGISLATURE

Resolution #97

Introduced by Legislator: Sam Oliverio, Jr. on behalf of the Health, Social, Educational & Environmental Committee at a Regular Meeting held on April 6, 2010.

page 2

WHEREAS, on or about January 15, 2010 the Putnam County Legislature pursuant to Part 617 of title 6 NYCRR, also served all involved and/or interested agencies with notice of its intent to declare "lead agency" status for SEQRA review; and

WHEREAS, all involved and/or interested agencies have either consented or otherwise not objected to the Putnam County Legislature serving as "lead agency" in this matter, as defined in 6 NYCRR Part 617.2(u); and

WHEREAS, based upon a careful review of the action as a whole, of the Full EAF and of the criteria set forth in 6 NYCRR Part 617.7(c), and after considering all of the public input that has been received, the Putnam County Legislature, as "lead agency", has determined that the adoption of the Updated Plan will not have a significant adverse effect on the environment; now therefore be it

RESOLVED, that the Putnam County Legislature designates itself as "lead agency" in this matter, as defined in 6 NYCRR Part 617.2(u); and be it further

RESOLVED, that the Putnam County Legislature, as "lead agency", hereby determines that the adoption of the Updated Plan will not have any significant adverse environmental impacts; and be it further

RESOLVED that a Draft Environmental Impact Statement will not be prepared; and be it further

RESOLVED, that the Putnam County Legislature, as "lead agency", hereby issues a Negative Declaration in connection with the adoption of the Updated Plan, a copy of which is annexed hereto and made a part hereof.

BY POLL VOTE: ALL AYES. CARRIED UNANIMOUSLY.

Vote:  
State Of New York

SSS

County of Putnam

I hereby certify that the above is a true and exact copy of a resolution passed by the Putnam County Legislature while in session on April 6, 2010.

Dated: April 8, 2010

Signed: M. Chris Marrone

M. Chris Marrone  
Clerk Of The Legislature Of Putnam County



**APPENDIX C**

**PUTNAM COUNTY CODE 205**

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## Chapter 205, SOLID WASTE

### ARTICLE I, Tire Disposal

#### § 205-1. Legislative findings and declarations.

The County Legislature finds that there is a need for a comprehensive approach to regulating the accumulation, discarding and disposal of waste tires in the County of Putnam. Waste tires cannot be disposed of at conventional landfills or easily recycled. Consequently, waste tires tend to be discarded in large waste piles at unregulated sites across the state. Tires discarded in this manner provide a breeding place for mosquitoes, rats and other vermin. Tires discarded in an unregulated manner also pose the risk of uncontrollable fire.

#### § 205-2. Definitions.

As used in this article, the following terms shall have the meanings indicated:

COLLECTION SITE -- A permitted site or a site exempted from permit under § 205-4 of this article used for the limited storage of waste tires prior to the processing of those tires.

COUNTY -- The County of Putnam, State of New York.

DEPARTMENT -- The Putnam County Department of Environmental Health.

DIRECTOR -- The Director of the Putnam County Department of Environmental Health.

DISCARDING -- The abandoning, dumping, depositing or otherwise placing waste tires on any public or private property in this County or in the waters of this County.

DISPOSAL -- The abandoning, dumping, depositing or otherwise placing waste tires at an approved disposal facility.

PROCESSING -- Reducing or altering the volume or the chemical or physical characteristics of waste tires in order to produce usable materials, including fuel.

SURPLUS -- Any amount or number of waste tires at any collection, processing or disposal site or facility which is in excess of the amount or number allowed for that site or facility under §§ 205-4 and 205-6 of this article.

TIRE COLLECTOR -- A person who owns or operates a site used for the storage, collection or deposit of (more than 50) waste tires.

TIRE DUMP -- An establishment, site or place of business in existence prior to or on the effective date of this article without a required tire collector or tire processor permit that has been used for the storage or stockpiling of unprocessed waste tires.

TIRE PROCESSING SITE -- A permitted site, or a site exempted from permit under § 205-4 of this article used for the processing of waste tires and for the limited and temporary storage of waste tires prior to processing.

TIRE PROCESSOR -- A person or business engaged in the processing of waste tires.

VECTOR -- A carrier that is capable of transmitting a pathogen from one organism to another, including, but not limited to, flies, mosquitoes and other insects, rodents, birds and vermin.

WASTE TIRE -- Any tire that has ceased to serve the purpose for which it was originally intended due to factors, such as, but not limited to, wear, damage, defect or imperfection, and has been discarded.

**§ 205-3. Discard prohibited except at processing site.**

It shall be unlawful for any person, directly or indirectly, to discard any waste tires in this County except at a permitted processing site, collection site or waste disposal facility.

**§ 205-4. Permit requirements.**

A. On and after the effective date of this article, no person shall engage in the collection or processing of waste tires or construction of facilities to do so without first having obtained an applicable permit pursuant to this article.

B. Preexisting sites.

(1) The owner or operator of any tire dump, collection site or processing site in existence on the effective date of this article shall, within 60 days of the effective date of this article, provide the Department with information concerning its location, size and the approximate number of waste tires stockpiled or stored at the site or dump. The owner or operator of a preexisting site which is not in compliance due to a surplus inventory of waste tires over and above the amounts set forth as limits in §§ 205-4 and 205-6 of this article shall, within 90 days after the effective date of this article, submit a timetable for the reduction and elimination of such surplus so as to come into compliance with the terms of this article within one year of its effective date.

(2) Within one year of the effective date of this article, all tire dumps, collection sites or processing sites shall either be in compliance with this article or shall cease operations and remove the waste tires from the facility and dispose or treat them in a lawful manner. When the facility attains the maximum number of tires allowed in the permit or when an exempt facility or person attains the maximum number of tires allowed under terms of the exemption in Subsection C, the facility must cease accepting tires.

C. Exemptions. A permit is not required under this article if the following facilities construct or operate areas for storing or stockpiling waste tires:

(1) If no more than 1,000 waste tires are stored on the facility premises of a:

(a) Facility at which waste tires are generated as a result of selling new tires;

(b) Tire retreading business;

(c) Business that in the ordinary course of its activities removes tires from motor vehicles; or

(d) Permitted solid waste management facility.

(2) A person using fewer than 500 waste tires for acceptable agricultural management practices, if the waste tires are kept on the site of use.

(3) A person using fewer than 250 tires for ordinary navigational purposes.

**§ 205-5. Powers and duties of Director.**

A. Within one year after the effective date of this article, the Director may adopt and promulgate rules and regulations to carry out the provisions of this article. Such rules and regulations may provide for the administration of (waste) tire collector and tire processor permits, the regulations and operation of tire collection and processing facilities and waste tire nuisance abatement. Such rules and regulations, prior to implementation, must be approved by the Putnam County Legislature.

B. The Director may provide technical assistance to municipalities and other persons engaged in the collection or processing of waste tires.

**§ 205-6. Tire collection and processing facility operations.**

All facilities storing or stockpiling or otherwise processing waste tires must operate in compliance with the following:

A. A facility that contains up to 2,500 tires (at a site that is exposed to the atmosphere and elements) shall comply with all of the following conditions:

- (1) The facility may receive and accumulate only waste tires for stockpiling.
  - (2) All solid waste generated as a result of facility operation must be recycled or disposed of at an approved solid waste disposal facility within one week after generation.
  - (3) Tires shall be accumulated in piles no greater than 15 feet in height with horizontal dimensions no greater than 200 feet on the longest axis, and the base of each pile must have a surface area no greater than 8,000 square feet.
  - (4) Waste tire piles must have a minimum separation distance of 50 feet between piles and between a pile and the following: facility property boundaries, buildings and other structures, not including rights-of-way. These fifty-foot separation areas must be maintained free of obstructions at all times so that emergency vehicles will have adequate equipment access. Tire piles must be accessible to fire-fighting equipment on all sides.
  - (5) Approach roads to the facility and access roads within the facility must be constructed for all weather conditions and must be maintained in passable condition at all times to allow for access by fire-fighting and emergency response equipment.
  - (6) The facility must be maintained free from weeds, trees and vegetation which may restrict access or operations at the facility.
  - (7) Drainage shall be provided for the storage area to prevent the uncontrolled collection and pooling of water on the facility.
  - (8) All waste tire stocks must be maintained in a manner which limits mosquito breeding potential and other vectors.
  - (9) Methods of acceptable vector control may include one or more of the following:
    - (a) Covering by plastic sheets or other impermeable barriers, other than soil, to prevent the accumulation of precipitation.
    - (b) Chemical treating to eliminate vector breeding, provided that all chemical treatment programs used as part of the vector control plan first receive Department approval by the Department pesticide officer in the region in which the facility is located.
    - (c) Mechanical tire size reduction into pieces no larger than four inches by six inches with storing piles that allow complete water drainage.
  - (10) The person collecting or processing tires must provide financial security acceptable to the County in an amount sufficient to cover the cost of removing the tires from the site in case of an emergency at the site or the insolvency of the person collecting or processing the tires.
  - (11) An emergency procedures plan shall be prepared and displayed at the tire storage facility. The plan shall include telephone numbers of the local fire, police and other emergency service departments. The plan shall be reviewed by the local fire department and County fire officials prior to being posted.
- B. A waste tire facility having a planned or actual capacity of 2,500 or more waste tires that are exposed to the atmosphere and elements shall comply with all the conditions of Subsection A of this section and the following:

- (1) The area must be completely enclosed by a woven wire, chain-link or other acceptable noncombustible fence material. The fence must be at least six feet in height. Access must be controlled by lockable gates.
- (2) A dirt berm or barrier not less than five feet in height shall be positioned at the perimeter of the area in which the tires are stored.
- (3) The area must have, at a minimum, a hydrant or fire pond on the facility and large-capacity carbon dioxide or dry chemical fire extinguishers located in strategically placed enclosures throughout the entire site.
- (4) If a fire pond is provided, the vector control plan must include provisions to limit mosquito breeding potential and other vectors in the vicinity of the pond.
- (5) A timetable for volume reduction of waste tires must be submitted by the owner or operator of the site which must provide for a reduction in volume of at least 25% of (surplus) inventory per year until the facility comes into conformity with the requirements of §§ 205-4 and 205-6 of this article.

**§ 205-7. Waste tire fund.**

- A. There is hereby established within the custody of the County Commissioner of Finance a revolving fund, to be known as the "Waste Tire Fund."
- B. Such fund shall consist of all of the following:
  - (1) All fines or other sums payable to the fund pursuant to § 205-8 of this article; and
  - (2) Moneys appropriated for transfer to the fund.
- C. Moneys in the account of this fund, when allocated, shall be available to the Director of the Putnam County Department of Environmental Health for the purposes of carrying out the provisions of this article.
- D. The moneys, when allocated, shall be paid out of the fund on the audit and warrant of the Commissioner of Finance on vouchers certified or approved by the Director of the Putnam County Department of Environmental Health.

**§ 205-8. Penalties for offenses.**

- A. Criminal sanctions. Any person who, having any of the culpable mental states defined in § 15.05 of the Penal Law, shall violate any of the provisions of or who fails to perform any duty imposed by this article or any rules and regulations promulgated thereto, or any final determination or order of the Commissioner made pursuant to this article, shall be guilty of a violation and, upon conviction thereof, shall be punished by a fine of not less than \$1,000 nor more than \$2,500 per day of violation.
- B. Penalties and fines. All penalties and fines collected for violation of this article or any rules and regulations promulgated thereto, and all moneys collected in any action brought on behalf of the County of Putnam for damages resulting from unlawful storage or deposit of waste tires, shall be paid over to the Putnam County Commissioner of Finance for deposit to the credit of the Waste Tire Fund established by this article.

**ARTICLE II, Recycling**

**§ 205-9. Legislative intent and purpose.**

- A. The Legislature finds that the County faces an increasing threat to its environmental and economic well-being from the solid waste disposal crisis. It further finds that a

significant amount of material which could be productively recycled is discarded each year, exacerbating the solid waste disposal crisis. The Legislature also finds that it is in the public interest, in order to protect the environment and the health of the citizens of the County, and to conserve energy and natural resources, to effect the recovery and recycling of waste materials which are currently being disposed of through landfilling or otherwise. Pursuant to these findings, and pursuant to the authority granted to the County by § 120-aa of the New York General Municipal Law, which requires municipalities to adopt a local law to require the source separation and segregation of recyclable or reusable materials from solid waste by September 1, 1992, and § 27-0107 of the New York Environmental Conservation Law, which authorizes planning units to adopt local plans to accomplish the solid waste management policies and goals delineated by the state at § 27-0106 thereof, the Legislature of the County of Putnam has enacted the Putnam County Recycling Law.

B. It shall be the purpose of the Putnam County Recycling Law to require source separation of recyclable materials in order to facilitate recycling to the maximum extent possible on the part of each and every household, business and institution within Putnam County. It shall further be the purpose of the Putnam County Recycling Law to establish, implement and enforce recycling-related practices and procedures for the separation of all recyclable materials from solid waste, as those terms are defined herein, for separate curbside collection and/or dropoff disposal. The practices and procedures prescribed herein shall be applicable to all waste generators and transporters within Putnam County and shall be consistent with New York State law, taking into consideration existing local recycling ordinances and programs.

**§ 205-10. Definitions. [Amended 11-1-2011 by L.L. No. 19-2011]**

As used in this article, the following terms shall have the following meanings:

COMMINGLED -- Source-separated, nonputrescible, uncontaminated recyclables placed in the same container.

COMPOSTING -- The aerobic or anaerobic decomposition of biodegradable organic matter, resulting in the production of compost.

CONSTRUCTION AND DEMOLITION DEBRIS -- Waste resulting from construction, remodeling, repair and demolition of structures, road building and land clearing. Such waste includes but is not limited to bricks, concrete and other masonry materials, soil, rock, lumber, road spoils, paving material and tree and brush stumps. Construction and demolition debris shall not be construed to include garden and yard waste.

COUNTY EXECUTIVE -- The duly elected County Executive of Putnam County.

COUNTY LEGISLATURE -- The duly elected Legislature of Putnam County.

CURBSIDE -- In a dumpster designated for the collection of solid waste within five feet of the town, County or state highway or driveway nearest to a residence or business.

E-WASTE -- Discarded electric or electronic devices, components or parts thereof.

FARM HAZARDOUS WASTE -- All containers containing pesticides and/or pesticide residue as well as herbicides, fertilizers and antibiotics and which can no longer be utilized for farm purposes.

GARDEN AND YARD WASTE -- Grass clippings, leaves and cuttings from shrubs, hedges and trees.



**GREEN WASTE** -- Biodegradable materials such as leaves, grass, weeds and wood material from trees and shrubs.

**HOUSEHOLD GARBAGE** -- Putrescible solid waste, including animal and vegetable waste resulting from the handling, storage, sale, preparation, cooking or serving of food. Household garbage originates primarily in home kitchens and other places where food is stored, prepared or served. Household garbage shall not be construed to include garden and yard waste.

**HOUSEHOLD HAZARDOUS WASTE (HHW)** -- All containers containing pesticides, herbicides, paints, solvents, turpentine and/or their residue. Household hazardous wastes are those materials found in the residential waste stream that would be regulated as hazardous wastes if they had been generated by industry. Additional examples of household hazardous waste include oil-based paint and other home maintenance products, pesticides, automotive fluids and hobby chemicals.

**LARGE HOUSEHOLD FURNISHINGS** -- All large and/or bulky articles actually used in the home (other than major appliances) and which equip it for living (such as chairs, sofas, tables, beds, carpets, etc.).

**MAJOR APPLIANCES** -- Any large and/or bulky household mechanism (such as a refrigerator, washer, dryer, stove, etc., sometimes referred to as "white goods") ordinarily operated by gas or electric current.

**PERSON** -- Any individual head of household, landlord, chief executive officer, owner, partner or manager of a commercial or industrial establishment or institution.

**PLASTIC BAGS** -- Bags used to contain merchandise purchased in a grocery store or other retail store, or dry cleaning establishment, for the purpose of transportation to the home of the consumer.

**PLASTIC CONTAINER** -- Any container made from any number of resins, including but not limited to high-density polyethylene (HDPE) or polyethylene terephthalate (PET), including but not limited to a plastic bottle which previously contained beverage, detergent, bleach, antifreeze and/or a hair care product.

**RECYCLABLES** -- Any solid waste or other material which is separated from the waste stream and held for its materials recycling or reuse value. Recyclables include but are not limited to paper, glass, metals, plastics and garden and yard waste.

**REGULATED MEDICAL WASTE** -- Discarded substances, including, but not limited to, infectious animal waste, human pathological waste, human blood and blood products, needles and syringes and cultures and stocks generated in research or health care.

**RETAIL ESTABLISHMENT** -- Every vendor that sells lubricating oil at retail in quantities in excess of 1,000 gallons per year.

**SERVICE ESTABLISHMENT** -- Any automobile service station, including gas-only outlets or any other retail outlet and boat marina selling at least 500 gallons of lubricating oil annually and having an on-premises oil-changing operation.

**SOLID WASTE** -- All putrescible and nonputrescible solid wastes, including but not limited to materials or substances discarded or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, or are being accumulated, stored or physically, chemically or biologically treated prior to being discarded or rejected, having served their intended purpose, or as a manufacturing by-product, including but not limited to garbage, refuse, industrial, commercial and agricultural waste sludges from air or water pollution control facilities or water supply

treatment facilities, rubbish, ashes, contained gaseous material, incinerator residue, demolition and construction debris and offal, but not including sewage and other highly diluted water-carried materials or substances and those in gaseous form, special nuclear or by-product material within the meaning of the Atomic Energy Act of 1954 as amended, or waste which appears on the list or satisfies the characteristics of hazardous waste promulgated by the Commissioner of Environmental Conservation.

**SOLID WASTE MANAGEMENT PLAN** -- The solid waste management plan to be adopted by Putnam County pursuant to Title 1 of Article 27 of the Environmental Conservation Law.

**SOURCE SEPARATION** -- The segregation of recyclable materials from the solid waste stream at the point of generation for separate collection, sale or other disposition.

**SOURCE SEPARATION ORGANICS** -- Putrescible solid waste, including animal and vegetable material, collected separately from nonputrescible solid waste. Such waste includes, but is not limited to, food scraps, vegetable waste, fruit waste, grain waste, dairy waste, meat waste, fish waste, food-contaminated paper and other compostable paper (such as pizza boxes, takeout containers, napkins and paper towels) and other biodegradable residuals.

**TOWNS AND VILLAGES** -- Each of the towns and incorporated villages in Putnam County, together with any town or village solid waste disposal district.

**USED OIL** -- All petroleum based lubricating oils which have, through use, been contaminated by physical or chemical impurities which have not been removed by subsequent refining.

**VEHICULAR TIRES** -- Tires from cars, trucks and other vehicles and their casings.

#### **§ 205-11. Mandatory County-wide recycling.**

A. Provision of recycling plans to County; schedule of implementation.

(1) In the interest of public health, safety and welfare, and in order to conserve energy and natural resources in Putnam County, each town and village within Putnam County shall be responsible for controlling the collection of recyclables within its jurisdiction in accordance with the provisions of this article and the Putnam County Solid Waste Management Law. To the extent that they have not already done so, each such municipality shall provide to the Putnam County Department of Solid Waste a plan to provide for source separation and collection and/or dropoff of recyclable materials in accordance with the provisions contained herein and in the Putnam County Solid Waste Management Law. Such plan shall require regular source separation by all waste generators within the municipality and regular, reliable collection of recyclable materials by permitted waste collectors from each property that generates such material within the municipality.

(2) The County Legislature shall determine the schedule of implementation for source separation and collection of recyclable materials throughout the County, except that in no event shall implementation occur later than September 1, 1992. All mandatory recycling local laws or programs implemented by any town or village, so long as such ordinances or programs meet the minimum standards and timetables for such implementation set forth herein and conform with the County Solid Waste Management Law, will fulfill the requirements of this article.

B. Minimum standards and timetables for implementation of County-wide recycling.

(1) To the extent not already done so, implementation of all mandatory local recycling laws and/or plans shall have occurred no later than September 1, 1992.

(2) Commencing on or before January 1, 1992, all persons in the County in control of any premises shall be required to separate from all other solid waste that they set aside for disposal the following items:

- (a) Newspaper.
- (b) Corrugated paperboard.
- (c) Glass containers.
- (d) Plastic containers.
- (e) Aluminum and bimetal beverage containers.
- (f) Steel food containers.

(3) Commencing on or before January 1, 2000, all persons in the County in control of any premises shall be required to separate from all other solid waste that they set aside for disposal the following additional items:

- (a) Magazines.
- (b) Junk mail.
- (c) Office paper.
- (d) Brown kraft paper (i.e., grocery bags).
- (e) Such other recyclables as may be determined from time to time by rule or regulation promulgated by the Director of the Putnam County Department of Environmental Health Services

(4) If a town or village plan so indicates, recyclable materials may be commingled for collection purposes.

#### C. Source separation and handling of recyclables.

(1) All generators of solid waste shall separate out all recyclable materials designated in §§ 205-11B and 205-14 of this article for separate curbside or dropoff collection. No person or persons shall dispose of recyclables, except by placing the same at curbside or other designated dropoff area which has been approved and designated as such by the municipality in which such person resides.

(2) All recyclable materials which have been source separated and placed at curbside or deposited at a designated dropoff center for separate collection shall, at all times, be collected, stored and transported separately from all other solid waste and shall be delivered to facilities duly permitted for the processing and marketing of recyclables.

D. Multidomicile buildings and complexes. All owners, managers and/or persons otherwise responsible for multidomicile buildings and/or complexes within Putnam County shall provide and maintain in a neat and sanitary condition a dropoff area complete with separate containers for the separate storage and collection of each recyclable material category generated by the residents of such building and/or complex. Such dropoff area shall be located on the premises and shall be conveniently accessible by all residents of such premises. It shall be the resident's responsibility to separate all designated recyclable materials from the solid waste they generate and deposit such materials into each separate designated container at the dropoff area. The owner, manager and/or person otherwise responsible for such building or complex shall be responsible for ensuring the separate collection and transport to market of all recyclable materials from such dropoff areas in accordance with the provisions of this article.

**§ 205-12. Waste transporter permit; collection requirements.**

A. Permit required. In accordance with § 27-0305 of the New York State Environmental Conservation Law, no person shall engage in the transportation of regulated waste originating or terminating at any location in this County without first having obtained a permit to do so in accordance with the provisions of this article. Further, no person receiving a permit hereunder shall loan, rent or permit any person to use or receive the benefit of such license, directly or indirectly, by any arrangement whatsoever, and any person so doing shall subject his license to revocation as set forth in §§ 205-16 and 205-17 hereof.

(1) Applications for permit shall be made available at the Putnam County Department of Health and shall be distributed upon request to all waste transporters operating in Putnam County. Each permit issued hereunder shall expire on the last day of February of each calendar year and shall be renewed within 30 days preceding such expiration by applying to the Putnam County Department of Health.

(2) The Putnam County Commissioner/Director of Health or his/her duly authorized representative shall review all timely received applications and, if acceptable, shall issue a permit to the waste transporter.

(3) Any application which is deemed unacceptable and rejected by the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall be promptly returned to the waste transporter, together with a written explanation of the reasons for the rejection thereof. Such waste transporter shall thereafter be afforded a reasonable amount of time, as determined by the Health Department, to remedy any deficiency in its application. If necessary, the Health Department may waive the thirty-day renewal period provided for in Subsection A(1) herein.

(4) In all cases, applications submitted by waste transporters who have outstanding violations and/or unpaid fines and/or penalties on file with the Putnam County Department of Health shall be denied until such time that such violation is remedied and/or such fine and/or penalty is paid in full.

(5) Violations of this section shall be subject to the enforcement and penalty provisions contained in §§ 205-16 and 205-17 herein.

B. Annual report. As a condition for the permit, the Putnam County Department of Health shall require the transporter to make an annual report to the Department, including the volume and nature of waste products, including recyclables, disposed of and the place and manner in which such waste products were finally disposed, and such other information as the Department may require. Failure to submit such annual report shall result in the automatic denial of the permit application.

C. Annual renewal. Such permit shall be renewed annually. A renewal may be denied by the Department for failure of the applicant to properly report as provided in Subsection B of this section.

D. Permit display. Each person issued a permit under this chapter shall be issued a vehicle decal.

(1) The vehicle decal must be affixed prominently on all vehicles owned, leased, or used by the waste hauler in the performance of his or her business.

(2) All vehicles which are owned, leased or used in the name of a business entity, the owners, principals and/or employees of which are subject to the provisions of this chapter, must prominently display the business name and the Putnam County decal.

(3) Failure to comply in any manner with the provisions of this section shall be a violation of this chapter and shall subject the permit holder to the sanctions provided for herein.

E. Source separation. All waste transporters operating within Putnam County shall be responsible for collecting from their accounts all source-separated recyclable materials, as specified in § 205-11B herein, and shall, at all times, keep all recyclable materials separate from all other solid waste throughout the collection, transportation and delivery processes.

(1) Solid waste shall not be mixed with recyclables (including scrap metals) or with green waste; each such waste must be separately collected or collected in a vehicle equipped to keep recyclables separated from solid waste. Said vehicle must be approved by the Department of Environmental Health.

(2) Tires shall not be mixed with solid waste but must be separately collected, transported and delivered.

F. Handling of CFCs. It shall be a violation of this chapter for any hauler to handle any appliance containing CFCs, such as Freon, in such a manner that would allow for it to be crushed or for CFCs to escape into the atmosphere.

G. Tire collection. Tires shall not be mixed with solid waste but must be separately collected and disposed in accordance with Article I of this chapter

H. Every hauler shall offer recyclables collection to those persons for whom said hauler provides removal, collection or transport of solid waste.

#### **§ 205-13. Marketing of recyclables.**

It is the intent of the Putnam County Legislature that the County assist the towns and villages in the marketing of all recyclables generated in the County. At such time as a County materials recovery or recycling facility becomes operational, the County shall be responsible for marketing all recyclables properly delivered thereto. Until such facility is operational or contracted for by the County, the County, acting through the Putnam County Department of Environmental Health, will offer ongoing marketing consulting services to all towns, villages and/or approved organizations engaged in recycling activities within Putnam County.

#### **§ 205-14. Additional County-wide recycling programs.**

In accordance with the New York State Environmental Conservation Law, and the rules and regulations promulgated thereunder at 6 NYCRR Part 360 (Chapter 152, Laws of 1990), the following specified waste stream items shall be disposed of in the manner prescribed herein:

A. Household hazardous waste.

(1) In accordance with 6 NYCRR Subpart 373-4, household hazardous waste may be separated from other household solid waste and self-hauled and dropped off at the location designated for the annual Household Hazardous Waste Collection Day hosted by the County of Putnam for such purpose, or if the generator of such hazardous household waste so chooses, he or she may contract with a duly registered hazardous waste transporter for the collection, transportation and disposal of the generator's hazardous household waste.

(2) All such hazardous waste transporters operating in Putnam County, and their disposal

facilities, must possess a valid and current permit issued pursuant to Title 7 of the New York State Environmental Conservation Law Article 27.

B. Lead-acid batteries.

(1) Legislative authority. In accordance with New York State Environmental Conservation

Law, § 27-1701, the Putnam County Legislature finds that the improper disposal for lead-acid batteries constitutes a threat to the health and safety of the citizens of this County. To address such threat, the following practices relating to the recycling and disposal of lead-acid batteries are now required by law:

(a) Mixing and/or disposal of lead-acid batteries with solid waste is strictly prohibited.

(b) All lead-acid batteries shall be disposed of by delivering the same to a retailer, distributor, collector, battery recycling facility or, as a method of last resort, to an authorized hazardous waste facility.

(c) Every retailer and distributor shall accept, at no charge, up to two used lead-acid batteries per calendar month from any individual.

(d) Distributors shall accept, at no charge, used lead-acid batteries from any retailer to which the distributor sells new batteries.

(e) A five-dollar return incentive payment shall be imposed on consumers purchasing a new lead-acid battery who do not return a used lead-acid battery to the retailer at the time of purchase. This payment shall be refunded if the consumer returns a used lead-acid battery to such retailer within 30 days of the purchase date. If, after the thirty-day period expires, the consumer has not returned a used lead-acid battery to the retailer, then such retailer may retain the return incentive payment.

(f) Every retailer and distributor shall post a conspicuous sign displaying the universal recycling symbol and stating: "IT IS ILLEGAL TO DISCARD VEHICLE BATTERIES. STATE LAW REQUIRES US TO ACCEPT VEHICLE BATTERIES AT NO CHARGE FOR RECYCLING."

(g) The local Department of Motor Vehicles is required to provide information materials describing lead-acid battery collection requirements and used oil management practices at the time of vehicle registration.

(2) Administrative and civil sanctions.

(a) In conjunction with the procedures provided for in § 205-16 of this article, any person who knowingly or intentionally violates any of the provisions or fails to perform a duty imposed by § 205-14B of this article, except the duty to accept a lead-acid battery pursuant to § 205-14B(1)(d), shall be liable for a civil penalty not to exceed \$50 for each violation, provided that such civil penalty shall be in addition to any other penalties authorized under this or any other local or state laws governing the illegal disposal of lead-acid batteries.

(b) Any retailer or distributor who refuses to accept a lead-acid battery as required pursuant to § 205-14B(1)(d) of this article shall be liable for a civil penalty not to exceed \$500.

(c) Penalties under this section shall be assessed by the Putnam County Commissioner/Director of Health or his/her duly authorized representative pursuant to § 205-16 of this article. For the purposes of this section, disposal of each lead-acid battery, except as authorized pursuant to § 205-14B(1)(b) of this article, shall constitute a separate violation.

C. Used motor oil.

(1) "Used oil" defined. For the purpose of this section, the term "used oil" means all petroleum-based lubricating oils which have, through use, been contaminated by physical or chemical impurities which have not been removed by subsequent re-refining.

(2) Legislative authority. In accordance with Title 23 of Article 23 of the New York State Environmental Conservation Law, regarding the re-refining of used oil, the following practices and policies governing the disposal and recycling of used oil are now required by law:

(a) No person shall engage in the improper disposal of used oil. Used oil shall only be deposited in an available used oil retention facility or disposed of as otherwise authorized or permitted by the Putnam County Commissioner/Director of Health or his/her duly authorized representative.

(b) Every service and/or retail establishment and every other person, industrial operation, airport, trucking terminal or government facility generating at least 500 gallons of used oil annually shall provide and maintain used oil retention facilities in accordance with regulations contained in 6 NYCRR Subpart 360-14, or contract for used oil storage with another such establishment or municipality with an on-premises used oil retention facility. The used oil shall be periodically removed from the retention facility by a duly permitted waste transporter, which may dispose of used oil only by delivery to a re-refiner, except where otherwise permitted by the Putnam County Commissioner/Director of Health or his/her duly authorized representative.

(c) Every retail establishment that sells over 1,000 gallons of motor oil per year, and every service establishment that sells over 500 gallons of motor oil per year shall be required to accept during the normal business hours of the establishment, at no additional charge, used motor oil in quantities not exceeding five gallons per day from any individual. This requirement does not apply if the used oil retention facility is temporarily filled to capacity; and provided, further, that such establishment need only accept used oil that is uncontaminated and in screw-top, rigid, closed containers. In no event shall a used oil retention facility be allowed to remain at capacity for a period exceeding one week. [Amended 11-1-2011 by L.L. No. 19-2011]

(d) Every service and retail establishment with an on-premises used oil retention facility shall post a conspicuous sign open to public view, stating: "WE ACCEPT USED OIL FOR RECYCLING AT NO CHARGE."

(e) Every service and retail establishment that contracts with another retail or service establishment shall post a conspicuous sign open to the public view stating: "USED OIL FOR RECYCLING WILL BE ACCEPTED BY (name of contracted establishment) AT (address of contracted establishment) AT NO CHARGE."

(f) A retail or service establishment shall not be required to accept used oil if such establishment has been granted a hardship waiver by the Commissioner of the New York State Department of Environmental Conservation for the inability to provide for on-premises used oil retention facilities or to contract for off-premises used oil collection. Written proof of such hardship waiver shall be presented to the Putnam County Commissioner/Director of Health or his/her duly authorized representative in defense of a charged violation of this section.

(3) Administrative and civil sanctions.

(a) In conjunction with the procedures provided for in § 205-16 of this article, any person who knowingly or intentionally violates any of the provisions or fails to perform a duty imposed by § 205-14C of this article shall be liable for a civil penalty not to exceed \$50, except that any service or retail establishment that refuses to accept used oil as required by § 205-14C(2)(c) or which fails to post a sign pursuant to § 205-14C(2)(d) or (e) shall be liable for a civil penalty not to exceed \$500.

(b) Penalties under this section shall be assessed by the Putnam County Commissioner/Director of Health or his/her duly authorized representative pursuant to § 205-16 of this article. Such civil penalty shall be in addition to any other penalties authorized under this or any other local or state laws governing the illegal disposal of used motor oil.

D. Tires.

(1) Disposal. In accordance with the New York State Environmental Conservation Law and the State of New York Codes, Rules and Regulations, Title 6, Part 360 (6 NYCRR Part 360), tires shall be disposed of in the following manner:

(a) Disposal of whole tires in any landfill is prohibited.

(b) Mixing and/or disposing of tires in any form with solid wastes is prohibited.

(c) Used tires shall be delivered to a duly authorized tire retailer at the time of purchase of new tires; delivered to a local recycling dropoff center duly authorized to accept used tires; or delivered to a tire retailer that is authorized to accept used tires for disposal from the general public.

(2) Storage. No person shall engage in storing 1,000 or more waste tires at a time without first having obtained a permit to do so in accordance with 6 NYCRR Part 360.

E. Appliances and scrap metal.

(1) Terms defined.

(a) For purposes of this article, "appliance" shall include any large industrial, commercial and/or residential appliance, including but not limited to such items as refrigerators, freezers, washing machines, clothes dryers, dishwashers, hot-water heaters, stoves, ovens and the like.

(b) For purposes of this article, scrap metal shall include but not be limited to various types of metals from equipment, appliances and fixtures.

(2) All appliances and scrap metal shall be recycled by one of the following methods:

(a) Picked up, transported and delivered to an appropriate scrap metal recycling facility by the appliance retailer, vendor and/or distributor which delivers a new replacement appliance to a consumer at the time of such delivery;

(b) Picked up, transported and delivered by a duly permitted waste hauler to an appropriate scrap metal recycling facility; or

(c) Otherwise delivered to the appropriate local recycling dropoff center or scrap metal recycling facility that accepts used appliances and/or scrap metal.

(3) Once a consumer delivers an appliance to either a duly permitted waste hauler or appliance vendor, distributor and/or retailer, such consumer's responsibilities under this subsection shall be deemed to have been satisfied. Thereafter, full responsibility for the proper disposal of any appliances so delivered shall rest with the waste hauler, vendor, retailer and/or distributor who accepts such delivery.



(4) Disposal of appliances and scrap metal in any manner not prescribed herein is expressly prohibited.

F. Additional regulations to be promulgated.

(1) The County may also establish, through amendment to this article or through the promulgation of regulations (pursuant to § 205-11B(3)(f) herein), specific County-wide recycling programs for the following additional categories of solid waste:

(a) Residential, commercial and industrial construction and demolition debris.

(b) Sewage sludge.

(c) E-waste.

(2) Any such amendment or regulations shall be consistent with and subject to the provisions of the Putnam County Solid Waste Management Plan, once adopted, and the Putnam County Solid Waste Management Law.

#### **§ 205-15. Scavenging.**

To ensure full compliance with the provisions of this article, all recyclables, once separated from solid waste and placed at curbside for separate collection or deposited at any designated dropoff center, immediately become the property of the registered and authorized recyclables collector and/or transporter for any curbside location or dropoff center where such recyclables are deposited. It shall be unlawful for any unauthorized person or organization to scavenge or remove recyclables for any purpose whatsoever from their collection containers at any location.

#### **§ 205-16. Enforcement.**

A. Investigation. The Putnam County Commissioner/Director of Health or any representative authorized in writing by the Putnam County Commissioner/Director of Health for such purpose may investigate any application, complaint or alleged violation of any provision of this article by conducting site inspections, informal interviews or preliminary hearings pertaining thereto.

B. Notice. Upon the finding of a violation of and/or noncompliance with any provision of this article or the rules, regulations and orders promulgated and issued pursuant hereto, the Putnam County Commissioner/Director of Health or a duly authorized representative shall serve upon the alleged violation a notice of violation, in writing, setting forth the exact nature of such violation and/or noncompliance.

(1) Such notice may be served in person, by mail, by telegraph, or by posting such notice conspicuously at the premises.

(2) Such notice shall set forth the date or dates of violation and/or noncompliance, or best approximation thereof, and section of law claimed to have been violated.

C. Hearing. In the event that the party served with a notice of violation in accordance with Subsection B of this section desires to challenge or contest the accuracy or legitimacy of such notice and/or the findings contained therein, then such person or persons may request a hearing on the violation.

(1) A request for hearing shall be made in writing to the Putnam County Commissioner/Director of Health or duly authorized representative and shall clearly state the basis upon which the notice of violation is being contested.

(2) In the event that such written request for hearing is not received by the Putnam County

Commissioner/Director of Health or duly authorized representative within 14 days from the date of service of the notice of violation, then such hearing shall be deemed waived.

(3) Upon receipt of a timely written request, a hearing shall be set down for a certain day and shall be on due and adequate notice to the person or persons concerned. In no event shall such hearing be held within 30 days after receipt of such written request.

(4) The notice of hearing shall set forth the time and place of the hearing; the name of the person or persons concerned; the purpose of the hearing; general specifications with reference to the particular provisions of law, or rules and regulations, if any, involved; the right to present evidence and to examine and cross-examine witnesses; and the right to be represented by counsel.

(5) The Putnam County Department of Law shall appear on behalf of the Putnam County Department of Health and shall function as the presentment agency with respect to the alleged violation.

(6) On the return day of the hearing, a duly appointed hearing officer shall note the appearance of the person(s) in attendance, swear in all witnesses, and record their testimony.

(7) The hearing officer shall thereafter prepare findings of fact, conclusions and recommendations upon which the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall make a formal order, setting forth the determination, conditions, if any, to be complied with and civil penalties, if any. Civil penalties shall be assessed in accordance with the provisions of § 205-17 of this article.

(8) The order of the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall be filed in the Putnam County Department of Health, and a copy thereof shall be served upon the person or persons concerned.

D. Administration. This article shall be administered by the Putnam County Department of Health. The Office of the County Executive shall have oversight responsibilities.

E. Additional rules and regulations. Additional rules and regulations as may be promulgated by the Putnam County Department of Health, for the administration and/or enforcement of this article, shall be subject to the approval of the Putnam County Legislature. Following approval by the Putnam County Legislature, such additional rules and regulations shall be filed with the Clerk of the Putnam County Legislature.

#### **§ 205-17. Penalties for offenses; civil penalties.**

A. Subject to the provisions of § 205-14B(2)(a) and C(3)(a), violations of this article shall be subject to a civil penalty not to exceed \$500 for every such violation. All civil penalties and fines collected for any violation of this article shall be paid over to the Putnam County Commissioner of Health or his/her duly authorized representative for deposit in a general fund.

B. Each day on which a violation or failure to comply with any provision of this article continues shall constitute a separate violation.

C. The penalties provided for by Subsection A of this section may be recovered, if necessary, by an action instituted by the Putnam County Attorney in any court of competent jurisdiction.

D. Nothing contained herein shall prohibit the Putnam County Commissioner/Director of Health or duly authorized representative from seeking to obtain voluntary compliance with the provisions of this article by way of notice, warning or educational means.

E. In addition to the penalties provided for herein, any person, persons or entity who or which disposes of said solid waste in any manner inconsistent with the provisions contained herein shall further be subject to such criminal and/or civil penalties as may be imposed under applicable New York State law.

F. Any transporter of solid waste which fails to comply with the provisions of this article shall be subject to suspension or revocation of its permit, as provided for in § 205-12 hereof.

### **ARTICLE III, Solid Waste Management**

#### **§ 205-18. Legislative intent and purpose.**

A. Pursuant to the clearly articulated policy of New York State, as set forth in § 27-0106 of the Environmental Conservation Law, the Legislature finds that the County faces an increasing threat to its environmental and economic well-being from the solid waste disposal crisis. The Legislature also finds that it is in the public interest, safety and welfare, in order to conserve energy and natural resources and protect the environment and the health of the citizens of the County, to monitor the solid waste stream within Putnam County and to ensure the efficient and effective implementation of waste reduction, reuse, disposal and recycling programs for all sectors of Putnam County.

B. The adoption of this article is authorized pursuant to New York Environmental Conservation Law § 27-0107 and County Law, § 226-b.

#### **§ 205-19. Definitions.**

As used in this article, the following terms shall have the meanings indicated:

SOLID WASTE -- All putrescible and nonputrescible solid waste(s), including but not limited to materials or substances discarded or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, or which are being accumulated, stored or physically, chemically or biologically treated prior to being discarded or rejected, having served their intended purpose, or as a manufacturing by-product, including but not limited to garbage, refuse, industrial, commercial and agricultural waste, sludge(s) from air or water pollution control facilities or water supply treatment facilities, rubbish, ashes, contained gaseous material, incinerator residue, construction and demolition debris and offal, but not including sewage and other highly diluted water-carried materials or substances and those in gaseous form, special nuclear or by-product material within the meaning of the Atomic Energy Act of 1954, amended, or waste which appears on the list or satisfies the characteristics of hazardous waste promulgated by the Commissioner of Environmental Conservation.

#### **§ 205-20. Permits for transporters of solid waste.**

A. Permit required. In accordance with § 27-0305 of the New York State Environmental Conservation Law, no person or persons shall engage in the transportation of regulated waste originating or terminating at any location in this County without first having obtained a permit to do so in accordance with the provisions of this article. Further, no person or persons receiving a permit hereunder shall loan, rent or permit any person or persons to use or receive the benefit of such license, directly or indirectly, by any

arrangement whatsoever, and any person or persons so doing shall subject such license to revocation as set forth in §§ 205-21 and 205-22 hereof.

(1) Applications for permit shall be made available at the Putnam County Department of Health and shall be distributed upon request to any waste transporters operating in Putnam County. Each permit issued hereunder shall expire on the last day of February of each calendar year and shall be renewed within 30 days preceding such expiration by applying to the Putnam County Department of Health.

(2) The Putnam County Commissioner/Director of Health or his/her duly authorized representative shall review all timely received applications and, if acceptable, shall issue a permit to the waste transporter.

(3) Any application which is deemed unacceptable and rejected by the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall be promptly returned to the waste transporter, together with a written explanation of the reasons for the rejection thereof. Such waste transporter shall thereafter be afforded a reasonable amount of time, as determined by the Putnam County Commissioner/Director or his/her duly authorized representative, to remedy any deficiency in its application. If necessary, the Putnam County Commissioner/Director or his/her duly authorized representative may waive the thirty-day renewal period provided for in Subsection A(1) hereof.

(4) In all cases, applications submitted by waste transporters who have outstanding violations and/or unpaid fines and/or penalties on file with the Putnam County Department of Health shall be denied until such time that such violation is remedied and/or such fine and/or penalty is paid in full.

(5) Violations of this section shall be subject to the enforcement and penalty provisions contained in §§ 205-21 and 205-22 herein.

B. Annual report. As a condition for the permit, the Putnam County Department of Health (the "Department") shall require the transporter to make an annual report to the Department, including the volume and nature of waste products, including recyclables, disposed of and the place and manner in which such waste products were finally disposed, and such other information as the Department may require. Failure to submit such annual report shall result in the automatic denial of the permit application.

C. Annual renewal. Such permit shall be renewed annually. A renewal may be denied by the Department for failure of the applicant to properly report as provided in Subsection B of this section.

D. Permit display. Each person issued a permit under this chapter shall be issued a vehicle decal.

(1) The vehicle decal must be affixed prominently on all vehicles owned, leased, or used by the waste hauler in the performance of his or her business.

(2) All vehicles which are owned, leased or used in the name of a business entity, the owners, principals and/or employees of which are subject to the provisions of this chapter, must prominently display the business name and the Putnam County permit.

(3) Failure to comply in any manner with the provisions of this section shall be a violation of this chapter and shall subject the permit holder to the sanctions provided for herein.

E. Exemptions. This permit requirement shall not apply to persons whose solid waste collection activities are limited to solid waste collected at their own residences or to

persons conducting recycling and/or scrap activities on a noncommercial basis on behalf of a not-for-profit organization.

**§ 205-21. Enforcement.**

A. Investigation. The Putnam County Commissioner/Director of Health or any representative authorized in writing by the Putnam County Commissioner/Director of Health for such purpose may investigate any application, complaint or alleged violation of any provision of this article by conducting site inspections, informal interviews or preliminary hearings pertaining thereto.

B. Notice. Upon the finding of a violation of and/or noncompliance with any provision of this article or the rules, regulations and orders promulgated and issued pursuant hereto, the Putnam County Commissioner/Director of Health or a duly authorized representative shall serve upon the alleged violation a notice of violation, in writing, setting forth the exact nature of such violation and/or noncompliance.

(1) Such notice may be served in person, by mail, by telegraph, or by posting such notice conspicuously on the premises.

(2) Such notice shall set forth the date or dates of violation and/or noncompliance, or best approximation thereof, and section of law claimed to have been violated.

(3) Such notice shall provide that the violation and/or noncompliance shall be abated or removed within the period of time set forth in such notice as determined by the Putnam County Commissioner/Director of Health or his/her duly authorized representative.

C. Hearing. In the event that the party served with a notice of violation in accordance with Subsection B of this section desires to challenge or contest the accuracy or legitimacy of such notice and/or the findings contained therein, then such person or persons may request a hearing on the violation.

(1) A request for hearing shall be made in writing to the Putnam County Commissioner/Director of Health or duly authorized representative and shall clearly state the basis upon which the notice of violation is being contested.

(2) In the event that such written request for hearing is not received by the Putnam County Commissioner/Director of Health or duly authorized representative within 14 days from the date of service of the notice of violation, then such hearing shall be deemed waived.

(3) Upon receipt of a timely written request, a hearing shall be set down for a certain day and shall be on due and adequate notice to the person or persons concerned. In no event shall such hearing be held within 30 days after receipt of such written request.

(4) The notice of hearing shall set forth the time and place of the hearing; the name of the person or persons concerned; the purpose of the hearing; general specifications with reference to the particular provisions of law, or rules and regulations, if any, involved; the right to present evidence and to examine and cross-examine witnesses; and the right to be represented by counsel.

(5) The Putnam County Department of Law shall appear on behalf of the Putnam County Department of Health and shall function as the presentment agency with respect to the alleged violation.

(6) On the return day of the hearing, a duly appointed hearing officer shall note the appearance of the person or persons in attendance; swear in all witnesses; and record their testimony.

(7) The hearing officer shall thereafter prepare findings of fact, conclusions and recommendations upon which the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall make a formal order, setting forth the determination, conditions, if any, to be complied with and civil penalties, if any. Civil penalties shall be assessed in accordance with the provisions of § 205-22 of this article.

(8) The order of the Putnam County Commissioner/Director of Health or his/her duly authorized representative shall be filed in the Putnam County Department of Health, and a copy thereof shall be served upon the person or persons concerned.

D. Administration. This article shall be administered by the Putnam County Department of Health. The office of the Putnam County Executive shall have oversight responsibilities.

E. Additional rules and regulations. Additional rules and regulations as may be promulgated by the Putnam County Department of Health, for the administration and/or enforcement of this article, shall be subject to the approval of the Putnam County Legislature. Following approval by the Putnam County Legislature, such additional rules and regulations shall be filed with the Clerk of the Putnam County Legislature.

**§ 205-22. Penalties for offenses; civil penalties.**

A. Violations of this article shall be subject to a civil penalty not to exceed \$500 for each such violation. All civil penalties and fines collected for any violation of this article shall be paid over to the Putnam County Commissioner/Director of Health for deposit in a general fund.

B. Each day on which a violation or failure to comply with any provision of this article continues shall constitute a separate violation.

C. The penalties provided for by Subsection A of this section may be recovered, if necessary, by an action instituted by the Putnam County Attorney in any court of competent jurisdiction.

D. Nothing contained herein shall prohibit the Putnam County Commissioner/Director of Health or his/her duly authorized representative from seeking to obtain voluntary compliance with the provisions of this article by way of notice, warning or educational means.

E. In addition to the penalties provided for herein, any person or persons, or entity who or which disposes of said solid waste in any manner inconsistent with the provisions contained herein shall further be subject to such criminal and/or civil penalties as may be imposed under applicable state law.

F. Any transporter of solid waste who fails to comply with the provisions of this article shall be subject to suspension or revocation of its permit, as provided for in § 205-20 herein.



**APPENDIX D**

**TABLE 8-1: IMPLEMENTATION SCHEDULE**

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TO REPLACE "ANCHOR" PAGES