The New York State Solid Waste EXAMINER

News From Assemblyman Alan Maisel
Chair, Legislative Commission on Solid Waste Management

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Dear Colleagues and Readers:

The 2011-12 Legislative session has ended and the Commission has had an interesting year. I have very much enjoyed my tenure as Commission Chairman and look forward to continuing our work on a challenging list of bills. Issues that we made progress on in 2012 include:

- *banning the use of bisphenol A in thermal receipt paper;*
- *producer responsibility for the take-back and recycling of mercury-containing lamps; and*
- *take-back requirements and recycling of smoke detectors containing americium-241.*

We have continued our work and advocacy for:

- *banning the importation and disposal of hydraulic fracturing fluids, drill cuttings and soil in New York until EPA issues its report this summer;*
- *managing unwanted telephone directories and promoting directory recycling;*
- *greater disclosure of in-ground and above-ground residential fuel storage tanks;*
- *establishing manufacturer responsibility for take-back of drugs from hospitals and health care facilities; and*
- *encouraging reuse of confiscated counterfeit clothing.*

New legislation to require flooring contractors to remove used carpeting from a customer's property, and hardcover book recycling has also been introduced.

The newsletter will also report on FY 2012-13 funding for and allocations from the Environmental Protection Fund and funding/staffing for the Department of Environmental Conservation.

Commission staff and I were also able to visit several local entrepreneurial enterprises that recover and recycle commodities such as unwanted hardcover books and vehicle windshields.

The Commission monitors and reports on the implementation of both the State and New York City Solid Waste Management Plans as well as the funding for and dispersal of money from the Environmental Protection Fund and DEC's budget.

You may contact the Commission office at any time to bring solid waste issues to our attention. Thank you for your interest in the work of our Commission.

Alan Maisel

ISSUE HIGHLIGHTS

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MAISEL BILL WOULD BAN IMPORTATION AND DISPOSAL OF HYDRAULIC FRACTURING WASTES FROM OUT-OF-STATE

Numerous bills were introduced during the 2011-12 Legislative session relating to the waste disposal impacts of high-volume hydraulic fracturing (HVHF) in New York State. Among these initiatives are:

- **A.2890 Sweeney/S.6345 Krueger:** Prohibits the on-site storage of flowback water from high volume hydraulic fracturing. Status: Assembly and Senate Environmental Conservation Committees.
- **A.2922 Sweeney/S.425 Krueger:** Requires disclosure of all hydraulic fracturing fluids and prohibits the use of certain chemicals. Status: Assembly and Senate Environmental Conservation Committees.
- **A.3140 Sweeney:** Prohibits the disposal of drill cuttings at the drilling site. Status: Assembly Environmental Conservation Committee.
- **A.7013 Sweeney/S.4616 Avella:** Requires wastes produced from oil and natural gas activities to be classified as hazardous wastes. Status: Passed the Assembly.
- **A.7072 Englebright:** Requires screening of hydraulic fracturing wastes and prohibits disposal of such waste in sewage treatment plants not capable of processing such wastes. Status: Assembly Environmental Conservation Committee.
- **A.9513 Englebright/S.6583 Martins:** Prohibits the disposal of wastes produced from the production of oil and natural gas within areas of the State that derive drinking water from primary aquifers or sole source aquifers. Status: Assembly and Senate Environmental Conservation Committees.
- **A.10224 Farrell:** Prohibits the transportation of hydraulic fracturing wastes through New York City and within 25 miles of the City. Status: Assembly Environmental Conservation Committee.
- **A.10210 Sweeney/S.6893 Grisanti:** Prohibits publicly owned treatment works from accepting any wastewater associated with any hydraulic fracturing activity. Status: Assembly Environmental Conservation Committee and Senate Finance Committees.
- **A.10211 Sweeney/S.6892 Grisanti:** Requires DEC to track the generation, transportation, and receipt of liquid and solid waste associated with oil and gas production. Status: Assembly Environmental Conservation and Senate Finance Committees.

The Maisel Bill

Assemblyman Maisel introduced legislation **(A.300/ S.6097Avella)** that would establish a moratorium on the in-state disposal and/or processing of any fluids used in hydraulic fracturing occurring outside of the State until 120 days after completion of a U.S. Environmental Protection Agency (EPA) study and report evaluating the potential adverse impacts of these wastes on water quality and public health, expected to be released this summer. Additionally, the bill would require the Department of Environmental Conservation (DEC) to demonstrate that it:

- has the capacity to administer and enforce a program to regulate the disposal of hydraulic fracturing drilling fluids, drill cuttings and soil;
- is able to identify and test for all chemical components of these drilling fluids;
- has the capability to conduct inspections of any facilities that contract to receive drilling fluids, drill cuttings and soil; and
- can establish appropriate monitoring requirements for the presence of low-level radioactive materials from hydraulic fracturing drilling operation waste.

Status of the DEC Final Supplemental Generic Environment Impact Statement (SGEIS)

In January 2012, DEC closed the comment period on the Revised Draft SGEIS, having received in excess of 70,000 comments, far more than any other issue in its history, according to the agency. Since that time, the Commissioner has stated that the agency has dedicated more than 50 staff members to the completion of the Final SGEIS, a response document to all of the comments submitted on the Revised Draft SGEIS. The date for completion continues to slide, although the document is expected to be released this calendar year.

In June 2012, newspapers reported that the Cuomo administration would be pursuing hydraulic fracturing activities in selected Southern Tier and central New York counties (likely Broome, Chemung, Chenango, Steuben and Tioga), limiting drilling to the deepest areas of the Marcellus Shale rock formation and only where the local communities want gas development. Following this announcement, seventy-five legislators, including Assemblyman Maisel, wrote to the Governor asking him to resolve six critical issues before permitting hydraulic fracturing in New York.

These issues include rescinding New York's natural gas hazardous waste regulatory exemption; banning "recycling" of natural gas drilling wastewater into injection wells; and banning disposal of natural gas drilling wastewater by land-spreading or dumping into municipal waste treatment plants. The letter goes on to call for a continued moratorium on hydraulic fracturing until the concerns have been resolved.

Federal Evaluation of Shale Gas Production

In March 2011, the President directed Energy Secretary Steven Chu to establish the Subcommittee of the Secretary of Energy Advisory Board on Hydraulic Fracturing to specifically examine ways to reduce the environmental impacts of shale gas production. In November 2011, the Secretary of Energy Advisory Board Subcommittee on Shale Gas Production issued its second ninety-day report.

The report contains twenty recommendations, including requiring the disclosure of all hydraulic fluid chemicals, not just those on Material Safety Data Sheets (MSDSs) and the reporting of each chemical on a well-by-well basis posted on a publicly available website, including company and geography listings.

The Subcommittee was concerned that there will be a tremendous amount of field activity before EPA completes its study on the drinking water impacts of hydraulic fracturing in 2014. Therefore, the Subcommittee urged EPA to "take action as appropriate" during the course of its progress.

The Subcommittee also called for industry to increase their best practices for a broad range of activities, including the collection and distribution of gas and land liquids.

The Subcommittee believes that if action is not taken to reduce the environmental impact accompanying the very considerable expansion of shale gas production expected across the country—perhaps as many as 100,000 wells over the next several decades—there is a real risk of serious environmental consequences.

Other NYS Legislation of Interest

- **A.3082 Lupardo et al:** Increase the statutory minimum royalty for landowners who are involuntarily included in a natural gas unit through compulsory integration. Status: Passed the Assembly.
- **A.7400-A Sweeney:** Suspends all oil and gas permits in NY until June 1, 2013. Status: Reported to the Assembly calendar.
- **A.7494-C Lupardo et al:** Prohibits increased assessments solely because of the lease or conveyance of oil and gas rights on similar properties. Status: Passed the Assembly
- **A.8481-A Lifton et al:** Requires oil and gas leases to be signed by all owners of leased properties. Status: Reported to the Assembly calendar.
- **A.9408 Englebright et al:** Prohibits the lease of state forests, wildlife management areas, and unique areas for gas production. Status: Reported to Ways and Means Committee.
- **A.10234 Sweeney et al:** Requires a health impact assessment for high-volume hydraulic fracturing for natural gas. Status: Passed the Assembly.

Conclusions

The Commission continues to support other Assembly Committees and staff to research and evaluate the review process and future proposals for high-volume hydraulic fracturing and horizontal drilling in both the Marcellus Shale and Utica Shale formations in New York State, focusing on the impact of the disposal of associated waste solids and fluids on water quality and public health.

The Current Status of Oil and Gas Drilling in NYS:

According to the NYS Department of Environmental Conservation (DEC), there were 13,684 vertical oil and gas wells in New York for the calendar year 2008, of which more than 6,000 were natural gas wells with total annual gas production of 50.320 billion cubic feet. The agency reports that almost half of these vertical wells currently use hydraulic fracturing techniques to release natural gas.

The Marcellus formation extends from the Southern Tier of New York into Ohio, Pennsylvania and West Virginia and is estimated to contain $1 trillion worth of natural gas. Shale gas reservoirs have become the focus of interest as potential new domestic natural gas sources.

The gas in the Marcellus Shale is found thousands of feet below the surface. Horizontal drilling can extend for up to a mile from a vertical drill site. This technique utilizes high-pressure sand, water, and other chemicals that are forced into concrete-enclosed casings in the shale formation, fracturing the rock and releasing gas that might otherwise not be available. Some of the drilling fluids return with the extracted gas; these waste fluids must be properly managed. DEC estimates that a multi-stage fracturing operation for a 4,000 lateral well-bore might use between 2.4 million and 7.8 million gallons of water.

According to DEC, interest in these shale formations is driven by enhanced well development technology and proximity of high natural gas demand markets in northeast states. It would appear that higher oil prices, lower natural gas prices, and increased national interest in reducing the use of imported fuel all serve to shift the economics as well.

BANNING BISPHENOL A (BPA) IN THERMAL RECEIPT PAPER

Maisel Bill A.212-B Passes the Assembly

In 2010, New York State took action to prohibit the use of BPA in child care products, including sippy cups, baby bottles, and straws intended for use by a child under the age of three. Recently, on July 17, 2012, the U.S. Food and Drug Administration (FDA) followed suit and issued a new rule banning the use of BPA in baby bottles and sippy cups. Consumer advocate groups believe that the rule did not go far enough. They point to studies that suggest that the chemical BPA might disrupt hormones and trigger a host of health changes in adults and children, including cancer, obesity, and developmental/reproductive problems.

In March 2011, Assemblyman Maisel introduced new legislation to ban the use of BPA in thermal receipt paper. BPA has been widely used in carbonless copy paper (e.g. credit card receipts) and thermal imaging papers for many years. A powdery layer of BPA is coated onto a piece of paper along with invisible ink, which merge and provide "color" when subject to heat or pressure.

In the fall of 2011, Assemblyman Maisel sent letters to numerous organizations and individuals, including the Retail Council of NYS, the Business Council, paper manufacturers and recyclers, resource management and recycling organizations, environmental advocates, and academic experts, soliciting their comments on the bill. Although not all of the groups responded, numerous research references, as well as recommendations for improvements to and support for the bill were received. At that time, no opposition was received, but subsequently opposition was voiced by the American Chemistry Council and the NYS Business Council. The NY Retail Council did not take a position on the bill.

The 2012 Legislation — A.212-B

The 2012 bill (A.212-B) would create more streamlined requirements for banning BPA in thermal receipt paper. The bill follows the model established by law in the State of Connecticut in 2011 by

- banning the manufacture, sale or distribution of thermal receipt paper containing BPA after October 1, 2014, unless EPA has not identified safe, commercially available alternatives to BPA, in which case
- the manufacture, sale or distribution of thermal receipt paper containing BPA would be banned on July 1, 2016.

Bill Status: the bill passed the NYS Assembly on June 20th and was sent to the Senate Rules Committee, where it remained at the end of the regular Legislative session. Senator Alesi's bill (S.4532-A) does not match currently the Assembly bill.

Routes of Public Health and Environmental Exposure from BPA in Thermal Receipt Paper

Industry representatives claim that "low levels" of BPA on thermal receipt paper do not present a threat. However, there is virtually no research regarding the long-term chronic effects on humans from continuous exposure to this chemical. There are a number of studies regarding concentration of BPA in thermal paper, transfer of BPA to skin, as well as studies evaluating the occurrence of BPA in dust, in the food supply, and the general exposure of the U.S. population to the chemical.

BPA in Thermal Receipt Paper

The European Union Risk Assessment Report 4, finalized in February 2008, evaluated the risks associated with BPA relative to thermal paper production and recycling, noting that thermal paper production is one of the smallest industrial uses of BPA. However, as pointed out by Dr. Philip Landrigan of the Mt. Sinai Medical Center in New York, "despite accounting for only a small percent of the BPA market, the presence of BPA in cash receipts may result in disproportionately widespread exposure." **The EU Risk Assessment Report specifically notes that more information and/or testing are needed in relation to the effects of BPA on developmental toxicity at low doses.** Some examples of the hundreds of studies already conducted on BPA are noted below.

1. Extent of Exposure: Studies relating to the distribution of exposure to BPA from thermal receipt paper include:

A study published in Environmental Science and Technology on Sept. 23, 2011 by researchers Chunyang Liao and Kurunthachalam Kannan of the Wadsworth Center, NYS Department of Health, found that among paper products, thermal receipt papers contributed the major portion (> 98%) of exposures to BPA.

A November 2010 report of the Joint Food and Agriculture Organization of the United Nations and the World Health Organization Expert Meeting found that they were unable to provide an exposure estimate from thermal paper, due to insufficient data evaluating the contribution of dermal exposure.

Last year's newsletter highlighted a thermal receipt testing report published on July 28, 2010 in the peer-reviewed journal "Green Chemistry Letters and Reviews" by the Warner Babcock Institute for Green Chemistry, which found the average receipt contained 60-100 milligrams of free BPA, which is a thousand times above levels leaching from polycarbonate bottles.

The Environmental Working Group's testing program conducted by the Missouri Division of Biological Sciences laboratory on receipts from major retailers, found that the total mass of BPA on a receipt is from 250 to 1,000 times the amount

of BPA typically found in a can of food or baby formula.

2. Absorption Through the Skin: Studies relating to absorption of BPA through the skin have been conducted in recent years.

In 2011, Daniel Zalko and his colleagues at the French National Institute for Agricultural Research conducted experiments using BPA and the ears of slaughtered pigs. Varying amounts of BPA were applied to the pig skin; the lowest dose applied was comparable to that which would rub onto a person's hands when handling receipt paper. Within three days of application, more than half of the BPA applied had absorbed into the pig skin, leading researchers to suggest that if it had been a live animal, BPA would have been absorbed into the bloodstream.

The University of Missouri-Columbia conducted tests using healthy skin taken from women's abdomens during surgeries. The results were similar to the Zalko study, with almost half of the BPA that was applied passing through the tissue. These findings were published online in Chemosphere in October 2010.

Worker Exposure: Studies relating to workplace and manufacturing exposure include:

- An October 2010 study by Braun et al at the Department of Environmental Health, Harvard University found that urinary concentrations of BPA in pregnant women varied by occupation, the highest being found in women who reported being cashiers. The researchers cautioned that because estimates were based on a very limited sample, additional studies should validate these findings.
- In 2009, an occupational cohort study was conducted by Li et al to study the effect of occupational exposure to BPA on the risk of male sexual dysfunction. Current workers from BPA-exposed and control factories were recruited. The researchers concluded that exposure to BPA in the workplace could have an adverse effect on male sexual dysfunction.
- Bio-monitoring surveys by the federal Centers for Disease Control and Prevention (CDC) have found BPA in the bodies of 93% of Americans over the age of 6. The Environmental Working Group (EWG) in Washington, D.C. analyzed the CDC data and found that people who reported working in retail industries had 34 percent more BPA in their bodies than other workers. As of May 2009, 1 in 17 working Americans—7 million people—were employed as retail salespersons and cashiers, according to the Bureau of Labor Statistics.

BPA on Money

The Liao/Kannan study cited above identified paper money as another source of human exposure to BPA. The researchers found that BPA can transfer to the bills from thermal cash receipts stored next to them in wallets, purses, etc. Paper currency was collected from numerous countries, including the U.S., Canada, Czech Republic, Russia, Turkey, Australia, Brazil, Egypt, South Africa, China, India, Japan, Korea, Kuwait, Malaysia, the Philippines, Singapore, Thailand, Vietnam, and the United Arab Emirates. The study results suggested the need for additional research regarding the transfer of BPA to and from money and potential exposure and health effects that may accompany frequent contact with paper money.

A report released in late 2010 by the Washington Toxics Coalition titled "On the Money: BPA on Dollars Bills and Receipts" described lab tests confirming that BPA rubs off on the money it contacts. Levels found on dollar bills were lower than on receipts, but the group contends that U.S. currency is to some degree contaminated with BPA.

Recycling and Disposal of Paper Containing BPA

A related issue is the recycling and disposal of paper receipts containing BPA, thereby transferring BPA to other forms of recycled paper. It is estimated that about 30 percent of thermal paper enters the paper recycling system, potentially introducing BPA into products such as toilet paper, napkins, and food packaging.

According to the European Union's 2008 Risk Assessment of BPA, thermal paper production is one of the smallest industrial uses of BPA. However, recycling of thermal paper generates the largest source of BPA entering wastewater treatment plants (WWTPs), due to the intensive water use in recycling and the freely available chemical nature of BPA in paper coatings. BPA is relatively well-removed in modern wastewater treatment plants (greater than 90% removal rates are possible), but given the large volumes of recycling wastewater entering the WWTPs, recycling of thermal paper is still a significant source of BPA surface water emissions. BPA has been found to be toxic to aquatic life and endocrine-disruptive compounds in surface water have been linked to reproductive development problems in fish, reptiles and birds. The above referenced EU Risk Assessment also calls for further information and/or testing on recycling of BPA-containing thermal paper.

Regulatory Response to BPA Exposure Concerns

Empirical evidence supporting the negative health effects of BPA has varied significantly across studies. Some studies have concluded that BPA poses no health risks while others found that BPA causes a number of adverse health effects. Until recently, several European scientific agencies as well as the U.S. Food and Drug Administration concluded that current levels of BPA present no risk to the general population.

However, the BPA Action Plan Summary on the EPA website notes that "results of some recent studies using novel low-dose approaches and examining different endpoints describe subtle effects in laboratory animals at very low concentrations. Some of these low-dose studies are potentially of concern for the environment, because the concentration levels identified with effects are similar to some current environmental levels to which sensitive aquatic organisms may be exposed."

EPA continues, "Regulatory authorities around the world reviewing these low-dose studies have generally concluded that they are insufficient for use in risk assessments because of a variety of flaws in some of the study designs, scientific uncertainty concerning the relevance of health of the reported

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effects and the inability of other researchers to reproduce the effects in standardized studies."

In March 2010, EPA declared BPA a chemical "of concern," which triggers development of an "action plan." In 2011, EPA's Design for the Environment program began evaluating the ecological and human health hazards and environmental fate of BPA and alternatives to BPA in thermal receipt paper. It should be noted that this evaluation is not a risk assessment, and as such, still leave questions unanswered.

In January 2010, the U.S. Food and Drug Administration (FDA) reversed their previous position that BPA is safe, stating that the agency considered the chemical to be of some concern to the brain, behavior, and prostate glands of fetuses and the very young. In April 2012, FDA rejected a petition to ban BPA from all food and drinking packaging, saying studies on animals cannot be applied to humans, but has now issued the new rule banning BPA in baby bottles and sippy cups.

The European Food Safety Authority (ESFA) provides scientific advice on risk assessments regarding food and feed safety to the EU. In February 2012, one of the ESFA Panels, the Food Contact Materials, Enzymes, Flavourings and Processing Aids (CEF) determined, after consideration of new scientific studies, to undertake a full re-evaluation of the human risks associated with exposure to BPA through the diet, also taking into consider the contribution of non-dietary sources to the overall exposure to BPA. Two new working groups have been established to focus, respectively, on the hazard characterization of BPA (evaluation of possible adverse health effects of BPA) and on exposure to BPA (how and how much BPA is absorbed by the human body). The new opinion will review all of the available data and scientific studies on dietary exposure published since EFSA's 2006 opinion.

Evaluation of BPA Alternatives

There is a dearth of information and evaluation of alternatives to BPA. As previously mentioned, the chemical BPS is being used in Japan and by Appleton Paper, but the potential impacts of this chemical have not been evaluated by DOH or EPA. Recent literature reports vary on the endocrine-disrupting potential of BPS, although it appears to have weaker estrogenic activity than BPA, However, BPS may be more resistant to breakdown in the environment than BPA.

The researchers Liao and Kannan noted concern in their study with the increasing use of BPS as a replacement to BPA, because it is chemically similar to BPA and exposure to BPS could become widespread.

EPA's Design for the Environment program has thus far evaluated 19 alternatives to BPA in thermal receipt paper. EPA's report was released on July 31, 2012 and will be available for public comment until October 1, 2012. The report "Bisphenol A Alternatives in Thermal Paper" is now available at http://www.epa.gov/dfe/. This report does not recommend specific alternatives, but provides available data on the 19 chemicals which might replace BPA. The report also identifies other non-chemical alternatives, such as molecules that are safe for human health and the environment, as well as the use of electronic receipts.

In conclusion, Assemblyman Maisel will continue to pursue legislation in the next legislative session while conducting on-going reviews and evaluations of currently available information and data regarding the potential for human health exposures and environmental contamination from BPA from receipt paper.

Assemblyman Maisel with Commission staff (l to r) Gary Stevens (intern) Patrick Golden, Heidi Kromphardt, Debra Jenkins and Marilyn DuBois.

Use of BPA in Thermal Imaging Paper

It is estimated that more than eight billion pounds of BPA are produced worldwide annually. BPA is used in a broad range of products such as plastic products, and food container linings and paper products, including thermal receipt paper, newspapers, and tickets.

BPA has been used for many years in carbonless copy paper (e.g. credit card receipts) and thermal imaging paper. Japan replaced BPA with another weaker endocrine disruptor, Bisphenol S, in 2004. Appleton Papers of Wisconsin, the nation's largest manufacturer of thermal paper also replaced BPA with BPS in 2006.

Epson Paper, a major manufacturer of printers, digital imagers, and other printing mechanisms, announced in November 2011 that it would offer BPA-free, recycled receipt paper made from 70% post consumer waste. The paper was developed by Thermal Solutions International at a cost comparable to standard thermal paper. According to Epson, many retailers have already moved away from receipts containing BPA.

ESTABLISHING PRODUCT STEWARDSHIP FOR DRUG MANUFACTURERS

Maisel Bill Would Require Manufacturer Drug Take-Back Programs For Hospitals and Residential Health Care Facilities

Currently, there are no state or federal mandatory testing or reporting requirements for the presence of pharmaceuticals in drinking water. New York State has only generic standards for principal organic contaminants. Pharmaceuticals are not regulated as a class of contaminants under the Safe Drinking Water Act, the authorizing legislation for federal drinking water standards. Testing of drinking water in Philadelphia, for example, found 56 pharmaceutics or by-products, including medications for pain, infection, high cholesterol, asthma, epilepsy, mental illness, and heart problems.

The Federal Resource Conservation and Recovery Act (RCRA) exempts household waste (including prescription and OTC drugs) from hazardous waste regulation. In 2008, EPA proposed to add pharmaceuticals characterized as hazardous to its Universal Waste Rule; however, this rulemaking has not been completed at this time. Individual states may determine that drugs are hazardous wastes and must be managed as such. New York has not classified drugs as hazardous wastes.

New York State does not mandate drug manufacturers to establish collection programs from households, hospitals, and health care facilities. At best, hospitals and health care facilities may be able to return expired medications to manufacturers. This process, known as "reverse distribution" is not always available. Furthermore, EPA has made clear that distributors may not accept already dispensed medication back.

Department of Environmental Conservation Guidance

A 2006 law authorized DEC to provide advice to the public regarding the disposal of drugs as solid waste and to educate the public not to flush unwanted drugs. The Department was also authorized to conduct a demonstration project to determine the most effective ways of managing unwanted drugs. The Legislature authorized a two-year extension of this program in 2010 and authorized another in 2012.

The DEC website contains the following information and recommendations regarding drug disposal for households:

- keep medications in a safe, secure place; and
- if drug collection programs are not available, add water, salt, ashes, dirt, cat litter, coffee grounds or other undesirable substances to avoid misuse of drugs, seal all drugs in an outer container and dispose of the container in the trash.

Further, the DEC website reminds pharmacies, veterinarians, and retailers of their obligation to display a poster reminding people not to flush drugs and to dispose of drugs as noted above. The website also contains a list of collection events in the State.

To date, the Department has worked with some county and local governments to conduct small-scale drug take-back programs. These events are held on an irregular basis thereby requiring households to stockpile unwanted or unused drugs until an event is conducted.

Department of Health Guidance for Hospitals and Health Care Facilities

New York State hospitals and health care facilities, including nursing homes and long-term care facilities, find themselves with thousands of unwanted, unused, or expired pharmaceuticals. Guidance from the NYS Department of Health (DOH) previously **required** hospitals and health care facilities to flush unwanted or unused drugs. This guidance contributed to contamination of waters of the State with common medications as municipal treatment plants are not designed to remove these chemicals. The Commission found no current information on the DOH website to confirm that this guidance has been changed, nor does it in fact contain any guidance on the appropriate disposal of drugs. Presumably these facilities are complying with the information contained on the DEC website, i.e. to dispose of pharmaceuticals as solid waste.

In 2010, the NYS Attorney General announced settlements with five health care facilities after his investigation showed that they released pharmaceutical waste into the New York City watershed in violation of the federal Resource Conservation and Recovery Act (RCRA), State regulations implementing RCRA and some instances, the federal Safe Drinking Water Act. Violations included failure to properly identify, track, and dispose of pharmaceutical and other wastes defined as "hazardous waste" under RCRA. The settlements required the facilities to stop flushing unused drugs, instead directing these drugs to waste management facilities capable of safely treating pharmaceuticals. The drugs included painkillers, antibiotics, antidepressants, and hormones. The five facilities (two hospitals and three nursing homes) are located in the Mid-Hudson region.

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Maisel Legislation A.211-A

In an effort to begin to reduce contamination in New York water supplies, Assemblyman Maisel introduced A.211-A which would establish a producer responsibility law to require all drug manufacturers selling pharmaceuticals in New York to create and finance prescription and over-the-counter drug take-back programs for hospitals and residential health care facilities. Status: Sen. Stavisky introduced the bill in the Senate (S.830); both bills have been assigned to the respective Health Committees.

Hospitals and residential health care facilities would be required to dispose of all unused and expired drugs through drug collection programs and would be prohibited from disposing of drugs as mixed solid waste in a landfill. The bill would allow manufacturers to contract with third parties to run the programs, although the manufacturers would have to ensure the security of the collection programs. No fees could be charged to hospitals and residential health care facilities for drug collection.

Manufacturers would be required to dispose of all collected drugs in an environmentally sound manner, pursuant to rules and regulations promulgated by the NYS Department of Health (DOH). All manufacturers would be required to report biannually to the DOH on their drug collection programs. The bill is supported by the NYS Health Facilities Association as well as a broad range of environmental and public health advocates.

The Impacts of Current Drug Disposal Methods

The presence of medications in drinking water, even at low concentrations, may create public health problems for the general populace, particularly infants and young children, through chronic exposure to a wide range of drugs. Additionally, surface waters have been contaminated with animal drugs, including anabolic steroids and drugs to treat arthritis, cancer, heart disease, diabetes, allergies, dementia, and even obesity, similar to drugs used to treat humans. Little is known about the long-term or chronic impacts of low-dose human exposure to individual drugs or a chemical stew of many drugs that may interact or transform into other dangerous substances. Pharmaceuticals in waterways are damaging wildlife across the nation, causing conditions such as feminization and low testosterone levels in male fish.

Concerns regarding chronic low-level exposure focus on certain drug classes: chemotherapy that can act as a powerful poison; hormones that can hamper reproduction or development; medicines for depression and epilepsy that can damage the brain or change behavior; antibiotics that can allow human germs to mutate into more dangerous forms; and pain relievers and blood-pressure diuretics.

While drugs are tested to be safe for human use, the time frame for exposure is usually over a matter of months, not a lifetime. Pharmaceuticals also can produce side effects and interact with other drugs at normal medical doses. Pharmaceuticals are prescribed to people who need them, and are not meant to be delivered to everyone in their drinking water.

Assemblyman Maisel discusses a new windshield recycling initiative with Bronce Henderson, President of Glass Management, Inc. in Albany. The glass is recycled and reused for sand and aggregate applications.

Investigations of Drugs in Drinking Water

An Associated Press (AP) national investigative report in March 2008 found that a wide variety of pharmaceuticals, including endocrine disruptors, antibiotics, anti-convulsants, and mood stabilizers, are found in the drinking water of at least 41 million Americans in 24 cities, at levels in the parts per billion or parts per trillion ranges. These levels are far below medical dose rates; however, the cumulative exposure impacts of hundreds of drugs, their possible interactions and chemical modifications caused by other chemicals in the water are unknown.

The New York City Department of Environmental Protection (NYCDEP), responsible for the delivery of drinking water to nine million people, at that

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time reported to the AP that their drinking water was **not** tested for pharmaceuticals. The New York State Department of Health (DOH) and the U.S. Geological Survey (USGS) subsequently tested the City's upstate water supply and found trace concentrations of heart medicine, infection fighters, estrogen, anticonvulsants, a mood stabilizer, and a tranquilizer.

Subsequently, the NYC DEP conducted a one-year study in 2009 for pharmaceuticals and personal care products in the three upstate watersheds (Croton, Delaware and Catskill) serving as the drinking water supply for NYC and found what they described as trace amounts of these compounds. A follow-up study conducted from March to December of 2010, in the above source waters and chlorine treated water (Catskill/Delaware system), again claimed that pharmaceuticals and personal care products did not present a risk to the water supply.

A 2004-09 study by the U.S. Geological Survey (USGS) Toxic Substances Hydrology Program to determine the fate and effects of chemicals of emerging environmental concern examined effluent from wastewater treatment plants (WWTPs) nationwide. The study found that pharmaceutical manufacturing facilities (PMFs) can be a significant source of pharmaceuticals in the environment. In New York State, USGS collaborated with DEC to examine three New York State WWTP effluents (including two that received substantial discharges from PMFs). The study generally found nationwide that WWTPs that did not receive PMF discharges were found to have maximum pharmaceutical concentrations of less than one part per billion (ppb). In New York, the two WWTPs receiving discharges from PMFs contained effluent levels as high as 3,800 ppb of metaxolone, 1,700 ppb oxycodone, and greater than 400 ppb methadone and carisprodol.

The Proposed Solution for New York

Occasional drug collection events sponsored and paid for by the State or local governments are not a replacement for manufactured-sponsored, on-going comprehensive collection programs to remove unwanted and expired drugs from households, healthcare facilities and other sources.

The concept of product stewardship has gained considerable attention and support, in recognition of the responsibility that manufacturers bear for products that can potentially create environmental or public health harm. The manufacturers would be held responsible for the recovery and environmental-sound disposal or recycling of these products.

PhRMA, the lobbying arm of the pharmaceutical industry, argues that this bill will create higher drug prices, while suggesting that the amounts of drugs in our drinking water is minute. Drug companies make millions of dollars on the sale of drugs and currently contribute nothing for the disposal or contamination caused by millions of unwanted or unusable drugs.

FY 2012-13 BUDGET ISSUES

Environmental Protection Fund (EPF)

For Fiscal Year 2012-2013, the Governor proposed to retain funding for the EPF at $134 million, the same level as the past two fiscal years. The Legislature accepted this appropriation, although there were minor changes within the funding categories. The chart provides information about funding for categories of interest.

Fiscal Yr → / EPF Category ↓	2011-2012	2012-2013
Landfill Closure/Gas	$600,000	$270,000
Municipal Recycling	$6,435,000	$6,435,000
Secondary Materials	$1,000,000	$1,000,000
Pesticides Program	$575,000	$960,000
Pollution Prevention Institute	$2,000,000	$2,100,000
Non-point Source Pollution Control (Ag)	$13,000,000	$13,000,000
Non-point Source Pollution Control (Muni)	$4,000,000	$4,000,000
Water Quality Improvement	$2,932,000	$2,932,000
Agricultural Waste Management	$430,000	$700,000

Note: Pesticides Program increased from $575,000 to $960,000 due to expiration of re-appropriations, thereby requiring new funding.
Pollution Prevention Institute increased from $2 million to $2.1 million due to requested increase for new projects.
Agricultural Waste Management increased from $430,000 to $700,000.

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MERCURY LAMP RECOVERY AND RECYCLING

Assemblyman Maisel Introduces Legislation to Establish Producer Responsibility

Provisions of the Bill (A.8969-A/S.7181-A)

Legislation was introduced in 2012 (**A.8969-A Maisel/S.7181-A Avella)** to ban disposal of mercury-containing lamps and establish producer responsibility requirements for their collection and recycling. The bill would require manufacturers of mercury-containing lamps sold in the State to:

- submit plans to the Department of Environmental Conservation (DEC) by June 1, 2014 that provide for the collection from households and small business of such lamps intended for disposal and the implementation of recycling program;
- be responsible for all costs associated with the collection and recycling programs;
- implement the collection and recycling programs by December 1, 2014; and
- report annually to DEC on the implementation of the plans.

Producers would include those who have legal ownership of the brand or brand name of any mercury-containing lamp sold in New York, those who import mercury-containing lamps or those who make unbranded mercury-containing lamps sold in the State.

DEC would be responsible for:

- reviewing and approving collection/recycling plans;
- maintaining and posting on its website a list of locations serving as collection points for such lamps; and
- annually, after December 1, 2015, posting a report on its website detailing and evaluating the collection and recycling of mercury-containing lamps as well as information on actual collection rates.

The Assembly bill was reported to the Assembly calendar; however, there was no action on the Senate bill. Most traditional incandescent light bulbs will be phased out of the marketplace by the end of 2014. This phase-out is due to the enactment of the Energy Independence and Security Act of 2007. The goal of the act was to increase energy independence by increasing the production of renewable fuels and increasing the efficiency of products (including standard light bulbs), buildings and vehicles. As a result, consumers will purchase more compact fluorescent light (CFL) bulbs.

Fluorescent lamps or tubes are gas-discharge lamps that use electricity to excite mercury vapor. The excited mercury atoms produce short-wave ultraviolet light that then cause a phosphor to fluoresce, producing visible light. This process of converting electric power into useful light is more efficient than an incandescent lamp.

The U.S. Environmental Protection Agency (EPA) Energy Star program has been encouraging consumers to switch from incandescent light bulbs to energy efficient compact fluorescent light bulbs (CFLs). CFLs use up to 75 percent less energy than incandescent bulbs and last up to 10 times longer. According to EPA, lighting accounts for almost 20 percent of the average home's electric bill.

However, the trade-off is that CFLs contain a very small amount of mercury sealed within the glass tubing (about four milligrams), which improves the efficiency of the light source. It is estimated that the mercury content in CFLs has dropped at least 20 percent in the past several years, as manufacturers seek to reduce mercury through technical advances. Nevertheless, concerns remain regarding traditional disposal methods of landfilling and waste combustion for expired CFLs and other mercury-containing lamps which release mercury into the environment.

Legislation was introduced in 2012 (A.8969-A Maisel/S.7181-A Avella) to ban disposal of mercury-containing lamps and establish producer responsibility requirements for their collection and recycling.

MAISEL INTRODUCES NEW BILL TO FACILITATE RECOVERY AND RECYCLING OF HARDCOVER BOOKS

The Legislation

Legislation (A.9574 Maisel) introduced in 2012 would ban the disposal of hardcover books as solid waste. The bill would require the Department of Environmental Conservation (DEC) to:

- inventory existing solid waste programs that recover, reuse and recycle hardcover books and share this information with municipalities;
- post this information on their website; and
- ensure that all municipalities are notified of the hardcover book disposal prohibition and the requirements of the bill.

Furthermore, within two years of the effective date, municipalities would be required to establish programs to recover, redistribute, reuse, or recycle hardcover books and keep records of books collected and their disposition. Joint collection programs to accomplish this requirement would be permitted. Recyclers of hardcover books would be required to submit information on books they receive from municipalities and their disposition to DEC.

Why Recycle Hardcover Books?

According to estimates by the U.S. Environmental Protection Agency (EPA) of Greenhouse Gas (GHG) emissions for alternative management strategies, recovery of textbooks has one of the best emission reductions per ton of source reductions (-9.11). It is estimated that substantial quantities of hardcover books being deposited into landfills and incinerators, despite the availability of markets for their processing and recycling.

The Cost of Recycling Hardcover Books

In general, residential curbside collection programs process hardcover books as mixed paper; therefore it is difficult to quantify amounts and disposal costs of the books. Hardcover books are frequently collected separately from other paper at no cost by for-profit recyclers, but the source agencies seldom keep records on these quantities. Many libraries and schools maintain separate storage areas for hardcover books, realizing savings from reduced garbage collection, and disposal offset these costs. However, few detailed records are kept on these programs.

Assemblyman Maisel visits Bob Colvin of the Ash Trading Corp., a paper and book recycling company in Menands, to discuss incentives needed to increase recycling of hardcover books.

Commission Survey of NYS Counties and Larger Cities

The Assembly Legislative Commission on Solid Waste Management recently conducted a survey of the State's larger cities and surrounding counties in order to answer some of the outstanding questions regarding recycling of hardcover books. The survey sought information on the sources of books (libraries, schools, etc.) and methods of collection: who conducts the recycling program; an estimate of the annual number of hardcover books recovered and recycled; obstacles that had to be overcome to establish and run the program; annual program costs; cost savings offsets from avoided book disposal; and alternative cost recovery if program cost exceeded disposal costs.

Responses were received from the Oneida-Herkimer Solid Waste Authority, Broome County, the City of Rochester, Erie County and Onondaga County, all of which recycle hardcover books. All respondents reported significant quantities of hardcover books recovered.

Sources of Books and Methods of Recycling

Onondaga County collected hardcover books from 2004–2010 at a special drop-off center; this collection stopped in 2010 due to rent and personnel costs. A contractor in Buffalo took all of the books collected. They also identified a company that takes back textbooks, as well as agencies, including libraries that will take hardcover books. The county allowed community organizations and schools to "harvest" books before shipping the remainder to the recycler. The county noted the lack of adequate shipping containers as an impediment and cost of recovering and recycling hardcover books as a program consideration.

Oneida-Herkimer receives approximately 50 tons of hardcover books annually, including about 10 tons from two single-day collection events at a library. The county noted the lack of consistent reliable markets as an impediment to recycling hardcover books.

The **City of Rochester** accepts hardcover books via residential curbside recycling. The books, along with other paper products, are transported and processed at the Monroe County Materials Recovery Facility.

Erie County partners with Cascades Recovery U.S. to collect hardcover books from the County Library, the County law office and other departments, as well as Buffalo and other area school districts.

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One issue raised by several respondents was the lack of designated staff in agencies, schools, libraries, etc. who are responsible for managing the book recycling, to ensure that unwanted books are properly collected and segregated rather than disposed of by maintenance staff as waste.

Annual Costs

Oneida-Herkimer estimates, based upon their current tonnage, that annual handling costs are modest and off-set by avoided disposal costs. The **City of Rochester** experienced no significant increase in costs for collecting hardcover books in their curbside residential recycling program. **Onondaga County** did not recover any costs because of expenses such as storage space and labor, and ultimately discontinued their hardcover book collection program.

As noted previously, residential curbside collection programs generally process hardcover books as mixed paper; therefore it is difficult to quantify collection costs. Libraries and schools maintain separate storage, but savings from reduced garbage collection and disposal offset these costs.

Hardcover Book Recyclers

Small- and large-scale companies have begun collecting and recycling hardcover books. In the past, recycling hardcover books was considered unprofitable due to difficulties associated with their bindings. However, companies now find that reliable sources of these books is the more limiting factor to expanding their collection and recycling operations. The companies note that technological advances in shredding and processing at paper mills are overcoming the problems of processing and recycling hardcover bindings and covers.

The Commission visited Ash Trading Corp., a firm located at the Port of Albany that collects and recycles paper and hardcover books. The company removes the bindings and covers, which are recycled with mixed paper into boxboard. The book pages are recycled as office paper. The company has contracts with numerous libraries and agencies to recycle hard cover books—picking up books at no charge.

Hardcover Book Recycling by New York State

The NYS Office of General Services (OGS) receives approximately four tons of hard and soft cover books monthly through their recycling program at the Empire State Plaza. According to OGS, all of their facilities statewide recycle paper, including hardcover books. Chairman Maisel and Commission staff met with OGS to discuss hardcover book recycling efforts by the agency. The OGS contractor, Cascades Recovery, Inc. recycles hardcover books in NY, as part of their contract to recycle paper from the State. The company is seeking to develop a similar contract arrangement with State Education Department.

ASSEMBLYMAN MAISEL RE-INTRODUCES BILL TO REDUCE PROLIFERATION OF UNWANTED TELEPHONE DIRECTORIES

States continue to struggle with the management of telephone directories. Expanded options for accessing information, including the Internet, have increased interest in applying product stewardship approaches to telephone directories. Yet many households and businesses continue to receive unsolicited multiple directories as publishers and distributors compete for attention.

Telephone directories create a significant amount of waste in the U.S., estimated to be 660,000 tons annually. A recent Department of Environmental Conservation (DEC) study on Municipal Solid Waste Composition and Characterization using 2008 data estimated that New York State produces more than 50,000 tons of phone book waste annually. Several years ago, the Product Stewardship Institute estimated that it costs $50-$75/ton to recycle directories and $75-$100/ton to manage directories as solid waste.

What are States Doing to Cope?

Some examples of state and local efforts to manage the proliferation and disposal of telephone directories are:

San Francisco: The city has an opt-in law for telephone directories. A three-year pilot program requires publishers and distributors of the Yellow Pages to determine if residents want directories prior to delivering them.

Seattle: The city enacted an opt-out registration for yellow pages phone books in 2010. Since that time, the ordinance has been litigated by directory publishers, with a U.S. District Court decision in favor of the city in July 2011 that is currently under appeal.

Oregon: In addition to curbside recycling, the state has a consumer opt-out program to stop deliveries of phone books.

California: The State Public Utilities Commission ruled in 2011 to stop automatic delivery of white pages directories, with customers allowed to request a free directory or CD-ROM as well as access online information.

Minnesota: The state prohibits the disposal of telephone directories as solid waste and requires directory publishers to collect and recycle directories and to inform customers of this service.

Maryland: Requires 40% recycled paper content in telephone directories.

The Maisel Bill

Assemblymember Maisel re-introduced legislation **(A.4747-A)**, sponsored in the Senate by Senator Hugh Farley **(S.6575-A)**, that would reduce the amount of unwanted and unsolicited telephone directories by requiring distributors to notify recipients of the option and means to decline delivery (an "opt-out" program). This legislation would also require, to the maximum extent possible, that directories be:

- printed on paper that is recyclable and which contains no less than 30% post-consumer recycled fiber;
- printed with inks that do not contain heavy metals or other toxic material; and

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DISCLOSURE OF RESIDENTIAL PETROLEUM STORAGE TANKS

To foster greater disclosure of the presence of in-ground and above-ground residential storage tanks, Assemblyman Maisel introduced A.6352, a bill that would require residential property condition disclosure statements to be recorded with the relevant local government and DEC upon conveyance of property. Within 10 days of receipt of a residential property condition disclosure statement, the country clerk would be required to record the same information, and to send copies of the statement to DEC and to the clerk of the local government where the residential real property is situated. DEC would also be required to establish an electronic database of this information that is available to the public and published on DEC's website.

The provision of certain information about environmental conditions on residential property, including the presence of in-ground or above-ground residential fuel storage tanks is currently required only to be provided by the seller to the buyer of property. This bill would ensure that not only property owners, but the affected local government, DEC and the general public, are made aware of the location of residential fuel storage tanks. There are millions of residential fuel tanks buried in New York that may pose significant environmental and public health hazards due to their age and condition. It is important that local governments are aware of these potential sources of contamination.

The bill is assigned to the Assembly Environmental Conservation Committee.

Current Regulation of Petroleum Storage Tanks

The Department of Environmental Conservation (DEC) Part 613 Petroleum Bulk Storage regulations regulate all above-ground and underground non-residential petroleum storage facilities with a combined storage capacity of more than eleven-hundred gallons. Operators of these underground storage tanks must keep daily inventory records for the purpose of detecting leaks. The tanks and piping must be periodically tested for tightness. The Part 612 regulations require DEC registration of these storage facilities and Part 611 regulations establish procedures for petroleum spill cleanup and removal.

Five NYS counties have been delegated authority from DEC to administer the State's Petroleum Bulk Storage Program. In 1986, delegation was conferred to four counties—Nassau, Suffolk, Rockland, and Cortland—which contain sole source aquifers that serve as drinking water sources. These counties were delegated authority because they had programs or regulations already in place to regulate in-ground oil tanks. Westchester was delegated authority about 10 years later. The counties are allowed to retain any fines and penalties resulting from enforcement actions. Some of these counties created their own regulations; Cortland County simply references 6 NYCRR Parts 612, 613 and 614 in their Sanitary Code.

Cortland County has reported the following observations regarding petroleum storage tanks:

- banks "encourage" removal of tanks by not issuing mortgages for properties with old underground tanks or tanks currently not in use;
- "tightness" tests were required in 1986, which resulted in many companies simply pulling the tanks rather than testing them;
- the best way of finding tanks is to inventory the oil suppliers; and
- soil characteristics strongly influence the longevity of the tanks. Cortland soils are not very corrosive, so they have not had problems that other areas have had with tanks rusting out.

These counties have the benefit of directly regulating petroleum storage facilities in their jurisdiction and being able to conduct immediate response to spills cleanup and removal.

RECYCLING UNWANTED CARPETING

Maisel Introduces New Bill to Encourage Greater Recovery

The Legislation, A.9673-A

Assemblyman Maisel introduced legislation in 2012 (A.9673-A) to encourage greater recovery of carpeting for reuse and recycling. Contractors would be required to remove used carpeting from a customer's property unless certain conditions are met. Municipalities that collect used carpeting from residential curbside or roadside would be required to either establish a program to reuse or recycle a minimum of 50 percent of carpeting collected, or provide other recycling incentives.

Benefits of Recycling Carpeting

Carpeting constitutes a significant portion by weight of the waste stream, estimated at over three million tons yearly in the U.S. A recent Department of Environmental Conservation (DEC) waste composition study estimated that approximately 260,000 tons of carpeting were generated in New York State in 2010, representing 1.4 percent by weight of the municipal solid waste stream.

There are few products that conserve more energy than carpeting when recycled back into similar products. Carpeting is gaining greater attention as a material to recover because of its high energy value, rather than disposing of this bulky high-volume material as waste.

Carpet recovery has clear environmental benefits, particularly due to the potentially significant reduction in greenhouse gas (GHG) emissions. The Environmental Protection Agency (EPA) Waste Reduction Model (WARM) estimates that every ton of reused carpet eliminates a net of 3.96 metric tons of CO2 equivalent (MTCO2E). The model also estimates a benefit for every ton of carpet recycled, which reduces GHG emissions by 2.37 MTCO2E.

Most carpet is made from nylon and other polymers derived from virgin oil. Numerous products can be manufactured from recycled carpets, including carpet backing and backing components, carpet fiber, carpet underlayment, plastics, and engineered materials, and erosion control products.

Assemblyman Maisel meets with OGS Deputy Commissioner Anne Phillips and Asst. Counsel Darrin Derosia to learn more about OGS purchasing and recycling of carpeting and other commodities.

National and State Actions to Encourage Carpet Recycling

For the past decade, industry and government have been collaborating to advance a national carpet recovery strategy. A Memorandum of Understanding (MOU) for Carpet Stewardship was agreed upon by carpet industry members; federal, state, and local government representatives; and non-governmental organizations in 2002. The MOU led to the creation of CARE (Carpet America Recovery Effort), an organization developed to facilitate industry initiatives for diverting carpet from disposal. Stakeholders, including CARE and many of the original MOU signatories are working on a new MOU to improve shortcomings encountered in meeting the goals of the original document, but no agreement has been reached at this time.

In 2010, California became the first state to enact a law requiring carpet stewardship. The statute is intended to encourage the growth of carpet reclamation and recycling. Manufacturers can participate in the plan being developed by CARE or submit their own plans. Several carpet recycling facilities now operate in California, offering jobs and producing products and feedstock for products made from recycled carpet.

New York State Initiatives for Carpet Purchase and Recycling

Assemblyman Maisel met with representatives of the NYS Office of General Services (OGS) to discuss the State's Green Procurement and Agency Sustainability Program relating to carpeting. OGS is developing specifications for the procurement of carpeting. Options are likely to include recycled content requirements; take-back agreements with carpet manufacturers; and reuse, recycling and donation of used carpeting. In addition, consideration will be given to products made with recycled content, use of natural, renewable resources, and use of 100% recyclable face fiber and backing. The Commission will continue to review and comment on these proposals.

Incentives Needed to Improve Carpet Recycling

Fortunately, demand is steadily rising for used carpeting and its many components because a number of carpet recyclers are collecting and processing these materials. Carpeting is being economically and competitively collected from commercial sources. Commercial establishments facing the true costs of disposal vs. recycling carpeting find it increasingly favorable to recycle. However, recyclers have encountered obstacles to competitively recycling residential carpeting.

A major obstacle to recycling residential carpeting is the availability of carpeting curbside collections at no charge to the residents by many of the State's largest municipalities which are seldom recycling the carpeting. The true cost of used carpeting management is subsidized by the municipality, so residents have no incentive to recycle.

The Maisel bill is intended to address these issues.

MAISEL LEGISLATION REQUIRES MANUFACTURERS OF IONIZATION SMOKE DETECTORS CONTAINING RADIOISOTOPE AMERICIUM-241 TO ESTABLISH TAKE-BACK PROGRAMS

The Legislation

Legislation was introduced in 2012 **(A.4330-A Maisel/S.6574-A Farley)** that would create a producer responsibility program for ionizing smoke detectors. Specifically, the bill would require manufacturers that produce and sell ionizing smoke detectors in New York to:

- establish take-back programs for proper disposal of these devices;
- register with the Department of Environmental Conservation (DEC) and submit a program for the collection, handling and recycling or reuse of such detectors; and
- pay a registration fee of one thousand dollars to be deposited into the Environmental Protection Fund.

The recovery program for ionization smoke detectors would at a minimum include:

- a mail or ship back return program, including instructions on safe handling and preparation of the detector for recycling;
- a public education program to inform consumers about the collection program that includes an Internet website, a toll-free telephone number and written information about the environmental benefits of recycling radioactive material, batteries and other components of the detector; and
- authorization for cooperative detector collection programs by more than one manufacturer.

The bill was reported from the Assembly Environmental Conservation Committee to the Ways and Means Committee, where it was held for further consideration. There was no action on the Senate bill.

Ionization Smoke Detectors and Americium-241

There are two types of smoke detectors, ionization detectors and photoelectric detectors. Ionization detectors contain a source of ionizing radiation which is a minute quantity (approximately 1/5000th of a gram) of americium-241, an alpha particle and gamma emitter with a half-life of 432.7 years. Americium is a man-made metal produced when plutonium atoms absorb neutrons in nuclear reactors. The largest and most widespread use of americium-241 is as a component in household and industrial smoke detectors.

According to the EPA website, americium-241 poses a significant risk if ingested. It tends to concentrate in the bone, liver and muscle and can remain for decades, continuing to expose the surrounding tissues to alpha and gamma radiation, thereby increasing the risk of developing cancer.

The Nuclear Regulatory Commission regulates the radioactive materials in smoke detectors. Because the amount of americium in these devices is so small, current NRC regulations exempt individuals purchasing smoke detectors from regulations related to disposal of radioactive materials. The public can dispose of single household smoke detectors as ordinary trash.

However, the anticipated lifetime of an ionizing smoke detector is 5-6 years. Millions of these detectors will be disposed of into landfills unless manufacturers are required to bear the responsibility and cost of ensuring proper disposal.

By requiring recovery and environmentally-sound recycling and disposal, this bill will serve to reduce environmental exposures to landfill and sanitation workers, firefighters and emergency response personnel, as well as the general public, to americium-241. This bill affords the opportunity to prevent unnecessary exposures through responsible product stewardship.

Reduce Proliferation of Unwanted Telephone Directories

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- bound with materials that pose no unreasonable barriers to their recycling.

The bill also contains a provision requiring distributors of residential white pages directories to ensure that all customers are aware of their option to receive delivery of directories. In 2011, the bill was reported from the Assembly Environmental Conservation Committee to the Codes Committee and because of some industry concerns, the bill remained in the latter Committee in 2012. There was no action on the Senate bill.

Justification for Reducing Phone Directories

The highest priority in the solid waste hierarchy is prevention or avoidance of waste generation. This bill would significantly reduce the number of telephone directories entering the waste stream by limiting delivery only to those who want them. Furthermore, by limiting toxic inks and promoting recycled paper content and recyclability, the legislation would foster phone book recovery, the second highest solid waste priority, and reduce the overall environmental footprint of phone books.

A 2006 U.S. Environmental Protection Agency (EPA) study, "Solid Waste Management and Greenhouse Gases (GHG)," found that for every ton of phone books not published and delivered, GHG emissions are reduced by 6.27 metric tons of CO2 equivalent (MTC02E). Additionally, for every ton of recovered material used in place of virgin material in new phone book manufacture, GHG emissions are reduced by 2.65 MTC02E.

The New York State Solid Waste
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Dedicating Unredeemed "Bottle Bill" Deposits to the EPF

There has been a long-standing effort by environmental advocates to increase the funding for the Environmental Protection Fund. One element of the budgetary discussion has been the use of unclaimed deposits by the State from the Returnable Beverage Container Law otherwise known as the "Bottle Bill."

This year, the Assembly passed two bills to expand EPF funding from unclaimed bottle deposits. In May 2012, the Assembly passed A.7137-A, Latimer/S.5403-A Grisanti that would have increased the EPF funding by the following annual percentages (25% in FY13-14, 50% in FY14-15, 75% in FY15-16, and 100% in FY16-17) from unredeemed deposits retained from the "Bottle Bill." This money would be in addition to current funding for the EPF. The twenty percent of total retained deposits allowed for use by the deposit initiators (e.g bottlers, distributors, dealers) would not be affected.

Subsequently, the Assembly and Senate passed A.10519 Rules—Sweeney/S.7525 Grisanti in June. This bill would require a portion of retained deposit funds received by the State to be paid into the EPF on the following schedule ($10 million–FY2013; $20 million–2014; $30 million–2015; $40 million–2016; $50 million–2017; $56 million–2018). This funding would be in addition to current revenues paid into the fund. Similarly, the twenty percent of total retained deposits allowed for use by the deposit initiators would not be affected. The bill has not yet been sent to the Governor.

DEC Budget for 2012-13

The following chart shows the overall budget allocation for the NYS Department of Environmental Conservation (DEC) for FY 2012-13. DEC funding was reduced by $5.734 million, with an authorized staffing level reduction of 20.

	FY 2011-12 Enacted	FY 2012-13 Gov Recomm'd	FY 2012-13 Enacted	% Change from FY 2011 to FY 2012
DEC State Operations	$ 440,675,000	$ 433,666,000	$ 434,941,000	(1.3)
All Funds Personnel - Budgeted Fill Levels	3,003	2,983	2,983	(0.67)
Environmental Protection Fund (EPF)	$ 134,000,000	$ 134,000,000	$ 134,000,000	0

Conservation Fund: $20 million of federal Fish and Wildlife Service (F&WS) money hung in the balance due to budget language that would allow the state comptroller to transfer "at the requests of the Director of the Budget, up to $38 million from the unencumbered balance of any special revenue fund or account, or combination of to the community projects fund." This language would allow the transfer of money from special accounts, such as the Environmental Conservation Fund (ECF), to the Community Projects Fund, which funds "member items."

At the end of the regular session, the Legislature and the Governor had not resolved this matter, which could have caused the State to lose $10.1 million immediately and $20 million overall. The federal money would pay for 18 permanent staff and 137 seasonal staff, in addition to numerous fish and wildlife studies. However, On July 2, the Governor's office forwarded a letter from the NYS Budget Director to the F&WS, assuring the agency that the State will not sweep the F&WS funding from the ECF into other programs. This action appears to have resolved the issue for this year.