



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL

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OFFICE OF THE
SECRETARY

SECRETARY'S ORDER NO. 2010-A-0001

Re: APPLICATION OF DELAWARE SOLID WASTE AUTHORITY FOR A PERMIT TO EXPAND THE SOUTHERN SOLID WASTE MANAGEMENT CENTER NEAR JONES CROSSROADS, SUSSEX COUNTY

Date of Issuance: January 14, 2010
Effective Date: January 14, 2010

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control (Department), the following findings, reasons and conclusions are entered as an Order of the Secretary.

Background

This Order considers the Delaware Solid Waste Authority's (DSWA or Applicant) application for a solid waste management permit to construct and operate a proposed Cell 5 final disposal area on 29.4 acres within DSWA's Southern Solid Waste Management Center (SSWMC or Facility) existing 572 acres. The Facility is a sanitary landfill located at 28560 Landfill Lane, Georgetown, Sussex County near Jones Crossroads. The proposed expansion is to allow continued use of the Facility because the existing disposal area will reach its capacity in the near future soon after expected construction time for Cell 5.

The Department held a public hearing on the permit application on June 4, 2009 in Georgetown before the Department's presiding Hearing Officer, Robert P. Haynes,

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who prepared a Hearing Officer's Report, dated December 29, 2009 (Report). The Report reviewed a recommended record, developed from the public hearing and with the assistance of the Department's Division of Air and Waste Management's (DAWM) Solid and Hazardous Waste Management Branch (SHWMB). SHWMB prepared a Technical Response Memorandum (TRM) and draft permit attached to the Report. The Report recites the procedural history and factual background and makes a recommendation to issue a permit subject to SHWMB's proposed permit conditions. I adopt the Report to the extent it is consistent with this Order.

Findings

The Department finds that the record supports a finding that an expansion will soon be needed in order to allow the Facility to continue to receive solid waste. The Department finds that the permit should be issued because of the need for additional disposal capacity at the Facility. Moreover, DSWA's application sets forth a well-engineered design and plans for the environmentally safe construction of the proposed Cell 5, and also for the operation of the entire Facility. The Cell 5, when built, will provide for the environmentally safe disposal of solid waste at the Facility for many years into the future, but how long will depend on the actual amount of solid waste that the Facility receives.

The Department last addressed the need for additional landfill capacity in 2006 when it considered DSWA's application to expand its Cherry Island Landfill in Wilmington.¹ The Department granted DSWA a permit despite considerable public opposition, but the Department imposed a yard waste ban as a permit condition. While the record developed for that decision was based upon the dire need to slow the use of the

¹ Secretary's Order No. 2006-A-0002(Issued January 6, 2006).

little remaining landfill capacity at Cherry Island Landfill due to that location's geographic constraints, the same sound environmental reasons for a yard waste ban applies to the Facility and indeed to all sanitary landfills. The Department, as a matter of policy, considers that yard waste should not be disposed at the Facility or in a sanitary landfill. First, such a yard waste ban will preserve the remaining landfill capacity at the Facility for the type of solid waste that cannot otherwise readily be recycled. Second, yard waste is a type of solid waste that the General Assembly and the Department experts recognize should be recycled and not disposed in a landfill, which should be reserved for the types of waste that require a landfill's many environmental protections, such as double geomembrane liners, leachate collection systems and numerous groundwater and air quality monitoring devices and frequent testing of samples. The environment protection of a sanitary landfill is expensive to build and operate, and accordingly a yard waste ban would preserve landfill capacity for the type of waste that need a landfill's environmental protection measures.

The natural method of managing yard waste is to not remove most yard waste from the property that produces it. This step may reduce costs to property owners by simply using mowers that do not collect grass clippings, or by the use of on-site composting of collected yard waste. If yard waste is collected and removed from a property, then DSWA offers a collection and recycling service under its pay-as-you-throw program or by having the yard waste transported to DSWA's yard waste recycling centers or recycling centers operated by others. Yard waste recycling converts what otherwise would be solid waste into a valuable products such as mulch or compost.

Thus, yard waste is a form of solid waste that can and should be reduced and any waste should be recycled and not disposed at the Facility or any sanitary landfill.

The Department finds that yard waste should be banned at the Facility as soon as possible, but recognizes the public acceptance requires a reasonable transition period to allow the implementing steps of public education and ensuring an adequate infrastructure of resource recycling center are operating to handle the increased demand for yard waste recycling that is expected to occur when the yard waste ban goes into effect. The Department finds that this permit condition is necessary and reasonable to protect the environment now and in the future.

The public comments also support such a permit condition, and it is also consistent with the Department's condition in the permit issued to allow DSWA to expand its Cherry Island Landfill. The lack of landfill capacity makes the issue of preserving all landfill capacity critical to the environment given the potential adverse impacts associated with new landfill capacity, even at the Facility where there is land available for additional disposal areas after Cell 5. The Department's Cherry Island Landfill decision made it clear that all landfill capacity is finite, absent significant changes in the future to reduce the production and management of solid waste. Until such changes, the Department should preserve all landfill capacity by prudent environmental solid waste management policies that minimize the amount of solid waste that requires a sanitary landfill for proper disposal.

The Department finds that delaying the yard waste ban's effective date of the yard waste ban will allow DSWA and the public time to adjust to the change. DSWA will need to provide the all important public outreach and education component to implement

the yard waste ban. The Department recognizes that public acceptance of the yard waste ban will be the key to its success, which is why DSWA's public education effort is important as a permit condition. Otherwise, DSWA may have to devote more time to screening solid waste at the Facility in an effort to enforce the yard waste ban if the public continues to commingle yard waste with other solid waste.

The delayed effective date will also allow DSWA time to expand its 'pay-as-you-throw' recycling program, and to add any recycling centers that may be needed to serve the increased demand for yard waste recycling. Without question, the yard waste ban will increase recycling because it will remove the existing disposal option, but mandatory action in the form of a yard waste ban is consistent with the General Assembly's clearly stated preferred way to manage solid waste, as opposed to the disposal of recyclable material in a sanitary landfill. The voluntary recycling of yard waste has had some success, but the yard waste ban will result in improved recycling and the diversion of a considerable amount of yard waste from being disposed at the Facility.

Both the public education and the operation of more recycling centers are within DSWA's existing statutory duties because the General Assembly recognized that DSWA is the state agency responsible for managing solid waste, subject to the Department's environmental regulation by permit and regulation. The yard waste ban will control and reduce the amount of solid waste that the Facility receives. The Department estimates that the ban for the two DSWA landfills in Kent and Sussex Counties annually will remove 32,000 tons of yard waste from disposal as solid waste, which is 1.7 times more than the total recycled material collected in 2007 at DSWA's 140 drop off recycling centers. The ban at both of DSWA's landfills will increase Delaware's recycling rate by

an estimated 2% from its current 32% level. I find that these figures support the benefits from having a yard waste ban at the Facility as soon as possible, which is approximately one year from the date of this Order to allow time for the much needed public education campaign and for DSWA to have more recycling facilities available to meet the anticipated increase in yard waste recycling once the ban goes into effect. Thus, I find that the yard waste ban represents a ‘low hanging fruit’ on the recycling tree, and, as such, the Department should implement a yard waste ban in a permit condition to allow it to go into effect as soon as practicably possible in order to benefit the environment by conserving landfill space and promoting recycling.

The Report also recommends that the Department implement a formal proceeding to study not only yard waste recycling but other types of solid waste that also should be recycled and not disposed of in a sanitary landfill. The Department’s proceeding would result in a plan, in cooperation and conjunction with DSWA and others, including public participation in the plan and the regulations to implement the plan. The Report recommends a regulation proceeding be commenced so that the Department may better regulate solid waste and enhance recycling efforts, but that this recommendation is not adopted at this time. *7 Del. C. Chap. 64, 7 Del. C. §6010.*

The Department also finds that application’s proposed design and construction of the expansion complies with the Department’s *Delaware Regulations Governing the Regulation of Solid Waste*. The Department finds that the proposed expansion for “Cell 5” landfill cell is needed because the Facility’s existing landfill cell that receives solid waste will eventually reach its capacity in the next several years. The exact date when the existing cell will reach capacity is not known with any degree of precision because

the waste flow is subject to changes, including by the Department's and DSWA's environmental policies that promote recycling and thereby reduce waste flows to sanitary landfills. The yard waste ban should extend the date when Cell 5 is needed even more into the future and allow Cell 5's anticipated service life to be longer.

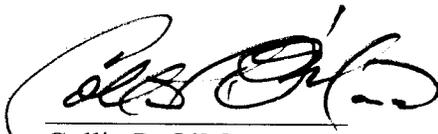
The construction of proposed Cell 5 will require cutting down trees and associated loss of natural habitat, but the Department finds that permit conditions, as recommended by SHWMB with the assistance of experts from the Department's Heritage Program in the Division of Fish and Wildlife, will mitigate any adverse environmental impact. DSWA purchased the Facility's land with the intent to use as a sanitary landfill so the destruction of habitat was something that was going to occur when an expansion occurred.

The Department's action in this Order will mean postponing the future day when the DSWA and the Department will need to decide on another location for a sanitary landfill, which despite all the environmental protection possible is not a use of land that most in Delaware will want to be located anywhere near them. Consequently, The Department considers that that a yard waste ban should be imposed as soon as possible after a reasonable transition time to allow DSWA time for public education and opening alternatives to the Facility for yard waste management. Thus, with the Department's yard waste ban for the Facility and DSWA's state-wide solid waste management plan revision, the Department and DSWA will continue to work to improve recycling to the maximum extent possible consistent with the clear intent of the General Assembly in Chapters 60 and 64 of Title 7 of the Delaware Code.

Conclusions

In sum, as more fully described in the reasons and findings above and in the Report, I adopt and direct the following as a final order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing, and held the public hearing in a manner required by the law and its regulations;
3. The Department considered all timely and relevant public comments in making its determination;
4. The Report and its recommended record are adopted to the extent consistent with this Order;
5. The duly authorized Department official shall issue a permit consistent with this Order as soon as possible; and
6. The Department shall publish public legal notice of this Order, shall publish the Order by posting it on its website, and shall issue a press release.



Collin P. O'Mara
Secretary

HEARING OFFICER'S REPORT

TO: The Honorable Collin P. O'Mara
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: APPLICATION OF DELAWARE SOLID WASTE AUTHORITY FOR A
PERMIT TO CONSTRUCT AND OPERATE CELL 5 DISPOSAL AREA AT
THE SOUTHERN SOLID WASTE MANAGEMENT CENTER NEAR JONES
CROSSROADS, SUSSEX COUNTY

DATE: December 29, 2009

I. PROCEDURAL HISTORY

This Report makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control (Department) on the Delaware Solid Waste Authority's (Applicant or DSWA) above-referenced permit application for DSWA's Southern Solid Waste Management Center (SSWMC or Facility), which is a sanitary landfill and resource recovery facility located at 28560 Landfill Lane, Georgetown, Sussex County near Jones Crossroads.

On February 11, 2008, DSWA applied to the Department's Division of Air and Waste Management (DAWM), Solid and Hazardous Waste Management Branch (SHWMB) to modify its current permit to operate the Facility. SHWMB reviewed the application under Department's *Regulations Governing Solid Waste, 7 DE Admin. Code 1301* (Regulations), and determined that additional information was needed, which SHWMB requested. On September 19, 2008, DSWA provided SHWMB with the additional information. SHWMB determined that additional information was needed, and DSWA provided the requested information on February 12, 2009. In a March 31, 2009 letter, SHWMB informed the Applicant that the application was administratively complete.¹

¹ Section 4.1.2 7 DE Administrative Code 1301

On April 5, 2009, the Department provided public notice of the application that required public comments to be submitted by April 20, 2009. On April 28, 2009, the Department received comments from Steve Callanen on behalf of the Southern Delaware Group of the Delaware Chapter of the Sierra Club. The comments requested that the Department hold a public hearing on the application, but recognized that the request was submitted after the deadline in the public notice. Mr. Callanen contended that the Department should still hold a public hearing because the application was for a major modification to the SSWMC and consequently a public hearing was appropriate in order to allow more thorough public scrutiny of the application than provided by the 15 day public notice period.

In a May 8, 2009 letter, the Department informed Mr. Callanen that it would hold a public hearing, and on May 10, 2008 had published public notices of a June 4, 2009 public hearing, which I presided over in Georgetown, Sussex County. At the hearing, Mr. Callanen requested additional opportunity for the public to submit written comments. In his written comments, Alan Muller also requested extending the time period for written public comments and that the Department should hold more public hearings. The Applicant's counsel, Jeremy Homer, opposed any extension, but I granted an extension until June 18, 2009 for written public comments. I also indicated that I may request the technical assistance of experts in the Department in preparing my report and developing a record to support the Department's final decision, which I did in a June 22, 2009, memorandum to SHWMB. SHWMB prepared a Technical Response Memorandum (TRM), dated August 22, 2009 and attached hereto as Appendix A, which provides a technical response to the public comments. In an October 28, 2009 email, SHWMB also provided me with a draft permit if the Department's final decision is to issue a permit.

II. SUMMARY OF THE RECOMMENDED RECORD

I recommend that the record contain the fifty page verbatim transcript of the June 4, 2009 public hearing, and the following documents that were introduced² into the record as exhibits at the public hearing: DSWA's completed application as of March 31, 2009 (DNREC Ex. 1), the May 8, 2009 letter from Secretary O'Mara to Steve Callanen indicating that a public hearing would be held (DNREC Ex. 2), the public notices of the application and the public hearing (DNREC Exs. 3 & 4), the April 28, 2009 comments in an email from Steve Callanen on behalf of the Sierra Club's Southern Delaware Chapter (DNREC Ex. 5), the June 4, 2009 letter from Brenna Goggin on behalf of the Delaware Nature Society (DNREC Ex. 6), the June 2, 2009 letter from Richard Anthony on behalf of Plan Delaware (DNREC Ex 7), the June 4, 2009 email from Alan Muller, Executive Director of Green Delaware (DNREC Ex. 8), a June 4, 2009 letter from Debbie Heaton, Conservation Chair, on behalf of the Delaware Chapter of the Sierra Club (DNREC Ex. 9), and June 4, 2009 letter from N. C. Vasuki (DNREC Ex. 10). At the public hearing, Steve Callanen, Chair, Southern Delaware Group, Sierra Club presented his written comments for the record (Sierra Club Ex.1). In addition, I recommend including the Department's and the Applicant's power point presentations in the record as DNREC Ex.11 and DSWA Ex. 1, respectively. Finally, I recommend that the record contain this Report, DSWA's zero waste policy that SHWMB provided, DSWA's web page on yard waste management, SHWMB's TRM and SHWMB's October 28, 2009 draft permit if the Department adopts the recommendations contained herein.

The public comments from N.C. Vasuki indicated several concerns with the long time taken by the Department reviewing the permit application, and with the Department apparently

² The Department's hearing is to allow the public the opportunity to provide comments before a final decision is made. The Department does not have an obligation to develop the public hearing record, but instead it remains neutral on the merits of a pending permit application until after the public hearing. The Department, nevertheless, develops a basic public hearing record for the public's benefit in presenting comments.

“trying to divert yard waste from disposal of yard wastes in landfills without a good and realistic plan.” He sought the issuance of the construction permit as soon as possible to assist the employment of construction workers needed to build the expansion. He indicated that the Department should have sufficient information on the Facility based upon the numerous studies and reports in the Department’s files that such a prolonged application review was not necessary. He supported the permit application and indicated that any permit should not address yard waste ban, which should be addressed in a regulation proceeding and not as condition to a permit.

The Sierra Club comments were on the Facility’s operating record and the comments cited DSWA’s twenty violation citations in the five years prior to filing the application, as set forth in the application. The comments also raised an issue with the collection of leachate and its shipment for treatment at the City of Wilmington’s wastewater treatment plant. The comments indicated concern with the possible presence of chemicals in the leachate based upon the chemical that the Department requires to be tested. He pointed to the possible presence of arsenic at levels that would be 2.2 times the Environmental Protection Agency’s (EPA) maximum contaminant level for drinking water protection. The comments requested that coal ash not be disposed or used at the Facility. The comments addressed the groundwater and stormwater issues and noted the presence of the Columbia Aquifer underneath SSWMC and the surface water drainage into the Nanticoke River. The comments also addressed the recovery of landfill gas, which is burned to make electricity. He asked when the Department approved the landfill gas to energy operation. His comments supported a yard waste ban to reduce the production of greenhouse gases from yard waste. The comments requested a Delaware Natural Heritage Program Site Survey based upon the Department’s September 15, 2008 letter indicating that the Department had not undertaken a survey of the vicinity to determine the presence of threatened or endangered plant and animal species, although the letter indicated the nearby

presence of the red-headed woodpecker, listed as a species of greatest conservation need in the Delaware Wildlife Action Plan. The letter also recommended at least a 100' buffer be maintained upland from any wetlands. Finally, the letter recommended that any clearing operation not be conducted during wildlife breeding season beginning April 1 and ending July 31. The comments also requested consideration of the impact on wildlife from the chain link fence that surrounds the Facility and the future impact from construction of future planned cells 6, 7, 8, and 9 by 2045. The comments also questioned whether Cell 3 was active or closed and whether the closed cells 1 & 2 should be closed with a final cap of soil. The comments also questioned the need for a delay as long as seven days before Applicant notified the Department of leaks that exceed the allowed action leakage rate. Finally, the comments seek that all records be maintained indefinitely on computer discs, that no records be destroyed without Department permission and that the permit application be denied.

The Delaware Nature Society comments addressed the need for a priority on initiating an effective statewide recycling program and further evaluating/implementing additional types of residential, commercial and industrial source reduction/waste minimizing programs over landfill expansions, which the comments claim would reduce 250,000 tons of waste annually. The comments also questioned the proposed destruction of woods that covers approximately half of the 30 acres to be used by Cell 5.

Plan Delaware's comments were on the environmental assessment and the claimed flaws in 1) the vehicle air emissions reviewed in Section 3.2, 2) the methane emissions, 3) the conflict with land use controls by expanding near an AR-1 low density areas, 4) the impacts on public health, including air, water and other environmental resources, 5) the social and economic factors and impacts on the surrounding area, 6) the need for a site survey of threatened and endangered

species, and 7) the overall recommendation to determine that the application is inadequate and inconsistent with the zero waste paradigms with a date certain implementation.

Green Delaware's comments sought to maximize public participation in the process, including holding additional hearings in Lewes and Rehoboth Beach and keeping the record open for at least 30 days. The comments reviewed the *Regulations* and noted the regulations and laws that supported recycling and conservation efforts. The comments also claimed that the Applicant had not complied with conditions in the Department's permit for Applicant's Northern Solid Waste Management Center at Cherry Island on the revision to the statewide solid waste management plan and the yard waste ban. His comments alleged air emission violations from the disposal of construction and demolition waste at the Facility. Finally, the comments argued that the high cost of any landfill expansion, such as the claimed \$100 million expansion at Cherry Island, supported a zero waste policy as less expensive than the expansion of any sanitary landfill.

The comments from Sierra Club's Delaware Chapter indicated the need to remove organics and other methane producing waste from the waste stream and to change the wet cell disposal method to a dry cell method to reduce the formation of greenhouse gas. The comments pointed out recent studies of the harmful impact of methane from landfill as a source of greenhouse gas adversely impacting climate change.

Steve Rohm of Blessing Greenhouse and Compost spoke in favor of a yard waste ban, noting that DSWA already made compost from yard waste it receives under a separate recycling program. Theresa Lunn also made an oral comment supporting recycling and waste reduction efforts as the preferred method to avoid the harmful impacts associated with the landfill's expansion. She mentioned the deforestation as one of the harms. She commented on how she pays for the recycling services offered by DSWA, including yard waste collection, but that no

one else in her development uses DSWA's recycling services. Instead, other residents mix their yard waste with household waste that is disposed at the Facility.

SHWMB's TRM sets forth an excellent overview of the issues raised by the public comments, and develops the record to support a final Department decision to issue a permit with numerous conditions, including a condition intended to encourage yard waste recycling by banning yard waste disposal at SSWMC. First, the TRM addresses the need for recycling as the best option to reduce the waste needed to be sent to the Facility, and that yard waste is a particular type of waste that should not be disposed in a landfill, which is designed and built at great cost to disposal of other types of waste that cannot be readily recycled. Second, the TRM comments on the concerns over possible groundwater contamination and indicates the protection the Department will require in its regulations and permit conditions. Third, the TRM provides responses to the comments on surface water management and environmental impacts from stormwater that explain how these concerns will be addressed. Fourth, it responds to questions on the leachate management and the capping system that will be installed to control the formation of leachate. Fifth, it responds to the loss of wildlife habitat and the possible threat to certain species that may be protected by describing the permit conditions that will minimize any adverse impacts. Sixth, it covers the public comment on past violations and air quality issues, including the air emissions from burning methane gas to generate electricity. Finally, it replies to the comments on the Applicant's recordkeeping and retention of documents by identifying the Department's requirements for recordkeeping.

SHWMB in an October 28, 2009 email provided a draft permit, which sets forth the Department's experts recommendations on permit conditions. Notable is the provision to implement a yard waste ban effective January 1, 2011, which would mean that all yard waste would have to be either recycled or remain on the property that produced it. The draft permit

requires DSWA to implement the yard waste ban by a public education program and to set up yard waste recycling centers as may be needed to implement the ban. The draft permit also recommends other permit conditions the experts in SHWMB consider appropriate to protect the environment from the undue risk of harm, such as prohibiting the land clearing during the bird nesting season.

III. RECOMMENDED FINDINGS AND REASONS

I recommend a finding that the record as developed supports a final decision to issue DSWA a major modification for its current sanitary landfill operating permit. The recommended permit would follow the draft permit that SHWMB has provided subject to such modifications as SHWMB determines appropriate so long as consistent with the Secretary's Order approving the permit's issuance.

A. General Permit Conditions and Need for Cell 5

The draft permit, if approved, would allow DSWA to construct and operate a 29.4 acre expansion to the Facility's existing disposal area. This expansion, designated Cell 5, is located within SSWMC's existing 572 acres, of which approximately 100 acres currently are used for final solid waste disposal. The Applicant claims the expansion is needed to allow SSWMC to continue to receive solid waste from Sussex County's businesses, residents and visitors when the current active final disposal area, Cell 4, is filled to capacity, which Applicant estimates in the record to occur by April 2012.³ I agree that the expansion is needed some time in the near future and that the construction is expected to take approximately months from the date of approval.

³ The Department's files contain information that Applicant now has extended this date, but the Department's decision is based on the information formally in the record. Moreover, I find the exact date when Cell 4 will be filled is not that material to the final decision because all evidence supports that it will be filled in the near future and that solid waste from Sussex County must be either placed in Cell 5 in the future or diverted to another approved landfill.

The application was prepared with the assistance of CDM, the Applicant's engineers. The application indicates that Applicant purchased approximately 572 acres of land for the Facility in 1983. Applicant began operating the Facility for the final disposal of solid waste in 1984, first in an unlined 17.5 acre area called Cell 1. Cell 2 adjoins Cell 1's east side and is an unlined 23.3 disposal area. Cells 1 and 2 are closed and were capped in 1998 by an exposed long-term geomembrane cover. Eventually Applicant will submit for the Department's approval a plan for a final soil cap and landscaping, but the Department's experts consider that the geomembrane cover adequately reduces rainwater infiltration and landfill gas emission releases and is consistent with the "cap as you go" in the operating plan. Cell 3 consists of 24 acres and was constructed in 1996 with a composite liner system and three leachate storage tanks with a combined 1 million gallon capacity. Cell 4 adjoins Cell 3's north side and is a 30 acre site with a dual composite liner system and is still active meaning it is still receiving solid waste. Cell 4 began to receive solid waste in September 2002. .

I find that the application and the record support issuing the permit, which will apply to the entire Facility and extends its current regulatory life until this permit is subject to review again. I find that DSWA has demonstrated that additional capacity is needed beyond the remaining space in the Cell 4. I find that there is no real alternative to the permit application to allow the Facility to continue to operate. I recommend a finding that the Applicant has provided adequate support for the design and construction of the SSWMC based upon the design and plans in application. The design meets or exceeds the safety requirements the Department imposes for the construction and operation of a sanitary landfill. The proposed Cell 5 will have double geomembrane liners and employ a leachate collection system that will allow leak detection and monitoring of the substances in the leachate. The SSWMC also has wells that are monitored and tested to ensure that there is no groundwater contamination. I find that DSWA

established the need for expanded capacity at SSWMC, but the need for additional capacity is not the end of the Department's function in the administration of sound environmental policy consistent with the express intent of the General Assembly. The function of the amount of solid waste that requires disposal in a sanitary landfill is subject to the Department's exercise of its authority to control the amount of solid waste that may be disposed of in a sanitary landfill, but the law requires that the Department and DSWA prevent landfill disposal to the maximum extent possible of all solid waste that may be recycled and reused.

The Department's procedures for a major permit modification application for a sanitary landfill also entail a Department review of all of SSWMC's operations, which includes its ongoing recycling activities and the public education and implementation needed for any permit conditions. The draft permit includes many of the conditions from the existing permit, as updated for certain changes. I recommend that these be adopted.

B. Yard Waste Ban Permit Condition

SHWMB also recommends a yard waste ban similar to the Department's ban in the permit issued to DSWA's permit for the expansion of its Northern Solid Waste Management Center located at Cherry Island in the City of Wilmington. This proposed condition would have an effective date after the permit and would go into effective on January 1, 2011 for the Facility, which means that beginning on that date yard waste will no longer be allowed to be disposed at the Facility similar to the ban for other prohibited wastes. I find that this ban is supported in the record, reasonable, appropriate and consistent with clear intent of the law. Consequently, I recommend its adoption, but leave the effective date to be determined by the Secretary.

As noted above, the Department in 2006 already banned yard waste from the sanitary landfill that receives the most solid waste. This action was prompted by concerns that the Cherry Island Landfill was reaching the point where it could no longer be expanded, and this is the

possible fate of all landfills, including SSWMC. The Department's experts and DSWA have recognized that recycling is the best method to reduce the amount of solid waste that requires disposal at a sanitary landfill and have individually and collaboratively been working to implement policies that will promote recycling, particularly the recycling of yard waste. DSWA's regulations define yard waste as "plant material resulting from lawn maintenance or other horticultural gardening or landscaping activities but is not limited to grass, leaves prunings, brush, shrubs, garden materials, Christmas trees, and tree limbs up to 4 inches in diameter." DSWA's web site also sets forth a comprehensive yard waste recycling program that is voluntary and based upon a pay as you go system. The Department also has worked with DSWA to encourage yard waste recycling by operating yard waste recycling locations, and DSWA also has yard waste recycling operations at the Facility and at other locations throughout the state. The SHWMB analysis is that additional yard waste can be recycled, but that the only way it can be successful is through mandatory recycling, which can only be done with a ban on yard waste disposal at sanitary landfills. I agree that a mandatory ban on yard waste disposal at the Facility and all sanitary landfills is the logical and necessary next step to realizing a higher rate of recycling than possible from any voluntary program no matter how successful.

The yard waste ban will provide DSWA with the necessary permit authority to regulate the haulers that deliver solid waste to the Facility and the municipalities who provide the ultimate users of the landfill space with the solid waste that is produced. The approximately one year time until the yard waste ban goes into effect will allow sufficient time to implement the necessary public education and recycling centers components of the yard waste ban. I agree with SHWMB's expert reasoning, as set forth in the TRM, that a yard waste ban needs to be implemented after a reasonable amount of time for DSWA to educate the public and take other action to implement. The public education and outreach is needed to obtain as much public

cooperation as possible to avoid the problems if the public commingles yard waste with other solid waste. The implementation may require DSWA to expand its pay as you throw yard waste recycling program and to open additional yard waste recycling centers as may be needed to meet the increased demand for yard waste recycling once yard waste is no longer accepted at the Facility. .

The permit condition includes that DSWA will provide public education, which is reasonable because I find that public acceptance is necessary, appropriate and reasonable for implementation of the yard waste ban. A yard waste ban will work best if the public accepts and supports it by no longer mixing yard waste in with other waste. The public education is needed for convincing as many as possible that yard waste imposes an environmental problem and cost on all if disposed at a sanitary landfill and that the alternative of not collecting grass clippings or recycling yard waste is beneficial to the environment and can help postpone costly landfill expansions. The record indicates the DSWA screen some of the waste it receives, but public acceptance is important to ensure that yard waste is not mixed in with other waste so that the screening and removal of yard waste mixed with other waste is not needed as much. This will make the Facilities operations more efficient if the screening is not delayed by removing yard waste mixed in with other waste. Thus, public education is the key to public acceptance, and an important part of an effective yard waste ban in order to avoid delays from screening and removal and also from punitive enforcement actions needed to enforce a ban that the public does not accept.

SHWMB also has recommended DSWA provide suitable alternatives to final disposal at the Facility for yard waste. Currently, DSWA manages recycling centers as part of a state-wide program to promote voluntary recycling, including of yard waste. The Department's experts recommend that DSWA take steps to ensure that the increased demand for yard waste recycling

will be met through adequate resource recycling centers when the yard waste ban goes into effect as determined in the permit. DSWA has unique statutory authority to open and operate such yard waste recycling centers without any governmental approvals. This yard waste ban is consistent with DSWA's development of a statewide solid waste management plan, including a zero waste component, and consequently this regulatory action is appropriate to take now in this permit approval to have the yard waste permit conditions in place to allow DSWA to take its own regulatory actions. Thus, I find that such a mandatory yard waste ban needs to be implemented in a comprehensive manner in order to be successful and thus the permit conditions provide such a comprehensive implementation of a yard waste ban to allow it to be effective.

The impact of the yard waste ban will not be immediate under the draft permit to allow DSWA and the public time to adjust to this regulatory change. The draft permit assumes a proposed January 1, 2010 effective date, but I defer to the Secretary the actual timing of the effective date because that will depend on when the permit is issued. I agree with SHWMB that DSWA will need to conduct public education and outreach in order to inform and educate the public that yard waste will no longer be accepted at the Facility. The public will need to understand that yard waste should not be commingled with other solid waste. Instead, yard waste will need to be either not collected from a property or collected and transported to yard waste recycling centers for reuse as compost or mulch. As a result, the amount of solid waste requiring final disposal at the Facility should decline, which thereby should extend the remaining capacity of the existing Cell 4 and the life of the proposed Cell 5. Thus, I find that sound environmental policy would seek to reduce the amount of solid waste sent to SSWMC for final disposal by increasing recycling as much as reasonably possible.

I find that the yard waste ban permit condition in the draft permit is consistent with DSWA's statutory authority and the clear intent that DSWA and the Department promote

recycling to the maximum extent possible and to avoid placing solid waste that may be recycled and reused into a sanitary landfill. The General Assembly has declared as state policies the following: the **maximum resources recovery from solid waste and maximum recycling and reuse of such resources in order to protect, preserve and enhance the environment.** 7 Del. C. §6201(b) (1). DSWA and the Department, as state agencies, are to implement the policies. 7 Del. C. §6201(b)(2).

Moreover, DSWA was established to be responsible for implementing solid waste disposal and resource recovery systems and facilities and solid waste management services where necessary and desirable throughout the State in accordance with a state solid waste management plan and applicable statutes and regulations. 7 Del. C. §6401(b). The General Assembly also indicated as one of Chapter 64's purposes was to establish a program for **the maximum recovery and reuse of materials and energy resources derived from solid wastes.** 7 Del. C. §6401 (c) (2). DSWA has ample authority to undertake many functions in the area of solid waste management, including "assistance with the coordination of efforts directed towards source separation for recycling purposes" and "assistance in the development of industries and commercial enterprises...based upon resource recovery, recycling and reuse..." 7 Del. C. §6404((4), (5). DSWA is specifically granted the authority to determine the location and character of recycling centers without the need to obtain land use approval. 7 Del. C. §6406(a)(15). DSWA also is authorized to establish payment schedules and pay for the delivery of source separated recyclable materials to recycling centers and to create through funding incentives for the delivery of source separated recyclable materials to recycling centers by community groups under programs authorized by DSWA. 7 Del. C. §6407(a)(6). The only limitation on DSWA's operation of a resource recovery facility is that DSWA must undertake an environmental study and submit it to the persons designated in Section 6432. Chapter 64 defines

“resource recovery” as the “recovery of energy and materials from solid waste in a saleable form which will allow their reuse in specific marker applications.” *7 Del. C. §6401*. I find that the transition period will allow ample time to submit this study if needed to implement the permit condition.

Subchapter II of Chapter 64 is entitled “Recycling and Waste Reduction,” which provides clear legislative intent that “the reduction of solid waste disposal and recovery of usable materials from solid waste are matters of extreme importance in minimizing the environmental impact of solid waste disposal through landfilling.” *7 Del. C. §6450*. The law goes on to state more statutory purposes:

It is in the public interest to develop a comprehensive statewide system of recycling and resource recovery which maximizes the quantity of solid waste materials which can be recovered, reused or converted to beneficial use. The statewide system should utilize existing and new resource recovery facilities such as reclamation projects and waste-to-energy projects while establishing and developing a statewide source separation program through use of recycling centers. In addition to maximizing the recovery and reuse of materials from solid waste through use of large scale projects, it is a state goal to provide an opportunity for source separated recycling to every person in the State. In order to accomplish the goals and objectives of statewide recycling and waste reduction, it is determined that the Authority develop a comprehensive program incorporating long range planning, project development, public education and promotion, information gathering, and marketing. It is further determined that the Authority, in developing a statewide comprehensive recycling and waste reduction program, consider measures to remove from the solid waste stream through source separation materials harmful to the environment which cannot be readily or effectively recycled so that such materials can be separately disposed in an authorized manner. These findings, policies and purposes are declared to be in the public interest and these provisions are considered necessary and for the public benefit as a matter of legislative determination, and liberal interpretation in favor of accomplishing the stated goals and objectives shall be provided.

I note that DSWA was granted extraordinary power to construct and operate recycling centers without any need for municipal or state permits. *7 Del. C. §6451(3)*. DSWA is to

develop and implement a statewide solid waste management plan. *7 Del. C. §6403(j)*. This plan is to establish recycling centers to manage source separated materials such as yard waste, and develop a program of public education and promotion of statewide recycling and waste reduction. The permit conditions will impose this same statutory obligation on DSWA that the General Assembly did and reasonably relate to the need for public education and such sites as may be needed for the anticipated increased demand for yard waste recycling once the yard waste ban goes into effect. Section 6453 expressly includes organic yard waste as recyclable materials and Sections 6454 and 6455 provide the support for the recycling centers' operation in each county and the public education components of the permit conditions.

I find that the yard waste ban, including its implementation by public education and recycling centers as needed, is reasonable and appropriate for SSWMC or any sanitary landfill as a matter sound environmental policy. Indeed, the Department could also order a ban on all recyclables from the solid waste disposed of in a landfill, but SHWMB does not recommend this more drastic change. Instead, SHWMB recommends only yard waste be banned in this permit because it is a type of waste particularly suitable to source separation and recycling. As noted above in the discussion of the public comments, several public comments also support a yard waste ban as needed to reduce waste entering landfills and to encourage recycling efforts. I agree that such a permit condition is reasonable and the best method to reduce the final disposal of yard waste in a sanitary landfill that should be used solely for solid waste that requires the type of environmental protection afforded by the proposed Cell 5.

I find that the yard waste ban should not impose any undue administration on DSWA because DSWA already is administering the voluntary yard waste recycling and the only change should be to increase participation in the existing pay as you throw program and such participation may provide economies of scale for the existing program. DSWA's program works

with private enterprises and processes yard waste into compost that may be marketed. Even if there is no market, it saves valuable landfill space for the types of solid waste that require a highly engineered sanitary landfill for disposal. Indeed, the Applicant currently uses the Gore Company's composting system to produce a valuable product that may be sold to landscapers and others. The Department fully supports DSWA's efforts and hopes that the yard waste ban, if adopted, will increase this recycling and add recycling jobs. The ban will remove the landfill as an option for yard waste, which should allow the recycling of yard waste to increase, including use of Applicant's yard waste recycling and voluntarily drop-off services for yard waste. The current regulatory problem is that without a yard waste ban, yard waste can legally be mixed with the other solid waste and disposed at a sanitary landfill and a yard waste ban is the only way to end this practice that is contrary to sound environmental policy and the clear intent of the General Assembly that recycling should be pursued to the maximum extent possible. Thus, a prohibition against final disposal of yard waste will result in steps being taken to control the waste by the users of the SSWMC.

I find that as a permit condition the ban against yard waste is no different than other long-standing permit conditions that also limits the type of waste received. The yard waste ban also should reduce long-term costs to all users of the Facility because it should delay the need for future expansions, which will require DSWA's to make a considerable capital investment, which in turn is a capital cost recovered from the users of the Applicant's landfills. The Facility has planned for a total of nine cells to allow the final disposal of solid waste from Sussex County until the middle of this century based upon DSWA's growth assumptions, so each year that an expansion may be delayed postpones this investment. The fact that the growth of solid waste disposed at the Facility has declined in recent years does not end planning for the future by taking steps to reduce the amount of solid waste that is disposed. The yard waste ban should

preserve all remaining sanitary landfill capacity for the type of solid waste that actually requires disposal in a sanitary landfill. As noted in the TRM, yard waste does not require such disposal. Thus, to the extent the yard waste is not in the waste stream because DSWA and others take action to implement the yard waste ban will benefit all users of the Applicant's landfills by delaying and even possibly avoiding the substantial expense in future expansions.

I find that the record contains information that conclusively establishes that such a permit condition is reasonable and consistent with the Department's statutory duties to protect the environment and public health. The TRM sets forth the considerable efforts to reduce the amount of yard waste that enters any landfill. The construction of a sanitary landfill is expensive and a modern landfill is a highly engineered structure to provide environmentally safe and secure final disposal of materials that otherwise may harm the environment or public health if disposed of improperly. Yard waste, in contrast, generally does not need any particular or special structure for its final disposal. The TRM estimates that the permit condition to ban yard waste will reduce the amount of waste the Facility receives by 5%. The Applicant indicates that it disposed of 245,526 tons of waste in 2008 and receives on average 686 tons per day from 420 vehicles. Thus, a 5% reduction should reduce these amounts and more importantly will allow the valuable landfill capacity to be used for waste that requires the expensive engineering to protect the environment and public health. Using a landfill for yard waste disposal is simply not necessary.

Indeed, the TRM pointed out the following benefits:

1. The Benefits - Banning yard waste from disposal in the SSWMC will:
 - a. reduce the waste disposal rate by nearly five percent,
 - b. extend the life of the existing landfill capacity,
 - c. reduce greenhouse gas emissions,
 - d. increase the local production of mulch and compost while creating jobs,
 - e. conserve a valuable natural resource and,
 - f. promote a conservation ethic.

The TRM discussed how the public can readily respond to the yard waste ban by simply by not collecting grass clippings, using a mulching mower, having the yard waste hauled to the yard waste collection or recycling center or having an on-site compost pile.

Yard Waste Management Alternatives – Homeowners and businesses that are subject to the yard waste ban at the SSWMC will have the following choices for management of their yard waste:

- a. Manage the yard waste on their property by mulching and/or composting.
- b. It is important to note that the Department will not be establishing yard waste drop off sites in Sussex County as it did in northern New Castle County; however, there are several DSWA locations in Sussex County that will accept yard waste. These locations will be posted on the DNREC and DSWA web sites.
- c. There are multiple private sector businesses in Sussex County that will accept yard waste and they will be identified and posted on the DNREC yard waste web site.
- d. Contract with a waste hauler or hire a landscaper to remove the yard waste.

I reject the claim made in one comment that the Department should implement any yard waste ban by a regulation and not in a permit. The Department could promulgate regulations, but it is not required to when the same regulatory policy can be established based upon the record developed for this permit. Indeed, the Administrative Procedures Act recognizes that regulations can be adopted without the formal public hearing process based upon orders entered in such non-regulation manner as “codification of existing agency or principles of decision derived from previous decisions and rulings.” *29 Del C. §10113(b)(6)*. Nevertheless, I recommend but not as part of this permit procedure that the Department and DSWA consider developing such regulations in the future. I reject that regulations are a necessary foundation for the Department to exercise its authority to regulate by including permit conditions that are reasonable, consistent with the law and supported by the record. I find that the Department’s use of a yard waste ban permit condition is appropriate under this regulatory background, particularly when the yard waste ban at the Facility will only apply to DSWA.

A sanitary landfill is one of the most highly regulated business activities in Delaware. The regulation by permit of the type of wastes that a Facility may receive is an appropriate and lawful exercise of the Department's plenary regulatory authority over solid waste. Indeed, it makes little sense to promulgate a regulation that would bind only one legal entity when the Department may achieve the same result in a permit condition. Thus, I recommend that the permit condition authority be used and not to delay a yard waste ban until after a promulgation of a regulation.

C. Other Permit Issues

The public comments and the TRM address the proposed destruction of approximately 15 acres of trees in the 30 acres to be used for Cell 5. The Department's Heritage Program in the Division of Fish and Wildlife conducted a study of the area, which did not find any wildlife or plant species that would warrant a denial of the permit, but there are some environmental concerns that should be addressed in permit conditions. The public comments also sought such conditions based upon the study. I agree and recommend such reasonable permit conditions be included to protect wildlife. The destruction of habitat also is a concern of the Department, which should be mitigated by the Applicant taking actions to preserve or provide other habitat areas. Thus, I recommend that the Department include permit conditions to reduce the adverse impacts on the loss of habitat during certain time period consistent with the public comments and the Heritage Program's recommendations.

I find that the engineering and operational plans support the construction of the proposed Cell 5. Cell 5 will be a state of the art sanitary landfill with two geomembrane liners and a leachate collection system with leak detection capability. The operating plan will ensure that there will be carefully monitoring. The public comments on the past violations I do not consider reflect at all on the Applicant's ability to construct and operate Cell 5 in a safe and

environmentally sound manner consistent with modern solid waste management practices and technologies.

I find that the application was thoroughly investigated by the Department's experts in SHWMB. I agree with SHWMB that the application was only complete on March 31, 2009 after the Applicant submitted its last revision in February 2009 in response to SHWMB's comments and questions. The Department's investigation of an application to determine its completeness is an important regulatory step to the permit process. The Department provides a basic form, but this form cannot provide all the necessary information on a project of the size of the construction of a new Cell. The delay in the application process before March 31, 2009 was largely due to the need for information needed from the Applicant so that the application was complete. The decision to hold a public hearing caused some of the delay, but then I agree that certain major environmental projects such as this expansion should have more opportunity for public comment than the minimum 15 days required by law and that the Secretary properly exercised his discretion to provide more time and opportunity for public comments by holding a public hearing. The Department also has required the draft permit to be considered with the Order, which should avoid the up to 60 day delay in drafting a permit following an Order.

SHWMB's review caused Applicant to make significant revisions to the application. These revisions also would have required the application to be the subject of multiple public notices if the Department was adequate to allow the public to comment on a complete application. Thus, the Department followed its regulations and only published public notice when SHWMB determined that the application was administratively complete to support public review and a final decision. The comment also questions the time for review based upon the frequency of sanitary landfill applications, but SHWMB regulates much more than Applicant's sanitary landfills. Thus, I disagree with the comment that raised questions with the time it has

taken the Department to review the application based upon its February 2008 original submission.

IV. RECOMMENDED CONCLUSIONS

Based on the record developed, I recommend that the Department approve the following conclusions:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;

2. The Department provided adequate public notice of the application and the public hearing in a manner required by the law and regulations;

3. The Department held a public hearing in a manner required by the law and its regulations;

4. The Department considered all timely and relevant public comments in making its determination;

5. The Department shall issue Applicant a permit for SSWMC subject to the reasonable general and specific permit conditions recommended by SHWMB; and

6. The Department shall publish this Order on its web page and shall provide such notice in a manner consistent with its regulations and the Department otherwise determines appropriate.

Robert P. Haynes, Esquire
Senior Hearing Officer