

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of Applications for Permits pursuant to Articles 17, 19, 24, and 27 of the Environmental Conservation Law (ECL); Parts 201-5 (State Facility Permits), 373 (Hazardous Waste Management Facilities), 663 (Freshwater Wetlands Permit Requirements), 750 (State Pollutant Discharge Elimination System [SPDES] Permits) of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR); Section 401 of the federal Clean Water Act (CWA); and 6 NYCRR 608.9 (Water Quality Certifications), by

CWM Chemical Services, LLC,
Applicant (RE: Residuals Management Unit - Two [RMU-2]).

DEC Permit Application Nos.: 9-2934-00022/00225
 9-2934-00022/00231
 9-2934-00022/00233
 9-2934-00022/00232
 9-2934-00022/00249

NEW YORK STATE FACILITY SITING BOARD

In the Matter of an Application for a Certificate of Environmental Safety and Public Necessity pursuant to 6 NYCRR Part 361 (Siting of Industrial Hazardous Waste Facilities) by

CWM Chemical Services, LLC,
Applicant (RE: Residuals Management Unit - Two [RMU-2]).

December 22, 2015

RE: Ruling on Proposed Issues for Adjudication and
 Petitions for Full Party Status and Amicus Status

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Permittee and Facility Description

CWM Chemical Services, LLC (CWM) is a wholly owned subsidiary of Waste Management, Inc. CWM owns and operates the Model City facility, which is a duly permitted hazardous waste treatment, storage, disposal, and recovery facility that accepts hazardous and industrial non-hazardous waste. The Model City facility is located at 1550 Balmer Road on property in the Towns of Porter and Lewiston, Niagara County. The site of the CWM's Model City facility is about 710 acres; operations take place on about 630 acres. All waste management activities at the Model City facility take place on that portion of the site located in the Town of Porter.

CWM proposes to construct and operate additional secure landfill disposal capacity for hazardous and industrial non-hazardous waste at the Model City facility. The proposed landfill would be referred to as residuals management unit 2 (RMU-2), and would occupy about 43.5 acres at the Model City facility.

I. Residuals Management Unit 1 (RMU-1)

On December 10, 1993, the Industrial Hazardous Waste Facility Siting Board (Siting Board) issued a certificate of environmental safety and public necessity to CWM to site residuals management unit one (RMU-1) at the Model City facility. Subsequent to receiving the siting certificate, CWM obtained all other necessary approvals authorizing the construction and operation of RMU-1 and related facilities associated with the treatment, storage, disposal and recovery of hazardous waste. From the New York State Department of Environmental Conservation (the Department), CWM received, among others, a permit pursuant to Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 373. In addition, CWM received approval from the United States Environmental Protection Agency (US EPA), pursuant to the Toxic Substances Control Act (TSCA), to dispose polychlorinated biphenyls (PCB) waste in RMU-1. As necessary, CWM has filed renewal applications with the Department and the US EPA for all required permits to continue operations at the Model City facility with respect to RMU-1 and its related facilities.

II. Proposed RMU-2 Landfill and Related Reconfiguration of the Model City Facility

The design of the proposed RMU-2 landfill would be similar to that of the existing RMU-1 landfill. The proposed RMU-2 landfill would have a double-composite liner system, and would be divided into six cells with intercell berms constructed of compacted clay. About 3.9 million cubic yards would be available for waste placement. The minimum estimated life of the proposed RMU-2 landfill would be about 11 years.

The construction of the proposed RMU-2 landfill would require the deconstruction, and subsequent relocation of various features currently in place at the Model City facility. These features include various parking areas designated for full and empty trailers and for trailers with loads that require stabilization. In addition, the following existing features would be impacted by the construction of the proposed RMU-2 landfill: the drum management building, the emergency response garage, the heavy maintenance building, the RMU-1 lift station and the trailer containment ramps for the secure landburial facility (SLF) 10 leachate holding building, and the SLF 1 through 11 oil/water separator building. The proposal would require the decommissioning and relocation of several existing ground water monitoring wells. If the decommissioned wells are part of current monitoring events, replacement wells would be installed.

RMU-2 would be bordered to the north by the stabilization facility and to the south by SLF 10 and the Porter/Lewiston town line. The west side of RMU-2 would be bordered by the leachate tank farm, truck-wash building, and SLF 1 through 6. RMU-1 would border the east side of RMU-2.

Existing Facultative (Fac) Ponds 3 and 8 would be in the footprint of the proposed RMU-2 landfill, and would be permanently closed. Existing Fac Ponds 1 and 2 would be retained for ongoing use following the construction of the proposed RMU-2 landfill. A new Fac Pond 5 would be constructed and, in conjunction with Fac Ponds 1 and 2, would provide temporary storage of treated leachate for qualification prior to off-site discharge.

Soils removed from the proposed RMU-2 footprint during its development would be used in the construction of the RMU-2 mechanically stabilized earth (MSE) wall and the compacted clay liner (soil properties permitting). Surplus soil as well as soil not meeting performance requirements for use in the MSE wall or compacted clay liner would be stockpiled on site for future use.

III. Permits and Approvals

For the proposed RMU-2 landfill, CWM would be required to obtain various permits and approvals from federal, New York State, and local authorities. Pursuant to Title 40 of the Code of Federal Regulations (CFR) Part 761, CWM will submit an application to the US EPA for the disposal of TSCA regulated PCBs.

The US EPA has delegated the implementation of the requirements outlined in the Resource Conservation and Recovery Act (RCRA) to the Department. Consistent with the federal delegation, the Department implements 6 NYCRR Part 373 (Hazardous Waste Management Facilities). As noted above, CWM has a site-wide Part 373 permit for current operations at the Model City facility, which includes the RMU-1 landfill. CWM has requested a modification of the 2013 site-wide Part 373 renewal permit (DEC Permit Application No. 9-2934-00022/00225) to incorporate the proposed RMU-2 landfill and related modifications to the

Model City facility. In addition, CWM has filed the following permit applications with the Department pursuant to 6 NYCRR:

- Part 361 Hazardous Waste Facility Siting Application for a Certificate of Environmental Safety and Public Necessity (ECL Article 27, Title 11);
- Part 750 State Pollutant Discharge Elimination System (SPDES) Permit Modification Application (ECL Article 17, Title 8) (DEC Permit Application No. 9-2934-00022/00049);
- Subpart 201-5 ASF Permit Modification Application (ECL Article 19, Title 3) (DEC Permit Application No. 9-2934-00022/00233);
- Section 608.9 Water Quality Certification Application (Section 401 of the federal Clean Water Act) (DEC Permit Application No. 9-2934-00022/00232); and
- Part 663 State Freshwater Wetlands Permit Application (ECL Article 24, Title 7) (DEC Permit Application No. 9-2934-00022/00231).

A Notice of Complete Application was published in the Department's *Environmental Notice Bulletin (ENB)* on May 7, 2014. The May 7, 2014 *ENB* notice did not include the ASF permit modification application.

With respect to freshwater wetlands, CWM filed a joint application with the US Army Corps of Engineers (US ACE) and the Department pursuant to federal Clean Water Act § 404 and ECL Article 24, respectively. US ACE regulates freshwater wetlands less than 12.4 acres in size. The Department regulates freshwater wetlands that are 12.4 acres or larger. Because the US ACE is reviewing an application pursuant to federal Clean Water Act § 404, the Department has authority to consider an application for a Water Quality Certification pursuant to federal Clean Water Act § 401 and 6 NYCRR 608.9.

From the Town of Porter, CWM must obtain site plan approval for the proposed RMU-2 landfill and related modifications to the Model City facility, and an excavation permit.

Proceedings

With a cover letter dated May 15, 2003, CWM filed applications, pursuant to 6 NYCRR Part 361, for a certificate of environmental safety and public necessity (siting certificate) and, pursuant to 6 NYCRR Part 373, for a permit to construct and operate the proposed RMU-2 landfill and related modifications to the Model City facility. Department staff is reviewing CWM's Part 373 permit application as a modification to the current 2013 site-wide Part 373 renewal permit for the Model City facility (Tr. at 14). With the May 15, 2003 cover letter, CWM also filed a preliminary draft environmental impact statement (DEIS).

After conducting a coordinated review, Department staff notified CWM and the Town of Porter, by letter dated April 30, 2004, that the Department would serve as lead agency, pursuant to the State Environmental Quality Review Act (ECL Article 8 [SEQRA], and 6 NYCRR Part 617). On October 12, 2005, Department staff issued a positive declaration with respect to CWM's request to modify its site-wide Part 373 facility permit to incorporate the construction and operation of the proposed RMU-2 landfill and the related modifications to the existing features at the Model City facility.

Based on the October 12, 2005 positive declaration, CWM's proposal is considered a Type I action. In addition to the Department, the other involved agencies identified in the positive declaration are the Town of Porter, the Siting Board, and the New York State Department of Health. Notice of Department staff's October 12, 2005 positive declaration appeared in the *ENB* on October 19, 2005.

Department staff used the public scoping procedures outlined in 6 NYCRR 617.8 to determine the scope of the DEIS for the proposed RMU-2 landfill and related modifications to the Model City facility. CWM submitted an initial draft scope for the DEIS. From June 7, 2006 to August 7, 2006, Department staff provided members of the public with the opportunity to comment about the scope of the DEIS. During this period, Department staff held a public scoping session on July 26, 2006. Subsequently, with a letter dated July 24, 2007, Department staff issued a final scope for the DEIS.

CWM submitted the latest version of the DEIS on November 8, 2013 with revisions dated December 18, 2013 and January 14, 2014. Upon review, Department staff determined that the DEIS was adequate for public review pursuant to 6 NYCRR 617.9(a)(3).

Also on November 8, 2013, CWM submitted its latest version of the site-wide Part 373 permit modification application to Department staff. CWM submitted revisions on December 18, 2013 and January 14, 2014. Upon review, Department staff determined that the permit modification application was complete pursuant to 6 NYCRR 621.4(n) and 621.6, and 6 NYCRR Part 373.

I. Combined Notice Dated May 5, 2014

As noted above, Department staff determined that the DEIS (revised November 2013) concerning CWM's proposed RMU-2 landfill and related modifications was adequate for public review pursuant to 6 NYCRR 617.9(a)(3). Department staff also determined that the CWM's site-wide Part 373 permit modification application was complete pursuant to 6 NYCRR 621.4(n) and 621.6. Given these determinations, Department staff prepared a combined notice dated May 5, 2014, as well as a fact sheet of the same date. Department staff's May 5, 2014 combined notice provided:

1. Notice of completion of draft EIS, as required by 6 NYCRR 617.12;
2. Notice of complete application, as required by 6 NYCRR 621.7 and 373-1.4(b);

3. Notice of availability of draft Part 373 permit modification, as provided by 6 NYCRR 621.7(b)(7)(i)(b) and 373-1.4(d);
4. Notice of availability of draft Article 24 freshwater wetlands permit; and
5. Notice of public comment period, as provided for by 6 NYCRR 617.12(a)(2)(iii), with respect to the DEIS, and as provided for by 6 NYCRR 621.7(b)(6)(v), with respect to the site-wide Part 373 permit modification application.

As stated in the May 5, 2014 combined notice, the written comment period extended from May 7, 2014 until July 7, 2014. In addition, the May 5, 2014 combined notice identified the locations where members of the public could review the application documents, the draft permits, and the fact sheet related to CWM's proposed RMU-2 landfill and related facility modifications.

With a cover letter dated May 5, 2014, Department staff provided CWM with a copy of the May 5, 2014 combined notice and fact sheet, and a radio announcement (*see* 6 NYCRR 361.3[g][1]; 621.6[g]). Staff's May 5, 2014 correspondence outlined the requirements for publishing the combined notice in local newspapers, broadcasting radio announcements (*see* 6 NYCRR 361.3[g]; 621.7[c] and [d]), and mailing copies of the combined notice and fact sheet to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[g][4]). Department staff sent copies of the May 5, 2014 combined notice and fact sheet to the chief executive officer of each municipality in which the proposed project would be located and to other organizations and local residents who expressed interest in the proposal (*see* 6 NYCRR 361.4[g][3]; 621.7[a][1]). Staff published the May 5, 2014 combined notice in the Department's *ENB* on May 7, 2014 (*see* 6 NYCRR 361.4[g][2]; 621.7[a][2]).

With a cover letter dated May 9, 2014, CWM provided an affidavit of service, sworn to May 9, 2014, demonstrating that CWM sent copies of the May 5, 2014 combined notice and fact sheet to property owners located within one-half mile of the facility. With a cover letter dated May 27, 2014, CWM provided a second affidavit of service, sworn to May 27, 2014, demonstrating that CWM sent copies of the May 5, 2014 combined notice and fact sheet to a corrected list of property owners located within one-half mile of the facility. (*See* 6 NYCRR 361.3[h].)

Subsequently, with a cover letter dated June 12, 2014, CWM provided the following affidavits of publication of the May 5, 2014 combined notice, and affidavits of performance of the radio announcements. The affidavits of publication demonstrate that the May 5, 2014 combined notice appeared in: (1) the *Buffalo News* on May 7, 2014; (2) the *Niagara Gazette* on May 7, 2014; and (3) the *Lewiston-Porter Sentinel* on May 10, 2014. The affidavits of performance demonstrate that the radio announcement was broadcast on May 7, 2014 by: (1) WBEN at 9:17 AM and 1:56 PM; (2) WGR at 11:00 AM and 1:37 PM; (3) WJLL at 10:15 AM and 3:16 PM; and (4) WLVL at 9:15 AM and 2:45 PM.

II. Permit Hearing Referral

On May 19, 2014, the Office of Hearings and Mediation Services (OHMS) received the permit hearing referral concerning the captioned matters from Region 9 Department staff (Buffalo, New York). With the permit hearing referral, Department staff provided a copy of the application materials, the fact sheet, and the draft permits.

III. Siting Board and Joint Hearing

As required by 6 NYCRR 361.3(g)(6), Department staff sent a copy of the May 5, 2014 combined notice to Governor Cuomo. Consistent with ECL 27-1103(3)(d), Governor Cuomo constituted a Siting Board to consider CWM's application for the siting certificate (*see also* 6 NYCRR 361.4[a]).

A joint public hearing may be held to consider an application for a siting certificate with any permits administered by the Department that are required for the construction and operation of a proposed hazardous waste facility (*see* 6 NYCRR 361.4[b]). When, as here, a joint public hearing is convened, the Chair of the Siting Board and the administrative law judge assigned to the DEC permit hearing will enter into a memorandum of agreement (*see* 6 NYCRR 361.4[e]).

The Siting Board convened in a public session on July 2, 2014 at the Youngstown Free Library. During the July 2, 2014 meeting, the Siting Board discussed a memorandum of agreement, among other things. Subsequently, on July 8, 2014, I signed a memorandum of agreement with DEC Commissioner Joseph Martens, Chair of the Siting Board and his designee, Paul J. D'Amato. Attached to a memorandum dated December 9, 2014, I provided a copy of the memorandum of agreement to CWM and Department staff, and to those who timely filed petitions for full party status (*see* 6 NYCRR 361.4[e]).

When a joint public hearing is held to consider an application for a siting certificate and permit applications administered by the Department to construct and operate a hazardous waste facility, the hearing is conducted pursuant to the procedures set forth in 6 NYCRR Part 624 (*see* 6 NYCRR 361.4[e]). After the adjudicatory hearing, if one is necessary, the Siting Board will make a final determination about CWM's application for a siting certificate (*see* 6 NYCRR 361.4[f]; 361.7), and the Commissioner of Environmental Conservation will make a final determination about the requested permit applications administered by the Department (*see* 6 NYCRR 361.4[g]).

IV. Notice of Joint Public Hearing Dated June 6, 2014

With a cover letter dated June 6, 2014, I provided CWM with a copy of the notice of joint public hearing and notice of extension of public comment period dated June 6, 2014, as well as the associated radio announcement. The June 6, 2014 notice scheduled public comment hearing sessions at 1:00 PM and 6:30 PM on July 7, 2014 at the Lewiston-Porter High School in

Youngstown, New York, and extended the public comment period from July 7, 2014 to September 5, 2014.

The June 6, 2014 notice also stated that a pre-adjudicatory issues conference would be held (*see* 6 NYCRR 624.4[b]), and that a separate notice would be issued setting forth the date, time, and place for the issues conference. The June 6, 2014 notice provided instructions for filling petitions for full party status, and set September 30, 2014 as the date by which petitions were due.

OHMS sent copies of the June 6, 2014 notice to the chief executive officer of each municipality in which the proposed project would be located, and to other organizations and local residents who expressed interest in the proposal (*see* 6 NYCRR 361.4[g][3]; 624.3[a]). The June 6, 2014 notice was published in the Department's *ENB* on June 11, 2014 (*see* 6 NYCRR 361.3[g][2]; 624.3[a]). The June 6, 2014 correspondence to CWM outlined the requirements for publishing the notice in local newspapers, making radio broadcast announcements (*see* 6 NYCRR 624.3[a]), and mailing copies of the notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[g][4]).

With a cover letter dated June 12, 2014, CWM provided an affidavit of service, sworn to June 12, 2014, demonstrating that CWM sent copies of the June 6, 2014 notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[h]). Subsequently, with a cover letter dated July 1, 2014, CWM provided the following affidavits of publication of the June 6, 2014 notice, and affidavits of performance of the radio announcements. The affidavits of publication demonstrate that the June 6, 2014 notice appeared in: (1) the *Buffalo News* on June 11, 2014; (2) the *Niagara Gazette* on June 11, 2014; and (3) the *Lewiston-Porter Sentinel* on June 14, 2014. The affidavits of performance demonstrate that the radio announcement was broadcast on June 11, 2014 by: (1) WBEN at 10:35 AM and 1:31 PM; (2) WGR at 10:23 AM and 2:40 PM; (3) WJLL at 10:16 AM and 3:15 PM; and (4) WLVL at 9:15 AM and 1:31 PM.

V. July 7, 2014 Public Comment Hearing Sessions

As scheduled by the June 6, 2014 notice, public comment hearing sessions were held at the Lewiston-Porter High School in Youngstown, New York, at 1:00 PM and 6:30 PM on July 7, 2014. During the public comment hearing sessions, members of the public had the opportunity to provide unsworn statements related to the permit applications, the draft permits and, because the Department is the lead agency pursuant to SEQRA, the DEIS (*see* 6 NYCRR 624.4[a]).

All members of the Siting Board attended both public comment hearing sessions on July 7, 2014. During the public comment hearing sessions, Department staff announced that the application materials, the DEIS, the draft permits, and the fact sheet would be available at two locations in addition to those identified in the May 5, 2014 combined notice, and the June 6, 2014 notice. These additional locations were the Ransomville Free Library at 3733 Ransomville Road in Ransomville, and the Lewiston Free Library at 305 8th Street in Lewiston.

Both public comment hearing sessions were well attended. A total of 82 statements and exhibits were presented. In addition to, and in lieu of, making oral presentations, a number of people filed written comments. Some spoke in favor of current operations at the Model City facility and in favor of the proposed expansion. Others, however, support the permanent closure of the Model City facility as soon as possible, and oppose the proposed expansion.

Some expressed concern about the current level of site contamination, and the potential adverse impacts that the existing contamination may have on surface water and ground water. Speakers noted that contaminated surface water and ground water could migrate off-site and release hazardous substances into the environment. Of particular concern would be the release of PCBs to the Niagara River, in particular, and to the Great Lakes basin, in general. Speakers also expressed concerns about the potential release of hazardous substances to the air, and the dispersal of contaminants via that media.

Given the hazardous nature of the materials brought to the Model City facility, many speakers expressed concerns about adverse public health impacts including the potential adverse impacts associated with the truck route passing through the community. Speakers objected to the hazardous nature of the materials hauled in the trucks, as well as the traffic and associated noise. Speakers noted that the designated route to the Model City facility requires trucks to drive past the Lewiston-Porter school campus.

The speakers who oppose the proposed RMU-2 landfill and related modifications to the Model City facility stated that continued operations would adversely impact the local community in a number of ways. For example, some speakers said that people have moved away from the Towns of Lewiston and Porter because of the stigma associated with having a hazardous waste facility in the community; some stated that the proposed expansion would exacerbate this stigma. Others noted that the decrease in the local population is reflected by the decrease in enrollment at the Lewiston-Porter schools. Others stated that the current Model City facility has a chilling effect on economic development and tourism. Speakers objected to hosting the only hazardous waste landfill in New York State, and stated that the proposed expansion would be environmentally unjust. Speakers expressed concern about the long-term maintenance of a closed hazardous waste landfill at the Model City site, and said that future hazardous waste facilities, including the proposal, should be sited elsewhere.

Some speakers said that the current Model City facility provides an economic benefit through its current work force, and that the proposed expansion would increase the potential economic benefit initially with the jobs associated with constructing the proposed RMU-2 landfill and, subsequently, with the jobs associated with operating the expanded facility. Others countered that employment levels and any associated economic benefits would be maintained with the closure of the Model City facility and its required long-term maintenance.

Speakers addressed many of the siting criteria that the Board would consider in deciding whether to issue the requested siting certificate. These comments related to, among other things, whether the proposed modification would be consistent with the October 2010 Siting Plan, and whether the proposed modification was in the public interest or otherwise necessary.

VI. August 8, 2014 Notice

With a cover letter dated August 8, 2014, I provided CWM with a copy of the notice of second extension of public comment period and notice of extension to file petitions for party status of the same date, as well as the associated radio announcement. The August 8, 2014 notice extended the public comment period from September 5, 2014 to October 20, 2014. In addition, the August 8, 2014 notice extended the date to file petitions for party status from September 20, 2014 to October 20, 2014.

OHMS sent copies of the August 8, 2014 notice to the chief executive officer of each municipality in which the proposed project would be located, and to other organizations and local residents who expressed interest in the proposal (*see* 6 NYCRR 361.4[g][3]; 624.3[a]). The August 8, 2014 notice was published in the Department's *ENB* on August 13, 2014 (*see* 6 NYCRR 361.3[g][2]; 624.3[a]). The August 8, 2014 correspondence to CWM outlined the requirements for publishing the notice in local newspapers, making radio broadcast announcements (*see* 6 NYCRR 624.3[a]), and mailing copies of the notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[g][4]).

With a cover letter dated August 13, 2014, CWM provided an affidavit of service, sworn to August 14, 2014, demonstrating that CWM sent copies of the August 8, 2014 notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[h]). Subsequently, with a cover letter dated September 19, 2014, CWM provided the following affidavits of publication of the August 8, 2014 notice, and affidavits of performance of the radio announcements. The affidavits of publication demonstrate that the August 8, 2014 notice appeared in: (1) the *Buffalo News* on August 13, 2014; (2) the *Niagara Gazette* on August 13, 2014; and (3) the *Lewiston-Porter Sentinel* on August 16, 2014. The affidavits of performance demonstrate that the radio announcement was broadcast on August 13, 2014 by: (1) WBEN at 10:18 AM and 2:57 PM; (2) WGR at 9:57 AM and 1:31 PM; (3) WJL at 10:16 AM and 3:17 PM; and (4) WLVL at 9:15 AM and 2:31 PM.

VII. October 15, 2014 Notice

With a cover letter dated October 15, 2014, I provided CWM with a copy of the notice of extension of public comment period and notice of extension to file petitions for party status of the same date, as well as the associated radio announcement. The October 15, 2014 notice extended the public comment period for the third time, from October 20, 2014 to November 21, 2014. In addition, the October 15, 2014 notice extended the date to file petitions for party status from October 20, 2014 to November 21, 2014.

OHMS sent copies of the October 15, 2014 notice to the chief executive officer of each municipality in which the proposed project would be located, and to other organizations and local residents who expressed interest in the proposal (*see* 6 NYCRR 361.4[g][3]; 624.3[a]). The October 15, 2014 notice was published in the Department's *ENB* on October 22, 2014 (*see* 6 NYCRR 361.3[g][2]; 624.3[a]). The October 15, 2014 correspondence to CWM outlined the requirements for publishing the notice in local newspapers, making radio broadcast

announcements (*see* 6 NYCRR 624.3[a]), and mailing copies of the notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[g][4]).

With a cover letter dated October 20, 2014, CWM provided an affidavit of service, sworn to October 20, 2014, demonstrating that CWM sent copies of the October 15, 2014 notice to property owners located within one-half mile of the facility (*see* 6 NYCRR 361.3[h]). Subsequently, with a cover letter dated November 17, 2014, CWM provided the following affidavits of publication of the October 15, 2014 notice, and affidavits of performance of the radio announcements. The affidavits of publication demonstrate that the October 15, 2014 notice appeared in: (1) the *Buffalo News* on October 20, 2014; (2) the *Niagara Gazette* on October 20, 2014; and (3) the *Lewiston-Porter Sentinel* on October 18, 2014. The affidavits of performance demonstrate that the radio announcement was broadcast on October 20, 2014 by: (1) WBEN at 9:32 AM and 3:57 PM; (2) WGR at 10:55 AM and 1:37 PM; (3) WJL at 10:30 AM and 2:00 PM; and (4) WLVL at 9:15 AM and 1:31 PM.

VIII. November 20, 2014 Notice and Petitions for Full Party and Amicus Status

With a notice of extension of deadline to file public comments and petitions for party status dated November 20, 2014, the time to file public comments and the deadline to file petitions for party status was extended from November 21, 2014 to November 25, 2014. The reason for the extension was due to the very heavy snowfall in western New York caused by lake-effect conditions. OHMS sent copies of the November 20, 2014 notice, by regular mail, to the chief executive officer of each municipality in which the proposed project would be located, as well as to those who expressed an interest in the proposal (*see* 6 NYCRR 361.4[g][3]; 624.3[a]). OHMS also emailed the November 20, 2014 notice to those who requested the extension.

Consistent with the November 20, 2014 notice, OHMS timely received the following petitions. By letter dated November 19, 2014, Honorable Rick Dykstra, Member of Parliament, representing St. Catherines, Ontario, Canada, requested party status. At the issues conference (Tr. at 28, 33-35), however, Mr. Dykstra stated that he was seeking amicus status, and that his interest related to potential adverse impacts to surface waters including, but not limited to, the Niagara River and the Great Lakes basin.

Nils Olsen, Esq. filed a petition for full party status jointly on behalf of Residents for a Responsible Government, Inc. (RRG), the Lewiston-Porter Consolidated School District (the School District), and the Niagara County Farm Bureau. With a cover letter dated November 24, 2014, Gary Abraham, Esq., filed a petition for full party status jointly on behalf of Niagara County, the Town and Village of Lewiston, and the Village of Youngstown (the municipalities). With a cover letter dated November 20, 2014, Amy Witryol filed a petition for full party status.

IX. Issues Conference

The second phase of the DEC public hearing is the issues conference (*see* 6 NYCRR 624.4[b]). The purpose of the issues conference, in general, is to define the scope of any issues that require adjudication with regard to the permit applications pending before the Department. With respect to the captioned matters, however, the purpose of the issues conference is expanded to identify any issues that require adjudication with respect to the application for a siting certificate pending before the Siting Board. If issues for adjudication are identified, the status of those who filed petitions for either full party status or amicus status will be determined. Participation at the issues conference is limited to CWM, as the applicant, Department staff, and those persons requesting either full party status or amicus status.

In anticipation of the issues conference, I convened a telephone conference call on December 11, 2014 with representatives from CWM, Department staff, and those, identified above, who timely filed petitions. Subsequently, I issued a memorandum dated December 15, 2014 that summarized the discussion. Among other things, the December 15, 2014 memorandum provided the participants with the opportunity to respond by February 27, 2015 to: (1) CWM's comments about the demand and capacity information in the 2010 Siting Plan; and (2) the petitions for party status filed by Mr. Dykstra, Ms. Witryol, and those filed on behalf of RRG and the municipalities. With respect to the first item, CWM's comments about the 2010 Siting Plan were outlined in a letter dated November 19, 2014 from Daniel Darragh, Esq., CWM's legal counsel, to Chief Administrative Law Judge James T. McClymonds.

With respect to the items identified above, timely responses were received from the following participants. In a letter dated February 26, 2015, Mr. Olsen, on behalf of RRG, the school district and the farm bureau, responded to CWM's November 19, 2014 letter concerning the 2010 Siting Plan. In a letter dated February 27, 2015, Mr. Abraham, on behalf of the municipalities, responded to CWM's November 19, 2014 letter concerning the 2010 Siting Plan. With a letter dated February 27, 2015 and enclosures (including Appendices A - I), Ms. Witryol responded to CWM's November 19, 2014 letter concerning the 2010 Siting Plan.

With a cover letter dated February 27, 2015, Department staff responded to CWM's November 19, 2014 letter concerning the 2010 Siting Plan, as well as the petitions for party status filed by Mr. Dykstra, Ms. Witryol, and those filed on behalf of RRG and the municipalities. Also, CWM filed a response to the petitions for party status dated February 27, 2015. CWM's February 27, 2015 response included Exhibits 1 through 20.

Based on the discussion during the December 11, 2014 telephone conference call, the participants were provided the opportunity to respond to CWM's comments about the draft permits outlined in a letter from Jill Banaszak, Technical Manager for the Model City facility, dated November 19, 2014, to Chief Administrative Law Judge James T. McClymonds. Responses were due by March 20, 2015. Timely responses were received from the municipalities with a letter from Mr. Abraham dated March 20, 2015, and from Ms. Witryol with a letter dated March 20, 2015 with enclosed Exhibits A, B, C, and D.

With a cover letter dated March 20, 2015, Department staff provided an evaluation of CWM's November 19, 2014 comments about the draft permits, a report and accompanying table summarizing the public comments received on the proposed RMU-2 draft permits, and a recommendation about the disposition of these comments. In addition, Department staff provided a copy of CWM's application, dated February 2015, for an ASF permit modification incorporating the proposed RMU-2 landfill and related facilities, and a copy of Department staff's draft permit. Finally, Department staff provided an analysis of CWM's January 28, 2015 Golder Report on the Supplemental Investigation of the West Drum Area (WDA).

Subsequently, with a cover letter dated March 11, 2015, I provided CWM with a copy of the notice of issues conference of the same date. In addition, with the March 11, 2015 correspondence, I enclosed a copy of a letter dated February 27, 2015 from Chair Designee Paul J. D'Amato, in which he stated that the Siting Board members wanted to visit the Model City facility at the conclusion of the issues conference. Copies of the March 11, 2015 correspondence and the enclosures were sent to Department staff and those who filed petitions.

OHMS published the March 11, 2015 notice of issues conference in the Department's *ENB* on March 11, 2015. As provided in the March 11, 2015 notice of issues conference, the issues conference concerning the captioned matters commenced at 10:00 a.m. on April 28, 2015, in the Fellowship Hall at the First Presbyterian Church located at 100 Church Street in Youngstown, New York. The issues conference continued on April 29, 2015 and concluded on April 30, 2015.

All members of the Siting Board attended the issues conference. Daniel Darragh, Esq., from Cohen & Grigsby (Pittsburgh, Pennsylvania), represented CWM. David Stever, Esq., Assistant Regional Attorney, DEC Region 9, and Teresa Mucha, Esq., Assistant Regional Attorney, DEC Region 9, appeared at the issues conference on behalf of Department staff. Gary A. Abraham, Esq. (Allegany, New York), represented Niagara County, the Town of Lewiston, the Village of Lewiston, and the Village of Youngstown. Honorable Rick Dykstra appeared on behalf of the constituents from his district which includes the City of St. Catherines (Ontario, Canada). R. Nils Olsen, Esq., University of Buffalo Law School (Buffalo, New York), represented Residents for Responsible Government, Inc., Lewiston-Porter Central School District, and the Niagara County Farm Bureau. Amy H. Witryol appeared on her behalf.

On May 12, 2015, OHMS received the transcript of the issues conference held on April 28, 29, and 30, 2015. With a cover letter dated June 18, 2015, OHMS sent one hard copy of the transcript of the issues conference to the Youngstown Public Library. With an email dated, June 23, 2015, I advised the issues conference participants that OHMS had sent a copy of the transcript of the issues conference to the Youngstown Public Library to be made available for public review.

Subsequently, with a cover letter dated June 29, 2015, OHMS sent one hard copy of the transcript of the issues conference to the Lewiston Public Library. In a memorandum dated August 6, 2015, I advised the issues conference participants that OHMS had sent a copy of the

transcript of the issues conference to the Lewiston Public Library to be made available for public review.

X. Further Exchanges of Information

On April 30, 2015, at the conclusion of the issues conference, the participants and I developed a list of topics that required the exchange of additional information. Subsequently, I issued a memorandum on May 13, 2015 that identified the topics and outlined the timeframes for the exchange of information related to these topics.

1. New York State Department of Health 1972 Order and 1974 Amendment

Consistent with my request made subsequent to the issues conference, Department staff circulated to the issues conference participants an April 29, 2015 email from Stephen M. Gavitt, Director, Bureau of Environmental Radiation Protection, New York State Department of Health (DOH), and copies of the DOH 1972 Order and the DOH 1974 Amendment. In his April 29, 2015 email, Mr. Gavitt comments about the DOH 1972 Order and DOH 1974 Amendment, which relate to how activities may be undertaken at the site of the Model City facility.

Subsequently, I received correspondence dated June 5, 2015 from the Siting Board in which the Siting Board requested clarification about the role that NYS DOH staff has in the environmental review of the proposed RMU-2 landfill and related modifications to the Model City facility as required by SEQRA, as well as the role that NYS DOH staff has, if any, in the review of the pending siting certificate and permit applications. With an email dated June 5, 2015, I circulated the Siting Board's June 5, 2015 letter to the issues conference participants.

In a memorandum dated June 18, 2015, I authorized the issues conference participants to file additional questions related to the Siting Board's inquiry. With an email from Mr. Darragh, dated July 2, 2015, CWM attached a response of the same date. Attached to an email from Mr. Abraham dated July 3, 2015, the municipalities filed a letter of the same date and several attachments. With an email dated July 3, 2015, Ms. Witryol filed a letter of the same date and attached additional questions. With a cover letter dated July 7, 2015, I forwarded the Siting Board's June 5, 2015 letter, and the filings submitted by the issues conference participants, to Director Gavitt at the DOH.

Justin D. Pfeiffer, Esq., Acting Director, Department of Health, Bureau of House Counsel, filed a letter dated October 5, 2015, and supplemental information on behalf of DOH staff. Mr. Pfeiffer's October 5, 2015 letter and supplemental information responded to the submissions filed with my July 7, 2015 letter to Director Gavitt.

During the October 15, 2015 telephone conference call with the issues conference participants, I authorized the participants to file comments about the DOH October 5, 2015 letter. I received timely comments from the municipalities and Ms. Witryol. With an email from Mr. Abraham dated December 1, 2015, the municipalities filed a letter of the same date. With an

email dated December 1, 2015, Ms. Witryol filed a letter of the same date. Subsequently, with a second email dated December 1, 2015, Ms. Witryol filed a corrected copy of her initial December 1, 2015 letter.

2. Department Staff's Sur-reply

The issues conference participants had the opportunity to respond to CWM's November 19, 2014 comments about the draft permit. As noted above, I received timely responses from Ms. Witryol, Mr. Abraham, on behalf of the municipalities, and Department staff. All responses were dated March 20, 2015. As discussed at the issues conference (Tr. at 640-641), I provided Department staff with the opportunity to file a sur-reply. Department staff timely filed a sur-reply on May 22, 2015.

3. Record of Compliance – Supplemental Information

With an email dated April 24, 2015, Department staff provided revised pages of the response to the municipalities' proposed issue concerning CWM's record of compliance disclosure. With the April 24, 2015 email, Department staff also included correspondence from Ms. Banaszak dated February 27, 2015, with an attached table entitled, *CWM Landfills Compliance History Report from January 1, 1995 to February 10, 2015*. The revised pages attached to staff's April 24, 2015 email are intended to substitute for pages A90-A92 in Department staff's response to Mr. Abraham's petition filed on behalf of the municipalities (Tr. at 313-314, 635).

The petitioners had the opportunity to review and comment about the information filed with Department staff's April 24, 2015 email. The response was due by May 22, 2015 (Tr. at 640). I received timely submissions from Ms. Witryol and Mr. Abraham. With an email dated May 22, 2015, Ms. Witryol filed a letter of the same date with two attachments. The first attachment is a copy of a letter dated December 8, 2009 from John S. Skoutelas, Vice President and Group General Counsel, Waste Management, to Carol Brandon, Town Clerk, Town of Lewiston. The second is a copy of an order on consent (File No. 07-07; R9-20071030-75) dated November 12, 2008 signed by CWM.

Mr. Abraham filed a letter dated May 22, 2015, on behalf of the municipalities, with four enclosures. The first is a table entitled, *Supplemental Compliance History Information: CWM – Model City Facility*. The second is a cover letter dated March 14, 2000 from Raymond A. Bierling, Deputy County Counsel, County of San Luis Obispo (California), and an article by Mr. Bierling entitled, *The Art of Saying "No" or Bambi meets Godzilla*. The third enclosure is a press release from the Indiana Department of Environmental Management dated June 13, 1997. The fourth enclosure is a set of the following documents: (1) Circuit Court of Charles County, Virginia, Final Order (May 17, 1999); (2) Order (December 3, 1999); (3) Consent Order with Waste Management of Virginia, Inc., and Waste Management of New York, LLC (October 20, 1998), regarding the *Matter of Virginia Department of Environmental Quality v Waste Management of New York, LLC*.

4. CWM's Correspondence of April 17, 2015 Regarding Supplemental Information

With an email dated April 17, 2015, CWM provided a cover letter of the same date with Attachments A, B, and C that provided supplemental information and clarification about the design of the proposed RMU-2 landfill and associated features. At the issues conference, Department staff stated that the review of the April 17, 2015 correspondence and attachments was ongoing (Tr. at 383-385, 635-636).

As requested, Department staff provided the issues conference participants and me with a timely status report by May 29, 2015. Based on the status report, Department staff's review of CWM's supplemental information is complete.

5. Potential Air Emissions Inventory

At the issues conference (Tr. at 104-107), CWM, Department staff, and the municipalities agreed to confer about the air monitoring data that CWM has collected during the operation of the RMU-1 unit and associated facilities. The purpose of this exchange of information is to determine the scope and nature of the potential air emissions inventory.

6. Request to Modify the April 2015 SPDES Permit

With a cover letter dated April 22, 2015, Department staff issued a modification and renewal State Pollutant Discharge Elimination System (SPDES) permit for the Model City facility as currently configured with the RMU-1 landfill and associated features. The effective dates of the SPDES permit are from June 1, 2015 to May 31, 2020.

Attached to an email dated April 24, 2015, Mr. Darragh circulated a letter dated April 23, 2015 from Michael D. Mahar, District Manager, Model City Facility, to David S. Denk, Regional Permit Administrator, at the Department's Region 9 office. In the April 23, 2015 correspondence, Mr. Mahar asked Department staff to modify the April 2015 SPDES permit to include the proposed RMU-2 landfill and the related modifications to the Model City facility.

During the issues conference, Department staff explained that the April 23, 2015 request for modification would be reviewed consistent with the timeframes outlined in 6 NYCRR Part 621 (Uniform Procedures). I requested that Department staff advise the issues conference participants and me about the status of the review of the requested SPDES modification permit. (Tr. at 634-635.)

7. Radiological Investigation

As requested by Mr. Abraham, on behalf of the municipalities, (Abraham email dated May 14, 2015) CWM provided, with an email dated May 15, 2015, some of the URS 2008 Field Data, and with an email dated May 20, 2015, additional field data concerning the proposed RMU-2 landfill subsurface investigation.

8. Issues Conference Transcripts

In a memorandum dated August 6, 2015, I set a schedule for filing proposed corrections to the transcript from the issues conference, and objections to the proposed corrections. Proposed transcript corrections were due by September 2, 2015, and were received from Department staff and the municipalities. Objections about the proposed transcript corrections were due by September 25, 2015, and none were received. After considering the proposed corrections, I have corrected the transcript from the issues conference. Spreadsheets identifying the corrections for each day of the issues conference are attached to this issues ruling as Appendix IR-A.

Siting Industrial Hazardous Waste Facilities

This section of the ruling identifies the applicable legal authorities associated with the review of CWM's siting certificate application for the proposed RMU-2 landfill and related modifications to the Model City facility. ECL Article 27, Title 11 sets forth the requirements for siting an industrial hazardous waste treatment, storage, and disposal (TSD) facility such as CWM's proposal. The applicable statutory and regulatory provisions are identified below. In addition, the statute directs the Department to prepare and adopt a plan to guide the siting process (*see* ECL 27-1102). Portions of the 2010 Siting Plan are summarized here in order to provide a context for the proposed issues related to the pending application for the siting certificate.

I. Statute and Regulations

ECL 27-1105 provides that no person may construct or operate any new industrial hazardous waste TSD facility without a siting certificate from the Siting Board (*see also* 6 NYCRR 361.2[a]). The implementing regulations for siting hazardous waste facilities are found at 6 NYCRR Part 361. The regulations establish procedures for constituting the Siting Board. In addition, Part 361 prescribes the form of an application for a siting certificate. The siting criteria established pursuant to ECL 27-1103 are outlined at 6 NYCRR 631.7.

In pertinent part, ECL 27-1105(3)(f) states as follows:

The board shall deny an application to construct or operate a facility if residential areas and contiguous populations will be endangered, if it otherwise does not conform to the siting criteria established for such facility pursuant to section 27-1103 of this title, or upon final adoption of the statewide hazardous waste facility siting plan established pursuant to section 27-1102 of this title, it is not consistent with such a plan or if the need for such facility is not identified in such plan and the board finds that the facility is not otherwise necessary or in the public interest.

ECL 27-1105(3)(f) requires the Siting Board to make four findings, which are divided into two sets. The first set is independent of whether a siting plan has been adopted and, therefore applies to any application for a siting certificate. The second set applies to an application for a siting certificate with the adoption of a siting plan.

With respect to the first two findings, the Siting Board must, therefore, determine:

1. Whether residential areas and contiguous populations will be endangered, and
2. Whether the proposed facility conforms to the siting criteria established in ECL 27-1103.

Prospective intervenors have proposed issues for adjudication concerning the first finding. Each proposed issue is discussed below (*see* **Rulings** § IV.A [Residential Areas and Contiguous Populations] *infra* at 35).

The second finding set forth in ECL 27-1105(3)(f) relates to the siting criteria (*see* ECL 27-1103). The implementing regulations at 6 NYCRR 361.7(b) expand upon the statutory criteria, and provide a scoring system that is designed to quantify the required analysis. Depending on the total score, a determination about whether a proposed facility would meet the siting criteria can be made. Prospective intervenors have proposed issues for adjudication related to various siting criteria. Each proposed issue related to the siting criteria is discussed below (*see* **Rulings** § IV.B [Siting Criteria] *infra* at 39).

With the adoption of a siting plan consistent with the requirements outlined at ECL 27-1102, the Siting Board must make determinations with respect to the second set of findings that are set forth in ECL 27-1105(3)(f). Therefore, the Siting Board must determine:

1. Whether the proposed hazardous waste management facility is consistent with the siting plan, and
2. If the need for such a facility is not identified in the siting plan, whether the facility is otherwise necessary or in the public interest.

Prospective intervenors have proposed issues for adjudication concerning whether CWM's proposal would be consistent with the 2010 Siting Plan. The proposed issues related to

the third finding are discussed below (*see Rulings* § IV.C [Consistency with the Siting Plan] *infra* at 57).

As noted above, pursuant to ECL 27-1102(2)(f), one purpose of the siting plan is to determine the need for any additional hazardous waste management facilities. By its express terms, the fourth finding, as set forth in ECL 27-1105(3)(f), would not apply to an application for a siting certificate when the adopted siting plan concludes that the current facilities are insufficient for the proper long-term management of hazardous waste. In other words, if a siting plan concludes that new or expanded facilities are needed, then the Siting Board would not need to find that a proposed hazardous waste management facility would be otherwise necessary or in the public interest. Under this circumstance, the plan's finding of need would obviate any findings concerning necessity and public interest.

When, as now, the adopted siting plan concludes that additional hazardous waste management facilities are not needed, the statutory requirement set forth at ECL 27-1105(3)(f) applies. Accordingly, in order to grant a siting certificate, the Siting Board must find that the proposed facility would be otherwise necessary or in the public interest. Chapter 9 of the 2010 Siting Plan provides guidance about what may be considered when determining whether a proposed facility would be otherwise necessary or in the public interest. The guidance is summarized in the next section.

Prospective intervenors have asserted that the proposed RMU-2 landfill and related modifications to the Model City facility are not otherwise necessary, or are not in the public interest. To support this assertion, the prospective intervenors have proposed issues for adjudication related to this required finding based on the guidance outlined in the 2010 Siting Plan. Each proposed issue related to the fourth required finding is discussed below (*see Rulings* § IV.D [Otherwise Necessary or in the Public Interest] *infra* at 81). The four required findings outlined at ECL 27-1105(3)(f) are at the center of the Siting Board's consideration of CWM's application for a siting certificate for the proposed RMU-2 landfill and related modifications to the Model City facility.

II. The October 2010 Siting Plan

ECL 27-1102 directs the Department to prepare a hazardous waste facility siting plan. The purpose of the siting plan is to provide a framework to guide State agencies and authorities, and the siting board, in considering siting certificate applications, and to assure the availability of industrial hazardous waste TSD facilities. In October 2010, then-Commissioner Alexander P. Grannis adopted a Hazardous Waste Facility Siting Plan (the 2010 Siting Plan). Copies of the 2010 Siting Plan and related documents are posted on the Department's web site.¹

The introduction to the 2010 Siting Plan (at Page Intro-1) outlines how it was developed consistent with the procedures detailed at ECL 27-1102. The 2010 Siting Plan consists of nine chapters. Chapters 1 through 8 address the content requirements specified in ECL 27-1102(2).

¹ See <http://www.dec.ny.gov/chemical/9054.html>.

Chapter 9 provides guidance based on the detailed analyses presented in the preceding chapters. (See 2010 Siting Plan at Page Intro-1; *see also* ECL 27-1102[1].)

Chapter 1 of the 2010 Siting Plan provides an inventory and appraisal of all industrial hazardous waste TSD facilities located in the State (*see* ECL 27-1102[2][a]). According to the Siting Plan, TSD facilities are located throughout the State, and are regulated pursuant to 6 NYCRR Part 370 *et seq.* In particular, 6 NYCRR Part 373, and its subparts, apply to hazardous waste management facilities, such as the current RMU-1 landfill and the related features at the Model City facility. By federal delegation, New York State implements the federal hazardous waste management program (the RCRA-C program). Therefore, by meeting New York State regulatory and permitting requirements, facilities located in the State also meet federal regulatory and permitting requirements for managing hazardous waste. (See 2010 Siting Plan at 1-1.)

As required by ECL 27-1102(2)(b), Chapter 2 identifies the sources, composition, and quantity of industrial hazardous waste generated in the State, and discusses existing programs for waste reduction, recycling, and reuse. The Department maintains a database of all hazardous waste generated or disposed in the State that requires manifested transportation. (See 2010 Siting Plan at 2-16.)

Estimates of the future generation of hazardous waste in the State and, to the extent feasible, in neighboring states are provided in Chapter 3 (*see* ECL 27-1102[2][c]). These estimates require an analysis of past generation rates and trends. The analysis in Chapter 3 considers the number of generators, the quantity and types of hazardous waste generated, and whether the hazardous waste was managed on-site or off-site. (See 2010 Siting Plan at 3-1.) Hazardous waste that is shipped off-site is directly related to questions of commercial hazardous waste management capacity and, therefore, is of primary concern to the preparation of the Siting Plan. (See 2010 Siting Plan at 3-7.)

Chapter 4 discusses a schedule for phasing out the land disposal of hazardous wastes, other than treated residuals, in compliance with the public policy outlined at ECL 27-0105 (*see* ECL 27-1102[2][d]). ECL 27-0105 sets forth the preferred Statewide hazardous waste management practices hierarchy in descending order. (See 2010 Siting Plan at 4-1.)

The disposal of hazardous waste in a landfill is expressly limited by the land disposal restriction (LDR) regulations. The statutory authorities for promulgating these restrictions are ECL 27-0105, 27-0900 and 27-0912, as well as federal regulations. As noted above, ECL 27-0105 establishes the management practices hierarchy. Pursuant to ECL 27-0900, the Department's regulations must be consistent with federal regulations. ECL 27-0912 specifies the scope of the regulatory framework limiting the land disposal of hazardous waste. Because New York has adopted each of the federal requirements, the State is authorized to administer the federal LDR program. (See 2010 Siting Plan at 4-1.)

LDR standards are based on the best demonstrated available technology (BDAT) (*see* 2010 Siting Plan at 4-6). As a result, the toxicity of treated residuals that are land disposed at a hazardous waste facility are significantly reduced (*see* 2010 Siting Plan at 4-1). According to the

Siting Plan, the land disposal of hazardous wastes that does not meet the LDR standards has been phased out (*see* 2010 Siting Plan at 4-6).

Chapter 5 addresses at ECL 27-1102(2)(f), which require the identification of areas of the State that have compatible hazardous waste generation streams and similar interests in providing regional hazardous waste management and disposal capacity to serve such areas. (*See* 2010 Siting Plan at 5-1.) According to the Siting Plan, the State relies on the private sector to build and operate hazardous waste management facilities. Economic incentives dictate where and how these facilities operate. Consequently, waste management companies operate to maximize the collection of compatible waste streams for processing at centralized hazardous waste management facilities. The Siting Plan concludes that the public policy goal of the Siting Plan statute, which is to identify like wastes to be managed at centrally located facilities, is being met by the generators, transporters, and TSD facilities across the State in a larger, national context. (*See* 2010 Siting Plan at 5-20 to 5-21.)

Chapter 6 of the 2010 Siting Plan addresses the requirements identified at ECL 27-1102(2)(f) including the need for new or expanded hazardous waste TSD facilities. The Siting Plan acknowledges that sufficient capacity must be available to properly treat, store, and dispose of all hazardous wastes generated in New York. The Siting Plan acknowledges further that no one state has all necessary facilities. Consequently, each state is dependent upon others for certain types of hazardous waste treatment and disposal. (*See* 2010 Siting Plan at 6-4.) According to the Siting Plan, interdependence among the states for hazardous waste management and disposal capacity is expected to continue. The Siting Plan notes that EPA has concluded that the focus of hazardous waste management must be on national capacity rather than on state self-sufficiency. (*See* 2010 Siting Plan at 6-6 to 6-7.) Based on its 2009 analysis, EPA determined that national capacity remains available to handle the waste generated in the nation, including New York, at least through 2034 (*see* 2010 Siting Plan at 6-3). Based on the national availability of facilities, the Siting Plan concludes “there is no current or near term need for increased capacity for hazardous waste management in New York State” (*see* 2010 Siting Plan at 6-9).

Chapter 6 also considers environmental justice and the equitable geographic distribution of hazardous waste management facilities. EPA Region II and the Department have issued policies on environmental justice and permitting. DEC Commissioner Policy 29 (CP-29) became effective on March 19, 2003 and is entitled, *Environmental Justice and Permitting*. CP-29 applies to the review of certificates and the permits related to hazardous waste management facilities. (*See* 2010 Siting Plan at 6-10 to 6-11.)

Chapter 7 addresses ECL 27-1102(2)(g), which requires the Siting Plan to analyze transportation routes, as well as the transportation risk and costs associated with the movement of industrial hazardous waste from where it is generated to existing or potentially suitable facilities for treatment, storage, and disposal. Sources of data for the required analyses include the New York State Department of Transportation (NYS DOT), and the United States Department of Transportation (US DOT). Both sources provide a range of road usage statistics. (*See* 2010 Siting Plan at 7-1.) With respect to individual siting certificate applications, the Siting Plan notes that the Siting Board must consider transportation routes and any related impacts on

the local community when evaluating individual applications for either an expansion of an existing facility, or a new facility (*see* 2010 Siting Plan at 7-4, and 7-7).

Chapter 8 addresses the remaining criteria outlined at ECL 27-1102(2) that must be addressed in the Siting Plan. ECL 27-1102(2)(h) requires the preparation of recommendations concerning the regional and Statewide management of hazardous waste including its treatment, storage, disposal, and transport. ECL 27-1102(2)(i) requires the preparation of recommendations about how to periodically update the Statewide hazardous waste facility siting plan, and how to coordinate hazardous waste management and planning on a regional basis. (*See* 2010 Siting Plan at 8-1.) Finally, ECL 27-1102(7) directs the Department to establish a schedule for siting new, or expanding existing hazardous waste treatment, storage, or disposal facilities when the Siting Plan identifies the need for such facilities. The Siting Plan notes that no schedule is necessary in this regard because increased capacity for hazardous waste management is not needed at present. However, the Siting Plan notes further that ECL 27-1105(3)(f) does not preclude the consideration of any application for a new or expanded hazardous waste management facility. (*See* 2010 Siting Plan at 8-3.)

A. 2012/2013 Annual Report

Since its adoption, Department staff annually reviews the 2010 Siting Plan, pursuant to ECL 27-1102(2)(i), to determine whether it should be updated and, as appropriate, provides updates in the its annual report. During the issues conference (Tr. at 128-129), Department staff stated that the 2012/2013 Annual Report was the most recent update to the Siting Plan.

B. 2013/2014 Annual Report

Subsequent to the issues conference, however, DER issued the 2013/2014 Annual Report, which provides an update to the 2010 Siting Plan.² The update provided in the 2013/2014 Annual Report is nearly identical to that provided in the 2012/2013 Annual Report.

DER's 2013/2014 Annual Report notes the following. EPA has not identified a current or projected shortfall in the hazardous waste management capacity on a national level. EPA has not added any new hazardous waste streams. Based on its review of the July 17, 2009, *Statement of Capacity Assurance in State Superfund Agreements*, EPA maintains there is adequate national capacity through December 31, 2034. Interstate and international transport law has not changed in a manner that impacts the 2010 Siting Plan. In addition, the generation and management of hazardous waste in the State have not changed significantly from what was anticipated and presented in the 2010 Siting Plan. The 2013/2014 Annual Report notes that the generation of hazardous waste was higher in 2012 than in recent years due to remedial cleanup actions as anticipated in the 2010 Siting Plan. Finally, Department staff has not identified any significant change in national commercial hazardous waste treatment or disposal capacity, and maintains

² The DER 2013/2014 Annual Report is posted on the Department's web site at http://www.dec.ny.gov/docs/remediation_hudson_pdf/derannualreport.pdf.

that sufficient hazardous waste land disposal capacity exists through at least 2028. Based on the foregoing, Department staff concluded that the existing 2010 Siting Plan remains accurate and does not need any further updates. (See DER 2013/2014 Annual Report at 31-32.)

III. Chapter 9 of the 2010 Siting Plan

Chapter 9 of the 2010 Siting Plan provides the Siting Board with guidance to determine whether:

1. An application for a siting certificate is consistent with the Siting Plan;
2. A proposed facility is otherwise necessary; or
3. A proposed facility is in the public interest.

To address the question of whether a proposed facility would be consistent with the Siting Plan, Chapter 9 offers the following guidance. When considering all types of facilities currently operating, the Siting Plan has concluded that an equitable geographic distribution of facilities across the State exists (*see* ECL 27-1102[2][f]; 2010 Siting Plan at Chapter 6). However, the Siting Plan recommends that a siting board consider the local impacts of any particular type of facility. For example, a Siting Board may consider the history of facility operations and the presence of non-operating facilities, such as closed hazardous waste landfills. (*See* 2010 Siting Plan at 9-4.) According to the 2010 Siting Plan, these factors are also relevant to determining whether a proposed facility would be otherwise necessary or in the public interest (*see* 2010 Siting Plan at 9-5). An additional consideration related to determining consistency with the Siting Plan is whether a proposed facility would promote moving up the hierarchy for managing hazardous waste (*see* 2010 Siting Plan at 9-5; *see also* ECL 27-0105).

The Siting Plan also provides some examples of what may be considered when determining whether a proposed facility is otherwise necessary or in the public interest. The examples outlined in the Siting Plan are illustrative and not exhaustive. (*See* 2010 Siting Plan at 9-5.) The Siting Plan acknowledges that an applicant has the burden in the first instance to demonstrate its proposed hazardous waste management facility would be otherwise necessary or in the public interest, given no actual need for new capacity. (*See* 2010 Siting Plan at 9-5.) Furthermore, the guidance in Chapter 9 of the Siting Plan states that prospective intervenors may develop a record about whether a proposed hazardous waste management facility would be otherwise necessary or in the public interest (*see* 2010 Siting Plan at 9-6).

Rulings

The following addresses the proposed issues outlined in the three petitions for full party status. As discussed in detail below, the parties have raised substantive and significant issues associated with the requested siting certificate, as well as the pending permit applications to

construct and operate the proposed RMU-2 landfill and related modifications to the Model City facility.

I. Standards for Adjudicable Issues

An issue will be adjudicated when applicant and Department staff dispute substantial terms or conditions of the draft permit (*see* 6 NYCRR 624.4[c][1][i]). Absent any disputes between applicant and Department staff, an issue will be adjudicated if it is proposed by a potential party and is both substantive and significant (*see* 6 NYCRR 624.4[c][1][iii]). An issue is substantive if there is sufficient doubt about applicant's ability to meet statutory or regulatory criteria applicable to the project, such that a reasonable person would require further inquiry (*see* 6 NYCRR 624.4[c][2]).

An issue is significant if it has the potential to result in the denial of a permit, a major modification to the proposed project, or the imposition of significant permit conditions in addition to those proposed in the draft permit (*see* 6 NYCRR 624.4[c][3]). When, as here, Department staff has reviewed an application and determined that applicant's project would comply with all applicable statutory and regulatory requirements, as conditioned by the draft permit, the burden of persuasion is on the potential party to demonstrate that any proposed issue is both substantive and significant (*see* 6 NYCRR 624.4[c][4]).

As stated in the May 5, 2014 combined notice, Department staff determined that the application for the pending siting certificate was complete pursuant to 6 NYCRR Part 621.³ However, unlike the pending environmental permit applications, Department staff did not, nor was it required to, make a tentative determination with respect to the siting certificate application. In other words, Department staff did not prepare a draft siting certificate as is the usual practice with respect to the pending environmental permit applications. Nevertheless, the burden of persuasion is on the potential party to demonstrate that any proposed issue related to the pending siting certificate application is both substantive and significant (*see* 6 NYCRR 624.4[c][4]).

With respect to the proof offered by a potential party, its assertions cannot be conclusory or speculative, but must have a factual or scientific foundation (*see Matter of Bonded Concrete*, Interim Decision of the Commissioner, June 4, 1990, at 2; *see also Matter of Ramapo Energy Limited Partnership*, Interim Decision of the Commissioner, July 13, 2001, at 5). Conducting an adjudicatory hearing "where 'offers of proof, at best, raise [potential] uncertainties' or where such a hearing 'would dissolve into an academic debate' is not the intent of the Department's hearing process" (*Matter of Adirondack Fish Culture Station*, Interim Decision of the Commissioner, August 19, 1999, at 8 [*citing Matter of AZKO Nobel Salt Inc.*, Interim Decision

³ During the issues conference, I stated that applications for siting certificates are not subject to the uniform procedures. (Tr. at 598-599.) My statement is incorrect. Pursuant ECL 70-0107(3)(l), and the implementing regulations at 6 NYCRR 621.1(o), applications for siting certificates filed pursuant to ECL Article 27, Title 11, and 6 NYCRR Part 361 to site industrial hazardous waste facilities are subject to the uniform procedures (*see also* 6 NYCRR 361.1[h]).

of the Commissioner, January 31, 1996, at 12]). Moreover, offers of proof, even where supported by a factual or scientific foundation, may be rebutted by the application, the draft permit and proposed conditions, Department staff's analysis, the SEQRA documents, the record of the issues conference, and authorized briefs, among other relevant materials and arguments.

II. Department Staff's Completeness Determinations

On May 5, 2014, Department staff issued a combined notice, as discussed above. The May 5, 2014 combined notice provided notice, among other things, that the permit applications and the draft environmental impact statement (DEIS) related to CWM's proposal are complete for purposes of public review and comment. Petitioners, however, assert that the permit applications and DEIS are incomplete (*see* Municipalities Petition at 92-97; Witryol Petition and Comments at 11-12, 58-59).

A. Completeness of DEIS

When, as here, the Department staff serves as the lead agency (*see* 6 NYCRR 617.2[u]), Department staff must determine whether to accept the DEIS. Accepting a DEIS is a formal act that must be accomplished in the same manner as the lead agency would make other formal decisions. Upon acceptance, the lead agency must issue a notice of completion of the DEIS, which provides an opportunity for public review and comment (*see* 6 NYCRR 617.9[a][3]; 617.12[a][2][iii]). The lead agency's acceptance of the DEIS as complete is a condition precedent to determining whether the permit applications, subject to the required environmental review, are complete (*see* 6 NYCRR 617.3[c][2]).

Ms. Witryol asserts that Department staff's completeness determination concerning the DEIS is in error for the following reasons. First, the May 5, 2014 combined notice did not identify the availability of an air emissions permit. Second, although the May 5, 2014 combined notice identified the availability of a SPDES permit application, CWM had not yet filed a SPDES permit modification application when Department staff issued the combined notice. Because the air emissions permit application and the SPDES permit modification application were not available when Department staff issued the May 5, 2014 combined notice, Ms. Witryol asserts further that the environmental review was inappropriately segmented. (*See* Witryol Petition and Comments at 11-12.) Segmentation (*see* 6 NYCRR 617.2[ag]), should be avoided because it is contrary to the intent of SEQRA (*see* 6 NYCRR 617.3[f][1]).

With reference to the final generic environmental impact statement (FGEIS) supporting the siting plan (accepted October 6, 2010), Ms. Witryol also contends that Department staff's review was not consistent with the 2010 Siting Plan. The FGEIS notes that hazardous waste management facilities often have regulated air emissions and wastewater discharges that require permits from the Department. The FGEIS recommends that Department staff conduct an integrated multi-media review. (*See* FGEIS at 17.)

The municipalities raise a similar procedural concern. They assert that on January 8, 2014, CWM submitted an application to Department staff for an Air State Facility (ASF) permit for existing operations at the Model City facility. The municipalities note that the application did not estimate the potential emissions from the proposed RMU-2 landfill and related modifications to the Model City facility. Given these circumstances, the municipalities argue that the Siting Board and the public cannot evaluate the potential air emission impacts associated with CWM's proposal. (*See* Municipalities Petition at 92-93.) In a similar manner, the municipalities note that the application materials include neither a storm water pollution prevention plan (*see* Municipalities Petition at 96) nor an application to modify the SPDES permit to incorporate the elements of CWM's proposal (*see* Municipalities Petition at 96-97).

As previously noted, Department staff issued a modification and renewal SPDES permit for the Model City facility under cover of a letter dated April 22, 2015. The effective dates of the SPDES permit were from June 1, 2015 to May 31, 2020. Subsequently, with an email dated April 24, 2015, Mr. Darragh circulated a letter dated April 23, 2015 in which CWM asked Department staff to modify the April 2015 SPDES permit to include the proposed RMU-2 landfill and related modifications to the Model City facility. The pending application to modify the SPDES permit is discussed below (*see* **Rulings** § V.D [SPDES Permit and SWPPP] *infra* at 138).

Under cover of a letter dated February 5, 2015, CWM's consultants (Conestoga-Rovers & Associates [Niagara Falls, New York]), filed an application to modify the ASF permit (DEC ID 9-2934-00022/00233) to include the proposed RMU-2 landfill and related modifications to the Model City facility. This filing was subsequent to the date when petitions for full party status were due (*i.e.*, November 24, 2014). The pending application to modify the ASF permit is discussed further below (*see* **Rulings** § V.F [Potential Air Emissions] *infra* at 144).

Discussion and ruling: The DEIS discusses potential adverse impacts to air resources. The DEIS (at 65-69) describes the air quality of Erie and Niagara Counties, and provides meteorological data for the area. According to the DEIS, the Model City facility began air monitoring in 1984, and currently has 6 ambient air monitoring stations. In addition, the facility maintains "non-routine" air monitoring equipment and a meteorological (MET) monitoring system. Since 1984, a variety of potential criteria and non-criteria air pollutants have been monitored and the monitoring data are presented in the DEIS. (*See* DEIS at 69-74.) The DEIS discusses potential adverse impacts to air resources associated with the hazardous waste management operations at the Model City facility (*see* DEIS at 127-131), and the various plans that CWM would implement to control potential air emissions (*see* DEIS at 166-168).

In a similar manner, the DEIS discusses how storm water and wastewater collected at the Model City facility would be treated, as well as the chemical and toxicity analyses that are undertaken before any treated wastewater is discharged from the Model City facility. The DEIS describes further how the Model City facility would be modified if CWM obtains all approvals for its proposal so that storm water and wastewater collected at the Model City facility will be properly treated before discharge. (*See* DEIS at 64-65.) The DEIS (at 127) also references the Engineering Report, which is part of the application materials for CWM's proposal. In addition, § 5.6 of the DEIS (at 165-166) provides some general information about the surface water

management system and the leachate collection system that would be implemented at the site of the Model City facility.

The absence of some of the permit applications related to CWM's proposal prior to the issues conference, does not invalidate Department staff's completeness determination with respect to the DEIS.⁴ As briefly outlined above, the DEIS, in fact, addresses potential adverse environmental impacts to air resources, and ground and surface waters. Mitigation measures are outlined in the DEIS and in the application materials, such as the engineering report.

The content of the DEIS is comprehensive. To assure this outcome, Department staff took advantage of the procedures outlined at 6 NYCRR 617.8(e), and conducted a public scoping session to encourage public participation.

As discussed below, the issues conference participants will have the opportunity to review the application materials concerning the modifications to the ASF permit and to the SPDES permit for the Model City facility. Consistent with the intent of the hearing regulations, the DEIS will not be finalized until after the adjudicatory hearing. Consequently, the public hearing process will be used, as appropriate (*see e.g.*, 6 NYCRR 624.4[c][6][i][b]), to supplement the DEIS before it is finalized (*see* 6 NYCRR 617.11) and the Siting Board and the Commissioner will be able to rely upon the final EIS to make the final determinations about the pending applications related to CWM's proposal. Because the environmental review process is ongoing, no segmentation has occurred. Therefore, I conclude that petitioners have not raised any substantive and significant issues about the procedures that Department staff followed to determine that the DEIS is complete for public review and comment.

B. Completeness of the DEC Permit and Siting Certificate Applications

During the issues conference, Ms. Witryol asserted that both the applications for the permits pending before the Department, and the application for the siting certificate pending before the Siting Board are incomplete. (Tr. at 20-21, 236-238, 400-402, 597-600.) With respect to the SPDES permit, the Municipalities shared this concern. (Tr. at 20. *See also*, Municipalities Petition at 21, note 53.)

Discussion and ruling: ECL Article 70 (Uniform Procedures Act [UPA]) and implementing regulations at 6 NYCRR Part 621 establish uniform review procedures for most of the permit programs administered by the Department. The uniform procedures establish time periods for Department staff's review of the permit applications subject to those procedures. (*See* ECL 70-0101 and 6 NYCRR 621.1.) All of the permits sought by CWM for its proposal are subject to the uniform procedures. Except for the ASF permit (*see* 6 NYCRR 201-5), Department staff identified these permit applications in the May 5, 2014 combined notice. In addition, the permit application for the siting certificate is subject to the uniform procedures. Accordingly,

⁴ The preferred circumstance is to have all permit applications available for public review at the beginning of the public comment period (*see e.g.*, 6 NYCRR 361.3[e][1]).

Department staff also identified the application for the siting certificate, filed pursuant to 6 NYCRR Part 361, in the May 5, 2014 combined notice.

Upon receipt of permit and siting certificate applications, Department staff must determine whether the applications are complete or incomplete. The time that Department staff has to make such a determination depends, in part, on the permits sought. (*See* 6 NYCRR 621.6[c].) The term, “complete application,” is defined in the regulations as:

an application for a permit which is in an approved form and is determined by the department to be complete for the purpose of commencing review of the application but which may need to be supplemented during the course of review in order to enable the department to make the findings and determinations required by law (6 NYCRR 621.2[f]).

Regardless of the completeness determination, Department staff may nevertheless request additional information which is reasonably necessary to make any findings or determinations required by law. These requests must be in writing and explicitly describe the nature of the additional information. (*See* 6 NYCRR 621.14[b].)

With respect to Department staff’s completeness determination, the standards for adjudicable issues expressly state that the completeness of an application will not be an issue for adjudication (*see* 6 NYCRR 624.4[c][7]). The regulation states further that the ALJ may require additional information in order to make any required findings or determinations (*see* 6 NYCRR 624.4[c][7] *citing* 6 NYCRR 621.14[b]). Therefore, by operation of the regulations, petitioners have not raised any substantive and significant issues about the completeness of either the pending permit applications, or the pending application for a siting certificate. To the extent that the petitioners assert that the information presented in the application materials, which is necessary to make findings and determinations required by law, is either incomplete or missing, such assertions are addressed individually below in the context of whether any substantive and significant issues have been raised based on the proposed issues and related offers of proof.

III. CWM’s November 19, 2014 Comments Concerning Demand and Capacity

CWM seeks to challenge the conclusion in the 2010 Siting Plan regarding the lack of need for new or expanded hazardous waste TSD facilities. Specifically, by letter dated November 19, 2014, CWM’s legal counsel comments on the demand and capacity information that Department staff relied upon to prepare the 2010 Siting Plan. RRG, the school board, and the farm bureau respond in their joint petition (at 19-22), received on November 28, 2014. In their joint petition dated November 24, 2014 (at 7), the municipalities note, among other things, that the Siting Plan concludes that additional hazardous waste disposal capacity is not needed in New York for the foreseeable future. Ms. Witryol’s petition and comments (at 9) note likewise.

Based on the discussion held during the December 11, 2014 telephone conference call, the issues conference participants were provided until February 27, 2015 to respond to CWM’s November 19, 2014 letter. RRG filed a letter dated February 26, 2015. With separate letters

dated February 27, 2015, the municipalities and Ms. Witryol responded. With her February 27, 2015 letter, Ms. Witryol also attached supporting information and comments. Department staff filed a response dated February 27, 2015. Additional discussion took place at the issues conference (Tr. at 122-135).

In its November 19, 2014 comments, CWM states that, in May 1994, Department staff submitted to EPA what at that time was the most recent (*i.e.*, 1993) capacity assurance plan (CAP). With reference to pages 17-18 of the 1993 CAP, CWM notes that New York's baseline demand did not include the following: (1) one-time wastes (*i.e.*, remedial wastes); (2) imported wastes; and (3) industrial, non-hazardous wastes. As a result, the 1993 CAP analysis excluded more than 90% of the wastes actually land disposed, according to CWM. CWM argues that the future demand for land disposal capacity was substantially underestimated, and the associated projection related to future needed landfill capacity is unreliable. (*See* CWM November 19, 2014 Comments at 4; CWM February 27, 2015 Response at 18-19).

To support this argument, CWM offered the following. According to the data collected since 1995 at the Model City facility with respect to secure landburial facility (SLF) 12 and RMU-1, CWM found that 98% of its landfill gate receipts were bulk wastes, and that 81% of the bulk wastes were from one-time remedial actions. Based on the calculations presented in CWM's November 19, 2014 letter, the total actual demand for land disposal at the Model City facility from 1993 to 2013 was 3.3 times greater than the estimated total for recurrent and one-time wastes reported by EPA. (*See* CWM November 19, 2014 Comments at 7; CWM February 27, 2015 Response at 21-22).

CWM concludes the actual landfill demand and capacity data demonstrate that additional land disposal capacity is needed, contrary to the conclusion stated in the Siting Plan. CWM asserts further that, as outlined in the Siting Plan, the Department is properly relying on the private sector to determine where and when to develop additional capacity to meet future disposal needs. (*See* CWM November 19, 2014 Comments at 8; CWM February 27, 2015 Response at 22-23).

During the issues conference (Tr. at 129-131), Mr. Darragh offered additional comments on behalf of CWM. According to CWM, the Siting Board has the authority to revisit the capacity question in this proceeding. As support, CWM refers to ECL 27-1105(3)(f). CWM argues that to comply with federal requirements at 40 CFR 271.4(a) and (b), the 2010 Siting Plan cannot conclude that additional disposal capacity is not needed. CWM notes that it filed the application for the proposed RMU-2 facility in 2003, and observes that the siting and permitting process has been ongoing. CWM argues that the 20-year projections in the Siting Plan, as required by ECL 27-1102(2)(c), may not be adequate to provide guidance about whether sufficient future capacity exists. Accordingly, CWM contends that, with respect to the proposed RMU-2 landfill and related modifications to the Model City facility, the Siting Board should consider in this proceeding other factors related to need.

With reference to Chapter 6 of the 2010 Siting Plan (at 6-4, and 6-9), RRG notes that hazardous waste treatment, storage, and disposal facilities can be located within or outside the State and that based, on a national review, sufficient facilities are available to manage all

hazardous waste generated in New York (*see* RRG Petition at 20). In its petition (at 20-21), RRG provides a general outline of the procedures available pursuant to Civil Practice Law and Rules (CPLR) Article 78 for a petitioner to seek judicial review of an administrative determination such as the adoption of the Siting Plan. According to RRG, CWM did not timely file a petition pursuant to CPLR Article 78 to seek judicial review of the 2010 Siting Plan. RRG argues that the time to seek judicial review of the Siting Plan has long expired, and that it is inappropriate for CWM to challenge any finding in the Siting Plan concerning need and capacity in this administrative forum (*see* RRG Petition at 21-22).

RRG argues further that by operation of statute (*see* ECL 27-1102[2][i]), the Department must annually review any adopted Siting Plan. RRG contends that CWM did not raise any objection to the Department's subsequent review of the Siting Plan as provided in DER's annual reports. RRG reiterated its position that it is inappropriate for CWM to challenge in this administrative forum any finding in the DER 2012/2013 Annual Report concerning the Siting Plan (*see* RRG Petition at 22). Finally, RRG notes that CWM did not avail itself of an additional administrative remedy provided by 6 NYCRR 619.1, and request a declaratory ruling from the Department's general counsel about any finding made in either the Siting Plan or the 2012/2013 Annual Report (*see* RRG Petition at 22).

In Mr. Olsen's February 26, 2015 letter, RRG generally restates the arguments presented in its petition. According to RRG, CWM's November 14, 2014 comments do not provide any data that reflect changes which could impact the available capacity to manage hazardous waste in the State, and that Department staff should consider as part of the annual review of the Siting Plan (*see* RRG February 26, 2015 letter at 3-4).

Finally, RRG adopts the information provided in the municipalities' and Ms. Witryol's respective responses, and incorporates, by reference, this additional information into RRG's response. According to RRG, the information offered with the municipalities' and Ms. Witryol's respective responses refutes the factual information enclosed with CWM's November 14, 2014 comments. (*See* RRG February 26, 2015 letter at 4.) RRG concludes by stating that the Siting Plan's finding of excess capacity must control in this administrative forum concerning the pending siting certificate and permit applications (*see* RRG February 26, 2015 letter at 5).

In Mr. Abraham's February 27, 2015 letter, the municipalities assert that CWM provided no new information or evidence with its November 19, 2014 comments to show that the Siting Plan did not fully consider trends in remedial waste generation in the State (*see* Municipalities February 27, 2015 letter at 1). The municipalities contend that the 2010 Siting Plan benefits this administrative proceeding because it obviates any adjudication about whether CWM's proposal is needed. Rather, from the municipalities' perspective, the adjudicatory hearing can focus on whether CWM's proposal is otherwise necessary or in the public interest. (*See* Municipalities February 27, 2015 letter at 3.) According to the municipalities, CWM's assertion that the Siting Plan does not consider the demand for remedial waste is not sufficient to meet its burden to show that the proposed RMU-2 landfill and related modifications to the Model City facility are otherwise necessary or in the public interest. (*See* Municipalities February 27, 2015 letter at 2.)

In Ms. Witryol's February 27, 2015 letter, petitioner states that CWM did not offer any new information about capacity assurance with its November 19, 2014 comments. Ms. Witryol refutes CWM's assertions that the future demand for land disposal capacity has been substantially underestimated, and that associated projections about future needed landfill capacity are unreliable, by presenting additional information and data with her February 27, 2015 response. Based on this information, Ms. Witryol asserts, absent the proposed RMU-2 landfill and related modifications to the Model City facility, there would be 120 years of national permitted capacity and 220 years of total capacity for RCRA waste. If waste regulated by the federal Toxic Substances Control Act (TSCA) is included with RCRA waste, there would be 70 years of national permitted capacity and 130 years of total capacity. Ms. Witryol notes further that since the adoption of the Siting Plan, additional hazardous waste landfill capacity has been permitted in other states.

With an April 15, 2015 email, CWM's counsel circulated to the issues conference participants an electronic copy of the EPA's *National Capacity Assessment Report: Capacity Planning Pursuant to CERCLA Section 104(c)(9)*, dated March 25, 2015. Ms. Witryol said that in general, the capacity evaluation presented in the March 25, 2015 EPA assessment report was very similar to the capacity information provided with her February 27, 2015 response (Tr. at 125). Because EPA's March 2015 capacity evaluation demonstrates that sufficient future disposal capacity exists, Ms. Witryol contends that CWM has not offered any new information that would justify re-evaluating the estimates provided in the Siting Plan (Tr. at 126, 132-133). Ms. Witryol also stated that the time to seek judicial review of the Siting Plan had passed (Tr. at 126).

With a cover letter dated February 27, 2015, Department staff provided, among other things, a response to CWM's November 19, 2014 comments. To determine the RCRA-C hazardous waste and TSCA PCB landfill capacity, Department staff explains that the staff assigned to develop the Siting Plan gathered information from landfill facilities located throughout the northeastern United States. Based on disposal rates and available landfill volumes, the Department determined that capacity for the disposal of hazardous waste in the Northeast would be available until 2028. The determination about capacity is reported in the 2010 Siting Plan in Chapter 6 (at 6-8). According to Department staff, this evaluation and projection of needed capacity was not limited to recurring waste. Department staff explains further that the Siting Plan references EPA's national capacity assessment dated July 17, 2009 (*see* 2010 Siting Plan, Appendix E) to verify other information relied upon.

Furthermore, Department staff notes that no one sought judicial review of the 2010 Siting Plan after its adoption. Department staff argues that it would be inappropriate to reopen the Siting Plan for a *de novo* review in this administrative proceeding. Among other things, Department staff contends that reviewing the Siting Plan in this forum would undermine one of the Siting Plan's purposes, which is to assist the Siting Board in carrying out its obligations under the siting law.

At the issues conference (Tr. at 131-132), Department staff restated its observation that no one sought judicial review of the 2010 Siting Plan after its adoption, and argued that the time

to do so has long since passed. Also, Department staff reiterated its position that reviewing the Siting Plan as part of the administrative hearing would undermine the Siting Plan.

Discussion and Ruling: The 2010 Siting Plan finds that sufficient treatment, storage, and disposal facilities are available on a national level to manage the RCRA hazardous waste generated in New York. Based on this finding, the Siting Plan concludes “there is no current or near term need for increased capacity for hazardous waste management in New York” (2010 Siting Plan at 6-9). CWM, however, objects to the conclusion presented in the Siting Plan concerning the need for additional hazardous waste management facilities in New York, and seeks to challenge in this proceeding the factual bases for that conclusion.

Based on the following procedural grounds, I deny CWM’s request to adjudicate whether sufficient treatment, storage, and disposal facilities are available to manage the hazardous waste generated in New York. First, as many issues conference participants noted, CWM did not seek judicial review pursuant to CPLR Article 78 of the duly adopted 2010 Siting Plan and any subsequent updates provided in the DER’s annual reports. I conclude, therefore, that this proceeding is not the appropriate forum to seek review of the 2010 Siting Plan.

Second, the Department must prepare a siting plan and periodically update it pursuant to the procedures outlined ECL 27-1102. The responsibility to develop and adopt the siting plan rests with the Department rather than with the Siting Board. After the Department adopts the siting plan, its express purpose is to guide the Siting Board, among others, as the Siting Board discharges its responsibilities when reviewing an application for a siting certificate (*see* ECL 27-1102[1]). Although the Siting Board is required to review individual applications for a siting certificate, CWM did not identify, nor could I find, any authority that would authorize the Siting Board to set aside the duly adopted 2010 Siting Plan and related updates to consider CWM’s siting certificate application. Under such circumstances, the Siting Board would be rejecting the guidance provided by the Siting Plan in contravention of ECL 27-1102(1). Although the scope of the Siting Board’s discretion when considering individual siting certificate applications is broad (*see* ECL 27-1105[3][f]), I conclude that the Siting Board lacks authority to substitute its judgment with respect to the 2010 Siting Plan developed and adopted by the Department from a Statewide perspective.

In sum, the conclusions in the 2010 Siting Plan concerning the need for new or expanded hazardous waste TSD facilities are not reviewable in this proceeding. Moreover, CWM has not stated that its offer of proof with respect to need is relevant to any other determinations that the Siting Board is required to make pursuant to ECL 27-1105(3)(f). Therefore, CWM has not raised an issue for adjudication (*see* 6 NYCRR 624.4[c][1][i], [ii]).

IV. Proposed Issues Related to ECL 27-1105(3)(f)

This section discusses the prospective intervenors’ proposed issues associated with the findings that the Siting Board must make pursuant to ECL 27-1105(3)(f).

A. Residential Areas and Contiguous Populations

As previously noted, the Siting Board must find whether the construction and operation of a proposed hazardous waste management facility would endanger residential and contiguous populations (*see* ECL 27-1105[3][f] and 6 NYCRR 361.7[c][4]; *see also* 40 CFR 271.4[a] and [b]).

RRG contends that the proposed RMU-2 landfill and related modifications to the Model City facility presents unacceptable risks to the local population, and therefore would not be otherwise necessary or in the public interest (*see* RRG Petition at 22). To support this proposed issue, RRG offers a report from the New York State Department of Health entitled, *Investigation of Cancer Incidence in the Area Surrounding the Niagara Falls Storage Site and the Former Lake Ontario Ordnance Works, Towns of Lewiston and Porter, Niagara County, New York 1991-2000*, dated September 2008 (DOH 2008 Report) (*see* RRG Petition, Exhibit 5).

In addition, RRG offers the expert testimony of David O. Carpenter, M.D., Director of the Institute of Health and the Environment at the University of Albany (*see* RRG Petition at 23, Exhibit 8; Tr. at 166-169), and Dr. Thomas Hughes, M.D., who is a member of the Niagara County Board of Health (*see* RRG Petition at 25). In RRG's petition, Dr. Carpenter states that it is difficult to identify causes of cancer within a relatively small geographic area, even when statistically significant results are found. Dr. Carpenter states further that when overall rates are increased in a rather small area with environmental contamination, especially contamination with ionizing radiation, there is reason for special concern. When cancer rates in an area are above expected rates, even if the difference in the rates is not statistically significant, Dr. Carpenter asserts that it would not be appropriate to dismiss the elevated rates as demonstrating no association. Dr. Carpenter notes that the data in the report show elevated cancer rates in the study areas, and concludes that these elevated rates are likely due to exposure to radiation and chemicals coming from the Niagara Falls Storage Site (NFSS) and Lake Ontario Ordnance Works (LOOW), which includes the CWM site. (*See* RRG Petition at 24-25.)

Dr. Hughes would testify that, with few exceptions (*e.g.*, mesothelioma), it is not possible for medical science to identify a causative factor for most human cancers. Dr. Hughes acknowledges that causes may include lifestyle, genetics or environmental factors. However, the hazardous chemicals that have been landfilled at the CWM facility, and the waste that would be transported to the proposed RMU-2 landfill "could in fact be the cause of the cancers identified in the NYSDOH study" (RRG Petition at 25). Because the proposed facility is not needed, Dr. Hughes states that it would be "irresponsible and entirely inappropriate" to permit the importation and burial "of 6,000,000 additional tons of hazardous materials" in the community (RRG Petition at 25).

During the issues conference (Tr. at 166), RRG stated that Dr. Carpenter and Dr. Hughes would testify about the following. Dr. Carpenter would testify that the chemicals disposed at the site of the Model City facility are highly carcinogenic. Dr. Hughes would offer similar testimony about the carcinogenic nature of the chemicals if released into the environment.

In her petition, Ms. Witryol proposes a similar issue concerning the potential adverse health impacts associated with the proposed RMU-2 landfill and related modifications to the Model City facility. In addition to submitting the 2008 DOH Report, Ms. Witryol includes emails from DOH that provide a breakdown of the various cancer types in Area 1. (See Witryol Petition and Comments at 14, and Appendix C; Tr. at 202-204). In her petition and at the issues conference, Ms. Witryol did not identify any expert witnesses with respect to this proposed issue.

CWM contends that the proposed issue is not substantive and significant (see CWM Response at 31). To support this contention, CWM references the following: (1) the Siting Board's determination in the *Matter of CECOS International, Inc.*, Application No. 90-85-0551, March 7, 1990; (2) the Siting Board's determination in the *Matter of CWM Chemical Services (RMU-1)*, Application No. 9-2934-00022/00036-0, December 10, 1993; and (3) Department staff's 2013 responsiveness summary for the CWM's 2013 site-wide Part 373 renewal permit application. (See CWM Response at 29-31, and Exhibits 1, 2, and 3.)

With reference to *CECOS* (at 10), CWM argues that the term "endangerment" in the first required finding set forth in ECL 27-1105(3)(f) is implicitly qualified as "significant endangerment." CWM argues further that *CECOS* (at 10) concludes that "the evaluation of this component, unlike many of the siting considerations, must take into account all mitigation measures associated with the project." According to CWM, the Siting Board should treat its assessment of the proposed RMU-2 landfill and related modifications to the Model City facility in the same manner as the former Siting Board treated the proposed *CECOS* facility. CWM contends that the Siting Board should include the mitigating measures outlined in the CWM application documents and the draft permits, as well as Department staff's determination that the proposal would meet all State and federal standards for design and operation of a hazardous waste landfill. CWM notes that the *CECOS* Siting Board concluded, on an engineering basis alone, that the proposed *CECOS* facility would not endanger residential areas or contiguous populations, and argues that the Siting Board considering CWM's pending siting certificate application for the RMU-2 landfill should apply the same rationale. (See CWM Response February 27, 2015 at 29-30 and Exhibit 1 [*CECOS* at 10].) In a similar manner, CWM notes that when the Siting Board considered the siting certificate application for the RMU-1 landfill, the Siting Board concluded that siting the RMU-1 hazardous waste facility would not endanger residential areas and contiguous populations (see CWM Response at 30, and Exhibit 2 [*CWM RMU-1* at 6]).

In February 2010, CWM filed an application with Department staff to renew the site-wide Part 373 permit for the RMU-1 landfill and its related features. The review of the renewal permit application included a public comment period with legislative public statement hearings. The DOH 2008 Report was submitted as part of the public comments, and Department staff prepared a responsiveness summary (see CWM Response, Exhibit 3 at I-62 - I-64). According to CWM, the responsiveness summary concluded that the comments did not support the public's interpretation of the results presented in the DOH 2008 Report. CWM asserts that the offer of proof lacks any showing of an actual exposure pathway, which it argues is essential to showing a risk to contiguous populations. (See CWM Response at 31.)

In the February 27, 2015 response, Department staff states that it consulted with DOH staff before preparing the response. Department staff acknowledges the results presented in the DOH 2008 Report. Department staff states, however, that the report does not offer any information about individual risk factors, which should be considered when attempting to account for variations in cancer incidences. Absent a consideration of risk factors, Department staff asserts that the DOH 2008 Report does not show a cause and effect relationship with respect to the CWM facility. Therefore, Department staff argues that the proposed issue is not substantive and significant. (*See Staff Response at O-10.*)

Department staff proposes that the Siting Board may want to consider the results of the DOH 2008 Report when determining whether the proposed RMU-2 landfill and related modifications to the Model City facility are in the public interest (*see ECL 27-1105[3][f]*). (*See Staff Response at O-10.*)

Discussion and ruling: The report from the DOH entitled, *Investigation of Cancer Incidence in the Area Surrounding the Niagara Falls Storage Site and the Former Lake Ontario Ordnance Works, Towns of Lewiston and Porter, Niagara County, New York 1991-2000*, dated September 2008 (*see RRG Petition, Exhibit 5; Witryol Petition and Comments, Exhibit C*), does not show a cause and effect relationship between the operation of CWM's Model City facility and the number of cancer cases in the three study areas. Moreover, it does not predict that the number of cancer cases in the three study areas would increase if CWM were to obtain all approvals for its proposal.

The report describes the findings of the New York State Department of Health Cancer Surveillance Program's investigation of cancer incidence in three areas near the NFSS and the former LOOW. For the study, Area 1 consisted of census tracts 244.01, 244.04, 244.05, 245.01, and 245.02, which closely correspond to the geographic boundaries of the Lewiston-Porter school district. Area 2 consisted of ZIP code 14174 (Youngstown) and 14131 (Ransomville). Area 3 consisted of ZIP code 14131. The study compared the number of diagnosed cancers cases among all residents in each of the three study areas with the State cancer rates, exclusive of New York City, during the period 1991-2000. (*See RRG Petition, Exhibit 5 at 3.*)

The results are discussed in the body of the report (*see RRG Petition, Exhibit 5 at 5-17*), and summarized in three tables located at the end of the study. (*See RRG Petition, Exhibit 5 at 24-26.*) According to the report, the statistically significant excess cases of prostate cancer in men from Areas 1 and 2 are part of a pattern related to northwestern Niagara County. The report states that the higher proportion of early stage cancers in these areas and the lack of an elevation in late stage cancers suggest that this finding could be due to increased screening for the disease or to other factors related to medical care practices such as increased awareness of early symptoms. (*See RRG Petition, Exhibit 5 at 17.*)

The report concludes that the excess cases of testicular cancer in Areas 1 and 2 do not suggest an association with any residential exposures. The affected men could have attended the Lewiston-Porter schools. The report, however, states that the small number of interviews from this group that were obtained as part of the study do not allow further evaluation of the possible association of these incidences with school attendance. (*See RRG Petition, Exhibit 5 at 17.*)

In Area 1, statistically significant excesses were observed in the number of cases of women diagnosed with cancers of the breast and urinary bladder. According to the report, the excesses were concentrated in older women, who would have been past high school age when the Lewiston-Porter schools opened at the current location. Therefore, this group could not have attended the schools at their current location. (*See* RRG Petition, Exhibit 5 at 17-18.)

With respect to childhood germ cell cancer rates in Area 1, the report states that little is known about the possible causes of cancers in this group. The report states further there is no strong evidence that, in general, childhood germ cell cancers are associated with ionizing radiation or chemical exposures. No interviews of this group were obtained to collect information about school attendance or potential childhood or parental exposures. Therefore, the possibility of environmental exposures contributing to the development of cancer could not be evaluated. The report notes that the excess in childhood cancers was seen primarily among older children. Although, based on age, children ages 10 and over could have attended the Lewiston-Porter schools, interviews showed that some children in this group had not. (*See* RRG Petition, Exhibit 5 at 18.)

Other than the statistically significant excess number of prostate cancer cases found in Area 2, no statistically significant excesses in any other types of cancer among men or women, or among the children evaluated separately, were found in Areas 2 and 3. According to the report, these study areas were chosen to evaluate concerns about possible contaminant exposure in the soil and water (Area 2), and in the air (Area 3). (*See* RRG Petition, Exhibit 5 at 18.)

The report notes that cancer is a common disease that most often occurs in middle-aged and older people (*see* RRG Petition, Exhibit 5 at 16). The report concludes that most types of cancers have many possible causes, including genetics, lifestyle and occupational factors, as well as environmental exposures. According to the report, little information about these factors was available at the time of the study to evaluate any possible contribution of these factors to the excess cancer cases found in the study areas. Finally, the report states that it is not possible to exclude chance as a factor in the excess cases. (*See* RRG Petition, Exhibit 5 at 18.)

Based on the results and conclusions of the DOH 2008 Report and RRG's proffered expert testimony, I conclude that the proposed issue is not substantive (*see* 6 NYCRR 624.4[c][2]). The Department of Health report does not show a causal link between the Model City facility and the incidences of cancer. In addition, Dr. Hughes, the proffered expert witness, acknowledges the absence of a causal link. I note that the purpose of the applicable regulations is to insure the maximum safety of the public from hazards associated with the management of hazardous wastes (*see* ECL 27-1103[1]), which is intended to address Dr. Hughes' concern about the exposure to hazardous wastes from environmental releases (Tr. at 166). Also, Dr. Carpenter's proffer about the carcinogenic nature of the chemicals disposed at the site of the Model City facility (Tr. at 166) does not raise a factual dispute that requires adjudication. Therefore, further inquiry into the inherent hazardous nature of the materials brought to the site to the Model City facility for treatment and disposal is not needed.

At the conclusion of the adjudicatory hearing, the parties will have the opportunity to offer argument about the following topics relevant to whether the proposed hazardous waste management facility would endanger residential areas and contiguous populations. The first topic is whether the administrative precedents referenced by CWM concerning how prior Siting Boards have interpreted the meaning of the term “endanger” (*see* ECL 27-1105[3][f]), should apply, in a similar manner, to this matter. The second topic is whether CWM has met its burden of proof with respect to the first required finding set forth at ECL 27-1105(3)(f).

Finally, a discussion about Department staff’s proposal (*see* Staff Response at O-10) to consider the results of the DOH 2008 Report as part of the public interest determination required by ECL 27-1105(3)(f) is provided below.

B. Siting Criteria

The Siting Board must determine whether the proposed RMU-2 landfill and related modifications to the Model City facility would conform to the siting criteria outlined at ECL 27-1103 (*see* ECL 27-1105[3][f]). The implementing regulations at 6 NYCRR 361.7 expand upon the statutory criteria, and provide a scoring system that is designed to quantify the required determination. Prospective intervenors have proposed issues for adjudication related to various siting criteria.

Although the Siting Board must consider all the siting criteria that apply to CWM’s proposal, an adjudicatory hearing about each siting criterion is not required. The purpose of the following rulings is to identify what additional factual information with respect to specific siting criteria is necessary to supplement what has already been provided in the DEIS and application materials.

1. Transportation

The Siting Board must consider the transportation route from the interstate/limited access highway interchange to the entrance of the facility that vehicles would use to deliver hazardous waste to the facility, and other topics related to transportation. The specific siting criteria related to transportation are the population adjacent to the transport route (*see* 6 NYCRR 361.7[b][2]), and the risk of accident in transportation (*see* 6 NYCRR 361.7[b][3]).

Sections 3.6.3 and 4.6.5 of the DEIS (at 90-93, 133-150) address truck traffic and the noise associated with it. The number of trucks delivering waste to the Model City facility ranges from 20 to 120 trucks per day. According to the DEIS, CWM anticipates no increase in truck deliveries to the Model City facility after the construction of the RMU-2 landfill. (*See* DEIS at 133.)

All trucks are scheduled to arrive during operating hours, and must follow the designated transportation route, which is as follows. When entering Niagara County, trucks must use either New York State (NYS) Route 104 or the NYS Thruway (Interstate 90) north to Route 265, then

north to NYS Route 104. From NYS Route 104 trucks travel to NYS Route 18 (Creek Road). Trucks proceed north on NYS Route 18 (Creek Road) approximately 5 miles to Balmer Road. Trucks turn east on to Balmer Road, and then proceed for about three miles to the guardhouse at the entrance to the Model City facility. The reverse is followed when leaving the facility. All waste haulers must use this route unless the CWM guard directs drivers of empty vehicles north onto NYS Route 18 (Creek Road), then east on Route 93 during school “black out” hours. (See DEIS at 90, 134-135.)

In March 1993, Bettigole, Andrew and Clark, Inc. (Buffalo, New York), prepared a traffic analysis study that assessed potential impacts associated with the RMU-1 landfill (1993 Bettigole Traffic Study). Subsequently, to evaluate current traffic impacts and assess potential traffic impacts associated with the construction of the proposed RMU-2 landfill and related modifications to the Model City facility, CWM retained BBL (Albany, New York) in June 2002 and Arcadis (Syracuse, New York) in April 2007 to supplement and update the 1993 Bettigole Traffic Study. In addition, Wendel Companies (Amherst, New York) performed a traffic impact study dated December 2011 (2011 Wendel Traffic Study). Appendix K to the DEIS includes copies of the 1993 Bettigole Traffic Study, and the 2011 Wendel Traffic Study. (See DEIS at 91, 136-137, and Appendix K.)

In April 1993, Normandeau Associates (Lakewood, New Jersey) presented a noise assessment to evaluate potential noise impacts associated with truck traffic to and from the RMU-1 landfill (1993 Normandeau Assessment). Subsequently, to evaluate the potential traffic noise associated with the proposed RMU-2 landfill and related modifications to the Model City facility, CWM retained BBL in June 2002 to supplement and update the 1993 Normandeau Assessment. Appendix G to the DEIS is a copy of the 1993 Normandeau Assessment. (See DEIS at 92-93, 146; Appendix G.)

In her November 20, 2014 petition (at 4 of 10) and related comments (at 28, 70-76), Ms. Witryol proposes an issue about the 1993 Bettigole Traffic Study, the supplemental data collected by BBL in June 2002 and Arcadis in April 2007, as well as the 2011 Wendel Traffic Study. Ms. Witryol contends that the traffic studies do not fully evaluate the designated transportation route and the potential risks associated with its use.

To support this contention, Ms. Witryol offers the expert testimony of Michelle L. Bodewes, P.E. Ms. Bodewes is a project manager with KHEOPS Architecture, Engineering & Survey, DPC (Buffalo, New York). (See Witryol Petition and Comments, Appendix L [letter dated November 17, 2014].) According to Ms. Bodewes, the description of the designated transportation route in the DEIS (at 134-135) is incomplete. Ms. Bodewes notes that the description does not expressly state that the designated transportation route from I-190 is Exit 25A to Route 265, then to NYS Route 104. Ms. Bodewes notes further that trucks would be prohibited from exiting I-190 from Exhibit 25B to Upper Mountain Road and then to NYS Route 104 because Upper Mountain Road is not a State highway.

Ms. Bodewes observes that the 2011 Wendel Traffic Study excludes Route 265 and NYS Route 104 from its description of the designated transportation route and the analysis. As a result, the 2011 Wendel Traffic Study did not evaluate three intersections located between I-190

and NYS Route 104. Along this section of roadway, these intersections are: (1) the I-190 ramp and Route 265 (Military Road), which is unsignalized; (2) Route 265 and Upper Mountain Road; and (3) Route 265 and NYS Route 104. The latter two intersections are signalized. Ms. Bodewes contends that these three intersections currently experience significantly higher traffic volumes than when initially evaluated in the 1993 Bettigole Traffic Study and the 2011 Wendel Traffic Study. (See Witryol Petition and Comments, Appendix L at 2-3.)

In addition to the lack of data about the three intersections excluded from the 2011 Wendel Traffic Study, Ms. Bodewes identified what she considered to be, other significant omissions. With reference to the DOT Highway Design Manual, Ms. Bodewes argues that the 2011 Wendel Traffic Study should have included a level of service capacity analysis for existing conditions, at the estimated time of completion of the construction of the proposed RMU-2 landfill, and then 20 years and 30 years after the estimated time of completion. Ms. Bodewes notes, however, that the 2011 Wendel Traffic Study only evaluated the conditions in 2011. Ms. Bodewes contends that the traffic count data are insufficient because morning peak hours and mid-day peak hours, based on the traffic data viewer, are 8:00 a.m. to 9:00 a.m. and 12:00 p.m. to 1:00 p.m. The periods evaluated in the 2011 Wendel Traffic Study, however, were 7:00 a.m. to 8:00 a.m. and 11:00 a.m. to 12:00 p.m. Ms. Bodewes contends further that the traffic count data should have been used to develop an annual average daily traffic and design hour volume for each of the analysis years identified above (*i.e.*, present, estimated time of completion, and then 20 year and 30 year post-completion). (See Witryol Petition and Comments, Appendix L at 3-4.)

With respect to risk of accident in transportation (*see* 6 NYCRR 361.7[b][3]), Ms. Bodewes contends that the accident analysis presented in the siting certificate application (*see* Part 361 Application at 48-55) is not complete and, therefore, cannot be relied upon to properly evaluate this criterion. Of particular concern to Ms. Bodewes is that accident rates along the designated transportation route cannot be compared with Statewide averages, and that some of the accident data are not specific to the study area and are, therefore, not applicable. (See Witryol Petition and Comments, Appendix L at 4.)

To correct these defects, Ms. Bodewes recommends that CWM be directed to conduct an accident analysis consistent with the procedures outlined at Section 5.3.4 of the NYS DOT Highway Design Manual using the most recent three years of available accident history for the study area. Ms. Bodewes recommends that the accident rates for each intersection and roadway segment should be calculated as accidents per million entering vehicles (acc/MEV) and accidents per million vehicle miles (acc/MVM), respectively. The accidents can then be analyzed to detect patterns in accident location or type. (See Witryol Petition and Comments, Appendix L at 4.) The scope and nature of Ms. Bodewes' testimony was discussed at the issues conference (Tr. at 507-510).

Also, in her November 20, 2014 petition (at 4-5 of 10) and related comments (at 23-28), Ms. Witryol proposes an issue about the 1993 Normandeau Assessment. Ms. Witryol contends that the analysis in the 1993 Normandeau Assessment, which is based upon the STAMINA 2.0 noise prediction model developed by the Federal Highway Administration (FHWA), is obsolete.

The obsolescence occurred in 1998 when the FHWA replaced the STAMINA 2.0 noise model with the Traffic Noise Model (TNM).

To support this contention, Ms. Witryol offers the expert testimony of David Coate (David Coate Consulting, Pembroke, Massachusetts). According to Mr. Coate, the FHWA made a number of changes in TNM to improve the accuracy of traffic noise level predictions including updates to fleet-wide vehicular “source” noise levels and non-free flow traffic conditions such as truck acceleration. Mr. Coate asserts that results from the 1993 Normandeau Assessment would be different if TNM had been used rather than the STAMINA model. In addition, Mr. Coate notes that the data from the BBL June 2002 supplement are not presented in the DEIS. (*See* Witryol Petition and Comments, Appendix J [letter dated November 13, 2014].)

Mr. Coate also argues that the 1993 Normandeau Assessment is not consistent with the Department’s program policy concerning noise assessments. On October 6, 2000, the Director of the Division of Environmental Permits issued *Assessing and Mitigating Noise Impacts (DEP-00-1)*, revised February 2, 2001. According to Mr. Coate, the sound levels presented in the 1993 Normandeau Assessment are reported as equivalent sound levels (L_{eq}) rather than as a percentile of sound levels (*i.e.*, $L_{(90)}$, where the measured sound pressure levels are exceeded 90% of the time). Mr. Coate notes that DEP-00-1 observes that background noise levels are often expressed as $L_{(90)}$, and asserts that the ambient $L_{(90)}$ are typically lower than the L_{eq} . Mr. Coate concludes that the results reported in the 1993 Normandeau Assessment overestimated ambient noise levels. As a result, Mr. Coate expects that the predicted truck noise levels, during certain operating hours, would have exceeded the 6 dBA increase criteria outlined in DEP-00-1 (at 13). (*See* Witryol Petition and Comment, Appendix J.)

In addition to Mr. Coate, Ms. Witryol offers the testimony of individuals who reside along the Creek Road Extension (NYS Route 18). Appendix K to Ms. Witryol’s petition is a set of surveys from these residents, who would testify about their personal experiences. Based on these surveys, the residents generally find that the volume of truck traffic and the associated noise and dust are either “intrusive” or “very objectionable to intolerable.” (*See* Witryol Petition and Comments at 28, Appendix K.)

Department staff argues, generally, that the proposed issues related to the transportation route and the risk of accident are not substantive and significant issues for adjudication. Department staff acknowledges, however, that additional information about these topics could improve some of the conditions related to the pending site-wide Part 373 draft modification permit. For example, the designated transportation route should state that the only acceptable exit to use from I-190 is Exit 25A because Exit 25B would direct truck traffic onto Upper Mountain Road, which is not a State highway. (*See* Staff Response at W-31; *RE*: W-19 & W-20 [traffic] at 2.)

With respect to alleged deficiencies of the 2011 Wendel Traffic Study, Department staff states that the level of service on the designated transportation route would not go below a level of “C” if CWM obtains all approvals for its proposal. According to Department staff, the number of trucks transporting hazardous waste to the Model City facility that travel on Route 265 and NYS Route 104 is relatively small compared to the overall truck traffic on these routes.

Therefore, Department staff said that the purpose of the 2011 Wendel Traffic Study was a limited analysis of whether the potential traffic impacts on other sections of the transportation route would change from current levels if CWM's proposal is approved. (*See Staff Response RE: W-19 & W-20 [traffic] at 3.*)

Department staff states that it is not clear why the guidance and procedures outlined in the NYS DOT Highway Design Manual must be used with respect to: (1) evaluating additional intersections along the transportation route; (2) including periods, such as the estimated time of completion and later; (3) conducting traffic counts during peak hours; and (4) evaluating the risk of accidents. Department staff concedes that some of these transportation topics are beyond staff's scope of knowledge (*see Staff Response RE: W-19 & W-20 [traffic] at 5-7*). Although Department staff acknowledges that some data gaps exist, Department staff states that the scope and depth of the traffic analysis in the DEIS for CWM's proposal is well developed, particularly when compared to other landfill projects where traffic is not anticipated to increase (*see Staff Response RE: W-19 & W-20 [traffic] at 7*).

DEP-00-1 (*Assessing and Mitigating Noise Impacts*) states that the goal for any permitted activity should be to minimize increases in sound pressure levels above ambient levels at the chosen point of sound reception. DEP-00-1 recommends that sound pressure increases greater than 6 dB may require a closer analysis of potential impacts. (*See DEP-00-1 at 13.*) Department staff observes that the 1993 Normandeau Assessment considered an "expanded operations" scenario with respect to truck noise along the designated transportation route. Under the circumstances of this conservative scenario, the highest modeled increase in sound pressure levels was below 5.5 dBA, which is less than a change of 6 dB. Upon review, Department staff concludes that the analysis in the 1993 Normandeau Assessment is consistent with the Department's guidance. (*See Staff Response RE: W-19 & W-20 [noise] at 2.*)

Finally, Department staff notes that with respect to the RMU-1 landfill, CWM agreed to implement traffic mitigation measures as part of its agreement with the community advisory committee (CAC) to reduce the noise associated with truck traffic, among other things. In the DEIS for the proposed RMU-2 landfill and related modifications to the Model City facility, CWM has agreed, in a similar manner, to limit the maximum number of vehicles delivering hazardous waste on an hourly basis. Based on this agreement, Department staff expects that the noise associated with truck traffic would be mitigated to the maximum extent practicable. (*See Staff Response RE: W-19 & W-20 [noise] at 3.*)

CWM states that it is not seeking to modify the Transporter Rules that are currently part of the 2013 site-wide Part 373 renewal permit for the RMU-1 landfill, and which have been incorporated into the draft permit related to the pending modifications associated with the proposed RMU-2 landfill. In its response, CWM lists the Transporter Rules. (*See CWM Response at 79-80.*)

CWM asserts that its 6 NYCRR Part 361 application provides the data sources used in the analysis, which includes transportation data for the period 2004 to 2012. CWM reports that since 1994, two accidents have been reported. In 2005, a truck rolled on its side at the intersection of Balmer Road and Creek Road (*i.e.*, NYS Route 18). In 2011, a truck collided

with a car on NYS Route 104. According to the police accident report concerning the collision (see CWM Response Exhibit 19), the driver of the car crossed the center line into the path of the truck. CWM contends that about 350,000 waste truck trips into and out of the Model City facility have occurred since 1994. This represents 3 million miles traveled over the designated route with one accident per 1.5 million miles on the 8.75 mile designated route. (See CWM Response at 80.)

With respect to traffic noise, CWM offered Exhibit 20 with its response (see CWM Response at 81). Exhibit 20 consists of the following: (1) a letter dated February 24, 2015 from Justin K. Kellogg, M.S. QEP, Senior Associate at Watts Architecture & Engineering (Buffalo, New York) to Brian M. Stone, P.E., Senior Civil Engineer at ARCASIS U.S., Inc.; (2) a copy of Mr. Coate's November 13, 2014 letter; (3) an article by Harris, Miller, Miller & Hanson, Inc. (Burlington, Massachusetts), entitled, *Comparison of STAMINA2.0/OPTIMA to TNM Results and Effects on Noise Barrier Analysis*, presented at the 2001 International Congress and Exhibition on Noise Control Engineering (The Hague, The Netherlands [August 27-30, 2001]); (4) the CAC Agreement for RMU-1, dated September 23, 1997; and (5) *Assessing and Mitigating Noise Impacts* (DEP-00-1), Revised: February 2, 2001.

Mr. Kellogg states that the original noise analysis used the STAMINA traffic noise prediction computer model, and acknowledges that the FHWA has since replaced the STAMINA model with TNM. Mr. Kellogg argues that because CWM's proposal is neither a federal highway nor a NYS DOT project, the use of one noise model over another is not prescribed. According to Mr. Kellogg, numerous studies have been undertaken to compare the results of STAMINA and TNM, and the comparative studies show that any differences are not significant under the "no-barrier" cases. Mr. Kellogg notes further that the results obtained with the STAMINA model tend to "over-predict" truck traffic noise compared to studies based on TNM. (See CWM Response, Exhibit 20 [Kellogg February 24, 2015 Letter] at 2.)

To support his position, Mr. Kellogg references the paper entitled, *Comparison of STAMINA2.0/OPTIMA to TNM Results and Effects on Noise Barrier Analysis* (see CWM's Response, Exhibit 20). Mr. Kellogg reports that this comparative study shows, on average, that the results using TNM are about 0.3 dB lower than the results using STAMINA. Mr. Kellogg contends that a difference of 0.3 dB is considered negligible and imperceptible to the human ear. Based on the foregoing, Mr. Kellogg asserts that repeating CWM's noise analyses using TNM would not lead to any significantly different results. (See CWM Response, Exhibit 20 [Kellogg February 24, 2015 Letter] at 2.)

With respect to reporting sound levels as $L_{(90)}$ instead of L_{eq} , Mr. Kellogg states that it would be inappropriate to express sound levels as $L_{(90)}$ because the results would be artificially low, and would tend to exclude sounds from louder vehicles such as trucks, which are at issue here. According to Mr. Kellogg, $L_{(90)}$ and L_{eq} are completely different units of measure, and such comparisons would be like comparing apples to oranges. Mr. Kellogg states that expressing sound levels as $L_{(10)}$ and L_{eq} have been found to be useful descriptors of the sound from road traffic. According to Mr. Kellogg, reporting sound levels as L_{eq} and $L_{(10)}$ are widely used when planning traffic schemes. Mr. Kellogg notes that neither STAMINA nor TNM would output noise level results in $L_{(90)}$. Mr. Kellogg notes further that the Department's policy (DEP-00-1)

does not consider reporting sound levels as $L_{(90)}$ for traffic noise. (See CWM Response, Exhibit 20 [Kellogg February 24, 2015 Letter] at 2-3.)

Discussion and ruling: In addition to the siting criteria at 6 NYCRR 361.7(b) concerning the transportation route and the risk of accident in transportation, Chapter 7 of the 2010 Siting Plan expressly notes that with respect to individual siting certificate applications, the Siting Board must consider transportation routes and any related impacts on the local community when evaluating applications for either an expansion of an existing facility or a new facility (see 2010 Siting Plan at 7-4; 7-7).

No prospective intervenor has proposed any issue with respect to altering the current designated transportation route used from the interstate highway to the Model City facility. The draft permit concerning the proposed RMU-2 landfill and related modification to the Model City facility incorporates the previously developed conditions that would require trucks traveling to CWM to continue to use the designated transportation route if CWM obtains all necessary approvals for its proposal. The clarification that trucks traveling to the Model City facility must use Exit 25A from I-190 to access Route 265 is noted for the record.

Ms. Wityrol did not raise a substantive and significant issue with respect to the 1993 Bettigole Traffic Study, and the updated information reported in the 2011 Wendel Traffic Study (see DEIS at 91, 136-137, Appendix K). I conclude that the proposed issue is not substantive (see 6 NYCRR 624.4[c][2]) for the following reasons. First, the petition, in general, and the proffered expert, Ms. Bodewes, in particular, did not explain why the procedures outlined in the NYS DOT Highway Design Manual should be relied upon to essentially redo the referenced traffic analyses prepared on CWM's behalf. Accordingly, petitioner did not meet her burden of persuasion with respect to this proposed issue (see 6 NYCRR 624.4[c][4]).

Second, I note that the data related to the number of truck trips, the levels of service at intersections along the designated transportation route, and any accident reports associated with the current RMU-1 landfill are either referenced or presented in the DEIS and application materials. The data have been collected since operations began in 1993, and represent a substantial historical record that may be relied upon to make the required determinations. The DEIS and application materials state that the level of operation at the Model City facility would not increase if CWM obtains all approvals for its proposal. Accordingly, no further inquiry into this proposed issue is necessary (see 6 NYCRR 624.4[c][4]).

With respect to the 1993 Normandeau Assessment and the June 2002 BBL supplement, I conclude that Ms. Witryol has raised a substantive and significant issue for adjudication. The proposed issue is substantive (see 6 NYCRR 624.4[c][2]) for the following reasons. First, competing expert opinions about whether to use the STAMINA model or TNM, lead me to inquire further about the reliability of the results from the 1993 Normandeau Assessment and the June 2002 BBL supplement. During the issues conference, Mr. Coate said that his review of the article entitled, *Comparison of STAMINA2.0/OPTIMA to TNM Results and Effects on Noise Barrier Analysis*, which CWM included as part of Exhibit 20 to its response, did not change his position with respect to the use of TNM. Mr. Coate noted that, since 1998, revisions to TNM have taken place. Given these revisions, Mr. Coate said that no one would use the outdated

STAMINA model to conduct any noise study. (Tr. at 488-489.) Second, I am also persuaded by the survey data offered in Appendix K to Ms. Witryol's petition. Although limited, the survey data in Appendix K and the differing expert opinions about which computer model to use lead me to conclude that additional information about potential noise impacts is needed.

The proposed issue is significant (*see* 6 NYCRR 624.4[c][3]) because it may result in the imposition of significant permit conditions different from those proposed in the draft permit. Pursuant to the terms of the 2013 site-wide Part 373 renewal permit for the RMU-1 landfill, CWM limits the number of trucks per hour to mitigate potential noise impacts. Depending on the outcome of the adjudication, these permit conditions may need to be revised.

I recognize that the level of operation at the Model City facility is not expected to increase if CWM obtains all approvals for its proposal. I am making a distinction, however, between whether an acceptable level of service and safety would be maintained along the designated transportation route, and whether the receptors (*i.e.*, local residents) can tolerate the noise from the truck traffic using the designated transportation route. For the reasons stated above, the former question is not an issue for adjudication, and the latter is an issue for adjudication.

In advance of the adjudicatory hearing, CWM shall update the 1993 Normandeau Assessment and the June 2002 BBL supplement (*see* DEIS, Appendix G) using the most recent version of TNM, and in a manner consistent with the guidance outlined in the Department's *Assessing and Mitigation Noise Impacts (DEP-00-1)*. Before CWM undertakes the update, I request that the parties' representatives allow their respective expert witnesses to convene a technical conference to work out the details of how to update the noise assessments. At the adjudicatory hearing, I will not need to hear any testimony from the lay witnesses proffered in Appendix K to Ms. Witryol's petition. As discussed above, the proffered testimony was sufficient to demonstrate that the proposed issue was substantive and significant. The inquiry at the hearing will be whether the results of the updated noise assessment would show sound pressure increases greater than 6 dB (*see* DEP-00-1 at 13) at the relevant receptors and, if so, how any draft permit conditions should be revised to further mitigate potential noise impacts from truck traffic.

I have considered Ms. Witryol's written comments concerning compliance with 6 NYCRR Parts 450 through 454 (*see* Witryol Petition and Comments at 23), as well as rail transport and other modes of transport for hazardous waste (*see* Witryol Petition and Comments at 33-35), and the related discussion at the issues conference (Tr. at 401-402, 502-505, 509-520) concerning these topics. With respect to the requirements outlined at 6 NYCRR Part 450 through 454, Ms. Witryol offered nothing to show that compliance with these regulations would not be met. Consequently, the petition did not meet her burden of persuasion (*see* 6 NYCRR 624.4[c][4]). I note that CWM's proposal does not include a rail transport component. Accordingly, a consideration of rail transport would not be relevant to this proceeding. Therefore, I conclude there are no substantive and significant issues for adjudication with respect to these topics.

2. Municipal Effects

The Siting Board must consider whether the proposed hazardous waste management facility would be consistent with the intent of the municipal master land use plan (*see* 6 NYCRR 361.1[c][12]), and with local laws, ordinances, rules and regulations that have not been adopted pursuant to a master land use plan. In addition, the short and long-term financial effects of the proposed facility must be considered. Factors relevant to this consideration include increased tax revenues and the added burden of providing services to the proposed facility. (*See* 6 NYCRR 361.7[b][6].)

The Model City facility is located along the shared border of the Towns of Porter and Lewiston. All existing hazardous waste management areas are within the central portion of the Model City facility, and are located entirely within the Town of Porter. In the Town of Porter, this area is zoned M-3, Heavy Industrial, and this zoned area allows waste management activities, including landfill operations. The footprint of the proposed RMU-2 landfill would be located entirely within the Town of Porter where the area is zoned M-3. The portion of the site of the Model City facility located in the Town of Lewiston is zoned I-2, Heavy Industrial. (DEIS at 90.)

To construct the proposed RMU-2 landfill and related modifications to the Model City facility, CWM would have to obtain the following approvals from the Town of Porter Zoning Board: (1) site plan approval; (2) a special permit for excavations; and (3) a building permit to construct the new Heavy Equipment/Facility Maintenance Building and the Drum Management Building. (DEIS at 9.)

On November 8, 2010, the Town Board of the Town of Porter adopted a revised Zoning Law. The revisions, however, made no substantive changes to the zoning regulations applicable to the Model City facility. The Town of Porter Comprehensive Plan was updated in 2004. Because the site of the proposed RMU-2 landfill would be located entirely within the existing operational area of the Model City facility, which is zoned M-3, Heavy Industrial, CWM argues that its proposal would be consistent with the intent of the master land use plan. According to CWM, the master land use plan states that CWM's operations should be confined to the current M-3 zone. (*See* Part 631 Application at 59.)

RRG contends that the proposed RMU-2 landfill and related modifications to the Model City facility would not be consistent with the master plans of the host communities. To support this contention, RRG references the *Niagara Communities Comprehensive Plan 2030: A Plan to Communicate, Collaborate & Connect Niagara County, New York* (July 2009).⁵ According to RRG, the purpose of the Niagara County plan is to provide a framework to achieve the following goals: (1) encourage desirable and appropriate growth and development; (2) strengthen the local economy; (3) improve the delivery of services; (4) prioritize and coordinate capital improvements; and (5) improve the quality of life for county residents. (*See* RRG Petition at 42.)

⁵ The Niagara County plan, in portable document format (PDF), can be found at the following URL: www.niagaracounty.com/Portals/0/docs/NCComopPlan/Final_NiagCommCompPlan.pdf.

With reference to the Niagara County plan, RRG identifies numerous inconsistencies between CWM's proposal and the Niagara County plan, and lists the inconsistencies on pages 43-44 of the RRG petition. The inconsistencies relate to the community profiles, as described in the Niagara County plan, for the Towns of Porter and Lewiston, and the Villages of Lewiston, Youngstown and Wilson. Also, the inconsistencies include issues related to land use and the environment, economic development, and public health and safety. (See RRG Petition at 42-44.)

In addition, RRG asserts that CWM's proposal would be inconsistent with numerous provisions of the comprehensive plan for the Town of Porter (see *Comprehensive Plan for the Town of Porter: Connecting Our Past with the Future* [Final Draft Plan - August 2004]). One of the five principles outlined in the Town of Porter comprehensive plan is to improve the quality of the environment, in part by limiting the potential impacts related to the Model City facility. (See RRG Petition at 44-45.) According to RRG, Action 18 of the comprehensive plan (at 24) calls for the Town to "limit future expansion of CWM in the Town of Porter" (see RRG Petition at 45).

Like RRG, the municipalities cite similar sections from the Town of Porter's comprehensive plan, such as Action 18 (*A Comprehensive Plan for the Town of Porter* at 24), in their petition (at 114). The municipalities observe that the information presented in CWM's 6 NYCRR Part 361 application (at 28-29) provided information on the consistency of current operations with the Town's zoning laws. According to the municipalities, CWM does not address whether the Town would approve the proposed RMU-2 landfill and related modifications to the Model City facility. (See Municipalities Petition at 114-115.)

In her petition and comments (at 14), Ms. Witryol identifies the comprehensive plan for the Town of Porter as Appendix F (*A Comprehensive Plan for the Town of Porter: Connecting Our Past With the Future* [Final Draft Plan – August 2004]), and the comprehensive plan for the Town of Wilson as Appendix G (*Town and Village of Wilson Comprehensive Plan* [October 2012]). The Town of Wilson, which borders Lake Ontario, is located east of the Town of Porter. At the issues conference, Ms. Witryol said that she included the comprehensive plan for the Town of Wilson in her petition because Twelve Mile Creek, which runs through the site of the Model City facility, also flows through the Town of Wilson (Tr. at 310) to Lake Ontario.

Ms. Wityrol contends that the existing Model City facility and CWM's proposal are incompatible with the goals and objectives of its host towns. To support this contention, Ms. Wityrol provides a brief history about the zoning changes in the Towns of Porter and Lewiston as they relate to the Model City facility.

In 2001, the Town of Porter rezoned the central portion of the site of the Model City facility where the proposed RMU-2 landfill would be located. Ms. Wityrol states that the town rezoned the site, according to some reports, on the belief that it could do nothing to stop the Department from approving the pending applications for the siting certificate and permits. Subsequently, the Town of Porter entered into a host benefit agreement that essentially precluded it from adopting zoning adverse to CWM. Ms. Witryol reports that three of five board members voted in favor of the host benefit agreement. Of those three, two did not seek re-election, and the third person lost his re-election bid as a result. (See Witryol Petition and Comments at 60.)

With respect to the Town of Lewiston, Ms. Witryol states that the zoning law expressly discourages hazardous waste management facilities of any type, particularly landfills. The Town prefers “residential or other clean uses” (*see* Witryol Petition and Comments at 60). Ms. Witryol argues that CWM’s proposal would be inconsistent with Town of Lewiston Code (Lewiston Code) Chapter 195 concerning hazardous waste, and that the noise from trucks using the designated transportation route may violate Lewiston Code Chapter 195, which is the Town’s noise ordinance (*see* Witryol Petition and Comments at 85-86).

According to Ms. Witryol, the DOH 1972 Order placed a deed restriction on the site of the Model City facility. Subsequently, the DOH Commissioner amended the DOH 1972 Order on June 21, 1974 (DOH 1974 Amendment). Ms. Witryol contends that CWM has violated the terms and conditions of the DOH 1972 Order and the DOH 1974 Amendment with each new, deeper, and larger landfill (secure landburial facility [SLF]) installed at the site. Ms. Witryol contends further that the construction of the proposed RMU-2 landfill would also violate the terms and conditions of the DOH 1972 Order and DOH 1974 Amendment. (*See* Witryol Petition and Comments at 86-87.)

Public expense/revenue tradeoffs is a component of the municipal effects siting criterion (*see* 6 NYCRR 631.7[b][6][ii][c]). According to Ms. Witryol, the public expense associated with CWM’s proposal would be greater than the public revenue that could be expected over the short- and long-term. Ms. Witryol notes that in the 1992 siting certificate application for the RMU-1 landfill, CWM projected \$5.1 million associated with the New York State hazardous waste tax. However, subsequent to obtaining the approval for the RMU-1 landfill, Ms. Witryol states that CWM sued the State about the tax, and that the State lost when the Court voided the statute that originally authorized the tax. (*See* Witryol Petition and Comments at 88.) As a result, Ms. Witryol contends that the State has lost “tens of millions of dollars in accumulated funds” (*see* Witryol Petition and Comments at 88).

Ms. Witryol asserts that CWM did not evaluate any tradeoffs concerning public expenses and revenues as required by the siting criteria (*see* 6 NYCRR 361.7[b][6][ii][c]). Rather, CWM added in private revenue and excluded all public expenses, according to Ms. Witryol. In her petition and comments, Ms. Witryol provides two tables. The first is entitled, *Public Expenses and Revenue Trade Off from CWM*. The second is entitled, *State of New York Public Revenue/Exp. Tradeoff*. (*See* Witryol Petition and Comments at 90-91.) During the issues conference, Ms. Witryol explained that the first table includes all public revenue (Tr. at 629-630), and that the second table isolates only the State’s share because the Siting Board is considering an application for a State certificate (Tr. at 630). The second chart does not include gross receipts taxes because such taxes are paid to the Towns and not to the State (Tr. at 630).

According to the first table (*see* Witryol Petition and Comments at 90), the net public loss from CWM from 2007 to 2012 is about \$1.5 million. To support her analysis, Ms. Witryol provides a copy of a memorandum from the US Department of Transportation (US DOT) dated June 13, 2014 entitled, *Guidance on Treatment of the Economic Value of a Statistical Life (VSL) in U.S. Department of Transportation Analyses – 2014 Adjustment* (*see* Witryol Petition and Comments at 90, notes 51 and 52; Appendix V). For the same period the loss to New York State

from CWM is about \$270,000, according to Ms. Witryol. (*See* Witryol Petition and Comments at 89-91.)

Based on her professional experiences in the banking industry, and her extensive volunteer work on matters related to CWM, Ms. Witryol proffers her testimony with respect to the topics related to this siting criterion. With her petition, Ms. Witryol includes her resume. In addition, Ms. Witryol also provides a copy of the resume for Audrey Agnello, Professor of Accounting at Niagara County Community College. Among other degrees, Professor Agnello holds a Master in Business Administration from Niagara University. According to the petition, Professor Agnello would testify about “financial disclosure verification, application deficiency” (*see* Witryol Petition and Comments at 4 of 10). It is not clear from the petition and comments, however, that the testimony from Professor Agnello is offered about this proposed issue and, if so, what the scope of that testimony would be. (*See* Witryol Petition and Comments at 3 of 10.)

According to Department staff, these matters are within the scope of the Siting Board’s authority because they relate to the siting criterion (*i.e.*, 6 NYCRR 631.7[b][6][ii][c]). Department staff states that where appropriate, staff would be available to provide technical assistance in evaluating these proposed issues. (*See* Staff’s Response at O-15, W-76, W-139.) Also, Department staff asserts that the Department has no direct legal authority over matters of local law (*see* Staff’s Response at A-94).

CWM states that the public revenues associated with permit fees, property and business taxes, and employee salaries and taxes should far exceed public expenses that are likely to be incurred with the development of the proposed RMU-2 landfill and related modifications to the Model City facility. CWM notes that it provides its own security and safety services. Also, CWM provides training for local fire and ambulance districts who may respond to the site in the event of fire or emergency. (*See* Part 361 Application at 60.)

According to CWM, it will assume the costs associated with establishing and maintaining a comprehensive regulatory program for its proposal. CWM notes that the Department annually assesses regulatory program fees pursuant to ECL 72-0101 and ECL 27-0923, which CWM pays, among other fees and taxes. In table format, CWM lists the various local taxes, State program fees, State sales taxes, charitable contributions, some expenditures, and its payroll expenses from 2007 to 2012. Also, CWM notes that it will provide financial assurance guarantees to cover the costs associated with closure, and of perpetual post-closure care. In summary, CWM states that the public revenues associated with its proposal will far exceed the public expenses that are likely to be incurred over the short and long-term. (*See* Part 361 Application at 60-62; *see also* DEIS at 98-100.)

CWM asserts that the proffer concerning the public expense/public revenue comparative analysis in Ms. Witryol’s petition is not sufficient to raise a substantive and significant issue for adjudication. According to CWM, no source documents are provided to support the public expense items presented in the table on page 90 of Ms. Witryol’s petition. CWM asserts further that the analysis includes inapplicable expenses, and understates the public revenues that CWM pays. (*See* CWM Response, Item 9 at 92-94.)

Discussion and Ruling: The participants discussed compliance with local zoning and the land use plans during the issues conference (Tr. at 307-312). I take official notice (*see* 6 NYCRR 624.9[a][6]) of the master plan for the Town of Porter.⁶ Also, I take official notice of the Niagara County plan identified in RRG's petition.⁷

In addition, I conclude, as a matter of law, that the land use plan for the Town and Village of Wilson (*Town and Village of Wilson Comprehensive Plan* [October 2012]) is not relevant to this proceeding. The proposed RMU-2 landfill and related modifications would not be located in either the Town or Village of Wilson. Proposed issues concerning potential adverse impacts to Twelve Mile Creek are addressed below, and do not require a consideration of Wilson's comprehensive plan.

The prospective intervenors have not raised any factual disputes that would require adjudication about whether CWM's proposal would be consistent with the relevant master land use plans. At the conclusion of the hearing, however, the parties will have the opportunity to provide legal argument about the following questions.

1. Whether *The Niagara Communities Comprehensive Plan 2030: A Plan to Communicate, Collaborate & Connect Niagara County, New York* (July 2009) is relevant to the municipal effects siting criterion at 6 NYCRR 361.7(b)(6) based on the definition of the term, *master land use plan*, as it is defined at 6 NYCRR 361.1(c)(12).
2. If the Niagara County plan is relevant to the municipal effects siting criterion at 6 NYCRR 361.7(b)(6), whether CWM's RMU-2 landfill proposal would be consistent with it.
3. Whether the CWM's RMU-2 landfill proposal would be consistent with the August 2004 comprehensive plan for the Town of Porter.

Until I obtain a copy of the comprehensive plan for the Town of Lewiston, I reserve on whether the parties will have the opportunity to brief the question of whether CWM's proposal would be consistent with the comprehensive plan for the Town of Lewiston. Also, I conclude that whether CWM's proposal would comply with the DOH 1972 Order and the DOH 1974 Amendment is beyond the scope of this siting criterion.

Finally, I conclude that Ms. Witryol did not raise a substantive and significant issue for adjudication about that component of the municipal effects siting criterion concerning the

⁶ *A Comprehensive Plan for the Town of Porter: Connecting Our Past With the Future* [Final Draft Plan – August 2004]). An electronic copy, in portable document format (PDF), can be found at <http://townofporter.net/about-porter/master-plan/>. I was not able to find an electronic copy of the Town of Lewiston's comprehensive plan on the Town's website. Accordingly, CWM shall provide the issues conference participants and me with either a hard copy of the plan or a URL for the electronic version upon receipt of these rulings.

⁷ *The Niagara Communities Comprehensive Plan 2030: A Plan to Communicate, Collaborate & Connect Niagara County, New York* (July 2009) is available as a PDF, and can be found at the following URL: http://www.niagaracounty.com/Portals/0/docs/NCCompPlan/Final_NiagCommCompPlan.pdf

balance between public expenses and public revenues (*see* 6 NYCRR 361.7[b][6][ii][c]). In her petition, Ms. Witryol did not explain how or why she chose the costs and expenditures presented in the tables on pages 90 and 91, and the references for the values of the cost and expenditures presented in the two tables. In addition, the petition does not include an explanation about the significance of relying on the June 2014 US DOT guidance document, particularly because no one contends that CWM's proposal is a US DOT funded project. From the petition, it is not clear who, if anyone, would present expert testimony about the proposed issue. For the foregoing reasons, I conclude that the offer of proof presented in the petition, with respect to this proposed issue, is insufficient to inquire further. Accordingly, petitioner did not meet her burden of persuasion with respect to this proposed issue (*see* 6 NYCRR 624.4[c][4]).

3. Ground and Surface Waters

The Siting Board must consider the potential for ground water and surface water contamination as a result of the construction and operation of the proposed facility. This criterion requires the Siting Board to consider the potential onsite and off-site effects, and the proposed mitigation for any adverse impacts to ground and surface waters. (*See* 6 NYCRR 361.7[b][7].)

In their petition (at 21-38), the municipalities assert that the site-wide Part 373 permit modification application materials are deficient concerning the site hydrogeology. As a result, the municipalities contend that CWM has not correctly identified the ground water flow direction and rate. Without knowing the direction of the ground water flow and the rate of flow, the municipalities contend further that the locations for the ground water monitoring wells cannot be properly determined. The municipalities have proposed additional issues for adjudication concerning the movement of contaminants in the ground water on the site that may migrate off the site. With respect to surface waters, the municipalities have proposed issues related to the requested SPDES modification permit, and the pending application for a water quality certification. (*See* Municipalities Petition at 74-92, 96-97.)

In addition to joining with the municipalities with respect to the proposed ground water issues, Ms. Witryol proposes issues about CWM's proposal to fill in portions of the regulated State freshwater wetlands associated with Twelve Mile Creek (*see* Witryol Petition and Comments at 92), and the discharge of PCBs, among other contaminants, from the Model City facility (*see* Witryol Petition and Comments at 64, Appendix M).

Discussion: These proposed issues are addressed below. To the extent that the proposed issues are substantive and significant, a factual record about them will be developed during the adjudicatory hearing. The Siting Board will be able to review the factual record about the adjudicated issues and, as appropriate, rely on that record during the evaluation of this siting criterion.

4. Air Impacts

The Siting Board must take into account air quality problems that may result from the operation of the proposed facility, or from accidental fires and explosions that may occur. The Siting Board must also consider potential air quality problems that may occur as a result of historical or predicted meteorological conditions, and determine whether these conditions could adversely impact neighboring communities. (*See* 6 NYCRR 361.7[b][10].)

In their petition (at 92-96), the municipalities assert that potential air impacts have not been adequately assessed. At the center of the proposed issue is the identification of all potential air emission sources on the site of the Model City facility and the inventory of potential air emissions from these sources (Tr. at 78-79, 88-96). Since the issues conference, the participants have exchanged information about the sources and nature of air emissions from the site of the Model City facility, and the air monitoring data that CWM has collected since 1980 (Tr. at 79).

At present, CWM has an air State facility permit. Depending on the outcome of the exchange of information, the total potential air emissions from the Model Site facility may be such that CWM would need to apply for a Title V air emissions permit.

Ms. Witryol joins in the proposed issue concerning total potential air emissions (*see* Witryol Petition and Comments at 62, 100-101). In addition, Ms. Witryol asserts that the measures undertaken by CWM to reduce the possibility of fires, reactions and explosions have been inadequate. Ms. Witryol notes that fires occurred at the site of the Model City facility in June and July 1994. (*See* Witryol Petition and Comments at 62.) (Tr. at 109-112.)

Discussion: These proposed issues are addressed below. To the extent that the proposed issues are substantive and significant, a factual record about them will be developed during the adjudicatory hearing. The Siting Board will be able to review the factual record about the adjudicated issues and, as appropriate, rely on that record during the evaluation of this siting criterion.

5. Mineral Exploitation

The Siting Board must take into account areas of prior mineral exploitation. In general, areas of concern are those where resources have been extracted by various procedures. The siting criterion explains that areas of prior mineral exploitation present limitations to the design and construction of disposal facilities. For example, prior excavations may be close to, or at, the level of the ground water table. Excavations, soil borings and uncased wells may provide a means of transmitting hazardous materials to ground water. Structural instability and subsidence may result from the subsurface extraction of minerals and ground water. (*See* 6 NYCRR 361.7[b][11].)

With respect to this siting criterion, Ms. Witryol proposes an issue concerning the significance of clay mining on the quality of life in the Town of Lewiston. Ms. Witryol asserts that CWM is a major contributor to the demand for clay from mines located in the Towns of

Porter and Lewiston. The adverse impacts from mining activities include flooding, dust, noise, and truck traffic. According to Ms. Witryol, these adverse impacts are exacerbated by the number of clay mines in the area and the lack of oversight by the Department. Ms. Witryol includes a table in her petition (at 103) with the following information from the Department's database: (1) the number of acres being mined in the Towns of Porter and Lewiston, in Niagara County, and in New York State; (2) the life of mines in these three respective areas; (3) and the acres reclaimed in these three respective areas. Ms. Witryol contends that many mined areas are not properly reclaimed, which expose the locally high water table to potential contaminants. Ms. Witryol notes that many unreclaimed clay pits are in the vicinity of the site of the Model City facility. (*See* Witryol Petition and Comments at 101-104; Tr. at 413-422.)

In support of this proposed issue, Ms. Witryol offers the testimony of Michael Drahms. Mr. Drahms owns property on Ridge Road in the Town of Lewiston. Mr. Drahms' property is adjacent to a clay mine. Mr. Drahms would testify about the activities he has observed at the clay mine adjacent to his property, and the adverse impacts that he and his family have suffered as a result of the operations there. (*See* Witryol Petition and Comments at 5 of 10; Tr. at 413-414, 417, 419-420.)

At the issues conference, RRG joined in this proposed issue. According to RRG, the impacts, particularly from truck traffic, are significant. RRG asserts that the community's quality of life is adversely impacted by these mining activities. (Tr. at 416.)

With respect to the site of the Model City facility, CWM states no records exist concerning any subsurface mineral exploitation. According to CWM, the risk of subsidence is extremely low. (*See* Part 361 Application at 77.) At the issues conference, CWM argued that the Department regulates mining activities, and that Department staff reviews permit applications for such activities pursuant to all applicable statutes and regulations including the environmental review required by SEQRA. (Tr. at 415-416.)

At the issues conference, Department staff noted the following. First, Department staff said that CWM has not filed and, therefore, staff is not reviewing, any mining permit application for CWM's proposal. Second, Department staff noted that the Department regulates mining activities and a review of any mining permit application would include a review consistent with SEQRA. (Tr. at 416-417.)

Discussion and ruling: The proposed issue exceeds the scope of this siting criterion. This siting criterion was not intended to consider mineral extractions that occurred, or could occur, off-site of the proposed facility. Rather, I conclude that the intended scope of this siting criterion is limited to mineral extractions from the site of the Model City facility, which is approximately 710 acres (*see* CWM Engineering Report at 5). Based on the maps provided in the petition, the locations of the potential sources of clay, if local materials were used, would not be from the site of the Model City facility, and would not be from properties adjoining the site (*see* Witryol Petition and Comments at 101, 103). Accordingly, petitioners have not raised a substantive and significant issue about this siting criterion.

6. Preservation of Endangered, Threatened and Indigenous Species

This criterion requires the Siting Board to focus on adverse impacts of the facility on endangered, threatened, and indigenous species or critical habitat for wildlife generally, and the extent to which mitigation measures can be effectively implemented (*see* 6 NYCRR 361.7[b][12]).

According to Ms. Witryol, potential off-site impacts to freshwater wetlands, surface water, and air resources are relevant to this siting criterion. Ms. Witryol contends further that segments along Lewiston Road and Creek Road Extension (NYS Route 18) on the designated transportation route provide important habitat for those species associated with the Niagara Escarpment. As offers of proof, Ms. Witryol provides a list of rare plants in Appendix P to her petition. (*See* Witryol Petition and Comments at 105, and Appendix P.) Ms. Witryol notes further that the Department and DOH have issued advisories about consuming fish taken from the Niagara River below the falls (*see* Witryol Petition and Comments at 106.)

In addition, Ms. Witryol offers the expert testimony of Margaret Wooster, Ph.D., Watershed Planner (*see* Witryol Petition at 4 of 10). Dr. Wooster's Ph.D. is in English. However, Dr. Wooster has other graduate degrees, according to her resume. Among them are a Master in Urban Planning (1988) from the State University of New York at Buffalo, and a Planning Certification (1996) from the American Institute of Certified Planners. In addition to these academic credentials, Dr. Wooster's work experiences include serving as a Senior Environmental Planner at Buffalo-Niagara Riverkeeper, and Executive Director of Great Lakes United.

At the issues conference, Ms. Witryol restated her position about the scope of this siting criterion. In addition, Ms. Witryol explained that the Dr. Wooster would testify about the potential off-site impacts of CWM's proposal on the aquatic habitat, microorganisms, and fish in Four Mile Creek, Twelve Mile Creek, and the Niagara River. Ms. Witryol clarified that she is not asserting any factual disputes about the flora and fauna, endangered or otherwise, on the site of the Model City facility. (Tr. at 595-598.)

In June 2012, CWM's consultant (edr Companies) inquired whether Department staff had any information documenting the presence of endangered and threatened plants and wildlife on the site of the Model City facility. In addition, inquiry was made about the presence of any important ecological communities that may be present on the site. To facilitate the search, CWM's consultant provided a copy of the Ransomville USGS quadrangle, and on it marked the locations of the proposed RMU-2 landfill and the proposed mitigation site. After reviewing the New York Heritage Program database, Department staff responded with a letter dated July 3, 2012. Department staff found no records of rare or State listed plants or animals, significant communities or other significant habitats on, or in the immediate vicinity of, the site. (*See* DEIS, Appendix E.)

Discussion and ruling: Given Ms. Witryol's clarification at the issues conference, there are no factual disputes about the flora and fauna on the site of the Model City facility that require adjudication in relationship to the criterion outlined at 6 NYCRR 361.7(b)(12). Rather, the issue

concerning this siting criterion is a legal one as to its scope. In other words, whether it would be appropriate, as Ms. Witryol argues, to include potential off-site impacts to freshwater wetlands, surface water, and air resources.

As with the previous siting criterion concerning areas of mineral exploitation, I conclude that the scope of the proposed issue is too broad. I note first that the emphasis of the siting criterion is on endangered and threatened species, or critical habitat on the property owned by the project sponsor. Neither Ms. Witryol nor her proffered expert, Dr. Wooster, has asserted that endangered and threatened species are located either on the site of the Model City facility, or off-site in Four Mile Creek, Twelve Mile Creek, and the Niagara River. No one has contended that areas of Four Mile Creek, Twelve Mile Creek, and the Niagara River are critical habitat. Also, as noted above, Department staff did not find any records of rare or State listed plants or animals, significant communities or other significant habitats on or in the immediate vicinity of the site (*see* DEIS, Appendix E).

Second, another siting criterion considers potential impacts to surface waters (*see* 6 NYCRR 361.7[b][7]), and expressly requires the Siting Board to consider on-site as well as off-site effects. As noted above, the proposed issues related to ground water are addressed below. To the extent that the proposed issues are substantive and significant, a factual record about the potential impacts to ground and surface waters will be developed during the adjudicatory hearing. The Siting Board will be able to review the factual record about the adjudicated issues, and as appropriate, rely on that record during the evaluation of the siting criterion concerning potential impacts to surface waters (*i.e.*, 6 NYCRR 361.7[b][7]).

Finally, I note that Ms. Witryol did not provide sufficient information to support her contention that segments along Lewiston Road and Creek Road Extension (NYS Route 18) on the designated transportation route provide important habitat for those species associated with the Niagara Escarpment. With respect to this component of the proposed issue, petitioner did not meet her burden of persuasion (*see* 6 NYCRR 624.4[c][4]).

7. Additional Siting Criteria

Additional siting criteria are outlined at 6 NYCRR 361.7(b). These criteria relate to the following topics: (1) population density (*see* 6 NYCRR 361.7[b][1]); (2) utility lines (*see* 6 NYCRR 361.7[b][5]); (3) water supply sources (*see* 6 NYCRR 361.7[b][8]); (4) fire and explosions (*see* 6 NYCRR 361.7[b][9]); (5) historic and cultural resources (*see* 6 NYCRR 361.7[b][13]); and (6) open space, recreational, and visual impacts (*see* 6 NYCRR 361.7[b][14]). Each criterion, as outlined in the regulations, identifies general and specific considerations.

Discussion and ruling: As noted above, the Siting Board must consider all the siting criteria that apply to CWM's proposal. However, an adjudicatory hearing to either develop a factual record or resolve factual disputes with respect to the remaining siting criteria is not required. To the extent that the petitions propose additional issues with respect to these remaining siting criteria (*see e.g.*, Witryol Petition and Comments at 107-109), I conclude that petitioners have not met

their respective burden to show that any additional proposed issues concerning the siting criteria are substantive and significant issues for adjudication (*see* 6 NYCRR 624.4[c][4]).

C. Consistency with the Siting Plan

The Siting Board must determine whether the proposed RMU-2 landfill and related modifications to the Model City facility would be consistent with the adopted siting plan established pursuant to ECL 27-1102 (*see* ECL 27-1105[3][f]; ECL 27-1103[2][a]). In its 6 NYCRR Part 361 application, CWM discusses how its proposal would be consistent with the 2010 Siting Plan.

With reference to the final generic environmental impact statement (FGEIS) developed in support of the 2010 Siting Plan (accepted October 6, 2010), and to the 2010 Siting Plan, CWM argues that consistency with the Siting Plan should be interpreted to mean that in-state need is not a requirement which an applicant must demonstrate. Rather, CWM contends that a proposed facility would be consistent if the sponsor demonstrates that a national market is available for the services it would provide, and that the proposed facility would conform to the applicable siting criteria and technical requirements of the permit programs administered by the Department. (6 NYCRR Part 361 Application at 16.)

CWM references the 2010 Siting Plan to demonstrate that its proposal would be consistent with it. Although the Siting Plan concludes that no schedule for siting any new or expanded facilities is needed, CWM notes, however, that neither the ECL nor the Siting Plan precludes the consideration of an application for any new or expanded facility in the State (*see* 6 NYCRR Part 361 Application at 17 *citing* 2010 Siting Plan at 8-3).

In addition, CWM states that primary and remedial hazardous wastes will continue to be generated in New York and, according to the Siting Plan, will require land disposal. Although the amount of primary hazardous waste generated from 1996 to 2008 has generally decreased, the Siting Plan concludes that the need for land disposal would continue for the next twenty years. Also, CWM notes that the Siting Plan states that the amount of remedial waste fluctuates from year to year, but a need for off-site disposal remains, nevertheless. (*See* 6 NYCRR Part 361 Application at 19, *citing* 2010 Siting Plan at 3-31 to 3-32, 6-2.)

CWM argues that the Siting Plan does not preclude the siting of new or expanded hazardous waste management facilities sponsored by the private sector. To date, CWM observes that the private sector has constructed and operated facilities at locations that were not predetermined by the State. Also, the Department is required to first look to the private sector to construct and operate these facilities (*see* ECL 27-1109[5]). CWM concludes that the proposed RMU-2 landfill and related modifications to the Model City facility are, therefore, consistent with the Siting Plan. (*See* 6 NYCRR Part 361 Application at 20.)

In order for the Department to maintain its approved RCRA delegation, CWM argues further that the Siting Plan requires the Siting Board's determinations to be consistent with 40 CFR 271.4(a) and (b). According to CWM, its proposal would be consistent with the Siting Plan

because it would conform to the siting criteria outlined in 6 NYCRR 361.7(b), as well as the technical RCRA requirements incorporated into 6 NYCRR Part 373. (*See* 6 NYCRR Part 361 Application at 21.) CWM's February 27, 2015 response substantially restates these arguments concerning the consistency of CWM's proposal with the 2010 Siting Plan (*See* CWM Response at 10-18, 26-29.)

Chapter 9 of the 2010 Siting Plan offers the following guidance to address whether a proposed facility would be consistent with the Siting Plan. When considering all types of facilities currently operating, the Siting Plan has concluded that an equitable geographic distribution of facilities across the State exists (*see* ECL 27-1102[2][f], and 2010 Siting Plan at 6-12 to 6-15, 9-4). The Siting Plan recommends, however, that a siting board take into account the local impacts of any particular type of facility, and offers the following examples of what may be considered. The board may consider the history of facility operations and the presence of non-operating facilities, such as closed hazardous waste landfills.⁸ (*See* 2010 Siting Plan at 9-4.) In addition, the guidance provides for a consideration of whether a proposed facility would promote moving up the hierarchy for managing hazardous waste (*see* ECL 27-0105; 2010 Siting Plan at 9-5).

With respect to the proposed RMU-2 landfill and related modifications to the Model City facility, prospective intervenors have proposed issues about the following: (1) the geographic distribution of hazardous waste landfills in New York State (*see* RRG Petition at 38-39; Witryol Petition and Comments at 11); (2) the RMU-1 landfill and other hazardous waste landfills at the site of the Model City facility (*see* RRG Petition at 38; Witryol Petition and Comments at 10); (3) environmental justice (*see* RRG Petition at 37-38); (4) CWM's compliance history (*see* RRG Petition at 33-36); and (5) whether CWM's proposal would promote moving up the hierarchy for managing hazardous waste as outlined at ECL 27-0105 (*see* RRG Petition at 39-41; Municipalities February 27, 2015 letter at 3-4; Witryol Petition and Comments at 43-47). The guidance offered in the 2010 Siting Plan contemplates a consideration of these proposed issues, and the discussion about them follows.

1. Geographic Distribution of Hazardous Waste Landfills

RRG contends that CWM's proposal would not be consistent with the 2010 Siting Plan because the geographic distribution of hazardous waste landfills in the State is inequitable. RRG states that between 1972 and 1987, the site of the Model City facility has been owned by three different corporations. They were ChemTrol Pollution Services, Inc., Service Corporation of America (*aka* SCA), and CWM Chemical Services, Inc., the current owner. During this period, RRG asserts that these corporations permanently buried in excess of 700,000 tons of a broad range of dangerous chemicals in various landfills.⁹ Since 1987, about 8 million additional tons of hazardous materials have been landfilled at the site of the Model City facility. This period includes the operation of the RMU-1 landfill. (*See* RRG Petition at 38.)

⁸ According to the Siting Plan (at 9-5), these factors are also relevant to determining whether a proposed facility would be otherwise necessary or in the public interest.

⁹ The regulatory term is *secure landburial facility* (SLF) (*see* 6 NYCRR 370.2[b][169]).

If the Siting Board approves the proposed RMU-2 landfill and related modifications to the Model City facility, RRG contends that the community would experience the burden of approximately 15 million more tons of permanently buried toxins. According to RRG, no other community in New York State has even come close to enduring such an unsustainable environmental burden, which requires constant and perpetual monitoring and care. RRG takes issue with the meaning of the term “perpetual.” RRG argues that the financial assurance, currently required by the terms of the current 2013 site-wide Part 373 renewal permit for the RMU-1 landfill, and which have been incorporated into the draft permit for CWM’s proposal, is inadequate. RRG argues further that CWM will not exist forever, but asserts that the hazardous materials now buried on the site of the Model City facility will remain there forever. (*See* RRG Petition at 38-39; Tr. at 162-163.) Accordingly, RRG argues that the Siting Board should deny the pending siting certificate application (*see* RRG Petition at 39).

Ms. Witryol similarly contends that CWM’s proposal would not be consistent with the 2010 Siting Plan because the geographic distribution of hazardous waste landfills in the State is inequitable. According to Ms. Witryol, the total inventory of hazardous waste buried in Niagara County is 11 million tons. Except for those permitted in Niagara County, Ms. Witryol notes that no other hazardous waste landfill has been permitted in New York. Ms. Witryol argues that this disparity demonstrates that the standard concerning the equitable geographic distribution of hazardous waste landfills would not be met if the Siting Board were to approve CWM’s proposal. (*See* Witryol Petition and Comments at 11; Tr. at 611.)

CWM argues that the 2010 Siting Plan included the Model City facility in considering the geographic distribution of facilities across the State. Based on that consideration, CWM contends that petitioners’ arguments about the geographic distribution of a particular type of hazardous waste management facility, and whether that distribution is equitable, are unrealistic and inconsistent with the Siting Plan. Because the Siting Plan considers the national hazardous waste market place where large facilities serve large geographic areas, CWM contends further that petitioners’ approach would not be feasible. According to CWM, such an approach would assure essentially no future capacity in New York, which is antithetical to the statutory purpose of the Siting Plan. (*See* CWM Response at 25; Tr. at 161.)

CWM notes that New York has relied on the private sector to build and operate hazardous waste management facilities consistent with the requirements outlined at ECL 27-1109(4). CWM notes further that private sector facilities look for customers within and beyond the State’s borders to obtain economies of scale. CWM concludes that the amount of hazardous waste generated in the State and the amount managed are not directly related. (*See* CWM Response at 26, *citing* 2010 Siting Plan at 5-7.)

Discussion and ruling: The proposed issue is a legal one concerning the scope of the Siting Board’s discretion to consider the geographic distribution of various types of hazardous waste management facilities when determining whether CWM’s proposal would be consistent with the duly adopted 2010 Siting Plan. In pertinent part, Chapter 9 of the Siting Plan (at 9-4) states that:

[t]he Siting Board should consider the local impacts of any particular type of facility. The Facility Siting Board may use as guidance the criteria employed in the Plan to evaluate the equitable geographic distribution, but is not limited by these criteria.

Pursuant to ECL 27-1102(2)(f), the siting plan must consider the equitable geographic distribution of facilities after determining the number, size, type, and location by area of the State where new or expanded industrial hazardous waste TSD facilities will be needed. Chapter 6 of the Siting Plan complies with this requirement in the following manner. First, because no new or expanded hazardous waste management facilities are needed, the Siting Plan concludes that no evaluation is required concerning the geographic distribution of facilities. (*See* 2010 Siting Plan at 6-12.)

Nevertheless, recognizing the legislative directive in ECL 27-1102(2)(f), the Siting Plan undertakes the following analysis. With respect to evaluating areas of the State, the Siting Plan considers the Department's nine administrative regions. Then, the Siting Plan considers three definitions of the term, "industrial TSD facilities." The first definition considers the total number of TSD facilities in New York in 2008, which was 189 facilities. The second definition considers the number of TSD facilities in New York receiving hazardous waste from off-site in 2008, which was 20 facilities. The third definition considers the number of commercial TSD facilities in the State operating in 2008, which was 13 facilities. The total number of industrial TSD facilities, based on these three definitions, are distributed among the Department's nine administrative regions. These distributions are provided in three figures presented in the 2010 Siting Plan. (*See* 2010 Siting Plan at 6-12 to 6-14, and Figures 6-3, 6-4, and 6-5.)

In this evaluation, each of the three definitions of the term, *industrial TSD facilities*, includes the treatment, storage, and disposal facilities grouped together rather than individual types of facilities, such as landfills, for example. Information about the distribution of individual types of hazardous waste facilities is not provided in the 2010 Siting Plan.

Although the guidance offered in Chapter 9 of the 2010 Siting Plan refers to the evaluation criteria applied in Chapter 6 to determine the equitable geographic distribution of hazardous waste management facilities, the guidance, as noted above, expressly states that the Siting Board "is not limited by these criteria" (2010 Siting Plan at 9-4). I conclude, therefore, that the guidance presented in the 2010 Siting Plan provides the Siting Board with discretion about how to consider the equitable geographic distribution of CWM's proposal among the other hazardous waste management facilities located in New York. The scope of the Siting Board's discretion is discussed below.

Contrary to CWM's argument about distinguishing among the types of hazardous waste management facilities, I note that ECL 27-1102(2)(f) requires the Siting Plan to consider the types of hazardous waste management facilities, in addition to other characteristics. Also, I am persuaded by RRG's arguments concerning the extended nature of the post-closure care requirements associated with a hazardous waste landfill, as a disposal facility (*see* 6 NYCRR 370.2[b][49] and 370.2[b][111]), compared with other types of hazardous waste management

facilities that may not have similar, long-term, post-closure requirements.¹⁰ Accordingly, I conclude that the Siting Board has the discretion to consider, in particular, the equitable distribution of hazardous waste landfills in the State in determining whether CWM's proposal would be consistent with the 2010 Siting Plan as required by ECL 27-1105(3)(f). The scope of this issue, and the other issues related to whether CWM's proposal would be consistent with the 2010 Siting Plan, is outlined below (*see Rulings* § IV.C.6 [Summary] *infra* at 79).

2. Other Hazardous Waste Landfills at the Site of the Model City Facility

As noted above, when determining whether CWM's proposal would be consistent with the Siting Plan, the Siting Board may consider the history of facility operations and the presence of non-operating facilities, such as closed hazardous waste landfills (*see* 2010 Siting Plan at 9-4). A summary from RRG's petition concerning the history of operations at the site of the Model City facility is presented above as part of the discussion related to the geographic distribution of hazardous waste landfills (*see also* RRG Petition at 38). Ms. Witryol's petition and comments also provide some factual details about the operations associated with SLFs 1-6, 7, 10-12, and the RMU-1 landfill on the site of the Model City facility. The details include the periods when the respective secure landburial facilities and the RMU-1 landfill operated, the acreage of each facility, and the tons of hazardous waste disposed at each facility. (*See* Witryol Petition and Comments at 10; Tr. at 159.) Similar information concerning the land disposal of hazardous wastes at the site of the Model City facility is presented in the DEIS at 10-12.

Discussion and ruling: The information presented in the DEIS and by the issues conference participants outlines the history of prior operations at the site of the Model City facility, which includes the presence of non-operating facilities. No one substantially disputes the facts associated with these prior activities. (Tr. at 157-158.) Accordingly, an adjudicatory hearing to develop a factual record about those activities is not necessary.

In conjunction with the discussion presented above concerning the geographic distribution of hazardous waste landfills, the Siting Board may, therefore, rely upon these undisputed facts related to prior land disposal activities at the site of the Model City facility in determining whether CWM's proposal would be consistent with the 2010 Siting Plan.

The intended scope of the guidance offered in Chapter 9 of the 2010 Siting Plan is not clear concerning what is meant by "the history of facility operations" (2010 Siting Plan at 9-4). The example provided in Chapter 9, however, advises that the Siting Board may consider "the presence of non-operating facilities, such as closed hazardous waste landfills" (2010 Siting Plan at 9-4). Therefore, I am distinguishing between the facts associated with prior land disposal activities and the associated presence of non-operating facilities at the site of the Model City facility from CWM's record of compliance. The latter topic is discussed below (*see Rulings* § IV.C.4 [Record of Compliance] *infra* at 64).

¹⁰ I recognize that CWM's proposal includes more than the construction and operation of the proposed RMU-2 landfill. If approved, however, the proposed RMU-2 landfill would be a significant component of how CWM would manage hazardous wastes at the site of the Model City facility.

3. Environmental Justice

Environmental justice focuses on improving the environment quality of minority and low-income communities by addressing the disproportionate adverse environmental impacts that may exist in those communities. On March 19, 2003, then Commissioner Erin M. Crotty issued Commissioner Policy-29 (CP-29) entitled *Environmental Justice and Permitting*. CP-29 applies to the permit application review process and the environmental review required by SEQRA (*see* ECL Article 8; 6 NYCRR Part 617). The purpose of CP-29 is to assist Department staff, the regulated community, and members of the public to understand the requirements and the nature of the permit application review process. (*See* CP-29 at 1.)

CP-29 applies to the review of permit applications to construct and operate industrial hazardous waste management facilities filed pursuant to ECL Article 27, Title 9, and implementing regulations at 6 NYCRR 373. CP-29 also applies to the review of applications for a siting certificate of environmental safety and public necessity filed pursuant to ECL Article 27, Title 11, and implementing regulations at 6 NYCRR 361. (*See* CP-29 at 7.) A section of Chapter 6 of the 2010 Siting Plan (at 6-10 to 6-11) includes a discussion about environmental justice considerations, and incorporates, by reference, the guidance outlined in CP-29 into the Siting Plan.

The DEIS concludes that the site of the Model City facility is not located in an area containing significant minority or low-income communities. Department staff's preliminary review of Niagara County shows no potential environmental justice areas in the Town of Porter based on 2010 US Census Bureau data. Based on 2010 US Census Bureau data, the DEIS reports that the Tuscarora Indian Reservation may be a potential environmental justice area. According to the DEIS, the Tuscarora Indian Reservation is 3.5 miles south of the site of the Model City facility, and the designated transportation route does not pass near this area.¹¹ (*See* DEIS at 150-151.)

In addition to a consideration of the guidance outlined in CP-29, the DEIS reports that the directives outlined in US Presidential Executive Orders concerning environmental justice matters and EPA guidance on the topic have been applied to the review of the pending federal approvals. These pending federal approvals relate to authorization for PCB disposal, pursuant to TSCA. (*See* DEIS at 151.)

RRG asserts, however, that the discussion in the 2010 Siting Plan concerning environmental justice presents a "cursory treatment," of the concept, and characterizes it as a civil rights issue (RRG Petition at 37). According to RRG, the discussion ignores significant scholarship which has found that new hazardous waste management facilities tend to be sited in areas where massive facilities already exist. To support this assertion, RRG cites the following scholarly authorities:

¹¹ In a letter dated October 19, 2015, Chief Leo Henry, Clerk, Tuscarora Nation, offered comments about the accuracy of the information presented in § 4.6.6 of the DEIS, among other things.

1. Thomas H. Fletcher, *From Love Canal to Environmental Justice: The Politics of Hazardous Waste on the Canada-U.S. Border*, Broadview Press, 89 (2003);
2. Douglas S. Noonan, Douglas J. Krupka, & Brett M. Baden, *Neighborhood Dynamics and Price Effects of Superfund Site Clean Up*, Journal of Regional Science, Vol. 47, No. 4, 665-692 (2007); and
3. James T. Hamilton, *Testing for Environmental Racism: Prejudice, Profits, Political Power?* Journal of Policy Analysis and Management, Vol. 14, No. 1, 107-132 (1995).

Based on the above referenced authorities, RRG argues that the Siting Board should deny the pending siting certificate based on regional equity and environmental justice grounds. (*See* RRG Petition at 37-38; Tr. at 162.)

Department staff contends that RRG's challenge, as outlined in the petition, about the adequacy of the environmental justice discussion in the 2010 Siting Plan is untimely because the Siting Plan was adopted in October 2010. Staff also asserts that challenges to the 2010 Siting Plan are beyond the scope of this proceeding. According to Department staff, to the extent necessary, the 2010 Siting Plan follows the guidance outlined in CP-29, as well as any federal guidance or legal requirements concerning the implementation of federal public policies related to environmental justice. (*See* Staff Response at O-24.)

At the issues conference, Department staff said that staff followed the guidance outlined in CP-29 and conducted a preliminary screening to identify whether the site of the Model City facility is in, or near, a potential environmental justice area. Based on that preliminary screening, Department staff did not find a potential environmental justice area as defined in CP-29. (Tr. at 17-18.)

Ruling and Discussion: As a preliminary matter, I rule that RRG's challenge, as outlined in the petition, about the adequacy of the environmental justice discussion in the 2010 Siting Plan is untimely because the Siting Plan was duly adopted in October 2010. The time to petition for judicial review of the 2010 Siting Plan, pursuant to CPLR Article 78, has passed. Furthermore, once adopted, challenges to the Siting Plan are beyond the scope of this administrative proceeding, as concluded above.

The guidance in the Department's environmental justice policy directs Department staff to conduct a preliminary screening upon receipt of a permit application. The methodology for conducting the preliminary screening is outlined in Section III.B of CP-29. The purpose of the preliminary screening is to determine whether a proposed action would be in, or near, a potential environmental justice area. To undertake this initial screening, Department staff relies on an integrated geographic information system (GIS) and demographic application using census block groups to identify a potential environmental justice area. (*See* CP-29 at 7.)

A census block group means a unit that the US Census Bureau uses for reporting. Each group generally contains between 250 and 300 housing units. (*See* CP-29 at 3.) A potential

environmental justice area means a minority or low-income community that may bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies (*see* CP-29 at 7). Minority and low-income communities are determined using US Census Bureau criteria or data. For example, a low-income community means a census block group, or a contiguous set of census block groups, where the low-income population is equal to or greater than 23.59% of the total population. This percentage is based on 2000 US Census Bureau data. (*See* CP-29 at 3.)

If the initial screening does not identify any census block group, or groups, meeting the thresholds for a potential environmental justice area, CP-29 concludes that the proposed action is not likely to affect a potential environmental justice area. Based on that conclusion, Department staff may continue the permit review process independent of the guidance outlined in CP-29. (*See* CP-29 at 7.)

No one challenged the results of Department staff's preliminary screening with respect to the site of the Model City facility as it relates to the proposed RMU-2 landfill and related modifications. I conclude, therefore, that Department staff properly followed the guidance in CP-29. As a result, Department staff is not required to undertake any further analysis with respect to environmental justice considerations. Moreover, Department staff has followed the guidance outlined in the 2010 Siting Plan concerning the application of CP-29 to the review of the pending siting certificate application. I note that any concerns about whether CWM's proposal would comply with federal environmental justice requirements, as they relate to pending federal approvals, are beyond the scope of this proceeding.

I find that the RRG's arguments related to environmental justice would be better characterized as part of the equity issue already identified and discussed above concerning the geographic distribution of hazardous waste landfills (*see Rulings* § IV.C.1 [Geographic Distribution of Hazardous Waste Landfills] *supra* at 58), and the history of land disposal activities at the site of the Model City facility (*see Rulings* § IV.C.2 [Other Hazardous Waste Landfills at the Site of the Model City Facility] *supra* at 61).

4. Record of Compliance

On August 8, 1991, then-Commissioner Thomas C. Jorling issued Commissioner Policy DEE-16: *Record of Compliance Enforcement Policy*. DEE-16 was later revised on March 5, 1993. The purpose of the policy is to ensure that persons not suitable to carry out responsibilities under the permit programs administered by the Department are not subsequently authorized to do so. The guidance set forth in DEE-16 is applied on a case by case basis. (*See* DEE-16 at 1.) DEE-16 expressly references ECL 27-0913(3), which sets forth the criteria that the Commissioner may use to deny, suspend, revoke or modify any hazardous waste permit (*see* DEE-16 at 3).

The guidance states that Department staff will initially consider State or federal enforcement matters involving an applicant that resulted in either criminal misdemeanor or

felony convictions, or civil settlements of matters resulting in a penalty in excess of \$25,000. The costs of environmental benefit projects, and suspended or possible stipulated penalties are not ordinarily used in reaching the \$25,000 threshold. The guidance in DEE-16 recommends a review of matters from the last ten years from the date when the applicant or permittee filed the record of compliance form with Department staff. In general, the scope of the review focuses on compliance with the Environmental Conservation Law, implementing regulations, and the terms and conditions of permits issued pursuant thereto, as well as comparable environmental statutes, regulations, and permit programs administered by other states and the federal government. In particular, the focus is on those matters that:

1. Posed a significant potential threat to the environment or human health;
2. Are part of a pattern of noncompliance; or
3. Exceeded the scope of a project described in a permit.

In addition, the scope of the review may also include a consideration of whether an applicant or permittee has:

1. Engaged in conduct that constitutes fraud or deceit;
2. Made materially false or inaccurate statements in the permit application or supporting documents; or
3. Been convicted of a crime for filing a false instrument regarding compliance with any state or federal law. (*See* DEE-16 at 4.)

As part of the 6 NYCRR Part 373 permit modification application, CWM provided Department staff with information about its record of compliance in a series of correspondence. Enclosed with a cover letter dated December 10, 2013, Michael D. Mahar, District Manager for the Model City facility, provided Department staff with a signed copy of the Record of Compliance – Permit Application Supplement, also dated December 10, 2013. The full name of the applicant listed in box No. 1 is “CWM Chemical Services, LLC.” (*See* RMU-2 Application Documents.)

Additional information was enclosed with the December 10, 2013 correspondence to supplement the responses to Items Nos. 5, 8, and 10 of the record of compliance form. In response to Item No. 5, CWM provided a table listing the current permits held by CWM and issued pursuant to the ECL and federal environmental statutes. This table also includes the permit applications and the siting certificate application, which are the subject of this proceeding. In response to Item No. 8, CWM provided a compliance history from 2004 to 2013. The information, provided in tabular form, includes the date of each violation, the applicable agency (*i.e.*, DEC, EPA or both), a brief summary of the violation, its disposition, as well as whether CWM paid a civil penalty, and if so, how much. Item No. 10 concerns disputes related to regulatory fees. According to the information provided, CWM disputes a regulatory fee assessed by an invoice dated October 22, 2013.

CWM provided additional information with a cover letter dated March 21, 2014 from Ms. Banaszak. The information enclosed with the March 21, 2014 correspondence provides documentation of criminal violations and civil matters concerning penalties in excess of \$25,000 at CWM/Waste Management subsidiaries licensed to, and engaged in, hazardous waste management from March 1, 2004 to March 8, 2014. With this correspondence, CWM provided information about the following facilities: CWM Emelle (Alabama), CWM Kettleman Hills Landfill (California), and the Model City facility (New York).

With a cover letter dated February 27, 2015, Ms. Banaszak provided additional information. The enclosed information documents criminal violations and civil matters where civil penalties were assessed in excess of \$25,000 at CWM/Waste Management subsidiaries licensed to, and engaged in, hazardous waste management from January 1, 1995 to February 10, 2015. CWM provided information about the following facilities: CWM Emelle (Alabama), CWM Kettleman Hills Landfill (California), CWM Trade Waste Incineration, Inc. (Sauget, Illinois), and the Model City facility (New York). The information provided with the February 27, 2015 correspondence appears to incorporate the information provided with the March 21, 2014 correspondence.

Department staff had requested the information provided with Ms. Banaszak's February 27, 2015 correspondence based on assertions made in the municipalities' November 24, 2014 petition for full party status. (Tr. at 313-314.)

Finally, with an email from Mr. Darragh dated May 19, 2015, CWM provided a table entitled, *CWM Compliance History Report* (January 1, 1993 to December 31, 1994). The table identifies four CWM facilities in Tennessee, Illinois, Louisiana, and Alabama, and provides information about violations that occurred in 1993 and 1994.

In their petition (at 108-109), the municipalities reference the correspondence and enclosures exchanged between representatives of CWM and Department staff. The first submission by CWM was with a cover letter dated July 20, 2005 in which CWM disclosed information about violations at facilities in Alabama, California, Louisiana, Oregon and New York (*i.e.*, Model City), resulting in civil penalties from \$0.00 to \$1,500.00. This information was submitted pursuant to ECL 27-0913(3).¹² As noted above, on December 10, 2013, CWM filed a completed record of compliance form with the Department concerning ECL violations at the Model City facility with civil penalties that range from \$0.00 to \$175,000. CWM filed a supplement on March 21, 2014 with respect to its facilities in Alabama, California, and New York (Model City) resulting in civil penalties from \$0.00 to \$302,100.00. (*See* Municipalities Petition at 108-109.)

¹² Footnote 344 from the municipalities' November 24, 2014 petition for full party status references this letter dated July 20, 2005 from D. Ames-Cassick, Compliance Manager, CWM, to J. Strickland, P.E., New York State Department of Environmental Conservation. In their petition (at 109), the municipalities also reference the enclosure included with the July 20, 2005 correspondence. I request that CWM provide the issues conference participants and me with of copy of the July 20, 2005 correspondence and enclosure upon receipt of this issues ruling.

The municipalities contend that, as of November 24, 2014, CWM's record of compliance disclosures are not consistent with the requirements set forth in ECL 27-0913(3), and the guidance outlined in DEE-16. Contrary to the terms and conditions of DEE-16, Department staff has allowed CWM to limit its disclosures to violations that occurred ten years prior to submission of its record of compliance form on December 10, 2013. As a result, the municipalities argue that CWM has avoided the disclosure of violations that may have occurred prior to its submission of the siting certificate and permit modification applications on May 15, 2003. (*See* Municipalities Petition at 111.)

Citing *Waste Management of New York, LLC (Towpath Environmental and Recycling Center)* (Interim Decision, May 15, 2000 at 15-17), the municipalities acknowledge that the Commissioner modified the guidance outlined in DEE-16 with respect to the consideration of affiliates. The municipalities argue, however, that the limitation outlined in the Commissioner's May 15, 2000 interim decision does not apply here. The municipalities note that with respect to the captioned matters, Department staff has requested information about CWM's affiliates in other states, and argues further that CWM may not be sufficiently independent of its parent company to overcome a claim that its corporate parent might control CWM's compliance decisions. (*See* Municipalities Petition at 113.)

The municipalities argue that CWM should be required to supplement its record of compliance disclosure with relevant violations that pre-date the submission of its applications. The municipalities request the opportunity to review any further disclosure for completeness and adequacy. (*See* Municipalities Petition at 113-114.)

Referencing the Siting Plan, RRG contends that the Siting Board must consider the "history of facility operations in an area and the presence of non-operating facilities, such as closed hazardous waste landfills" (RRG Petition at 33, *citing* 2010 Siting Plan at 9-4). According to RRG, the change from the crime-ridden SCA operations to Waste Management and, subsequently, to CWM did not end "skirmishes" with environmental law enforcement (*see* RRG Petition at 34).

RRG asserts that CWM's record of compliance for the Model City facility is hardly better than that of its Alabama, Illinois, and California cousins. RRG contends that in 1988, CWM was charged with failing to test every truckload of PCB sludge as required by EPA, and incurred fines of \$25,000 a day for 48 days of violations. RRG contends further that the following year CWM was fined \$1.3 million for failing to disclose "major modifications" to a PCB detoxification unit that it had acquired in 1985. RRG also notes that from 1996-2002, EPA and the Department issued five other enforcement orders to CWM for numerous violations of federal and state environmental regulations that resulted in assessed penalties totaling \$862,875. To support these contentions, RRG references a report by Edwin L. Miller, Jr., District Attorney (San Diego, California), entitled, *Final Report: Waste Management*, dated March 1992 (*see* <http://infohouse.p2ric.org/ref/26/25041.pdf>). Also, with respect to this proposed issue, RRG attached Exhibit 4 to its petition, which includes a list of eleven Orders on Consent and copies of them. (*See* RRG Petition at 35-36; Tr. at 314.)

Ms. Witryol contends that the Siting Board and Department staff have the authority to consider CWM's character when considering the pending siting certificate and permit applications. Ms. Witryol cites two cases to support this contention (*see* Witryol Petition and Comments at 14-15).¹³ In this regard, Ms. Witryol argues that CWM should be directed to disclose all Occupational Safety and Health Administration (OSHA) claims from 1994 to the present concerning the construction and operation of the RMU-1 landfill. (Tr. at 330-331.) According to Ms. Witryol, the OSHA claims are relevant to CWM's record of compliance concerning the pending siting certificate and permit applications. (Tr. at 329, 335.) Ms. Witryol notes that the requested period of the disclosure would be within the time that CWM filed the applications for its proposal in 2003. (*See* Witryol Petition and Comments at 16-17). During the issues conference, Ms. Witryol argued that the relevant review period should be ten years prior (*i.e.*, 1993) to when CWM filed the pending siting certificate and permit applications in April 2003. (Tr. at 326-327.)

Ms. Witryol notes that the public has reported a number of violations to Department staff, which raises significant concerns about the adequacy of the Department's oversight (*see* Witryol Petition and Comments at 18). The petition lists a number of examples. They include the following: (1) alleged violations of the DOH 1972 Order and the DOH 1974 Amendment concerning excavations on the site; (2) foamy discharges to the Niagara River; (3) fires; (4) fraud; (5) tracking hazardous waste shipments; (6) transporter rules for violations that take place beyond CWM's gate; (7) overweight vehicles; (8) Hudson River PCB shipments; and (9) delinquent radiation sampling. (*See* Witryol Petition and Comments at 18-20; Tr. at 337-339.) According to Ms. Witryol, the municipalities have reported violations to Department staff (*see* Witryol Petition and Comments at 20). Finally, Ms. Witryol objects to the excessive reliance on self-reporting by CWM, and asserts that the reporting is neither accurate nor reliable (*see* Witryol Petition and Comments at 20).

CWM notes that it has provided information related to its record of compliance for the prior 20 year period. CWM notes further that the information relates to CWM Chemical Services, LLC, the owner and operator of the Model City facility, as well as all other hazardous waste management facilities currently under the corporate structure of Waste Management, Inc. Since the mid-1970s, CWM states that it has applied to the Department for various permits and during that period, the Department has never denied any permit application filed by CWM for the Model City facility. (*See* CWM Response at 48.)

Given the thousands of regulatory requirements and permit conditions applicable to operations at the Model City facility, CWM argues that perfect compliance is not humanly possible. CWM observes that the regulatory and permit requirements impose self-reporting obligations and strict liability. CWM believes that its record of compliance has continually improved over time, and argues that the Siting Board and the Commissioner should conclude that CWM is a qualified and suitable permittee. (CWM Response at 48-49.)

¹³ *See Barton Tucking Corp. v O'Connell*, 7 NY2d 299, 308-309 (1959); and *Midan Restaurant, Inc. v Tarshis*, 68 NY2d 800 (1986). (Tr. at 319-321.)

Department staff contends that the proposed record of compliance issue may be addressed by the Siting Board as part of the review concerning the pending siting certificate application, and by the Commissioner as part of the review of the pending permit applications for the construction and operation of the proposed RMU-2 landfill and related modifications to the Model City facility (*see* Staff Response at O-21).

With an email dated April 24, 2015, Department staff provided the issues conference participants and me with substitute pages for A-90 to A-92 in staff's response to the municipalities' petition for full party status.¹⁴ (Tr. at 313-314.) As noted above, staff revised the response because CWM filed additional record of compliance information with a cover letter dated February 27, 2015.

Department staff has reviewed all the information provided by CWM concerning its operations at the Model City facility as well as at other facilities. Department staff considers the enforcement actions initiated by the California State Department of Toxic Substances Control (DTSC) at the CWM landfill in Kettleman Hills, California, to be serious. Department staff notes however, that subsequently, DTSC approved an application to expand the Kettleman Hills facility in May 2014, and that in making this determination, DTSC expressly considered the facility's compliance and enforcement history. (*See* Staff Response dated April 24, 2015.)

Staff considers the record of compliance for the Model City facility to be a critical consideration in deciding whether to grant the pending application to modify the 2013 site-wide Part 373 renewal permit to authorize the construction and operation of the proposed RMU-2 landfill, among other things. Staff characterized the violations that took place at the Model City facility from November 2000 to November 2008 as "serious" and "deplorable." Staff, nevertheless, argues that a balanced and realistic view requires a consideration of the extensive regulatory requirements applicable to the facility, as well as the complexity of its operations. Therefore, staff concludes, on balance, that operations at the Model City facility reflect capable and conscientious performance. Staff notes that the presence of two full-time Department monitors and the permit requirements to self-report violations have provided an enhanced level of oversight and scrutiny. (*See* Staff Response dated April 24, 2015.)

At the issues conference, RRG said no factual issues exist concerning CWM's record of compliance (Tr. at 316); it is well documented. RRG replied to the arguments presented in CWM's February 27, 2015 response. First, RRG notes that CWM makes the following administrative collateral estoppel argument. CWM obtained authorization from a prior Siting Board and from the Department to construct and operate the RMU-1 landfill and its related features. CWM has been operating the RMU-1 landfill since 1993, and while doing so, CWM has corrected any violations when Department staff commenced any enforcement actions. According to RRG, CWM asserts that past practices concerning the construction and operation of the RMU-1 landfill should be controlling in this proceeding. (Tr. at 314.)

¹⁴ Although the three substituted pages are not individually numbered, they correspond to what was originally numbered as A-90, A-91, and A-92. References to the revision are made to the date of the submission, which is April 24, 2015.

RRG contends otherwise, however. RRG notes that none of the petitioners to the captioned proceeding concerning the proposed RMU-2 landfill and related modifications to the Model City facility participated in the siting and permit review process related to the RMU-1 landfill and its related features. RRG argues that the petitioners to this proceeding are, therefore, not subject to the litigated outcomes associated with the prior siting and permit review process related to the RMU-1 landfill. RRG argues that the current Siting Board should “take a fresh look” at CWM’s record of compliance within the content of this proceeding, and should not be bound by any outcomes associated with the review of the RMU-1 landfill. (Tr. at 314-315.)

In addition, RRG contends that the proposed record of compliance issue is also related to the public interest finding required by ECL 27-1105(3)(f). RRG argues that the regulatory complexities associated with operating a hazardous waste management facility and the expectation that violations would occur are not reassuring to the public. RRG concludes that such expectations are not acceptable. RRG requests that the Siting Board broaden its perspective of what is meant by the term, “public interest,” which RRG asserts should include not only the regulated community and the customers who would use the Model City facility as proposed, but the members of the host community. Pursuant to the terms of the siting statute, RRG notes that the host community has no authority to regulate operations at the proposed facility and is, therefore, “at the mercy of this [siting] process.” (Tr. at 315-317.)

RRG argues that the Siting Board is not bound by the guidance outlined in DEE-16. By its express terms, DEE-16 provides guidance to Department staff. The Siting Board is required to make findings pursuant to ECL 27-1105(3)(f). RRG argues further that the Siting Board has the discretion to require additional information about CWM’s record of compliance. (Tr. at 342.) The municipalities’ arguments in this regard are similar. (Tr. at 333-334.)

In addition, the municipalities note that the complex nature of operations at the current facility would continue if CWM obtains all approvals for its proposal. The municipalities argue that such complexities confirm the need to apply very conservative approaches to evaluating any potential adverse environmental impacts. (Tr. at 317-318.)

According to CWM, it provided record of compliance information from 1995. At the issues conference, CWM explained that over time, Waste Management, Inc. has bought and sold various facilities. As a result, it is difficult or impossible to retrieve information about facilities no longer under the company’s control. When Department staff requested compliance information prior to 2003, which is when CWM filed its siting certificate and permit applications for the proposed RMU-2 landfill and related modifications to the Model City facility, CWM undertook a review of information about the facilities that the Waste Management, Inc. owned in 2003. (Tr. at 327.)

With reference to DEE-16, RRG and the municipalities argue that CWM should provide information from 1993 because that would be ten years prior to when CWM filed its siting certificate and permit applications in April or May 2003. (Tr. at 328.)

Department staff is of the opinion that the information provided by CWM from 1995 is satisfactory. (Tr. at 328.) From 1995 to the present, Department staff observed that CWM has provided 20 years of information. (Tr. at 341.)

As noted in the Proceedings, (*see Proceedings* § X.3 [Record of Compliance – Supplemental Information] *supra* at 17), the issues conference participants had the opportunity to review and comment about the revision included with Department staff's April 24, 2015 email. Attached to an email dated May 22, 2015, Ms. Witryol filed a letter of the same date with comments and two attachments. The first attachment is a copy of a letter dated December 8, 2009 from John S. Skoutelas, Vice President and Group General Counsel, Waste Management, to Carol Brandon, Town Clerk, Town of Lewiston. The second attachment is a copy of an Order on Consent (File No. 07-07; R9-20071030-75) dated November 12, 2008 signed by CWM.

In her May 22, 2015 letter and attached comments, Ms. Witryol identified, among other things, the headings and related discussion from her November 24, 2014 comments that relate to this proposed issue. Ms. Witryol renewed her request to include CWM's OSHA reports as part of the proposed record of compliance issue, and identified a link at the OSHA web site to a report about an event that occurred on July 6, 1995 at the Model City facility during the construction of the RMU-1 landfill.

With respect to which violations should be considered part of CWM's record of compliance disclosure, Ms. Witryol argues that the threshold penalty should be something less than \$25,000. To illustrate, Ms. Witryol states that CWM of Northwest (Arlington, Oregon) operates a landfill, and recently paid a penalty of \$18,600 for two violations. According to Ms. Witryol, one violation related to a LDR regulation concerning sludge disposal, and the second violation concerned the calibration of leak detection equipment.

Ms. Witryol argues that the scope of the record of compliance issue should include a consideration of the financial viability of Waste Management, Inc. because this entity would provide the financial assurance for site maintenance after the closure of RMU-1 and the closure of RMU-2, if CWM obtains all approvals for its proposal. The purpose of the December 8, 2009 correspondence from Mr. Skoutelas to the Town of Lewiston is to illustrate various connections among CWM facilities in New York, Western Pennsylvania, and West Virginia with Waste Management, Inc. According to Ms. Witryol, the December 8, 2009 correspondence shows that Waste Management does not distinguish between solid waste landfills and hazardous waste landfills.

As noted above, the second attachment to Ms. Witryol's May 22, 2015 email and correspondence of the same date is a copy of an Order on Consent (File No. 07-07; R9-20071030-75) dated November 12, 2008 signed by CWM. With its petition for full party status RRG provided a copy of this Order on Consent as part of Exhibit 4.

Mr. Abraham filed a letter dated May 22, 2015, on behalf of the municipalities, with four enclosures. The first is a table entitled, *Supplemental Compliance History Information*. The second enclosure is a cover letter dated March 14, 2000 from Raymond A. Bierling, Deputy County Counsel, County of San Luis Obispo (California), and an article by Mr. Bierling entitled,

The Art of Saying "No" or Bambi meets Godzilla. The third enclosure is a press release from the Indiana Department of Environmental Management dated June 13, 1997.

The fourth enclosure is a set of the following documents: (1) *Dennis H. Treacy, Director, Virginia Department of Environmental Quality et al. v Waste Management of New York, LLC*, Circuit Court of Charles County, Virginia, Final Order (May 17, 1999); (2) *Dennis H. Treacy, Director, Virginia Department of Environmental Quality et al. v Waste Management of New York, LLC*, Circuit Court of Charles County, Virginia, Order (December 3, 1999); and (3) Consent Order with Waste Management of Virginia, Inc., and Waste Management of New York, LLC (October 20, 1998), regarding *Virginia Department of Environmental Quality v Waste Management of New York, LLC*.

In the May 22, 2015 cover letter, the municipalities assert that CWM's record of compliance remains incomplete, even when considering the information filed with CWM's May 19, 2015 email. To support this assertion, the municipalities state that some of the missing information is presented in the table enclosed with the May 22, 2015 cover letter. According to the municipalities, San Louis Obispo County (California) requested information from Waste Management, Inc. when the County was considering whether to approve an application for a franchise agreement between Waste Management, Inc. and Wil-Mar Disposal, Inc. Because CWM did not disclose this information related to the Wil-Mar Disposal transaction prior to the issues conference concerning the captioned matters, the municipalities contend that CWM made materially false or inaccurate statements in the pending permit and siting certificate applications or supporting papers in contravention of the guidance outlined in DEE-16 (at 5).

With respect to what has been disclosed to date, the municipalities assert that CWM has a poor record of compliance which shows that little rehabilitation has resulted from paying administrative or civil penalties. To the municipalities, CWM's behavior suggests a corporate culture in which such penalties are treated as a cost of doing business.

Citing *Gregory v Chemical Waste Management, Inc.*, Civil No. 93-2343-WV (WD Tenn 1996),¹⁵ the municipalities assert that CWM did not disclose misdemeanors or felonies involving fraud or bribery, or offences involving false written statements. The municipalities assert further that CWM should have disclosed this information at Items Nos. 8(c) and 8(d) on the December 10, 2013 record of compliance form. According to the municipalities, CWM has not disclosed all the penalties and references. For example, the municipalities assert that the information concerning the September 15, 2006 notice of violation at CWM's Emelle, Alabama facility has not been disclosed.

The municipalities argue in their May 22, 2015 correspondence that CWM's relationship with its parent corporation, Waste Management, Inc., should be considered part of the proposed record of compliance issue. To support this argument, the municipalities explain that administrative services are provided by Model City personnel to landfills operated in DEC Regions 8 and 9 by Waste Management of New York. In addition, personnel holding managerial

¹⁵ Upon receipt of this issues ruling, the municipalities shall provide either a WestLaw citation, or a hard copy of this case to the issues conference participants and me.

positions at Waste Management of New York have moved into managerial positions with CWM at the Model City facility. Based on this information, the municipalities contend that personnel at CWM and Waste Management of New York act as “high managerial agents” for each other (cf. ECL 27-0913[3][f] and DEE-16 at 5.) Finally, the municipalities request that I direct CWM to update its record of compliance, and to integrate all submissions filed to date into one document.

Discussion and ruling: The Commissioner has addressed the record of compliance issue in prior administrative determinations. In their submissions, the municipalities reference several.¹⁶ In *Waste Management of New York, LLC, (Towpath Environmental & Recycling Center)* (ALJ Rulings, December 31, 1999), the ALJ determined that the record of compliance should be expanded to include a consideration of not only the applicant, but its parent company (at 7-11), as well as a recently acquired company by applicant’s parent (at 11-12).

In addition, the *Towpath* rulings (at 9) discuss the Virginia case concerning Waste Management, Inc., Waste Management of New York City, LLC, and Waste Management of Virginia, LLC, as well as the related documents that the municipalities provided with their May 22, 2015 correspondence. The *Towpath* rulings (at 10-11) also address record of compliance information: (1) collected by the District Attorney from San Diego County (California), which RRG references in its petition for full party status; (2) collected by officials from San Luis Obispo County; and (3) concerning a determination by the Indiana Department of Environmental Management. As previously noted, the municipalities enclosed, with the May 22, 2015 correspondence, a copy of the press release related to the third item. Because the ALJ in *Towpath* determined that the information collected by the District Attorney from San Diego County was too dated, he declined to receive it (*Towpath* at 10).

With respect to the *Towpath* matter, the Commissioner overturned the ALJ’s rulings concerning the record of compliance issue after reviewing appeals, and determined that the issue was not adjudicable (see *Waste Management of New York, LLC [Towpath Environmental & Recycling Center]*, Interim Decision, May 15, 2000 at 7).¹⁷ The *Towpath* interim decision (at 5) notes the following. First, no quantitative model or formula exists for determining how many violations or what amount of civil penalties would render an applicant unsuitable for a permit. Second, DEE-16 provides for a case by case review of an applicant’s or permittee’s record of

¹⁶ The municipalities cite *A-1 Compaction* (Decision and Order, June 22, 1994), for the proposition that the guidance outlined in DEE-16 is applied differently to individuals who are the sole shareholder of a company, and to large publically traded corporations. *A-1 Compaction* concerns the former circumstance, and the captioned matters concern the latter. The discussion in *A-1 Compaction* references *CECOS International, Inc.* (Decision, March 12, 1990), among others, concerning the relevance of a publicly traded corporation’s record of compliance to determining whether to grant, deny, or revoke permits.

In addition, the municipalities reference footnote 23 from *American Marine Rail, LLC* (ALJ Rulings on Issues and Party Status and Environmental Significance, August 25, 2000). The ALJ’s rulings, however, did not consider any proposed issue concerning that applicant’s record of compliance. Consequently, the Commissioner’s February 14, 2001 Interim Decision in the *American Marine Rail, LLC* matter does not speak to this issue.

¹⁷ Upon judicial review, the Commissioner’s determination was upheld (see *Stop Polluting Orleans County Inc., v. Crotty*, 787 NY2d 681 [May 17, 2004]).

compliance. The Commissioner states further that the focus of any inquiry should be whether an applicant's compliance history, rather than that of a parent corporation or other affiliated corporations, warrants permit denial or the imposition of special conditions. (*See Towpath*, Interim Decision at 5.) With respect to large publicly held corporations, the focus of the inquiry should be about the applicant's record of compliance within New York State (*see Towpath*, Interim Decision at 5-6).

Concerning the proposed RMU-2 landfill and related modifications to the Model City facility, CWM's record of compliance is a substantive and significant issue for adjudication. The circumstances concerning this issue are unique. First, CWM is required, pursuant to ECL 27-0913(3), to make a showing that it is qualified or suitable to receive a permit from the Department. Generally, the guidance outlined in DEE-16, which applies to any permit program administered by the Department, is consistent with the factors outlined at ECL 27-0913(3)(a)-(f). The factors set forth in ECL 27-0913(3)(a)-(f) are particular to the pending site-wide Part 373 permit modification application. Second, the 2010 Siting Plan (at 9-4) recommends that the Siting Board "consider the history of facility operations" in determining whether a proposed hazardous waste management facility would be consistent with the Siting Plan. As a result, CWM's record of compliance issue is relevant to the pending applications related to the siting certificate, as well as the site-wide Part 373 modification permit and related permits.

The discussion that follows frames the issue for the adjudicatory hearing. Accusations that CWM has committed a fraud because it failed to disclose elements of its compliance history are premature. CWM made an initial filing to address the requirement at ECL 27-0913(3). Subsequently, Department staff requested additional information about operations at the Model City facility and at CWM affiliates. The issues conference participants discussed how far back the required disclosure should go. At the issues conference, I stated that I would provide a ruling with respect to that question. (Tr. at 328.) Also, in the petitions for party status, during discussions at the issues conference, and in authorized post-issue conference submissions, the prospective intervenors have argued that the scope of the proposed issue should be expanded from what Department staff required. At this point, the exact parameters of what CWM must disclose about its record of compliance have not been precisely identified.

With respect to activities at the site of the Model City facility, CWM shall disclose violations of federal environmental laws, implementing regulations, and the terms and conditions of permits issued pursuant thereto, as well as violations of the New York State Environmental Conservation Law, implementing regulations, and the terms and conditions of permits issued pursuant to the ECL and implementing regulations from January 1, 1993 to the present. Although this period is 22 years, and far exceeds the 10-year period recommended in DEE-16, the requested information from 1993 would be 10 years prior to the initial submission of the permit applications concerning the RMU-2 landfill and related modifications to the Model City facility in 2003.

As part of the review process, Department staff requested record of compliance information about CWM/Waste Management subsidiaries licensed to, and engaged in, hazardous waste management. With respect to such subsidiaries located outside of New York State, CWM shall disclose violations of federal environmental laws, implementing regulations, and the terms

and conditions of permits issued pursuant thereto, as well as violations of comparable state environmental statutes, implementing regulations, and the terms and conditions of permits issued pursuant thereto from January 1, 1995 to the present. Although this period is less than the time frame specified in the previous paragraph, it is nonetheless 20 years, which exceeds the period recommended in DEE-16. I note that with Mr. Darragh's May 19, 2015 email, CWM discloses information about some violations at CWM/Waste Management subsidiaries from 1993 and 1994.

Prior to the adjudicatory hearing, CWM shall provide two documents formatted in the same manner as the tables previous submitted with the correspondence dated December 10, 2013; March 21, 2014; February 27, 2015; and May 19, 2015. The first table shall consolidate the record of compliance information concerning activities at the site of the Model City facility. It is my understanding that the information CWM will be including in the first table would incorporate, among others, the eleven Orders on Consent identified in Exhibit 4 to RRG's petition for full party status.

The second table shall consolidate the record of compliance information about CWM/Waste Management subsidiaries licensed to, and engaged in, hazardous waste management located outside of New York. The second table shall include, among others, the information disclosed with Mr. Darragh's May 19, 2015 email.

Before preparing the two record of compliance tables in the manner described above, I recommend that CWM review the information presented in the table enclosed with the municipalities' May 22, 2015 correspondence. As appropriate, CWM should incorporate any of the information presented in the municipalities' enclosure, which is consistent with the disclosure parameters outlined above, into the appropriate tables that will be prepared for the adjudicatory hearing.

Consistent with the guidance presented in DEE-16 (at 4), the threshold monetary penalty will be in excess of \$25,000. I deny all requests to lower this threshold.

The record of compliance information will be limited to CWM/Waste Management subsidiaries licensed to, and engaged in, hazardous waste management, as requested by Department staff. I deny all requests to expand the scope of the record of compliance issue to include information about other entities that may be related to CWM such as, but not limited to, Waste Management, Inc., Waste Management of New York, LLC, Waste Management of New York City, LLC, and Waste Management of Virginia, LLC.

I will not receive the report referenced in RRG's petition for full party status prepared by the District Attorney from San Diego, California, and the enclosures included with Mr. Abraham's May 22, 2015 letter. Furthermore, I will not receive any OSHA claims from 1994 to the present related to the construction and operation of the RMU-1 landfill. The basis for excluding this information is the rationale presented by the Commissioner in the *Towpath* Interim Decision (at 7).

In her petition, Ms. Witryol asserts that CWM has not complied with the “Power for Jobs Program” administered by the New York Power Authority (*see* Witryol Petition and Comments at 12-13.) This matter was also discussed at the issues conference. (Tr. at 318, 321-323.) Ms. Witryol also proposes that her comments at § 1.9 entitled, *Incomplete Property Ownership and History* (*see* Witryol Petition and Comments at 59), and comments concerning fires as well as the other topics identified at § 1.2.5.2 (*see* Witryol Petition and Comments at 18-20) should be elements of the proposed record of compliance issue. (Tr. at 323.) Based on the guidance outlined in DEE-16, I find that these topics are not relevant to the record of compliance issue. Petitioner has not met her burden of persuasion to include these additional topics (*see* 6 NYCRR 624.4[c][4]).

After CWM prepares the two tables in the manner described above, the parties will have the opportunity to review the information for completeness. If CWM omits information of the type that I required, as set forth above, the intervening parties will have an opportunity to present the underlying documentation. If it appears that the information should have been disclosed by CWM in the first instance, CWM will have the opportunity to explain why it was not initially disclosed.

Based on the discussion at the issues conference (Tr. at 314), I do not anticipate the need for any testimony to develop a factual record. We may need to have an on-record discussion about the information offered, and whether the information offered is complete, as outlined above. After CWM makes its disclosure, the parties will have the opportunity to present argument about the significance of CWM’s record of compliance.

5. Hazardous Waste Management Practices (ECL 27-0105)

RRG asserts that the Siting Board should deny the pending siting certificate application because CWM’s proposal is not consistent with the hazardous waste management practices hierarchy (*see* ECL 27-0105) and the related discussion presented in the 2010 Siting Plan. RRG argues that permitting the construction and operation of the proposed RMU-2 landfill would not be consistent with the established public policy to phase out the land disposal of hazardous wastes. (*See* RRG Petition at 39-40.)

RRG contends that the hazardous nature of the waste that would be disposed at the proposed RMU-2 landfill would significantly threaten public health. To support this contention, RRG offers the expert testimony of Dr. Kristen B. Moysich, Ph.D. Dr. Moysich’s *curriculum vitae* is included with RRG’s petition as Exhibit 12. Dr. Moysich, an epidemiologist, would testify that many of the hazardous chemicals brought to the site of the Model City facility pose a significant threat to human health, and that the toxicity of these chemicals persists after treatment and disposal (Tr. at 167-168). RRG concludes that the proposed RMU-2 landfill would be inconsistent with the established hierarchy for managing hazardous waste (*see* RRG Petition at 41).

Noting that landfilling hazardous waste is the least desirable disposal method, and that the practice should be phased out, the municipalities assert that the public policy outlined at ECL

27-0105 applies to recurrent and remedial wastes. The municipalities challenge CWM's claims regarding future remedial waste projections and the need for land disposal sites. The municipalities contend that CWM's claims do not consider waste minimizing efforts, which are essential elements of the hazardous waste management hierarchy (*see* ECL 27-0105). The municipalities argue that the Siting Board should conclude that the proposed RMU-2 landfill and related modifications to the Model City facility would not be consistent with the hazardous waste management practices hierarchy outlined at ECL 27-0105 and the 2010 Siting Plan. The municipalities argue further that the Siting Board should deny the pending application for a siting certificate. (*See* Municipalities February 27, 2015 letter at 3-4.)

According to Ms. Witryol's petition and comments (at 47), CWM asserts that its proposal would be consistent with the preferred hazardous waste management hierarchy because the treated residuals "pose no threat to human health or the environment." Ms. Witryol asserts, however, that most of the waste disposed at the site of the Model City facility has not been treated to a non-hazardous level. Rather, the residuals, even if compliant with the applicable LDR regulations, still pose a risk to human health when landfilled (Tr. at 172-174). Ms. Witryol supports the proffered testimony of Dr. Moysich by RRG (Tr. at 174). (*See* Witryol Petition and Comments at 47.)

Ms. Witryol asserts further that if approved, CWM's proposal would expand a market in contravention of the preferred hazardous waste management hierarchy. Finally, Ms. Witryol notes that excess land disposal capacity in the market has grown significantly since the adoption of the 2010 Siting Plan. (*See* Witryol Petition and Comments at 47.)

Based on the 2010 Siting Plan (at 6-2), CWM contends that its proposal would provide needed land disposal capacity for contaminated materials from remedial cleanups. CWM notes that with the US EPA's RCRA delegation to the Department, the Department's regulations incorporate the federal LDR rules. The LDRs require implementation of the best management method for each specific hazardous waste. Examples of management methods include, among others, detoxification, treatment, or destruction technologies. For those wastes that are to be land disposed, the LDRs set specific treatment standards to assure that the land disposal of the waste will not pose any significant threat to the public health or the environment. According to CWM, the RMU-1 landfill meets all of the LDR criteria. CWM recognizes that the goal of the hierarchy is to phase out the land disposal of hazardous wastes, other than treated residuals posing no significant threat to the public health or the environment. CWM asserts that the proposed RMU-2 landfill and related modifications to the Model City facility would be consistent with this goal. (*See* Part 361 Application at 20, *citing* 2010 Siting Plan at 1-18, 4-1, 4-6; CWM Response at 24, *citing* 2010 Siting Plan at 6-2.)

Department staff asserts that ECL 27-0105(d) does not preclude or prohibit land disposal, but directs that land disposal be phased out because it is considered the least favored method to manage hazardous waste. To meet this goal, Department staff encourages generators to focus their management practices toward the first three tiers of the hazardous waste management hierarchy when reviewing the hazardous waste management plans required by ECL 27-0908. (*See* Staff Response at O-27, W-64.)

Discussion and ruling: The petitioners assert two issues concerning the role of land disposal in the management of hazardous waste. First, petitioners challenge the assumption that the land disposal of treated residuals, even those treated in a manner consistent with the land disposal restriction rules, could pose no significant threat to the public health or to the environment. To support this challenge, they proffer Dr. Moysich's testimony. The second proposed issue is that CWM's proposal would not be consistent with the preferred Statewide hazardous waste management practices hierarchy set forth at ECL 27-0105.

With respect to petitioners' challenge to the land disposal restriction rules, two sets of land disposal restriction rules exist. At the federal level, the rules are found at 40 CFR Part 268 (Land Disposal Restrictions), and the Department's rules are found at 6 NYCRR Part 376. Both sets of regulations have been duly promulgated. This administrative proceeding is not the appropriate forum to challenge these rules. Until a court of competent jurisdiction determines otherwise, the duly promulgated regulations outlining the land disposal restrictions have the force of law and, based on their intended purpose, are presumed to be protective of public health and the environment. Therefore, petitioners' challenge to the land disposal restriction rules is beyond the scope of this proceeding and is, therefore, not a substantive and significant issue for adjudication.

Concerning the second proposed issue, the hazardous waste management practices hierarchy set forth at ECL 27-0105 lists four practices in descending order of preference. The fourth preference (*see* ECL 27-0105[d]) is as follows:

Land disposal of industrial hazardous wastes, except treated residuals posing no significant threat to the public health or to the environment, should be phased out as it is the least preferable method of industrial hazardous waste management.

Although the least preferred method, the land disposal of treated hazardous waste residuals is authorized (*see* ECL 27-0912). Likewise, the Siting Plan concludes that landfill capacity continues to be needed to manage hazardous wastes (*see* 2010 Siting Plan at 4-6), particularly with respect to the disposal of remedial hazardous wastes (*see* 2010 Siting Plan at 3-31 to 3-32). The issue, therefore, is not whether CWM's proposal would be consistent with the preferred Statewide hazardous waste management practices hierarchy.

Rather, the guidance in the Siting Plan, with respect to the management practices hierarchy, addresses whether a proposed facility would "promote moving up the hierarchy for managing hazardous waste" (2010 Siting Plan at 9-5). The petitioners contend that CWM's proposal would encourage, rather than discourage, the land disposal of hazardous waste. The petitioners, however, offer no proof to support their contention. Absent an offer of proof, I conclude that petitioners did not meet their burden of persuasion (*see* 6 NYCRR 624.4[c][4]). Therefore, whether CWM's proposal would promote moving up the hierarchy for managing hazardous waste is not an issue for adjudication.

In order to demonstrate compliance with the 2010 Siting Plan, CWM does not have a burden of proof to show that its proposal would promote moving up the hierarchy for managing hazardous waste. The question, as proposed in the Siting Plan, is offered as guidance, rather than

as a statutory or regulatory requirement, to assist the Siting Board in making its required determination.

A distinction exists between whether CWM's proposal would promote moving up the hierarchy for managing hazardous waste, from whether its proposal would be consistent with the Siting Plan. Pursuant to ECL 27-1105(3)(f), CWM has the burden of proof to demonstrate the latter. This ruling does not change, or otherwise alter, CWM's burden of proof as set forth at ECL 27-1105(3)(f).

6. Summary

To obtain a siting certificate from the Siting Board, CWM must demonstrate that the proposed RMU-2 landfill and related modifications to the Model City facility would be consistent with the duly adopted 2010 Siting Plan (*see* ECL 27-1105[3][f]; ECL 27-1103[2][a]). In addition to the *prima facie* showing outlined in CWM's 6 NYCRR Part 361 application and the DEIS, the petitioners have identified additional factors relevant to the required determination. Based on the foregoing discussion, these additional factors are:

- The geographic distribution of hazardous waste landfills in New York State;
- Other non-operating hazardous waste landfills at the site of the Model City facility; and
- CWM's record of compliance.

Given the discussion at the issues conference, further record development at an adjudicatory hearing is not necessary with respect to the first two factors. Accordingly, I make the following findings of fact with respect to the geographic distribution of hazardous waste landfills in New York State:

1. The RMU-1 landfill is located on the site of the Model City facility in the Town of Porter, Niagara County.
2. The RMU-1 landfill is an active hazardous waste management facility. It is the only active hazardous waste landfill in New York State.
3. The proposed RMU-2 landfill would be located on the site of the Model City facility in the Town of Porter, Niagara County, adjacent to the site of the RMU-1 landfill.
4. If CWM were to obtain all approvals for its proposal, the proposed RMU-2 landfill would be an active hazardous waste landfill. Subsequent to the permanent closure of the RMU-1 landfill, the proposed RMU-2 landfill would be the only active hazardous waste landfill in New York State if CWM were to obtain all approvals for its proposal.

I make the following additional findings of fact with respect to other non-operating hazardous waste landfills at the site of the Model City facility:

5. From 1971 to 1978, Service Corporation of America (SCA), a predecessor owner of the site of the Model City facility, constructed and operated Secure Landburial Facilities (SLFs) 1-6 at the site of the Model City facility, which is located in the Towns of Porter and Lewiston, Niagara County. Collectively, the combined area of SLFs 1-6 is 15 acres. Collectively, over 300,000 tons of hazardous waste were disposed in SLFs 1-6.
6. Subsequent to 1978, SLFs 1-6 were permanently closed; they are non-operating hazardous waste landfills at the site of the Model City facility.
7. From 1978 to 1983, SCA constructed and operated SLF 7 at the site of the Model City facility. The area of SLF 7 is 10 acres. Over 370,000 tons of hazardous waste were disposed in SLF 7.
8. Subsequent to 1983, SLF 7 was permanently closed; it is a non-operating hazardous waste landfill at the site of the Model City facility.
9. From 1982 to 1984, SCA constructed and operated SLF 10 at the site of the Model City facility. The area of SLF 10 is 6 acres. Over 240,000 tons of hazardous waste were disposed in SLF 10.
10. Subsequent to 1984, SLF 10 was permanently closed; it is a non-operating hazardous waste landfill at the site of the Model City facility.
11. From 1984 to 1990, CWM constructed and operated SLF 11 at the site of the Model City facility. The area of SLF 11 is 25 acres. Approximately 1,380,000 tons of hazardous waste were disposed in SLF 11.
12. Subsequent to 1990, CWM permanently closed SLF 11; it is a non-operating hazardous waste landfill at the site of the Model City facility.
13. From 1990 to 1995, CWM constructed and operated SLF 12 at the site of the Model City facility. The area of SLF 12 is 22 acres. Over 1,400,000 tons of hazardous waste were disposed in SLF 12.
14. Subsequent to 1995, CWM permanently closed SLF 12; it is a non-operating hazardous waste landfill at the site of the Model City facility.

Findings 5 through 14 identify the non-operating hazardous waste landfills at the site of the Model City Facility. At this point in this proceeding, I make no findings of fact about any non-operating hazardous waste landfills that may be located in Niagara County, but not on the site of the Model City facility.

With respect to CWM's record of compliance, the need for testimony to further develop the record, or to otherwise resolve factual disputes, does not appear to be necessary (Tr. at 314).

However, an on-record discussion about the forthcoming information and whether the information offered by CWM is complete may be necessary.

Because an adjudicatory hearing is not needed with respect to these factors, legal argument, as part of the closing briefs and replies, is what would be expected from the parties. When addressing these factors, the parties should consider discussing, in their respective closing briefs and replies, the significance or weight that should be assigned to these factors, as well as any interrelationships that may exist among these factors. Upon review of any appeals and replies from the rulings outlined in **Rulings** § IV.C (Consistency with the Siting Plan, *supra* at 57), the Siting Board may provide additional guidance in the interim decision.

D. Otherwise Necessary or in the Public Interest

Pursuant to ECL 27-1105(3)(f), the Siting Board must find that a proposed facility would be otherwise necessary or in the public interest when, as here, the adopted siting plan concludes that additional hazardous waste management facilities are not needed. Consequently, the Siting Board is required to determine whether the proposed RMU-2 landfill and related modifications to the Model City facility would be otherwise necessary or in the public interest.

Chapter 9 of the 2010 Siting Plan provides the Siting Board with guidance to determine whether CWM's proposal would be otherwise necessary or in the public interest. The Siting Plan acknowledges that the terms "otherwise necessary" and "in the public interest" are not defined in the statute, and emphasizes that a proposed facility must be consistent with the Siting Plan. Consequently, some of the topics identified in the Siting Plan that would be relevant to whether a proposed facility is consistent with the Siting Plan are also identified as being relevant to whether a proposed facility would be otherwise necessary or in the public interest. Examples of overlapping topics from the Siting Plan include, among other things: (1) the location of a proposed facility, including past and present activities; (2) the facility's compliance history and environmental justice; as well as (3) whether the proposed facility would promote moving up the hierarchy of preferred hazardous waste management practices (*see* ECL 27-0105). (*See* 2010 Siting Plan at 9-5 – 9-6.) Because proposed issues associated with these three topics have already been addressed above, they are not revisited here.

According to the 2010 Siting Plan (at 9-5), CWM has the burden in the first instance to demonstrate that its proposal would be otherwise necessary or in the public interest. Accordingly, CWM's 6 NYCRR Part 361 application (at 21-25) discusses how the proposed RMU-2 landfill and related modifications to the Model City facility would be otherwise necessary or in the public interest. (*See also* DEIS at 20-23.)

Because EPA and the Department, as reflected in the Siting Plan, evaluate capacity on a national level that relies on development by the private sector, CWM argues that its proposal would be in the public interest. CWM notes that the RMU-1 landfill and related features captured a very large percentage of the New York and regional Northeast United States markets for land disposal of hazardous wastes qualifying under the LDRs. Based on its location, CWM argues that the RMU-1 landfill and related features provide a significant transportation advantage

compared to similar facilities located in Michigan and Indiana because shorter distances to management facilities result in lower transportation costs with the related reductions in greenhouse gas emissions. (See Part 361 Application at 21.)

CWM notes that the Siting Plan (at 5-20 to 5-21, 6-1) concludes that it is reasonable and appropriate to rely on the private sector to continue to build capacity in order to meet national market needs. To promote private development, CWM asserts that the free market forces must be allowed to operate unburdened and unrestricted by artificial regulatory requirements other than those related to protecting the public health and the environment. (See Part 361 Application at 21-22.) In its Part 361 application, CWM lists the bases for proposing to site and operate its proposal at the Model City facility. Among them, CWM notes that it has invested over \$100 million in the infrastructure and related facilities needed to properly support a land disposal facility. CWM argues that these resources should be maximized to the fullest extent possible. According to CWM, the market for land disposal services consistent with the LDRs is relatively stable. As a result, CWM believes that it can effectively compete in that market. Referring to the December 10, 1993 decision, CWM notes that the Siting Board concluded that the RMU-1 landfill was a valuable waste management and economic resource for New York. CWM argues that its RMU-2 proposal would provide significant jobs and economic benefits to the local western New York economy, and that those benefits would be lost if CWM does not obtain all approvals for the proposed RMU-2 landfill and related modifications to the Model City facility. (See Part 361 Application at 22-24; see also DEIS at 20-23.)

Prospective intervenors have proposed issues to demonstrate that CWM's proposal would not be otherwise necessary or in the public interest. Generally, the proposed issues are identified in the guidance outlined in Chapter 9 of the 2010 Siting Plan (at 9-6), and they are discussed below.

1. Property Values and Property Tax Receipts

RRG and the School District contend that CWM's proposal is not otherwise necessary or in the public interest because it would have a negative effect on property values in the community, and upon the municipal and school property tax receipts. To support this contention, they identify what RRG and the School District characterize as a "rich and remarkably consistent literature" about this topic (RRG Petition at 26). These include, among others:

1. Stephen Farber, *Undesirable Facilities and Property Values: A Summary of Empirical Studies*, Ecological Economics, Vol. 24, No. 1, 1-14 (January 1998);
2. Gerrard, Michael, *Whose Backyard, Whose Risk: Fear and Fairness in Toxic and Nuclear Waste Siting*, MIT Press, 72-73 (1994);
3. Wandersman and Hallman, *Are People Acting Irrationally? Understanding Public Concerns About Environmental Threats*, American Psychologist, 681, 683 – 685 (June 1993); and

4. Jessica Erickson, *Information Flows and the Impact of PCB Contamination on Property Values*, Williams College, 6 (2001).

According to RRG, the distance from an active hazardous waste management facility is directly related to the reduction of property values (*see* Erickson, *supra.*). However, the circumstances related to CWM's proposal are different because the designated transportation route requires trucks to pass by the Lewiston-Porter public school campus. As a result, RRG argues that all property values in the school district are adversely impacted, regardless of the distance from the site of the Model City facility. With its petition, RRG offers the expert testimony of Kenneth M. Acks from the Cost-Benefit Group, LLC (Long Beach, New York). A copy of Mr. Acks' resume is attached to RRG's petition as Exhibit 11. (*See* RRG Petition at 29.)

In the petition and at the issues conference, RRG explains that Mr. Acks' firm undertook a comprehensive investigation of the potential changes in property values associated with CWM's proposal. At the hearing, Mr. Acks would testify that he used the following three methods to estimate the decrease in property values arising from CWM's proposal: (1) sales comparisons; (2) contingent valuation studies; and (3) hedonic regressions. Mr. Acks would also testify that, on average, property values in the Towns of Porter and Lewiston would decrease by 3% if CWM obtains all approvals for its proposal. According to Mr. Acks, the decrease in value would be greater for homes closer to the site. (*See* RRG Petition at 30). Prior to the issues conference, RRG provided a copy of the Cost-Benefit Group's analysis, which is dated November 1, 2014. (Tr. at 138-140.)

In addition to Mr. Acks' testimony, RRG and the School District would offer the testimony of Beverley Vanduse, who is the treasurer of RRG, and Timothy Henderson, a Board member. According to the petition, Ms. Vanduse and Mr. Henderson surveyed all the arms-length purchasers of homes in the Village of Youngstown in 2011 and 2012. They would testify about the results of their survey. (*See* RRG Petition at 31).

Department staff acknowledges that this proposed issue and those related to it concern the pending application for the siting certificate. Staff offers to provide technical assistance, where appropriate, to the Siting Board about the issues found to be substantive and significant. (*See* Staff Response at O-15.)

CWM asserts that the conclusions in the analysis prepared by the Cost-Benefit Group are not supported, and offers a review of the analysis prepared by Emminger, Newton, Pigeon & Magyar, Inc. ([ENPM] Buffalo, New York), dated February 23, 2015. (*See* CWM Response at 34-35; Exhibit 4.) Among other things, the ENPM review concludes that any valuation of the real property in the Towns of Porter and Lewiston that attempts to isolate the potential effects associated with the Model City facility is highly subjective given the inherent influences of adjacent facilities such as the Modern Landfill and the Niagara Falls Storage Site (*see* CWM Response, Exhibit 4 at 9).

Discussion and Ruling: RRG and the School District have raised a substantive and significant issue about whether CWM's proposal would have any effect on property values in the

community, and upon the municipal and school property tax receipts. This issue is relevant only to the application for the siting certificate pending before the Siting Board, and is not relevant to the pending permit applications. The proposed issue is substantive (*see* 6 NYCRR 624.4[c][2]) because competing expert opinions have been offered. On the one hand, the expert proffered by RRG and the School District contends that CWM's proposal would have an adverse effect on property values and tax receipts. On the other, CWM's report by its expert attempts to rebut the conclusions presented in the analysis offered by the Cost-Benefit Group.

The proposed issue is significant (*see* 6 NYCRR 624.4[c][3]) because the adjudication of it may result in the denial of the siting certificate. Depending on the outcome of the adjudication, the Siting Board may conclude that CWM's proposal would not be otherwise necessary or in the public interest.

The scope of this issue will be limited as follows. In conjunction with the presentation by Mr. Acks, I will hear from Ms. Vanduse and Mr. Henderson about the results of their survey concerning all the arms-length purchasers of homes in the Village of Youngstown in 2011 and 2012. I recommend that this survey information be incorporated into any revision or update that the Cost-Benefit Group may undertake with respect to the November 1, 2014 analysis as RRG prepares the presentation about this issue for the hearing.

As part of this proposed issue, RRG also offered Vincent Agnello, Professor of Law, College of Business Administration, Niagara University. Professor Agnello's resume is included with RRG's petition as Exhibit 10. Professor Agnello would testify about a developer's decision to withdraw a commercial development project in the Town of Porter. Exhibit 10 also includes a memorandum from Professor Agnello dated November 10, 2014 in which he relates the substance of two conversations that he had with Paul Oulahen. (*See* RRG Petition at 28-29, note 8; RRG Petition, Exhibit 10.) CWM responds to this offer of proof in its response (at 32-34).

With respect to this topic, RRG has failed to meet its burden of persuasion (*see* 6 NYCRR 624.4[c][4]). Professor Agnello would not be testifying as an expert. Rather, he would relate the substance of conversations as outlined in the November 10, 2014 memorandum about a single proposed development plan from 2006. RRG does not propose to offer testimony from the purported developer. Consequently, the veracity of the developer's statements, as presented in the November 10, 2014 memorandum, cannot be tested. Based on this offer of proof, I am not persuaded to inquire further. The proposed topic is not substantive (*see* 6 NYCRR 624.4[c][2]) and, therefore, will not be part of the scope of the issue concerning the potential effects on property values.

In her petition and at the issues conference, Ms. Witryol asserts that the purchase of second homes is a key category in the measurement of tourism spending. Ms. Witryol asserts further that operations at the site of the Model City facility have restricted such purchases, particularly in the Town of Porter. To support this assertion, Ms. Witryol includes a power point presentation, as Appendix E to her petition, prepared by Tourism Economics (Philadelphia, Pennsylvania). The power point presentation is entitled, *The Economic Impact of Tourism in New York: Greater Niagara Focus (2012 Calendar Year)*. According to the power point presentation, second home expenditures are based on the stock of seasonal second home

inventory (*see* Witryol Petition and Comments, Appendix E at 44).¹⁸ In addition, Ms. Witryol offers the testimony of David E. Rosenwasser, J.D., who is an Associate Professor of Marketing and Sport Management, and Director of the Duree Center for Entrepreneurship, at Lindenwood University (St. Charles, Missouri). Professor Rosenwasser's resume is attached as Appendix D to Ms. Witryol's petition. He would testify that tourism-related development is incompatible in an area with a hazardous waste landfill. (*See* Witryol Petition and Comments at 68 and Appendix D; Tr. at 148-149, 603-604.)

For the following reasons, I conclude that **second home purchases as a measure of tourism spending is within the scope of whether CWM's proposal would have any effect on property values in the community, and upon the municipal and school property tax receipts.** The proposed issue is substantive (*see* 6 NYCRR 624.4[c][2]) because I am persuaded to inquire further based on Professor Rosenwasser's work experience. Prior to his academic position at Lindenwood University, Professor Rosenwasser was Director of the Greater Saint Charles Convention and Visitors' Bureau (Saint Charles, Missouri) from 2006-2001, and from 2003-2006, he was President of the Niagara Tourism and Convention Corporation (Niagara Falls, New York). In addition, **the topic concerning second home purchases as a measure of tourism spending is significant (*see* 6 NYCRR 624.4[c][3]) because it may result in the denial of the siting certificate.** Depending on the outcome of the adjudication, the Siting Board may conclude that CWM's proposal would not be otherwise necessary or in the public interest.

I note, however, that the power point concerning tourism (*see* Witryol Petition and Comments, Appendix E) is an inadequate offer of proof, and I did not rely on it as a basis for this ruling. With respect to this offer of proof, I conclude that the petitioner failed to meet her burden of persuasion with respect to any other topics related to tourism (*see* 6 NYCRR 624.4[c][4]). Consequently, other aspects of any proposed tourism issue will not be adjudicated.

During the issues conference (Tr. at 148-150), Ms. Witryol stated that she and Mr. Olsen, counsel for RRG and the School District, had conferred about the possibility of working together on this issue. I encouraged the collaboration then, and continue to do so.

Finally, with respect to the scope of the issue concerning whether CWM's proposal would have any effect on property values in the community, and upon the municipal and school property tax receipts, I note that concerns related to potential health effects have been addressed elsewhere in these rulings (*see* **Rulings** § IV.A [Residential Areas and Contiguous Populations] *supra* at 35), and will not be revisited here. As part of their respective cases, the parties are encouraged to present information about whether the potential impacts associated with CWM's proposal on property values in the community and upon the municipal school property tax receipts can be isolated from any potential effects associated with other facilities in the vicinity of the site of the Model City facility, such as the Modern Landfill and the Niagara Falls Storage Site. In light of the conclusions made in the Cost-Benefit Group's analysis, the ENPM review made an assertion about the ability to isolate the effects of CWM's proposal (*see* CWM's Response, Exhibit 4 at 9).

¹⁸ CWM addresses this offer of proof in its response at 75.

2. Economic Multiplier and Economic Development

To determine whether a proposed hazardous waste management facility would be otherwise necessary or in the public interest, the guidance in the 2010 Siting Plan states that the Siting Board may consider whether a proposed facility would result in significant economic costs or benefits to the State, and the community in which the proposed facility would be located (*see* 2010 Siting Plan at 9-6).

Referring to § 4.7.5 (Community Economy) of the DEIS (at 153-154), Ms. Witryol contends that CWM does not adequately substantiate the financial contribution that its proposal would make to the State and local economies. Ms. Witryol also contends that CWM does not adequately explain the type, or otherwise substantiate the nature of, the economic multiplier identified in the DEIS, which is 1.889. Ms. Witryol notes that the employment multipliers associated with aspects of Niagara County's agricultural industry are greater. For example, the employment multiplier for fruit and vegetables is 2.95. For wineries, the multiplier is 2.57, and for milk and butter, the multiplier is 5.67. To substantiate these multipliers, Ms. Witryol references an article entitled *Agriculture-Based Economic Development in New York State* (September 2012) from the College of Agriculture and Life Sciences at Cornell University. (*See* Witryol Petition and Comments at 89.)

Appendix H to Ms. Witryol's petition is an undated copy of a memorandum from Daniel J. Barufaldi, Director of Economic Development, Dover Business & Industrial Development Authority (Dover, New Hampshire), and a copy of Mr. Barufaldi's resume. During the issues conference Ms. Witryol said that Mr. Barufaldi's would testify about the effects of hosting a hazardous waste and PCB landfill on economic development. The purpose of Mr. Barufaldi's testimony would be to dispute the economic ratios and multipliers that CWM has relied upon in the application materials. According to Ms. Witryol, the proposed issue is related to CWM's SEQR analysis. (Tr. at 141-144.)

Ms. Witryol stated that the scope of Mr. Barufaldi's testimony is not related to the issue proposed by RRG and the School District concerning whether CWM's proposal would have any effect on property values in the community, and upon the municipal and school property tax receipts. Rather, Ms. Witryol said that Mr. Barufaldi would offer an opinion about the ability to attract business and commerce, and would dispute the economic multiplier offered by CWM in the application materials and DEIS. (Tr. at 146-148, 183, 603-604.)

In his memorandum, Mr. Barufaldi states, in pertinent part, that:

[w]hen considering the trade-offs for alternative business projects versus large landfills, a look at comparative economic multipliers indicates that the economic multiplier that CWM is advertising appears unique and very high for the sector. Even if the number could be justified, which is doubtful, Lewiston can do better than the purported 1.89 multiplier advertised. For example some advanced manufacturing businesses in synthetic fibers, general chemical production, and meat or dairy products production offer a 2 PLUS multiplier and are clean. (Witryol Petition and Comments, Appendix H).

In the DEIS, CWM asserts that determining the appropriate economic multiplier to State and local economies associated with the indirect benefits of CWM's proposal can be obtained from the US Department of Commerce, Bureau of Economic Analysis (BEA). The BEA relies upon the Regional Input-Output Modeling System II (RIMS II). After applying this methodology, the multiplier associated with waste management and remediation services in New York is 1.889, according to the DEIS. Based on this multiplier, CWM provides estimates of the total economic impact resulting from the proposed RMU-2 landfill and related modifications to the Model City facility. (*See* DEIS at 154.)

Discussion and ruling: With this offer of proof, petitioner has proposed two distinct issues. Although characterized as relating to the required SEQRA review, I consider the proposed issues relevant to whether CWM's proposal would be otherwise necessary or in the public interest. The first issue is a challenge to the economic multiplier offered in the DEIS for determining the indirect economic benefits associated with CWM's proposal. The second is the effect that CWM's proposal would have on attracting other economic development projects to the Towns of Porter and Lewiston. With respect to the second issue, petitioner asserts that the effects would be negative.

Although petitioner challenges the economic multiplier presented in the DEIS (at 154), her proffered witness offers nothing to refute CWM's choice to use the RIMS II developed by the Bureau of Economic Analysis. Moreover, petitioner offers nothing to refute whether CWM correctly applied the RIMS II to obtain the economic multiplier reported in the DEIS. I conclude that petitioner did not meet her burden of persuasion (*see* 6 NYCRR 624.4[c][4]) in attempting to challenge the economic multiplier presented in the DEIS. Therefore, no substantive and significant issue exists with respect to the economic multiplier presented in the DEIS and relied upon by CWM to estimate the indirect economic benefits from its proposal to the State and local economies.

With respect to the second proposed issue concerning the effect that CWM's proposal would have on attracting other economic development projects to the Towns of Porter and Lewiston, I conclude that the proposed issue is substantive and significant. The proposed issue is substantive (*see* 6 NYCRR 624.4[c][2]) because the petitioner met her burden of persuasion. I note that no other issues conference participant challenged the offer of proof concerning Mr. Barufaldi's professional experiences, as outlined in his resume, and the scope of his testimony. As a result, I am inclined to inquire further. The proposed issue is significant (*see* 6 NYCRR 624.4[c][3]) because it may result in the denial of the siting certificate. Depending on the outcome of the adjudication, the Siting Board may conclude that CWM's proposal would not be otherwise necessary or in the public interest.

As noted above, Mr. Barufaldi contends that other types of economic development projects would be more beneficial to the Towns of Porter and Lewiston than CWM's proposal. Therefore, as part of the adjudication, I would encourage petitioner to offer evidence about the following related topics:

1. Where other economic development projects could be located in the Towns of Porter and Lewiston; and
2. Whether the potential impacts associated with CWM's proposal on economic development projects can be isolated from any potential effects associated with other facilities in the vicinity of the site of the Model City facility, such as the Modern Landfill and the Niagara Falls Storage Site.

3. Changes in Student Enrollment

RRG and the School District assert that CWM's proposal would contribute to the continued decrease in student enrollment in the Lewiston-Porter Central School District and the related decrease in teaching and non-academic employees. To support this assertion, petitioners offer the testimony of Jodee Riordan. Ms. Riordan is the President of the Board of Education. Based on information from the School District, Ms. Riordan would testify that the designated transportation route to the Model City facility passes by the school campus, and that the site of the Model City facility is in close proximity to the school campus. Ms. Riordan would offer additional testimony about the decrease in enrollment and the size of the graduating classes from the Lewiston-Porter Central School District from 1977 to present, and the related decrease in the number of school district employees. (*See* RRG Petition at 32-33.)

According to CWM, the decline in the school district's enrollment is most likely due to the changes in demographics. Not unlike many of the municipalities in Niagara County and other parts of western New York, CWM contends that the population has decreased, and aged since 1977. This means few births and, therefore, fewer school-age children, according to CWM. (*See* CWM's Response at 46.) CWM argues that the decline in the school district's enrollment is not related to its proposal. CWM argues further that petitioners should be aware of the demographic changes in other school districts in Erie and Niagara Counties, which generally show declines in student enrollment. CWM asserts that truck traffic to its Model City facility should not be considered the reason for the decline in the school district's enrollment. (*See* CWM Response at 47.)

Department staff acknowledges that this proposed issue and those related to it concern the pending application for the siting certificate. Staff offers to provide technical assistance, where appropriate, to the Siting Board about the issues found to be substantive and significant. (*See* Staff Response at O-17, *citing* O-15.)

Discussion and ruling: During the issues conference, the participants agreed that an adjudication was not necessary because the statistical information related to student enrollment is not disputed. (Tr. at 154-157.) In addition, no one disputes that the designated transportation route passes by the school campus.

The question becomes what is the cause for the decline in enrollment. (Tr. at 157.) RRG and the School District, however, have not made an offer of proof to substantiate their assertion about causation. Therefore, I conclude that petitioners did not meet their burden of persuasion

(see 6 NYCRR 624.4[c][4]). I am not persuaded to inquire further; the proposed issue is not substantive and significant.

4. Potential Impacts on the Local Agricultural Community

The Niagara County Farm Bureau represents the agricultural interests of its members in the Towns of Porter and Lewiston and other parts of Niagara County. According to the farm bureau, the proposed RMU-2 landfill and related modifications to the Model City facility would threaten the production and marketability of crops and animals produced in the Towns of Porter and Lewiston. To support this claim, the farm bureau offers the expert testimony of Murray McBride, Ph.D. A copy of Dr. McBride's resume is attached to the petition as Exhibit 13. Dr. McBride is a professor from the School of Integrated Plant Science, Cornell University (Ithaca, New York). (See RRG Petition at 46; Tr. at 163-164.)

According to the petition, Dr. McBride's testimony would focus on two areas. The first is the behavior of PCBs in soils and agriculture systems. The second area is the impacts of toxic metals on soils and agricultural systems. (See RRG Petition at 46.) With respect to the first topic area, PCBs can cause serious harm to ecosystems due to their environmental persistence. Lighter PCB congeners are mobile and can be transported long distances by evaporation from soil and water. Heavier ones tend to adsorb more strongly to organic matter in soils and persist for decades. Migration of PCBs through soils to ground water occurs despite low water solubility of these chemicals. In addition, Dr. McBride would testify about the exposure risk to animals and humans by PCBs escaping from landfills in either particulate or gaseous forms. Because human exposure to PCBs can result from the consumption of animal products, the contamination of agricultural soil by PCBs also poses a health concern. (See RRG Petition at 47-48.)

With respect to the second topic, Dr. McBride would testify about the impacts of toxic metals on soils and agricultural systems. According to Dr. McBride, the presence of massive amounts of soil and waste contaminated by heavy metals immediately adjacent to productive farmland represents a potential risk to soil productivity and the food chain. Migration of metals from the site of the Model City facility to agricultural fields could occur by leaching into the shallow water table, or by aerial transport of dust. (See RRG Petition at 48-50.)

According to the petition, the site of the Model City facility is situated in a rural area with agricultural land uses in the Towns of Porter, Lewiston, and Wilson, and the hamlet of Ransomville. A number of these farms are located on Four Mile and Twelve Mile Creeks and are, therefore, affected by the Model City facility. (See RRG Petition at 50; Tr. at 163.) Based on these circumstances, the farm bureau offers testimony from two local farmers. They are Thomas Tower from Youngstown, and Thomas Freck from Porter. Mr. Tower would testify about the effects of consumer fears concerning the purity of the food grown on his farm. Mr. Freck would testify that the location of his farm near the Model City facility has a negative effect on the reputation of his farm and adversely affects his ability to market his agricultural products. (See RRG Petition at 51-52.)

According to CWM, the farm bureau's offer is speculative because it describes what might happen if significant releases of PCBs and heavy metals were to occur, and ultimately find their way to agricultural lands. CWM notes that the farm bureau's offer of proof does not include any evidence that PCBs and heavy metals disposed at the Model City facility have impacted any of the adjacent properties, including land used for agricultural purposes. CWM notes further that the proffer does not attempt to demonstrate an exposure pathway. With reference to a response prepared by Conestoga-Rovers & Associates (February 2015) concerning the municipalities' petition (*see* CWM Response, Exhibit 12), CWM states that it has conducted on-site air monitoring at the Model City facility for PCBs and heavy metal emissions, among others, and that the results of the monitoring show no detection. (*See* CWM Response at 47-48.)

Department staff acknowledges that this proposed issue and those related to it concern the pending application for the siting certificate. Staff offers to provide technical assistance, where appropriate, to the Siting Board about the issues found to be substantive and significant. (*See* Staff Response at O-36, *citing* O-15.)

Discussion and ruling: I consider the farm bureau's proposed issue to be similar to the one asserted by RRG about whether CWM's proposal would be consistent with the hazardous waste management practices hierarchy, which included the proffered testimony of Dr. Moysich about a similar topic (*see* RRG petition at 39-41). As noted above, the purpose of Dr. McBride's testimony is to discuss how PCBs and heavy metals could contaminate agricultural lands, and the related potential adverse health effects that could result from that contamination. Absent an offer of proof that PCBs and heavy metal from the Model City facility have contaminated local agricultural lands, however, I am not persuaded to inquire further, particularly when considering the information presented in the February 2015 response prepared by Conestoga-Rovers & Associates (*see* CWM Response, Exhibit 12).

According to the February 2015 response, the PCB monitoring program commenced at the site of the Model City facility on March 6, 1987. Department staff terminated that monitoring program on August 8, 1996 because PCB concentrations were rarely above background levels. With respect to metals, CWM conducted monitoring from August 4, 1991 to December 19, 1992. Department staff terminated the monitoring program after the data showed no significant impact on the surrounding ambient air quality downwind of the Model City Facility. (*See* CWM Response, Exhibit 12 at 14-15.) Based on this response from CWM, I conclude that petitioner did not meet its burden of persuasion (*see* 6 NYCRR 624.4[c][4]).

However, the farm bureau has raised a substantive and significant issue about whether CWM's proposal would impact the marketability of agricultural products raised on farms located in the vicinity of the site of the Model City facility. The proposed issue is substantive (*see* 6 NYCRR 624.4[c][2]) based on the proffered testimony of Messrs. Tower and Freck. These farmers would testify about the perceptions that consumers have about the purity of the food grown on their respective farms, and about the marketability of the agricultural products from these farms. Their respective farms are located in the vicinity of the Model City facility. Based on these circumstances, I am inclined to inquire further. The proposed issue is significant (*see* 6 NYCRR 624.4[c][3]) because it may result in the denial of the siting certificate. Depending on

the outcome of the adjudication, the Siting Board may conclude that CWM's proposal would not be otherwise necessary or in the public interest.

5. Additional Proposed Issues concerning the Public Interest

In her petition and comments (at 47), Ms. Witryol asserts that the proposed RMU-2 landfill and related modifications to the Model City facility would not be otherwise necessary or in the public interest. The discussion in Ms. Witryol's petition and comments (at 47-50) is offered to rebut the presentation in CWM's 6 NYCRR Part 361 application (at 21-22).¹⁹ Ms. Witryol also responds in her petition and comments (at 50-56) to each of the reasons provided by CWM for seeking authorization to site and operate its proposal at the Model City facility (*see* 6 NYCRR Part 361 Application at 22-25).²⁰

At the issues conference on April 28, 2015, Ms. Witryol said that "because the potential framework for public interest is so broad, it's most of my petition" (Tr. at 187). To facilitate the discussion at the issues conference, Ms. Witryol agreed to prepare a table for the participants and me that would list the various topics presented in her petition and comments related to the question of whether CWM's proposal would be otherwise necessary or in the public interest. I recommended that Ms. Witryol provide the following information: (1) the topics from her comments; (2) the page number(s) in her petition and comments; and (3) the witness(es) who would offer testimony about the various topics. (Tr. at 187-189.)

During the April 29, 2015 session of the issues conference (Tr. at 214), Ms. Witryol distributed her table that identified the topics in her petition and comments related to whether CWM's proposal would be otherwise necessary or in the public interest. A copy of Ms. Witryol's table is attached to these rulings as Appendix IR-B. The topics identified in the table were discussed during the April 30, 2015 issues conference session. (Tr. at 214-216, 422-448.) During the discussion, Ms. Witryol commented further about her proposed public interest issues. (Tr. at 448-467.) The other issues conference participants and the Siting Board members had the opportunity to inquire about the proposed issues, and Ms. Witryol provided additional clarification, as necessary. (Tr. at 468-485.)

Discussion and ruling: Many of the topics identified in Ms. Witryol's table (*see* Appendix IR-B), have already been addressed in these rulings. For example, some topics already addressed in these rulings include tourism, agriculture, the distribution of hazardous waste landfills in New York, aquatic habitat, clay mining, public health, as well as truck traffic and the noise associated with it, CWM's record of compliance, and environmental justice. I have determined that some of the topics are substantive and significant issues for adjudication related to the question of whether CWM's proposal would be otherwise necessary or in the public interest. Other topics identified on Ms. Witryol's table are addressed below. These include, among others, potential impacts to air resources, as well as to surface water and ground water resources.

¹⁹ *See also* DEIS at 20-21.

²⁰ *See also* DEIS at 21-23.

Based on my review of the topics identified in the table, as well as the associated references to Ms. Witryol's petition and the related offers of proof, I conclude that petitioner has not identified any additional substantive and significant issues relevant to whether CWM's proposal would be otherwise necessary or in the public interest.

6. Summary

To obtain a siting certificate from the Siting Board, CWM must demonstrate that the proposed RMU-2 landfill and related modifications to the Model City facility would be otherwise necessary or in the public interest based on the conclusion in the duly adopted 2010 Siting Plan that new hazardous waste management facilities are not needed in New York (*see* ECL 27-1105[3][f]). Petitioners have raised adjudicable issues regarding several factors relevant to the required determination. Based on the foregoing discussion, these additional factors are:

- Whether CWM's proposal would have any effect on property values in the community, and upon the municipal and school property tax receipts. A relevant subtopic of this substantive and significant issue is whether CWM's proposal would have any effect on second home purchases as a measure of tourism spending.
- The scope of the property value and tax receipts issue should include information about whether the potential impacts associated with CWM's proposal can be isolated from the potential impacts associated with other facilities.
- What are the potential effects of CWM's proposal on attracting other economic development projects to the Towns of Porter and Lewiston? Relevant subtopics of this substantive and significant issue are:
 - Where other economic development projects could be located in the Towns of Porter and Lewiston; and
 - Whether the potential impacts associated with CWM's proposal on economic development projects can be isolated from any potential effects associated with other facilities.
- Whether CWM's proposal would impact the marketability of agricultural products raised on farms located in the vicinity of the site of the Model City facility.

Given the discussion at the issues conference, further record development at an adjudicatory hearing will be necessary with respect to each of these factors and related subtopics. Subsequent to the adjudicatory hearing, legal argument as part of the closing briefs and replies would also be expected from the parties about the significance or weight that should be assigned to these factors after a complete factual record has been developed, as well as any interrelationships that may exist among these factors.

V. Proposed Issues Concerning Environmental Permits

In addition to the application for a siting certificate of environmental safety and public necessity (*see* ECL 27-1105[1] and 6 NYCRR Part 361 [Siting of Industrial Hazardous Waste Facilities]), which is pending before the Siting Board, CWM has filed applications for permits administered by the New York State Department of Environmental Conservation. CWM has the 2013 site-wide Part 373 renewal permit for current operations at the Model City facility, which includes the RMU-1 landfill and associated features. CWM has requested a modification of the 2013 site-wide Part 373 renewal permit to incorporate the proposed RMU-2 landfill and related modifications to the Model City facility.

CWM has also requested a modification of its State Pollutant Discharge Elimination System (SPDES) permit for the Model City facility as currently configured to incorporate the proposed RMU-2 landfill and related modifications to the Model City facility. In addition, CWM has requested a modification of its ASF permit to incorporate its proposal.

To accommodate the proposed RMU-2 landfill, the layout of the Model City facility would need to be reconfigured. As a result, CWM has filed an application, pursuant to 6 NYCRR Part 663, for a freshwater wetlands permit. The proposed location for the new Drum Management Building would be located in the regulated adjacent area of Freshwater Wetland RV-8. The footprint of the proposed RMU-2 landfill would also impact federally regulated freshwater wetlands. Therefore, CWM has filed a permit application with the US ACE pursuant to § 404 of the federal Clean Water Act, and an application for a water quality certification (WQC) with the Department pursuant to § 401 of the federal Clean Water Act and 6 NYCRR 608.9.

Prospective intervenors have proposed issues with respect to the environmental permit applications pending before the Department. The proposed issues are addressed below.

A. Geology and Hydrogeology

The April 2003 Engineering Report, revised November 2013 (2013 Engineering Report) lists the numerous geologic investigations undertaken at the site of the Model City facility (*see* 2013 Engineering Report at 5-6, *see also* DEIS at 54-55). The site of the Model City facility is located on the Ontario Plain, which is an area of low topographic relief between the Niagara Escarpment and Lake Ontario. The regional bedrock geology consists of the Queenston Formation that is represented by shales, siltstones and sandstones of Upper Ordovician to Silurian age. The thickness of the bedrock beneath the Model City facility is estimated to be on the order of 1,000 feet. (*See* 2013 Engineering Report at 6, DEIS at 55.)

The slope of the bedrock surface beneath the site of the Model City facility rises generally from northwest (approximately 250 above mean sea level [amsl]) to southeast (approximately 285 amsl). The top of the bedrock surface generally undulates in a northeast-southwest trend. The undulations indicate that the Queenston Formation includes layers of more resistant rock which have formed buried ridges. (*See* DEIS at 55.)

At the site of the Model City facility about 50 feet of unconsolidated deposits overlie the bedrock formation. The unconsolidated material was deposited during several Pleistocene glacial periods, and consists of the following units, from the bedrock to the surface: Basal Red Till, Glaciolacustrine Silt/Sand, Glaciolacustrine Clay, Middle Silt Till, and Upper Tills. (See 2013 Engineering Report at 6-7.) Each unconsolidated unit is described briefly below.

The Basal Red Till unit overlies the bedrock and, therefore, is the lowest glacial unit at the site. It is distinguished by its reddish color and consists of compact silt and coarse to fine silt, with some gravel and shale fragments. The thickness of this unit varies between 2 to 10 feet. (See 2013 Engineering Report at 7, DEIS at 56.)

The Glaciolacustrine Silt/Sand unit directly overlies the Basal Red Till, and consists of four subunits. These are stratified coarse sand, non-stratified silt/sand, stratified silt and fine sand, and interlayered silt, sand, and clay. The contact between the subunits varies from transitional to sharp. The thickness of this unit is between 5 to 25 feet. (See DEIS at 56, 2013 Engineering Report at 7.)

The Glaciolacustrine Clay unit overlies the Glaciolacustrine Silt/Sand unit. The contact between these two units is generally sharp. However, in the central area of the Model City facility, the soil borings show that the contrast between the two units is transitional. The Glaciolacustrine Clay is very soft to firm, and consists of gray to gray-brown, silty clay to clay, and trace fine sand. In the northwest portion of the site of the Model City facility, the Glaciolacustrine Clay unit is split into an upper and lower member by the Middle Silt Till. When the clay unit occurs as one layer, it is about 20 feet thick. Where the clay unit is split by the Middle Silt Till, the upper clay layer is about 10 feet thick. (See DEIS at 56-57, and 2013 Engineering Report at 7.)

The Middle Silt Till is found intermittently across the site of the Model City facility between the upper and lower members of the Glaciolacustrine Clay unit. The Middle Silt Till unit is reddish brown and gray in color, and consists of coarse to fine sand and silt, trace of gravel, and silt with occasional clay partings. When present, the thickness of the unit varies from 3 to 12 feet. (See 2013 Engineering Report at 7, and DEIS at 57.)

The Upper Tills unit consists of three separate subunits identified as the Upper Silt Till, the Upper Clay Till and the Upper Alluvium. The Upper Silt Till occurs intermittently throughout the site of the Model City facility. It directly overlies the Glaciolacustrine Clay unit, is described as brown to gray-brown silt, and includes coarse to fine sand with some gravel. The thickness varies from 3 to 10 feet. The Upper Clay Till is continuous across the site. It either overlies the Upper Silt Till, when present, or directly overlies the Glaciolacustrine Clay unit. The Upper Clay Till unit is brown to orange-brown, consisting of mottled clayey silt to silty clay, faintly laminated, with some coarse to fine sand, traces of gravel and, occasionally, some organic material. The thickness of the unit varies from 2 to 8 feet. The Upper Alluvium unit occurs intermittently throughout the site of the Model City facility. When present, it consists primarily of brown clayey silt with irregular laminations or compact gray silt. The thickness of the Upper Alluvium unit is 2 to 18 feet. (See 2013 Engineering Report at 7-8, and DEIS at 57-58.)

In addition to providing a description of the geology of the Model City facility site, the 2013 Engineering Report (at 8-9) also lists the numerous hydrogeologic investigations undertaken at the site. The purpose of the hydrogeologic investigations is to determine the nature of the flow of any water through the bedrock formation and the unconsolidated deposits overlying the bedrock (*see* DEIS at 59). Based on field and laboratory tests, CWM has provided the hydraulic conductivity values for each of the identified geologic units at the site of the Model City facility. The results of the hydraulic conductivity investigations are reported in the horizontal and vertical directions. (*See* 2013 Engineering Report at 9, and DEIS at 59-63.) The investigations concerning the geology and hydrogeology of the Model City facility site, and the associated results, are necessary to determine whether the location of the proposed RMU-2 landfill would comply with the site characteristic criteria outlined at 6 NYCRR 373-2.14(b).

The municipalities assert that the application materials do not provide sufficient information about the geology and hydrogeology of the site of the Model City facility, in general, and the location of the proposed RMU-2 landfill, in particular. To support this assertion, and others related to this topic, the municipalities offer the expert testimony of Andrew Michalski, Ph.D. from Michalski & Associates (South Plainfield, New Jersey). According to his resume, Dr. Michalski's doctoral degree is in the field of geological engineering. His accreditations include, among others, certified ground water professional by the National Ground Water Association, and registered professional geologist in Pennsylvania and Delaware. With the petition, the municipalities also provide a report prepared by Dr. Michalski entitled, *Report on Groundwater Flow and Contamination at Chemical Waste Management, LLC, Model City, New York, and Proposed RMU-2 Permitting and Siting Issues*, dated November 2014.

According to the municipalities, CWM has not correctly identified the direction that ground water may flow beneath the location of the proposed RMU-2 landfill nor the rate of flow. (*See* Municipalities Petition at 25-26). Dr. Michalski contends that his report shows the presence of an underground alluvial valley beneath the location of the proposed RMU-2 landfill, which directs ground water flow to the west-southwest (Tr. at 41-42). Dr. Michalski contends further that the rate of flow (*i.e.*, the hydraulic conductivity) is faster than the median values calculated by CWM. Based on Dr. Michalski's assessment, the municipalities argue that CWM should provide a more detailed evaluation of the site with respect to its geology and hydrogeology. (*See* Municipalities Petition at 26.)

Because the municipalities contend that the direction of the ground water flow in the application materials is incorrect, Dr. Michalski asserts that CWM could not properly monitor ground water as required by 6 NYCRR 373-2.6(f)(1). Section 373-2.6(f)(1) defines the term, *point of compliance*, as the vertical surface at the downgradient edge of any waste management area where monitoring wells capable of detecting a release to ground water must be located. According to the municipalities, CWM's current ground water monitoring plan for the proposed RMU-2 landfill would not be sufficient, and should be revised. (*See* Municipalities Petition at 28, and Tr. at 46-49.)

The Part 373 standard for hydraulic conductivity is 1×10^{-5} cm/s or less (*see* 6 NYCRR 373-2.14[b][1]). Dr. Michalski notes in his report (*see* Michalski Report at 4-5, 18-19), however,

that hydraulic conductivity values greater than 1×10^{-3} cm/s have been measured along the northern border of where the proposed RMU-2 landfill would be located. Dr. Michalski notes that only three of the reported measurements meet the minimum hydraulic conductivity standard. With respect to the proposed RMU-2 landfill, Dr. Michalski therefore contends that CWM would not comply with the required site characteristic criterion outlined at 6 NYCRR 373-2.14(b)(1). (See Municipalities Petition at 28-30.)

The municipalities assert further that CWM has not developed a detection monitoring program that meets the requirements of 6 NYCRR 373-2.6(j) (see also 6 NYCRR 373-1.5[a][3][vii]) because ground water contamination has been detected in the central area of the Model City facility, where the layout of the underground alluvial valley has yet to be accurately mapped. The detection of hazardous constituents in ground water between the compliance point for the RMU-1 landfill, and what would become the downgradient boundary of the proposed RMU-2 landfill, to the west, requires CWM to institute a corrective action program to address that contamination (see 6 NYCRR 373-2.6[b][1][iii]), according to the municipalities. Under such circumstances, the municipalities argue that the proposed RMU-2 landfill should not be located immediately west of the existing RMU-1 landfill. (See Municipalities Petition at 30-34.)

Finally, the municipalities contend that CWM did not request authorization from Department staff for a corrective action plan to address the contamination in the site's lower ground water bearing zone with dense non-aqueous phase liquids (DNAPL). The DNAPL, which may be mixed with PCBs, have contaminated the deep aquifer and probably the bedrock in an area located west of the central zone, according to Dr. Michalski (see Michalski Report at 19-20). According to the municipalities, CWM's *Groundwater Sampling and Analysis Plan*, which accompanies the Part 373 permit application, does not include any analyses of water co-produced with DNAPL. The municipalities argue that CWM's application materials should be supplemented due to the absence of a corrective action plan to address the DNAPL contamination. Moreover, the corrective action plan is needed before CWM can demonstrate an ability to monitor any releases from the proposed RMU-2 landfill. (See Municipalities Petition at 36-39.)

At the issues conference, Ms. Witryol explained that determining whether ground water flows to the west is a substantive and significant issue for adjudication because the Lewiston-Porter school campus is located due west of the site of the Model City facility (see Witryol Petition and Comments at 4, photograph). In addition, Ms. Witryol expressed concern about how quickly any ground water contamination may migrate off the site toward the school campus. (Tr. at 59-62.)

In its response, CWM notes that the municipalities filed comments in March 2013 during the public comment period related to the draft site-wide Part 373 renewal permit application for the RMU-1 landfill and its related features. According to CWM, the municipalities submitted virtually the same comments in their November 24, 2014 petition for full party status concerning the proposed RMU-2 landfill and related modifications to the Model City facility. CWM also observes that the report prepared by Dr. Michalski, which is included with the municipalities' November 2014 petition, is similar to the report Dr. Michalski filed in March 2013. According to CWM, Department staff reviewed the municipalities' March 2013 comments and the related

report prepared by Dr. Michalski, and concluded that the information did not raise any substantive or significant issues for adjudication (*see* CWM's Response, Exhibit 3 at I-90 – I-99). According to CWM, the municipalities filed a second set of comments in November 2013, and asked Department staff to reconsider its initial determination. Department staff responded in December 2013, and stated that the municipalities' November 2013 comments did not raise any substantive or significant issues for adjudication. (*See* CWM Response at 49-50.) CWM argues that the municipalities are precluded from re-asserting issues related to the geology and hydrogeology of the site of the Model City facility, for a third time, based on the legal doctrine of collateral estoppel (*see* CWM Response at 10, note 12; 50).

CWM observes that, according to the 2014 Report prepared by Dr. Michalski (at 2-3), the footprint of the proposed RMU-2 landfill would be located over the underground alluvial valley separate from the Glaciolacustrine Silt/Sand unit, and that contaminated ground water from the central area near the West Drum area is flowing offsite across the western border where no ground water monitoring wells are located. In response to these assertions, CWM filed a work plan, which Department staff approved, that allowed CWM to install three deep ground water monitoring wells in the vicinity of the West Drum area. According to CWM, the wells were installed in October 2014, and the results were reported on January 28, 2015 (*see* Golder Well Report). CWM circulated the January 28, 2015 report to the issues conference participants. (*See* CWM Response at 50-51.)

CWM observes further that with a letter dated February 10, 2015, the municipalities filed a memorandum prepared by Dr. Michalski dated February 4, 2015. Dr. Michalski's February 4, 2015 memorandum responds to CWM's January 28, 2015 Golder Well Report. In his February 4, 2015 memorandum (at 1-2), Dr. Michalski asserts that the three wells were not screened in the Glaciolacustrine Silt/Sand unit or, in the alternative, the Glaciolacustrine Silt/Sand unit does not exist at the location of these wells. (*See* CWM Response at 51.)

CWM refutes the claims made in the municipalities' 2013 and 2014 public comments, as well as those stated in Dr. Michalski's February 4, 2015 memorandum concerning the January 28, 2015 Golder Well Report. According to CWM, the January 28, 2015 Golder Well Report concluded that the sampling and analysis of the ground water from the new wells demonstrates that the known ground water contamination in the shallow overburden unit, up gradient from these wells, has not migrated through the Glaciolacustrine Clay unit into the underlying Glaciolacustrine Silt/Sand aquifer. (*See* CWM Response at 51.) In addition, CWM states that it retained Golder Associates to review the municipalities' November 24, 2014 petition for full party status and attached report (November 2014) prepared by Dr. Michalski, and the municipalities' letter dated February 10, 2015 with Dr. Michalski's memorandum dated February 4, 2015. (*See* CWM Response at 51, Exhibit 11.)

Department staff provides an extensive response to the issue proposed by the municipalities. Over the past forty years, the site of the Model City facility has been the subject of extensive geologic, hydrogeologic, and contaminant investigations, according to Department staff. As a result of these numerous investigations, data from over six hundred soil borings and over three hundred active ground water monitoring wells have been collected and analyzed. Department staff has relied on the data collected from these soil borings and monitoring wells.

Staff points out that the municipalities, in contrast, rely primarily on data presented in a report prepared in 1977 by Wehran Engineering (1977 Wehran Report). According to Department staff the data presented in the 1977 Wehran Report was collected from approximately 90 soil borings and one test pit. Department staff considers the 1977 Wehran Report obsolete, and notes that staff's understanding of the hydrogeologic conditions at the site is based on data collected during more contemporary studies. Staff notes further that the data collected from studies conducted by the US ACE and others on adjacent properties supports the hydrogeologic interpretation that Department staff has relied upon with respect to the site of the Model City facility. (See Staff Response at A-6 to A-7; Staff Response to support document.)

With respect to ground water contamination, Department staff notes that 30 years of monitoring and investigation show that none of the regulated landfills at the site of the Model City facility is releasing contamination to the ground water. During the RCRA Facility investigation of eighty-five solid waste management units, CWM discovered numerous areas of contamination at the site of the Model City facility. In most cases, the contamination resulted from legacy (*i.e.*, pre-1980) spills and leaks, according to Department staff. Due to the slow rates of ground water movement, Department staff states there are no cases where contaminated ground water has migrated offsite. Proposed conditions in the draft site-wide Part 373 modification permit for the RMU-2 landfill would require CWM to remediate the ground water contamination. (See Staff Response at A-7.)

Department staff contends that the determination of the "point of compliance" is consistent with ground water potentiometric surface and flow direction data for the proposed RMU-2 landfill. Staff asserts, however, that the municipalities' position as outlined in their petition for full party status is not supported by site data. (See Staff Response at A-10.)

According to Department staff, the soils beneath the footprint of the proposed RMU-2 landfill consist of the Upper Till unit and the Glaciolacustrine Clay unit. Based on test results conducted over the entire site of the Model City facility, the hydraulic conductivity geometric mean of the Upper Till unit is 2.47×10^{-6} cm/sec. Furthermore, based on test results conducted over the entire site of the Model City facility, the hydraulic conductivity geometric mean of the Glaciolacustrine Clay unit is 3.57×10^{-7} cm/sec. Staff contends that for both of these units, the geometric means meet the 1×10^{-5} cm/sec criterion for hydraulic conductivity as outlined in 6 NYCRR 373-2.14(b)(1). Department staff acknowledges, however, that with respect to the Upper Till unit, test results at some locations show hydraulic conductivity measurements that are above the 1×10^{-5} cm/sec standard. (See Staff Response at A-11.)

With respect to contamination, Department staff states that the concentration levels of contaminants in the Glaciolacustrine Silt/Sand unit are less than the levels of contamination in the Upper Till unit. Staff states further that the contamination of the Glaciolacustrine Silt/Sand unit was evaluated as part of the corrective measures study. According to Department staff, the modeling results show that due to natural degradation and low flow rates, the concentration of the contaminants were below New York State standards at the property line, and that continued monitoring with response actions would be protective of the environment. Department staff notes that the potentiometric surface maps show that the ground water flow in the Glaciolacustrine Silt/Sand unit is to the north-northwest in the vicinity of the process area. Also,

regardless of the flow direction, monitoring wells in the Glaciolacustrine Silt/Sand unit surround the process area, and have not detected any contaminant migration. (*See Staff Response at A-17.*)

In addition to responding to the petition, Department staff provided a detailed response to Dr. Michalski's November 2014 Report. Finally, Department staff acknowledges that the proposed issue is worthy of further consideration. Also, from Department staff's perspective, the proposed issue would be relevant to the criteria at 6 NYCRR 361.7(b) that the Siting Board must consider. (*See Staff Response at A-18.*)

Discussion and ruling: The municipalities have raised substantive and significant issues about the geology and hydrogeology of the site of the Model City facility, and whether CWM could monitor the proposed RMU-2 landfill in a manner consistent with regulatory requirements, given its proximity to the RMU-1 landfill and the existing ground water contamination. The issues are relevant to the pending permit applications, as well as the siting criterion related to ground water considerations (*see 6 NYCRR 361.7[b][7]*).

The proposed issues are substantive (*see 6 NYCRR 624.4[c][2]*) because competing expert opinions have been offered. On the one hand, the expert proffered by the municipalities contends, among other things, that the geology and hydrogeology of the site of the Model City facility have not been adequately characterized, and that additional information is needed about the nature and the extent of the ground water contamination. Based on these circumstances, the municipalities' expert asserts that CWM could not monitor the proposed RMU-2 landfill in a manner consistent with regulatory requirements. On the other hand, CWM and Department staff assert otherwise, and point to the numerous studies and investigations undertaken at the site, and the resulting data. Although extensive, I do not find that the application and related materials concerning the geology and hydrogeology of the site fully rebut the municipalities' offer of proof. Accordingly, I am inclined to inquire further given the complex and technical nature of the subject matter.

The proposed issues are significant (*see 6 NYCRR 624.4[c][3]*) because the adjudication of them may result in the denial of the siting certificate. In addition, the adjudication may result in a denial of the pending permit application, a major modification to the proposed project, or the imposition of significant permit conditions in addition to those already proposed in the draft permit. Depending on the outcome of the adjudication, either the Siting Board may conclude that CWM's proposal would not conform with the applicable siting criteria, or the Commissioner may conclude that the proposed RMU-2 landfill would not meet the monitoring requirements outlined in the regulations.

Based on the discussion at the issues conference, the scope of the issues will be limited as follows. The first set of issues concerns the geology of the site of the Model City facility, in general, and the geology located within the footprint of the proposed RMU-2 landfill, in particular. Petitioners have raised factual disputes about the contours of the bedrock. In particular, petitioners raise questions whether the contours of the bedrock include any ridges, and if so, the location and configuration of those ridges (*see DEIS at 56*). In addition, petitioners raise factual disputes about the characteristics of the various units of unconsolidated deposits that

may overlie the bedrock, as well as the physical properties of each unit. (Tr. at 43-45, 48-49, 50-51.)

With respect to the physical properties of each unit, factual disputes exist about the permeability, or hydraulic conductivity (*see* 6 NYCRR 373-2.13[b][1]), of the unconsolidated units that overlie the bedrock, upon which the proposed RMU-2 landfill would be situated. Of particular concern is the permeability (or hydraulic conductivity) of each unit in the vertical and horizontal direction. In addition, factual disputes exist about the direction, or directions, that ground water flows on the site of the Model City facility, as well as the rate of flow. (Tr. at 41-45, 48-51, 55.)

The second set of issues concerns ground water contamination. Generally, two types of contaminants appear to be present under the surface of the site of the Model City facility. The first type consists of volatile organic compounds (VOCs), and the second includes dense, non-aqueous phase liquids (DNAPL). Factual disputes have been raised about what type or types of contaminants are present in which units of the unconsolidated deposits, as well as the concentration of any of these contaminants. A related issue is whether the scope of the current corrective action program effectively addresses the ground water contamination. (Tr. at 51-55, 58.)

The resolution of the foregoing factual disputes is necessary to determine compliance with the following regulatory requirements:

1. Whether the pending application to modify the 2013 site-wide Part 373 renewal permit includes adequate information to protect ground water pursuant to 6 NYCRR 373-1.5(a)(3);
2. Whether CWM has provided an adequate ground water monitoring and response program to respond to any release of hazardous constituents from the proposed RMU-2 landfill given the ongoing implementation of the corrective action program associated with legacy contamination at the site of the Model City facility pursuant to 6 NYCRR 373-2.6; and
3. Whether the soil underlying the footprint of the proposed RMU-2 landfill has a hydraulic conductivity of 1×10^{-5} cm/s or less, as required by 6 NYCRR 373-2.14(b)(1).

In addition, the Siting Board may rely on the factual record that will be developed about these three topics to determine whether CWM's proposal would conform to the siting criterion at 6 NYCRR 361.7(b)(7) concerning ground water considerations.

B. Engineering Design

Chapter 3 of the April 2003 Engineering Report, revised November 2013 (2013 Engineering Report)²¹ and related Appendices outline the design of the proposed RMU-2 landfill. Design components of the proposed RMU-2 landfill include, among other things, a double-composite liner system, a mechanically stabilized earth (MSE) wall, intercell berms, a final cover system, and surface water management features. According to the 2013 Engineering Report, the design of the proposed RMU-2 landfill would meet or exceed the regulatory specifications outlined at 6 NYCRR 373-2.14. (*See* 2013 Engineering Report at 10.)

The design of the proposed RMU-2 landfill includes six cells (numbered 15 through 20) with a total area of approximately 43.5 acres. The proposed landfill would be constructed in phases as waste capacity is needed. (*See* 2013 Engineering Report at 17.)

The proposed RMU-2 landfill would be surrounded by a MSE wall consisting of soil reinforced with geosynthetics. The MSE wall would control storm water run-on from adjacent areas of the Model City facility site, and run-off from the proposed landfill. The top elevation of the MSE wall would be constant along the length of the wall. The elevation across the width of the wall, however, would vary. The highest point across the MSE wall width is along the outside edge, and would have a design elevation of 350.0 feet amsl. (*See* 2013 Engineering Report at 17.)

According to the 2013 Engineering Report, the primary advantage of using the MSE wall is increased airspace efficiency compared with a traditional unreinforced soil berm. Comparable airspace can be provided using the MSE wall design in a smaller total footprint compared to using a soil berm. The inside slope of the MSE wall would be 3:1 (horizontal to vertical) to provide stability to the liner system as required by the regulations. (*See* 2013 Engineering Report at 17.)

Each cell in the proposed RMU-2 landfill would be separated from adjacent cells by intercell berms. The purpose of the intercell berms is to control surface water and leachate. The intercell berms would be constructed of compacted clay having a maximum hydraulic conductivity of 1×10^{-7} cm/s, and would have a minimum top width of 5.0 feet. (*See* 2013 Engineering Report at 17.)

The design and operating requirements of the liner system are outlined at 6 NYCRR 373-2.14(c). Consistent with these requirements, the liner system for the proposed RMU-2 landfill would consist of a primary leachate collection system, the primary liner system, a secondary leachate collection system, and the secondary liner system. Also, the liner system for the

²¹ In his October 15, 2014 report (at 1), Dr. De identifies Item No. 3 in Section 2 (Documents Reviewed) as *Hydrogeologic Characterization Update, Model City TSD Facility, Model City, New York*, prepared by Golder Associates, dated January 2014. In Exhibit 15 to CWM's February 27, 2015 response, Brian M. Stone, P.E. (Arcadis [Syracuse, New York]) identifies the same document as the *2013 Hydrogeologic Characterization Update*, and states that the update was finalized on January 31, 2014. For purposes of discussion in these rulings, I will identify the update prepared by Golder Associates as the 2014 Hydrogeologic Characterization Update in order to distinguish it from the 2013 Engineering Report.

proposed RMU-2 landfill would be similar to the one installed for the RMU-1 landfill, with the exception of substituting a geosynthetic clay liner (GCL) for a compacted clay layer in the primary liner system. (See 2013 Engineering Report at 18-19.)

The bottom of the liner system has been designed based on the predicted hydrostatic uplift force on the bottom of the sumps and the cell floors resulting from the historical high ground water elevations measured in May 2001. The downward soil pressure acting on the top of the confined aquifer must equal (*i.e.*, minimum factor of safety equals 1.0) or exceed the predicted hydrostatic uplift pressure in order to provide a stable sump excavation. According to the 2013 Engineering Report, the factor of safety against uplift in the sumps would be verified by means of test pits and piezometric measurements in adjacent wells. Prior to sump excavation in each cell, piezometric measurements would be performed in the wells, located in the Glaciolacustrine Silt/Sand unit, that are nearest to the cell under construction. If the resulting factor of safety is less than 1.0, the excavation of the sump would be postponed until a minimum factor of safety of 1.0 can be achieved by reducing the piezometric head either naturally or by mechanical means such as with active pumping. (See 2013 Engineering Report at 19-20.)

With respect to the cell floor subgrade immediately adjacent to the sump, the minimum factor of safety would be 1.2. The required cell subgrade factor of safety is greater than the factor of safety for the sump subgrade due to the longer installation time associated with the secondary liner components across the cell floors. To facilitate the collection of leachate, the cell subgrades are designed to provide a minimum slope of 1.0 percent toward the sumps following compression of the underlying Glaciolacustrine Clay unit. (See 2013 Engineering Report at 20.)

CWM's engineering consultants performed several slope stability calculations for the proposed RMU-2 landfill and Fac Pond 5. These calculations are presented and discussed in Appendices to the 2013 Engineering Report. The calculations were used to determine the factor of safety against potential failures. The shear strengths and unit weights used in the analyses were based on past testing, tests performed specifically for RMU-2, evaluations associated with previous geosynthetic testing at the site, and expert recommendations. Shear strengths for the geosynthetic interfaces and geosynthetic/soil interfaces in the liner system may vary depending on the specific products used in construction. The 2013 Engineering Report concludes, therefore, that the assumptions made in the slope stability analyses concerning these liner material properties would need to be verified through testing. (See 2013 Engineering Report at 30.)

The stability analyses for the MSE wall (*see* 2013 Engineering Report, Appendix C-8) considered external, internal, and global stability, and included long-term static and short-term static conditions with vehicular loading and construction time. End of construction pore pressure development was also analyzed. In addition, an analysis was undertaken using an earthen buttress against the exterior surface of the MSE wall. The analysis depicted a geometry that would be stable in the event that the georeinforcement failed to function as designed. The analysis was undertaken as a contingency. (See 2013 Engineering Report at 32.)

The stability of the initial fill progression design is presented in Appendix C-9. The analysis evaluates potential failures confined to the waste materials and baseliner, as well as failures passing beneath the liner system of the proposed RMU-2 landfill. Pore pressures generated during the filling process were calculated, and were included to determine stability during the construction process. The allowable rate of fill placement was estimated based on providing a factor of safety in excess of 1.5 during all times of filling. (See 2013 Engineering Report at 32-33.)

A new Fac Pond 5 is proposed to compensate for the removal of Fac Ponds 3 and 8. Fac Pond 5 would be constructed to the north of the location for the proposed RMU-2 landfill, between SLF 12 and SLF 7. The existing Fac Ponds 1 and 2, and the new Fac Pond 5 would provide temporary storage for treated leachate during qualification and prior to off-site discharge. The 2013 Engineering Report outlines the components of the liner system for Fac Pond 5. The perimeter of Fac Pond 5 would be established at elevation 335.0 feet amsl. The total capacity of Fac Pond 5 would be about 24.7 million gallons (MG), and the usable capacity would be about 21.9 MG, which would provide 2 feet of freeboard. (See 2013 Engineering Report at 33-34.)

The municipalities contend that the engineering plans for the design of the proposed RMU-2 landfill and Fac Pond 5 are deficient, and they propose several issues based on this contention (see Municipalities Petition at 39-42). During the issues conference, Mr. Abraham, counsel for the municipalities, stated a relationship exists between the proposed issues concerning the geology and hydrogeology of the site of the Model City facility, as discussed above, and those related to the engineering plans for the design of the proposed RMU-2 landfill and Fac Pond 5 (Tr. at 355). To support their proposed issues, the municipalities offer the expert testimony of Anirban De, Ph.D. (Yonkers, New York). According to his resume, Dr. De's doctoral degree is in civil engineering. Dr. De is also a professional engineer (New York State License No. 080871). With the petition, the municipalities also provide a report prepared by Dr. De entitled, *Review of Permit Application RMU-2, CWM Model City*, dated October 15, 2014.

In his report (Section 6), Dr. De notes, among other things, that a relatively high piezometric level is associated with the Glaciolacustrine Silt/Sand unit at the site of the Model City facility. Accordingly, Dr. De states that the excavation plans must consider hydrostatic uplift pressure on the floor of the proposed landfill cells, and the associated sumps. Because the occurrence of an uplift would have serious consequences, Dr. De maintains that the design must provide an acceptable factor of safety against uplift due to hydrostatic pressure. According to Dr. De, CWM's design, as outlined in the 2013 Engineering Report, does not meet applicable regulatory standards. (See De Report at 6.)

Dr. De identifies the following specific concerns. First, Dr. De states that the values used in the hydrostatic uplift analysis, which are presented in Appendix C-4 of the 2013 Engineering Report, concerning the thickness of the Glaciolacustrine Clay unit and the top elevation of this unit, are not supported by the more recent information presented in the 2014 Hydrogeologic Characterization Update. With reference to Figure 9 from the 2014 Hydrogeologic

Characterization Update,²² Dr. De notes that the thickness of the Glaciolacustrine Clay unit along the northern and western areas of the footprint for the proposed RMU-2 landfill is 5 feet or less. Dr. De observes further that Appendix C-4 of the 2013 Engineering Report states that the top elevation of the Glaciolacustrine Clay unit varies from 293 feet amsl to 295 feet amsl. However, a drawing prepared by Golder Associates in 2014 shows that the elevation of the top of the Glaciolacustrine Clay unit varies from 303 feet amsl to 310 feet amsl, with most areas having an elevation of 307 feet amsl. (*See De Report at 7.*)

Second, according to Dr. De, the 2013 Engineering Report does not provide data showing the method for selecting the historical high piezometric levels. Dr. De notes that CWM's consultants measured ground water elevations in May 2001 and October 2004, and from these data selected the highest measurements. Dr. De states that it is not clear what time period was included by the term "historical." Dr. De argues that CWM should provide water level elevations from different wells at the site to establish the historical high elevations before using those results in the analyses. Dr. De argues further that possible effects from climate change on ground water levels should be considered in the landfill design. (*See De Report at 7, 10-11.*)

Third, Dr. De states that the design piezometric levels used in the uplift analysis (*see* 2013 Engineering Report, Appendix C-4) are different from those used in the slope stability analysis (*cf.* 2013 Engineering Report, Appendix C-5). Referring to the uplift calculations in Table 1 of Appendix C-4, Dr. De states that the controlling piezometric head is 316.6 feet amsl in Cell 20. However, with respect to the slope stability analysis, which is based on a cross section through Cell 20 (*see* RMU2X1350.gsz [Cross section 13+50]), the piezometric levels are 313 feet amsl at the east end, and 314.5 feet amsl at the west end. Dr. De observes that the latter values used in the slope stability analysis are less than the 316.6 feet amsl piezometric head used in the uplift analysis. According to Dr. De, the highest anticipated ground water elevation values should be used in the long-term slope stability analysis to account for the most adverse condition. Dr. De argues further that the same value for the high ground water level should be used in both the uplift and the slope stability analyses. (*See De Report at 7, 10.*)

Finally, given the general lack of field data on subsurface conditions in the footprint for the proposed RMU-2 landfill, the high level of uncertainty associated with the design, and the contaminated nature of the aquifer, Dr. De argues that the proposed factors of safety (*i.e.*, 1.0 hydrostatic uplift for the sump area, and 1.2 hydrostatic uplift for the cell floor area) are not acceptable. Dr. De explains that a factor of safety equal to 1.0 indicates an equilibrium condition where the downward pressure of the soil equals the upward pressure of ground water, and that a factor of safety equal to 1.2 indicates a marginal equilibrium. Dr. De contends that any deviation from the assumed design conditions could result in a failure. With respect to Fac Pond 5, Dr. De notes that the "worst case" piezometric head is 313 feet amsl (*see* 2013 Engineer Report, Appendix C-4, Table 4). However, the "controlling" piezometric head for areas outside the sump is 312.4 feet amsl (*see* 2013 Engineer Report, Appendix C-4, Table 7). Dr. De observes that the design fails to meet the minimum factor of safety of 1.2 for areas adjacent to the sump. (*See De Report at 7, 9.*)

²² Dr. De provides a copy of Figure 9 from the 2014 Hydrogeologic Characterization Update as Exhibit B to his October 15, 2014 report.

With respect to the potential adverse effects associated with hydrostatic uplift, Dr. De cites to 6 NYCRR 373-2.14(c)(1)(i)(b) (*see* De Report at 11). This regulation requires the foundation or base underlying the landfill to be capable of supporting the liner and resisting pressure gradients sufficient to prevent the liner from failing due to settlement, compression or uplift. Based on his review of the 2013 Engineering Report and the apparent heterogeneity of the Glaciolacustrine Clay unit over which the proposed RMU-2 landfill would be constructed, Dr. De is concerned about, among other things, whether the integrity of the liner could be maintained based on the potential hydrostatic uplift forces. (Tr. at 361-365.)

In addition to his concerns about hydraulic uplift, which generally focus on the hydraulic characteristics of the Glaciolacustrine Clay unit, Dr. De expressed concern about the characteristics of the Glaciolacustrine Silt/Sand unit as they are reported in the 2013 Engineering Report. Dr. De's concerns are premised on the analysis outlined in Dr. Michalski's report with respect to the existence of an alluvial valley bounded by bedrock ridges underlying the site of the Model City facility. Dr. De states that the alluvial valley would significantly influence the direction of the flow of ground water through the Glaciolacustrine Silt/Sand unit. (*See* De Report at 11.)

With respect to the Glaciolacustrine Silt/Sand unit, Dr. De states that the hydraulic conductivity values presented in the 2013 Engineering Report are inconsistent. For example, in § 2.2.2.1 of the 2013 Engineering Report (at 9), the hydraulic conductivities of the Glaciolacustrine Silt/Sand unit are 3×10^{-5} cm/s in the horizontal direction (k_H) and 1.6×10^{-5} cm/s in the vertical direction (k_V). However, in § 3.2 of Appendix A-1 to the 2013 Engineering Report (at 6-7), k_H is 2×10^{-4} cm/s and k_V is 2×10^{-5} cm/s for the Glaciolacustrine Silt/Sand unit. Dr. De notes that the difference between the k_H values (*i.e.*, 3×10^{-5} cm/s and 2×10^{-4} cm/s) is relatively large, and characterizes the difference as almost one order of magnitude. Dr. De also notes that the hydraulic conductivity in the central alluvial valley is two orders of magnitude larger than on the northern side of the valley, as reported in Dr. Michalski's report. Referring to 6 NYCRR 373-2.14(b)(1), which sets the hydraulic conductivity of the soils beneath any landburial facility at 1×10^{-5} cm/s or less, Dr. De observes that the previously mentioned hydraulic conductivity values are greater than the regulatory standard and, therefore, would not comply with it. (*See* De Report at 11-12.)

In his report, Dr. De states that the information about the vertical thickness and the horizontal continuity of the Glaciolacustrine Silt/Sand over which the proposed RMU-2 landfill would be located is conflicting. Dr. De refers to Attachment 1 of Appendix A-1 to the 2013 Engineering Report (*see* Figure 3²³) and to Figure 8²⁴ from the 2014 Hydrogeologic Characterization Update. After comparing the two figures, Dr. De notes that the thickness contours for the Glaciolacustrine Silt/Sand unit, as reported in each figure, are inconsistent. Dr. De notes further that the two figures show a general lack of borings in the area where the

²³ Dr. De provides a copy of Figure 3 in Attachment 1 of Appendix A-1 to the 2013 Engineering Report as Exhibit E to his October 15, 2014 report.

²⁴ Dr. De provides a copy of Figure 8 from the 2014 Hydrogeologic Characterization Update as Exhibit F to his October 15, 2014 report.

proposed RMU-2 landfill would be located, particularly with respect to the western portion of the proposed landfill site. In addition, the two figures depict boring points separated by large distances through which a few contour lines have been drawn. Dr. De argues that additional borings should be undertaken to more precisely determine the thickness of the Glaciolacustrine Silt/Sand unit. (*See De Report at 12-14.*)

As with the Glaciolacustrine Clay unit, Dr. De contends that the hydraulic conductivity of the Glaciolacustrine Silt/Sand unit varies. To support this contention, Dr. De references Table 5 from the 2014 Hydrogeologic Characterization Update where the hydraulic conductivity values range from 1×10^{-3} cm/s to 1×10^{-6} cm/s. Dr. De notes that the hydraulic conductivity for some portions of the Glaciolacustrine Silt/Sand unit that would lie beneath the proposed RMU-2 landfill is 1×10^{-6} cm/s. According to Dr. De, these deposits, having such a low conductivity, could not act as a water drainage pathway for the overlying Glaciolacustrine Clay unit during the consolidation of the Glaciolacustrine Clay unit. Rather, Dr. De argues that the Glaciolacustrine Silt/Sand unit would consolidate and, thereby, prevent the Glaciolacustrine Clay unit from draining, which would exacerbate issues related to excess pore water pressure. (*See De Report at 13.*) Excess pore pressure, if not properly managed, would render the structural components of the landfill unstable (Tr. at 359-361). Slope failure could result (*see Municipalities Petition at 40*).

Ms. Witryol asserts generally that the design of the proposed RMU-2 landfill and related modifications to the Model City facility would not comply with regulatory standards. For example, Fac Ponds 1 and 2 consist of an old, single clay liner. Ms. Witryol notes that the footprint of the proposed RMU-2 landfill would be located over an alluvial valley bounded by bedrock ridges as described by Dr. Michalski. Ms. Witryol also notes that the proposed RMU-2 landfill would not comply with federal requirements concerning ground water separation distances. Compliance with these federal requirements would be necessary for CWM to obtain authorization to dispose PCBs at the proposed RMU-2 landfill. (*See Witryol Petition and Comments at 36-37, see also Tr. at 391-392.*)

With its February 27, 2015 response, CWM provides a letter/report, dated February 25, 2015, prepared by its consultants, Arcadis (Syracuse, New York) in coordination with PJ Carey & Associates, PC (Sugar Hill, Georgia). The February 25, 2015 report is identified as Exhibit 15, and was prepared by Brian M. Stone, P.E., Senior Civil Engineer, on behalf of Arcadis (2015 Arcadis Report). The purpose of the February 25, 2015 Arcadis report is to respond to Dr. De's October 15, 2014 report.

In the February 25, 2015 Arcadis report, Mr. Stone states that data from May 2001 and October 2004 concerning ground water levels are presented in Appendix C-4 to the 2013 Engineering Report, and that the data sets from May 2001 and October 2004 represent the worst-case (*i.e.*, highest ground water elevations) conditions. The data collected in October 2004 are generally lower except for limited areas in the proposed RMU-2 footprint. Mr. Stone notes that Arcadis reviewed additional data sets collected in October from 2005 to 2014, and no other data set is more critical than the May 2001 ground water levels. Mr. Stone concludes that the May 2001 levels continue to represent the historical high ground water levels. Mr. Stone acknowledges that a significant number of monitoring wells were installed in the vicinity of

RMU-2 since May 2001, and these wells had their maximum ground water elevations in the Glaciolacustrine Silt/Sand in October 2013. (See 2015 Arcadis Report at 13.)

Mr. Stone states that any impact of higher ground water levels is limited, however. To support this statement, Mr. Stone refers to Figures 1 through 12, which are included with the 2015 Arcadis Report. According to Mr. Stone, these analyses show that the stability of the proposed design would not be adversely affected by the occurrence of higher ground water levels. Mr. Stone notes further that draft permit conditions would require CWM to measure the piezometric heads in the Glaciolacustrine Silt/Sand unit at surrounding monitoring wells and compare the measured heads to the historical high levels to confirm that the measured heads are at or below those used in the design. (See 2015 Arcadis Report at 13-15.)

In addition, Mr. Stone notes that the conditions analyzed in Appendix C-4 of the 2013 Engineering Report are temporary and would exist for a short period during the construction of the liner system. Draft permit conditions limit the exposure of the sump subgrade to 24 hours. The exposure of the subgrade for the cell floor is longer, but requires the installation of the secondary clay liner “in short order.” When the construction of the liner system is complete, Mr. Stone states that the load from its components would increase the downward force on the confined aquifer and, thereby, increase the factor of safety against hydrostatic uplift. Mr. Stone states further that Department staff accepted these same factors of safety for the design and construction for every cell of the RMU-1 landfill. According to Mr. Stone, every cell of the RMU-1 landfill has been successfully constructed at this point without issue. (See 2015 Arcadis Report at 15.)

With respect to Dr. De’s concerns about the design for Fac Pond 5, Mr. Stone explains that after the installation of its liner system, a different equilibrium condition would exist. According to Mr. Stone, the new equilibrium condition would have a factor of safety of 1.5 with the occurrence of the historical high ground water level. (See 2015 Arcadis Report at 16.)

As noted above, Dr. De comments in Section 7 of his report about the different hydraulic conductivity values of the Glaciolacustrine Silt/Sand unit as presented in the text of the 2013 Engineering Report (at 9), and in Appendix A-1 (at 6-7). According to Mr. Stone, Arcadis obtained the values presented in the text of the 2013 Engineering Report from the Golder reports referenced therein. Mr. Stone notes that the basis for the values provided in Appendix A-1 is outlined in § 3.2 of the Appendix (at 6). The text from § 3.2 in Appendix A-1 states, in part, that slug test data typically underestimate the *in situ* hydraulic conductivity of formations, especially in stratified and heterogeneous units, such as the Glaciolacustrine Silt/Sand unit. The text in Appendix A-1 states further that the upper limit of k values presented in the table (see Appendix A-1 at 6-7) were adopted for the Glaciolacustrine Silt/Sand estimate. Mr. Stone explains that the Golder reports provide geometric means of tested permeabilities without interpretation or bias, but the purpose of Appendix A-1 is to assign reasonable engineering properties to the soil strata to support the various geotechnical calculations for the design of the proposed RMU-2 landfill and Fac Pond 5. (See 2015 Arcadis Report at 16-17.)

In the February 2015 response (at A-20 to A-27), Department staff provides a thorough review of the municipalities’ proposed issues concerning the adequacy of the engineering plans

for the proposed RMU-2 landfill and Fac Pond 5, as well as Dr. De's report (*see* Staff Response to support document). Department staff identifies the following topics, among others, that may need further consideration. The first concerns whether the soil beneath the proposed RMU-2 landfill has a hydraulic conductivity of 1×10^{-5} cm/s or less as required by 6 NYCRR 373-2.14(b)(1). The basis for staff's concern is the apparent variability of the Glaciolacustrine Clay and Glaciolacustrine Silt/Sand units. Consequently, the second topic that may need further consideration is the potential need for additional borings and testing data within the footprint of the proposed RMU-2 landfill to better characterize the elevations and thicknesses of the Glaciolacustrine Clay and Glaciolacustrine Silt/Sand units, as well as the hydraulic conductivity of the Glaciolacustrine Silt/Sand unit. According to Department staff, additional information would verify the assumptions relied upon for the hydrostatic uplift and slope stability analyses. (*See* Staff Response at A-21 to A-22, A-25 to A-27.)

In reviewing Dr. De's report, Department staff notes that the Glaciolacustrine Clay unit at various locations on the site of the Model City facility is separated into two layers by the Middle Silt Till unit. According to Department staff, the separation of the Glaciolacustrine Clay unit may account for some of the discrepancies discussed in Dr. De's report concerning the thickness of the Glaciolacustrine Clay unit. Department staff recommends relying on the 2002 Golder Figure 2 (*see* 2013 Engineering Report, Appendix C-4, Attachment B²⁵) rather than Figure 9 from the 2014 Hydrogeologic Characterization Update²⁶ because the latter figure may not account for the thickness of the lower Glaciolacustrine Clay layer where the Glaciolacustrine Clay unit is separated by the Middle Silt Till unit. Department staff also notes that the boring data shows that the thickness of the Glaciolacustrine Clay unit varies substantially over a relatively short distance. For example, Borings SB-02-7 and SB-02-8 are about 100 feet apart. At Boring SB-02-7, the thickness of the Glaciolacustrine Clay unit is 14.2 feet; at Boring SB-02-8, the thickness of the Glaciolacustrine Clay unit is 3.7 feet. Staff recommends either performing additional borings within the footprint of the proposed RMU-2 landfill to supplement existing subsurface data, particularly in areas where sumps would be located, or relying on more conservative design values. (*See* Staff Response to support document at 18, 20).

Department staff confirms Dr. De's observation that the piezometric levels used in the uplift analysis (*see* 2013 Engineering Report, Appendix C-4) are different from those used in the slope stability analysis (*cf.* 2013 Engineering Report, Appendix C-5). Given this difference, Department staff states that the maximum ground water elevation values relied upon for the slope stability analysis may need to be revised. Alternatively, CWM's design engineers may need to explain why different values should be used for the uplift analysis and for the slope stability analysis. With respect to the hydraulic uplift analysis, Department staff states further that questions remain about the thickness of the Glaciolacustrine Clay unit, the top elevation of the Glaciolacustrine Silt/Sand unit, and the minimum factors of safety selected for the analysis. (*See* Staff Response to support document at 23-24.)

Department staff observes that a wide range of hydraulic conductivity values exist for the Glaciolacustrine Silt/Sand unit in the vicinity of the footprint for the proposed RMU-2 landfill, in

²⁵ Dr. De provides a copy of this figure in his October 15, 2014 report as Exhibit A.

²⁶ Dr. De provides a copy of this figure in his October 15, 2014 report as Exhibit B.

particular, and across the site of the Model City facility, in general. Department staff acknowledges the difficulty in assigning a single hydraulic conductivity value to the site as well as to a particular unconsolidated geologic unit. According to Department staff, selecting the appropriate hydraulic conductivity value, or values, to represent the Glaciolacustrine Silt/Sand unit in the design evaluations requires a certain degree of conservatism. Although a substantial amount of soil in the Glaciolacustrine Silt/Sand unit may not meet the regulatory hydraulic conductivity standard, Department staff notes that the Glaciolacustrine Clay unit, which generally overlies the Glaciolacustrine Silt/Sand unit, has hydraulic conductivity values that are consistently lower than 1×10^{-5} cm/s. At those locations where the Glaciolacustrine Clay unit is not present, compliance with the regulatory standard may depend on the hydraulic conductivities of the Upper Till and the Glaciolacustrine Silt/Sand units. (See Staff Response to support document at 26.)

Department staff agrees with Dr. De that the data concerning the thickness of the Glaciolacustrine Silt/Sand unit and its hydraulic conductivity are limited, particularly in the western portion of the footprint for the proposed RMU-2 landfill. Staff also agrees that fewer data points could increase interpolation errors, especially when the geographic unit is heterogeneous, as is the case with the Glaciolacustrine Silt/Sand unit. If additional data concerning the thickness of the Glaciolacustrine Silt/Sand unit and its hydraulic conductivity were available, Department staff contends that the design analyses for the proposed RMU-2 landfill would be more accurate. (See Staff Response to support document at 29.)

Just prior to the issues conference, CWM filed correspondence with Department staff dated April 17, 2015 that included supplemental information. The purpose of the supplemental information is to respond to the municipalities' proposed issues concerning the engineering design for the proposed RMU-2 landfill, including Dr. De's report, as well as Department staff's February 27, 2015 response to the municipalities' petition for full party status. CWM states that the proposed factors of safety selected for the hydrostatic uplift analyses are the same as those used to design the RMU-1 landfill. CWM states further that its design consultants consider the proposed factors of safety to be appropriate because they are based on conservative assumptions. With the April 17, 2015 correspondence, CWM provided a revised Appendix C-4 to the 2013 Engineering Report, which states that the shear strength of the soil between the base of the proposed RMU-2 landfill and the Glaciolacustrine Silt/Sand unit was ignored. CWM notes that if the shear strength of the soils were considered in the calculations, the factor of safety for the hydrostatic uplift analysis for the sump excavations would be greater. In addition, CWM revised Appendix C-4 to the 2013 Engineering Report to include calculations by Arcadis for the factors of safety for each cell after the construction of the baseliner assuming the highest piezometric head in the Glaciolacustrine Silt/Sand unit. According to these calculations, the factors of safety against hydrostatic uplift after the construction of the baseliner are adequate without having to account for waste loading. (See CWM April 2015 Supplemental Information at 1-2, and Tr. at 371-372.)

With respect to the need for additional boring data to better understand the subsurface conditions, CWM and its design consultants restate that sufficient data is available to develop a design and to undertake stability analyses for the proposed RMU-2 landfill using sound engineering judgment. Based on draft permit conditions, CWM notes that additional data would

be collected prior to landfill construction. According to the April 17, 2015 correspondence, and as stated at the issues conference (Tr. at 377, 381-382), the design plan would require the installation of a network of vibrating wire piezometers in the subgrade to monitor porewater pressures as the cells are loaded during landfill operations. Installing the vibrating wire piezometers would require additional borings that would provide more data about the Glaciolacustrine Silt/Sand unit including measurements of piezometric heads. The engineers could use this additional data to verify design assumptions, and to ensure that the minimum factors of safety would be met prior to construction. (See CWM April 2015 Supplemental Information at 3.)

CWM explains that the purpose of the analysis presented in the 2013 Engineering Report using the consolidated undrained strength of the Glaciolacustrine Clay unit was to identify the critical failure surface for purposes of the pseudo-static analysis. The purpose of the pseudo-static analysis, in turn, is to determine the yield acceleration. The yield accelerations were calculated using the highest Glaciolacustrine Silt/Sand unit piezometric levels. CWM notes, however, that in practice, the loading process would take over a year. Consequently CWM states that using the maximum seasonal high water levels in such an analysis would not be appropriate. (See CWM April 2015 Supplemental Information at 3.)

With a cover letter dated May 29, 2015, Department staff responded to CWM's April 17, 2015 correspondence and supplemental information. Staff agrees that the common engineering practice is not to consider shear strength when undertaking calculations to evaluate potential hydrostatic uplift forces. Department staff identified the draft permit conditions that require CWM to provide information to the on-site Department monitor during the excavation of the sumps and construction of the sump liners. Staff notes that excavation of the sumps may be delayed until a "comfortable" factor of safety is provided by a natural or artificial lowering of ground water elevations in the sump areas. (See Staff May 2015 Response at 1.)

Department staff reviewed the information presented in the revisions to Appendix C-4 to the 2013 Engineering Report. Staff accepts the minimum factor of safety of 1.4 for post-liner construction. Staff states that this factor of safety would protect the liner from any hydrostatic uplift with respect to known historic maximum ground water elevations. (See Staff May 2015 Response at 1-2.)

Because CWM would install the vibrating wire piezometers in the subgrade to monitor porewater pressures during landfill operations, Department staff acknowledges that additional data concerning the nature and characteristics of the Glaciolacustrine Clay and Glaciolacustrine Silt/Sand units would become available. Department staff notes that CWM's installation of the vibrating wire piezometers would be subject to staff's oversight and approval. In this regard, Department staff intends to work with CWM to ensure that the number and the locations of the borings for the vibrating wire piezometer network are appropriate. (See Staff May 2015 Response at 2.)

Finally, Department staff agrees that the higher ground water piezometric elevations would not produce unacceptable static or seismic stability results at final grade cross sections under Glaciolacustrine Clay drained conditions. With respect to the pseudo-static analysis and

the yield acceleration calculations, Department staff accepts the explanation outlined in CWM's April 17, 2015 correspondence and supplemental information. (See Staff May 2015 Response at 2.)

At the issues conference, Dr. De stated that he reviewed the 2013 Engineering Report and associated documents to prepare his October 2014 report submitted with the municipalities' November 24, 2014 petition for full party status. Subsequent to the filing date for the petitions for full party status, Dr. De reviewed two additional sets of documents. First, Dr. De reviewed CWM's February 27, 2015 response, which includes the Arcadis February 25, 2015 letter/report prepared by Mr. Stone (see CWM Response, Exhibit 15). Second, Dr. De reviewed Department staff's February 27, 2015 response. (Tr. at 366-368.) Subsequent to the issues conference, CWM provided the municipalities with contour information that its consulting engineers used to develop the stability analyses via an email from Mr. Darragh dated May 27, 2015. In addition, three contour maps (Terramodel software) concerning the upper surface of the Glaciolacustrine Silt/Sand unit were attached to CWM's May 27, 2015 email.

With a cover letter from Mr. Abraham dated June 12, 2015, the municipalities provided, among other things, a memorandum from Dr. De dated June 9, 2015 reviewing the revised hydrostatic uplift factors of safety included with CWM's April 17, 2015 correspondence and supplemental information. The municipalities note that none of CWM's post-issues conference submissions provides new data on piezometric levels. The municipalities argue that uncertainty remains with respect to the Terramodel contours upon which CWM relies for the design. In particular, the recent contour maps (see Darragh May 27, 2015 email and attachments) show that the upper surface of the Glaciolacustrine Silt/Sand unit is about six feet higher than originally assumed. The municipalities argue that for many areas within the footprint of the proposed RMU-2 landfill, the factor of safety to prevent hydrostatic uplift would be less than or very close to 1.0. (See Municipalities June 12, 2015 letter at 1-2.)

In his June 9, 2015 memorandum, Dr. De argues that the appropriate factor of safety should be greater than 1.0. Dr. De notes that a factor of safety equal to 1.0 represents equilibrium conditions where the stabilizing pressures equal the destabilizing pressures. The basis for Dr. De's argument is the lack of data about ground water elevations and the thickness of the Glaciolacustrine Clay unit. (See De June 9, 2015 Memorandum at 2-3.) With reference to Cell 15 and the revised Terramodel contour map, Dr. De notes that the elevation of the Glaciolacustrine Silt/Sand unit is 288 feet amsl, where initial calculations were based on an elevation of 282 feet amsl. Dr. De recalculated the factor of safety based on the revised elevation, and found that it would be 0.80, which is less than 1, and therefore unacceptable. (See De June 9, 2015 memorandum at 5.)

Dr. De opines that long-term hydrogeological monitoring would be necessary to determine whether advanced ground water pumping would effectively lower the piezometric head to levels that would ensure a safe design. In the alternative, Dr. De recommends that the design subgrade elevation could be raised to provide sufficient soil thickness that would counteract against hydrostatic pressure and provide an adequate factor of safety. Dr. De acknowledges that CWM has agreed to undertake subgrade excavations when piezometric heads are sufficiently low to ensure the proposed factors of safety, and that such conditions would be

field verified. Dr. De does not object to the concept of field observations during construction. Dr. De argues, however, that field observations should not serve as a proxy for adequate design in the first instance. (*See* De June 9, 2015 memorandum at 7-8.)

Subsequently, with an email dated October 2, 2015, Mr. Abraham filed a cover letter of the same date with the following enclosures on behalf of the municipalities:²⁷

1. Letter dated August 24, 2007 from Val Washington, then-Deputy Commissioner for Remediation and Materials Management, New York State Department of Environmental Conservation to Gary A. Abraham.
2. Letter dated April 23, 2015 from Michael D. Mahar, District Manager, CWM to Davis S. Denk, Regional Permit Administrator, New York State Department of Environmental Conservation, Region 9.
3. New York State Department of Environmental Conservation, Division of Water Technical and Operational Guidance Series (TOGS) 1.3.9, *Implementation of the NYSDEC Antidegradation Policy - Great Lakes Basin (Supplement to Antidegradation Policy, dated September 9, 1985)*, dated February 26, 2009.
4. Letter dated August 20, 2015 from Michael D. Mahar, District Manager, CWM to David S. Denk, Regional Permit Administrator, New York State Department of Environmental Conservation, Region 9, and enclosure entitled, *Antidegradation Demonstration Supplement for Bioaccumulative Chemicals of Concern*, dated August 2015.
5. Report by Dr. Ranajit Sahu, *Comments on Fugitive Dust Emission Calculations from Soil Stockpiles*, dated September 30, 2015.
6. Memorandum by Dr. Andrew Michalski, *Evidence of Ground water Infiltration into RMU-1 and its Implications on RMU-2*, dated September 30, 2015.
7. Memorandum by Dr. Anirban De, *Implications of Potential Ground water Infiltration into RMU-1 on Proposed Design of RMU-2*, dated October 1, 2015.
8. Report by Dr. Marvin Resnikoff, *Review of RMU-2 Project Specific Soil Excavation Monitoring and Management Plan*, dated October 2, 2015.

In the October 2, 2015 cover letter and enclosed memoranda, the municipalities and their expert consultants contend that the liner for the RMU-1 landfill is leaking. The basis for the contention is CWM's environmental monitoring reports (EMR) for April 2015 and June 2015,

²⁷ Enclosure Nos. 1 and 8 relate to proposed issues concerning legacy contamination and project-specific excavations (*see* **Rulings** § V.C *infra* at 116). Enclosure Nos. 2, 3 and 4 relate to proposed issues concerning the SPDES permit application (*see* **Rulings** § V.D *infra* at 138). Enclosure No. 5 relates to proposed issues concerning the ASF modification permit application (*see* **Rulings** § V.F *infra* at 144). Enclosure Nos. 6 and 7 relate to proposed issues concerning the engineering and design of the proposed RMU-2 landfill.

which show that contaminated water is entering the RMU-1 secondary leachate containment system. (See Abraham October 2, 2015 letter at 3-4.)

Dr. Michalski's September 30, 2015 memorandum outlines the details associated with the purported leak of the RMU-1 secondary leachate containment system. Dr. Michalski states that the pH values and electrical conductivity measurements of the water removed from the secondary leachate containment system are typical of ground water infiltration from beneath the RMU-1 landfill rather than surface water runoff from storm events. According to Dr. Michalski, the inflow was the result of an increased upward hydraulic gradient across the liner. Dr. Michalski contends that the data provided in the EMRs for the RMU-1 landfill support his contentions concerning the monitorability of the proposed RMU-2 landfill given its proximity to the RMU-1 landfill. (See Michalski September 30, 2015 memorandum at 1-2.)

In his October 1, 2015 memorandum, Dr. De states that he agrees with Dr. Michalski that the source of the water collected in the secondary leachate containment system for the RMU-1 landfill is ground water. According to Dr. De, the presence of leachate in the secondary containment system demonstrates deficiencies in the design of the RMU-1 liner system. Dr. De concludes that it would not be prudent to use the design from the RMU-1 landfill for the proposed RMU-2 landfill. Dr. De recommends that CWM revise the design for the proposed RMU-2 landfill to avoid a recurrence of the problems now associated with the RMU-1 landfill. Among these revisions, CWM should consider a design that relies on minimum factors of safety of 1.5 or higher, which are necessary to provide adequate safeguards related to high ground water levels and the highly variable nature of the subgrade. (See De October 1, 2015 memorandum at 2-3.)

During the October 15, 2015 telephone conference call, Mr. Darragh stated that CWM's consultants had recently filed a report with Department staff, and that two additional reports would be forthcoming. The report, dated October 2015, is entitled, *Construction Documentation and Engineering Certification Report for the Construction Quality Assurance of Residuals Management Unit 1 Cell 11/13 Secondary Leachate Collections System Investigation*. The purpose of the October 2015 report is to demonstrate that the repair of the secondary liner for the RMU-1 landfill has been completed in a manner consistent with the terms and conditions of the 2013 site-wide Part 373 renewal permit. With an email dated October 15, 2015, Mr. Darragh circulated an electronic copy of the October 2015 report to the issues conference participants and me. Subsequently, Mr. Darragh circulated the additional two reports in electronic format attached to emails dated October 22, 2015 and October 29, 2015.

I granted requests made during the October 15, 2015 telephone conference call by CWM and Department staff to respond to the municipalities' submissions dated June 12, 2015 and October 2, 2015 with respect to the engineering design of the proposed RMU-2 landfill. With an email from Mr. Darragh dated December 1, 2015, CWM timely filed a response. CWM's December 1, 2015 response included eight attachments.²⁸ Of them, Attachments 1 and 7

²⁸ The follow is a list of the other attachments to CWM's December 1, 2015 response. Attachments 2 and 4 refer back to CWM's December 1, 2015 response (at A-4 to A-6, and at A-9). CWM's December 1, 2015 response at these two sets of pages addresses, respectively, Dr. Resnikoff's June 12, 2015 memorandum concerning the adequacy of the URS raw data disclosure, and his October 2, 2015 report concerning the project-specific SEMMP

respond, respectively, to Dr. De's June 9, 2015 memorandum concerning hydrostatic uplift factors of safety, and his October 1, 2015 memorandum concerning ground water infiltration at the RMU-1 landfill and its implications for the design of the proposed RMU-2 landfill. Also relevant to the topic of engineering design are Attachments 6 and 8. Attachment 6 responds to Dr. Michalski's September 30, 2015 memorandum concerning ground water intrusion at the RMU-1 landfill. Attachment 8 provides data about the volumes of leachate collected from the secondary leachate collections system (SLCS) at the RMU-1 landfill.²⁹

With respect to the factors of safety discussed in the municipalities' June 12, 2015 correspondence and Dr. De's June 9, 2015 memorandum, CWM contends that neither the municipalities nor Dr. De provided any supporting calculations. CWM emphasizes that the hydrostatic uplift conditions are for the extremely short construction period associated with the installation of the sumps (*i.e.*, 24 hours or less) and cell liner system (*see* 2015 Arcadis report at 15). (*See* CWM December 1, 2015 response at A-2 to A-4.) CWM contends further that its hydrostatic uplift analysis considered several geological units (*i.e.*, Upper Glacial Till, Glaciolacustrine Clay, and Glaciolacustrine Silt/Sand) in the footprint of the proposed RMU-2 landfill. According to CWM, Dr. De inappropriately limited his consideration to the thickness of the Glaciolacustrine Clay unit above the Glaciolacustrine Silt/Sand unit. (*See* CWM December 1, 2015 response, Attachment 1 at A-13 to A-14.) With reference to its February 2015 response as well as the April 17, 2015 supplemental information, CWM restates that its consultants would be collecting additional data during the site preparation and construction of the proposed RMU-2 landfill to verify the factors of safety. (*See* CWM December 1, 2015 response, Attachment 1 at A-15 to A-16.) CWM observes that temporarily lowering piezometric surfaces of confined ground water units with pumping is a widely accepted construction practice. To support this observation, CWM notes that the Modern Landfill relied on this practice. (*See* CWM December 1, 2015 response, Attachment 1 at A-18 to A-19.)

According to CWM, the claim by Dr. Michalski and Dr. De that ground water leaked into the RMU-1 secondary leachate collection system is misplaced. CWM commenced an investigation when, in July and October 2015, the response rates for the secondary leachate collection system at RMU-1 were exceeded at Cell 1, Cell 11/13, and Cell 12/14. The results of the investigation showed that defects in the primary geomembrane boot around the secondary side-slope riser pipes were the likely cause of storm water infiltration. Repairs were undertaken at each of the cells' secondary side-slope riser pipes. Since the repairs, the secondary leachate collection system volume data presented in Attachment 8 demonstrates no exceedances of the response rates for Cells 1, 11/13 or 12/14. (*See* CWM December 1, 2015 response, Attachment 6 at A-27 to A-28, and Attachment 8.)

CWM asserts that Dr. Michalski does not provide any data to support his statement that the leachate collected in the RMU-1 secondary leachate collection system was ground water rather than storm water. According to CWM, the source of the leachate in the secondary

(*see* **Rulings** § V.C [Legacy Contamination and Project-Specific Excavations] *infra* at 116). Attachments 3 and 5 respond to Dr. De's comments about potential air emissions (*see* **Rulings** § V.F [Potential Air Emissions] *infra* at 144).

²⁹ *See also* Attachment to Mr. Darragh's email dated November 5, 2015.

leachate collection system was storm water. CWM states that the crushed limestone was used to backfill components of the secondary granular stone layers. CWM contends that the pH of the rain water would increase and its mineral content would likewise increase when the storm water came in contact with the limestone. As a result, the leachate would acquire qualities characteristic of ground water. (See CWM December 1, 2015 response, Attachment 6 at A-29.)

With an email from Ms. Mucha dated December 1, 2015, Department staff timely filed a cover letter of the same date signed by Mr. Stever and Ms. Mucha, as well as two attachments.³⁰ The first attachment is Department staff's evaluation of the municipalities' June 12, 2015 comments concerning hydrostatic uplift. The second attachment is Department staff's evaluation of the municipalities' October 2, 2015 comments concerning the RMU-1 landfill.

According to Department staff, the excavation and installation of the sumps are field activities subject to a draft permit conditions. The draft permit conditions would require the real-time measurement of the Glaciolacustrine Silt/Sand level and piezometric head, as well as a calculation of the factor of safety just prior to commencing the installation of the sump. The draft permit conditions would also require the on-site Department staff members to give approval immediately prior to construction upon review of the data and calculations. Department staff reviewed the records from the construction of the RMU-1 landfill, and notes the following. First, the draft permit conditions for the proposed RMU-2 landfill concerning the installation of the sumps are similar to the permit conditions imposed for the RMU-1 landfill. Second, in reviewing the permit conditions for the RMU-1 landfill, staff found that the calculated factors of safety for the RMU-1 landfill cells were greater than 1.1 just prior to sump excavation and installation. (See Staff December 1, 2015 letter at 2, and Attachment 1 at 4-5.)

Contrary to Dr. De's assertion, Department staff is confident that pumping the Glaciolacustrine Silt/Sand unit to reduce piezometric head so as to assure an adequate factor of safety would not "dislodge" legacy contaminants in the areas where the sumps would be installed. Staff contends that such pumping could proceed safely. Department staff notes there is no history of legacy contamination adjacent to the proposed locations of the sumps. Staff notes further that the relative impermeability of the soils in these areas would retard any movement of legacy contaminants. (See Staff December 1, 2015 letter at 2.)

For the reasons outlined in Attachment 2, Department staff does not agree with Dr. Michalski's assessment that the source of leachate in the RMU-1 secondary leachate collection system is ground water rather than storm water. Department staff observes that the changes in secondary leachate collection system flows were quick, and occurred shortly (*i.e.*, 24 to 48 hours) after storm events or significant snow melt events, and then returned to normal. Department staff asserts that such short periods are insufficient to allow precipitation and snow melt to infiltrate the native soils and raise the ground water table to increase hydrostatic pressure so as to push ground water through the three-foot layer of compacted clay and any other potential defects in the secondary flexible membrane liner. Department staff concludes that the

³⁰ In the discussion that follows, references to Attachment 1 to staff's December 1, 2015 letter will be the document entitled, *Hydrostatic Uplift – DEC Staff Evaluation*, which consists of five unnumbered pages. Similarly, references to Attachment 2 will be the document entitled, *New Information on RMU-1 Landfill Leaks – DEC Staff Evaluation*, which consists of four unnumbered pages.

circumstances at the RMU-1 landfill are not new information that would warrant a revision of the engineering design for the proposed RMU-2 landfill. (See Staff December 1, 2015 letter at 3, and Attachment 2 at 3-4.)

Ruling and Discussion: The municipalities' offer of proof with respect to the adequacy of the engineering design does not raise any additional issues for adjudication. Rather, the initial offer of proof and the subsequent post-issues conference submissions concerning the engineering design of the proposed RMU-2 landfill further support the need to adjudicate the previously identified issues related to the geology and hydrogeology of the site of the Model City facility. At issue is whether the liner for the proposed RMU-2 landfill could be placed on a foundation or base capable of providing adequate support that would resist pressure gradients from above and below the liner so as to prevent any failure related to settlement, compression or uplift (see 6 NYCRR 373-2.14[c][1][i][b]).

Based on the foregoing discussion, the construction of the proposed RMU-2 landfill depends not only on the characteristics of the various units of unconsolidated deposits that may overlie the bedrock, but how the various units of unconsolidated deposits would interact. The significance of potential interactions is exemplified by the discussion at the issues conference, when PJ Carey (PJ Carey & Associates, PC) explained, on behalf of CWM, that as waste is placed in the constructed landfill, the load would displace water from the Glaciolacustrine Clay unit and consolidate it. The displacement would occur when water in the Glaciolacustrine Clay unit is transferred to the Glaciolacustrine Silt/Sand unit where it would be dissipated laterally. The result, according to Mr. Carey, would be an improvement in the shear strengths of the landfill liner system from the consolidation of the underlying Glaciolacustrine Clay unit. (Tr. at 379-381.)

Dr. De observed, however, that some hydraulic conductivity values for the Glaciolacustrine Silt/Sand unit are between what would be expected for clay and what would be expected for sand. Therefore, that portion of the Glaciolacustrine Silt/Sand unit may not allow water to dissipate laterally, and could inhibit the consolidation of the Glaciolacustrine Clay unit. Under such circumstances, the anticipated improvement in the shear strengths of the landfill liner system would not result, according to Dr. De. (Tr. at 387-388; see also De Report at 12-13, and Staff response to support document at 29, 35.)

The final design for the proposed RMU-2 landfill is directly dependent upon the geological characteristics and the hydrogeological qualities of the unconsolidated units that overlie the bedrock on the site of the Model City facility. Based on the outcome of the adjudication of the geology and hydrogeology issues, CWM may need to revise the design for the proposed RMU-2 landfill and Fac Pond 5 to comply with the applicable regulatory criteria.

C. Legacy Contamination and Project-Specific Excavations

The prospective intervenors propose issues about whether CWM could manage legacy contamination to adequately protect potential impacts to public health and the environment during the construction of the proposed RMU-2 landfill and related modifications to the Model

City facility. From the early 1940s to the mid-1960s, the site of the Model City facility and areas surrounding it were part of the Lake Ontario Ordnance Works (LOOW) operated by the US Department of Defense. Starting in 1944, the Manhattan Engineer District (MED), and its successor, the US Atomic Energy Commission, used portions of the LOOW for the storage of radioactive wastes. These radioactive wastes were primarily residues from uranium processing operations. They also included contaminated rubble and scrap from decommissioning activities, waste from the University of Rochester, and low level fission-product waste from Knolls Atomic Power Laboratory. In 1954, the receipt of radioactive waste at LOOW ended, and remediation activities followed. Between 1974 and 1978, CWM's predecessors purchased a 710-acre portion of the former LOOW property. This area is comprised of parcels referred to as Vicinity Properties A through G and portions of H, J, K, P, S, T and W. (See DEIS at 49, *see also* Municipalities Petition at 43-44.)

During 1971 and 1972, the US Atomic Energy Commission undertook a radiological survey and cleanup of the LOOW. On April 27, 1972, the New York State Department of Health issued four orders that imposed land use restrictions on most of the former LOOW property. One of the NYS DOH orders referred to 614 acres owned by the Fort Conti Corporation. In 1972, ChemTrol was leasing the Fort Conti Corporation property. The DOH 1972 Order prohibited soil excavation unless authorized by the Commissioner. In 1974, the DOH Commissioner issued an amended order that allowed industrial development on 240 acres of the ChemTrol property. The DOH 1974 Amendment did not alter the terms of the DOH 1972 Order concerning the need to obtain authorization for excavations. (See DEIS at 49-50, Municipalities Petition at 46)

Since 1974, the US Department of Energy (DOE), as the successor to the Atomic Energy Commission, undertook additional remediation as part of the federal Formerly Utilized Sites Remedial Action Program (FUSRAP). In 1983, the Oak Ridge Associated Universities conducted a comprehensive survey where the status of each Vicinity Property was evaluated. In March 1984, a report entitled, *Comprehensive Radiological Survey, Off-Site Property A-Z, Niagara Falls Storage Site, Lewiston, NY*, was issued. In 1985 and 1986 additional remediation was undertaken. (See DEIS at 50, Municipalities Petition at 44.)

The footprint for the proposed RMU-2 landfill and the related modifications to the Model City facility would occupy all or portions of Vicinity Properties B, C, D, E, E', F, G, and K (*see* DEIS, Figure 3-13). Except for Vicinity Properties E, E', and G, DOE certified, on May 7, 1992, that the Vicinity Properties that comprise the site of the Model City facility complied with federal decontamination criteria. DOE did not certify Vicinity Properties E, E', and G because portions of these Vicinity Properties were not accessible for evaluation. With respect to Vicinity Property E, soil located under the berm of Lagoon 6 was not accessible and, therefore, could not be evaluated. Soil under two PCB storage tanks and a roadway was not evaluated on Vicinity Property E', and soil beneath the berm of Fac Pond 1 & 2 was not evaluated on Vicinity Property G. According to the DEIS, the footprint for the proposed RMU-2 landfill would not be located on those portions of the three Vicinity Properties (*i.e.*, E, E', and G) that could not be accessed when DOE issued the 1992 certification. (See DEIS at 50-51.)

The terms and conditions of the site-wide Part 373 permit, issued on August 5, 2005, required CWM to submit a plan and undertake a radiological survey. The URS Corporation (Buffalo, New York) completed the survey in 2008, and issued a report entitled, *Results of Gamma Walkover Survey, Soil Sampling, and Legacy Building Surveys*, dated December 2008. According to the DEIS, less than 0.15% of over 4 million readings collected during the survey exceeded the threshold of 16,000 counts per minute (cpm). The readings that exceeded the 16,000 cpm threshold were generally in small areas and were often associated with the discovery of discrete, high activity sources. Some radiological constituents were found in the clay liner of Fac Pond 8. The majority of the radiological constituents were removed during the investigation and sampling process. The radiological characteristics of the constituents found during the survey were consistent with the materials that had been historically managed on the site from the 1940s to the mid-1960s. In addition to the survey, the 2005 site-wide Part 373 permit required CWM to monitor ground water, surface water, treated wastewater, and air. The results outlined in a report entitled, *Radiation Environmental Monitoring Plan*, dated March 2006, show no elevated radiological constituents in the monitored media. (See DEIS at 51-52; see also Municipalities Petition at 50-51.)

Based on the history of the site of the Model City facility, the possibility exists that contaminated soils may be encountered in the Glacial Till unit during the excavation of the footprint for the proposed RMU-2 landfill, among other areas on the site. The contamination may be either chemical, in the form of volatile organic compounds (VOCs), or radiological. Chemical contamination may be found in areas adjacent to the abandoned railroad bed (near the intersection of M and MacArthur Streets), and at the existing Full Trailer parking area. (See DEIS at 122-123, Tr. at 279.)

In April 1994, a routine surface water sampling event near the intersection of M and MacArthur Streets showed elevated concentrations of VOCs. An investigation (see Golder [October 1997] *Background Well BW02S, Piezometer P1202S and Abandoned Railroad Bed Supplemental Investigation*) determined that the probable source of the contamination was an abandoned railroad bed located west of the intersection. The supplemental investigation showed that low level VOC contamination (*i.e.*, less than 100 parts per million [ppm]) was confined to the Glacial Till unit immediately underneath the abandoned railroad bed. As part of its RCRA Facility Investigation (RFI), CWM's Phase I and Phase II investigations at the site of the Model City facility, undertaken from September 1989 to August 1991, showed low level VOC contamination in surface soils adjacent to the existing Full Trailer parking area. An investigation (see Golder [January 1993] *RCRA Facility Investigation Summary Report*) determined that the probable sources of the contamination were surface spills caused by past waste handling activities, and residual organic compounds related to lagoons that had occupied the area. The investigation showed that low level VOC contamination (*i.e.*, less than 51 ppm in soils; less than 1.5 ppm in ground water) was confined to the Upper Till unit. (See DEIS at 122-123.)

As noted above, the footprint for the proposed RMU-2 landfill and related modifications to the Model City facility would disturb portions of former Vicinity Properties B, C, D, E, E', F, G, and K. In 1992, DOE certified that Vicinity Properties B, C, D, F, and K complied with federal cleanup criteria. The 2008 URS survey did not identify any elevated readings in these Vicinity Properties. (See DEIS at 123-126.) The municipalities contend, however, that the URS

2008 report (*Results of Gamma Walkover Survey, Soil Sampling, and Legacy Building Surveys* dated December 2008) is generally deficient (*see* Municipalities Petition, Appendix at 47 and Resnikoff/Travers Report).

The terms and conditions of the 2013 site-wide Part 373 renewal permit require CWM to comply with the Department-approved Site Soil Monitoring and Management Plans (SSMMPs) in order to control and prevent any migration of legacy chemical and radiological contamination associated with excavations or soil disturbance activities. The current terms and conditions have been incorporated into the draft permit for the proposed RMU-2 landfill and related modifications to the Model City facility. Any SSMMP must include procedures to characterize, and if necessary, remediate any detected chemical or radiological contamination in the project area. If contamination is detected during excavation or soil disturbance, any wastes generated must be managed and disposed of in accordance with all applicable federal and State regulations. The draft permit identifies two types of SSMMPs. The first is a Generic Small-Project Soil Excavation Monitoring and Management Plan (SEMMP). The generic small-project SEMMP applies to all projects where the area of soil excavation or disturbance is equal to or less than 1,000 m² (1,196 yd²), and the volume of excavated or disturbed soil does not exceed 150 m³ (196 yd³). The second type of SSMMPs is a Project-Specific SEMMP. The project-specific SEMMP applies to all projects where the area of soil excavation or disturbance would be greater than 1,000 m² (1,196 yd²), or the volume of excavated or disturbed soil would exceed 150 m³ (196 yd³). (*See* Draft Permit Condition D.4.b of Exhibit B [Supplement to Module II – Corrective Action].) (Tr. at 279, 523-254.)

With the permit application materials, CWM provided Department staff with a project-specific SEMMP for the proposed RMU-2 landfill (*RMU-2 Project Specific Soil Excavation Monitoring and Management Plan*, dated November 2009, revised November 2013) for review and approval. Subsequently, CWM provided a revision dated May 2015. (Tr. at 281, 537-538, 548-552.)

The municipalities propose the following issues. First, the municipalities note that the construction of the proposed RMU-2 landfill would depart from the safety standard established for small excavations. As a result, the municipalities contend that the November 2009 project-specific soil excavation monitoring and management plan (SEMMP) and its subsequent revisions dated November 2013 and May 2015, would not be sufficient to characterize and, if necessary, remediate any chemical or radiological contamination that may be uncovered during excavations. Second, the municipalities contend further that CWM should undertake additional surface and subsurface investigations of the areas that would be disturbed. In addition, the municipalities assert that CWM has not properly remediated Fac Pond 8, which is located within the footprint of the proposed RMU-2 landfill. Finally, the municipalities are concerned about the possible contamination of Fac Pond 3 with radiological materials. (*See* Municipalities Petition at 52-73.)

1. The Project-Specific SEMMP

To support their proposed issues concerning legacy contamination and the potential adverse impacts associated with excavations on the site of the Model City facility, the

municipalities offer Marvin Resnikoff, Ph.D. (Radioactive Waste Management Associates [Brooklyn, New York]). According to his resume, Dr. Resnikoff's Ph.D. is in physics. With the petition, the municipalities include an Appendix and two reports. The Appendix is entitled, *History and Present Status of Radiological Investigations of the Model City Site*. The first report, prepared by Dr. Resnikoff and Jackie Travers, is entitled, *Critique of CWM Walkover Survey & Radiological Investigation*, dated March 2009. The second report prepared by Dr. Resnikoff is entitled, *Review of CWM Radioactive Sampling Program in the Proposed RMU-2 Development Areas*, dated November 2014.

The Appendix offered by Dr. Resnikoff provides a detailed history of the site of the LOOW property from the early 1940s to the present. The Appendix includes a comprehensive list of references from a variety of sources. The purposes of the Appendix are twofold. First, the Appendix documents that radioactive constituents were disposed at the LOOW property from 1948 to 1954, and that some of the radioactive constituents were deposited on what is now the site of the Model City facility. Second, the Appendix discusses the various surveys of the LOOW property that the federal government undertook since the mid-1950s to identify the locations where radioactive materials were disposed, and to remediate the LOOW property. Since 1984, CWM or its contractors have undertaken surveys and remediation projects on the site of the Model City facility. For example, CWM reported the results of walkover surveys conducted in October 2005 and July 2006 in a report entitled, *Results of Gamma Walkover Survey, Soil Sampling, and Legacy Building Surveys, CWM Chemical Services LLC, Model City, New York*, dated December 2008 by URS.

In their March 2009 report, Dr. Resnikoff and Jackie Travers criticize the methodology used in the October 2005 and July 2006 walkover surveys, and contend that the results presented in the December 2008 URS report are unreliable. Dr. Resnikoff refers to the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). According to the abstract from the US Nuclear Regulatory Commission, MARSSIM provides information to plan, undertake, evaluate, and document building surface and surface soil final status radiological surveys in order to demonstrate compliance with established dose or risk-based criteria (*see* [August 2000] <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1575/r1/>). Dr. Resnikoff notes that MARSSIM recommends that walkover surveys with gamma-detecting instruments should be conducted at a height of 10 centimeters (cm), which is about 4 inches above the surface to be surveyed. For the October 2005 and July 2006 walkover surveys, Dr. Resnikoff observes, however, that the instruments were about 1 foot (approximately 30 cm) above the surfaces that were surveyed. (*See* Resnikoff/Travers Report at 1.)

According to Dr. Resnikoff, the relationship between what a survey instrument will detect and the concentration of the radiation emitted from contaminated objects depends on the distance between the instrument and the "radioactive slag."³¹ Other factors include the characteristics of the survey instrument, the nature of the radiation, the distribution of the slag, and the person operating the survey instrument. Based on assumptions related to the surface area of the slag and the distance between the survey instrument and the slag, Dr. Resnikoff estimates

³¹ Dr. Resnikoff refers to objects contaminated with radioactive constituents as "radioactive slag" (*see* Resnikoff/Travers Report at 1).

that the results presented in the December 2008 URS report may have underestimated detector count rates, reported as counts per minute (cpm), by 35%. Dr. Resnikoff concludes that large amounts of slag were not detected during the survey results described in the December 2008 URS report due to the distance between the survey instrument and the soil surface. Dr. Resnikoff recommends that CWM repeat the survey, and that the distance between the survey instrument and the soil surface should not be greater than 10 cm. (See Resnikoff/Travers Report at 11-13.)

a) November 2009 Project-Specific SEMMP (revised November 2013)

The municipalities state that the proposed RMU-2 landfill would be the first major excavation on the site of the Model City facility since the implementation of the conditions from the 2013 site-wide Part 373 renewal permit (*see* Condition D.4.b of Exhibit B [Supplement to Module II – Corrective Action])³² that would require CWM to obtain an approved project-specific SEMMP. When compared with the generic small-project SEMMP, however, the municipalities contend that the November 2009 (revised November 2013) project-specific SEMMP deviates substantially from the established safety standards. For example, the municipalities state that the generic small-project SEMMP incorporates the procedures outlined in MARSSIM. Also, the municipalities favor the requirement in the generic small-project SEMMP that soils must be scanned *in situ* for radiological constituents every six inches during soil excavations. The municipalities argue that the project-specific SEMMP should incorporate these same procedures in order to fill in any data gaps related to previous DOE surveys prior to the approval of the proposed RMU-2 landfill and related modifications to the Model City facility. (See Municipalities Petition at 51-52.) By not incorporating the procedures from the generic small-project SEMMP into the proposed project-specific SEMMP, the municipalities argue that the latter SEMMP would not adequately protect the health and safety of construction workers, and would not prevent the release of radiological constituents into the environment, including off-site receptors, during the construction of the proposed RMU-2 landfill (*see* Municipalities Petition at 65). (Tr. at 120, 523-524.)

The municipalities note that only 1,511 acres from the initial 7,500 acres of the former LOOW site were used to store or dispose of radioactive waste, and that most of these activities occurred in the vicinity or within the footprints for the proposed RMU-2 landfill and Fac Pond 5. The municipalities argue that these circumstances confirm the concerns underlying the DOH's restrictions about major excavations on the site of the Model City facility. (See Municipalities Petition at 53; Tr. at 525-526.)

For the reasons outlined above, Dr. Resnikoff contends that CWM's previous surface and subsurface investigations have not accurately identified the extent of the potential radiological constituents that may be located in the footprint of the proposed RMU-2 landfill and at other areas on the site of the Model City facility (*see also* Resnikoff Report at 15, and Municipalities

³² The draft site-wide Part 373 modification permit for the proposed RMU-2 landfill and related modifications to the Model City facility includes the same condition. (Tr. at 547-548.)

Petition at 60). In addition to Dr. Resnikoff's recommendation that the appropriate distance between the survey instrument and the soil surface should be 10 cm, the municipalities argue that the investigation should include soil borings in an ordered pattern over the footprint of the proposed RMU-2 landfill and other areas on the site of the Model City facility that would be disturbed by CWM's proposal. (*See* Municipalities Petition at 58.)

In the February 27, 2015 response, CWM states that the municipalities offered similar comments about legacy contamination during the public comment period for the 2013 site-wide Part 373 renewal permit. To the February 27, 2015 response, CWM attached portions of Department staff's August 2013 responsiveness summary concerning Comments Nos. 41-47 (*see* CWM Response, Exhibit 3). CWM observes that Dr. Resnikoff's November 2014 report is similar to the report filed with the municipalities' comments about the 2013 site-wide Part 373 renewal permit. Given that Department staff found no substantive and significant issues concerning legacy contamination, and because the municipalities did not seek judicial review of the 2013 site-wide Part 373 renewal permit, CWM argues that the municipalities should be bound by the Department staff's prior determination. (*See* CWM Response at 61.)

In addition, CWM retained AECOM (Niskayuna, New York) to review the municipalities' petition and Dr. Resnikoff's reports, and to prepare a response, which is identified as Exhibit 13 to CWM's response. (*See* CWM Response at 62.) According to the AECOM response, since 2009, CWM has prepared nine project-specific SSMMPs that are not related to the proposed RMU-2 landfill and related modifications to the Model City facility, and lists them. These project-specific SSMMPs relate to projects associated with the construction of the cap on portions of the RMU-1 landfill (*see* CWM Response, Exhibit 13 at 2-3).

With the AECOM response, CWM refutes the municipalities' criticisms of the walkover surveys and compliance with MARSSIM. The AECOM response observes, among other things, that MARSSIM is not a regulation, but provides guidance. According to the AECOM response, MARSSIM notes that adjustments may be made for site-specific purposes, such as the height of ground cover, which includes brush, tall grass, and weeds. The AECOM response observes further that the December 2008 URS report identified all significant areas that were considered inaccessible, and provided the basis for that categorization. The AECOM response notes that CWM would survey those inaccessible areas when they become accessible consistent with the conditions in the 2013 site-wide Part 373 renewal permit. (*See* CWM Response, Exhibit 13 at 6-7.)

CWM contends that the AECOM response also addresses the municipalities' criticisms concerning the November 2009 RMU-2 project-specific SEMMP (revised November 2013). First, AECOM notes that the 2013 site-wide Part 373 renewal permit authorizes two types of excavation protocols, a generic one for small projects, as described in the permit, and project-specific protocols when conditions would exceed the limits for the generic small-project SEMMP. Therefore, AECOM argues that the express terms of the 2013 site-wide Part 373 renewal permit authorize the development of the RMU-2 project-specific SEMMP (revised November 2013). AECOM argues further that objections about using portal monitors to screen excavated soils in bulk are unfounded, and notes that portal monitors are commonly used at

disposal facilities to evaluate shipments before they are unloaded. (See CWM Response, Exhibit 13 at 7.)

With respect to the potential wind dispersion of excavated soils, AECOM contends that no difference exists between the *in situ* scanning requirement from the generic small-project SEMMP, and the proposal in the project-specific SEMMP to evaluate any truck load that exceeds the portal monitor action level. AECOM states that implementing the scanning protocol outlined in the project-specific SEMMP would include the application of the Fugitive Dust Control Plan, as necessary. AECOM notes that the Fugitive Dust Control Plan is Attachment F to the 2013 site-wide Part 373 renewal permit, as well as to the draft modification permit for the proposed RMU-2 landfill. (See CWM Response, Exhibit 13 at 7.)

AECOM contends further that the distance between the survey equipment and the excavated materials can be adjusted consistent with the guidance outlined in MARSSIM. AECOM states that the detectable concentration during a walkover is a function of the distance between the survey equipment and the excavated materials, the characteristics of the survey equipment, and the walking speed. According to AECOM, these parameters can be varied to assure the appropriate survey sensitivity. (See CWM Response, Exhibit 13 at 7-8.)

In the February 2015 response to the municipalities' petition for full party status, Department staff states that the investigative surveys and monitoring undertaken at the site of the Model City facility have not shown any significant source of radioactive constituents that could pose an airborne hazard. In addition, Department staff notes that CWM routinely samples the ground water and surface water at the Model City facility for radioactive constituents and that the current monitoring programs would not change, if CWM obtains all approvals for its proposal. (See Staff response at A-29, A-45.)

With respect to CWM's adherence to MARSSIM, Department staff states that MARSSIM is not a prescriptive document. Rather, it is guidance that provides a "tool box" for designing final status surveys. Such surveys are limited to the evaluation of potential surface contamination. (See Staff response at A-36, A-45.) Department staff emphasizes that the site of the Model City facility has been the subject of several radiological surveys. Consequently, Department staff concludes that the probability of locating large areas of unknown slag on the site is very low. (See Staff response to Resnikoff/Travers at 12.) Department staff notes that CWM would be required to implement dust suppression measures during the excavation of the proposed RMU-2 landfill and when other areas of the site are disturbed, regardless of the size of the area disturbed (see Staff Response at A-45).

Department staff states that contrary to the municipalities' assertion, the excavation associated with the construction of the proposed RMU-2 landfill would not be the primary method for detecting potentially hazardous materials in the soils. According to Department staff, monitoring excavations is an acceptable practice for determining the full extent of any contamination. Department staff notes that remedial investigations and excavations often evolve as a project progresses. Staff asserts that flexibility is a prerequisite when undertaking remedial activities. (See Staff Response at A-45 to A-46).

b) Project-Specific SEMMP (Revised May 2015)

During the issues conference, Mr. Darragh said that CWM and Department staff were conferring about the terms and conditions of the November 2013 project-specific SEMMP for the proposed RMU-2 landfill. Mr. Stever, counsel for Department staff, said that staff had some concerns about the November 2013 project-specific SEMMP based on the municipalities' petition for full party status. (Tr. at 537-538, 548-552).

By email dated June 25, 2015, Mr. Stever advised the issues conference participants and me that staff from the Departments of Health and Environmental Conservation had completed the review of the *RMU-2 Project Specific Soil Excavation Monitoring and Management Plan*, revised May 2015 (Revised May 2015 project-specific SEMMP). In a memorandum dated August 6, 2015, I asked Department staff to circulate the revised May 2015 project-specific SEMMP, and provided the issues conference participants until October 2, 2015 to file any objections or comments about the revised May 2015 project-specific SEMMP (Tr. at 552). Department staff circulated the revised May 2015 project-specific SEMMP with an email dated August 10, 2015. In the August 10, 2015 email, Mr. Stever said that staff from the Departments of Health and Environmental Conservation had determined that the revised May 2015 project-specific SEMMP was acceptable.

The revised May 2015 project-specific SEMMP includes a discussion about the four types of excavation methods that would be undertaken at the site of the Model City facility during the construction of the proposed RMU-2 landfill and related modifications. The first method is clearing and grubbing, which would remove vegetation and trees from the footprint of the proposed RMU-2 landfill. Generally, this excavation method would disturb the first 6 inches of the soil, except for the removal of tree stumps. The second method is mass excavation, which would be used for removing large quantities of soil at varying depths over a wide area. (*See Revised May 2015 project-specific SEMMP at 2.*) The third and fourth methods relate to the excavation of trenches. Deep trenches would be those greater than four feet deep. Shallow trenches would be those up to four feet deep. Constructing trenches would require the excavation of large quantities of soil. (*See Revised May 2015 project-specific SEMMP at 3.*)

The next two sections of the revised May 2015 project-specific SEMMP outline the methods that would be used to detect radiological constituents and residual chemical contamination. According to the revised May 2015 project-specific SEMMP, an initial scanning of the ground surface, prior to clearing and grubbing activities would be difficult due to vegetative ground cover. Therefore, the area that would be subject to further excavation would be cleared of vegetation. Subsequently, a qualified radiological technician would perform a surface scan walkover of the recently cleared areas, and would also scan tree stumps and document the scanning results. (*See Revised May 2015 project-specific SEMMP at 3.*)

During mass excavations, soils would be placed in haul trucks and taken either to a separate stock pile area on the site, or to a location for the construction of landfill components such as berms or subgrade. At the stockpile areas, the soil would be placed in six to nine inch

lifts and graded. A radiological technician would perform a surface scan walkover of the material and document the scanning results. When used for construction components, the excavated soils would be placed in six to nine inch lifts and compacted to six inches. A radiological technician would perform a surface scan walkover of the material and document the scanning results. After the excavation is completed, and the design subgrade elevations for the proposed RMU-2 landfill and Fac Pond 5 are attained, a final walk over survey would take place provided the surfaces could be safely accessed. (*See Revised May 2015 project-specific SEMMP at 4.*)

When excavating shallow trenches, the trench surfaces would be scanned every six inches up to a maximum depth of four feet. Excavated soils from shallow trenches would be hauled to a stock pile area on the site, or to a location for the construction of landfill components such as berms or subgrade. Because scans would be conducted every six inches during the excavation, no additional scanning would occur in the stock pile areas designated to receive soil from shallow trench excavations. The same scanning method would be used for the excavation of the first four feet for deep trenches. Thereafter, excavated soils, which would not be used in the construction of landfill components, would be scanned at the stock pile area in the same manner as for mass excavations. If the soil excavated from deep trenches greater than four feet deep would be used in the construction of landfill components, then the excavated soils would be placed in six to nine inch lifts and compacted to six inches where a radiological technician would perform a surface scan walkover of the material and document the scanning results. (*See Revised May 2015 project-specific SEMMP at 4-5.*)

If scanning activities result in readings greater than the investigation level are detected, the approximate area of increased readings would be delineated, and the requirements outlined in the Health & Safety Plan would be implemented. The Health & Safety Plan is attached to the revised May 2015 project-specific SEMMP as Appendix 2. Under such circumstances, the DEC on-site monitor would be notified. If the affected area is ten square feet or less, the soil may be excavated and placed in a container for further evaluation. CWM would coordinate split sampling as requested by Department staff. The affected areas would be rescanned to ensure that all radiological constituents have been removed. All laboratory results would be submitted to Department staff with the monthly environmental report. If the affected area appears to be greater than ten square feet, excavation and construction activities would be suspended and staff from the Departments of Health and Environmental Conservation would be consulted. If excavation and construction activities are suspended, the revised May 2015 project-specific SEMMP states that the prevention of air dispersion and run-on/run-off control would be priorities. Access to the affected area would be restricted until a decision and course of action is developed. (*See Revised May 2015 project-specific SEMMP at 6.*)

With respect to potential residual chemical contamination, visual and olfactory observations by the equipment operator or other construction personnel would be relied upon, according to the revised May 2015 project-specific SEMMP. When discovered, excavations would be halted and the CWM project engineer or designee would be contacted for field review. Based on field observations, soils presumed to be contaminated would be segregated and handled as described in the soil management section (*see* § V.C [Chemical Detection] at 10) of the revised May 2015 project-specific SEMMP. During mass excavations, soils brought to the

stockpile areas would be placed in six to nine inch lifts and graded. A technician would perform a surface scan walkover of the material to check for volatile organic vapors with a photo ionization detector, as specified in the revised May 2015 project-specific SEMMP, and document the scanning results. (See Revised May 2015 project-specific SEMMP at 6.)

As outlined in the soil management section of the revised May 2015 project-specific SEMMP, excavated soils would be assigned to one of four categories for management. First, if there is no chemical contamination, the excavated soils may be used for back-fill or stockpiled on-site for other uses. Second, if historic data indicates the potential presence of chemical contamination, the excavated soils would be stockpiled where representative samples would be taken for analysis. The scope of the analysis would depend on the source of the excavated soils. For example, soil taken from LOOW utility/structures would be analyzed for explosives that are related to TNT manufacturing. Depending on the nature and concentration of any chemical contamination, the excavated soils may need to be disposed of at an appropriate solid waste management facility or treated to meet land disposal restrictions before disposal. The third category would apply to excavated soils where the potential for contamination is low based on historic data, but contamination is found, nonetheless. The fourth category would apply to excavated soils where the historic data suggests, and screening actually demonstrates, chemical contamination. Excavated soils assigned to the latter two categories would be managed in a manner similar to the second category. (See Revised May 2015 project-specific SEMMP at 10-11.)

The revised May 2015 project-specific SEMMP includes three appendices. Appendix 1 is entitled, *CWM Health and Safety Plan for RMU-2 Soil Excavation and Monitoring Plan* (Health & Safety Plan). The purpose of the Health & Safety Plan is to ensure safe working conditions on the site of the Model City facility during the construction of the proposed RMU-2 landfill and related modifications (see Appendix 1 at 1). Appendix 1 has four attachments (Attachments A-D). Attachment A is entitled, *CWM Major Emergency Evacuation and Response Procedure*, which outlines the actions that landfill personnel should take in the event of an emergency. Attachment B is entitled, *Contamination Control Program (HS-1144) & Personal Protective Equipment (HS-1161) and Activity Hazard Analysis*. These are a series of policies developed by the Health and Safety Program at the Model City facility. Their purposes are to contain the spread of chemical contamination, to identify the requirements and responsibilities associated with using personal protective equipment (PPE), and to identify the appropriate controls to avoid potential hazards on the site of the Model City facility. Attachment C is the *Accident Prevention Plan*. Attachment D outlines the route from the Model City facility to Mount St. Mary's Hospital in Lewiston.

Appendix 2 of the revised May 2015 project-specific SEMMP is entitled, *Solid Waste Management Units – RMU-2 Development Area*. It consists of a set of plans of the Model City facility. Appendix 3 is entitled, *Example Report*, which is a copy of the form that would be completed to record the results from radiological survey scans and chemical contamination screenings.

In the August 6, 2015 memorandum to the parties, I asked CWM to state whether it would accept the terms and conditions of the revised May 2015 project-specific SEMMP. I

noted that disputes between CWM and Department staff about substantial terms outlined in the revised May 2015 project-specific SEMMP would be issues for adjudication (*see* 6 NYCRR 624.4[c][1][i]). In an email from Mr. Darragh dated August 11, 2015, CWM accepted the revised May 2015 project-specific SEMMP, and CWM stated that it would have no further comments about the revised May 2015 project-specific SEMMP.

In separate emails dated October 2, 2015, Ms. Witryol, and Mr. Abraham on behalf of the municipalities, attached comments about the revised May 2015 project-specific SEMMP, among other things. With her October 2, 2015 email, Ms. Witryol filed a letter of the same date regarding ongoing Department staff development or approval activities of the CWM RMU-2 [sic] applications or permits. In addition Ms. Witryol filed a second letter dated October 2, 2015 which commented about the revised May 2015 project-specific SEMMP. Subsequently, given the absence of any objections from the other issues conference participants, I accepted a revision of Ms. Witryol's second October 2, 2015 letter concerning the revised May 2015 project-specific SEMMP. Ms. Witryol filed the revision with an email dated October 6, 2015. A third item attached to Ms. Witryol's comments was an excerpt from the *Handbook for Responding to a Radiological Dispersal Device [Dirty Bomb] First Responder's Guide – The First 12 Hours*, dated September 2006 (the Handbook).

Referring to a list of topics discussed in her petition for full party status and attached comments, Ms. Witryol states that the revised May 2015 project-specific SEMMP does not address or resolve any of her proposed issues for adjudication. Ms. Witryol states further that the revised May 2015 project-specific SEMMP would not comply with the excavation methodology established by the DOH in 2005 in two respects. First, soils would not be scanned in place, but at a different location after being excavated. Second, the proposed scanning method would not detect alpha emissions. (*See* Witryol October 2, 2015 [revised] letter at 2-3.)

Ms. Witryol contends that it would be important to distinguish among the various types of radiation: alpha particles, beta particles, and gamma radiation. To support this contention Ms. Witryol provided an excerpt from the Handbook identified above. The revised May 2015 project-specific SEMMP identifies the use of a Ludlum GM Pancake Probe Model 44-9 (or equivalent) and a Ludlum Model 44-10 2"x2" NaI (or equivalent) detectors (*see* Revised May 2015 project-specific SEMMP, Appendix 1 at 10). Without any specific reference to the Handbook, Ms. Witryol states that the former detector has a very limited response to alpha radiation, and that the latter cannot detect alpha or beta radiation. (*See* Witryol October 2, 2015 [revised] letter at 3.)

According to Ms. Witryol, the list of radionuclides presented in the Health & Safety Plan (*see* Revised May 2015 project-specific SEMMP, Appendix 1 at 6) is incomplete when compared to the information presented by the US ACE with respect to Vicinity Property G. Ms. Witryol states that the Health & Safety Plan's characterization that any remaining radiological constituents are considered "low level" is misleading. Ms. Witryol states further that CWM contractors dumped live TNT on the ground at the site of the Model City facility. Ms. Witryol notes, among other things, that the hospital is located about 9 miles from the site of the Model City facility, not 3.5 miles as reported in the evacuation plan (*see* Revised May 2015 project-

specific SEMMP, Appendix 1, Attachment D at 1). (See Witryol October 2, 2015 [revised] letter at 4-6.)

With Mr. Abraham's October 2, 2015 email, the municipalities filed a cover letter of the same date, and enclosures related to the revised May 2015 project-specific SEMMP and other topics.³³ In Mr. Abraham's October 2, 2015 letter, the municipalities object to the revised May 2015 project-specific SEMMP for two reasons. First, according to the municipalities, the November 2009 SEMMP, and subsequent revisions dated November 2013 and May 2015, are based on the results presented in the April 2009 report prepared by URS Corporation entitled, *Results of Subsurface Soil and Pond Sediment Sampling for RMU-2*. As noted above, the municipalities contend there are many deficiencies associated with how this survey was undertaken and conclude, therefore, that the survey results presented in the April 2009 URS report are not reliable. The municipalities recommend that CWM conduct a radiological subsurface investigation "in compliance with relevant standards," and then undertake any necessary remediation prior to any excavations on the site of the Model City facility. (See Municipalities October 2, 2015 letter at 1.) To further substantiate the municipalities' contention, Dr. Resnikoff outlines his review and criticisms of the April 2009 URS report in greater detail (see Resnikoff October 2, 2015 report at 5-7).

The second reason that the municipalities object to the revised May 2015 project-specific SEMMP is that it would inappropriately deviate from the excavation practices outlined in the generic small-project SEMMP. The municipalities argue that the Department previously recognized that a radiological subsurface investigation is less thorough than the generic small-project SEMMP. To support this argument, the municipalities refer to then-Deputy Commissioner Washington's August 24, 2007 letter to Mr. Abraham, enclosed with the October 2, 2015 correspondence as noted above. Based on then-Deputy Commissioner Washington's explanation, the municipalities contend that the revised May 2015 project-specific SEMMP would be less protective of health and the environment than the generic small-project SEMMP. Compared to previously approved special-project SEMMPs, the municipalities observe that the prior special excavation projects were small enough to undertake *in situ* radiological scans at six inch lifts during excavations. The municipalities offer to provide copies of the previously approved special-project SEMMPs. (See Municipalities October 2, 2015 letter at 2, and Tr. at 531-532.)

2. Fac Pond 8

The compliance schedule (see Condition C of Schedule 1 of Module I) for the 2013 site-wide Part 373 renewal permit includes conditions for the complete closure of Fac Pond 8 (see Condition D of Exhibit E [Schedule 1 of Module I]). These conditions require CWM to undertake a radiological investigation and, where necessary, remediate the soil and sediments in Fac Pond 8 including its surrounding berm. In addition, the conditions require that any

³³ All the enclosures included with Mr. Abraham's October 2, 2015 letter are listed in **Rulings** § V.B (Engineering Design) *supra* at 101 (see footnote 27). Enclosure Nos. 1 and 8 related to proposed issues concerning legacy contamination and project-specific excavations, and are referenced in this section of the ruling.

excavation or disturbance related to the closure and remediation of Fac Pond 8 must be conducted in accordance with an approved SSMMP.

In a letter from Ms. Banaszak dated August 14, 2014, CWM states that it implemented the Department staff-approved radiological investigation plan for Fac Pond 8. Based on the results of the investigation, CWM remediated radiological constituents. CWM states further that the permit condition requiring the complete characterization of Fac Pond 8 has been met and that the remediation has been completed except for an area identified during the investigation as Survey Unit No. 9. Finally, CWM requests Department staff to confirm that CWM has complied with the interim requirements set forth in the permit with respect to the closure of Fac Pond 8.

Subsequently, in a letter from Ms. Banaszak dated June 8, 2015, CWM notes that it has not received a response to its August 14, 2014 letter to Department staff concerning the closure of Fac Pond 8. CWM notes further that the interim deadline of August 21, 2015 is approaching, and seeks Department staff's concurrence that no further characterization is needed before completing the closure process. CWM states that it must complete and certify the closure of Fac Pond 8 by August 21, 2016.

In their petition for full party status, the municipalities object to the methodologies that CWM and its contractors used to survey and remediate Fac Pond 8. According to the municipalities, the methods did not follow the guidance outlined in MARSSIM, federal regulations (*see e.g.*, 10 CFR Part 61 [Licensing requirements for land disposal of radioactive waste]), and the Department's guidance (*see e.g. Cleanup Guidelines for Soils Contaminated with Radioactive Materials* [DER-38], April 30, 2013). Subsequent contractors discovered surface radiological constituents that the prior contractor had not, which required additional remediation. The municipalities contend that substantial contamination remains. The municipalities contend further that the cleanup goal should comply with the Department's guidance, which sets dose limits at 10 mrem/year or lower. According to the municipalities, any cleanup goal that does not meet the dose limit in DER-38 would adversely impact the health of those who would construct the proposed RMU-2 landfill if CWM obtains all approvals for its proposal. (*See* Municipalities Petition at 66-70. *See also*, Tr. at 534-535, and Resnikoff Report at 5-13.)

AECOM responds to the municipalities' concerns about the remediation of Fac Pond 8, on behalf of CWM. First, AECOM notes that the development of the proposed RMU-2 landfill at the site of the Model City facility would not be a new commitment of land resources. The site and adjacent properties, according to AECOM, are reserved for waste management and disposal purposes. AECOM observes that the Town of Porter has zoned the property where the proposed RMU-2 landfill would be located as M-3, Heavy Industrial. The M-3 designation authorizes the storage, processing, and disposal of hazardous and industrial non-hazardous waste, and prohibits residential land uses. Second, AECOM argues that, contrary to the municipalities' arguments, the sampling data from the survey show that any elevated concentrations of radiological constituents are low multiples of generally accepted screening levels and are not widely dispersed. The investigations demonstrate that the constituents are neither widespread, nor significant. AECOM argues further that a full remediation to an "unrestricted use" level, as

argued by the prospective intervenors, is not justified given the anticipated use. (See CWM Response, Exhibit 13 at 8.)

In the February 2015 response to the municipalities' petition for full party status, Department staff states that CWM and staff are conferring to address the elevated concentrations of radiological constituents in the berm of Fac Pond 8. According to Department staff, a final status survey would need to be undertaken after any remediation of the area is completed. Finally, Department staff notes that as an active hazardous waste facility, the entire site of the Model City facility has deed restrictions. (See Staff Response at A-50.)

With an email from Mr. Abraham dated June 10, 2015, the municipalities provided copies of CWM's correspondence dated August 14, 2014 and June 8, 2015, which are summarized above. Based on CWM's request in the June 8, 2015 letter concerning the final closure of Fac Pond 8, the municipalities request, in the June 10, 2015 email, that decisions about completing the remediation and final closure of Fac Pond 8 be included within the scope of this proceeding concerning the proposed RMU-2 landfill and related modifications to the Model City facility. By email dated June 19, 2015, Ms. Witryol joined in the municipalities' request. Ms. Witryol notes that, among other things, the closure of Fac Pond 8 would not be necessary for 40 years if it were not for CWM's proposal to locate the proposed RMU-2 landfill where Fac Pond 8 is currently situated.

In an email from Mr. Darragh dated June 11, 2015, CWM objects to the municipalities' request to incorporate the remediation and final closure of Fac Pond 8 into the scope of this proceeding. CWM notes that the effect would be to prevent CWM from complying with the terms and conditions of the 2013 site-wide Part 373 renewal permit. CWM notes further that the municipalities did not identify, in the June 10, 2015 email, any authority to support their request. CWM argues that minor modifications to the 2013 site-wide Part 373 renewal permit are authorized pursuant to 6 NYCRR 621.11(i)(1) and 6 NYCRR 373-1.7.

With Mr. Abraham's June 12, 2015 letter, the municipalities include a memorandum prepared by Dr. Resnikoff of the same date in which Dr. Resnikoff discusses the adequacy of the raw data collected for the April 2009 report prepared by URS Corporation entitled, *Results of Subsurface Soil and Pond Sediment Sampling for RMU-2*. In addition, the municipalities include a copy of the December 17, 2010 report entitled, *Radiological Characterization Results Report for Facultative Pond 8*, prepared by EnSol, Inc. The municipalities note that the April 2009 URS report does not include any information about the radiological scanning of the core samples.

A telephone conference call with the issues conference participants was held on October 15, 2015. In a memorandum dated October 19, 2015, I circulated a summary of the call. During the October 15, 2015 telephone conference call, the municipalities and Ms. Witryol reiterated their concerns about the closure of Fac Pond 8, and renewed their respective requests to consider proposed issues about Fac Pond 8 in this proceeding. Also, Mr. Abraham identified a report dated August 12, 2015 concerning the level of radiological constituents on the site of the Model City facility in the vicinity of Fac Pond 8, and requested that the municipalities be given the opportunity to comment about the report. Ms. Witryol joined in the request.

During the October 15, 2015 telephone conference call, Mr. Stever said that Department staff considers the closure and remediation of Fac Pond 8 to be governed by the terms and conditions of the 2013 site-wide Part 373 renewal permit. Consequently, Department staff and CWM are of the opinion that any proposed issues about the closure and remediation of Fac Pond 8 are outside the scope of this proceeding.

The municipalities disagree, and observed that the footprint of the proposed RMU-2 landfill would include the area where Fac Pond 8 is located. The municipalities cite to 6 NYCRR 361.3(e)(1), which generally states that the siting certificate application consists of the completed applications for all permits and other entitlements, among other things. According to the municipalities, the requirement to close and remediate Fac Pond 8 before the proposed RMU-2 landfill could be constructed is a required “entitlement.”

Ms. Witryol said that the location of Fac Pond 8 is downwind from areas where high level radioactive waste had been found on the site of the Model City facility. Ms. Witryol noted that the DOH 1972 Order and the DOH 1974 Amendment limit excavations and other disturbances to the soil.

In the October 19, 2015 memorandum, I advised the issues conference participants that this ruling would address the threshold question of whether proposed issues concerning the closure and remediation of Fac Pond 8 would be considered within the scope of this proceeding.

In an email from Mr. Abraham dated October 30, 2015, the municipalities advised that, on October 20, 2015, Department staff approved the project-specific SEMMP for Fac Pond 8. According to the municipalities, the purpose of the approved excavation is to cover an “anomalous vein” of radiological constituents located halfway down the inside of the north berm in Survey Unit No. 9. The municipalities report further that CWM characterizes the radiological constituents as “naturally occurring.” Finally, “clean” soil from the upper section of the berm would be used as cover material. The municipalities note that CWM would be allowed to move considerable amounts of soil on the site of the Model City facility during the pendency of these issues rulings. As a result, the municipalities contend that properly characterizing the area occupied by Fac Pond 8 would be difficult. Ms. Witryol also filed an email dated October 30, 2015, and expressed her concerns about Department staff’s October 20, 2015 authorization concerning the project-specific SEMMP for Fac Pond 8.

According to CWM, the purpose of the 2010 radiological survey of Fac Pond 8 was to identify any areas of contamination in the clay liner or berm. Based on the results of the survey, CWM developed the decontamination and decommissioning plan so that a final status survey could be undertaken. According to CWM, Department staff, with concurrence from DOH staff, approved the remediation and closure plan in a letter to CWM dated June 22, 2010. (*See* CWM December 1, 2015 response at A-5 to A-6.)

In the December 1, 2015 correspondence, Department staff restates that the remediation and closure of Fac Pond 8 is not relevant to this proceeding. Department staff notes that the municipalities filed comments about the closure plan during the public comment period for the

2013 site-wide Part 373 renewal permit. Staff notes further that the municipalities did not seek judicial review of staff's determination to issue the 2013 site-wide Part 373 renewal permit, and is estopped from doing so now. (See Staff December 1, 2015 letter at 1.)

3. Fac Pond 3

The municipalities note that Fac Pond 3, like Fac Pond 8, was constructed from soils moved from elsewhere on the site of the Model City facility. Accordingly, the municipalities argue that contamination of Fac Pond 3 with radiological constituents should be presumed. Sediment samples were evaluated and found to be consistent with background. However, the municipalities note that CWM did not investigate the clay liner of Fac Pond 3. The 2013 site-wide Part 373 renewal permit for the Model City facility requires CWM to monitor water samples from Fac Pond 3 for radium, uranium and thorium. The municipalities argue that Fac Pond 3 should be investigated to the same degree as Fac Pond 8. The municipalities note, however, that CWM's application concerning the proposed RMU-2 landfill is silent about undertaking a survey of Fac Pond 3 prior to commencing a major excavation. (See Municipalities Petition at 72-73.)

AECOM responds to the municipalities' concerns about the remediation of Fac Pond 3, on behalf of CWM. The footprint of the proposed RMU-2 landfill incorporates the location where Fac Pond 3 is situated. AECOM notes that samples from the berm surrounding Fac Pond 3 and sediment at the bottom of the pond were collected, and the results of the analysis show none exceeded background levels. AECOM notes further that water samples from Fac Pond 3 have also been collected and tested. With reference to Department staff's August 2013 responsiveness summary (see CWM Response, Exhibit 3 at I-117), AECOM states that, in 2012, the analysis of wastewater samples from Fac Pond 3 initially showed radiological constituents, but the results were later shown to be false positives due to lab errors. (See CWM Response, Exhibit 13 at 8-9.)

In the February 2015 response to the municipalities' petition, Department staff states there is no factual basis for the assertion that Fac Pond 3 would be contaminated in a manner similar to Fac Pond 8 because Fac Pond 3 was constructed from on-site soils like Fac Pond 8. Staff notes that the closure of Fac Pond 3 would be in a manner consistent with an approved closure plan prior to the reuse of the area. (See Staff Response at A-41.) Department staff said that the investigation concerning the false positive laboratory results was completed to staff's satisfaction (see Staff Response at A-51).

Discussion and Ruling: The prospective intervenors have proposed several issues for adjudication under this general topic. Ms. Witryol has proposed issues concerning the Niagara Falls Storage Site, which is located on property south of the site of the Model City facility, the project-specific SEMMP, and the closure of Fac Pond 8. The municipalities have proposed issues related to the investigative surveys, the project-specific SEMMP, as well as the closure of Fac Ponds 8 and 3. Each proposed issue is addressed below.

1. The Niagara Falls Storage Site (NFSS)

In her petition and comments (at 1-6, *see also* Appendix U at 12), Ms. Witryol comments about the proximity of the Niagara Fall Storage Site (NFSS), which was formerly part of the LOOW, to the site of the Model City facility, in general, and to the location of the proposed RMU-2 landfill, in particular. Ms. Witryol states that the site of the Model City facility is down-gradient and down-wind from the NFSS. At the issues conference (Tr. at 189-197), Ms. Witryol said that she is offering Raymond Vaughan, Ph.D. (Buffalo, New York), who would testify about the NFSS and the interim waste containment cell. Dr. Vaughan has a Ph.D. in geology. Dr. Vaughan's work experiences include, among others, providing litigation support and interagency scientific consultation for the New York State Attorney General's Office, Environmental Protection Bureau. Ms. Witryol explains that consideration of the NFSS is relevant to this proceeding with respect to the environmental review required by SEQRA, and to several siting criteria including surface and ground water (*see e.g.*, 6 NYCRR 361.7[b][7]), among others.

Department staff states, in the February 2015 response to Ms. Witryol's petition, that the comments do not raise a substantive and significant issue for adjudication. According to Department staff, the radius of influence of the ground water pumping withdrawal system at the Model City facility is less than 25 feet. Department staff notes that the ground water corrective action program at the Model City facility has not affected ground water at the NFSS based on available monitoring data. (*See* Staff Response at W-145 – W-146.)

I agree with Department staff. The discussion in Ms. Witryol's petition and comments (at 1-6) concerning the NFSS are in the nature of comments about the DEIS. SEQRA does not require an adjudicatory hearing to address comments on the DEIS.

As an additional basis for excluding this proposed issue, I note that CWM does not own the property where the NFSS is located, or otherwise control any activities on the NFSS. Rather, the action (*see* 6 NYCRR 617.2[b][1][iii]) under consideration in this proceeding is limited to the construction and operation of the proposed RMU-2 landfill and related modifications on the site of the Model City facility (*see* DEIS, Appendix N [Positive Declaration dated October 12, 2005]). Therefore, I conclude that any consideration of the NFSS property is not relevant to this proceeding.

2. Investigative Surveys

The site of the Model City facility has been the subject of numerous investigative surveys undertaken by the federal government since the early 1970s, and by various consultants since 1984 on behalf of Waste Management, Inc. and CWM. Many investigative surveys and their results are described in the DEIS and in the attachments to the municipalities' petition for full party status.

Dr. Resnikoff, on behalf of the municipalities, is critical of the investigative surveys undertaken by CWM's consultants since 2000. Of particular concern to Dr. Resnikoff is the distance between the survey instrument and the surface to be surveyed. Referring to MARSSIM,

Dr. Resnikoff states that the appropriate distance is 10 cm, which is about 4 inches. None of the issues conference participants dispute Dr. Resnikoff's observations that the actual distance between the survey instrument and the surfaces surveyed on the site of the CWM facility was often greater than 10 cm and up to 30 cm, which is about 1 foot.

Department staff and CWM respond, first, by stating that MARSSIM provides guidance about how to conduct surveys, and that the guidance provides some flexibility in its implementation. Second, Department staff and CWM note that some of the areas that were surveyed were vegetated. As a result, tall grass, weeds, shrubs, and trees did not permit the survey instrument to be lowered to within 10 cm from the surface of the soil. Department staff and CWM note further that other areas could not be surveyed because engineered facilities were present, such as buildings and Fac ponds.

Department staff and CWM do not dispute Dr. Resnikoff's contention that the distance between the survey instrument and the surface to be surveyed, among other factors, may impact the results of the survey. Dr. Resnikoff states, however, that a lack of compliance with the recommendations in MARSSIM renders the results of the investigative surveys unreliable.

For the following reasons, I conclude that differing expert opinions about conducting investigative surveys consistent with the guidance outlined in MARSSIM is not an issue for adjudication. MARSSIM is not a rule or a regulation. It offers guidance about how to conduct investigative surveys. Therefore, I conclude that the proposed issue is not substantive. The municipalities' criticisms of the investigative surveys do not concern CWM's ability to meet statutory or regulatory criteria (*see* 6 NYCRR 624.4[c][2]). I find it reasonable that vegetation on the site of the Model City facility may be a factor in determining the distance between the survey instrument and the soil. Therefore, some flexibility about how the guidance may be implemented during an investigative survey is appropriate.

Nevertheless, significant deviations from the guidance could invalidate the results of an investigative survey. The question then becomes whether Dr. Resnikoff's criticisms are sufficient to require CWM to undertake another investigative survey in the manner outlined in the municipalities' petition and in Dr. Resnikoff's reports (*see e.g.*, Municipalities Petition at 73-74, Resnikoff/Travers Report at 13). Another way to consider the question posed by the municipalities is whether the review, required pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617, is sufficient with respect to this topic. I find that it is sufficient for the following reasons.

First, except for Vicinity Properties E, E', and G, the US Department of Energy certified, in May 1992, that the other vicinity properties associated with the site of the Model City facility were in compliance with applicable federal radiological decontamination criteria. As outlined above, DOE did not certify Vicinity Properties E, E', and G because not all areas on these vicinity properties were accessible. (*See* DEIS at 50-51.) However, since May 1992, the previously inaccessible areas on Vicinity Property E' (*i.e.*, Tanks 64 and 65) have been surveyed, remediated, and capped (*see* DEIS at 125).

Second, the DOH 1972 Order and DOH 1974 Amendment remain in effect. As a result, DOH must approve soil displacements or excavations (*see* Paragraph III of DOH 1972 Order, *see also* Pfeiffer October 5, 2015 letter at 2). According to the supplemental information provided in Mr. Pfeiffer's October 5, 2015 letter (at 1), I note further that DOH has determined that industrial and commercial development including the proposed RMU-2 landfill and related modifications to the Model City facility may be undertaken in a manner consistent with the DOH 1972 Order and DOH 1974 Amendment. Therefore, I conclude that CWM should not be required to undertake an investigative survey in the manner outlined in the municipalities' petition and in Dr. Resnikoff's reports (*see e.g.*, Municipalities Petition at 73-74, Resnikoff/Travers Report at 13).

3. The Project-Specific SEMMP

In Mr. Abraham's October 2, 2015 letter, the municipalities provide a concise summary of their objections to the revised May 2015 project-specific SEMMP. The first is the SEMMP's general reliance upon prior investigative surveys (*e.g.*, URS December 2008, *Results of Gamma Walkover Survey, Soil Sampling, and Legacy Building Surveys*) and, in particular, the April 2009 investigative survey (URS, *Results of Subsurface Soil and Pond Sediment Sampling for RMU-2*). Second, according to the municipalities, the revised May 2015 project-specific SEMMP would substantially depart from the excavation practice required by the generic small-project SEMMP, where radiological scanning takes place *in situ* every six inches during soil excavations. As a result of the departure from this scanning practice, the municipalities assert that the revised May 2015 project-specific SEMMP would not protect public health and the environment.

The municipalities' first objection is addressed in the preceding section. In addition, I note an apparent inconsistency in the municipalities' objection about the surface scans that would be required by the revised May 2015 project-specific SEMMP. In response to Dr. Resnikoff's objections concerning the distance between the survey instrument and the surface to be surveyed, CWM has stated that vegetation, such as tall grass, weeds, and shrubs, has limited access to the soil surface. According to the revised May 2015 project-specific SEMMP, the initial scanning would take place after the site is cleared and grubbed, to which Dr. Resnikoff objects (*see* Resnikoff October 2, 2015 Report at 2). Although clearing and grubbing would disturb the first six inches of soil, the effect would provide access to the area and improve the ability of the operator to lower the survey instrument to within 10 cm of the soil, thereby addressing Dr. Resnikoff's primary objection about how CWM's consultants conducted previous investigative surveys.

I conclude that the municipalities' assertion that the revised May 2015 project-specific SEMMP would not protect public health and the environment is without merit. The 2013 site-wide Part 373 renewal permit and the draft permit provide for the development of two types of site soil monitoring and management plans (*see* Draft Permit Condition D.4 of Exhibit B [Supplement to Module II – Corrective Action]). The first is the generic small-project soil excavation monitoring and management plan. The second is a project-specific SEMMP. Paragraph III of the DOH 1972 Order is the legal basis for requiring CWM to develop site soil

monitoring and management plans, such as the generic small-project SEMMP and the project-specific SEMMP. Paragraph III of the DOH 1972 Order states in full:

THAT any deliberate or intentional movement, displacement or excavation, by whatever means, of the soil of said land is hereby prohibited unless otherwise expressly permitted after the submission to and approval by the Commissioner of Health, or his [sic] authorized representative, of acceptable plans therefor, except that any official agency having jurisdiction or responsibility, whether State or Federal, shall not be subject to such prohibition.

Paragraph III of the DOH 1972 Order does not otherwise prescribe what would constitute an acceptable plan. As a result, the DOH 1972 Order provides the Department of Health Commissioner with discretion about how to implement the directive in Paragraph III of the DOH 1972 Order.

The municipalities' reliance on the August 24, 2007 correspondence from then-Deputy Commissioner Washington for the proposition that the generic small-project SEMMP is more protective of public health and the environment than the revised May 2015 project-specific SEMMP is misplaced (*see* Abraham October 2, 2015 letter at 2). According to the August 24, 2007 correspondence, the original inquiry from the municipalities was about directing CWM to undertake a site-wide investigative survey before the Department would permit any excavation.

The Deputy Commissioner, however, outlines the benefits of the generic small-project SEMMP compared to a site-wide investigation survey. A principal benefit of the generic small-project SEMMP over the site-wide investigative survey would be that 100% of the excavated area would be evaluated. In addition, the Deputy Commissioner extends the benefit associated with the generic small-project SEMMP to "other radiological plans required by CWM's Part 373 permit..." (*See* Washington August 24, 2007 letter at 2). As with the generic small-project SEMMP, 100% of the excavated area would be evaluated with the revised May 2015 project-specific SEMMP. The Deputy Commissioner notes further that these plans would provide valuable information about potential radiological constituents, and if warranted, Department staff would direct CWM to undertake additional investigations (*see* Washington August 24, 2007 letter at 2).

The details of the revised May 2015 project-specific SEMMP are summarized above. Although radiological scanning would not take place *in situ*, the revised May 2015 project-specific SEMMP states that no excavated materials would be removed from the site. As a result, any potential radiological constituents would remain on the site when the excavated soils are scanned. The revised May 2015 project-specific SEMMP outlines several different procedures that would be implemented depending on the results of the scans. Staff from the Departments of Health and Environmental Conservation has reviewed the terms and conditions of the revised May 2015 project-specific SEMMP. Both agencies have determined that the SEMMP is acceptable. In addition, Mr. Pfeiffer, from DOH, states that CWM's proposal could be undertaken in a manner consistent with the 1972 Order and 1974 Amendment (*see* Pfeiffer October 5, 2015 letter and supplemental information).

The municipalities' offer of proof with respect to the revised May 2015 project-specific SEMMP is not sufficient to lead me to inquire further. In considering the proposed issue, I find that the offer of proof has been rebutted by the record of the issues conference, which includes, among other things, a review of the terms and conditions of the revised May 2015 project-specific SEMMP, and the acceptance of it by Department staff as well as DOH staff. Accordingly, I conclude that the proposed issue is not substantive. (*See Matter of Seneca Meadows, Inc.*, Interim Decision, October 26, 2012 at 4, and *Matter of Bonded Concrete, Inc.*, Interim Decision, June 4, 1990 at 2.)

Given the similarities of Ms. Witryol's objections to the revised May 2015 project-specific SEMMP, I conclude that Ms. Witryol has not raised any substantive and significant issues for adjudication. The basis for my determination is the same as that outlined above with respect to the municipalities' offer of proof.

Moreover, I note, in particular, that DOH staff expressly addresses Ms. Witryol's particular concern about detecting alpha radiation with the survey instruments specified in the revised May 2015 project-specific SEMMP. Mr. Pfeiffer notes that radium can be detected by gamma emissions. Mr. Pfeiffer notes further that plutonium was co-mingled with Cesium-137 at the site of the Model City facility, and that Cesium-137 can be detected by gamma emissions. (*See Pfeiffer* October 5, 2015 letter and supplemental information.)

4. Fac Pond 8

In their petition for full party status (at 66-70), the municipalities have proposed issues for adjudication about the remediation and closure of Fac Pond 8. As noted above, the municipalities requested, in an email dated June 10, 2015, that decisions related to the remediation and final closure of Fac Pond 8 be included within the scope of the captioned proceeding. In an email dated June 19, 2015, Ms. Witryol joined in the municipalities' request. The topic was discussed during the October 15, 2015 telephone conference call. Department staff and CWM object to including the remediation and final closure of Fac Pond 8 into this proceeding.

The municipalities' arguments concerning the completeness of the application for the siting certificate (*see* 6 NYCRR 361.3[e][1]) are without merit for the following reasons. First, the completeness of the application for the siting certificate will not be an issue for adjudication (*see* 6 NYCRR 624.4[c][7] and 6 NYCRR 361.1[h]). Second, contrary to the municipalities' argument, the closure of Fac Pond 8 is not an entitlement as contemplated by 6 NYCRR 361.3(e)(1). Finally, the terms and conditions of the 2013 site-wide Part 373 renewal permit specify how Fac Pond 8 would be closed. Although the municipalities took advantage of the opportunity to comment about the 2013 site-wide Part 373 renewal permit, the time to seek judicial review of it has passed. Therefore, any consideration about the terms and conditions of the 2013 site-wide Part 373 renewal permit as they relate to the closure and remediation of Fac Pond 8 is beyond the scope of this proceeding.

5. Fac Pond 3

The 2013 Engineering Report states that the location of Fac Pond 3 is within the footprint of the proposed RMU-2 landfill. As a result, Fac Pond 3 would be closed if CWM obtains all approvals for its proposal. However, CWM would not close Fac Pond 3 until Fac Pond 5 is constructed because CWM currently relies upon Fac Pond 3, as well as Fac Ponds 1 & 2, to store treated leachate prior to discharge. (See 2013 Engineering Report at 37, *see also* draft Condition F of Schedule I of Module I, Exhibit E – Special Conditions [Supplement to Module V – Surface Impoundments] at E-13)

According to the municipalities, the application materials do not offer sufficient details about how Fac Pond 3 would be closed prior to the commencement of construction of the proposed RMU-2 landfill. The municipalities are concerned about the potential level of contamination of Fac Pond 3 with radiological constituents. (See Municipalities Petition at 72-73.)

In their petition for full party status, the municipalities do not expressly state that they are proposing any issues for adjudication concerning the closure of Fac Pond 3. The municipalities assert that the probability is high that Fac Pond 3 is contaminated with radiological constituents because it was constructed from on-site materials. The municipalities make no offer of proof to support this assertion, however. Accordingly, I find no substantive and significant issue for adjudication with respect to the closure of Fac Pond 3.

D. SPDES Permit and Storm Water Pollution Prevention Plan (SWPPP)

On November 16, 1974, Department staff issued a State Pollutant Discharge Elimination System (SPDES) permit for the Model City facility. The November 1974 SPDES permit authorized a discharge of 100,000 gallons per day of treated effluent to an outfall in the Niagara River. Since 1974, CWM has duly filed SPDES renewal applications. In the 1980s, Department staff modified the SPDES permit to authorize a discharge of 1,000,000 gallons per day of treated effluent. (See DEIS at 9.)

CWM operates an aqueous waste treatment system (AWTS) at the Model City facility to treat landfill leachate, other types of wastewater generated on-site, such as storm water, and liquid wastes brought to the facility. The AWTS discharges to the Fac ponds where the treated effluent accumulates and mixes with atmospheric precipitation. Prior to discharge, pre-qualification samples are collected from the Fac ponds and analyzed. The results are submitted to Department staff for review and approval. Typically, the accumulated wastewater in the Fac ponds is batch discharged once per year over several days to the Niagara River. In practice, the discharge represents an annual composite of the year's AWTS discharges.

In 2003, Department staff initiated a modification to the SPDES permit for the Model City facility. After two draft permits were prepared, Department staff issued a notice for public comment for a third version of the draft SPDES permit and fact sheet on March 4, 2015.

Department staff finalized the permit, and issued it on April 22, 2015.³⁴ The effective dates are from June 1, 2015 to May 31, 2020. The April 2015 SPDES modification and renewal permit does not include the proposed RMU-2 landfill and related modifications to the Model City facility.

The April 2015 SPDES permit identifies four outfalls: 001, 002, 003, and 004. Treated process water from the Fac ponds is discharged to the Niagara River via Outfall 001. Treated storm water is discharged via Outfalls 002, 003, and 004. Outfalls 002 and 003 discharge to Four Mile Creek, and Outfall 004 discharges to Twelve Mile Creek.

The April 2015 SPDES permit identifies four internal outfalls: 01A, 02A, 02B, and 02C. Outfall 01A was incorporated into the April 2015 SPDES permit to determine compliance with the centralized waste treatment effluent limitations guidelines concerning, among other things, mercury discharges (Tr. at 239-240). Outfalls 02A, 02B, and 02C were established at locations SMP 03, SMP 04, and SMP 05. PCB legacy contamination is present at the site of the Model City facility, and measurable concentrations of PCBs have been detected in the storm water. The purpose of these internal outfalls (*i.e.*, 02A, 02B, and 02C) is to monitor water quality standards with respect to PCB discharges.

In their petition, the municipalities note that PCBs have been detected at the site of the Model City facility in storm water, ground water, and wastewater. Given their general dispersal, the municipalities contend that PCBs have not been contained at the site. The municipalities note that all three sources of water potentially discharge to the Niagara River either directly as a component of the wastewater discharge, through storm water discharges to Four Mile Creek and Twelve Mile Creek, or through ground water seepage. (*See* Municipalities Petition at 81.)

The municipalities state that the effluent limit concentration in the current SPDES permit³⁵ for PCBs is 0.001 nanograms per liter, or 0.0001 parts per trillion (ppt). According to the municipalities, virtually any discharge of PCBs from the site of the Model City facility would violate the discharge limit. (*See* Municipalities Petition at 76.) If the April 2015 SPDES permit is modified to incorporate the wastewater associated with the proposed RMU-2 landfill, the municipalities argue that CWM could not meet the virtual zero discharge limitation for PCBs (*see* Municipalities Petition at 81, and Tr. at 223-227).

At the time that the municipalities filed their petition for full party status, they noted that CWM had not filed an application to modify its SPDES permit to incorporate the wastewater associated with the proposed RMU-2 landfill and related modifications to the Model City facility (*see* Municipalities Petition at 96-97).

³⁴ Attached to an email from Mr. Darragh dated April 23, 2015, CWM provided the following documents, consolidated in portable document format (PDF): (1) a cover letter dated April 22, 2015 from Theresa Diehsner, New York State Department of Environmental Conservation, Division of Environmental Permits; (2) a copy of the Responsiveness Summary, dated April 2015, concerning the SPDES modification and renewal permit for the Model City facility; (3) a copy of the April 2015 SPDES modification and renewal permit for the Model City facility; and (4) the Industrial SPDES Permit Fact Sheet, dated April 17, 2015 (SPDES ID NY0072061). (Tr. at 221-222.)

³⁵ The municipalities' November 2014 petition for full party status predates the availability of the draft version of the April 2015 SPDES renewal permit.

During the issues conference, Mr. Darragh explained that CWM would seek to modify the April 2015 SPDES permit. Attached to an email dated April 24, 2015, Mr. Darragh provided a copy of a letter dated April 23, 2015 from Mr. Mahar at the Model City facility to Mr. Denk at the Department's Region 9 Office. (Tr. at 222). In the April 23, 2015 letter, Mr. Mahar requested a modification of the recently issued April 2015 renewal SPDES permit to revise the diagram on page 29 of 32 entitled, *Storm Water Flow Schematic and Monitoring Locations*. The changes to the diagram would include removing Fac Ponds 3 and 8 upon closure, adding the proposed RMU-2 landfill and the new Fac Pond 5, and revising the surface water flow patterns. (See Part 361 Application at 4.)

At the issues conference, Mr. Stever said that Department staff would be reviewing CWM's request to modify the April 2015 SPDES permit (Tr. at 13). Mr. Abraham said that the municipalities are not so much concerned about whether CWM submits an application to modify the April 2015 SPDES permit to incorporate the proposed RMU-2 landfill and related modifications to the Model City facility, or a new SPDES permit application. Rather, the municipalities contend that any wastewater associated with the proposed RMU-2 landfill should be considered a new source pursuant to federal Clean Water Act § 306(a)(2). (Tr. at 15, 223, and Municipalities Petition at 83-85.)

Finally, Mr. Darragh noted that the April 2015 SPDES permit regulates the wastewater discharges from the whole Model City facility; it is a site-wide permit. Of the permits that authorize discharges to the Great Lakes basin, CWM contends that the April 2015 SPDES permit is one of the strictest. (Tr. at 231-232.)

In the Part 361 siting certificate application, CWM acknowledges that it would need to prepare a storm water pollution prevention plan (SWPPP) to manage storm water discharges during the construction of the proposed RMU-2 landfill and related modifications to the Model City facility. CWM anticipates that the terms and conditions of the forthcoming SPDES modification permit for the facility would require the development of the SWPPP. If the SPDES permit does not require CWM to develop a SWPPP prior to the commencement of the construction activities associated with the proposed RMU-2 landfill, CWM states that it would rely upon the Department's SPDES general permit (GP-0-10-001). (See Part 361 Application at 4.)

The municipalities argue that CWM should be required to prepare and file the SWPPP as part of this proceeding. The municipalities argue further that the circumstances of this proceeding are unique in that the Siting Board is considering a siting certificate application, and the Commissioner is considering the modification to the April 2015 SPDES permit, among other permit applications. According to the municipalities, the Part 361 siting certificate application would not be complete unless CWM files the required SWPPP now for review and comment. (See Municipalities Petition at 96, and Tr. at 246-247.) To support their position, the municipalities cite to *Matter of Sullivan County* (Rulings of the Administrative Law Judge,

January 18, 2007 at 27).³⁶ According to the municipalities, the Model City facility has a history of discharging PCBs to surface waters. The municipalities argue that the Siting Board and the parties to the hearing should have the opportunity to review and comment about the pollution prevention plan before the Siting Board determines whether to issue the pending siting certificate, and the Commissioner decides whether to issue the pending environmental permits. (See Municipalities Petition at 11-12, and Tr. at 242-244.)

During the issues conference, Ms. Witryol also expressed concern about the potential discharge of PCBs from the site of the Model City facility. According to Ms. Witryol, CWM has not been successful in remediating the on-site legacy contamination of mercury, bioaccumulative chemicals such as PCBs, and VOCs. Ms. Witryol contends that the water quality of Four Mile Creek and Twelve Mile Creek have been adversely impacted by storm water discharges from the Model City facility as authorized by prior SPDES permits. Ms. Witryol joins in the municipalities' request that CWM provide the SWPPP during this proceeding for review and comment. (Tr. at 256-263.)

According to Department staff, the terms and conditions of the April 2015 SPDES permit, rather than the SPDES general permit (GP-0-10-001), require CWM to submit the SWPPP prior to the commencement of construction activities. Department staff notes that, in general, the usual procedure is for the permittee to prepare the SWPPP and to retain it on site for Department staff's review during site inspections. Pursuant to the terms of the SPDES general permit, the permittee is not required to submit the SWPPP to Department staff for approval prior to its implementation. According to Department staff, the terms and conditions outlined in the April 2015 SPDES permit concerning the preparation and content of the SWPPP are more stringent than those conditions outlined in the Department's SPDES general permit for construction activities. As support, Department staff refers to Special Conditions – Industrial Best Management Practices (*see* Special Condition No. 5 on page 20 of 32 of the April 2015 SPDES permit).³⁷ Department staff anticipates that the pending modification to the April 2015 SPDES permit, which would include the proposed RMU-2 landfill and other modifications to the Model City facility, would have similarly worded conditions with respect to the SWPPP. (Tr. at 244-245, 250, 254-255.)

Discussion and ruling: During the issues conference, Department staff explained that CWM's request to modify the April 2015 SPDES permit would be reviewed consistent with the procedures and timeframes outlined in 6 NYCRR Part 621 (Uniform Procedures). As requested, Department staff has advised the issues conference participants and me about the status of the review of CWM's pending SPDES modification permit. (Tr. at 634-635.)

With an email dated June 19, 2015, Mr. Stever circulated a copy of Department staff's notice of incomplete application (NOIA) dated June 18, 2015. In an email dated August 21, 2015, Mr. Darragh advised that CWM responded to the June 18, 2015 NOIA on the same date.

³⁶ The ALJ's rulings concern a proposed noise issue. None of the issues conference participants appealed from the ALJ's ruling. As a result, the Commissioner's Interim Decision in *Matter of Sullivan County* (March 28, 2008) is silent about the issue that the ALJ identified for adjudication.

³⁷ See Darragh email dated April 23, 2015, PDF attachment at 28-30 (*see also* Footnote 34).

Subsequently, with an email dated October 15, 2015, Mr. Darragh provided the issues conference participants with a copy of CWM's August 21, 2015 response to Department staff's June 18, 2015 NOIA. With an email dated October 19, 2015, Department staff issued a second NOIA dated the same. Attached to an email dated November 19, 2015 from Jonathon Rizzo, Permitting Manager, Waste Management, CWM filed a response that included a cover letter dated November 19, 2015 from Mr. Mahar, and a report entitled, *Antidegradation Demonstration Supplement for Bioaccumulative Chemicals of Concern*, dated November 2015. As of the date of this issues ruling, Department staff's review of CWM's November 19, 2015 submission is ongoing.

During the October 15, 2015 telephone conference call with the issues conference participants, Department staff and CWM confirmed that the review of CWM's request to modify the April 2015 SPDES to incorporate the proposed RMU-2 landfill and related modifications to the Model City facility was part of the captioned proceeding.

CWM's request to modify the April 2015 SPDES permit is not complete (*see* 6 NYCRR 621.2[f]) during the pendency of Department staff's review of CWM's November 19, 2015 submission. After reviewing CWM's November 19, 2015 submission, Department staff will address additional procedural requirements associated with this delegated permit program (*see* 6 NYCRR 621.2[g][2]), including, but not limited to, determining the completeness of the requested modification application and, if appropriate, issuing a tentative determination (*see* 6 NYCRR 621.2[ae]).

As I mentioned during the issues conference (Tr. at 235-236) and the October 15, 2015 telephone conference call, it may be appropriate to provide the issues conference participants with the opportunity either to revise or to supplement their respective petitions for party status depending on Department staff's tentative determination. Therefore, I reserve ruling on any proposed issues concerning regulated wastewater discharges from the Model City facility until Department staff issues a tentative determination about CWM's request to modify the April 2015 SPDES permit, and the issues conference participants have had the opportunity to review that tentative determination.

E. Water Quality Certification

In September 2011, CWM received a jurisdictional determination from the US ACE that federally regulated freshwater wetlands, totaling approximately 2.5 acres, are located within the proposed RMU-2 development area. In July 2013, CWM filed an application³⁸ pursuant to federal Clean Water Act § 404 (33 USC § 1344) with the US ACE for a federal freshwater wetlands permit to disturb these wetland areas. (*See* DEIS at 7.)

³⁸ *See Joint Application for Permit* by edr Companies (Rochester, New York), dated July 2013. The US ACE is reviewing the portion of the joint application that relates to the federally regulated wetlands on the site of the Model City facility.

In order to obtain the federal freshwater wetlands permit from the US ACE, CWM must also obtain a water quality certification (WQC) from the Department (*see* Clean Water Act § 401 [33 USC § 1341]). The requirements for a WQC are outlined in 6 NYCRR 608.9, and incorporate the effluent limitations and water quality standards, among other things, outlined in the Department's regulations at 6 NYCRR Parts 701-704 and 750. CWM has filed an application³⁹ with Department staff for a WQC, pursuant to 6 NYCRR 608.9 (*see* DEIS at 8).

The municipalities assert, in general, that discharges of PCBs from the proposed RMU-2 landfill and related modifications to the Model City facility would disqualify CWM from obtaining a WQC (*see* Municipalities petition at 74). The municipalities state that CWM's proposal would need a WQC pursuant to 6 NYCRR 608.9. The municipalities note, however, that 6 NYCRR 608.9 requires CWM to demonstrate that its proposal would not cause any violations of various water quality requirements, including effluent limitations. According to the municipalities, the effluent limitation for PCBs is 0.001 nanograms per liter, or 0.0001 ppt. The municipalities argue that essentially any discharge of PCBs from the site of the Model City facility would violate the discharge limit and, thereby, prevent CWM from obtaining the requested WQC. (*See* Municipalities Petition at 76.)

As part of its proposal, CWM would relocate the Drum Management Building to an area west of the RMU-1 landfill. State regulated Freshwater Wetland RV-8 is located in the vicinity. The footprint for the new Drum Management Building would extend into a portion of the regulated 100-foot adjacent area of RV-8. Approximately $\frac{3}{4}$ of an acre of the regulated 100-foot adjacent area of Freshwater Wetland RV-8 would be disturbed. (*See Joint Application for Permit* by edr Companies [Rochester, New York], dated July 2013 at 9, and Appendix A, Sheet 7.)

With specific reference to the location for the new Drum Management Building, the municipalities note that, absent soil testing, any disturbance within the regulated 100-foot adjacent area of Freshwater Wetland RV-8 could release legacy PCB contamination to surface waters. The municipalities assert that the erosion control measures outlined in Department staff's combined draft permit for Freshwater Wetlands and WQC would not be adequate to prevent low concentrations of PCBs from being released. (*See* Municipalities Petition at 91-92.)

The municipalities' proposed issue concerning the pending WQC was discussed during the issues conference. The municipalities stated that CWM must obtain the approval sought from the US ACE, pursuant to federal Clean Water Act § 404, to disturb federally regulated freshwater wetlands, as well as the WQC from the Department, pursuant to federal Clean Water Act § 401 and 6 NYCRR 608.9. Both approvals are required. (Tr. at 269-270.)

With reference to the Public Notice issued on April 2, 2015 from the US ACE (Buffalo District) concerning CWM's application for a federal freshwater wetland permit, pursuant to

³⁹ *See Joint Application for Permit* by edr Companies, dated July 2013. Department staff has reviewed the portion of the joint application that concerns Freshwater Wetland RV-8, and has developed a combined draft permit.

federal Clean Water Act § 404, and attached drawings,⁴⁰ Mr. Darragh identified the location of the federally regulated freshwater wetlands on the site of the Model City facility (Tr. at 273-277). With the location of the federally regulated freshwater wetlands identified, Mr. Abraham said that, from the municipalities' perspective, the question was whether disturbing these areas during the construction of the proposed RMU-2 landfill and related modifications to the Model City facility would "risk" the off-site discharge of PCBs through the storm water management system (Tr. at 278).

Discussion and ruling: Although required by the federal Clean Water Act, a WQC is not a SPDES permit even though the requirements for such a certification incorporate the regulatory criteria that are used to develop conditions for SPDES permits. A WQC relates to construction activities in water bodies, in contrast to wastewater discharges that would result from daily operations at a particular facility. In this case, the water bodies at issue are the federally regulated freshwater wetlands. Furthermore, the construction activities that require a WQC from the Department are regulated by the federal government.

The municipalities' concern about the potential off-site discharge of legacy PCB contamination on the site of the Model City facility via storm events relate to storm water management. Storm water management is regulated pursuant to the terms and conditions of the SPDES permit not the WQC. Therefore, the municipalities have not raised any substantive and significant issues about the pending WQC. As noted above, potential issues concerning the SPDES permit are being held in abeyance pending Department staff's tentative determination.

F. Potential Air Emissions

On October 24, 2014, Department staff issued an Air State Facility (ASF) permit to CWM for the Model City facility. With a cover letter dated February 5, 2015, CWM filed an application to modify the October 2014 ASF permit include potential air emissions from the proposed RMU-2 landfill and related modifications to the Model City facility. Department staff's review of the pending application to modify the air emissions permit has been incorporated into this proceeding.

In a letter dated March 20, 2015, Department staff stated that the application to modify CWM's October 2014 ASF permit was complete. With the March 20, 2015 letter, Department staff provided copies of the permit modification application filed by Conestoga-Rovers & Associates (Niagara Falls, New York) dated February 2015, and a draft modified ASF permit.

In their petition for full party status (at 92), the municipalities assert that potential air emission impacts have not been adequately addressed. To support this assertion, the municipalities offer Dr. Ranajit Sahu (Alhambra, California), who has a Ph.D. in Mechanical Engineering. Dr. Sahu has extensive work experience as a consulting engineer specializing in air quality issues. Attached to the municipalities' petition is a report prepared by Dr. Sahu entitled,

⁴⁰ The drawings attached to the May 2, 2015 Public Notice issued by the US ACE are copies of the Figures from Appendix A of *Joint Application for Permit* filed by edr Companies, dated July 2013.

Report on Air Quality Aspects at the Chemical Waste Management, LLC, Model City, New York, and the Proposed RMU-2, dated November 19, 2014.

At the issues conference (Tr. at 104-107), CWM, Department staff and the municipalities agreed to exchange the information that CWM relied upon to determine the potential air emissions inventory. Since the issues conference, information has been exchanged. With emails from Mr. Darragh dated May 5, 2015 and May 8, 2015, CWM provided information about the air monitoring undertaken at the site of the Model City facility since 1984. In addition, with emails from Mr. Darragh dated June 24, 2015 and July 1, 2015, CWM circulated information about how it estimated soil erosion.

In emails from Mr. Abraham dated June 12, 2015 and October 2, 2015, the municipalities responded to the information that CWM circulated to the issues conference participants since the issues conference. In Mr. Abraham's June 12, 2015 cover letter (at 3-4), the municipalities maintain that CWM has not provided sufficient information to determine whether the Model City facility is a major source pursuant to federal Clean Air Act Title V, and the Department's implementing regulations. Referencing the Department's web site concerning vapor intrusion,⁴¹ and DER-10 entitled, *Technical Guidance for Site Investigation and Remediation*, dated May 3, 2010, the municipalities express concerns about the potential adverse impacts that vapor intrusion may have on potential air emissions from the Model City facility. According to Dr. Sahu's June 12, 2014 (sic) memorandum (at 3) enclosed with Mr. Abraham's June 12, 2015 cover letter, the potential air emission inventory does not include a consideration of the vapor flux of VOCs from contaminated ground water under the site, among other things.

In Mr. Abraham's October 2, 2015 letter (at 3), the municipalities reiterate their concern about dust contamination. In his September 20, 2015 report enclosed with the municipalities October 2, 2015 correspondence, Dr. Sahu states that he reviewed the wind erosion calculations that CWM provided to Department staff. Dr. Sahu outlines the reasons why he cannot accept the conclusion that dust emissions (*i.e.*, PM₁₀ and PM_{2.5}) would essentially be zero. Dr. Sahu contends that the results of the calculations are not reliable, and recommends that the calculations be redone. (*See* Sahu September 30, 2015 report at 1-7.)

Generally, the question posed by the municipalities is whether the appropriate site-wide air emissions permit associated with the proposed RMU-2 landfill and related modifications to the Model City facility would be a modification to the current ASF permit issued in October 2014, or a Title V permit issued pursuant to the federal Clean Air Act. Determining which permit is appropriate depends on the potential air emissions inventory.

During the October 15, 2015 telephone conference call, CWM and Department staff requested the opportunity to respond to the municipalities' submissions dated June 12, 2015 and October 2, 2015 with respect to the potential air emissions inventory. I granted that request.

⁴¹ See <http://www.dec.ny.gov/regulations/2588.html>.

With an email from Mr. Darragh dated December 1, 2015, CWM timely filed a response to the comments outlined in the municipalities' June 12, 2015 and October 2, 2015 correspondence. CWM's December 1, 2015 response included eight attachments. Of them, Attachment 3 addresses Dr. Sahu's June 12, 2014 (sic) memorandum, and Attachment 5 addresses Dr. Sahu's September 30, 2015 report. Because the remaining attachments do not relate to the proposed air emissions issues, they are considered elsewhere in these rulings.⁴²

Concerning the municipalities' assertion about the inadequacy of the potential emissions inventory, CWM notes that potential emissions from the site of the Model City facility are currently below the threshold for a federal Title V permit. CWM argues that any potential additional emissions associated with the proposed RMU-2 landfill and related modifications would remain so. According to CWM, the application materials seeking to modify the October 2014 ASF permit include a complete inventory of the regulated air emissions. CWM notes that CWM's current operations are not a major source (*see* 6 NYCRR 231-1.1[b][6] and 231-4.1[b][26]) of hazardous air pollutants (*see* 6 NYCRR 200.1[ag]). CWM notes further that the development of the proposed RMU-2 landfill would not cause the Model City facility to become a major source of hazardous air pollutants. CWM observes that Department staff issued a draft modified ASF permit on March 20, 2015. According to CWM, neither the municipalities nor Dr. Sahu requested any additional information from CWM since CWM provided information with the emails dated May 5 and 8, 2015. (*See* CWM December 1, 2015 response at A-8.)

Attachment 3 to CWM's December 1, 2015 response is a report prepared by GHD⁴³ entitled, *Response to Information on Air Issues Resolved and Remaining in the CWM Matter Based on Information Reviewed Since Submittal of Expert Report November 2014*, dated November 30, 2015. Attachment 3 addresses Dr. Sahu's June 12, 2014 (sic) memorandum, which was enclosed with the municipalities' June 12, 2015 cover letter. According to GHD, Dr. Sahu's request for data was not specific. GHD notes that Department staff has all the air monitoring data collected at site of the Model City facility over the past 20 years. Given the amount of data, and the absence of a specific request, GHD states that it provided Dr. Sahu with the reports that summarized a wide variety of parameters and timeframes. (*See* CWM December 1, 2015 response, Attachment 3 at 2.)

⁴² The following is a list of the other attachments to CWM's December 1, 2015 response. Attachments 1 and 7 respond, respectively, to Dr. De's June 9, 2015 memorandum concerning hydrostatic uplift factors of safety, and his October 1, 2015 memorandum concerning ground water infiltration at the RMU-1 landfill and its implications for the design of the proposed RMU-2 landfill. Attachments 2 and 4 refer back to CWM's December 1, 2015 response at A-4 to A-6, and at A-9. CWM's December 1, 2015 response at these two sets of pages addresses, respectively, Dr. Resnikoff's June 12, 2015 memorandum concerning the adequacy of the URS raw data disclosure, and his October 2, 2015 report concerning the project-specific SEMMP. Attachment 6 responds to Dr. Michalski's September 30, 2015 memorandum concerning ground water intrusion at the RMU-1 landfill. Attachment 8 provides data about the volumes of leachate collected from the secondary leachate collections system (SLCS) at the RMU-1 landfill. (*See* **Rulings** § V.B [Engineering Design] *supra* at 101, and **Rulings** § V.C [Legacy Contamination and Project-Specific Excavations] *supra* at 116).

⁴³ Subsequent to February 2015 when Conestoga-Rovers & Associates (CRA) filed the ASF permit application with Department staff, CRA became GHD (*see* CWM December 1, 2015 response, Attachment 3 at 1).

GHD states that Dr. Sahu's concerns about air emissions related to vapor intrusion was not raised at the issues conference, and argues that this concern was untimely raised in the June 12, 2015 correspondence. In addition, GHD asserts that potential vapor intrusion of VOCs from ground water contamination is not regulated by the Department's air program. (*See* CWM December 1, 2015 response, Attachment 3 at 3.)

With respect to VOCs and greenhouse gas emissions from the Fac ponds, GHD states that such emissions are negligible. GHD notes that the purpose of the Fac ponds is not to treat VOCs. Rather, their purpose, in part, is to provide biological treatment including the reduction of biological oxygen demand (BOD). Because the Fac ponds are aerated, the biological activity does not produce methane. According to GHD, analyses of the treated wastewater batches show less than 1 microgram/liter ($\mu\text{g/l}$) PCBs. (*See* CWM December 1, 2015 response, Attachment 3 at 3-4.)

GHD states that a PCB air monitoring program commenced at the site of the Model City facility on March 6, 1987. GHD states further that after nine years of collecting data, PCB concentrations were rarely above regional background levels with no significant difference between upwind and downwind results. The Department terminated the PCB air monitoring program in August 1996. From 1987 to 1996, GHD notes that SLF-12 and RMU-1 were constructed. Based on the monitoring data from 1987 to 1996, GHD does not anticipate any PCB emissions from construction activities associated with the proposed RMU-2 landfill and related modifications to the Model City facility. (*See* CWM December 1, 2015 response, Attachment 3 at 4.)

According to GHD, the primary activity at the PCB warehouse is the collection and storage of sealed drums prior to shipment off-site for disposal. As a result, GHD contends that any emissions associated with this building would be negligible. (*See* CWM December 1, 2015 response, Attachment 3 at 4.)

EPA's TANKS software program is designed to estimate air emissions from organic liquids in storage tanks. Dr. Sahu contends, however, that the TANKS software has numerous technical flaws (*see* Sahu June 12, 2014 [sic] memorandum at 4). GHD states that it reviewed the results of the analyses conducted with the TANKS 4.09D software, and contends that any software problems are unrelated to the results of the modeling runs. Therefore, the GHD maintains that the results are not impacted by the software, and concludes the results are accurate. (*See* CWM December 1, 2015 response, Attachment 3 at 5.)

GHD notes that neither EPA nor the Department has ever requested CWM to undertake any $\text{PM}_{2.5}$ monitoring. GHD notes further that CWM has undertaken PM_{10} monitoring. Because $\text{PM}_{2.5}$ is a regional issue, GHD contends that upwind and downwind monitoring at the site of the Model City facility would not provide any useful information. (*See* CWM December 1, 2015 response, Attachment 3 at 6.)

Finally, GHD notes that in August 1991, CWM conducted an 11-week program to collect and analyze air samples for ten different metals at the Department's request. GHD states that the data collected showed no significant impact on surrounding ambient air quality downwind of the

Model City facility. The Department terminated the metals ambient air monitoring program in December 1992. (See CWM December 1, 2015 response, Attachment 3 at 6.)

Attachment 5 to CWM's December 1, 2015 response is a report prepared by GHD entitled, *Response to Comments on Fugitive Dust Emission Calculations from Soil Stockpiles September 30, 2015*, dated November 30, 2015. Attachment 5 addresses Dr. Sahu's September 30, 2015 report concerning this topic. GHD maintains that it correctly prepared the May 2015 wind erosion calculations using the methodology outlined in EPA AP-42. According to GHD, landfill soils are cohesive and are less susceptible to wind erosion. GHD maintains that its assumptions are conservative. GHD notes that with heavy precipitation events (*i.e.*, rain and snow), the stockpiled soils would become saturated and would not be subjected to wind erosion. (See CWM December 1, 2015 response, Attachment 5 at 1, 4.)

GHD argues that its calculations are accurate, complete and correct. GHD states that it asked Gregory Muleski, Ph.D. to review its fugitive dust emission calculations. Dr. Muleski is a Principal and the General Manager of SACI, LLC, (Kansas City, Missouri). His Ph.D. is in Engineering Science and Mathematics. GHD attached a copy of Dr. Muleski's resume to the November 30, 2015 report. According to GHD, Dr. Muleski is an expert in the field of fugitive dust emission sources. Dr. Muleski agrees with GHD's fugitive dust emission calculations. (See CWM December 1, 2015 response, Attachment 5 at 7-8.)

With an email from Ms. Mucha dated December 1, 2015, Department staff timely filed a cover letter of the same date signed by Mr. Stever and Ms. Mucha, as well as two attachments. Because the attachments do not relate to the proposed air emissions issues, they are considered elsewhere in these rulings.⁴⁴

In the December 1, 2015 letter, Department staff references the March 20, 2015 correspondence in which staff determined that CWM's February 2015 application to modify the October 2014 ASF permit was complete. As noted above, Department staff circulated a copy of the draft modified ASF permit with the March 20, 2015 correspondence to the issues conference participants. However, Department staff now reverses the March 2015 completeness determination. Department staff states that CWM must provide a supplemental emissions inventory, as well as clarification of certain calculations included with CWM's February 2015 application to modify the October 2014 ASF permit. Staff explains that this additional information and clarification are necessary to determine whether the draft modified March 2015 ASF permit, which includes the proposed RMU-2 landfill and related modifications to the Model City facility, should be modified further. Department staff notes it is unlikely that CWM's proposal would require a federal Title V air permit. Nevertheless, Department staff reserves on this issue until CWM provides the requested information and staff has thoroughly reviewed it. (See Staff December 1, 2015 letter at 3-4.)

⁴⁴ With Department staff's December 1, 2015 correspondence, staff included two attachments. The first is Department staff's evaluation of the municipalities' June 12, 2015 comments concerning hydrostatic uplift. The second attachment is Department staff's evaluation of the municipalities' June 12, 2015 comments concerning the RMU-1 landfill. (See **Rulings** § V.B [Engineering Design] *supra* at 101).

According to Department staff, the emission inventory provided with CWM's February 2015 application to modify the October 2014 ASF permit (*see* Appendix A) either did not include or underestimated the following: (1) potential emissions from the Fac ponds; (2) potential VOC emissions associated with the waste transfer and handling operations including (i) container loading, storage and cleaning, and (ii) tank loading and storage; (3) potential VOC emissions from the stabilization operations; and (4) potential VOC emissions from the closed landfills on the site of the Model City facility (*see* Staff December 1, 2015 letter at 4).

Among other things, Department staff does not agree with CWM that potential emissions from the Fac ponds is zero. Department staff does not accept CWM's estimate that potential fugitive dust emissions from soil stockpiles would be zero. Department staff acknowledges that CWM's consultant properly relied upon EPA AP-42 (*Compilation of Air Pollutant Emission Factors*). However, staff seeks further clarification from CWM about the calculations provided in the February 2015 permit application. Department staff states that the inventory should include any potential emissions that may diffuse through the caps of the closed landfills (*i.e.*, SLF 1-6), as well as any convective loss associated with barometric pumping. Finally, Department staff recommends that CWM consult with several EPA guidance documents in developing the revised potential emissions inventory. (*See* Staff December 1, 2015 letter at 4-5.)

Department staff identifies a number of potential emissions that CWM should not include in the revised potential emissions inventory. Contrary to Dr. Sahu's assertion, CWM should not include the vapor flux of VOCs from contaminated ground water, or potential emissions associated with the PCB warehouse. With respect to the former, Department staff argues that the remedial work undertaken pursuant to the corrective action study and the interim corrective measures has resolved any potential issues associated with soil vapor intrusion. With respect to the latter, Department staff understands that only sealed drums are stored in the PCB warehouse, and are never opened during the storage period. Department staff requests, nonetheless, that CWM confirm this understanding. (*See* Staff December 1, 2015 letter at 5-6.)

Department staff acknowledges that CWM's consultant relied on the TANKS software that was originally designed to be used with the Windows XP operating system, which has become obsolete. Staff requests that CWM verify the emissions calculations, initially estimated with TANKS, by using the equations and algorithms outlined in Chapter 7 of EPA AP-42. According to Department staff, the equations and algorithms in EPA AP-42 can be performed with current spreadsheet software programs. Finally, Department staff notes that CWM's estimated emissions from the wastewater tanks containing greater than 500 ppm organics are conservative, and do not have to be revisited. (*See* Staff December 1, 2015 letter at 5-7.)

Department staff states further that CWM must enhance the air monitoring program currently set forth in the draft modified site-wide Part 373 permit to address PM_{2.5}, PCBs, metals, and VOCs that may be associated with dust and other potential air emissions during the construction and operation of the proposed RMU-2 landfill and related modifications to the Model City facility. Department staff directs CWM either to supplement or to revise both the fugitive dust control plan, as well as the air and meteorological plan. Department staff also directs that CWM provide information and emission estimates about potential contaminants from

the soil located in the footprint of the proposed RMU-2 landfill, which would be disturbed during construction activities. (*See* Staff December 1, 2015 letter at 7.)

Discussion and ruling: Upon review of Department staff's December 1, 2015 letter and CWM's December 1, 2015 response including Attachments 3 and 5, it appears that CWM may not have been aware that Department staff intended to rescind the March 2015 notice of complete application concerning CWM's February 2015 application to modify the October 2014 ASF permit, and request additional information with respect to the potential air emissions inventory.

Department staff may request, at any time during the review of a permit application, any additional information which is reasonably necessary to make any findings or determinations required by law (*see* 6 NYCRR 621.14[b]).⁴⁵ I note that some information provided by CWM with its December 1, 2015 response and Attachments 3 and 5 may, in part, be responsive to staff's December 1, 2015 request for additional information. I note further that the municipalities' previous requests for information concerning the potential air emissions inventory are similar to some of the information now requested by Department staff in the December 1, 2015 correspondence.⁴⁶

After CWM responds to Department staff's December 1, 2015 request for additional information, Department staff will have the opportunity to review the information and issue a tentative determination consistent with the requirements outlined in 6 NYCRR Part 621. Department staff's tentative determination may be one of the following. First, staff may request more information pursuant to 6 NYCRR 621.14(b). Second, staff may issue a notice of intent to deny the permit. Finally, staff may prepare either a draft permit similar to the March 20, 2015 draft ASF permit, or a different draft ASF permit.

If Department staff issues a notice of intent to deny, CWM may choose to exercise its right to request a hearing pursuant to 6 NYCRR 624.4(c)(1)(ii). If Department staff issues a draft AFS permit, then the issues conference participants, including CWM, will have the opportunity to review and comment on the draft permit. As with the pending SPDES permit application, it may be appropriate to provide the issues conference participants with the opportunity either to revise or to supplement their respective petitions for party status. Therefore, I reserve ruling on any proposed issues related to potential air emission impacts.

When CWM files a response to Department staff's December 1, 2015 request for additional information, I request that CWM provide the other issues conference participants and me with a copy of the response.

In addition to Department staff's request for additional information concerning the potential air emissions inventory, staff has directed CWM either to supplement or to revise both

⁴⁵ 6 NYCRR 624.4(c)(7) provides the ALJ with similar authority.

⁴⁶ *See*, Dr. Sahu's June 12, 2014 (sic) memorandum at 3-5 concerning, in particular, § C.a.ii, vi, and vii, and § C.c, as well as Dr. Sahu's September 30, 2015 report concerning fugitive dust emission calculations, in general.

the fugitive dust control plan (*see* draft site-wide Part 373 permit [Vol. 5 of 5], Attachment L [Sections D-10]), as well as the air and meteorological plan (*see* draft site-wide Part 373 permit [Vol. 5 of 5], Attachment - N).⁴⁷ To date, no issues conference participant has identified any potential issue for adjudication about these two plans, which are currently incorporated into the terms and conditions of the 2013 site-wide Part 373 renewal permit. However, given staff's directive either to supplement or revise these two plans, the issues conference participants will have the opportunity to review and comment about them subsequent to Department staff's review of any forthcoming supplements or revisions from CWM.

As much as practicable, I would like to track the review and consideration of the pending application to modify the October 2014 ASF permit with the pending application to modify the April 2015 SPDES permit.

VI. Ruling on Petitions for Full Party Status

Pursuant to 6 NYCRR 624.5, the parties to any adjudicatory hearing are applicant, Department staff and those who have been granted full party status or amicus status. OHMS received petitions for full party status from the following:

1. Residents for Responsible Government (RRG), jointly filed with the Lewiston-Porter Consolidated School District (the School District), and the Niagara County Farm Bureau;
2. Niagara County, jointly filed with the Town and Village of Lewiston, and the Village of Youngstown (the municipalities); and
3. Amy Witryol.

Honorable Rick Dykstra, Member of Parliament, Canada, filed a petition for amicus status. Recent elections in Canada, however, have resulted in a change in government. By letter dated November 18, 2015, I asked Mr. Dykstra to advise whether he would continue to participate in the captioned proceeding, and requested a response by December 21, 2015. As of the date of these issues rulings, I have not receive any response. Therefore, I consider Mr. Dykstra's petition for amicus status withdrawn.

The criteria for determining whether the ALJ should grant petitions for full party status are provided in 6 NYCRR 624.5(d)(1). Upon review of these criteria and the petitions for full party status, I find that RRG, the municipalities, and Ms. Witryol each filed an acceptable petition as consistent with the requirements outlined at 6 NYCRR 624.5(b)(1) and (2). Furthermore, each of the prospective intervenors has raised substantive and significant issues for adjudication as discussed above, and each prospective intervenor has demonstrated an adequate

⁴⁷ With respect to Attachment L (Fugitive Dust Control Plan), the note in the draft site-wide Part 373 permit states that Attachment L is not being modified. Similarly, with respect to Attachment N (Air & Meteorological Monitoring Plan), the note in the draft site-wide Part 373 permit states that Attachment N is not being modified.

environmental interest (*see* 6 NYCRR 624.5[d][1][ii] and [iii]). Accordingly, I grant full party status, for the purpose of this administrative matter, to:

1. Residents for Responsible Government (RRG), jointly filed with the Lewiston-Porter Consolidated School District (the School District), and the Niagara County Farm Bureau;
2. Niagara County, jointly filed with the Town and Village of Lewiston, and the Village of Youngstown (the municipalities); and
3. Amy Witryol.

Appeals

A ruling of the ALJ to include or exclude any issue for adjudication, a ruling on the merits of any legal issue made as part of an issues ruling, or a ruling affecting party status may be appealed to the Commissioner on an expedited basis (*see* 6 NYCRR 624.8[d][2]). Ordinarily, expedited appeals must be filed in writing within five days of the disputed ruling (*see* 6 NYCRR 624.6[e][1]). Allowing extra time due to the length of these rulings, any appeals must be **received** before 3:30 P.M. on Friday, March 4, 2016. Replies are authorized, and must be **received** before 3:30 P.M. on Friday, April 1, 2016.

Given that a joint adjudicatory hearing will be held to consider the application for the siting certificate pending before the Siting Board, and the environmental permit applications administered by the Department, the parties are directed to Appendix IR-C. Appendix IR-C sorts the issues addressed in these rulings and identifies whether appeals from the rulings should be directed to the Siting Board, the DEC Commissioner,⁴⁸ or to both.

Send the original hard copy of any appeal plus three copies (for a total of four paper copies) to James T. McClymonds, Chief Administrative Law Judge, Office of Hearings and Mediation Services, 625 Broadway, 1st Floor, Albany, New York, 12233-1550. In addition, send one hard copy of any appeal to everyone on the service list (revised December 2, 2015), excluding the ALJ, at the same time and in the same manner as transmittal is made to the Chief Administrative Law Judge. Follow the same directions when filing replies. Upon receipt of timely filed appeals and replies, OHMS will distribute copies of the documents to the members of the Siting Board and to Assistant Commissioner Alexander for their review and consideration.

Appeals should address the ALJ's rulings directly, rather than merely restate a party's contentions. New materials enclosed with any appeal or reply will **not** be considered, and will be returned. In their respective appeals and replies, the parties must reference the issues conference transcript and the participants' submissions that have been identified throughout these rulings.

⁴⁸ By memorandum dated December 21, 2015, Acting Commissioner Basil Seggos delegated decision making authority with respect to the pending environmental permits in this matter to Louis A. Alexander, Assistant Commissioner for Hearings and Mediation Services.

In addition to the required number of hard copies of appeals and replies, each party shall file one electronic copy in portable document format (PDF) – optical character recognized (OCR) – via email to everyone on the service list, including the ALJ. The electronic copies are due by 3:30 P.M. on the dates specified above. The parties may call me at 518-402-9003 for instructions to convert documents to optimized PDFs.

In early March 2016, I will contact the parties and inquire whether the parties wish to commence the adjudicatory hearing on the above identified issues. Depending on the response, I will schedule a telephone conference call with the parties to develop a hearing schedule.

/s/

Daniel P. O’Connell
Administrative Law Judge

Dated: December 22, 2015
Albany, New York

To: Attached Service List revised December 2, 2015

Attachments: Appendix IR-A Corrections-Issues Conference Transcript
Appendix IR-B Ms. Witryol’s Table Re: Public Interest Topics
Appendix IR-C Direct Appeals to Siting Board or Commissioner

Page Number	Line Number	Proposed Correction	Objection	Ruling
2	21	David Denk-	None	Granted
4	9	review CWM's application for a certificate of	None	Granted
5	2	York Department of State. Mr. Focucci: Matthew Focucci, New York State	None	Granted
7	22	have a member number of preliminary questions, that I	None	Granted
12	2	and the 2013 part 373 removal permits.	None	Granted
13	6	There is a modified air permit	None	Granted
18	17	there was some discussions with the applicants; and	None	Granted
19	9	I think its fair to say that we have arrived at an	None	Granted
19	14	that would be suggestive requiring --	None	Granted
19	17	Yes, applicant have has withdrawn	None	Granted
22	22 and 23	excavation project plan, a and large excavation project plans.	None	Granted
23	17	Environmental Conservation to oversee the sort of	None	Granted
23	21 and 22	today, the statutory authority to manage that situation is vested in the	None	Granted
29	16	1978, specifically pages 145, which again shows	None	Granted
32	3	replace "allays" with "portrays"	None	Granted
37	8	replace "charge" with "change"	None	Granted
39	7	it is not a correct interpretation of the data	None	Granted
40	8	equa tard aquitard	None	Granted
40	21	equa tard aquitard	None	Granted
41	22	add "approval" after "denying"	None	Granted
42	3	add "a" after "by"	None	Granted
42	5 and 6	equa tard aquitard	None	Granted
42	17	equa tard aquitard	None	Granted
42	24	equa tard aquitard	None	Granted
44	4	replace "machines" with "regimes"	None	Granted
44	18	replace "CAM" with "CWM"	None	Granted
47	2	There would only be one of or two wells	None	Granted
52	20	There were assertions, it is	None	Granted
53	11	which is are like a gooey solvents that don't flow	None	Granted
54	8	We contend there are permeabilities windows	None	Granted
54	14	replace "municipality" with "municipalities"	None	Granted
55	25	requirements listed in 373-2.14-B1 and 2, 373-2.14(b)(1) and (2),	None	Granted
56	5	considerations in part 373. They say that re	None	Granted
56	9	replace "They" with "There"	None	Granted
57	24	consideration contamination as one of the siting criteria.	None	Granted
63	4	head, because of the length of my petition.	None	Granted

Page Number	Line Number	Proposed Correction	Objection	Ruling
66	25	necessary or in the public interest.	None	Granted
68	2	position is there is not a significant and	None	Granted
76	12	admittting emitting at major source levels	None	Granted
82	3	review in this proceeding, or review of the	None	Granted
82	6	regulatory changes for pesticides,	None	Granted
82	24	Because that is handled under a	None	Granted
83	7	That necessitated the change to an air state	None	Granted
84	6	the leachate from all the landfills is processed.	None	Granted
84	11	that leachate actually goes through an oil water	None	Granted
84	13	The majority of the organics are removed of by the oil	None	Granted
84	25	to the stabilization facility where wastes are	None	Granted
85	1	brought in it and the condition it is in as received	None	Granted
93	7	Therefore that the historic	None	Granted
96	9	then it would be a question of which permit would	None	Granted
102	13	lagoons that deals with material	None	Granted
102	15	deemed negligible, were considered	None	Granted
102	19	title-5. Title V.	None	Granted
104	11	is correctly.	None	Granted
106	5	title-5 Title V permit.	None	Granted
111	24	evaluate compliance on the pair emissions as a --	None	Granted
114	21	of art in the part 617 regulations,	None	Granted
126	22	findings, based on my initial review it at the time,	None	Granted
128	10	it or make updates updates to it periodically	None	Granted
129	21	replace "2711053F" with "27-1105(3)(f)"	None	Granted
129	22	2711053F 27-1105(3)(f) talks about	None	Granted
132	5	replace "essential" with "essential, that]"	None	Granted
134	20	singly singularly and some in combination	None	Granted
136	13	at the bottom of page 36 26.	None	Granted
142	18	SEQR required--an analysis of growth reducing	None	Granted
144	6	such as the applicant has asserted.	None	Granted
147	6	it and to dispute some of the issues such as economic	None	Granted
147	10	would be in the other petitioners,	None	Granted
152	13	Super-Fund Superfund	None	Granted
152	21	Super-Fund Superfund	None	Granted
152	22	Super-Fund Superfund	None	Granted
153	1	Super-Fund Superfund	None	Granted

Page Number	Line Number	Proposed Correction	Objection	Ruling
160	18	And then hear the argument argument	None	Granted
173	6	The prime issue of disputes with respect to	None	Granted
194	18	around the sites sides and the top in 1984,	None	Granted
211	21	David Denk-	None	Granted
223	14	replace "306A2" with "306(A)(2)"	None	Granted
225	11	add "the" after "And"	None	Granted
225	15	replace "Pro Nine" with "PRO-9"	None	Granted
225	17	Then They will	None	Granted
228	12	replace "306A1" with "306(a)(1)"	None	Granted
230	14	fair, Mr. Darragh, if applicant is considering	None	Granted
240	11	discharge from outfall one 001 will have to meet	None	Granted
242	22	And the judge rejected that and said that if	None	Granted
243	5	precede "for" with a quotation mark	None	Granted
243	8	end sentence with a quotation mark	None	Granted
251	11	replace "and" with "in"	None	Granted
251	23	were overtopped from time to time	None	Granted
252	15	replace "ones, 608" with "one, Method 608"	None	Granted
252	21	But even those won't be affected effective,	None	Granted
259	14	I have a hard copy here for	None	Granted
270	5	replace "can" with an em-dash (--)	None	Granted
273	12	wetlands are being disturbed by the project other	None	Granted
281	19	add "a" after "by"	None	Granted
281	20	add "at" after "and"	None	Granted
281	21 and 22	aguard aquitard	None	Granted
288	10	been my experience in these permit proceedings, that the	None	Granted
289	2	it expires, when the notice process ends or when the corps	None	Granted
290	6	resource involved the siting board's	None	Granted
290	22	follow "supplies." with a quotation mark [cite: p. 9-6]	None	Granted
297	12	have to fill up the fact ponds throughout the	None	Granted
307	12	there has been a proposed issue related to	None	Granted
310	22	It's simply an extension ever of the two issues that	None	Granted
311	13	is that the town of Porter during the comment period	None	Granted
321	21	page 12, where we were talking about a violations	None	Granted
336	1	The CWM told the newspapers on of the	None	Granted
344	21	expanded or brought broadened from and after	None	Granted
353	19	email to you of on Friday.	None	Granted

Page Number	Line Number	Proposed Correction	Objection	Ruling
356	15	replace "They" with "There"	None	Granted
360	7	delete "the"	None	Granted
369	18	add "that" after "handle"	None	Granted
369	19	add "an" after "have"	None	Granted
370	17	precede "if" with "MR. DARRAGH:"	None	Granted
371	5	emphasizing confining layer over the GSS, which is the	None	Granted
372	2	considered the worst case GSS heads, when we set set	None	Granted
372	20	replace "made" with "may"	None	Granted
378	5	of above the GSS was not as thick as was estimated in	None	Granted
379	5	just briefly address the floor pore water issue Dr. De	None	Granted
380	6	of fill to an operational salt fill line.	None	Granted
384	9	There is are conditions in the permit that deal	None	Granted
384	18	replace "parsity" with "paucity"	None	Granted
385	1	However, I would note that	None	Granted
389	13	this is Berder Golder Associates	None	Granted
393	16	Really, I haven't had a chance to reach a final	None	Granted
394	2	EPA based their decision on older	None	Granted
397	9	replace "modern" with "Modern [Landfill]"	None	Granted
400	1	provided with to us today.	None	Granted
401	11	disputes in the siting criteria where CWM argued	None	Granted
402	13	we can't I think eliminate the way waste is being	None	Granted
407	21	David Denk	None	Granted
422	10	office and make sure that they're o on the line and	None	Granted
423	5	100 million dollars in CWM closure spending	None	Granted
427	3	record it would be helpful if the board were to ask	None	Granted
427	5	mechanism is in place for the current permit	None	Granted
428	7	is placed in operation closed.	None	Granted
441	13	Super Fund Superfund	None	Granted
444	17	Ms. Witryol nod year her head.	None	Granted
448	6	pump, you drive by SCECOS and see what most likely	None	Granted
451	25	That is if we are looking at it in the	None	Granted
456	23	operating, they represent obstacles in to the army	None	Granted
462	16	response to petition, the SCECOS siting decision	None	Granted
469	18	hazardous waste facility siting plan.	None	Granted
471	13	CERCLA that provided section 104C9 104(c)(9)	None	Granted
471	16	Super Fund Superfund	None	Granted

Page Number	Line Number	Proposed Correction	Objection	Ruling
471	24	purpose of the plan was to determine whether the	None	Granted
472	18	Super Fund Superfund	None	Granted
478	15	delete comma	None	Granted
478	16	delete "government's", add ", [local] governments" after "business"	None	Granted
488	19	replace "Braddock" with "Beranek"	None	Granted
489	2	terrain and topography change in the results	None	Granted
493	16	I apologize, this is a great body of work	None	Granted
507	13	It prefers presents the expert testimony of	None	Granted
518	13	Super Fund Superfund	None	Granted
522	11	replace "Resnickoff" with "Resnikoff"	None	Granted
522	12	replace "Resnickoff" with "Resnikoff"	None	Granted
523	19	A Ecase by	None	Granted
528	19	replace "brought" with "broad"	None	Granted
529	7	MR. ABRAHAN: I have with me Ann Roberts who is my	None	Granted
529	19	replace "Resnickoff" with "Resnikoff"	None	Granted
530	20	The Petitioner has	None	Granted
532	1	And An excavation would stop,	None	Granted
532	19	replace "source" with "sources"	None	Granted
534	16	replace "five" with "eight"	None	Granted
536	16	replace "petition" with "petitioner"	None	Granted
536	20	the petition petitioner disagrees with the Department	None	Granted
545	6	I am waiting weighing open issues more heavily than	None	Granted
557	4	replace "enclosing a unit" with "closing a unit with"	None	Granted
566	24	replace "posity" with "paucity"	None	Granted
567	20	replace "of the West" with "the new"	None	Granted
573	21	replace "Resnickoff" with "Resnikoff"	None	Granted
577	14	which on that point I think we worked out what would be	None	Granted
577	24	contend that any of the draft permit conditions	None	Granted
578	9	We Ppretty much concur	None	Granted
603	5	those issues that would be applicable to the impacts	None	Granted
607	3	past few days have touched on the issues,	None	Granted
610	1	feh FOIL	None	Granted
610	5	feh FOIL	None	Granted
622	14	† my post window being closed to raise the seismic	None	Granted
634	23	When you have completed your review, I would	None	Granted
648	4	Mr. Darragh has made the arrangements for a bus.	None	Granted

<u>PAGE</u>	<u>Nature</u>	<u>POTENTIAL PUBLIC INTEREST - TOPICS OF DISPUTE</u>	<u>WITNESS OR SOURCE</u>
50, 60	ALL	Dispute that Towns prefer to zone for Haz Waste if not for lack of home rule	Muni petitions, possible subpoena
54	ECON	Dispute all generators using CWM would ship waste further w/out RMU-2	Haz. Waste Manifest system
1, 56	ECON	\$100 million CWM closure spending from denial= 4x CWM RMU-2 investment	Witryol
14, App. F&G	ECON	Agriculture; crop damage	Olsen
56, 81, 107-109	ECON	Incompatibility with Ag and Tourism, Cultural resources	(Olsen, Acks,) Rosenwasser, Barufaldi
14, 31	ECON	Dispute CWM "service area" and mnfctg need in DEIS	Haz Waste Manifests, EPA surveys
14, 50, 69, App. F,G	ECON	IMAGE risk (SEQR growth-reducing impacts; Ag, R.E. and Bus. Devel.)	Rosenwasser, Barufaldi
38-41, 46, 48, 51, 53, 57	ECON	NY has no reliance on CWM via demand or location	Haz Waste Manifest system
12-13	ECON	NYPA taxpayer subsidies w/out inducement or CWM, only HdCount	Witryol, NYPA docs
51-52, 54, 88-92, App. R	ECON	Payroll dispute that the entire workforce lives in the local area, dispute the # of employees, and dispute those actually reliant on RMU-2 for employment. Dispute that RMU-2 would provide significant job and economic benefit.	CWM siting plan and permitting public comments, CWM org. charts and WM submissions to DEC
51, App. S	ECON	PRIVATE SECTOR- Dispute CWM's ability to compete on level field, and/or that its competitiveness is a public interest issue	Witryol, WAPs, Modern, NFSS and County hydro docs,
47, 56	ECON	PRIVATE SECTOR siting motives are not confined to Haz market demand as CWM asserts	Witryol, WM S.E.C. filings (2-27-15 AW memo), Manifest national acts
49	ECON	RMU-2 may increase NY costs	Witryol
7	ECON, EJ	DEC \$500,000 external taxpayer expense 2011-2013 for RMU-2 application, excluded hydrogeology and all hearing \$'s vs. ENTIRE technical assistance exp. borne by Lewiston and County for 10 yrs to defend themselves	Witryol and DEC invoices
14-16, 60, 68	EJ	Character - slight residents, undue influence, \$ threats	Witryol, reverse recusal, conflicts
54	EJ	Dispute CWM, "NY should shoulder share of responsibility"	Appendix T, NYS DOS contract, Air Dispersion Model
9-11, 36	EJ	EGD-Equitable Geographic Distribution (inconsistency w ECL S.27-1102)	Manifest system, DEC estimates of closed com'l HW landfills
6	ENV	DERP FUDS - CWM delay to DERP FUDS remediation, cost CWM interfere	USACE documentation, U.S. DOJ
20, 58, 82, 96, 97-98 App.	ENV		Lechate-River Pipeline, Consent Orders, Fires, Flooding, Odors
M,P,Q,S	ENV	Dispute that CWM impacts are limited to its site ; NO Climate Change eval.	

CWM Appendix IR-B

<u>PAGE</u>	<u>Nature</u>	<u>POTENTIAL PUBLIC INTEREST - TOPICS OF DISPUTE</u>	<u>WITNESS OR SOURCE</u>
81, 83, 97	ENV	EXCAVATION- reduce further risk of live TNT dumped on CWM surface	USACE documentation (County?)
76-80	ENV	Less hazard near Air Base with one of nation's longest landing strips	air base docs and photos
3-4	ENV	NESSVP-CWM operation obstacle to NESSVP remediation, DEC conflicts	Witryol on DEC assignments
95-96, 105-107, App.P,Q	ENV	Reduce Impairment of Four-Mile Creek, wildlife and aquatic Habitat	Dr. Wooster, Riverkeeper doc
65, 101-104	ENV, ZONE	Reduce Impairment of Four-Mile Creek, wildlife and aquatic Habitat	DEC mining data base, M. Drahms, Lewiston Board mtgs, photos
14, App. B-C	HEALTH	Illness	DOH Maps and supplement data to 2008 study
4	HEALTH	RAD-Resuspension of radionuclides, CWM excavation no characterization	DOE, AEC, Knolls Atomic Lab documentation
67	HEALTH	Reduce Air exposure near schools, and residential areas	county
23-28, 55, 56, 65 App.V	HEALTH ECON	Haz Waste and Clay Truck Noise, Spills, Leaks, Nuisance and VSL-Danger; CWM calls, "good access"	Experts and resident witnesses
70-76	HEALTH	no more haz waste trucks past all our schools, residences, hospital and on local roads	permit
37, '43-45, 47, 53	ENV HER.	CWM has not met the burden of absolutely no alternate mgmt method, Hierarchy	CECOS siting decision, Witryol, ECL
50	n/a	Dispute CWM cost to replicate, and, that it is a P.I. issue	CWM applications
2, 5, 98, <u>App. A, U-12</u>	NFSS	Adjacent to high activity radioactive waste in unstable containment; Inter-property risks; surface H2O, fires, explosions	Dr. Vaughan, USACE documentation
5	NFSS	CWM GW pumping close to NFSS	
2, 5	NFSS	CWM operation obstacle, delay to NFSS remediation	Castle Garden/AEC docs, all VPs (Cnty?)
55	NFSS	Dispute CWM comment that 20-year capacity forecast is insufficient to address a potential shortfall (2015 CAP also did 25 years)	Siting Plan, Waste Management, Inc. S.E.C. filings; require'ts for unpermitted air space
55, 60-62	ZONE	BUFFER dispute that CWM is preferred over isolated desert locations	See also 2-27-15 Witryol CAP Assurance memo, photos
various	ZONE	Preserve 1) open space for more monitoring (wells) needed in the future, 2) wetlands cleansing of waters to the Great Lakes 3) USACE remediation 4) more appropriate alternate use of surface (i.e., no excavation)	County
60	ZONE	River discharge Pipeline	Articles, lawsuit, contractor, age
43	ECON	Dispute pre-1996 EPA CAP references by CWM as to need	Siting Plan

Appendix IR-C

Direct Appeals from Issues Ruling to:

Proposed Issues	Siting Board	DEC Commissioner	Issues Ruling Pages
Completeness of DEIS		X	27-29
Completeness of the DEC Permit Applications and the Siting Certificate Application		X	29-30
Demand and Capacity	X		30-34
ECL 27-1105(3)(f) - Residential Areas and Contiguous Populations	X		35-39
ECL 27-1105(3)(f) - Siting Criteria	X		39-56
ECL 27-1105(3)(f) - Consistency with the Siting Plan	X		57-81
ECL 27-1105(3)(f) - Otherwise Necessary or in the Public Interest	X		81-92
Geology and Hydrogeology	X (siting criteria)	X	93-100
Engineering Design		X	101-116
Legacy Contamination and Project-Specific Excavations	X (siting criteria)	X	116-138
Water Quality Certification		X	142-144

Because the Department is the SEQRA lead agency (Tr. at 9, 114), appeals from the issues ruling related to any proposed SEQRA issue must be directed to the DEC Commissioner.

For the reasons explained in the issues ruling, appeals from any proposed issues related to the pending SPDES permit application including proposed issues concerning the storm water pollution prevention plan (Issues Ruling [IR] at 138-142) will be held in abeyance. Similarly, appeals from any proposed issues related to potential air emissions (IR at 144-151) will be held in abeyance.