Amy Witryol
4726 Lower River Rd.
Lewiston, NY 14092

April 6, 2016

James T. McClymonds,
Chief Administrative Law Judge,
Office of Hearings and Mediation Services,
625 Broadway, 1st Floor
Albany, New York, 12233-1550 by email and by First Class U.S. Mail

RE: **Reply to Appeals - Issues Conference Ruling in the matter of CWM Chemical Services, LLC RMU-2**

Dear Judge McClymonds,

Enclosed are the original and three hard copies of my Reply to Appeals for the above-referenced Ruling. This also serves as the transmittal letter to the Siting Board and the Commissioner Designee.

The affected community has had the unreasonable burden of hiring experts capable of actually preparing the kind of geological and hydrogeological reports DEC staff only reviews. And for what the Army Corps of Engineers has described as one of the most complex sites in the nation.

The community has waited 35 years for a genuine discussion of contamination and migration from CWM under the light of day and under sworn testimony. Mr. Alexander's ruling will be read with great expectation, particularly given not even the applicant appealed geologic and hydro-geologic related issues and has, instead, opted to install new wells in anticipation of adjudicatory hearings on this topic.

Sincerely,

Amy H Witryol

Amy H. Witryol

cc: CWM RMU-2 Service List

INTRODUCTION

Party: Topic	Siting Board	Commissioner	Page # this Reply
A. DEC: Groundwater (Geological and Hydro-Geological)	X	X	p. 3
B. MUNICIPALITIES: Radiation issues	X	X	p. 6
C. SCHOOL DISTRICT / FARM BUREAU / RRG: Hierarchy	X	X	p. 7

Groundwater issues in the chart above are within the purview of *both* the Siting Board and the Commissioner. While the Ruling directed appeals on groundwater to the Commissioner, Siting scoring requires the Siting Board under part "361.7 Facility siting criteria" to:

> *"consider the potential for groundwater and surface water contamination as the result of the construction and operation of the site. Both onsite and off-site effects and proposed methods to mitigate any adverse effects relating to the contamination of all ground and surface waters shall be analyzed."*
>
> and
>
> *"consider all aspects of the facility's impact on sources of water supply for human and animal consumption.*
>
> – *the effect that the facility will have on surface water or aquifers located on and in the vicinity of the site which are used for domestic, agricultural or industrial purposes.*
>
> – *the location of boundaries of water supply watersheds both public and private….*
>
> – *the current use and potential uses for such bodies of water and the extent to which the facility will create conditions inconsistent with those uses."*

Should CWM *first* hurdle the prerequisite to demonstrate its applications are in the Public Interest and *secondly* demonstrate its applications would Equitably Geographically Distribute TSDFs across the state, the Siting Board would *then* be required to score 361.7 Criteria which includes:

> – *Whether the site is less than optimally located and is in hydraulic contact with floodplains, or wetlands or recharge zones or surface waters or aquifers, and, whether these locational limitations can be overcome without extensive effort.*
>
> – *Whether Subsurface [Hydrogeological] conditions at the site present any major problems with respect to groundwater contamination, and, whether extensive site modifications would be required to reduce the risk of groundwater contamination.*
>
> – *Whether the site is in an unfavorable location is located within close proximity to public or private drinking water supplies, livestock water supplies, recreational water, or agricultural, commercial or industrial water supplies – and, whether mitigative measures expected to be employed are sufficient to insure the protection of water supply sources.*

My Appeal to include the CWM's pipeline to the Niagara River as part of its facility also reflects on the above.

A. DEC Appeal

1. CWM operations contribute heavily to what staff calls "legacy" contamination both on and offsite.

   As noted often in my petition, what DEC calls success of Corrective Actions is, instead, the undisputed movement of CWM contamination offsite via stormwater outfalls and the Central Drainage Ditch, which seasonally pierces the upper aquifer.

   Then there is the superhighway a/k/a the lower aquifer in site areas CWM and DEC have avoided sampling for 30 years after contamination was detected. The suggestion of a so-called aquitard to prevent vertical hydraulic connection is contradicted not only by the *high* variability DEC has acknowledged in site formations, but also areas of permeable clay or no clay. Please see Issues Conference expert discussions Transcript pgs. 360-392.

   From my petition Appendix S (p.32)

   Comment:

   Facility description for hydrology and surface water should note findings of DEC and US Army Corps that the upper and lower groundwater zones are connected, and that the upper zone charges surface waters.

   Response:

   NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.

   Fact: I was unable to identify DEC consideration of this comment in RMU-2 applications.

2. Staff has not required sampling in those areas identified by independent experts as highly suspect based on earlier contamination data that was ignored instead of further delineated.

   - If site data was, "comprehensive," why, after Completeness, did CWM sink three new wells to address stakeholder criticisms?

   - Why did DEC allow CWM to place wells *outside* the alluvial valley area identified by experts if the purpose of the (West Drum Area) well study was purportedly to address those concerns?

   - EPA recommended sinking another groundwater well to the south last year. Why did DEC ultimately reject that recommendation? (As I'd inquired, Issues Conf. transcript p.393)

   - If groundwater data is sufficient to assess site conditions, why did CWM announce two weeks ago it is sinking 5 new groundwater wells? (Without any notice to or comment from petitioners on appropriateness of locations, despite CWM's indication the purpose was to address petitioner concerns.)

   - If no new information or expert testimony would inform the record as staff asserts, why does regulation provide for Discovery?

3. CWM monthly and annual Environmental Monitoring Reports submitted to DEC do not reflect regular sampling for contamination in groundwater at CWM's 700-acre site numbering in the hundreds of wells, let alone 350. From my Dec. 1, 2015 letter to the ALJ incorporated here in its entirety:

> At the Issues Conference, DEC staff asserted there are 350 monitoring wells at CWM. However, that figure is contradicted by CWM Environmental Monitoring Reports.
>
> Chemical samples are taken 2x/yr from about 165 wells, 45 of which sample for radiation and just 1x/year. Water levels measurements are taken at about 120 wells.
>
> - Gross alpha and gross beta samples are taken only once every 5 years, from only 5 pairs of wells on CWM's 700 acres**.** (This precludes trend data until after 2018.) However, DEC contributed to a 2011 federal focus group which recommends annual sampling for gross alpha and gross beta at landfills.
>
> - Niagara Falls Storage Site groundwater monitoring includes 54 wells on 30 acres semi-annually in contrast to CWM's 45 wells on 700 acres only annually.
>
> - DEC reduced CWM rad sampling from semi-annually to annually several years ago claiming elevated Uranium detections did not reflect associated rad contamination in soils. However, DEC's claim is contradicted by the then elevated Ur levels in Fac Pond 8 area wells where elevated rad contamination in soil has now been confirmed.
>
> - Only 6 deep wells on 700 CWM acres are sampled for radiological, (of 45) annually.

4. No offsite sampling has occurred despite Orders on Consent evidencing discharges. Petition p. 96:

> "DEC's RCRA staff has declined community [CAC] requests for many years to sample Four Mile Creek and Twelve Mile Creek down-gradient of CWM."

5. DEC staff has not demonstrated it reviews CWM groundwater independently. From my petition p.8:

> DEC staff still involved in CWM permitting earlier this year wrote that a **project staff member had asked CWM to "check his own evaluation"** of groundwater conditions. More troubling is that this approach was taken while project staff declined to discuss information on this topic with experts for impacted stakeholders who had submitted technical papers to DEC. Going back nearly two years, [now 4] Albany staff declined to discuss *factual errors and omissions* or technical issues with stakeholders or their advisors.

6. Despite requests, DEC declined to provide documents incorporated by reference for review during the public comment period. This contradicts DEC conjecture in its Appeal that no additional information would be adjudicated. From my March 20, 2015 letter to the ALJ:

> Please keep in mind that the Department and CWM felt that 3 months' time was insufficient to complete their review of three petitions totaling about 700 pages. By contrast, the public was given 6 months interrupted with extensions/inefficiency to

review more than 20,000 pages of application documents, with documents incorporated-by-reference not provided to the public.

7. As to Department staff's Appeal argument (p.11) against the position that "groundwater flow is faster than what was calculated by CWM." Which CWM site flow rate calculation does staff refer to?

   324 ft/yr?

   88 ft/yr?

   15 ft/yr? (1985)

   3 ft/yr? (2013)

   Please see July 2014 Legislative Hearing transcript, Evening Session pgs. 43-44 regarding Municipal Stakeholder comments on changing flow rates calculated by the facility, for the facility.

   No party has responded to evidence I referenced from the Erie/Niagara Regional Planning Board determination in 1977 that Boron had migrated 3-4 miles from the CWM site to the Niagara River in less than 20 years and possibly sooner. Note: 20 years was the point at which accidental offsite sampling became available as a result of dying plants at a greenhouse on River Rd. (Petition Appendix U, slide 14.)

B. MUNICIPAL STAKEHOLDER Appeal – Radiological Investigation and Excavation

Based on the information and conclusions below, I concur with the Appeal submitted by Municipal Stakeholders as to both investigation and excavation flaws and risk on these topics.

Incorporated by reference here for review of this Reply are

- My petition of Nov. 2014 (including appendices)
- SEMMP comments submitted to the ALJ on October 2, 2015
- DOH Order comments submitted to the ALJ on December 1, 2015
- My Appeal on NFSS / PLUTONIUM / EXCAVATION submitted March 9, 2016

The Army Corps 2007 Remedial Investigation and 2011 Remedial Investigation Addendum (petition p.3 and footenote 3) as well as the 1995 National Academies of Science (NAS) report (petition p.5) were referenced and discussed in my petition. The Corps investigations were discussed again in my SEMMP and in my DOH Order comments.[1]

A reasonable person comparing Army Corps of Engineers protocol to DEC protocol required of CWM to characterize or remediate *identical radiological contamination* on CWM Vicinity Properties or the NFSS would conclude:

1. DEC requires less or no soil sampling compared to the Corps.
2. DEC requires less or no surface and groundwater sampling compared to the Corps.
3. DEC requires less sensitive equipment and detection methods compared to the Corps
4. DEC allows CWM to bury contamination while the Corps removes contamination.

The public would, therefore, be better served if RMU-2 is denied and the Corps, not DEC project staff assigned to CWM permitting, oversees remediation of radioactive contamination on CWM property.

DEC requires no investigation or remediation of known radiological problem areas. Instead, only areas where CWM wishes to excavate even receive DEC attention, and only because of the DOH Order.

[1] CWM could not credibly argue any harm from the lack of a link to the NAS report since it has participated in numerous public discussions about the NAS report in addition to both Remedial Investigations. On information and belief CWM has also discussed these reports privately with DEC project staff in light of the Corps' accusation (in an email) that a DEC RCRA staffer was manipulating Corp investigations for the benefit of CWM.

C. RRG / FARM BUREAU / LEWPORT SCHOOL DISTRICT Appeal

Hierarchy

While I agree with the RRG/FB/LP Appeal that an RMU-2 would discourage moving up the Hazardous Waste Management Preferred Practices Hierarchy, CWM would be unable to demonstrate and would be unlikely to claim it does not compete with treatment facilities which obviate the utilization of hazardous waste (HW) land disposal.

Given RRG's interpretation of the ruling statement that there is a burden on parties to demonstrate "that CWM's proposal would encourage rather than discourage the land disposal of hazardous waste," (p.38) the following Reply is offered.

Separate from the issue of whether LDRs instituted well after the enactment of Hierarchy ECL §27-0105 could have anything to do with interpreting §27-0105.d is the substantive question of whether adding to hazardous waste land disposal capacity would decrease the volume of hazardous waste that would be otherwise managed alternatively; treated/destroyed or recycled instead of landfilled.

While the ruling noted the NYS Hazardous Waste Facility Siting Plan of 2010 (Siting Plan) states land disposal is needed for remedial wastes, in that context, the Siting Plan referred to the actual utilization, not need. Use and Need are not synonymous. There is a big difference as illustrated in my petition; Krispy Kreme donuts consumed (i.e., used) in WNY were not needed (petition p.48.) Moreover, there is no regulation for any type of hazardous waste requiring land disposal as the management method.

I did not interpret the Ruling as concluding that most of what CWM landfilled *must* be landfilled. That would be akin to saying "the world is flat." Therefore, any implication by the ruling (noted by RRG/FB/LP) that more HW land disposal *capacity* would not necessarily encourage more HW waste land disposal is perplexing.

Both the Siting Plan information and my petition (including post-petition ALJ submissions) indicate CWM land disposal competes with treatment facilities that obviate any need for hazardous waste land disposal. Therefore, any addition to hazardous waste land disposal must be presumed to decrease what otherwise would be treated, whether *in situ* or offsite.

It is important to note, however, that the Siting Plan does not expressly discuss competition between HW management methods. When people put their garbage out on the street for collection and disposal at a landfill, that garbage includes waste which could otherwise be recycled or treated. A reasonable person might properly assume this is also true of hazardous Hierarchy but not the factors influencing such change. The Plan specifically stated remediation "increasingly" includes *in situ* methods consistent with EPA's view, but did not discuss its relationship to HW land disposal (p.3-10.) The Plan recognizes overcapacity of land disposal but does not discuss the effect the overcapacity has on HW land disposal utilization. We are left to glean that competition from references to cost in the Plan described below.

Of note, the Plan did discuss DEC waste minimization efforts in Ch. 2 required for generators of certain kinds of primary waste. However, CWM has not disputed that primary waste is a small portion of its receipts and my petition notes roughly 1% of CWM disposal volume is related to NY primary generators (p.6 para 1.)

Regardless, the Siting Plan does provide enough information to consider that hazardous waste landfills compete with hazardous waste treatment facilities in order to compel a reasonable person to inquire further as to whether more HW capacity would create more HW land disposal. My petition emphasized this important point as well.

Siting Plan:

Siting Plan Appendix F

Appendix F lists those facilities which compete with CWM for PCB wastes. The vast majority of the 49 facilities listed are not hazardous waste landfills. (Not all locations for each facility were included.) In addition, some facilities operate mobile treatment equipment as described in the Plan (ex. thermal onsite equipment methods discussed in examples, below.)

Appendix F also lists 64 locations of PCB storage facilities in every EPA region. While not every treatment facility is in competition for a certain waste type, any suggestion that land disposal is the sole method for whatever types of waste CWM has disposed would be illogical and is not a matter of dispute.

Siting Plan Ch. 3 (p. 3-10 to 3-12)

This section of the Siting Plan discusses remedial techniques albeit at a high altitude.

> *Remedial engineers employ the statutory hierarchy of management methods and also look at cost effectiveness in selecting each site's remediation plan.*
>
> *Many cleanups of past contamination include on-site treatment of groundwater. Remediation increasingly includes on-site treatment of soil, though a number of cleanups still involve excavation and removal of contaminated soils without treatment. Though many cleanups generate remedial hazardous wastes that are shipped off-site for management, a significant quantity of the material removed during site cleanups under the various remedial programs does not meet the definition of hazardous waste and can be disposed of at a non-hazardous waste landfill.*
>
> *Methods used to clean up contaminated sites include onsite treatment (both insitu and exsitu), disposal off-site in landfills, and, occasionally, recycling. Onsite treatment includes thermal methods (thermal desorption), physical methods (air stripping or vacuum extraction), chemical methods (chemical oxidation), and biological methods. In cases where treatment is employed, treatment residuals may need to be disposed of in a landfill. Many times, excavation and off-site disposal is the most feasible remedy for the remediation of a contaminated site. . .*

Excerpts below are from examples of offsite HW disposal employed because it was cheaper. These are sites that in general waited decades for remediation and my petition (discussed later) pointed out that hazardous waste land disposal pricing has declined so precipitously (which CWM does not dispute) since the imposition of Superfund laws, overcapacity inhibits investment in treatment equipment and operators.

From Siting Plan (p. 3-11 to 3-12)

Freeman's Bridge Road - Glenville, New York.
. . . The Record of Decision specified onsite thermal treatment of all of the contaminated soil. . . the unit was unable to treat the material in a cost effective and timely manner …. Approximately 34,000 tons of soil and debris contaminated with greater than 50 ppm PCBs was disposed of as hazardous waste in an off-site landfill.

Luzerne Road - Queensbury, New York:
. . . The Record of Decision specified on-site treatment of all contaminated soil…. Only one contractor submitted a bid for this project and it was significantly above the engineers estimate. In order to increase the number of bidders the remedy was modified to require on-site treatment of the PCBs less than 50 ppm and gave an option of on-site treatment or off-site disposal for the soil greater than 50 ppm.

Former Bouchard Junkyard - New Lebanon, New York -
A Record of Decision was issued in 2004, with soil washing as the remedy for the contaminated soil and on-site thermal treatment as a backup technology. By the time the remedial design was completed, most of the soil washing vendors available when alternatives were evaluated were no longer in business, and the cost of on-site thermal treatment had risen to significantly more than the cost of off-site disposal.

Petition and Submissions

(At p.37) Large volumes disposed at CWM in recent years did not require *any* landfill. Remedial Records of Decisions subsequently changed, as noted in the Siting Plan, for large clean ups which resulted in hazardous waste totaling over 140,000 tons being landfilled, instead of being treated on-site.[18]

Since the Siting Plan was published, another Record of Decision to destroy the waste was changed to land disposal, resulting in roughly 100,000 and 15,000 unnecessary tons for burial at CWM in 2012 and 2013, respectively. These properties had waited years if not decades for remediation, most of which could have been accomplished without CWM or any other hazardous waste landfill. [Note: remedial project public outreach activities by regulators do not include members of communities affected by disposal.]

[18] Freeman's Bridge 34,033 tons in 2007, Luzerne Rd. 69,065 and 21,135 tons, in 2008 and 2009, respectively, and Bouchard Junkyard 17,051 tons in 2008.

(At p.45) Lower land disposal prices increase demand by cannibalizing preferred treatment methods. Said another way, expanded capacity can create artificial demand. How does the hazardous waste disposal industry benefit from lower prices? Higher volume which, in turn, creates higher operating gross profits. That is good for the landfill operator, but is inconsistent with the Siting Plan and the *Preferred Hazardous Waste Management Hierarchy*.

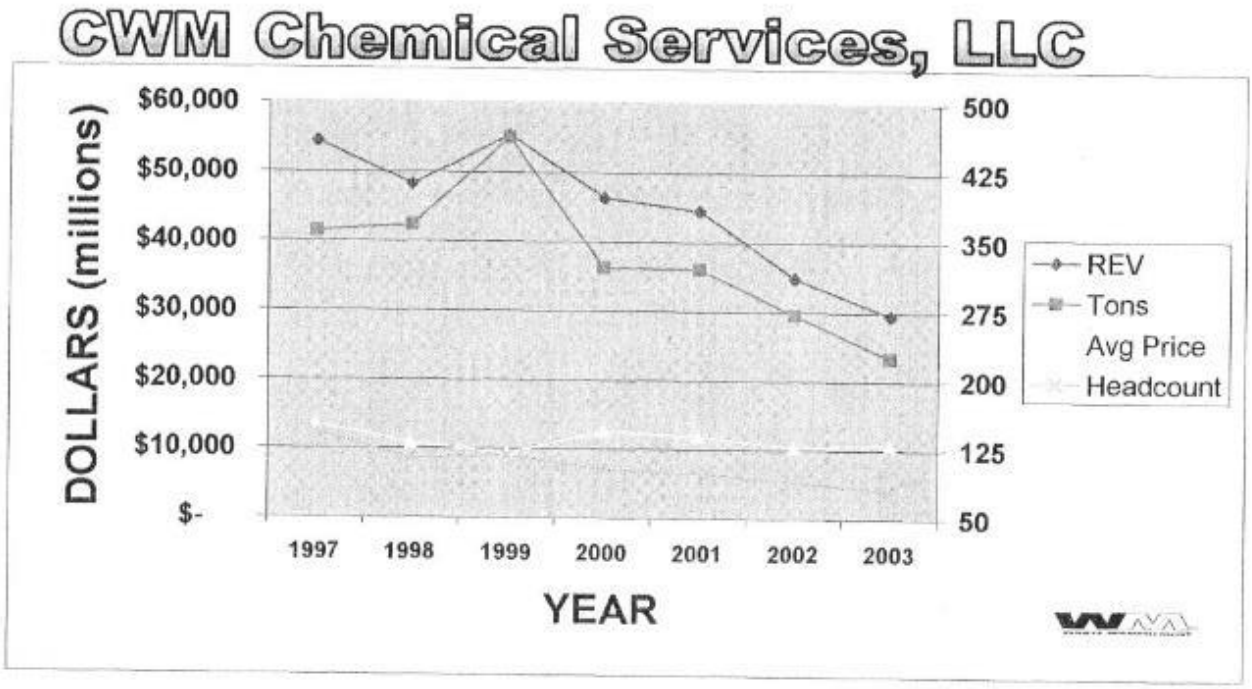
(At p.46) As noted earlier, CWM's SCA discussion of remedial volumes refers to Siting Plan data and project descriptions which actually support the view that without CWM, less hazardous waste will go to any hazardous waste landfill, as directed by the Hierarchy in New York ECL § 27-1105, and also that ample practicable alternatives exist.

To reiterate, the petition comments above related to general industry and competition conditions and hazardous waste data were not offered as a layperson, but by an experienced business banker as noted in my Revenue/Expense Tradeoff Appeal (at p.16.)

The decline in hazardous waste land disposal pricing since the late 1990's is not disputed by DEC-DER staff or CWM. However, it has brought about the cannibalization of treatment methods due to overcapacity of HW land disposal. From my Feb. 27, 2015 Capacity Assurance submission to the ALJ:

Appendix F (2 of 3)

From CWM's own Lobby Handout regarding taxes and disposal pricing declines



DOWNWARD TREND Continues: OUTLOOK for the year 2003:

REVENUE $54M down to $30M
TONS: 463K tons down to 225K tons
Avg.Price: $151/ton down to $131/ton
Headcount 142 people, down to 81

Change

($24M) in Revenue
(238)K tons
($20)/ton decrease in price
(61) lost jobs

One would not expect CWM to dispute that these trends continued beyond 2003. In turn, I also do not dispute CWM's latest assertions that prices were relatively stable in the most recent few years. However, at these depressed pricing levels, HW land disposal is cannibalizing treatment and DEC-DER professionals have told me so in project-specific conversations. The Luzerne Rd-Queensbury project above also noted in my petition was one of them.

A reasonable person would not assume that siting 6 million more tons or any significant annual capacity at CWM - on the heels of large capacity increases in the last 3 years at two Detroit area facilities (U.S. Ecology and Clean Harbors) and one north of Plattsburgh near Montreal (U.S. Ecology) - would not prolong or further depress HW land disposal pricing and in turn, cannibalization of treatment methods. [2]

Therefore, I agree with RRG's assertion (p.38) that "the presumption must be that RMU-2 would not discourage the land disposal of hazardous waste" and add to the substantive issue that an RMU-2 would discourage the treatment of HW in contravention of the Hierarchy.

Finally, and separately as to the LDR misapprehension the RRG/FB/LP Appeal referenced, I note that while Listed wastes remain hazardous for the purpose of land disposal post-treatment, that is because these wastes continue to pose a threat to human health post-treatment.[3] Furthermore, Listed wastes do not *require* land disposal as a management method.

[2] These facilities were included in my 2-27-2015 Capacity Assurance submission to the ALJ. The US Ecology Montreal area and Clean Harbors Detroit area increases were reported after 2-27-2015.

[3] Whether or not stabilized in a landfill. As noted in my appeal, the risk evaluated in ECL§27-0105.d is for the waste, alone, not if contained in a landfill or deep well injection. When waste at CWM has been "treated," in most cases it is not significantly or fully detoxified.

C. RRG / FARM BUREAU / LEWPORT SCHOOL DISTRICT Appeal

Hierarchy

While I agree with the RRG/FB/LP Appeal that an RMU-2 would discourage moving up the Hazardous Waste Management Preferred Practices Hierarchy, CWM would be unable to demonstrate and would be unlikely to claim it does not compete with treatment facilities which obviate the utilization of hazardous waste (HW) land disposal.

Given RRG's interpretation of the ruling statement that there is a burden on parties to demonstrate "that CWM's proposal would encourage rather than discourage the land disposal of hazardous waste," (p.38) the following Reply is offered.

Separate from the issue of whether LDRs instituted well after the enactment of Hierarchy ECL §27-0105 could have anything to do with interpreting §27-0105.d is the substantive question of whether adding to hazardous waste land disposal capacity would decrease the volume of hazardous waste that would be otherwise managed alternatively; treated/destroyed or recycled instead of landfilled.

While the ruling noted the NYS Hazardous Waste Facility Siting Plan of 2010 (Siting Plan) states land disposal is needed for remedial wastes, in that context, the Siting Plan referred to the actual utilization, not need. Use and Need are not synonymous. There is a big difference as illustrated in my petition; Krispy Kreme donuts consumed (i.e., used) in WNY were not needed (petition p.48.) Moreover, there is no regulation for any type of hazardous waste requiring land disposal as the management method.

I did not interpret the Ruling as concluding that most of what CWM landfilled *must* be landfilled. That would be akin to saying "the world is flat." Therefore, any implication by the ruling (noted by RRG/FB/LP) that more HW land disposal *capacity* would not necessarily encourage more HW waste land disposal is perplexing.

Both the Siting Plan information and my petition (including post-petition ALJ submissions) indicate CWM land disposal competes with treatment facilities that obviate any need for hazardous waste land disposal. Therefore, any addition to hazardous waste land disposal must be presumed to decrease what otherwise would be treated, whether *in situ* or offsite.

It is important to note, however, that the Siting Plan does not expressly discuss competition between HW management methods. When people put their garbage out on the street for collection and disposal at a landfill, that garbage includes waste which could otherwise be recycled or treated. A reasonable person might properly assume this is also true of hazardous waste. ~~Hierarchy but not the factors influencing such change~~. The Plan specifically stated remediation "increasingly" includes *in situ* methods consistent with EPA's view, but did not discuss its relationship to HW land disposal (p.3-10.) The Plan recognizes overcapacity of land disposal but does not discuss the effect the overcapacity has on HW land disposal utilization. We are left to glean that competition from references to cost in the Plan described below.

Of note, the Plan did discuss DEC waste minimization efforts in Ch. 2 required for generators of certain kinds of primary waste. However, CWM has not disputed that primary waste is a small portion of its receipts and my petition notes roughly 1% of CWM disposal volume is related to NY primary generators (p.6 para 1.)