Mr. Louis A. Zeller
Blue Ridge Environmental Defense League
P.O. Box 88
Glendale Springs, NC 28629

RE: Comments on Draft Buncombe County XL Final Project Agreement

Dear Mr. Zeller:

Thank you for your recent comments to the United States Environmental Protection Agency (EPA), Region 4 regarding the Buncombe County Municipal Solid Waste Management Facility (BCSWMF) draft Project XL Agreement. EPA appreciates the time you have taken to provide input into the XL process. EPA would like to take this opportunity to reiterate the purpose and process of Project XL, as we believe this discussion will alleviate some concerns you have with the proposed Buncombe County Agreement.

Project XL is a national pilot program that allows state and local governments, businesses and federal facilities to develop innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection. In exchange, EPA (and the state, as necessary), will issue regulatory, program, policy, or procedural flexibilities to conduct the experiment. These pilot programs are described in a document known as a Final Project Agreement (FPA).

Any agreement between parties regarding Project XL is simply a statement of intentions to carry out an XL project, indicating the seriousness of each party in implementing the activities in the document. The agreements are not legally enforceable or legally binding on any party, do not create any rights or obligations, and thus are not considered to be final Agency "actions." Any regulatory flexibility granted by EPA and/or the state to Buncombe County would require a separate legal implementing mechanism, such as a rule or permit/permit modification, which would be reviewable and legally enforceable. Any intention on the part of EPA and/or the state to propose such an action is clearly stated in any XL Final Project Agreement.

You raise a number of issues in your letter that EPA would like to address. These recommendations and specific comments are reiterated below, followed by our response.

Blue Ridge Environmental Defense League (BREDL) Recommendations

1. Recommendation: We recommend that EPA not move forward with any XL project at the Buncombe County landfill.

1. Response: EPA carefully reviewed the application submitted by Buncombe County and has determined that the proposal meets the criteria of Project XL. In addition to meeting the established criteria a potential sponsor must have the support of the state (the State of North Carolina has already indicated their strong support) and must satisfy an EPA and Department of Justice review of their compliance history. After an extensive internal review, EPA determined that Buncombe County was eligible for selection as an XL project; indeed, it appears to have significant merit. EPA, in the absence of new pertinent information, intends to continue with this XL project.

2. Recommendation: We recommend that EPA review the agreement resulting from BREDL v. North Carolina Department of Environment and Natural Resources (NCDENR) to determine the County's obligation to the affected community.

2. Response: EPA agreed to review this information in the May 2, 2000 meeting with BREDL. We have not received it to date. (assuming it is something other than the Resolution and letter attached to Mr. Runkle's letter)

3. Recommendation: We recommend that EPA review the hearing record for the public hearing and comment period prior to the permitting by NCDENR of the Buncombe County Landfill.

3. Response: EPA agreed to review this information in the May 2, 2000 meeting with BREDL. We have not received it to date.

4. Recommendation: We recommend EPA secure all records of groundwater monitoring at the BCSWMF.

4. Response: Compliance with the regulations and permit is overseen by the NCDENR, the regulatory authority for Subtitle D Municipal Landfills. The DENR is responsible for ensuring that the Buncombe County landfill operates in compliance with the groundwater monitoring requirements specified in 40 CFR Part 258.51. According to the regulations, the owner/operator must conduct groundwater monitoring at the site on a semiannual basis. During this routine detection monitoring, if the owner/operator determines that there is a statistically significant increase above background for any of the constituents listed in the facility approved monitoring program, the owner/operator must establish an assessment monitoring program. The Buncombe County facility is currently operating in compliance with all applicable groundwater monitoring regulations.

5. Recommendation: We recommend that BREDL and north Buncombe residents be included at every

decision-making point in this project.

5. Response: Active stakeholder involvement is an integral part of EPA's XL process. Buncombe County presented a Bioreactor Educational Workshop on June 12, 2000, for interested members of local environmental and civic organizations and the public. A public meeting has tentatively been scheduled for July 13, 2000 and a public comment period is planned from mid-July through mid-August 2000, on the Final Project Agreement (FPA). The FPA will be revised to incorporate comments prior to signature. After, or contemporaneously with the FPA comment period, EPA will publish a proposed site-specific rule governing the flexibility and superior performance to be required by the project. This will be published in the Federal Register and comments will be solicited consistent with legal requirements for rule-making. Another opportunity for community participation and comment will be the issuance of a new solid waste permit after the site-specific rule has been finalized.

Specific Comments

1. Comment: 1 C. Purpose of the Agreement
Throughout the draft are phrases regarding intent of the parties to this Agreement. The Agreement "is not an enforceable contract" and "does not create legal rights." But section VI B outlines the legal basis for the project and appears to remove some important legal protections: "This Agreement itself is not subject to judicial review or enforcement." The Agreement continues, "Nothing any Party does or does not do that deviates from a provision of this Agreement...can serve as the sole basis for any claim for damages, compensation, or any other relief against any Party."

1. Response: Eligibility under XL requires commitment to superior environmental performance. Accountability for the superior performance comes about in two different ways: enforceable commitments and voluntary commitments. The enforceable component of an XL project springs from the site specific rulemaking and/or through permit modification. The level of performance required by the rulemaking can be compelled by the government through a legal enforcement mechanism. Voluntary commitments are outlined in the FPA. Although the FPA describes the enforceable commitment to be contained in a site-specific rule or permit, the provisions of the FPA itself are not enforceable in the legal sense. However, failure to achieve the commitments contained in the FPA may be grounds for termination of the XL project.

2. Comment: II B. Liner and LCRS performance
The alternative liner system in Buncombe County, although approved by the North Carolina Department of Waste Management, is not proven to be an effective containment system for leachate. The alternative composite liner system used in Cell 3 comprised of 18 inches of 10G5 cm/sec clay, GCL, and 60-mil HDPE does not meet 40 CFR 258.40(a)(1) requirements. It is not approved by EPA and, in fact, may already be showing signs of leakage. The most recent Buncombe County New Facility report revealed groundwater contamination in the three year old facility. Landfill samples gathered on November 1 and 2, 1999 contained methylene chloride in monitoring well 8D at 2ug/liter. The report also identified acetone at

site SW-3 at 28 ug/liter. For comparison, the North Carolina groundwater standard [15A NCAC 2l .0200] for methylene chloride is 5 ug/liter and for acetone is 700 ug/liter.

2. Response: The NCDENR has received EPA approval of their municipal solid waste landfill (MSWLF) permit program demonstrating that the state has regulations that are technically comparable to the federal requirements contained in 40 CFR Part 258. The Director of an approved state may approve a performance based design, if the design meets the requirements specified in 40 CFR Part 258.40(a)(1). For approval of such alternative landfill designs, the owner operator must demonstrate to the Director of an approved State that the design will not allow the compounds listed in Table 1 of 40 CFR Part 258.40 to exceed the MCL's in groundwater at the relevant point of compliance. In accordance with state and federal regulations, Buncombe County, using site-specific data, has demonstrated through computer modeling that the alternative liner constructed in Cell 3 meets the requirements of 40 CFR Part 258.40.

Prior to the November 1999 sampling event you cite in your letter, no contaminants have been detected at the facility. In addition, the methylene chloride and acetone levels were below the NC groundwater standards (note that the acetone was detected in a surface water sample, not a groundwater sample). Both acetone and methylene chloride are common laboratory contaminants and must be verified with future confirmatory results. Significantly, we understand that the Spring 2000 sampling results (not yet submitted to the NCDENR) do not confirm the previous results which supports the probability that the contaminants found in the Fall 1999 sampling may be attributable to laboratory error.

Comment 3: II B. Specific Project Elements
The Agreement identifies the BCSWMF as being in a seismic impact zone (SIZ). EPA's Subtitle D rules [40 CFR Section 258.14] restrict landfilling in areas identified as seismic impact zones stating that "new MSWLF units and lateral expansions shall not be located in SIZs unless the owner or operator demonstrates to the Director of an approved state that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site." North Carolina's solid waste rules [15A NCAC 13B .1622(5)(a)] contain similar language. EPA identified Buncombe County as being in a region with over 200% of the horizontal acceleration deemed safe. Adding liquids back into the landfill will make the mass of buried waste less stable. Therefore, common seismic events in western North Carolina will have greater relative impact on the landfill after recirculation. This instability will increase the stress on liners and distribution/collection systems embedded in the waste.

Laboratory studies have shown that organic solvents present in common household cleaners can pass through the high-density polyethylene liners within one to thirteen days. According to G. Fred Lee, PhD, P.E., the clay liners will be breached within three to five years, resulting in poisoning of the groundwater. Once contaminated by municipal solid waste landfill leachate, groundwaters are not longer suitable for domestic water supply. As of August 1995, North Carolina does not oversee or keep records on the determination of borderline hazardous wastes which can go into a Subtitle D solid waste landfill. Furthermore, according to North Carolina rules, a pollution zone can be declared around a landfill

which will never have to be cleaned up. [15A NCAC 2L Section .0106]. For these reasons, municipal water supplies should be provided to the households surrounding the BCSWMF at the earliest date possible; whether or not the XL Project moves forward, providing a safe drinking water supply to the residents of north Buncombe must be a county priority and a state priority, based on the power of the state health director to take immediate action.

Response 3: Buncombe County officials have provided NCDENR with the required information demonstrating that all containment structures, including the liner and leachate collection system, have been designed to resist the maximum horizontal acceleration that could be expected in the area of the facility.

With regard to concerns about the potential for failure of the liner system - in developing the landfill regulations, the Agency considered a number of design criteria options. After extensive study of the various design options, the Agency selected a composite liner system, consisting of both an upper flexible membrane liner (FML) and a lower soil component, as the standard design. The Agency believes that a composite liner system is an effective hydraulic barrier because it combines the complementary properties of two different materials into one system. The Agency further believes that a composite liner system will provide the greatest protection of human health and the environment at any location in the country.

With regard to the concerns about the potential for groundwater contamination at the site, according to the groundwater monitoring requirements, if the owner/operator determines that there is a statistically significant increase above background at the relevant point of compliance for any of the site approved monitoring parameters, then the owner/operator must implement an assessment monitoring program to characterize the nature and extent of the release. If after completion of the assessment monitoring it is determined that corrective action is necessary, the owner/operator would be required to establish and implement a corrective action program. When implementing the selected corrective action program, the owner/operator would be required to take any interim measures necessary to ensure the protection of human health and the environment. Depending upon the nature and extent of the release, the interim measures could include providing alternative municipal water supplies to nearby residents.

The BCSWMF is located within a seismic impact zone (SIZ) as defined by the Subtitle D regulations. This classification does not imply that the landfill is unsafe. It means that the landfill must be designed to perform safely during the design seismic event. CDM designed the landfill "to meet the maximum horizontal acceleration in lithified earth material for the site" in accordance with the EPA and North Carolina rules and performed stability analyses to confirm the landfill's performance during seismic loading. Based on the results of the analyses, CDM concluded that the horizontal displacement of the landfill waste above the landfill liner would be less than one centimeter (cm). The maximum allowable displacement typically used in practice for the design of geosynthetic liner systems is 15 to 30 cm, which is much greater than the computed displacement. With a minimum factor of safety of 15, we believe there is little risk of failure during the design seismic event.

To address the comment regarding the addition of liquids (i.e., recirculation) CDM performed additional analyses to evaluate the potential impact that the addition of liquids could have on the seismic displacements of the landfill mass above the liner. The primary input parameters required for these types of analyses are the landfill and waste geometry, the design seismic event acceleration, the unit weight and strength of the waste, and the strength of the liner materials. In CDM's opinion, the only parameter that will be influenced by the addition of water to the waste is the unit weight of the waste if the moisture content of the waste were to be higher due to the recirculation of water. There will not be standing water in the waste because the recirculation system will be operated in a manner so as to maintain compliance with the regulations that limit the leachate depth to less than 12 inches above the top of the liner.

Based on information from other recirculation projects, CDM does not anticipate that the moisture content and unit weight of the waste would be significantly higher due to recirculation. However, in order to analyze the potential impact of a higher unit weight, CDM re-ran the stability analyses using unit weights of 65 and 75 pounds per cubic foot (pcf) which are 18 and 36 percent, respectively, higher than the 55 pcf unit weight used in the previous analyses. These unit weights also are higher than would be expected for an increase in moisture content. The computed displacements for both new analyses were the same (i.e., less than one cm) as for the previous analyses. Therefore, the analyses indicate that the addition of water to the landfill will not impact the seismic response of the landfill. As required by NCDENR regulations and as further provided in the FPA, regular monitoring will be performed.

Regarding the resistance of the liner material to organic solvents, it is noted that the liner materials in-place and proposed to be used on this project meet all current EPA and State of North Carolina regulations.

Comment 4: III A.2.b. Expedited methane generation/recovery
Buncombe county intends to burn the methane extracted from the landfill in a "flare". It makes little sense to go to the expense of recovering flammable gas only to burn it in this manner with no function. The greenhouse gas reductions and cost-effectiveness calculations cited in the Agreement are based on CO_2 offsets which result from substitution of the waste gas for fossil fuel. The Agreement does not include any analysis of wasting the recovered gas in a flare.

Response 4: Buncombe county cannot commit absolutely to using the landfill gas (LFG) recovered at the BCSWMF for energy recovery purposes at this time. The County has already initiated the process of identifying economically feasible LFG recovery projects for this site. However, until a firm cost-effective project can be identified and implemented, the County will likely flare the LFG. Buncombe County has demonstrated its commitment to LFG recovery as a partner in the EPA Landfill Methane Outreach Program (LMOP) at its other MSW landfill, Site I. LFG is collected and recovered at Site I for use by the adjacent Asheville-Buncombe Municipal Sewage District wastewater treatment facility. The County will continue to investigate economically feasible options to recover the LFG, but cannot commit absolutely to a beneficial reuse of the LFG if an economically viable project can not be identified.

The superior environmental performance achieved by this project will be the early installation of the LFG collection and control system for accelerated compliance with the MSW landfill air regulations (40 CFR part 60, subpart WWW). Early compliance with these standards will reduce emissions of nonmethane organic compounds and methane from the landfill to achieve compliance. Subpart WWW permits the control of LFG by either an open flare, an enclosed combustion device, or a gas treatment system. The BCSWMF will achieve this superior environmental performance and reduce air emissions from this site.

Comment 5: III A.2.e. Lessening long-term risk and need for monitoring
Lessening long-term risk may increase short-term hazards. Waste decomposition which results in subsidence can cause pipeline rupture. If leachate recirculation is effective in accelerating decomposition, gas collection/liquid recirculation manifolds and associated distribution pipes will be subject to higher stress than normal. Therefore, collection/distribution line breakage may occur sooner and with greater frequency.

Response 5: The proposed leachate recirculation/gas recovery piping network is essentially the same as piping networks used commonly today for conventional LFG collection systems in non-recirculating landfills. These systems have demonstrated compatibility with differential settlement in countless landfill applications. The piping of the leachate recirculation/gas collection system is designed to flex and bend as the waste decomposes and consolidates. The flexibility of the plastic (HDPE) pipe allows it to conform to non-uniform settlement of the pipe bedding. And, by fusing the plastic pipe segments using a thermal process, there are no joints in the pipe. That further decreases the likelihood of pipe failure.

Pipes installed in or over waste such as the leachate recirculation/gas collection pipes are subject to varying degrees of differential settlement. Differential settlement occurs as a result of the heterogeneous nature of the waste. For example, air voids are filled non-uniformly as additional waste is placed over existing waste due to the various size, shape, and rigidity of the waste components. In addition, varying degrees of decomposition occur throughout the waste mass according to the non-uniform distribution of infiltrating storm water. However, acceleration of the rate of waste decomposition by leachate recirculation does not increase differential settlement. Rather, it will reduce differential settlement as a result of the more uniform distribution of moisture, which in turn will promote more uniform decomposition throughout the waste mass.

Comment 6: III A.3.a. Maximizing landfill gas control and minimizing fugitive methane/VOC emissions
The Agreement states that monitoring of the air quality performance of the BCSWMF "will not include surface emission testing." The Agreement asserts that any installation of gas collection will be environmentally beneficial. The landfill is subject to Clean Air Act NSPS (New Source Performance Standards) but early installation of gas collection and control systems in accord with 40 CFR subpart WWW will not necessarily improve air quality. Testing of the gas samples from the collection system will not provide information on local ambient air impacts. Baseline tests for ambient air should be done before the Project begins. Tests should continue during operation of the gas collection system to assure

compliance with NSPS. We must state that, against the recommendations during numerous public comment opportunities the NC DWM has continued to exempt solid waste landfills from the NC air toxics rules: a program which limits toxic air pollutant emissions at property boundaries to one additional cancer death per million. Dr. G. Fred Lee has detailed and quantified toxic air pollutant emissions from solid waste landfills in several studies. To date, however, North Carolina refuses to test landfills for any air poisons other than methane. The volatile contaminant methylene chloride, identified in MS-8D is also a toxic air pollutant under the NCAC 2D.1100. BREDL will request air sampling for methylene chloride and acetone at this facility.

Response 6: Buncombe County is not requesting any flexibility on the NSPS. The County intends to comply with all aspects of the requirements of 40 CFR 60, subpart WWW, for MSW landfills. The gas collection and control system will be designed to fully comply with the NSPS requirements. The County will meet all the landfill surface monitoring operational standards, control systems monitoring, reporting, record keeping, and compliance testing requirements of the NSPS.

The County does not intend to test ambient air before the project begins nor during, as no federal or state requirement exists. Concerns with the way NC DWM exempts landfills from air toxics program is an issue that should be raised with the State and is outside the scope of this XL agreement.

Comment 7: III C. Stakeholder Involvement and Support
The Agreement limits stakeholder involvement to elected and appointed officials. Informing the public via a "televised presentation at the Buncombe County Commissioners' Annual Planning Retreat" is not adequate. The stakeholders to be actively contacted and involved in the Project by the EPA, county, and state include adjacent landowners, local citizens' groups, and statewide environmental organizations. The broad implications of the EPA XL Project, including permit modifications and solid waste rulemaking, require that these groups be involved early in the process. BREDL was notified by reporter Jason Sanford for the Asheville Citizen-Times about the XL Project. Only later did county officials attempt to communicate with affected north Buncombe residents. To date, this project has hardly been a model of stakeholder involvement.

Response 7: EPA concurs that stakeholder involvement must be improved. A stakeholder involvement plan has been drafted and will be available for comment during the comment period and stakeholder meeting. In addition, a bioreactor educational workshop was held on June 12, 2000 at the Renaissance Hotel in downtown Asheville to present a basic overview of bioreactor processes and to answer questions posed by the public. The workshop was videotaped and transcribed, and the transcript and presentation will be posted on EPA's XL website. The meeting was well attended. Another public meeting has been tentatively scheduled for July 13, 2000.

Comment 8: IX. Transfer of Project Benefits and Responsibilities to a New Owner
The conditions for transfer of the Project to a public or private owner/operator leave out the public entirely. The Agreement states that transfer of the XL Agreement to any future owner is subject to "the

satisfaction and *unreviewable* discretion of EPA, the State of NC, and all applicable local agencies..." (Emphasis added by commentor). This provision poses a danger to the community and all future XL programs.

Response 8: While you are correct in saying that the decision as to whether to transfer the XL Agreement to a future owner would not be judicially reviewable, it is not true that the public would be left out of the decision-making process. On the contrary, the draft FPA will explicitly call for consultation with stakeholders when determining whether the proposed new owner/operator is capable, willing, and qualified to assume the responsibilities of the exiting owner/operator in carrying out the project.

As stated previously, Project XL is a national pilot program that allows state and local governments, businesses and federal facilities to develop innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection. In exchange, EPA will issue regulatory, program, policy, or procedural flexibilities to conduct the experiment. In order for this to be accomplished, EPA and a project sponsor must realistically limit the number and scope of issues to be worked on in each individual pilot. The scope of each project is defined in a project sponsor's proposal and refined in a final project agreement.

Thank you for showing your concern for the natural environment in the Buncombe County area by raising these issues. We invite you to continue to participate in the development and negotiation of this XL Project, and to submit further comments related to the landfill's general operations in another forum, as appropriate. As mentioned previously, a public meeting on the Buncombe County Project XL proposal and draft FPA is scheduled for July 13.

We appreciate your having invested the time and effort providing comments on the preliminary draft XL Agreement for Buncombe County. Please call me at 404-562-8674 if you have any questions.

Sincerely,

Michelle M. Cook
Region 4 Project XL Coordinator

cc: Bill Holman, Secretary, North Carolina Department of Environment and Natural Resources
Bob Hunter, Director, Buncombe County General Services Department
Bill Sessoms, Division of Waste Management, North Carolina Department of Environment and Natural Resources
Joe Wiseman, Camp Dresser & McKee