

**PRESENTATION TO SUNSET ADVISORY COMMISSION**  
**Concerning**  
**Texas Commission on Environmental Quality**

**By**  
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These comments relate to concern for the protection of groundwater which might be threatened by proposed Municipal Solid Waste Landfills, whose Applications are considered by the TCEQ.

**Issue 1**

**The present TCEQ regulations do not prohibit the siting of MSW landfills over the recharge zones of aquifers, not even for major statewide aquifers relied upon by millions of citizens. Nor do the TCEQ regulations require that if a MSW landfill is so sited, “extra” protective measures such as additional liners should be incorporated into the design.**

An aquifer is most vulnerable within its recharge zone, since the rainwater recharge pathways can rapidly carry any contaminants which might escape the landfill containment systems into the deeper aquifer. Remediation of a leak which introduces contaminants into an aquifer might prove to be technologically impractical, once the landfill is completed. Within a recharge zone, there is no “natural” geologic protection available to supplement the engineered containment, as might be relied upon in other, less sensitive siting locations. Without a requirement for “extra” engineered protection for landfills sited in the recharge zone of an aquifer, there is no incentive for a landfill Applicant to select less sensitive siting locations, and the groundwater resources of the State of Texas are placed unnecessarily at risk.

**Recommendation**

**The TCEQ should be directed to construct regulations requiring increased engineering protections to be provided in the design of a landfill sited in environmentally sensitive locations, such as the recharge zones of aquifers, which lack the usual geologic protections for groundwater.**

## Issue 2

**As the present TCEQ MSW permitting process is conducted, the TCEQ technical staff performs absolutely no independent technical scrutiny of any kind to verify the accuracy or correctness of the technical information submitted within the Application. Within TCEQ, there is no vetting of MSW applications for technical correctness, to assure that the environment is adequately protected. The TCEQ technical staff is not permitted to take an advocacy position, for or against an Application, based upon its scientific merits.**

Instead, the only function which the technical staff performs is to determine whether the Applicant has addressed all of the required technical issues, and has provided the required technical enclosures to the Application, and that there are not internal inconsistencies present. Therefore, the TCEQ technical staff performs an essentially clerical function, and serves as a “handholder” to the Applicant, coaching the Applicant as to which tasks remain to “complete” the Application. Eventually, this process results in the TCEQ technical staff declaring that the Application is “technically complete”. After this often lengthy process, the technical staff tends to become invested in the Application, and usually feels compelled to defend the technical completeness of the Application. In this process, the neutrality of the staff toward the Application is destroyed.

However, “technical completeness” does not imply “technical correctness”. The TCEQ technical staff freely admit that they have no independent opinion of whether or not the material in the Application is technically correct or accurate. Instead they repeatedly state that they simply assume that all of the technical information submitted in the Application is in fact correct. Having performed no independent technical investigations of their own, the TCEQ staff is in no position to do anything else.

Therefore, under the present TCEQ process, there is no technical scrutiny of any kind provided as to the accuracy and correctness of the technical issues included in a MSW application. Such scrutiny only occurs in the event that a contested case hearing is granted, and only if protestants can afford to independently and privately fund expert witnesses to examine the Application. The protection of the environment of the State of Texas should not hang on such a slender thread.

A superior model is provided by the Railroad Commission, which requires its technical staff to conduct independent technical evaluations of Applications, so as to determine not merely the technical completeness thereof, but also the technical correctness and accuracy of the information provided in the Application. Railroad Commission staff operating in field offices around the state, who possess familiarity with the local environment, may be brought into such internal evaluations and may even conduct site specific field investigations. Following such internal staff investigations, Railroad Commission staff are permitted to recommend for or against approval of an Application, based upon its technical merits.

### **Recommendation**

**The TCEQ technical staff should be tasked to independently assess the technical accuracy and correctness of Applications, in the same way that the staff of the Railroad Commission is required to do. The technical staff should also be permitted to advocate for or against approval of an Application, based upon its technical merits.**

### Issue 3

**The TCEQ presently issues permits for MSW landfills for the “life of the facility”, rather than for a time certain—the State of Texas being among a small minority of states with such dangerous policy. Such open ended permits may be issued even when the landfill may be sited in extremely sensitive locations, such as in the recharge zone of a major aquifer. Despite the inherent uncertainties attendant to a landfill whose time duration of operation is open-ended and potentially very prolonged, the TCEQ fails to require that Applicants demonstrate that the landfill design is assured of providing waste containment over such extremely prolonged time periods, or that Applicants conduct long term contingency planning for how to cope with an eventual breach of containment of waste contaminants.**

From the viewpoint of assuring the protection of priceless environmental assets of the State of Texas, such as a major aquifer which may be at risk, it is clearly necessary to assure no escape of contamination throughout the time period for which the waste contaminants are un-degraded and continue to pose a potential threat to the environment. Certainly in the case of heavy metals, and likely for many other landfill contaminants, the time period for which aquifers would be at risk is at least several centuries. Yet the TCEQ requires no assessment of whether the containment systems can be assured of viability, and will not degrade over such prolonged time periods. In fact, the TCEQ requires no very long term planning at all. There is no requirement for long term monitoring of landfills to detect leaks, for many decades following the eventual closure of the landfill. Moreover, there is not even a requirement that Applicants demonstrate how an eventual leak of contaminants might be dealt with successfully, practically, and affordably, even if the leak was detected.

### **Recommendation**

**Permits for MSW landfills should be issued for a term certain, coupled with a process for permit renewal, during which the public would have the opportunity to participate and introduce evidence and express any concerns. However, in the absence of such time-limited permits, the MSW application process should require much more long term assessment and evaluation and contingency planning—to assure that the environment is adequately protected over the protracted time scales for which it may be at risk from the landfill.**

## Issue 4

**The process and regulations which the TCEQ has promulgated for the development of MSW landfill applications does require certain investigations of the immediately surrounding area, its residents, and its groundwater supplies. Unfortunately, the emphasis of the present regulations is to reduce these investigations to a legalistic, rote process—which is deemed adequate if followed, regardless of whether or not the Applicants actually obtain the correct answers about the surroundings and the nearby neighbors, and regardless of whether or not the surrounding neighbors and environment would be harmed by the proposals in the Application.**

For example, Applicants are supposed to identify the surrounding residents and residences within a mile of the proposed landfill site, as well as all water wells and springs within this area. However, TCEQ has ruled that mere database searches from “open and published sources” is adequate—even though it may be obvious from visual inspection from the proposed site that many more neighboring residents, water wells and springs must exist than are revealed within the databases. Discovery of accurate information about the surrounding residents and their groundwater supplies is very important in the preparation of a landfill design. Partly this is so that the landfill design might minimize harm to these surrounding neighbors, and partly this is to obtain correct information about the local hydrogeology, so that the site might be properly characterized and so that the landfill design might be competently completed so as not to injure the local environment. It is crucial that the emphasis of the TCEQ should be upon obtaining the correct and complete results from these investigations, and not upon complying with some rote process.

### **Recommendation**

**The TCEQ should require that Applicants conduct exhaustive investigations of the area surrounding a landfill site and its residents, extending beyond a mere database search, and seeking to develop a complete and accurate understanding of the local groundwater and hydrogeology.**

## Issue 5

**The TCEQ currently requires that Applicants for MSW permits demonstrate that the landfill will be protective of the environment, and will not contaminate the groundwater. However, even though landfills are allowed to be excavated far below the depth of the local groundwater table, such that massive pumps are required for dewatering during construction, there is no requirement that assessments be made of how this dewatering might affect the availability of water to the surrounding public, or how it may affect the surrounding hydrogeology. Nor is there any requirement that harm from drying up surrounding water supplies should be minimized, or that replacement water should be supplied to the public or neighbors so harmed.**

Instead, the TCEQ and MSW Applicants hide behind the “rule of capture”, and assert that they are completely free to dry up as much of the public water supplies as they see fit, in their pursuit of the landfill. However, there is no entitlement to the receipt of a landfill permit, and it is perfectly reasonable for the State of Texas to require that in exchange for such a permit, Applicants should minimize the harm done by the loss of availability of groundwater which may be caused by the landfill construction, or even to require that such lost water be replaced by the landfill operator.

### **Recommendation**

**The TCEQ should be directed to require that MSW landfill Applicants evaluate the impact of any proposed landfill upon the availability of groundwater, and to so design the landfill as to minimize the loss of availability of groundwater. Where loss of groundwater availability is severe, Applicants should be required to locate and provide alternative sources of groundwater to the surrounding public who are adversely affected.**