

Permission to publish the following pages and photographs related to Butler Landfill in Austin TX was granted by the author Thomas Phillips Clark on November 15, 2018. They were excerpted from his Master's thesis published in 1972.

HYDROGEOLOGY, GEOCHEMISTRY, AND PUBLIC HEALTH ASPECTS
OF ENVIRONMENTAL IMPAIRMENT AT AN ABANDONED
LANDFILL NEAR AUSTIN, TEXAS

by

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THESIS

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(1970), a part of a comprehensive wastewater study of part of the Colorado River basin, has also recommended the city consider recycling water from this pond for sprinkling purposes instead of hauling city water to the site in tank trucks as is currently done.

ABANDONED SITES

Several landfill sites in the Austin area have been abandoned recently. The Butler landfill (Plates 5 and 6), which is located in Zilker Park along the south bank of the Colorado River, has not been used since 1968. This site is located in terrace gravels deposited by the river. Rapid drainage through this coarse material assures that most of the rainfall leaching the refuse probably enters the river within a relatively short time. Water from surface drainage forms temporary small ponds on the fill surface, particularly after heavy rains. The city has installed a concrete drainage pipe which assures rapid drainage of some of this ponded water. Unfortunately, it also empties directly into the river, with the scene in Plate 7 having been observed recently. Construction of a major highway through the western part of the fill began in early 1971. Cores taken from the filled area show the refuse to be still quite fresh. It appears as if the pilings on which the highway is to be constructed have been founded upon limestone underlying the terrace gravel in which the refuse was emplaced.

The Grove landfill (Plate 8) was abandoned within the past two years. It is also located in terrace deposits along the south bank of the Colorado River. Here, however, most of the material is sand rather than gravel. Although the movement of water through this fill may be an order of magnitude slower than through the gravel at the Butler site, the poor location of the site in an abandoned sand pit would appear to offset this apparent advantage.

Plate 5 Butler landfill as it appeared in operation during 1966.

Plate 6 Butler landfill site in 1970, viewed toward east. Note Colorado River in background.



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Plate 7 Leaching of pollutants into Colorado River from old Butler landfill. The waters of this part of the Colorado, called Town Lake, were judged unfit for contact sports in 1970; urban storm runoff and contributions from seeps like this add to water quality deterioration.

Plate 8 Grove landfill viewed north toward Colorado River, showing beginning of revegetation on floor of old sand pit. River is just beyond line of trees in background.

Plate 9 Deterioration of Section III. Arrows show areas of rapid erosion and destruction of concrete access bridge, viewed toward north.

Plate 10 Contact of refuse cell with underlying Dessau limestone. Leachate emergence is concentrated at the contact along the west side of Section III.



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The following three photos of Butler Landfill are the same as the preceding three shown on pages 152 and 154 of the thesis. They were scanned, enlarged, color-corrected, and adjusted for contrast. The captions below each photo were taken from the facing pages in the thesis.



Plate 5

Butler Landfill as it appeared in operation during 1966



Plate 6

Butler Landfill site in 1970, as viewed toward east.
Note Colorado River in background.



Plate 7

Leaching of pollutants into Colorado River from old Butler landfill. The waters of this part of the Colorado, called Town Lake, were judged unfit for contact sports in 1970; urban storm runoff and contributions from seeps like this add to water quality deterioration.