In General, Landfills (waste dump areas) endure from a major post-closure settlement that takes place over a prolonged period of time. A huge differential settlement may deteriorate structures, foundations, and other related facilities that constructed atop of a landfill. **Hence, with the conjunction of that the landfills behavior is not fully understood;** (Ling et al. 1998)
https://www.researchgate.net/publication/306378961_LANDFILL_SETTLEMENT_ANALYSIS

Landfills are a particular subset of brownfields, particularly older landfills in industrialized areas. Older landfills that were never properly closed are true brownfields with idle land from which pollutants are often discharged. With investigation and limited remediation, this subset of brownfields-like sites presents unique opportunities for redevelopment. **Redeveloping landfills is particularly challenging not only due to clean-up issues, but also the geotechnical issues of building on waste.** Most of the unregistered landfills were never properly closed. Only a handful of unregistered landfills were properly closed and received a Closure and Post Closure Plan Approval pursuant to the Amended State Solid Waste Management Act of 1975. https://www.researchgate.net/publication/307436757_Landfill_Design_and_Operation

H.B. 1041, 106-7-103(10): ***Ground subsidence*** means a process characterized by downward displacement of surface material caused by natural phenomena such as removal of underground fluids, natural consolidation, or dissolution of underground minerals, or by man-made phenomena such as underground mining.

Another type of ground subsidence that commonly occurs in Colorado is the settlement and ground collapse that occurs in certain types of geologically recent, unconsolidated sediments — usually referred to as soils by engineers and contractors. This group of soils those that can rapidly settle or collapse the ground are known as *collapsible soils*.

Collapsible soils are a major geologic hazard for land development in many locations across the state. This particular hazard manifests itself as **ground settlemen**t, which can be damaging to overlying structures if the soil problems are not mitigated or if the structure is not engineered properly. https://coloradogeologicalsurvey.org/hazards/ground-subsidence/

Several noteworthy stability failures occurred at landfills in the United States in the 1980s and early 1990s, a timeframe coinciding with the promulgation of modern US environmental regulations. These failures were extensively studied, and lessons were learned..... However, a survey of landfill performance in the United States in the 2010–2019 timeframe shows that waste fill stability failures continue to occur. https://ascelibrary.org/doi/10.1061/%28ASCE%29GT.1943-5606.0002291