1. **Dust Control:** Roads and parking areas for vehicles that will leave the site should be paved.
2. **Light pollution:** Direct light properly and use perimeter barriers to eliminate sky glow, light trespass, and glare.
3. **Mine management and truck safety:** Clear roads for school buses by not loading trucks for 30 minutes before and after school bells.
4. **Noise:** APOs should monitor the noise exposure at their property line, keeping the noise level at their property line below 65 dB if the property line is within 880 yards of a residential area, school, or house of worship, and 70 dB if not. Set criteria using MSHA on-site guidance and experience with noise level limits from municipalities (nearby if available) that have set noise limits.
5. **Blasting:** Blasting should be monitored with seismographs, located on the perimeter (corners) of the APO property (and in some instances, adjacent or near-by properties in multiple directions).
6. **Water quality:** Vegetation is an inexpensive and effective way to protect soil from erosion and filter contaminants, protecting water quality in nearby streams and aquifers. It also protects air quality by holding dust down and filtering the air. Vegetative controls should consist of native plants appropriate for the Texas ecoregion where the site is located and must not include any noxious or invasive species.
7. **Water use:** Maximize the use of process wastewater, which cannot be discharged without treatment but can be reused in site operations. Managing fine tailings to reduce the amount of tailings in settling ponds with a tailings thickener system and/or flocculant and thickener are key BMPs that are understood, accepted and utilized by many APOs, These facilities can provide additional recycled water to reduce overall APO water use, water loss and reduce land use.
8. **Riparian health and safety:** The following is a list of suggested BMPs for riparian areas. Incorporating these practices into your operations will preserve the quality of the land and water and reduce the risk of catastrophic “pit capture” (when a river breaks through the riverbank or constructed levy and merges with the mine pit, as has happened countless times in Texas, due to poor mining practices):
9. Maintain undisturbed setbacks from at least 50 feet from the water’s edge and preferably 200 feet.
10. Create a buffer between mining activities and the waterway.
11. Leave large woody debris in the floodplain.
12. Quarry above the water table only.
13. Minimize use of heavy equipment in riparian areas to protect vegetation and reduce soil compaction.