What Are Tailings?

Our business involves recovering gold and silver from rock. Rock with sufficient amounts of gold and/or silver has economic value – such rock is called "ore". We must process the ore to recover the gold and/or silver – these processes are called "mineral processing" and generally involve crushing and grinding the ore into small, sand-sized particles of rock and treating that with other chemicals until the gold and/or silver is freed from the other parts of the ore that do not have economic value. The sand-sized particles of rock left over from mineral processing are waste called "tailings".

The chemical and physical characteristics of tailings vary depending on the nature of the ore and, to some extent, on the mineral processing processes used to liberate the gold and/or silver. Discharged tailings have no current economic value – these naturally-occurring materials must be disposed of safely for the long term so that they do not have impacts on people and the environment. Tailings are generally stored in facilities (tailings storage facilities or TSF) that are engineered, constructed, operated and decommissioned (closed) to high standards to ensure they are stable and do not pose a threat to human health, safety and the environment. In most cases, tailings are transported as a slurry – a combination of liquid water and tailings solids – in pipelines to the TSF. Some common methods to store and store tailings include:

- Filtered tailings (commonly known as dry stacking): Tailings slurry is dewatered to a cake consistency (over 80% solids) using filters and transported to a nearby stacking area. Filtered tailings do not require water-retaining dams, as no free water accumulates in this type of structure.
- Tailings dams: Tailings slurry is discharged behind engineered dams designed to contain the material. Solids are allowed to settle in the impoundment while process water is typically reclaimed.
- Thickened tailings and paste: Thickened tailings consist of a slurry with a higher solids content that is deposited behind smaller engineered dams or combined with cement to be backfilled into non-operating underground mines.
- Co-disposal: Mixing or otherwise combining tailings with waste rock in impoundments, non-operating open pits, or surface stacks.
- In-pit deposition: Deposition of tailings in open pits that are no longer operational.

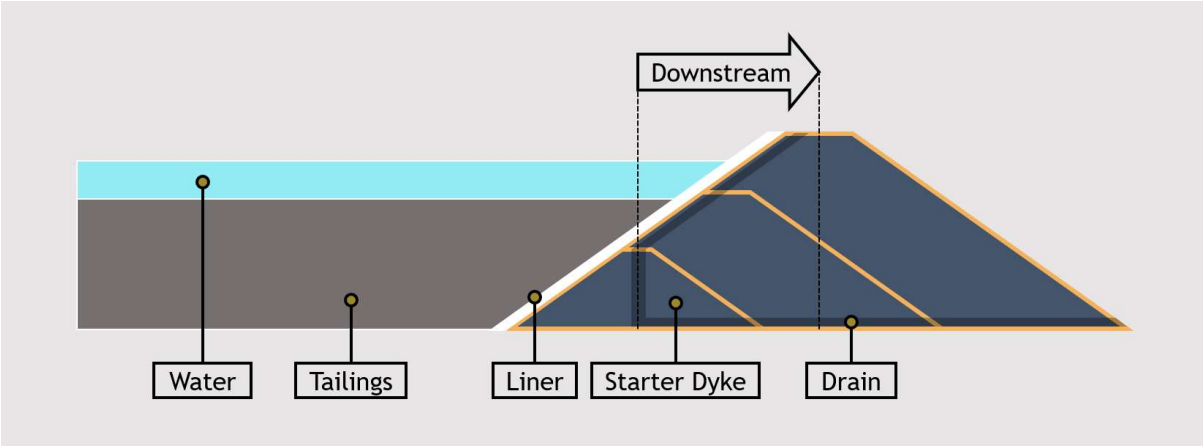
Yamana's active TSFs include engineered tailings dams, dykes for containment of thickened slurry tailings and paste, and filtered tailings.

Several factors are considered in selecting an appropriate and safe design for a TSF, including the type of tailings it will hold, the materials used in its construction, its location, the geology of supporting and surrounding land, climatic and seismic conditions, as well as social and regulatory considerations. There are a range of evolving best practice guidelines from third-party organizations that specify the design, construction and operational aspects – we incorporate these into everything we do regarding TSFs to ensure they are stable and do not impact people or the environment.

Common Designs

Generally, there are three common designs for tailings dams, although hybrid designs combining these methods are also used:

1. Downstream Construction

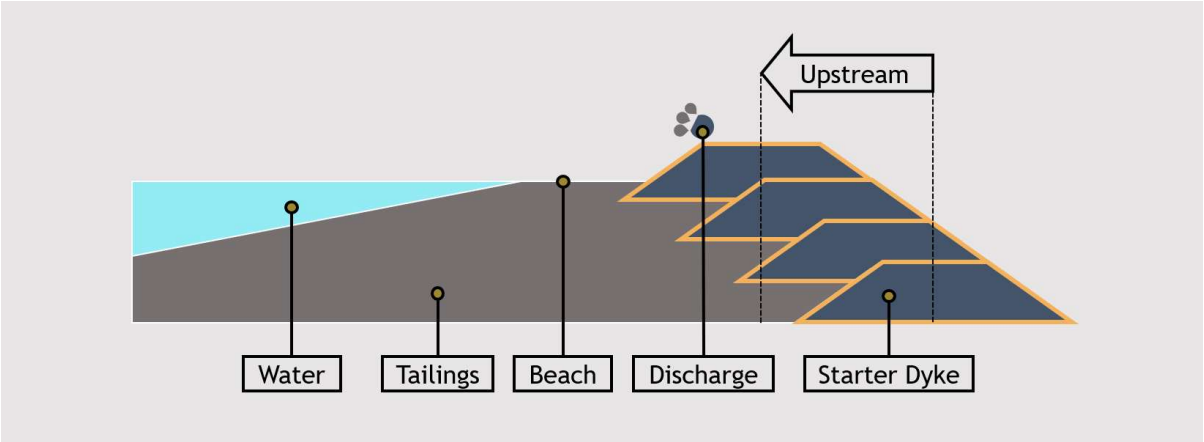


Downstream tailings dams resemble typical water retaining structures but are raised in stages during operations. Downstream tailings dams are raised following a downstream direction, starting at the starter dyke, and growing away from the initial impoundment area. Tailings slurry discharged behind each new section of the dam is not used to support successive raises of the dam.

Relative to the other two common tailings dam construction methods, downstream tailings dams are considered the most stable. However, this construction method requires larger areas and greater volumes of construction materials.

All of Yamana's most recent TSF designs follow this design concept.

2. Upstream Construction

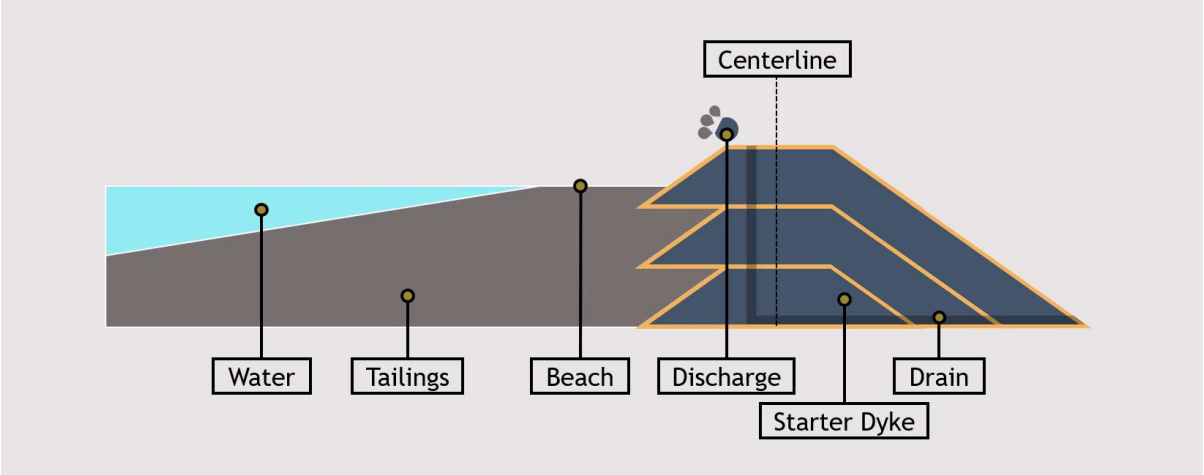


An upstream tailings dam is raised in the upstream direction of the starter dyke. Tailings discharged from the starter dike are deposited at an angle away from the dam crest and

allowed to drain, forming a dry beach that is used as a partial foundation for the construction of a successive embankment raise. This process is continued in stages until the dam is raised to its ultimate elevation. Adequate water management is important in this design to create a beach area close to the embankment and keep water as far as possible from the embankment. The use of thickeners and other dewatering technologies is common.

Relative to the other construction methods, upstream tailings dams generally require less construction materials.

3. Centerline Construction

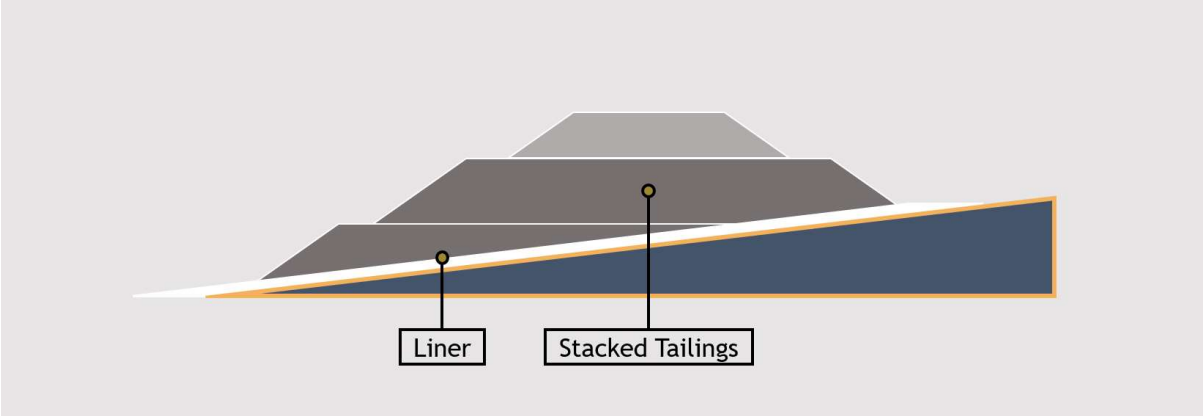


A centerline tailings dam is raised vertically and its construction combines the principles of both downstream and upstream design concepts. Similar to the upstream construction method, tailings are discharged behind each dam section and allowed to dry to form a beach. This tailings beach later supports the upstream slope of the successive embankment raise. Dewatering technologies such as thickening are commonly used to improve the construction of these structures.

Centerline tailings dams are generally considered more stable than upstream tailings dams and require less construction material than downstream tailings dams.

In addition to depositing tailings slurry in TSFs relying on dams to contain the solids and water, Yamana uses another common method to store tailings called filtered tailings or dry stacking.

4. Filtered Tailings/Dry-Stack Tailings



Following crushing, grinding and chemical leaching to separate the target mineral from the ore, tailings are dewatered in a plant, using a thickening tank followed by filters. Most of the process water in the tailings is recovered and returned to the plant for reuse in the processing of new ore material. The unsaturated filtered tailings, also known as filter cake, are deposited and compacted to form a stable dry stack.

Dry stack tailings do not require the construction of a tailings dam, as these structures do not retain any slurry or water. Compared to more traditional TSFs, tailings dry stacking generally occupies a smaller footprint and allows for improved water management, making it suitable for water-stressed areas. Current technology has been successfully used in lower throughput operations and relatively dry climates. Filtered tailings can also support concurrent reclamation.

Filtration technology generally makes this method more complex to operate, and key considerations include dust management and clay content in the tailings materials.

Yamana has been successfully operating a filtered tailings facility in our El Peñón operations for several years.