

Sustainability fact sheet

Reasons for construction of the Gotthard Base Tunnel: The Gotthard Base Tunnel is the centrepiece of the AlpTransit project (also known as the New Rail Link through the Alps, or NRLA) approved by the Swiss electorate in 1992. The purpose of the NRLA is to improve the public transport network and to shift transalpine freight traffic from road to rail. The low-level link through the Alps enhances the attractiveness of transalpine freight traffic and transport capacity. It will also have a significant impact on passenger transport, as it brings time savings and supports the broader objectives of Swiss transport policy.

Shift of freight traffic from road to rail: The majority of freight traffic through the Swiss Alps is transported by rail. With a rail share of 63.4% (according to a 2012 report), Switzerland is by some distance ahead of any other country; just under 60% passes through the Gotthard. The flat, low-level route through the tunnel will be beneficial to freight traffic in a number of ways. It allows the transit of longer, heavier trains with fewer locomotives and shorter travel time. It also increases transport capacity, with up to 260 freight trains scheduled to pass through the Gotthard Base Tunnel every day. The historic Gotthard railway line, by contrast, permits a maximum of only 180.

A trend analysis published by the Federal Office of Transport also outlines the potential impact of the new rail link on the region and estimates that the commissioning of the Gotthard Base Tunnel and Ceneri Base Tunnel will dramatically reduce noise pollution in this area and have a positive effect on airborne pollutant levels in the Gotthard region. Source: <http://www.bav.admin.ch/aktuell/00479/index.html?lang=de&msg-id=58902>

Environmental measures during construction: The low-level Gotthard rail link will help to protect the ecosystem of the Alps. The construction process itself was designed to be as environmentally friendly as possible. Extensive measures were implemented during the planning phase and the construction of the tunnel in particular in order to minimise the impact on people, animals, the air and water.

- Air pollution was kept low by transporting materials primarily via conveyor belts, rail and ship.
- Residents were protected from dust and noise by temporary topsoil embankments and noise barriers, and restricted operating hours on the construction sites. To prevent the release of dust into the air, non-asphalted construction areas were irrigated and streets and vehicles were cleaned on a regular basis.
- Mountain and tunnel water was processed and cooled according to statutory provisions before being reintroduced into rivers. Streams affected by the construction of the tunnel and access routes were diverted and partially upgraded beyond the existing perimeter (e.g. Walenbrunnen stream, Erstfeld/Schattdorf).
- As construction work also affects the habitats of flora and fauna, compensatory measures were implemented. Cleared trees were replaced with habitat, streams rehabilitated and riverbank areas renaturalised. Temporary use areas were restored to their original condition.
- More than 90% of excavated material was recycled to produce concrete mixes for the tunnel lining, as landfill for a shallow water zone in the Uri lake basin (nature reserve and swimming area), to create a lake in Sedrun and to backfill material extraction areas below Faido and in Buzza di Biasca.

Cooperation with environmental authorities and organisations: Alp Transit Gotthard AG remained in constant dialogue with environmental authorities and Swiss environmental organisations throughout the construction process. The fact that the various environmental associations were represented by a single point of contact enabled joint solutions to be found. All companies on the construction sites were supervised by environmental construction officials in order to ensure that measures were carried out in an environmentally sound way.

Source: Alp Transit Gotthard AG, <https://www.alptransit.ch/de/shop/publikationen/>