

Laying pipes across the Darling Ranges, c1902



Description

This is a posed black-and-white photograph showing the laying and jointing of a section of the Coolgardie Water Supply pipeline to Western Australia's eastern gold fields. It shows a number of people working in terrain typical of the forest country in the Darling Ranges and indicates the extensive timber clearing that was undertaken. Many lengths of pipe are laid out into the distance alongside the excavated trench. In the middle distance a team of workers is lowering a length of pipe into the trench using a pair of A-frame hoists. Several lengths of pipe are in place, complete with their joint rings, in the middle foreground. Closer to the foreground a caulking (joint-sealing) machine is set up above a pipe joint. The photograph measures 11 cm x 15 cm.

Educational value

- The photograph shows part of the Coolgardie Water Supply Scheme pipeline, an engineering feat that attracted worldwide attention at the time and has subsequently been declared an Australian national engineering landmark. The idea of the pipeline was so exceptional that it was termed a 'scheme of madness' when it was first suggested. At the time water had not been lifted so high (390 m), nor had it been pumped so far. Critics said the dam to store the water for the Scheme would burst, the pump stations would be a string of failures and none of the water would get to its destination due to leaks.
- The photograph shows construction, in about 1902, of a section of the world's longest freshwater pipeline that stretched almost 560 km from a dam near Perth to Kalgoorlie in WA's arid interior. The pipeline solved the water-shortage problems resulting from the gold rush that began in the 1890s when prospectors rushed to Western Australia's inhospitable eastern regions following amazingly rich discoveries at the locations later known as Coolgardie and Kalgoorlie. The pipeline has never stopped operating since its official opening on 24 January 1903 and more than 100 years later it is still Kalgoorlie's primary source of potable water.
- Before the pipeline from the coastal region was built at great expense, with much of the work being done manually, in all types of weather and through inhospitable and isolated terrain, men literally died of thirst in the arid country, while others



Categories: The Pipes

died of diseases that spread due to a lack of sanitation and clean water. The gold-mining industry also needed water to develop but attempts to obtain water from local underground sources and dams proved unsustainable.

- The photograph is significant because it shows all the main steps involved in building the pipeline, which were laying the pipes, joining the pipe lengths and waterproofing the joints. Workers are seen lowering the next length of pipe into the pipeline trench. The cylindrical lead machine is following four or five pipe-lengths behind, pouring molten lead into the rings placed around the pipe joins. The caulking machine with its coiled cable then waterproofs the joints. In the foreground two men are finishing off a new machine-caulked joint by hand before the joint inspector gives approval for the pipe to be buried.
- Large numbers of people were engaged in the Scheme to construct the pipeline to the eastern gold fields and this photograph shows dozens of men, mostly labourers, with a few foremen. Workers were also needed to build the wall on the Helena River for the storage dam, to assemble the 60,000 steel pipes in two Perth factories, to dig the trench in which the pipeline was buried and to construct the eight steam pumping stations to lift the water. Judging from their more formal clothes, the four men gathered front left are probably supervisors, or inspectors who checked the quality of the joints.
- There were logistical problems involved in building the part of pipeline shown. The Darling Ranges terrain was the most difficult the pipeline had to cross, being uphill and through thickly wooded forest. This particular section is not adjacent to the railway line so the pipes could not be brought directly by train. The track evident in the photograph probably leads to the nearest siding or station, from where materials would have been transported by horse-drawn carts. A swathe has been cut through the forest to accommodate the track and the pipe-trench. Clearing of heavy timber at the time would largely have been done by hand.
- The hilly terrain of the Darling Ranges near the storage dam for the Coolgardie Water Supply Scheme is evident from the different ways in which the pipeline is being laid to ensure correct alignment. One section is above ground on concrete bolsters while another is to be buried in a particularly deep trench. A deliberate decision was made not to follow the contours of the hills in this area, as the railway line did, in order to shorten the distance and reduce the pressure on the pipes in higher country.
- The photograph appeared in at least one album presented to Sir John Forrest who, as premier of WA at the time, was responsible for obtaining parliamentary approval and raising a loan for the Coolgardie Water Scheme. Although Forrest may have been presented with similar albums on different occasions, one such album was presented to him by the WA Government in 'commemoration of the turning on of the water at Kalgoorlie on 24 January 1903'. Sir John had moved to Federal Parliament by that time, but was still given the honour of officially opening the pipeline. Photographs in these albums were often taken by local representatives as a record of the construction for the overseas contractors involved in the Scheme.

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