

## = Point Stephens Light =

Point Stephens Light is an active lighthouse located on Point Stephens , a point on an unnamed headland at the east of Fingal Bay , 4 @. @ 25 km ( 2 @. @ 64 mi ) south of the entrance of Port Stephens , New South Wales , Australia . It serves in assisting vessels entering Port Stephens . It is considered an endangered lighthouse due to remote location and old age .

Proposed in 1857 , the lighthouse was built in 1862 . Designed by Alexander Dawson , the New South Wales Government Architect at that time , both the lighthouse 's flared base and the keeper 's cottages combined terrace are unique architectural features for the period . The light source used was originally kerosene lamps , which upgraded in 1912 to a Dalén light , upgraded again to electric light in 1960 , automated in 1973 , and finally converted to solar power in 1990 . In 1991 the last caretaker withdrew from the premises and very soon after the keeper 's cottages were vandalised and burned .

The tower is designed in the form of a Doric column . It is divided into four stories with a spiral stairway , and topped by a gallery carrying the lantern . The keeper 's cottages are three one story cottages , sharing a roof . Other structures which still stand at the location are a circa 1930 privy and workshop built in the 1950s .

The lighthouse is managed as part of the Tomaree National Park . Access to the lighthouse is difficult , either through a narrow spit of sand at low tide or by boat .

## = = History = =

As early as 1857 , the need for a lighthouse on Point Stephens was identified , due to the proximity to the entrance of Port Stephens , and the dangers of the local coastline to ships . Another reason was that mariners were mistaking the entrance to Fingal Bay for that of Port Stephens . At least twenty four vessels are known to have been wrecked in the area. the most serious being the Dove in 1828 with the loss of seven lives , and the Pandora in 1836 with five lives . Another notable wreck was the Florence Irving in 1877 .

The lighthouse was finally built in 1862 and first lit officially on 1 May 1862 . It was designed by Alexander Dawson , the New South Wales Government Architect at that time , with a flared base and an external stairwell , an unusual feature for lighthouses in the time and area . The lighthouse keepers ' cottages were also unique , built in Victorian Gothic style , with both the principal keeper and the two assistants sharing the same roof and a combined terrace .

The original apparatus was a 10 feet ( 3 @. @ 0 m ) H Wilkins & Co. catadioptric . The light source was twelve kerosene lamps with a parabolic reflector for each lamp , on a revolving iron frame , in four groups of three . Two groups were white and two groups were red , resulting in a light characteristic of an alternating red and white , with intensities of 500 cd and 200 cd , respectively . It was originally manned by three keepers .

In 1901 the keeper 's quarters went through major repairs , replacing the original slate tiles with terracotta ones . This was followed with the replacement of the steps handrail in 1903 . A 1903 report criticised the light , saying that the red flashes were only visible for half the distance of the white ones , confusing navigators . This led to a recommendation to remove the red shades , resulting in a new characteristic of one white flash every minute , and later to upgrade the light to a quick group flashing dioptric light . Another report in 1912 stated that the station was in good condition , but criticised the low power of the light , and recommended withdrawing two of the keepers . However , all of these recommendations were not acted upon until 1 July 1922 , when the apparatus was upgraded to a revolving Dalén light with an intensity of 20 @, @ 000 cd , and the manning reduced to two keepers . In 1932 the original gallery handrails , also supplied by H Wilkins & Co . , were replaced with steel gas pipe and mild steel rods .

In 1960 the lighthouse was electrified and connected to the mains electricity through a submarine power cable , and a backup diesel generator was installed in the basement of the tower . In March 1973 the lantern was replaced with a smaller 7 feet ( 2 @. @ 1 m ) diameter fiberglass lantern ( NAL @- @ 1 type ) and a PRB @- @ 21 fully automated hexagonal lamp array with a rotating pedestal

was installed . The lower part of the original H Wilkins & Co. lantern was retained , together with the 1932 railings . As the tower was now fully automated , the keepers were withdrawn , and the keeper 's quarters were no longer needed for the operation of the light . All logs , drawings and furniture were therefore burned as surplus by the Department of Transport 's employees , and the buildings were set ready for demolition . However , a last minutes campaign by one of the last keepers and by locals was successful , and the buildings were therefore leased to the National Trust of Australia ( NSW ) , which was responsible for its conservation , and a caretaker in turn leased them from the National Trust .

In 1990 , following a 1989 failure of the submarine cable and problems with the diesel generator , the light was converted to solar power with battery storage . The caretaker stayed in the premises until March 1991 , when lease arrangement difficulties and the previous failure of the mains forced the caretaker 's withdrawal . It only took until September 1991 for vandals to destroy the keepers ' cottages by fire . In 1992 the Australian Construction Services cleared the site and stabilised some of the building elements , and a security fence was installed .

In 1998 management of the Tomaree National Park , in which the lighthouse is located , was transferred to the National Parks and Wildlife Service and the tower received some long due restoration , which completed in October 1998 . At a cost of \$ 85 @, @ 000 AUD the walls were cleaned and covered with a special waterproof membrane system , the cast steel staircase refitted and the lantern room resealed for waterproofing .

The current light source is a 12 Volt 55 Watt quartz halogen lamp . It revolves once every 30 seconds , showing a characteristic of four white flashes every 30 seconds ( Fl . ( 4 ) W. 30s ) . It has a range of 17 nautical miles ( 31 km ; 20 mi ) and an intensity of 40 @, @ 700 candelas .

= = Structures = =

= = = The tower = = =

The lighthouse is located on the south @-@ east extremity of the point . The unusual design of the tower relates to the form of a Doric column , with a flared base and ramped approach enabled using of the base for equipment .

The walls of the tower are constructed of sandstone blocks , brought by ship as ballast from Sydney , dressed outside and inside , and painted white . The walls ' thickness varies from 2 metres ( 6 ft 7 in ) at the bottom , in a concave slope to 0 @. @ 6 metres ( 2 ft 0 in ) at the top . The tower walls are carried up above the lantern floor to support the metal framework for the lantern . The gallery is surrounded by the 1932 gas pipe railing .

The interior of the tower is divided by iron floors and spiral stairways into four stories . The ground floor was originally used for oil store , and it now houses the light equipment , including a generator . Access to the tower was originally through the ramped stone steps on the north , entering the first floor . This entrance was since sealed , and a steel door on the ground level is now used .

Originally , the tower was topped with a glass lantern , which was replaced with a fiberglass one in 1973 . The original lantern is now held by the Nelson Bay Historical Society .

= = = The keepers ' house = = =

The keeper 's house is located about 13 metres ( 43 ft ) north of the tower . It is the only example in Australia of a terrace of lighthouse keepers ' quarters . It was probably completed slightly later than the lighthouse , as building materials were continuing to be sent from Sydney after the official opening .

The terrace comprises three one story cottages , a six room cottage for the principal keeper and two three room cottages for the assistants , all sharing the same roof . Each of the cottages had a kitchen , a storeroom and a privy . The building was constructed of the same imported sandstone as the lighthouse , dressed outside and plastered inside . The roof was originally made of slate ,

replaced in 1901 with terracotta , with five chimneys along the ridge and a bay window and gables along the front . A low terrace was built at the rear from random stone . Photographs from the 1950s also show a rear addition with a skillion roof infilling part of the verandah .

Water was originally supplied from two underground rainwater tanks , each 7 @, @ 650 imperial gallons ( 34 @, @ 800 l ; 9 @, @ 190 US gal ) . The residency was served by a single septic system , discharged via an infiltration bed to the north east of the property .

As mentioned above , the keeper 's house was gutted by vandal fire in September 1991 . In early 1992 a fence was installed and the chimneys and gables were stabilised by new brickwork .

= = = Other structures = = =

Several service structures used to be located behind the resident buildings , namely kitchen , privies and stores , and were destroyed in the 1991 fire , leaving only parts of the timber walls .

A brick privy with a gabled roof clad in corrugated asbestos sheeting is located to the north of the cottage building . It was probably constructed circa 1930 . Further north is the workshop building , which also housed the electricity generators at one point , dating from the 1950s . It features a flat and skillion roof , and concrete mounting blocks . Its most recent use was as a fishermen 's cabin .

Other remains include a series of drystone walls near the lighthouse dating from 1865 , and the footings and stay rings of the flagstaff , which has been removed , located south of the lighthouse adjacent to a stone retaining wall . Also at the site are two other timber framed structures , one of which is a former fuel shed constructed circa 1970s , located south of the lighthouse . An above ground brick fuel bunker with a concrete roof and floor is located approximately 40 metres ( 130 ft ) south of the lighthouse , on a rock outcrop .

At the north of the island are the remains of a 19th @-@ century wharf including concrete tracks , rock cutting and iron fixings ( several brackets and stumps ) . A concrete helipad west of the lighthouse was constructed in the 1970s .

= = Site operation and visiting = =

The light is operated by Roads and Maritime Services ( formerly NSW Maritime ) , while the site is managed by the National Parks and Wildlife Service as part of the Tomaree National Park , in which it is located . Visiting the lighthouse is difficult . The point is connected to the mainland with a narrow tombolo , and is only accessible by foot at low tide . It is accessible by boat , and the grounds are open , though the tower is closed to the public .