

Water & Power Supply

Water Supply

Tainan Science Park eventually will require 200 thousand tons of water supply each day. Taiwan Water Supply Corporation has promised to supply the needs. To ensure a stable supply, two sources for Tainan Science Park are used.

1. A 1,200 mm water supply pipe has been installed along the County Highway S134 from Tanding Water Treatment Plant to Tainan Science Park.
2. Through the existing 1,350 mm Wushantou main pipe, which is connected by an 800mm branch pipe

to the Science Park.

Together, the two pipes above have the capacity to supply 287 thousand tons daily. At present the daily water usage of Tainan Science Park is about 34,500 tons. To ensure effective use of water resources, park enterprises are required to recycle 75% of the water. In December 2003 the Water Conservation Service Team was formed to help five companies with water conservation each year.

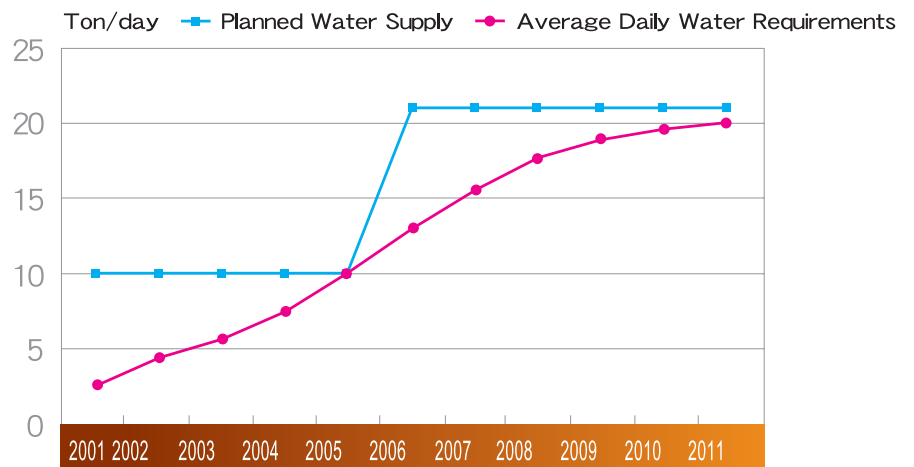


Figure 5-4-1 Daily Water Supply & Demand in Tainan Science Park

Lujhu Science Park will eventually require 100 thousand tons of water each day. Taiwan Water Supply Corporation has agreed to provide the daily requirement of 72 thousand tons of water until 2008. The additional 28 thousand tons needed after 2008 will

be supplied by the Ministry of Economic Affairs' Water Resource Agency from a newly developed water resource in southern Taiwan. At present water is supplied through the 1,000 mm branch pipe of the 2,000 mm main pipe along Provincial Highway 1.

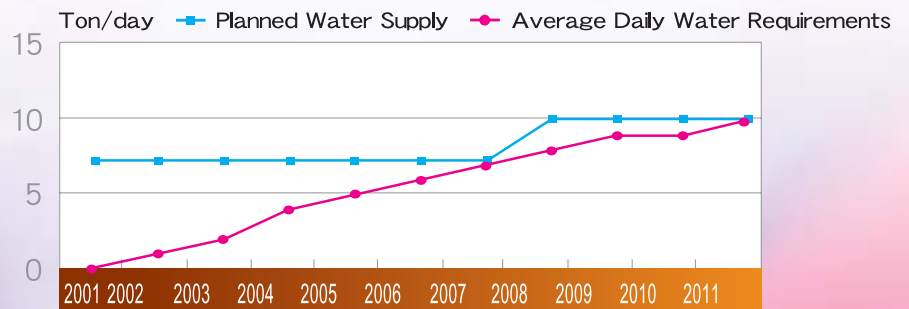


Figure 5-4-2 Daily Water Supply & Demand in Lujhu Science Park

Power Supply

Tainan Science Park will eventually require 1.8 million kw in 2011. To meet the special demands of high-tech industries for power, Taiwan Power Company in May 2002 built one extra high voltage substation and four power distribution stations, with a capacity of 2 million kw in Tainan Science Park. A multi-loop supply is employed for most park enterprises. Users of a 161kw supply such as CMO, TSMC, UMC and HannStar Display employ a loop supply to avoid power outages and establish quality power supply systems. To enhance the quality of power supplies, the STSP Administration invited experts to form a power supply/transformer safety inspection unit to inspect the equipment of power transmission and substation as well as a power supply quality unit to review the quality of Tainan Science Park's power supply every other month.



Figure 5-4-3 Extra High Voltage Substation in Tainan Science Park

Lujhu Science Park will eventually require 1 million kw in 2010. The initial supply come from the Gangshan Transformer station (completed in June 2002 to supply 22.8 kv, 60 thousand kw). After the Lubei Extra High Voltage Substation is completed in June 2004, another 2 million kw will be available.

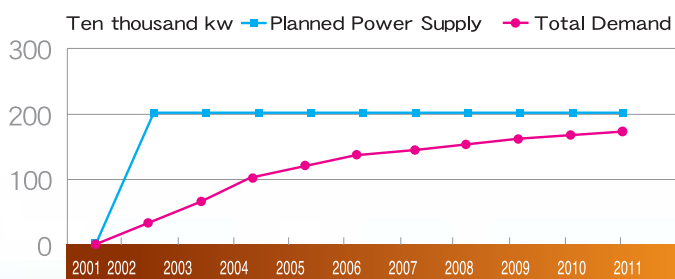


Figure 5-4-4 Power Supply & Demand in Tainan Science Park

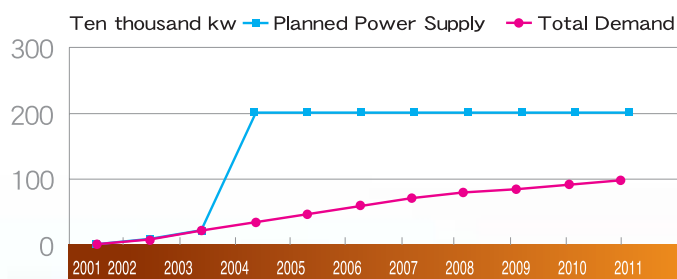


Figure 5-4-5 Power Supply & Demand in Lujhu Science Park

Construction Design and Work

The public construction projects of the phase 1 development of Tainan Science Park began in 1996. In 2003, 11 projects were contracted and 25 projects were executed, including 14 infrastructure projects (including road and pipe systems), one drainage/flood prevention project, four landscape projects and six architectural construction projects, with a total construction budget of 80.9 million USD.

The public construction projects for the phase 2 development of Tainan Science Park began in 2003. In 2003, 5 projects were executed, including the southwestern area infrastructure project, the northern housing zone, east-1 and east-2 infrastructure project, northwestern demarcation greenbelt, and Anshunliao Drainage project (phase 1), with a total budget of 23.5 million USD.

Road Systems

Planned public roads with attached pipelines, as well as eastern, northern and southern access roads, have been completed for convenient transportation.



Figure 5-4-6 Southern Access Road

Drainage and Flood Prevention Projects

DaoYe Lake, SiaKe Lake and Yingsi Lake (Flood Detention Pond A, B and D) have been finished. The excavation of Flood Detention Pond C has also been completed to keep flooding in check. The Flood-prevention Water Pumping Station and flood monitoring system of Flood Detention Pond D have been added to ensure that flood prevention is automatic and functions with precision.



Figure 5-4-7 DaoYe Lake (Tainan Science Park's Flood Detention Pond A)



Figure 5-4-8 SiaKe Lake (Tainan Science Park's Flood Detention Pond B)

Landscapes

On the east-west and south-north axial landscape belts, Dajhou Drainage greenbelt, DaoYe Lake, SiaKe Lake and Yingsi Lake landscapes, and Silaya Plaza Park have been built to provide recreational areas for Tainan Science Park and local residents.

Architectural Constructions

Phase 1/2/3 standard factories (Chuang-Sin Bldg. 1/2/3) have been completed to provide 118 leasing units for park enterprises. The completed phase 1/2 family dormitories (Sin Yuan) offers 164 housing units, and the single dormitory (Hua Yuan) offers 875 units. The 25 VIP dormitories (Pu Yuan) have also been completed. Phase 4/5 standard factories, phase 2 VIP dormitory and phase 3 staff dormitory are under construction.



Figure 5-4-9 Tainan Science Park's Standard Factory



Figure 5-4-10 Tainan Science Park's Housing Community

