

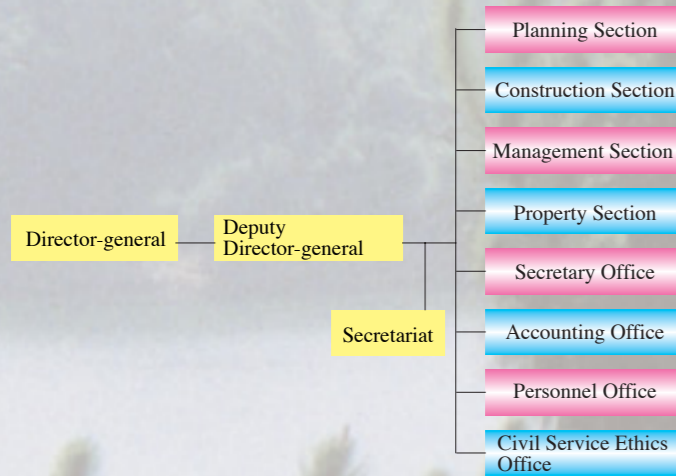


**1 The Guard of Tao, Chu, Miao prefectures' Rivers and Coasts**

**(I) Departmental Reforms**

Time	Divisions	Name	Area of Competence
1895-1945	Cultivated Areas Division, Taiwan President Office	Flood-Control Affairs Office	Flood-control proceedings of Special Office Area
August 1945	Cultivated Areas Division, Agriculture & Forestry Dept., Taiwan Executive Premier Office	Hsinchu Engineering Office, Agriculture & Forestry Dept.	The two main rivers, five secondary rivers training and coast-protection, Hydrological material analysis and river-management etc. of areas Hsinchu & Miaoli
July 1947	Construction Department, Taiwan Provincial Government	Hsinchu Engineering Office Water Conservancy Bureau, Construction Department	Same as above
March 1957	Construction Department Taiwan Provincial Government	Second Engineering Office Water Conservancy Bureau, Taiwan Provincial Government	Same as above
Jan. 23, 1998	Water Conservancy Department Taiwan Provincial Government	Second River Management Bureau, Taiwan Provincial Government	Adding the coast-protection, management of rivers and hydrological material analysis etc. south of the Danshuei River, except original affairs.
July 01, 1999	Water Conservancy Agency, Ministry of Economic Affairs	Second River Management Bureau, Water Resources Agency, Ministry of Economic Affairs	The four central rivers, five central drainage training and coast protection, river management and hydrological material analysis etc. of Tao, Chu and Miao prefectures.
Mar. 28, 2002	Water Resources Agency, Ministry of Economic Affairs	Second River Management Bureau, Water Resources Agency, Ministry of Economic Affairs	Same as above

**(II) Structure of Organizations**



**2 Our Services**

**(I) Service Area:**

The Bureau's authority includes four central rivers and five central drainage (including the City-Countryside tributary) coasts areas in Tao, Chu, and Miao prefectures. and Taipei County area (Linkao Township) precipitation station as follows:

**◆Rivers Administered by Central Government-**

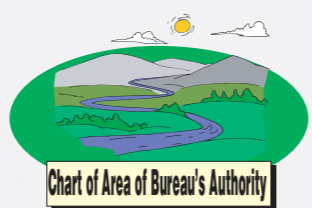
- (I) Fongshan River: It flows through Hsinchu County and Taoyuan County. Its drainage area is about 250 square kilometers and its mainstream length about 45 kilometers.
- (II) Toucian River: It flows through Hsinchu County and Hsinchu City. Its drainage area is about 566 square kilometers, and its mainstream length about 63 kilometers.
- (III)Jhonggang River: It flows through Miaoli County and Hsinchu County. Its drainage area is about 446 square kilometers and its mainstream length about 54 kilometers.
- (IV)Houlong River : It flows through Miaoli County. Its drainage area is about 537 square kilometers and its mainstream length about 58 kilometers.

**◆Drainage Administered by Central Government -**

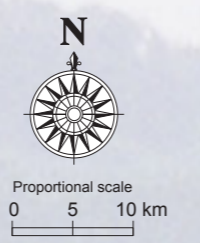
- (I) Fuhsin River: It flows through the Yangmei & Hsinwu Township of Taoyuan County, and the Hukou & Hsinfong Township of Hsinchu County. The drainage area is about 42 square kilometers.
- (II) Desheng River: It flows through the Yangmei Township of Taoyuan County, and the Hukou & Hsinfong Township of Hsinchu County. The drainage area is about 18 square kilometers.
- (III)Keya River: It flows through the Baoshan Township of Hsinchu County and Hsinchu City. The drainage area is about 46 square kilometers.
- (IV)Kezihhu River: It flows through the Baoshan & Chutong Township of Hsinchu County and Hsinchu City. The drainage area is about 13 square kilometers.
- (V) Yangang River: It flows through the Baoshan Township of Hsinchu County, Hsinchu City and the Chunan Township of Miaoli County. The drainage area is about 41 square kilometers.

**◆The Coasts of Tao, Chu, and Miao -**

Extending from north of the Luchu Township of Taoyuan County to south of Wanli Township of Miaoli County. The northern boundary between Taoyuan County and Taipei and the southern boundary between Miaoli County and Taichung, both belong to the Coasts of Tao, Chu, and Miao. counties, Its length is about 121.1 kilometers.



**Taiwan Straits**



▲Luchangda Mountain, one of the Syue Mountain range, is the source of the Toucian, Jhonggang and Houlong Rivers.



▲Fongshan River estuary



**3 Achievements**

**(I) River training, coast protection and drainage training etc. (up to June, 2003)**

The Bureau finished basic planning for River training during 1982-1985 and announced them. Since 1986 river training and coast protection plans have been divided into three six-year plans. By 2003 it had already entered the sixth year of the third six-year plan. Previously, river training work has been finished to a length of 170,080 meters; drainage training work has been finished to a length of 27,175 meters and coast protection has been finished to a length of 48,712 meters.



▲Toucian River Douulun Dike Construction



▲The Right bank landscape restoration Construction Project of Railway up to Tai 1 Rd. Bridge in Fongshan River.



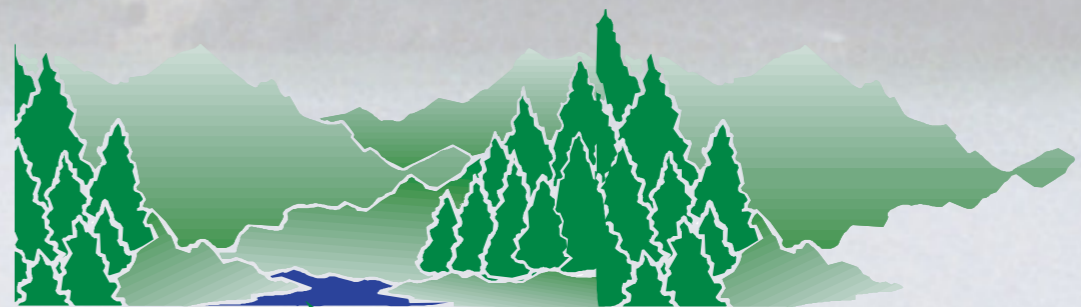
▲Miaoli County Baishatun Coastal Project



▲Yangang River Nan-ai Section Drainage Project.

**(II) Departmental Services**

Section	Services
Planning Section	<ul style="list-style-type: none"> <li>· Observation, investigation, research and statistical analysis, management of hydrology and planning information.</li> <li>· Planning for River training and drainage, coast protection .</li> <li>· Collecting flood prevention information.</li> </ul>
Construction Section	<ul style="list-style-type: none"> <li>· Affairs of coasts protection and rivers training structures to be designed ,contracted, and constructed etc..</li> <li>· Constructing relevant projects.</li> <li>· Flood prevention works.</li> </ul>
Management Section	<ul style="list-style-type: none"> <li>· Dealing with newborn lands or river bank.</li> <li>· Rivers and coasts management.</li> <li>· Public land in rivers to plant, check cases where permission is requested to take over rivers sand and rocks or use public land in rivers to plant etc..</li> <li>· Dealing with illegal cases regarding rivers.</li> <li>· Promoting flood prevention and public regard for rivers.</li> </ul>
Property Section	<ul style="list-style-type: none"> <li>· Management and maintenance of information equipment.</li> <li>· Water resources use lands investigation, collection, purchase pricing and management.</li> <li>· Public land appropriation, water resources use lands management, river area- land demarcation.</li> </ul>
Secretary Office	<ul style="list-style-type: none"> <li>· documents and files management, property and office equipment management, technician, government employee management, salaries, handling of cash, assets, study and inspection and any other necessary tasks not otherwise defined in other sections.</li> </ul>
Accounts Office	Winter counts, accounting, statistics etc..
Personnel Office	Personnel affairs.
Civil Service Ethics Office	Civil service ethics affairs.





(II) Baoshan, Yongheshan Reservoirs and Longen Weir etc. Water Resources Special Projects

The bureau had special projects relating to water resources. Yongheshan and Baoshan Reservoir Projects were respectively completed during 1980-1985, 1980-1984, and the completion of Toucian River Longen Weir project was undertaken during 1994-1998. Hereinto Baoshan reservoir supplies water to the Hsinchu area for domestic use and to the Hsinchu Science-Based Industrial Park for industrial use; Yongheshan reservoir supplies water for domestic and industrial use for the areas of Taofen, Chunan and Zaociao in Miaoli County; Longen Weir can supply water for the Hsinchu Science-Based Industrial Park and for domestic use for the areas of Hsinchu, Chupei and Hukou at rainy seasons. For future the second reservoir of Baoshan would be finished, and add significantly to the supply ability by water resources united utilization measures .



▲Shangping River Baoshan Reservoir



▲Toucian River Longen Weir



▲Jhonggang River Yongheshan Reservoir

(III) Toucian River and Huolong River Low-water training Projects

The Bureau finished Toucian River and Huolong River Low-water training (Include high bottomland leveling) projects during 1995-1999. Toucian River low-water training project has been completed approximately 5,650 meters, with high bottomland leveling and beautifully afforested area of about 195 hectares ; Huolong River low-water training project has been completed about 2700 meters, with high bottomland leveling and beautifully afforested area of about 37 hectares. Most parts of the completed high bottomland have been opened as a River Park for the local people to exercise and relax in, by the local government.



▲Huolong River Low-water Training project



▲Toucian River Low-water Training Project

(IV) Near-nature Engineering methods

As society has developed, and there is a greater recognition of the need for environmental protection, construction to restore natural ecological landscapes has gradually become the trend. Therefore the Bureau has actively advanced towards near nature methods of construction in terms of river training and coast protection in recent years.



▲Toucian River Longen Weir Fish Ladder Project



▲Kezihhu River Embankment Project

(V) Disaster treatment Due to typhoons Toraji and Nali

The Bureau proceeded rush repair and reconstruction of rivers and coasts, which suffered damage from Typhoons Toraji and Nali in 2001, and finished 984 meters of dikes or embankments in rush-repair pevioid, and reconstruced 37,097 meters.



▲Fongshan River Fangliu Dike Reconstruction Project



▲Siaoli River Sihzuowu Dike Reconstruction Project

(VI) Rivers and Coasts Management

I. Checking public land in Rivers:

Since 2001, the Bureau has started to check public land in Rivers, and up to 2003 the completed area comes to about 2,482 hectares.

II. Surveying of Rivers areas Demarcation:

Surveying of Areas such as Shangping tributaries of Taocian river, the Naluo tributary of Youluo River and the Wenshuei, Dahu, and Nanhu tributaries of the Huolong River , it totally finished channel length 26.75 kilometers to 2003.

III. River, Area Drainage and Water gate maintenance :

Cleaning up important river section on a regular basis, removing high plants and weeds and spare road repair, etc. ; cleaning up important drainage channel on a regular basis, removing weeds, silt etc. ; Subcontracting out to external organizations as regards maintenance of water gates and pumps every year.

IV. Planting Permission for Public land in Rivers :

The number of public lands in River where planting permission were granted: Fongshan River totals 118, Toucian River totals 637, Jhonggang River totals 54, Huolong River totals 45.

V. Patrol and Prosecution of Violations :

From 1999 to June 2003, of there were a total of 390 violations which were prosecuted.

VI. Advocation on Flood Prevention and caring for rivers :

This may be done by holding concerts, special topic lecture, river drawing etc. large-scale promotions, to awake the consciousness of emphasizing flood prevention, caring for rivers and treasuring water resources.



▲ Announcement persuading the public to care for Rivers



▲ Drawing of River Embankment



▲water gate maintenance

(VII) Modernizing hydrological observation and establishing ground water monitoring station networks

The Bureau, in cooperation with the Ministry of the Economic Affairs since 1999, has undertaken the "General Plan for the Modernization of Hydrological Observations in Taiwan" . This will speed up the establishment of modern hydrological observation networks, upgrade hydrological observation technology, improve the quality of basic water resources materials, advance the standard of water resources projects and the technology of flood forecasting. The Ministry of the Economic Affairs also promoted the "General Plan for Groundwater Hydrology Observation Network in Taiwan" , to add 19 automatically recorded groundwater observation stations (making up 40 wells) whose water levels would be recorded by the Bureau. The water Resources agency entrusted to observe groundwater quality, set up basic water level and water-quality information of the Areas of Tao, Chu and Miao, to ensure the quality and safety of water, and to provide an important reference for water resources protection developing utilization, management, and cultivation, conited united utilization of both surface and ground water



▲ Guansi Precipitation Rainfall Station



▲Hsinpu Supersonic Water level Recorder



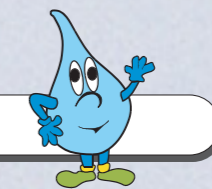
▲Hsin Chu Science-Based Industrial Park Groundwater Observation Well



▲Bian Bridge Buoy Water level Tower



4 Caring for Rivers, You and Me



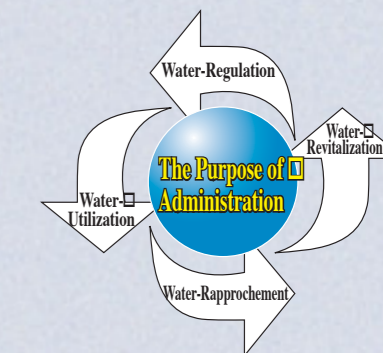
In order to keep our beautiful natural environment, we expect people to cooperate in the following ways:

- ◆ For Rebuilding and repairing flood prevention structures local government assist to get necessary land, landowners supply lands, and inform the authorities about damaged structures.
- ◆ Inform the authorities of violations of regulations pertaining to rivers.
- ◆ Cooperate with, and assist government policies and measures.
- ◆ Assist with disaster information gathering , provide information and rush to help with flood prevention, disaster relief and evacuation etc.
- ◆ Give ideas and advice for the development of water resources at any time, to promote the efficiency.
- ◆ Care for rivers and water resources together.

▼New sign of Huolong River -Hsintong Bridge



▲Toucian River Jingguo Bridge Section



Water-Regulation

Promote the integration of river basin management , reduce inundation disaster and losses.

Water-Utilization

Ensure steady supply of water; increase the benefits of using water resources.

Water-Rapprochement

Carry out improvements to the river and coastal environment, plan water recreational areas close to nature

Water-Revitalization

Promote water recycling and water supply diversification.

Taiwan's water resources works must direct their efforts in two directions, after entering the twenty-one century:

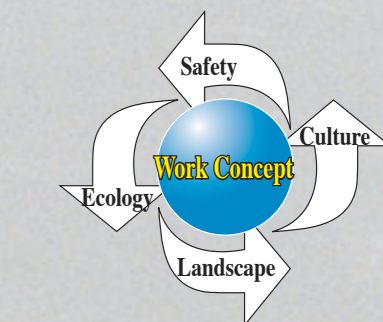
"Cultivate the natural environment, managing good quality rich and renewable water resources."

"Manage the rivers and seas, protect and create a diversified natural water environment."

Our bureau has devised a strategy in accordance with the integrated planning of the drainage area to train Toucian and other rivers, which accepts the importance of training and managing ecological engineering and environmental melting, in the expectation of ensuring " Ecological rivers" & "Sustainable coasts" , realizing that the human and water environments depend on each other.



▲Toucian River Tai I Rd. Bridge Section



Prospect



1. Establish a safe, pleasant living space
2. Protect and create a diversified, natural water environment

