淡水河的汙染

The pollution of Danshui River

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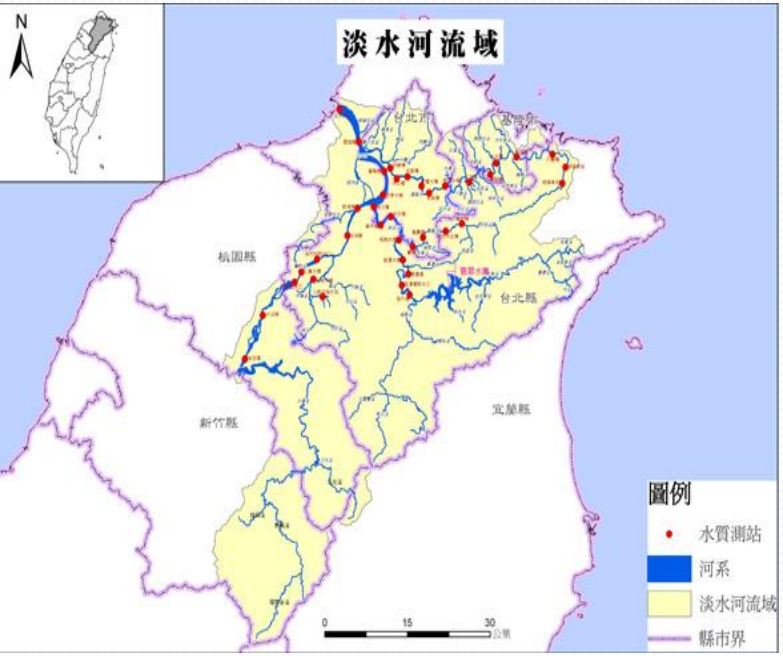
大意 (**Summary**)

Danshui River is the third longest river in Taiwan, and provides adequate water source to Taipei, the important economical center. However, people a few years ago kept polluting Danshui River by discharging house waste water , factory sewage , trash , and piping out drain water without sanitizing the heavy metals. All of a sudden, this beautiful river turned into a junk yard. After this serious event, people decided to become environmental friendly. So the government started to institute a number of Sewage treatment plants, and the citizens were appealing to others not to pollute the river. Finally, after a long period of time, our Danshui River became cleaner and more fascinating.



淡水河位於台灣北部，為一中央管河川，幹流長度158.70公里，為台灣第三長之河流；流域面積2,726.00平方公里，亦為台灣第三大。另外，淡水河是台灣少數以「河」為名的河川。

淡水河流域涵蓋新北市、台北市、基隆市、桃園縣、新竹縣，以及宜蘭縣的一小部分，主流上游為大漢溪，最遠源頭位於品田山，另有基隆河、新店溪兩大支流。名稱為「淡水河」之河段起自大漢溪與新店溪於板橋江子翠的會合處，向北流至淡水油車口而注入台灣海峽，長度僅23.7公里。

淡水河是台灣北部的主要供水河流之一。大漢溪上游有石門水庫，新店溪的支流北勢溪有翡翠水庫，基隆河流域則有新山水庫與西勢水庫。

Danshui River is located in northern Taiwan, it’s a central river, the main stream length is 158.70 km, it’s Taiwan's third-longest of the rivers; drainage area is 2,726.00 square kilometers, it’s also Taiwan's third largest.

The Danshui River drainage area , covers the new Taipei City, Taipei City, Keelung City, Taoyuan County, Hsinchu County and Ilan County.

Danshui River is one of the main water rivers of the northern Taiwan.

淡水河在我們台北的歷史中占有一定的地位，從以前開始便是經濟重地，先後被西班牙人、荷蘭人、清朝和日本人占領並開發，到後來成為台灣北部重要的貿易商埠，淡水河本來一直都很美，但現在不斷有汙染源滲入我們美麗的淡水河，讓我們淡水河失去原本美麗的面貌，變黑發臭。

Danshui River was an important economical center since Taiwan history. However, people a few years ago kept polluting Danshui River , and there were many sources of pollution destroying Danshui River's ecology.

河水變黑發臭的主要原因是水中含有過多的有機物質。在河川自淨的過程中，有機物被河水中的微生物利用，同時消耗水中的氧。當氧的自然補充速率（例如利用氧溶解於水與擴散以及光合作用等生物作用的速率）不及氧的消耗速率時，河水就處於缺氧的狀態，於是魚蝦等生物就不能生存。同時因為硫化物及氨等在河水中生成，使得河水變黑和發臭。

The reason of Danshui River's pollution is the water contains too much Organic Matter ,and the oxygen consumption causes the river stays in hypoxia.

這些超過河川自淨能力所能負擔的有機物，主要來自淡水河流域居民的家庭汙水、工業廢水、畜牧養殖廢水、垃圾以及其他非點源汙染等:

River self-purification capacity of the affordability of organic matter, mainly from house waste water , factory sewage , trash , and piping out drain water without sanitizing the heavy metals.

1. 家庭汙水——淡水河流域內眾多家庭及都市污水大多未經妥善處理，就直接排入河中，為淡水河污染的主要來源。

   house waste water——Many families house waste water and urban sewage are mostly not properly treated, it is directly discharged into the river

2. 工礦廢水——淡水河流域內的工礦廠將近千家，其工業廢水多未淨化處理而直接排出，使得河水更加混濁與惡臭。

   Industry and mining waste water——Industrial wastewater is not multi-purification and direct discharge, making the water more turbid and bad smelling

3. 垃圾及滲出水——淡水河部分河岸的垃圾棄置所緊鄰排水溝或岸邊，平時會發出惡臭、流出垃圾，滲漏的污水亦悄悄注入河川，更加深污水的濁臭。

   Trash and water seepage——Trash abandons close drains or the shore, usually will send out a foul smell, to flow out trash, the leakage sewage also quietly pours into the river

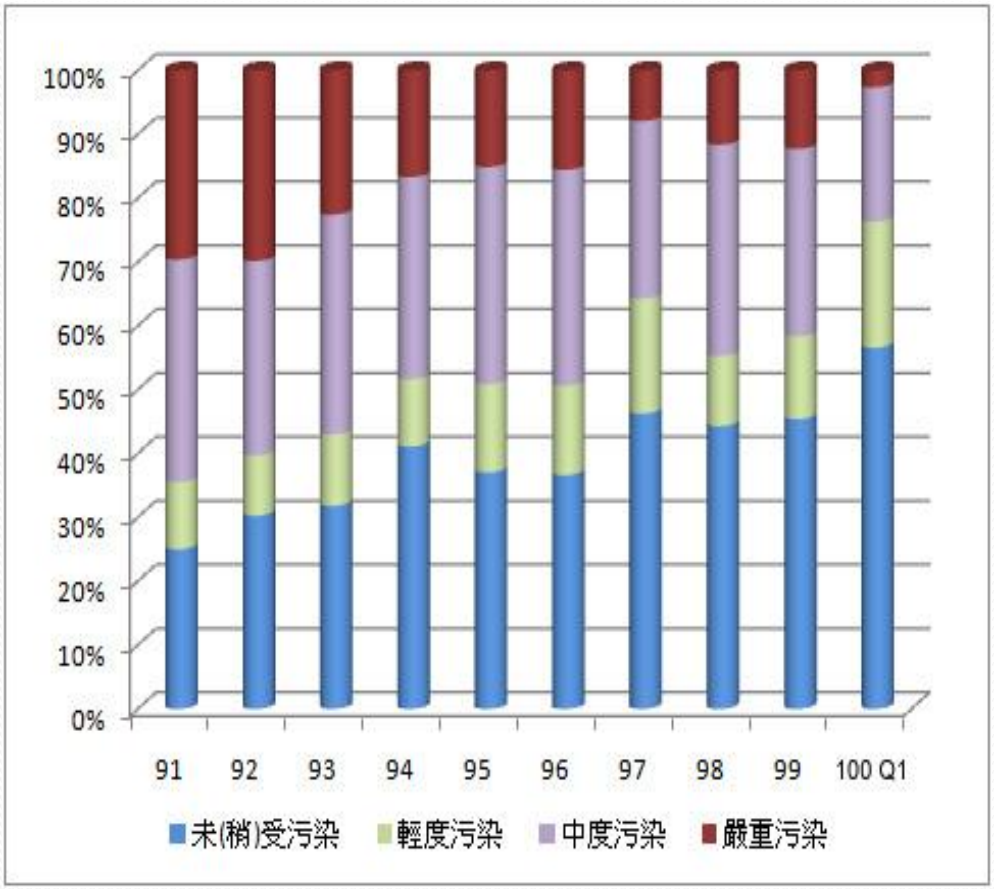
4. 畜牧廢水——淡水河系沿岸尚有養豬場、養雞場和養鴨場多處，所排出的糞尿污水多未經處理，大量增加有機物的污染。

Livestock waste——Pig farms, chicken and duck farms' waste sewage discharged are untreated, a significant increase in organic pollution.

5. 非點源汙染——還有一些非固定點的污染，如暴雨之後，雨水挾帶地面泥土、垃圾等，一齊流入河裡；潮水洄流，使將要排出的污物又再回流；此外林地農地排水及河底污泥釋出污染物等，雖然不是主要的汙染源，但也使淡水河變得滿目瘡痍，成了藏污納垢的淵藪。

Other pollutions—— Typhoon, Tsunami, or even after a rain would carried trashes and soy into the river, although it isn't the main source of pollution.

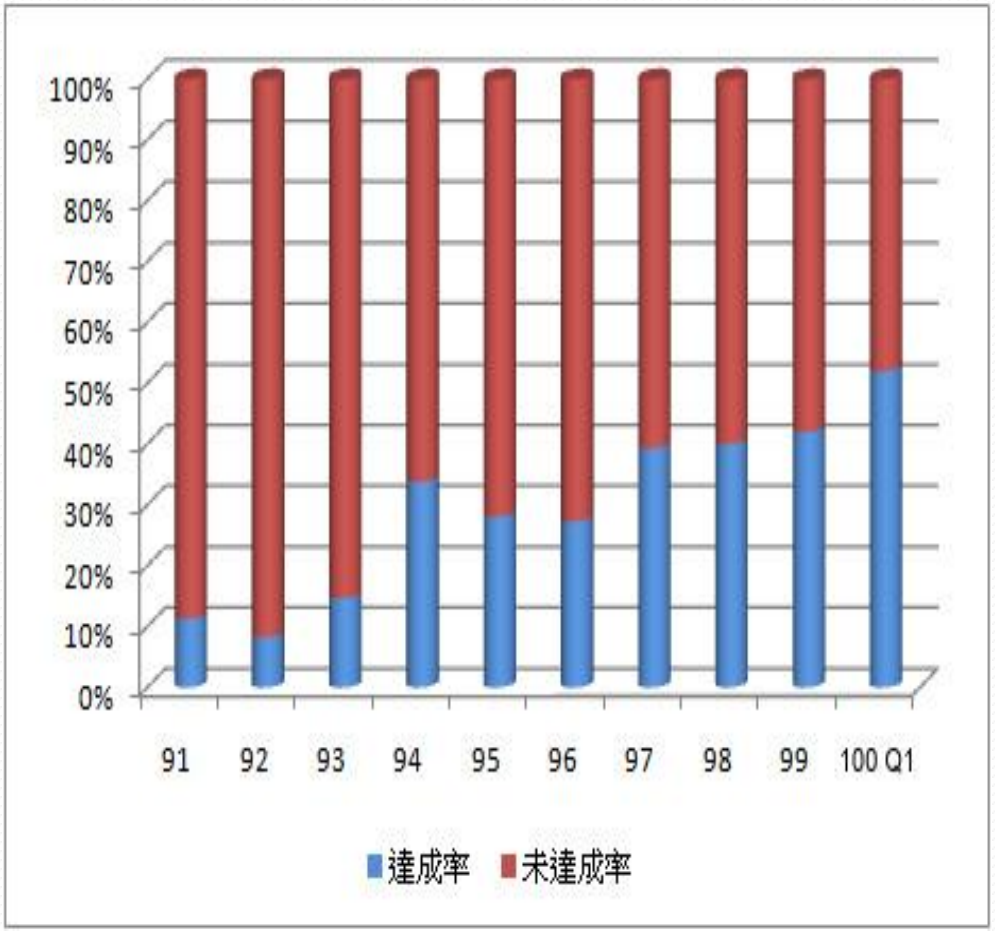
RPI (River Pollution Index)



RPI：由生化需氧量、溶氧量、氨氮及懸浮固體等四項理化水質參數組成，用以根據其數值來對污染程度以分類，RPI為河川污指數

Calculating the Biochemical oxygen demand, dissolved oxygen, ammonia and suspended solids.

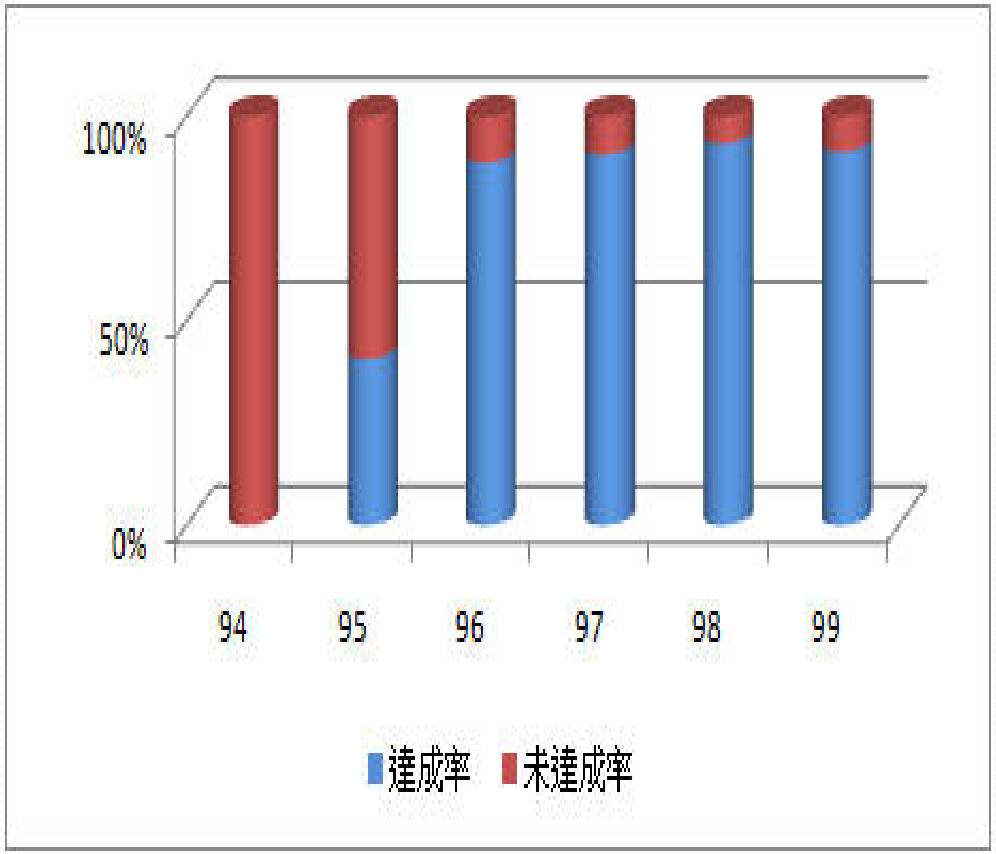
一般檢測項目：四項一般水質達率



四項一般水質達成率:溶氧、生化需氧量、懸浮固體及氨氮四項監測結果均符合水體水質基準

Achievements rate of Biochemical oxygen demand, dissolved oxygen, ammonia and suspended solids.

重金屬檢測項目：六項重金屬達成率



六項重金屬達成率：鎘、鉛、銅、汞、鋅六價鉻等六項監測結果均符合水體水質基準

Achievement rates of heavy metals: cadmium, lead, copper, mercury, zinc.

資料來源：
行政院環境保護署
全國環境水質監測網

(These informations are from National Institute of Environmental Analysis)

淡水河汙染的圖片
Pictures (pollution)

現今的淡水河照片
pictures (environmental friendly)

雖然淡水河沒有像以前那樣，汙染程度嚴重，但現在淡水河的檢測報告還是不能讓人不擔心，我們依然不得忽視淡水河的保育問題。

Although the pollution problem is not as serious as before, but we still can't ignore the environmental problems.

為了讓淡水河變得更乾淨，政府不斷實施環境永續發展政策，保護淡水河當地的水質及動植物，目前有以下幾種政策在近幾年實施:

To improve the river cleaner, the government carry out policies of sustainable development constantly, here are the policies.

1. 淨化場處理工程:淡水河目前以10座礫間淨化場及8座人工溼地所建構的現地處理工程，處理全縣境內約20%污水，30萬噸日處理量，可達成污染祛除及生態環境重建之目的。其中，位於臺北縣板橋市萬板大橋新店溪上游左岸堤外高灘地的江翠礫間淨化場，佔地約6.5公頃，並獲環保署補助經費(2億)。目前處理水量約28,500CMD，設計時已考量未來可擴充至57,000CMD。

   A purification field treatment works: institute 10 gravel clean yards and 8 artificial wetlands, to clean 20% sewage in Taipei.

2. 淨水設施:新北市於99年2月完成礫間淨水設施及上部江翠礫間水岸公園，開放供民眾遊憩及參觀淨水設施。特色包括完全地下化之礫間接觸曝氣氧化淨水設施，其所採用之生物處理法，為最自然的原理和古老的智慧而不需添加化學藥物的淨水良策；另優異之氨氮及生化需氧量之祛除功效，搭配適地而設之生態溼地，已成就絕佳之現地處理成效。

   Water purification facilities :Use the most natural principles and ancient wisdom to clean the water, without adding chemical substance.


The End