

請共同關懷污水下水道建設



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民間參與污水下水道建設

Private Participation in the Construction of the Sewage System



(污水下水道 BOT)
(SEWAGE SYSTEM BOT)



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一、前言：

內政部營建署為內政部所屬一級機關，成立於 1982 年 3 月 2 日，掌理全國營建行政事務，職司區域計畫、都市計畫、國家公園、都會公園、國民住宅、建築管理、新市鎮開發建設及都市計畫區域內道路、橋樑、公園、雨污水下水道公共工程規劃、設計、興辦及督導事項，現有員工(含職員、約聘僱、技工、工友) 1,842 人，2005 年機關編列年度預算達新臺幣 366.18 億元。

營建署負責之污水下水道為現代化都市不可或缺之公共設施，其普及與否關係都市居住環境衛生及生活品質，故全力推動污水下水道建設為內政部重點施政工作之優先項目。



I. Preface:

Construction and Planning Agency (CPA) of Ministry of the Interior (MOI) has been established since March 2, 1982 and in charge of national construction administrations, regional development, urban planning, national and municipal parks, public housing, construction management, new city development and planning, design, establishment and supervision of roads, bridges, parks, sewers in urban planning region. There are 1,842 employees (including staff, contract personnel, technician and fellow worker); annual budgets in 2005 reach to NTD36.618 billions.

The sewers managed by CPA are necessary infrastructures in modern cities, and their prevalence relates to environment health and living quality of urban residence; therefore, it is the top priority to fully support the construction of sewers by the Ministry of the Interior.



二、臺灣地區公共污水下水道建設現況：

污水下水道之功能旨在收集處理生活污水達環保標準，以提昇都市生活品質並維水域水質安全，臺灣地區公共污水下水道建設除台北市、高雄市二直轄市於 1977 年即開始推動，起步較早外，全國性之整體計畫「污水下水道發展方案」於 1989 年始由內政部訂定，其後於 1992 年至 1997 年推動全國性第一期六年建設，1997 年至 2003 年推動第二期六年建設，2003 年起開始推動第三期六年建設，由 1989 迄今 16 年，建設成果用戶接管普及率除台北市達 72%、高雄市達 37% 外，台灣省 23 縣市則因人力短缺、財政困難、未受重視等因素，用戶接管普及率均在 10% 以下，致全國用戶接管普及率僅達 13%（2004 年 7 月止），與歐美先進國家相較仍相去甚遠。因此如何加速推動公共污水下水道建設已為政府當前重要課題。



II. Present Construction of Public Sewer in Taiwan:

The function of sewer is to collect daily sewage to achieve environmental standards to improve urban living quality and to maintain safety of water area and quality. In addition to Taipei and Kaohsiung municipalities directly under the jurisdiction of the Central Government have started the construction of sewers earlier since 1977 in Taiwan, the national "Sewer Development Project" was just established by MOI in 1989. The first 6 years national construction lasts from 1992 to 1997, and the 2nd 6 years national construction lasts from 1997 to 2003, and the 3rd 6 years construction has been started in 2003. It has been 16 years since 1989, in addition to the 72% in Taipei City and 37% in Kaohsiung City, the prevalence rate of household pipe connection in the 23 counties and cities in Taiwan Province are all under 10% due to the shortage of manpower, financial difficulty and not taking seriously; consequently, the prevalence rate of national household pipe connection only reaches to 13% (Till July 2004), which is far behind advanced countries in Europe and America. Therefore, it has become an important issue for the government to accelerate the construction of public sewers.



三、臺灣地區公共污水下水道建設未來推動政策方向：

依據 2005 年 1 月行政院核定內政部「污水下水道第三期建設計畫修正計畫」（2003-2008 年），我國污水下水道建設未來發展政策，係採政府自辦與民間參與齊頭並進方式辦理，將由政府自辦污水系統 53 處，民間參與系統 36 處，總建設經費達 1371 億元，其中政府 預定出資 820 億元，計畫引進民間資金 551 億元，期於 2008 年達成用戶接管普及率 22.1 %，污水處理率 32 % 之目標，故以民間參與 方式推動我國污水下水道建設，已成為我國推動公共建設既定之重要政策。



III. Future Policy for the Construction of Public Sewer in Taiwan:

According to the "Amendment of the 3rd Sewer Construction Project" (2003-2008) of MOI approved by the Executive Yuan in January 2005, the development policy for the sewer construction in future shall be undertaken together by government and private participations; 53 places shall be constructed by the government, and 36 places shall be constructed by private participations, and the total construction budgets will reach 137.1 billion dollars, in which 82 billion dollars are expected to put up capital by the government and plan to introduce 55.1 billion dollars from private capital. Furthermore, it is expected to achieve 22.1% household pipe connection prevalence rate and 32% sewage treatment rate in 2008. Therefore, it has become an important existing policy to construct sewers by private participation in Taiwan.



四、2004-2008 年採民間參與推動之污水下水道系統：

2004-2008 年我國採促進民間參與方式推動之污水下水道系統如後表，其中 2004 年編號 1 號及 2 號已完成簽約，2005 年編號 1 號、2 號及 3 號已審標中，4 號及 5 號公告中，2006 年以後之 29 個系統刻正辦理先期規劃中，如以 2005 年 4 號、5 號及 2006 年以後之 29 個系統計算，民間投資經費高達 1313 億元，歡迎具污水處理之水務公司參與投資：

計畫簽約年度	編號	縣市別	系統名稱	用戶接管總戶數	污水處理廠建設容量(CMD)	建設總經費(億元)
2004	1	高雄市	楠梓系統	120,000	75,000	65.80
	2	台北縣	淡水系統	56,000	55,000	35.50
2005	1	台北縣	板新系統(三峽地區)	53,000	49,000	41.00
	2	台北縣	板新系統(鶯歌地區)			
	3	宜蘭縣	羅東系統	30,000	45,000	32.49
	4	嘉義縣	太保市都計區暨高鐵特定區系統	11,500	11,000	5.48
	5	高雄縣	獅龍溪(大社、仁武)系統	32,100	44,000	33.14
2006	1	桃園縣	板新系統(埔頂地區)	16,000	18,000	27.19
	2	雲林縣	北港鎮系統	20,400	20,000	22.08
	3	台南縣	佳里鎮系統	8,500	16,000	16.30
	4	屏東縣	東港溪流域內埔系統	14,500	18,400	28.50
	5	台東縣	台東市系統	21,000	16,219	17.14
2007	1	台北縣	瑞芳鎮系統	8,400	16,200	21.52
	2	雲林縣	斗南鎮系統	11,000	11,000	14.60
	3	台南縣	歸仁系統	9,800	18,000	17.71
	4	高雄縣	大寮系統	93,000	60,000	65.88
	5	高雄縣	橋頭鄉系統	31,600	42,000	36.50
	6	高雄縣	岡山地區系統			
	7	花蓮縣	玉里系統	8,750	10,400	12.60
	8	澎湖縣	馬公地區系統	7,775	11,000	12.28
	9	台中市	台中三期系統	149,750	231,199	196.62
	10	彰化縣	彰化市系統	77,300	60,000	65.70
	11	台南市	鹽水系統	30,000	60,000	51.00
	12	台南市	台南系統	88,228	102,000	76.00
2008	1	桃園縣	桃園地區系統	220,000	200,000	132.06
	2	桃園縣	中壢地區系統	221,200	234,000	174.00
	3	苗栗縣	竹南頭份及頭份交流道系統	45,000	48,000	47.90
	4	台中縣	豐原市系統	37,000	92,000	48.45
	5	彰化縣	和美系統	12,060	13,500	21.50
	6	彰化縣	鹿港福興系統	14,000	14,500	22.96
	7	南投縣	南投市系統	17,000	19,000	21.20
	8	南投縣	埔里系統	18,000	21,000	23.90
	9	南投縣	草屯系統	17,625	20,000	19.99
	10	南投縣	竹山系統	11,000	11,000	15.89
	11	台南縣	永康系統	46,000	112,000	101.43
	12	嘉義市	嘉義市系統	100,800	77,000	65.08
總計				1,721,418	1,482,188	1,488.10

IV. Construction of Sewer System by Private Participation from 2004-2008:

Taiwan facilitates private participation in the construction of sewer system from 2004-2008 as the table below, in which, No.1 and No.2 in 2004 have contracted; No.1, No.2 and No.3 in 2005 are under tender reviewing and No.4 and No.5 are under declarations; the 29 systems after 2006 are undertaking initial planning. If computed according to the No.4 and No.5 in 2005 and 29 systems after 2006, the investments from private sections are as high as 131.3 billion dollars. Water system companies related to sewer treatment are welcome to be part of the investment:

Year	Serial No.	County/City	System Title	Projected Population being served	Sewage Disposal of Capacity (CMD)	Total Construction Overhead (Hundred million NT)
2004	1	Kaohsiung City	Nanzi System	120,000	75,000	65.80
	2	Taipei County	Danshui System	56,000	55,000	35.50
2005	1	Taipei County	Banxin System (Sanxia)	53,000	49,000	41.00
	2	Taipei County	Banxin System (Yingge)			
	3	I-Lan County	Lotung System	30,000	45,000	32.49
	4	Chiayi County	Taipao Metropolitan Area and High Rail Designated Area System	11,500	11,000	5.48
	5	Kaohsiung County	Shilong Stream (Dashe, Renwu) System	32,100	44,000	33.14
2006	1	Taoyuan County	Banxin System (Puding)	16,000	18,000	27.19
	2	Yunlin County	Beigang Township System	20,400	20,000	22.08
	3	Tainan County	Jiali Township System	8,500	16,000	16.30
	4	Pingtung County	Donggang Stream flow Region Neipu System	14,500	18,400	28.50
	5	Taitung County	Taitung City System	21,000	16,219	17.14
2007	1	Taipei County	Rueifang Township System	8,400	16,200	21.52
	2	Yunlin County	Dounan Township System	11,000	11,000	14.60
	3	Tainan County	Guiren System	9,800	18,000	17.71
	4	Kaohsiung County	Daliao System	93,000	60,000	65.88
	5	Kaohsiung County	Qiaotou Township System	31,600	42,000	36.50
	6	Kaohsiung County	Gangshan District System			
	7	Hualian County	Yuli System	8,750	10,400	12.60
	8	Penghu County	Magong District System	7,775	11,000	12.28
	9	Taichung City	Taichung Sanchi System	149,750	231,199	196.62
	10	Changhua County	Changhua City System	77,300	60,000	65.70
	11	Tainan City	Yanshui System	30,000	60,000	51.00
	12	Tainan City	Tainan System	88,228	102,000	76.00
2008	1	Taoyuan County	Taoyuan District System	220,000	200,000	132.06
	2	Taoyuan County	Jhongli District System	221,200	234,000	174.00
	3	Miaoli County	Chunan Toufen and Toufen Interchange System	45,000	48,000	47.90
	4	Taichung County	Fengyuan City System	37,000	92,000	48.45
	5	Changhua County	Hemei System	12,060	13,500	21.50
	6	Changhua County	Lugang Fuxing System	14,000	14,500	22.96
	7	Nantou County	Nantou City System	17,000	19,000	21.20
	8	Nantou County	Puli System	18,000	21,000	23.90
	9	Nantou County	Caotun System	17,625	20,000	19.99
	10	Nantou County	Chushan System	11,000	11,000	15.89
	11	Tainan County	Yongkang System	46,000	112,000	101.43
	12	Chiayi City	Chiayi City System	100,800	77,000	65.08
Total				1,721,418	1,482,188	1,488.10

五、政府提供民間之投資誘因：

誘因	內容
1. 建設分工	可採民間辦理污水廠、主次幹管建設，政府辦理分支管、用戶接管方式，或污水廠、主次幹管、分支管、用戶接管全部由民間辦理。
2. 提供營運量保證	1. 建設費用分期結算後逐年攤提。 2. 營運費用依污水量計算付費。
3. 租稅減免及融資優惠	依據促參法「第三章融資及租稅優惠」相關規定辦理。 (1)洽請提供中長期貸款。 (2)所得稅減免及抵減。 (3)營運機具設備免徵關稅。 (4)減免地價稅、房屋稅及契稅。
4. 公權力介入	排除既有管線拆遷及違章建築等施工障礙。
5. 容許經營附屬事業	污水下水道管線附設纜線之租賃、環保服務業、觀光及旅遊服務業、停車場經營業、汽車駕訓業、汽車服務業、倉儲業、營建剩餘土石方資源堆置處理場、體育運動業、餐飲業、電力供應、化學業、農業等十三種事業



V. The Incentives Provided by the Government:

Inducement	Content
1. Construction division	Private sections could undertake the construction of wastewater treatment plant and major & sub-major pipe, and the government undertakes the branch pipes and household pipe connection; or all undertake by private sections.
2. Providing operation amount guarantee	(1). After balanced construction expenses by installments, amortized year by year. (2). Operation expenses shall be computed and paid according to sewage amount.
3. Remitting tax and finance preference	Undertaking according to relevant regulations of LAW FOR PROMOTION OF PRIVATE PARTICIPATION IN INFRASTRUCTURE PROJECTS "Ch.3 Financing and Taxes Benefit". (1). Negotiating to offer midterm and long-term loan. (2). Income tax reduction and credit. (3). Machines and equipment for operation are duty-free. (4). Land tax, fines and deeds tax reduction.
4. Interfering of the force of law	Eliminating existing construction obstacles like pipelines and illegal buildings.
5. Allowing the operation of affiliated business.	13 businesses are approved, namely, leasing of attached cables of sewer pipeline, environment protection service, tourism and travel service, parking lot, driver school, car service, warehouse, construction excavated earth piling site, physical training and sport, restaurant, power supply, chemical and agriculture.

六、政府支付民間機構污水處理費 計算公式及調整機制：

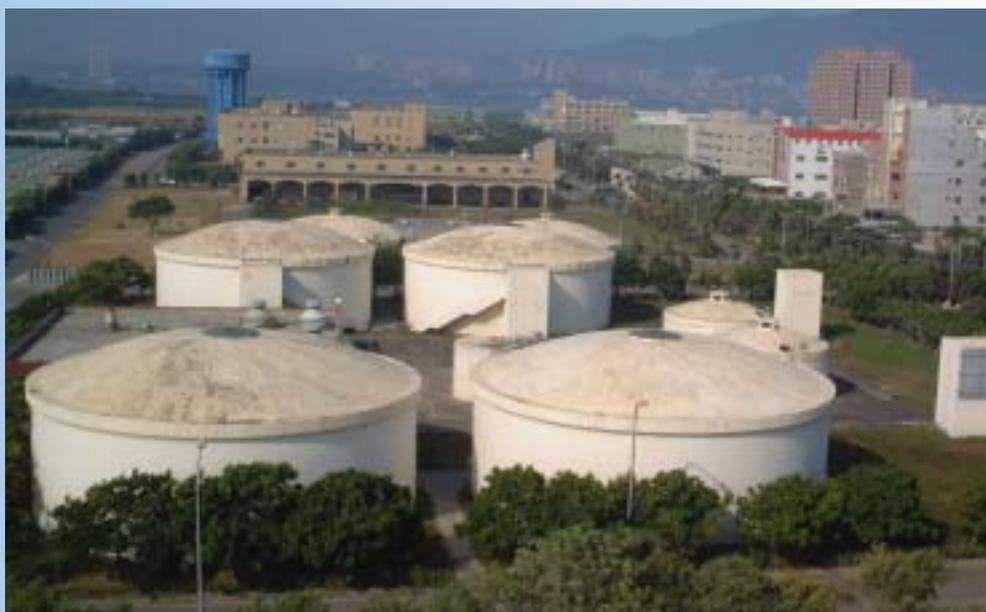
項 目	內 容
污水處理費 計費公式	<p>1. 建設費攤提部分： 建設費之計付依各分期結算點之建設成本現值換算建設費攤提，並以每年定期定額方式支付。</p> <p>2. 操作維護費部分： 依民間機構於投資計畫書所提報之費率，乘以實際處理污水量。</p> <p>3. 計算公式： = 「(設計處理容量 (噸)) × (污水廠及管線建設成本攤提費 (元/噸))」 + 「(用戶接管建設成本攤提費 (元/噸)) + (固定操作維護費 (元/噸)) + (變動操作維護費 (元/噸)) × (實際污水流入量 (噸))」</p>
付費計價基準	採實際自來水使用量換算為污水量為計價基準。
價格調整機制	<p>1. 建設費攤提 (CapExn) 部分：$CapExn = capexn \times En/E0$ capexn：幣值基準年物價水準下所結算之第 n 年工程經費 En：行政院主計處公布第 n 年所屬年度之台灣地區營造工程物價指數之年平均 E0：行政院主計處公布幣值基準年度之台灣地區營造工程物價指數之年平均</p> <p>2. 用戶接管攤提部分： 每年度一月起依據行政院主計處公布台灣地區營造工程物價指數之前一年平均與幣值基準年度之台灣地區營造工程物價指數之年平均比值逐年調整之。</p> <p>3. 操作維護費攤提部分： 每年度一月起依據行政院主計處公布消費者物價指數之前一年平均與幣值基準年度之消費者物價指數之年平均比值逐年調整之。</p>

VI. Formula and Regulation System for the Government to Pay for the Sewage Treatment Fees to Privat Institution:

Inducement	Content
Formula for the calculation of sewage treatment fees	<p>1. Amortisation of construction fees: Construction fees are amortized according to the conversion of present value of construction cost to construction fees at the settlement point by installments, and pay by periodical allotment annually.</p> <p>2. Operation maintenance fees: According to the rate submitted by civil institution in the investment plan to multiply actual treated sewage amount.</p> <p>3. Formula: = 「(Design treatment capacity (ton)) X (Construction cost amortization of wastewater treatment plant and pipeline (Dollar/ton))」 + 「(Construction cost amortization of household pipe connection (Dollar/ton)) + (Fixed operation maintenance fees (Dollar/ton)) + (Variable operation maintenance fees (Dollar/ton))」 X (Actual sewage flow in amount (ton))</p>
Payment valuation standard	Converting actual tape-water's using amount to sewage amount as the valuation standard.
Price regulation system	<p>1. Amortization of construction fees (CapExn): $CapExn = capexn \times En/E0$ capexn: The n year construction expenditure settled under the annual prices of commodities of currency value standard. En: Annual average of construction price indices in Taiwan announced by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan at the n year. E0: Annual average of construction price indices in Taiwan announced by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan at the currency value standard year.</p> <p>2. Amortization of household pipe connection: From the January of each year, regulate the annual average ratio of construction price indices in Taiwan year by year according to the average and currency value standard year in one year before the construction price indices in Taiwan announced by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan.</p> <p>3. Amortization of operation maintenance fees: From the January of each year, regulate the annual average ratio of consumer price indices according to the average and currency value standard year in one year before the consumer price indices announced by the Directorate-General of Budget, Accounting and Statistics, Executive Yuan.</p>

七、民間參與污水下水道建設台灣成功案例：

計畫名稱	「高雄市楠梓地區污水下水道系統」BOT案	「台北縣淡水地區污水下水道系統」BOT案
簽約日期	93年10月20日	94年5月31日
民間投資者	力麗集團所屬之綠山林開發公司	大陸工程所屬北岸環保公司
工程總經費(NT)	65.8億元	35.5億元
民間投資金額(NT)	48億元(污水廠、主次幹管)	35.5億元(污水廠、主次幹管、分支管網、用戶接管)
政府自辦金額(NT)	17.8億元(分支管網、用戶接管)	0億元
最大的上限處理費率(預估)	25.66元/噸	29.84元/噸
工程內容	(1). 興建75,000CMD二級污水處理廠乙座 (2). 污水管網152公里及用戶接管120,000戶 (3). 計畫服務人口360,000人	(1). 興建55,000CMD二級污水處理廠乙座 (2). 污水管網52.6公里及用戶接管56,000戶 (3). 計畫服務人口為195,000人



VII. Successful Examples for the Private Participation in the Construction of Sewer:

Project Name	"Sewer system at Nanzih, Kaohsiung City" BOT Project	"Sewer system at Tamsui, Taipei County" BOT Project
Contract Date	October 20, 2004	May 31, 2005
Civil Investor	Green Forest Construction Company (綠山林開發公司), Lealea Group	North Coast Environment Protection Company (北岸環保公司), Continental Engineering Corp.
Total Construction Expenditures (NT)	6.58 billions	3.55 billions
Civil Investment Amount (NT)	4.8 billions (Wastewater treatment plant, major and sub-major pipe)	3.55 billions (Wastewater treatment plant, major and sub-major pipe, branch pipe net, household pipe connection)
Government Construction Amount (NT)	1.78 billions (branch pipe net, household pipe connection)	0
Maximum upper limit treatment fee ratio (Estimation)	25.66 dollars/ton	29.84 dollars/ton
Construction Contents	(1). Establishing one 75,000CMD 2nd level Wastewater treatment plant (2). Sewage pipe net 152km and 120,000 households pipe connection (3). Plan to service 360,000 people	(1). Establishing one 55,000CMD 2nd level Wastewater treatment plant (2). Sewage pipe net 52.6km and 56,000 households pipe connection (3). Plan to service 195,000 people

八、民間參與污水下水道建設中央政府負責監督輔導，
地方政府負責主辦執行：

機關	負責事項
中央目的事業主管機關 (內政部)	宣導下水道建設之重要性
	訂(修)定推動方案
	訂定BOT、ROT、OT可行性評估、先期規劃、執行契約等項目之招商文件參考範本
	組成輔導團隊協助主辦機關排除困難
	會同相關部會及專家學者組成審議小組審核主辦機關所提報之先期計畫書
	配合家戶水污費開徵於「營建建設基金」中成立「污水下水道專款」項目
	依所簽訂之投資契約核撥經費予各主辦機關
	訂定民間機構營運不善接管營運辦法
地方政府	擔任主辦機關進行可行性評估、完成先期計畫以進行公告招商作業(依促參法第四十二條辦理者)
	擔任主辦機關進行規劃構想書審查、再審核、公開徵求其他民間投資人等程序進行招商作業(依促參法第四十六條辦理者)。
	依先期計畫結果或民間規劃案內容，報請中央核定民間機構參與下水道系統之最高建設營運處理費率，以訂定招商後之底價。
	成立工作小組辦理整體招商業務，必要時得聘請技術服務總顧問協助。
	配合工程需要，負責用地取得或變更、地上物拆遷、協調管線遷移等公權力項目之執行
	政府應辦及承諾事項之執行
	依約監督民間機構建設營運
	擬定污水下水道使用費徵收規定，與開徵下水道使用費
	依約支付民間機構污水下水道營運處理費用
	經營不善或營運期滿之接管

VIII. Sewer Constructed by Private Participation,
Supervise and Assistant by Central Government,
Local Government in Charge of Execution:

Inducement	Content
The main government institute for the central objective business (Ministry of Interior)	Propagate the importance of sewer system construction
	Draw up (Amend) Construction Project
	Setting BOT, ROT, OT the feasible evaluation, advanced planning, contract execution etc., of the business document recruiting copy
	Forming the counseling team to assist the sponsoring organization to eliminate difficulties
	Join relevant ministries and experts to organize review team to review the initial project submitted by host institution
	Cooperate with the levy of household sewer fee "Special funds for sewage drainage" that is established by "Construction Management Foundation"
	According to the demonstration and the investment contract checked and allocated expense concluded and signed by the priority system granting to each main sponsoring institute
	Setting regulation governing operation take over poor operation system
Ministry of the Interior	To take on the feasible evaluation for the main sponsoring organization, to finish advanced planning in order to publicly recruiting business operation (According to Law for Promotion of Private Participation in Infrastructure Projects article forty-two)
	To take on the examine for document on planning idea for main sponsoring organization, to verify and openly recruiting other civil investor to proceed with business recruiting operation (According to Law for Promotion of Private Participation in Infrastructure Projects article forty-six)
	According to advanced planning result or private planning case content, please declare to the central government to ratify the highest construction operational handling fee for the civil organization to participate in drainage system, in order to set the bottom price after recruiting the business.
	To establish the committee to handle the entire business recruiting operation, its' necessary to timely hire technical service consultant for assistant.
	To cooperate with the construction demand and responsible for land usage acquiring or alteration, taking apart and moving the object on the land, coordination on moving the pipeline etc., of the public power execution
	Government should execute and deal with the items of promise
	According to the contract to supervise the construction operation of the civil organization
	Draft the sewage system usage fee collection regulation, and openly imposing user fee
	According to the contract to pay private sector handling fee for the sewer system
	Take over the poor operation system or the full term system

九、洽詢民間參與污水下水道建設事宜聯絡人：

(一) 內政部營建署聯絡人：

營建署環境工程組：組長葉仁博 (02) 87712758
e-mail yenjenpo@cpami.gov.tw

課長李建賢 (02) 87712759
e-mail mikelee@cpami.gov.tw

營建署公共工程組：組長張和平 (02) 87712640
e-mail hpchang@cpami.gov.tw

簡任技正尤培基 (02) 87712652
e-mail ypc@cpami.gov.tw

(二) 各縣市政府聯絡人：

年度	編號	縣市別	系統名稱	縣市政府主管部門 人口	縣市政府 (主管課長)	聯絡電話
94	1	台北縣	板新污水下水道系統 (三峽)	下水道局水利及下水道課	陳志榮	02-29603456 轉 7457
	2	宜蘭縣	羅東污水下水道系統	工務局住宅及下水道課	吳清結	03-9364567 轉 1350
	3	嘉義縣	太保市暨高鐵特定區污水下水道系統	工務局下水道課	蔡育宗	05-3620123 轉 511
	4	高雄縣	獅龍溪 (大社、仁武) 污水下水道系統工程	水利局下水道工程課	周廷彰	07-7477611 轉 1936
95	1	桃園縣	板新污水下水道系統 (埔頂)	工務局下水道課	魏茂鏐	03-3393902
	2	雲林縣	北港鎮污水下水道系統	工務局下水道課	彭士人	05-5346389
	3	台南縣	佳里鎮污水下水道系統	工務局下水道課	王峻明	06-6359590
	4	屏東縣	東港溪流域內埔污水下水道系統工程	工務局下水道課	蘇錄山	08-7320415 轉 282
	5	台東縣	台東市污水下水道系統工程	工務局下水道課	郭仲智	08-9360541

IX. Points of Contacts:

(1). Contactor of Construction and Planning Agency of Ministry of the Interior:

Environmental Engineering Division: Section Leader: Ren-Bo, Ye (02) 87712758
e-mail yenjenpo@cpami.gov.tw

Chief: Jian-Xian, Lee (02) 87712759
e-mail mikelee@cpami.gov.tw

Public Works Division:

Section Leader: He-Ping, Chang (02) 87712640
e-mail hpchang@cpami.gov.tw

Selected Appointed Technician Pei-Chi, You
(02) 87712652 e-mail ypc@cpami.gov.tw

(2). Contacting persons for each county and city government:

Year	Serial No.	County/ City	System Title	Main Department of County/City Government	Main Section Chief of County/City Government	Contact phone no.
2005	1	Taipei County	Banxin Sewer System (Sanxia/Yingge)	Sewage Bureau Water Conservancy and Sewage Sector	Chen Zhi-Ron	02-29603456 ext 7457
	2	I-Lan County	Lotung Sewer System	Public Works Department, Residential and Sewage Sector	Wu, Ching-jie	03-9364567 ext 1350
	3	Chiayi County	Taipao Metropolitan Area and High Rail Designated Area Sewer System	Public Works Department Sewage Sector	Tsai, Yu-Jong	05-3620123 ext 511
	4	Kaohsiung County	Shilong Stream (Dashe, Renwu) Sewer System	Bureau of Water Resource, Sewage Construction Sector	Chou, Ting-chang	07-7477611 ext 1936
2006	1	Taoyuan County	Banxin Sewer System (Puding)	Public Works Department Sewage Sector	Wei, Mao	03-3393902
	2	Yunlin County	Beigang Township Sewer System	Public Works Department Sewage Sector	Peng, Shi-Ren	05-5346389
	3	Tainan County	Jiali Township Sewer System	Public Works Department Sewage Sector	Wang, Jun-Ming	06-6359590
	4	Pingtung County	Donggang Stream flow Region Neipu Sewer System	Public Works Department Sewage Sector	Su, Lu-shan	08-7320415 ext 282
	5	Taitung County	Taitung City Sewer System	Public Works Department Sewage Sector	Kuo, Jhong-Chi	08-9360541

年度	編號	縣市別	系統名稱	縣市政府主管部門 人口	縣市政府 (主管課長)	聯絡電話
96	1	台北縣	瑞芳鎮污水下水道系統	下水道局水利及下水道課	陳志榮	02-29603456 轉 7457
	2	彰化縣	彰化市污水下水道系統	工務局下水道課	蕭國欽	04-7222151 轉 0591
	3	雲林縣	斗南鎮污水下水道系統	工務局下水道課	彭士人	05-5346389
	4	台南縣	歸仁污水下水道系統	工務局下水道課	王峻明	06-6359590
	5	高雄縣	大寮(大發工業區)污水下水道系統	水利局下水道工程課	周廷彰	07-7477611 轉 1936
	6	高雄縣	橋頭鄉污水下水道系統	水利局下水道工程課	周廷彰	07-7477611 轉 1936
	7	高雄縣	岡山地區污水下水道系統	水利局下水道工程課	周廷彰	07-7477611 轉 1936
	8	花蓮縣	玉里污水下水道系統	工務局下水道課	廖志鵬	03-8242028
	9	澎湖縣	馬公地區污水下水道系統工程	觀光局城鄉發展課	曾瑞晃	06-9270631
	10	台中市	台中三期污水下水道系統	建設局下水道課	吳明岩	04-22208334
	11	台南市	鹽水污水下水道系統	工務局下水道課	吳宇停	06-3931313
	12	台南市	台南污水下水道系統	工務局下水道課	吳宇停	06-3931313
97	1	桃園縣	桃園地區污水下水道系統工程	工務局下水道課	魏茂鏐	03-3393902
	2	桃園縣	中壢地區污水下水道系統	工務局下水道課	魏茂鏐	03-3393902
	3	苗栗縣	竹南頭份及頭份交流道污水下水道系統	工務旅遊局下水道課	吳專誠	03-7354856
	4	台中縣	豐原市污水下水道系統	工務局下水道課	張釗熙	04-25263100 轉 2540
	5	彰化縣	和美污水下水道系統	工務局下水道課	蕭國欽	04-7222151 轉 0591
	6	彰化縣	鹿港福興污水下水道系統	工務局下水道課	蕭國欽	04-7222151 轉 0591
	7	南投縣	南投市污水下水道系統	工務局下水道課	簡青松	049-224-3912
	8	南投縣	埔里污水下水道系統	工務局下水道課	簡青松	049-224-3912
	9	南投縣	草屯污水下水道系統	工務局下水道課	簡青松	049-224-3912
	10	南投縣	竹山污水下水道系統	工務局下水道課	簡青松	049-224-3912
	11	台南縣	永康污水下水道系統	工務局下水道課	王峻明	06-6359590
	12	嘉義市	嘉義市污水下水道系統工程	工務局下水道課	李俊和	05-2162888

Year	Serial No.	County/ City	System Title	Main Department of County/City Government	Main Section Chief of County City Government	Contact phone no.
2007	1	Taipei	Rueifang Township Sewer System	Sewage Bureau Water Conservancy and Sewage Sector	Chen, Zhi-Ron	02-29603456 ext 7457
	2	Changhua County	Changhua City Sewer System	Public Works Department Sewage Sector	Xiao, Guo-Chin	04-7222151 ext 0591
	3	Yunlin County	Dounan Township Sewer System	Public Works Department Sewage Sector	Peng, Shi-Ren	05-5346389
	4	Tainan County	Guiren Sewer System	Public Works Department Sewage Sector	Wang, Jun-Ming	06-6359590
	5	Kaohsiung County	Daliao (Dafa Industrial District) Sewer System	Bureau of Water Resource, Sewage Construction Sector	Chou, Ting-chang	07-7477611 ext 1936
	6	Kaohsiung County	Qiaotou Township Sewer System	Bureau of Water Resource, Sewage Construction Sector	Chou, Ting-chang	07-7477611 ext 1936
	7	Kaohsiung County	Gangshan District Sewer System	Bureau of Water Resource, Sewage Construction Sector	Chou, Ting-chang	07-7477611 ext 1936
	8	Hualien County	Yuli Sewer System	Public Works Department Sewage Sector	Liao, Chi-peng	03-8242028
	9	Penghu County	Magong District Sewer System	Tourism Bureau Urban and Rural Development Sector	Zeng, Rui-Huang	06-9270631
	10	Taichung City	Taichung Sewer System III	Department of Economic Development Sewage Sector	Wu, Ming-yan	04-22208334
	11	Tainan City	Yanshui Sewer System	Public Works Department Sewage Sector	Wu, Yu-ting	06-3931313
	12	Tainan City	Tainan Sewer System	Public Works Department Sewage Sector	Wu, Yu-ting	06-3931313
2008	1	Taoyuan County	Taoyuan District Sewer System	Public Works Department Sewage Sector	Wei, Mao	03-3393902
	2	Taoyuan County	Jhongli District Sewer System	Public Works Department Sewage Sector	Wei, Mao	03-3393902
	3	Maioli County	Chunan Toufen and Toufen Interchange Sewer System	Public Works Traveling Bureau Sewage Sector	Wu, Chuan-cheng	03-7354856
	4	Taichung County	Fengyuan City Sewer System	Public Works Department Sewage Sector	Chang, Chao-hsi	04-25263100 ext 2540
	5	Changhua County	Hemai Sewer System	Public Works Department Sewage Sector	Xiao, Guo-Chin	04-7222151 ext 0591
	6	Changhua County	Lugang Fuxing Sewer System	Public Works Department Sewage Sector	Xiao, Guo-Chin	04-7222151 ext 0591
	7	Nantou County	Nantou City Sewer System	Public Works Department Sewage Sector	Chien, Ching-song	049-224-3912
	8	Nantou County	Puli Sewer System	Public Works Department Sewage Sector	Chien, Ching-song	049-224-3912
	9	Nantou County	Caotun Sewer System	Public Works Department Sewage Sector	Chien, Ching-song	049-224-3912
	10	Nantou County	Chushan Sewer System	Public Works Department Sewage Sector	Chien, Ching-song	049-224-3912
	11	Tainan County	Yongkang Sewer System	Public Works Department Sewage Sector	Wang, Jun-Ming	06-6359590
	12	Chiayi City	Chiayi City Sewer System Construction	Public Works Department Sewage Sector	Lee, Jun-He	05-2162888

