SUMMARY PROJECT FICHE

1. BASIC INFORMATION

1.1 Desiree Number:

1.2 Title: Development of Technical Documentation for the Collection and Treatment of Urban Wastewaters

1.3 Sector: Environment - Water

1.4 Location: Water Development Department, Ministry of Agriculture Natural Resources and Environment, Nicosia, Cyprus.

2. OBJECTIVES

2.1 Wider Objective
To support Cyprus in the process of fulfilling the EU pre-accession requirements concerning the protection of the environment.

2.2 Project purpose
To meet the obligations and the requirements of Directive 91/271/EEC on Urban Wastewater Treatment, concerning the installation of collection networks and appropriate treatment for all agglomerations with equivalent population of more than 2000.

2.3 Accession Partnership

Accession Partnership

Short-term priorities
- To accelerate transposition, particularly in the fields of water quality, waste management and air quality.
- To develop a plan for financing investments (directive specific), based on estimations of costs of alignment and realistic sources of public and private finance year-by-year.

Medium-term priorities
- To complete transposition of EU Acquis;
- To continue to strengthen the institutional, administrative and monitoring capacity to ensure environmental protection.

NPAA

Medium-term priorities
Continuation, according to the prepared timetable, of the Implementation Programme (already notified to the Commission) for complying with the urban wastewater directive will be continued according to the proposed timetable. The Programme involves not only construction works but also feasibility studies and preparation of detailed designs.

2.4 Contribution to National Development Plan
N/A

2.5 Cross Border Impact
N/A

3. DESCRIPTION

3.1 Background and Justification
The Directive 91/271/EEC on Urban Wastewater Treatment concerns the collection, treatment and discharge of wastewater, including biodegradable industrial wastewater discharges, from sufficiently populated areas. It sets deadlines ranging until 31 December 2005, to provide for collection systems and, at least, for secondary (two-levels) treatment for agglomerations of different level of populations, ranging from 2,000 population
equivalent (p.e.) to more than 100,000 p.e. More advanced treatment/tertiary (three-levels) is required for sensitive areas, including agglomerations of less than 2,000 p.e. It also requires prior regulations and authorisations for all discharges of wastewater into the environment, for industrial discharges into urban wastewater systems, and for the disposal of sewage sludge.

Since 1994, the Cyprus Government policy has been to upgrade sanitary facilities. A very extensive program is already in place for installing centralised sewage systems and wastewater treatment plants. The problem has been addressed primarily within the urban and tourist areas and, to a lesser extent, within the rural areas. The Water Development Department of the Ministry of Agriculture, Natural Resources & Environment, has elaborated an ‘Implementation Programme of the Council Directive 91/271/EEC’ (a full compliance programme including projects’ timetables and costs). The programme covers 32 agglomerations of more than 2,000 p.e., 4 greater urban areas (Nicosia, Larnaca, Limassol and Paphos) and 2 major summer resorts. It covers development in collection networks and treatment including technical studies, design, tendering and construction. The financing needs of the Programme will be met through commercial loans guaranteed by the Government which subsidises part of the cost. The implementation of the programme will assure conformity with the Directive’s requirements in the year 2012. This Implementation Programme has been already submitted to the European Commission.

This involves considerable infrastructure works, as well as high investment. Furthermore it involves important resources for the elaboration of technical and detailed studies, tendering, construction works and supervision. So far, the Cypriot Government financed all studies in the rural areas and the tertiary treatment and reuse studies in the four greater urban areas and the major summer resorts. However, due to the limited resources of the Water Development Department, which is responsible to carry out these tasks, it is envisaged to outsource the first stage of this programme, i.e. the technical studies and the detailed design.

It is the aim of this project to assist the Department in finalising the preparation of the technical and detailed studies, in accordance with the ‘Implementation Programme of the Council Directive 91/271/EEC’. It will contribute to the implementation of the 1999-2003 Strategic Development Plan of the Republic of Cyprus, which includes the installation of centralised sewage collection system and appropriate treatment for agglomerations experiencing failure of their existing sanitation systems, the main objective being to protect all water resources (surface, underground, bathing etc).

3.2 Linked activities

Urban Wastewaters projects (Nicosia, Limassol, Larnaca, Paphos, Paralimni – Ayia Napa) are being implemented by the relevant Sewage Boards, while the Government undertakes the financing for the installation of the tertiary treatment facilities under the precondition to manage and reuse the treated effluents for irrigation.

A rural sanitation program has been in place by the Government targeting to provide centralised collection system and treatment to all rural agglomerations with population well under 2000 p.e which are facing failure of their existing systems.

3.3 Results

- Technical and Detailed Design Studies for sewerage schemes and treatment plants for agglomerations with more than 2000 p.e.;
- Tender documentation for the installation of centralised collecting systems and treatment plants.

3.4 Activities

As indicated in the section 3.1, the elaboration of Technical Studies and Detailed Studies for agglomerations with more than 2000 p.e., as well as the revision of the existing contract documents for tendering the construction of networks and treatment plants, are essential for the timely implementation of the Cyprus Government programme on ‘Implementation of the Council Directive 91/271/EEC’.

3.4.1 Technical Studies

Technical Studies in this domain include, as a minimum, the following sections:
- Identification whether an agglomeration is sufficiently concentrated, to collect and conduct the urban wastewater to a biological treatment plant;
- Assessment of the extent of the problems and definition of the boundaries of the areas to be served;
- Study of the possibility for combined schemes;
Identification and evaluation of appropriate sites for the installation of treatment plants including environmental impact assessment studies;
- Justification of the schemes with relation to the investments and the environmental benefits to be gained;
- Elaboration of appropriate treatment methods in relation to treated effluent disposal;
- Elaboration of a general plan for the collection networks and treatment plants;
- Financial analysis (financing plan, tariffs, etc.).

This project component will provide technical assistance for the elaboration of Technical Studies for the installation of collection networks and biological treatment within the following agglomerations, in accordance with the priorities established in the Implementation Programme and taking account of the technical documentation already available within the Water Development Department:


The above list includes, in addition to the agglomerations included in the Implementation Programme, Polis (26) due to the growing number of tourists in the summer season, and Achna (27) and Ayios Georgios Acheritou (28) for which an integrated, together with other of the above agglomerations, approach is needed.

3.4.2 Detailed Studies

Based on the results and recommendations of the Technical Studies, Design Studies will be elaborated for the construction/installation of sewerage networks, as well as the tendering documentation required by the national legislation to contract the works.

The Division of Wastewater and Reuse within the Water Development Department will directly co-ordinate the elaboration of these studies and will assess the quality of the documentation and its conformity with the requirements of the Directive 91/271/CEEC and of the national relevant legislation.

The component will provide technical assistance for the elaboration of the Design and Technical Studies and the preparation and production of the corresponding tendering documentation.

3.4.3 Technical Assistance and Operational budget

As indicated below in section 6.1 – Implementing Agency, a Project Implementation Unit will be created within the Water Development Department. This small project component will provide:

- short-term technical assistance to advise and to support the new Project Implementation Unit in carrying out its tasks, in relation to the preparation and organisation of project documentation, tendering, contracting, implementation and daily management of project activities;
- suitable office equipment and software to support the Project Implementation Unit to carry out its functions.

4. INSTITUTIONAL FRAMEWORK

The institution responsible for the installation of collection networks and treatment within the rural areas of Cyprus is the Water Development Department of the Ministry of Agriculture, Natural Resources & Environment.

The Water Development Department is in general responsible for the implementation of the water policy of the Ministry of Agriculture, Natural Resources & Environment. The main objective of this policy is the rational development and management of the water resources of Cyprus.

In this context, the responsibilities of the Department cover a wide and diverse spectrum, which includes:

- Planning, implementation and management of all water resources of the island;
• Collection, processing and classification of hydrological, hydrogeological, geotechnical and other data;
• Design, construction, operation and maintenance of works, such as dams, ponds, irrigation schemes, domestic water supply and sewerage schemes, water treatment works, sewage treatment works, and desalination plants;
• Maintenance and safety of the water development works;
• Protection of the water resources from pollution.

The Water Development Department comprises 9 Divisions, 4 Regional Offices and 2 Management Offices. The new created Division of Wastewater and Reuse is the direct beneficiary of this project. It has a total number of 1100 employees (including the on-site labour).

The Water Development Department will support the implementation of this project by assuring the necessary organisational environment, making available the necessary personnel and by covering the cost of the national experts, the required infrastructure and equipment, and the related running and administrative costs.

5. DETAILED BUDGET

<table>
<thead>
<tr>
<th>Component</th>
<th>Investment (1)</th>
<th>Institution Building (2)</th>
<th>Total EU financing (I+IB)</th>
<th>National co-financing IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical Studies and Detailed Design Studies (four groups of agglomerations)</td>
<td>1.50</td>
<td></td>
<td>1.50</td>
<td>0.70 (3)</td>
<td>2.20</td>
</tr>
<tr>
<td>2. Technical Assistance and Operational budget</td>
<td>0.04</td>
<td>0.06</td>
<td>0.10</td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.04</td>
<td>1.56</td>
<td>1.60</td>
<td>0.70</td>
<td>2.30</td>
</tr>
</tbody>
</table>

(1) In relation to equipment, software and related services (installation, testing, training etc.);
(2) In relation to management, organisation, procedures, legislation, training etc.
(3) Includes 350,000 Euro which refers to the cost of reconnaissance studies undertaken or currently carried out in relation to the agglomerations included in the project. The total figure quoted does not include the cost of implementing schemes of other agglomerations not included in the list of paragraph 3.4.1.

6. IMPLEMENTATION ARRANGEMENTS

6.1 Implementing Agency:

The Water Development Department within the Ministry of Agriculture, Natural Resources and Environment will be the Implementing Agency for the project.

A Project Steering Committee (PSC) will be set up, comprising senior representatives of the Water Development Department relevant divisions and the Planning Bureau. The PSC will supervise and co-ordinate the overall progress and implementation of the project, will define priorities, will provide guidance for different components of the project and will approve the corresponding results. PSC will be chaired by the Director of the Water Development Department.

A Project Implementation Unit will be established to carry out the day-to-day management of the project. Its role is to administer and resolve issues concerning the management of the project, including planning and identification of tasks, reporting, preparation of Terms of Reference, tendering, contracting, monitoring and evaluation of activities. This unit will report to the PSC. The Head of the Project Implementation Unit will act as secretary to the PSC.

6.2 Twinning

N/A

6.3 Non-standard aspects

The project will be managed according to the Decentralised Implementation System (DIS) rules.
6.4 Contracts
Both components of the project will be implemented through a contract awarded through open tender procedures. The first component will comprise four separate contracts (four groups of agglomerations). Such approach will maximise the effectiveness of the project activities, will produce economies of scale, will assure the coherence of studies, will facilitate the co-ordination and will reduce the administrative burden.

7. IMPLEMENTATION SCHEDULE
The Terms of Reference for the two project components, as well as the Tender Dossiers will be prepared in advance by the Water Development Department, in accordance with the DIS requirements.

7.2 Start of project activity: January 2002.

8. EQUAL OPPORTUNITY
Article 28 of the Constitution safeguards the right of all persons to equality before the law, the administration and justice and of equal protection there of and treatment thereby. Any direct or indirect discrimination against any person on the grounds, i.a. of his sex, is prohibited.
Furthermore, the prevailing legislation with respect to equality of treatment for men and women is partly in conformity with the Acquis Communautaire. The following laws currently enforce equal opportunity issues: the Equal Pay between Men and Women for Work of Equal Value Law (158/89), the Protection of Maternity Law (100(I)/97), the Termination of Employment Law (24/67) as amended, and the Commissioner for Administration Law (Law 3/91) as amended. Cyprus has ratified by the Law 39/62 the European Convention for the Protection of Human Rights and Fundamental Freedoms. Various international Conventions which guarantee equal rights between men and women have also been ratified.
The Water Development Department within the Ministry of Agriculture, Natural Resources & Environment is an equal opportunities employer. Its personnel (excluding the on-site labour) comprises 327 men and 73 women. The head of the Wastewater / Recycling Division of the Water Development Department, which will be responsible for implementing the project, is a woman.

9. ENVIRONMENT
Environment impact reports concerning the installation of Wastewater treatment plants are part of the components of the project.
Installation of centralised collecting systems and treatment plants, on the basis of the technical documentation elaborated through this project, will have as result the overall protection of all water resources and will fulfil the legal requirements which apply for the discharges into any water body.

10. RATES OF RETURN (N/A)

11. INVESTMENT CRITERIA (N/A)

12. CONDITIONALITY AND SEQUENCING
The implementation of the second component, Detailed Studies, will be based on the results and recommendations of the first component, Technical Studies. Consequently, the Detailed Studies component will not be contracted before the completion of the first project component.

*******************
ANNEXES

1. Logical framework matrix in standard format
2. Detailed implementation time chart in standard format
3. Contracting and disbursement schedule by quarter for full duration of programme
# LOGFRAME PLANNING MATRIX

<table>
<thead>
<tr>
<th>PROJECT:</th>
<th>Contracting period expires: September 2003</th>
<th>Disbursement period expires: September 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL DOCUMENTATION FOR THE COLLECTION AND TREATMENT OF URBAN WASTEWATERS</td>
<td>Total Budget: 2.3 MEUR</td>
<td>EU contribution: 1.6 MEUR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Objective</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To support Cyprus in the process of fulfilling the EU pre-accession requirements concerning the protection of the environment.</td>
<td>Full preparation of Cyprus at the time of accession in the field of Environment/water.</td>
<td>European Commission’s Opinion on the Status of Preparation of Cyprus for Accession.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Purpose</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To meet the obligations and the requirements of the Directive 91/271/EEC on Urban Wastewater Treatment, concerning the installation of collection networks and appropriate treatment for all agglomerations with more than 2000 p.e.</td>
<td>Technical documentation (Technical Studies and Detailed Studies) elaborated fully in accordance with the requirements of the Directive 91/271/EEC.</td>
<td>Monitoring and assessment reviews by the Water Development Department.</td>
<td>Political commitment to EU continued; Full commitment of the involved authorities; Adequate resources available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Technical Studies and Detailed Studies for sewerage schemes and treatment plants for agglomerations with more than 2000 p.e.; • Tendering documentation.</td>
<td>Technical Studies and Detailed Studies produced in time, at the required quality level; Tendering documentation produced in time, at the quality level required by the national legislation.</td>
<td>Monitoring and assessment reviews by the Water Development Department.</td>
<td>Technical and tendering documentation used for the financing of investment projects at the national level; Adequate provision from the state budget.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Elaboration of Technical Studies for sewerage schemes and treatment plants; • Elaboration of Detailed Studies, on the basis of the results of the Technical Studies; • Elaboration of tendering documentation, on the basis of Detailed Studies.</td>
<td>Technical assistance contracts awarded as result of opening tender procedures.</td>
<td>Full commitment of the involved authorities; Effective monitoring of project implementation; Timely availability of adequate resources.</td>
</tr>
</tbody>
</table>

**Preconditions**

Support from the Cyprus Government.
ANNEX 1

Budgets approved and available.
### DETAILED TIME IMPLEMENTATION CHART FOR THE PROJECT

Title: Technical Documentation for the Collection and Treatment of Urban Wastewaters

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Studies</td>
<td>C C C C</td>
<td>I I I I I I I I I I</td>
<td>D D C C C I I I I I I I I I I I I</td>
<td>I I R X</td>
</tr>
<tr>
<td>Detailed Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA and Operational Budget</td>
<td>I I I I I I I I I I</td>
<td></td>
<td>I I I I I I I I I I I I I I I I I I I I I I</td>
<td>I I R X</td>
</tr>
</tbody>
</table>

D = Design  
C = Contracting  
R = Review  
I = Implementation  
X = Closure
CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE

Title: Technical Documentation for the Collection and Treatment of Urban Wastewaters

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRACTED</td>
<td>0.65</td>
<td>0.66</td>
<td>0.67</td>
<td>0.68</td>
<td>0.69</td>
<td>1.59</td>
<td>1.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISBURSEMENT</td>
<td>0.23</td>
<td>0.34</td>
<td>0.45</td>
<td>0.57</td>
<td>0.68</td>
<td>0.96</td>
<td>1.12</td>
<td>1.29</td>
<td>1.44</td>
<td>1.60</td>
</tr>
</tbody>
</table>

All figures in million EURO