SOCIAL IMPACT ASSESSMENT REPORT

FOR COMBINED WATER SUPPLY SCHEME CWSS TO SANKARANKOIL, PULIYANKUDI MUNICIPALITES, THIRUVENKADAM TOWN PANCHAYAT IN TIRUNELVELI DISTRICT RAJAPALAYAM, SIVAKASI AND THIRUTHANGAL MUNICIPALITES IN VIRUDHUNAGAR DISTRICT

September 2016

CONTENTS

SOCIAL IMPACT ASSESSMENT

1. **PROJECT BRIEF :**

1.0 The basic objective is to provide potable water supply to the citizens and to achieve this the TWAD Board proposed the Combined Water Supply Scheme. This projects proposed to provide 135 lpcd of water to the citizens of beneficiary urban local bodies.

Tamil Nadu Water Supply and Drainage Board has proposed to draw and supply 61.98 MLD of water from Tamiraparani river to Rajapalayam, Sivakasi & Thiruthangal municipalities of Virudhunagar district and Sankarankoil municipality, Puliyankudi municipality and Thiruvenkadam town Panchayat. This project has proposed to increase the service level of water from 90 lpcd to 135 lpcd in Municipalities and 70 lpcd to 90 lpcd in Town Panchayat. The land ownership detail of the project is given in **Table 1 to 3**. The flow diagram of the project is given in **Figure 1**.

This sub project is a combined water supply scheme and comprises of 6 Urban Local Bodies including one town pachayat located across two districts, Tirunelveli and Virudhunagar district of Tamil Nadu. The source for this sub project is Tamirabarani river.

The source for this Combined water supply is Tamirabarani. The estimate project cost of Rs 565.00 Crore and proposed to be taken up under Tamil Nadu Sustainable Urban Development Project (TNSUDP).

Project Components:

This sub projects involves two categories of components such as common components and individual components. The common components are construction of water intake structures and Water Treatement Plant (WTP) and three booster stations. Laying of raw water and treated water mains to the booster stations for a length of 70.04 km.

The individual components are specific to each of the participating ULB which involves construction of Service Reservoirs, Sumps, laying of feeder mains and distribution mains and providing House Service Connections for the end user.

1. Construction of water intake structures & pumping room, transformer yard at River Tamirabarani.
2. Head works at Kondanagaram
3. Water Treatment Plant of 46.08 MLD capacity at Kondanagaram
4. Booster Station – I at Manur
5. Booster Station – II at Panavadalichatram
6. Booster Station – III at Sankarankoil
7. Treated water pumping main of length 21.81Km to Booster Station I
8. Conveying main of length 22.23Km from Booster Station – I to Booster Station – II
9. Conveying main of length 18.01 Km from Booster station II to Booster station III
10. Construction of Service Reservoirs (no of SR proposed to be constructed = 22)
11. Distribution Network (total length 480.2 km)
12. Other components involved in the project are as follows:

i) Pipeline crossing Railway line at Kondanagaram

ii) Pipeline from Sankarankoil Booster station crossing Railway line at Sankarankoil on the way to Puliyankudi

iii) Pipeline crossing Railway line at Sankarankoil on the way to Rajapalayam

iv) Railway crossing at Thiruthangal on the way to sump at Thiruthangal

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v) Pipeline crossing Railway line at Thiruthangal on its way from the sump to the service

reservoir at Pappankulam

vi) Pipeline crossing Railway line at Rajapalayam

2. SOCIAL IMPACT and MEASURES

2.1 Head Work and Water Treatment Plant

Head Work and Water Treatment Plant are proposed to be located at Kondanagaram village. Even though the withdrawal of water from intake well in Tamiraparani river near Kondanagaram village is about 61.98 MLD (Ultimate state – 2047), it does not have any impact in the normal life of people in the nearby areas. The water treatment plant of capacity 46.08 MLD will be constructed in Meikkal Poromboke land and it does not involve settlements and encroachments. The total extent of land available is 6 Hec. 10.5 Aresand required extent is 10.20 acres.The current land use is vacant barren land, free from encumbrance and it is not used for grazing. (Land details given in Table no.1)

2.2 Booster Stations

Booster station-I is proposed to be located at Manur and the site belongs to Manur Village Panchayat. The site earmarked is vacant and the land is classified as Mayanam Poromboke land. There are no residential or sensitive areas located near Booster Station-I.

The total extent of land available is 0.80 Acres and required extent is 0.60acres.The current land use is vacant barren land, free from encumbrance and it is not usedfor burrial activities. (Land details given in Table no.1)

Booster station-II is proposed to be located at Panavadalichatram and the site belongs to Local body. The site earmarked is classified as Kulam poromboke land. There is a school, canal with culvert and water supply structures are observed near the site. As there is increase in noise level due to the operation of Booster station which will affect noise sensitive areas such as

schools, the site for Booster station is relocated to the alternative site 9°2'56.2266"N, 77°36'38.2428"E which is away from school.

The total extent of land available is is 5 Hec. 0.56 Ares and required extent is 0.60 acres.

The current land use is vacant barren land, free from encumbrance. andit is not usedfor any activities.(Land details given in Table no.1)

Booster station-III is proposed to be located at Sankarankoil and the site belongs to Sankarankoil municipality. Currently the site is used as a dumping yard by Sankarankoil municipality. The earmarked area shall be cleared before construction of Booster station-III.

The total extent of land available is 2 Acres and required extent is 1.50.acres.

The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

2.3 Service Reservoirs

a) Sankarankoil Municipality:

Sankarankoil Municipality is located in the Tirunelveli District which has a total population of 57277 (2011 census) with an administrative area of 12.37 sq.km. It is proposed to provide 3.88 mld of water to this Municipality. The project specific components for this municipality are construction of 3 no of Over Head Service Reservoirs and laying of feeder mains for a distance of 5.86 kms and distribution mains of 64.73 kms. Further proposed to provide 16467 no of House Service Connections.

TWAD has proposed to construct 3 service reservoirs of different capacity.

A service reservoir of capacity 3 LL is proposed to be constructed at Ward 10 of Sankarankoil municipality. The land belongs to Sankarankoil municipality and is used for dumping solid waste / construction debris. The site shall be protected from dumping of waste. The total extent of land available is 0.74 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance . (Land details given in Table no.1)

The service reservoir of capacity 3.00 LL which is proposed to be constructed at Bharathiyar nagar belongs to Sankarankoil municipality. The site has an old vermin compost structure which needs to be demolished and has no negative social impact. The total extent of land available is 0.37 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance . (Land details given in Table no.1)

The site where service reservoir of capacity 3.70 LL proposed to be constructed at Puliyankudi road belongs to Sankarankoil municipality. The site needs to get cleared as it comprises of temporary cattle shed, thatched huts, etc. TWAD has obtained council resolution vide no.936 dt. 30.06.2014 for this site. Reqiured vacant land (20m X 20m)is available for the construction of service reservoir. The total extent of land available is 0.61 Acres and required extent is 0.10 acres. The required land is vacant barren land, free from encumbrance . (Land details given in Table no.1)

b) Puliyankudi Municipality

PuliyankudiMunicipality is located in the Tirunelveli District which has a total population of 66034 (2011 census) with an administrative area of 55.16 sq.km. It is proposed to provide 7.56 mld of water to this Municipality. The project specific components for this municipality are construction of 4 no of Over Head Service Reservoirs and laying of feeder mains for a distance of 9.22 kms and distribution mains of 74.25 kms. Further proposed to provide 17862 no of House Service Connections.

A sump of capacity 4.35 LL is proposed to be constructed to collect the designed quantity of water for PuliyankudiMunicipality and one no of Pumproom of size 8m X 5mat RSKP Reservoir premises and the site belongs to Puliyankudi Municipality. The site requires clearing of trees (2 nos) and has no social impact. The total extent of land available is 0.94 Acres and required extent is 0.30 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

The service reservoir of capacity 4.00 LL is proposed to be constructed at RSKPReservoir premises and the site belongs to Puliyankudi Municipality. The site requires clearing of trees (2 nos) and has no social impact. The total extent of land available is 0.94 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

The service reservoir of capacity 4.00 LL is proposed to be constructed near Government Hospital and the site belongs to Urban Local body. The proposed site is used by the public and they shall be provided with alternate area. The power lines found in the area shall be shifted before starting construction work. The total extent of land available is 0.94 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

The service reservoir of capacity 2.30 LL is proposed to be constructed Chiinthamani. The site belongs to Urban Local Body. There is no social impact in Chiinthamani site as it requires only 2 tress to get cut down. The total extent of land available is 0.284 Acres and required extent is 0.08 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

The service reservoir of capacity 0.70 LL is proposed to be constructed at Ayyapuram. The site belongs to Urban Local Body. A small temple and a community hall is located near Ayyapuram site and it shall not be disturbed while construction and operation of service reservoir. The total extent of land available is 0.85 Acres and required extent is 0.06 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

c) Rajapalayam Municipality

RajapalayamMunicipality is located in the ViruthunagarDistrict which has a total population of 130442 (2011 census) with an administrative area of 11 sq.km. It is proposed to provide 15.71 mld of water to this Municipality. The project specific components for this municipality are construction of 10 no of Over Head Service Reservoirs and laying of feeder mains for a distance of 10.51 kms and distribution mains of 139.80 kms. Further proposed to provide 38586 no of House Service Connections.

A sump of capacity 9.10 LL is proposed to be constructed to collect the designed quantity of water for RajapalayamMunicipalityand one no of Pumproom of size 15m X 9mat Commissioner Quarters. The site belongs to Rajapalayam Municipality. The site at Commissioner Quarters has trees and the construction work shall be done without disturbing trees. The total extent of land available is 1.93 Acres and required extent is 0.49 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

TWAD has proposed to construct 10 no of service reservoirs of different capacity.

A service reservoir of capacity 7.00 LL is proposed to be constructed near Municipal Maternity centre and the site belongs to Rajapalayam Municipality. The site is adjacent to Integrated Child Development Services (ICDS) and the construction of service reservoir shall not disturb the function of ICDS and Municipal Maternity Centre. The total extent of land available is 0.56 Acres and required extent is 0.21 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 5.00 LL is proposed to be constructed near Sankarankoil road junction and the site belongs to Urban Local Body. There is an abandoned public toilet in the site and is proposed to be demolished. Trees and power lines are found in the site. The power line shall be shifted and 2 No of trees shall be cut down during construction. The total extent of land available is 1.05 Acres and required extent is 0.13 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 6.00 LL is proposed to be constructed at Somayapuram and the site belongs to Urban Local Body. The site has temporary cattle shed, thatched huts, etc and council resolution(file no 5807/2009 dt.10.12.15) has been obtained from Rajapalayam municipality.Reqiured vacantland (20m X 20m) is available for the construction of service reservoir. The total extent of land available is 0.64 Acres and required extent is 0.10 acres. The required land is vacant barren land, free from encumbrance . (Land details given in Table no.1)

A service reservoir of capacity 6.00 LL is proposed to be constructed at Commissioner Quarters. The site belongs to Rajapalayam Municipality. The site at Commissioner Quarters has trees and the construction work shall be done without disturbing trees. The total extent of land available

is 1.93 Acres and required extent is 0.13 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 5.00 LL is proposed to be constructed at Kulalar Street. The site belongs to Rajapalayam Municipality. The site at Kulalar Street has old toilet block, septic tank and a drain at the edge which is yet to be demolished. The construction work shall be done without affecting the existing road. The total extent of land available is 0.20 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 4.00 LL is proposed to be constructed at Ambedkarnagar. The site belongs to Rajapalayam Municipality. The total extent of land available is 0.17 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

Two no of service reservoirs of capacity 8.40 LL and 6.80 LL are proposed to be constructed at Kamarajar Reservoir premises. The site belongs to Rajapalayam Municipality. There is one Municipal ward office room. The site has 2 No of trees and shall be cut down during construction.The total extent of land available is 1.46 Acres and required extent is 0.79 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

Two no of service reservoirs of capacity 11.40 LL are proposed to be constructed near Madurai Road. The site belongs to Rajapalayam Municipality. The site is adjacent to Noon meal centre of Municipal school and the construction of service reservoir shall not disturb the function of Noon meal centre.The total extent of land available is 1.46 Acres and required extent is 0.79 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

d) Sivakasi Municipality

SivakasiMunicipality is located in the Viruthunagar District which has a total population of 71040 (2011 census) with an administrative area of 6.80 sq.km. It is proposed to provide 9.16 mld of water to this Municipality. The project specific components for this municipality are construction of 2 no of Over Head Service Reservoirs and laying of feeder mains for a distance of 6.58 kms and distribution mains of 112.49 kms. Further proposed to provide 22889 no of House Service Connections.

A sump of capacity 2.65 LL is proposed to be constructed to collect the designed quantity of water for SivakasiMunicipality and one no of Pumproom of size 8m X 5m. The proposed sump site is at Kamarajar Reservoir campus. The site belongs to Municipality. The site requires clearing of trees (2 nos) and has no social impact.The total extent of land available is 0.54acre and required extent is 0.10 acre.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

TWAD has proposed to construct 2 no of service reservoirs of different capacity.

A service reservoir of capacity 4.00 LL is proposed to be constructed near RC Church. The site belongs to Municipality. The total extent of land available is 1.92 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 3.80 LL is proposed to be constructed near Child Health Centre. The site belongs to Municipality. The total extent of land available is 0.68 Acres and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

e) Thiruthangal Municipality

ThiruthangalMunicipality is located in the Viruthunagar District which has a total population of 55362 (2011 census) with an administrative area of 20.0 sq.km. It is proposed to provide 6.84 mld of water to this Municipality. The project specific components for this municipality are

construction of 2 no of Over Head Service Reservoirs and laying of feeder mains for a distance of 6.97 km and distribution mains of 72.969 km. Further proposed to provide 15741 no of House Service Connections.

A sump of capacity 3.90 LL is proposed to be constructed to collect the designed quantity of water for ThiruthangalMunicipality. The proposed sump site is at S.N.Puram.There is a taxi stand adjacent to the existing reservoir and the proposed sump which is going to be constructed near the taxi stand shall not disturb any activities in that area. The total extent of land available is 14 hec.15 are and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

TWAD has proposed to construct 2 no of service reservoirs of different capacity.

A service reservoir of capacity 4.00 LL is proposed to be constructed at S.N.Puram. There is a taxi stand adjacent to the existing reservoir and the proposed reservoir which is going to be constructed near the taxi stand shall not disturb any activities in that area. The total extent of land available is 14 hec.15 are and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 1.70 LL is proposed to be constructed near Papankulam Kanmai. The service reservoir to be constructed in Papankulam shall not disturb the water body. The total extent of land available is 5 hec. 98.5 are and required extent is 0.10 acres.The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

f) Thiruvenkadam Town Panchayat

Thiruvenkadam Town Panchayatis located in Viruthunagar District which has a total population of 8337 (2011 census) with an administrative area of 4.85 sq.km. It is proposed to provide 0.73 mld of water to this Town Panchayat. The project specific components for this Town Panchayat are construction of 1 no of sump of capacity 0.65 LL and 1 no of Over Head Service Reservoir capacity 0.60 LL and laying of feeder mains for a distance of 7.27 km and distribution mains of 10.879 km. Further proposed to provide 2500 no of House Service Connections.

A sump of capacity 0.65 LL is proposed to be constructed to collect the required quantiy of water for Thiruvenkadam Town Panchayat. The proposed sump site isinside the premises of Manur CWSS, now owned by TWAD Board. The current land use is vacant barren land, free from encumbrance.(Land details given in Table no.1)

A service reservoir of capacity 0.60 LL is proposed to be constructed at Kuruvikulam road near Vanapechiamman Temple. The site for service reservoir is located adjacent to a temple and opposite to Government Higher Secondary School.The construction of proposed reservoir shall not disturb social activities and the inlet and outlet of any water body exist in that area.The total extent of land available is 0 hec. 15.5 are and required extent is 0.06 acres.The current land use is vacant barren land, free from encumbrance. (Land details given in Table no.1)

Conclusion :

Civil Works

This sub project involves construction of 1 Head Works+ 1 WTP+3 Booster Stations + 4 Individual Sumps + 22 SRs. Of the total 31 no of sites 1 site belongs to PWD, 3 sites belongs to Revenue Department, 27 sites belongs to urban local bodies and doesn't involves acquisition of private land.

All the above sites are free from encumbrance

Laying of Pipelines :

This sub project proposed to lay pipe lines for a total distance of 704 km of which 201.2 km belongs to State Highways Department, 4 km belongs to National Highways Department, 498.20 kms belongs to ULBs.

The average width required for laying these pipe lines are 1m and available width 1.20m.

The pipe lines are proposed to be laid on the edge /carriageway of available road width and free from encumbrance. Also laying of pipe lines are proposed on the extreme boundary of the road and hence no private land acquisition is envisaged.

However, the following steps to be taken for implementation of the projects

Enter Upon Permission to be obtained for the following sites

1. At River Tamirabarani : 1 no of Intakewell cum pumphouse 8.00m dia and 7.00m depth,16.80m height,Pipe carrying bridge for a length of 113.4m and the transformer yard at river bank of size 20m x 10m.
2. WTP at Kondanagaram Village: Full scale Treatment with Rapid Sand Filters.

   The water treatment plant of capacity 46.08 MLD will be constructed in Meikkal Poromboke land and it does not involve settlements and encroachments.(Land details given in Table no.1)
3. Booster Stations sites

   Booster station-I :

   One no of sump of capacity 23.20LL , One no of sump cum pumphouse of capacity 2.50 LL, and the transformer yard of size 20m x 10m.

   The site is to be located at Manur and the site belongs to Manur Village Panchayat. The site earmarked is vacant and the land is classified as Mayanam Poromboke land. There are no residential or sensitive areas located near Booster Station-I.

   Booster station-II :

   One no of sump of capacity 23.20LL , One no of sump cum pumphouse of capacity 2.50 LL, and the transformer yard of size 20m x 10m.

   The site is to be located at Panavadalichatram and the site belongs to Local body. The site earmarked is classified as Kulam poromboke land.

   Booster station-III :

   One no of sump of capacity 25.70LL , two nos of pumproom of size 15m x9m and the transformer yard of size 20m x 10m.

   The site is to be located at Sankarankoil.The site belongs to Sankarankoil municipality and the council resolution has been obtained from the ULB.
4. Other Individual ULB Sump sites and Over Head Service Reservoirs

All the sites for the Individual ULB Sump sites and Over Head Service Reservoirs are owned by the ULBs and the council resolution has been obtained from the ULBs.

Action has been taken by the TWAD Board /ULB to obtain EUP for the above sites and the details are enclosed as **Annexure I**.

Clearances/NOC required for laying of pipe lines from various user agencies are as follows:

Southern Railways : 1 no
National Highways : 1 no
State Highways : 1 no
TNPWD : 1 no

Based on the above observations, it may be concluded that all the identified environmental and social risks due to the construction and operation of the project have been adequately assessed and mitigated through the recommended EMP. Also, adequate precautions have been built through elaborate environmental and social monitoring recommendations to provide a true picture of the performance of the project on environmental and social aspects.

Unidentified /Unforseen Impacts:

Any other social impacts such as encroachments, LA etc identified during implementation of theproject the same will be mitigated/compensated as per ESMF entitlement matrix. The Contractor's Social Specialist shall report to the TWADB regarding the impacts encountered during the course of project implementation and TWADB will intimate the same to ULB, TNUIFSL and CMA with mitigation measures.

The IA/TWADB will intimate to ULB, TNUIFSL and CMA if any sites are changed during the project implementation with a site screening report.

Social Categorisation:

A social screening is to be carried out for all projects funded through TNUIFSL by filling-up a social Screening form by the Urban Local Body applying for the loan. The filled-up social screening form for the proposed project is annexed as **Annexure-2.** The social screening form was filled-up based on the assessment of project activities and their impacts on socially sensitive features. Based on the social screening form, the proposed project will have the following impacts on socially sensitive features. Depending upon the number of Project Affected Persons (PAPs) who may be affected by the project and magnitude of impact, social categorization of projects is to be carried out as defined in the ESMF and the projects will have to comply with the requirements of ESMF. ESMF categorizes the projects under category S1, S2, and S3 depending on the magnitude of social impacts.

In this project all sites are owned by the Municipality /Govt land and there is no land acquisition process and only transfer of land is applicable in this project (**Annexure-3)**. There is no displacement in the above cases. In view of the above the project has been categorized as "S3 Project".

Implementation Mechanism:

TWAD Board is the Implementing Agency (IA) for this sub project. The PIA Engineers in charge of the project will be responsible for supervising the implementation of the mitigation measures proposed in the as per ESMF entitlement matrixby the Contractor and they will be reporting to TNUIFSL who will monitor the implementation of Social Management Plan (SMP) and related measures regarding other Social matters related to the project.

The IA shall submit monthly progress report covering social safeguards to CMA/TNUIFSL.The operation stage monitoring reports may be submitted quarterly.

Grievance Redress Mechanism

Despite best efforts to arrive at fair rewards in project involving involuntary resettlement,there shall always be a few unsatisfied PAPs. The PIA will make efforts at project level tofirst resolve through negotiations. The negotiations will preferably be

arranged at projectsite among the stakeholders, PAPs and concerned project officer for the resolution of thegrievance in minimum possible time.

Grievance Redress Committee (GRC):

Initially any aggrieved PAP will be directed to approach GRC, controlled by the appropriateauthority (Municipal Commissioner in case of ULBs), which is constituted by the PIA. Itwill consist of a panel of three Members, one of whom shall be the PIA representative fromthe sub-project. The others will include representative of the residents of the area / local

body who are publicly known to be persons of integrity, good judgment and command

respect and a representative of local NGO/CBO . If the grievance of the PAP is notaddressed by PIA, subsequently it will refer to District Collector, during the Collectorsweekly grievance redress day. If the PAP is still unsatisfied with the decisions taken by theproject and the Collector, he would as a last recourse can appeal in the court of law.

The PIA representative of the GRC shall:

- Convene meetings of the committee as necessary at such place or places in the PIA

as he considers appropriate; and

- Conduct the proceedings in an informal manner as he considers appropriate with the

object to bring an amicable settlement between the parties;

The report of the members shall be recorded in writing and attested copies thereof shall be

provided to the parties. All expenses incurred in arranginggrievance negotiations and meetings of GRC as well as logistics required, shall be arranged by Project Implementing

Agency (PIA).

3. PUBLIC/STAKE HOLDER MEETING

As per the World Bank policy on access to information and disclosure, the proposed project attracts Public Hearing. The Public Hearing was arranged by TWAD

Board officials at beneficiary Municipalities and Town panchayat. The concerned persons having plausible stake in environment aspects were requested to attend the meeting.

Information on Public Consultation are informed explicitly to the stake holders/beneficiaries concerned in all the municipalities notifying date and time in newspaper, pamphlets, issuing notices door to door and keeping displays etc,.

SOCIAL IMPACT ASSESSMENT

திருவேங்கடத்தில் கூட்டு குடிநீர் திட்டம் பற்றிய கலந்தாய்வு கூட்டம் நடந்தது.

கூட்டுக்குடிநீர் திட்ட கலந்தாய்வு கூட்டம்

திருவேங்கடம், ஜூலை 9: நெல்லை மாவட்டம் சங்கரன் கோவில், புளியங்குடி நகராட்சி, திருவேங்கடம் பேரூ ராட்சி மற்றும் விருதுநகர் மாவட்டம் ராஜபாளையம், சிவகாசி, திருத்தங்கல் நகராட்சிகளுக்கான கூட்டுக் குடிநீர் திட்ட கலந்தாய்வு கூட்டம் திருவேங்கடத்தில் நடந்தது. தமிழ்நாடு குடிநீர் வடிகால் வாரியத்தின் மூலம் நடந்த கூட்டத்திற்கு திருவேங்கடம் பேரூராட்சி தலைவர் சீனிவாசன் தலைமை வகித்தார். குடிநீர் வடிகால் வாரிய உதவி பொறியாளர் மாரியப்பன், திரு வேங்கடம் பேரூராட்சிக்கு இத்திட்டத்தின் மூலமாக கிடைக்கப்பெறும் பயன்களைப் பற்றி விளக்கினார்.

மேலும் உதவி நிர்வாக பொறியாளர் திருமதி சிதம்ப ரம், உதவி பொறியாளர், திருவேங்கடம் பேரூராட்சி செயல் அலுவலர் சிவ அருணாசலம் ஆகியோர் கள் பொதுமக்கள், வார்டு கவுன்சிலர்கள் கூட்டுக்குடிநீர் திட்டம் பற்றி கேட்ட சந்தேகங்களுக்கு பதில் அளித் தார்கள். பேரூராட்சி செயல் அலுவலர் நன்றி கூறினார். ஏற்பாடுகளை தலைவர் மற்றும் தமிழ்நாடு குடிநீர் வடிகால் வாரிய பொறியாளர் ராமசாமி, செயல் அலுவலர், எழுத்தர் செய்திருந்தனர்.

The public consultations were presided over by respective Chairmen of beneficiary Municipalities and Town panchayat.Once the meeting begins, TWAD Board explains the salient aspects of the proposed project through power point presentation. After this presentation, the public is asked to offer their views.

The Participants were keen to know the following aspects:

- Time frame of the proposed project and date of commissioning
- Amount to be paid as water tax after the implementation
- Maintenance during operation of the proposed project

Various components of the proposed water supply scheme

Table 7.1- Queries and Replies in Public consultation

S. NO	QUERY	REPLY
1	Mr. Sivanandam (Ex-Councilor) of Sivakasi complained about the leakage of water in the existing pipelines and enquired about this issue in the proposed project.	Assistant Executive Engineer, TWAD replied that the project is proposed to use SCADA to monitor the leakage of water in pipelines. She also told that more efficient Ductile Iron pipes will be laid.
2	Mr. Albert Selvaraj (Retired Head Master) asked, Is it possible to supply water and meet the demand in both the municipalities Sivakasi and Thiruthangal through single pumping main under this combined water supply scheme?	Executive Engineer explained about the pumping of water supply to both the municipalities from Sankarankoil common sump. Since the alignment of pumping main is same and both the municipalities are located very nearby, in order to minimize the cost, single pumping main is proposed and the designed quantity will be delivered by separate valves and water meters.

3	Mr. Baskaran complained that money has been spent on many schemes but it has not been implemented properly. He asked to increase the level of ground water and asked everyone to work on it.	Municipal Engineer replied about the significance of the project that the proposed project will be implemented with an assurance. He explained about the condition of Vembakottai reservoir and told that it would not be possible to meet the future water demand. He also insisted that the public should come forward to take necessary measures like Rain Water Harvesting to enhance ground water potential.
4	Mr. Arumugaswamy (Ex-Councilor), asked about the cost details for the water to be distributed to houses and industries in Sivakasi.	Chairman explained that the cost details for drinking water will be based on area extend of each house and informed that necessary council resolution will be passed.
5.	As the water supply line proposed to Puliyankudi Municipality is situated in an higher elevation from Sankarankoil Municipality, whether there will be any hindrance due to high GL variation and any possibilities of reducing the assured quantum of water i.e. 75.60 LL.	The officials have explained that from the common sump at Sankarankoil, the designed quantity of water will be pumped to the sump of 4.35 LL capacity at Puliyankudi with the help of heavy duty pump sets, and then from there, water will be pumped to OHTs. Hence there will not be any hindrance to the assured quantity of water (i.e.) 75.60 LL.
6	Time required for completing the project?	With regard to query on completion of the project, officials informed the participants that the project will be completed within 18 months (i.e.) end of 2017.

7	Status of the existing pipe line system?	Existing distribution lines will not be used. New distribution system of pipes varying from 110mm diameter to 400mm diameter will be adopted. Distribution pipes will be laid at a depth varying from 1.05m to 1.55m below ground level.
8	How are the locations selected for OHT's?	Regarding location of the proposed overhead tanks, it has been replied that locations are placed on higher ground levels in the respective areas based on field survey. The location and capacity of OHT is also considered based on the quantum of water supply required to the respective zones.
9	Puliyankudi is having much undulation in topography. Whether equitable water supply will be affected?	The entire Town has been divided into 10 Zones based on the topography and the field survey data. The distribution system for each Zone has been designed for equitable water supply.
10	Is there any proposal for establishing public taps?	Officials replied that there is no proposal for new public taps.
11	Whether supply will be affected by electrical Power cut?	Separate electrical feeder main as well as Diesel generators for all the pumping stations are proposed in this project. Hence there will not be any interruption due to electrical Power cut.

12	Whether the streets are restored after laying of pipes.	Yes. All the damaged roads and streets will be restored after laying of New distribution pipes.

13	Mr.Velusamy, Fitter, Thiruthangal Municipality & Mr.P.Lakshmanan Arima society asked whether unlike Manur combined water supply scheme, this scheme will provide drinking water supply with separate valve and water meter?	Officials replied that separate valves and water meters are proposed for Sivakasi and Thiruthangal Municipalities and the designed quantity will be effected.
14	Mr. Kumarasami, 12th wardcouncillor questioned that whether the leakage and bursts in pipe will be rectified immediately?	It was informed that Ductile Iron pipes are proposed for pumping and SCADA technology for maintenance of the scheme are proposed in this new CWSS. If any problem occurs repair works shall be carried out immediately and supply will be continuous.
15	Mr.D.Rajavel, Swami Vivekananthar Varthagasankam requested to provide water at least twice in a week.	TWAD officials informed that the Combined water supply scheme has been designed to provide 135 litres of water per day per person.
16	Mr.I.Perumal,president,Paraipatty asked Whether the administrative sanction obtained?	The scheme is yet to get administrative sanction. The DPR has been prepared for Rs.543.20 crores. And fund tie up has to be made for all the beneficiaries. Subsequently, administrative

		approval from Tamil Nadu government and technical sanction will be obtained. After this, project will be implemented

17	Mr. S.N. Muthukumar, Retired Teacher questioned	
	1. Whether the needs of water supply for the present and future population has been considered?	1. Reply to the query, it was informed the base year for Combined water supply scheme is 2017 and ultimate year is 2047. It was informed that as per TWAD norms the capacity of over head tanks will be conducted to cater the needs of water supply for another 15 years from 2017.
	2. Any water meter to each house for the purpose of collecting of water tax?	2. The water supply to each house will be provided with water meter and water tax will be collected based on the consumption of water.
	3. Whether the amount of caution deposit will be reduced?	3. Executive Officer of Thiruvenkadam Town Panchayat stated the

		expenditure towards the cost infrastructure of HSC has been taken into account in the DPR Cost. Due to this, there is a possibility of reduction in the expenditure involved during getting HSC. The water supply source is from Tamirabarani River which is located at a far off distance. In view of this, the proportionate cost is on the higher side. He added that caution deposit has been fixed based on expenditure and to this effect resolution was passed.

The Minutes of the meetings held at beneficiary Municipalities and Town panchayat is given in the**Annexure 4.**

SOCIAL IMPACT ASSESSMENT

Figure 3.2 Photos during public hearing in various beneficiaries

It was evident from the public consultation that the people are eagerly awaiting for the early implementation of the project. The public also expressed their grievances on present water scarcity and assured complete support during the implementation of this much awaited water supply scheme in their respective Municipalities and Town panchayat.

Annexures:

1. Action taken by TWAD to obtain EUP for the sites.
2. Social Screening Forms
3. Site details
4. Records of Stakeholder Consultations (for eg. news clippings, invitation letters, proceeding minutes, photographs etc.)

TABLE 1. Land Details for Various Components of Water Supply Project

SL. No	Description	Location	Extent of Land & Survey No	Survey Number	Ownership	Land Classification	Current Land Use/ Required land	Required Land	Acquisition / Alienation status
I	**HEADWORKS** (Intake well &Foot Bridge)	River Tamiraparanin Near Kondanagaram			PWD	River	River	0.30 Acres	Permission sought for
II	**Water Treatment Plant**	Kondanagaram	6 Hec. 10.5 Ares	SF No. 536	Revenue Department	Meikkal Porombok e land	Dry vacant land	10.2 acres (200m x 207m)	To be Alienated from Revenue dept.(Last Reminder lr. Dt 17.6.2016)
III	**Booster station – 1**	Manur	0.80 Acres	SF No. 256	Revenue Department	Mayanam	Dry vacant land	0.60 acres (60 m x 40 m)	To be Alienated from Revenue dept.(Last Reminder lr. Dt 17.6.2016)
IV	**Booster station – 2**	Panavadalichat ram	5 Hec. 0.56 Ares	SF No. 885/14	Local body – President of Panavadalich atram	Kulam	Dry vacant land	0.60 acres (60 m x 45 m)	The panchayat council of Panavadalichathram village has given concurrence vide resolution no.24 dt.2-10-2015.((Last Reminder lr. Dt 17.6.2016)

V	**Booster station – 3**	Sankarankoil	2 Acres	T.S. No. 4	ULB (Sankarankoil Municipality)	Municipal Land	Dry vacant land	1.50 Acres (100m x 60m)	Revised council resolution to be obtained.(original resoltion no.936 dt 30.06.2014
VI	**Booster station for Puliyankudi Municipality**	Puliyankudi Municipality	0.94 Acres	T.S. No. 99	ULB (Puliyankudi Municipality)	Municipal Land	Dry vacant land	0.30 Acres (40m x 30m)	council resolution obtained Resoltion No.402 dt 30.11.2015
VII	**Booster station for Rajapalayam Municipality**	Rajapalayam Municipality	1.93 Acres	T.S. No.51	ULB (Rajapalayam Municipality)	Municipal Land	Dry vacant land	0.49 Acres (50m x 40m)	council resolution obtained (file no 5807/2009 dt.10.12.15
VIII	**Booster station for Sivakasi Municipality**	Sivakasi Municipality	0.54 Acres	T.S. No.50 & 51	ULB (Sivakasi Municipality)	Municipal Land	Dry vacant land	0.10 Acres (15 m x 15 m & 20m x 12m	council resolution obtained vide no3278 dt.30.11.2015
IX	**Booster Station Thiruthangal for Mptly**	Thiruthangal Mpty	14 hec.15 are	S.F. No. 1352/1	ULB (Thiruthangal Mpty)	sengulam kanmoi	Dry Vacant land	0.10 Acres (15 m x 15m)	council resolution obtained vide no 08 dt30.10.2015
X	**Booster Station for Thiruvengadam TP**	Thiruvengadam TP	--	--	TWAD Board	TWAD Board pump house	Dry Vacant land	100 sqm (10 m x 10m)	concurrence not required
XI	**Elevated Service Reservoirs @Sankarankoil Mpty**								
a)	Near Bharathiyar Street	Sankarankoil Mpty	0.37 Acres	T. S. No. 2	ULB (SankaranKoil Mpty)	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained vide no.936 dt.30.06.2014
b)	Near Ward 10	Sankarankoil Mpty	0.74 Acres	T. S. No. 96	ULB (SankaranKoil Mpty)	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained vide no.936 dt.30.06.2014

c)	Near Puliyangudi Road	Sankarankoil Mpty	0.61 Acres	T. S. No. 45/1	ULB (SankaranKoil Mpty)	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained vide no.936 dt.30.06.2014
XII	**Elevated Service Reservoirs @Puliyangudi Mpty**								
a)	Near Chinthamani	Puliyangudi Mpty	0.284 Acres	T. S. No. 127	ULB Puliyangudi Mpty	Municipal Land	Dry Vacant land	0.08 Acres (18 m x 18 m)	council resolution obtained Resoltion No.402 dt30.11.2015
b)	Near RSKP Premises	Puliyangudi Mpty	0.94 Acres	T. S. No. 99	ULB Puliyangudi Mpty	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained Resoltion No.402 dt30.11.2015
c)	Near GH	Puliyangudi Mpty	0.94 Acres	T. S. No. 21	ULB Puliyangudi Mpty	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained Resoltion No.402 dt30.11.2015
d)	Near Ayyapuram	Puliyangudi Mpty	0.85 Acres	T. S. No. 17/15	ULB Puliyangudi Mpty	Municipal Land	Dry Vacant land	0.10 Acres (15 m x 15m)	council resolution obtained Resoltion No.402 dt 30.11.2015
XIII	**Elevated Service Reservoirs @ Rajapalayam Mpty**								
a)	Near commissioners quarters –Alagai Nagar	Rajapalayam Mpty	1.93 Acres	T. S. No. 51	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.13 Acres (25 m x 25m)	council resolution obtained (file no 5807/2009 dt.10.12.15
b)	Near Ambedkar Nagar	Rajapalayam Mpty	0.17 Acres	T. S. No. 209	ULB Rajapalayam Mptly	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20m)	council resolution obtained (file no 5807/2009 dt.10.12.15
c)	Near Kulalar Street	Rajapalayam Mpty	0.20 Acres	T. S. No. 124	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.10 Acres (30 m x 13m)	council resolution obtained (file no 5807/2009 dt.10.12.15

d)	Near Kamarajar Nagar	Rajapalayam Mpty	1.46 Acres	T. S. No. 11	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.79 Acres	council resolution obtained(file no 5807/2009 dt.10.12.15
e)	Near Kamarajar Nagar	Rajapalayam Mpty		T. S. No. 11	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land		council resolution (no.37 dt.30.5.2016)obtained
f	Near Sankarankoil Road	Rajapalayam Mpty	1.05 Acres	T. S. No. 118	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.13 Acres (25 m x 25m)	council resolution obtained(file no 5807/2009 dt.10.12.15
g	Near Somaiyapuram	Rajapalayam Mpty	0.64 Acres	T. S. No. 279	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.10 Acres (30 m x 30 m)	council resolution obtained(file no 5807/2009 dt.10.12.15
h	Near Mother Health Centre	Rajapalayam Mpty	0.56 Acres	T. S. No. 121	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.21 Acres (30 m x 30m)	council resolution obtained (file no 5807/2009 dt.10.12.15
i	Near Madurai Road	Rajapalayam Mpty	1.46 Acres	T. S. No. 6	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land	0.79 Acres	council resolution (no.37 dt.30.5.2016)obtained
j	Near Madurai Road	Rajapalayam Mpty		T. S. No. 6	ULB Rajapalayam Mpty	Municipal Land	Dry Vacant land		council resolution to be obtained
XIV	**Elevated Service Reservoirs @ Sivakasi Mpty**								
a)	Near Children Health Centre	Sivakasi Mpty	0.68 Acres	T. S. No. 28	ULB Sivakasi Mpty	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20m)	council resolution obtained vide no3278 dt.30.11.2015
b)	Near R.c.Church	Sivakasi Mpty	1.92 Acres	T. S. No. 121	ULB Sivakasi Mpty	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20 m)	council resolution obtained vide no3278 dt.30.11.2015
XV	**Elevated Service Reservoirs @ Thiruthangal Mpty**								

a)	Near S,N,Puram Road	Thiruthangal Mpty	14 hec.15 are	S.F. No. 1352/1	Revenue Dept	Municipal Land	Dry Vacant land	0.10 Acres (20 m x 20m)	council resolution obtained vide no 08 dt30.10.2015
b)	Near Pappankulam Tank	Thiruthangal Mpty	5 hec. 98.5 are	S.F. No. 1763/2	Revenue Dept	Municipal Land	Dry Vacant land	0.08 Acres (15 m x 15m)	council resolution obtained vide no 08 dt30.10.2015
XVI	**Elevated Service Reservoirs @ Thiruvengadam TP**								
a)	Near School in Kalugumalai Road	Thiruvengadam TP		S.F. No. 49	ULB Thiruvengadam TP		Dry Vacant land	0.08 Acres (15 m x 15m)	council resolution obtained vide no 323 dt 2.11.2015.

TABLE 2. Details of Distribution Main, Raw/Clear Water Main, Gravity Mains Right of Way (ROW) etc.

Sl.No	Description	Starting Location	Ending Location	Distance (in KMs)	Whether passing through private lands, road, river banks etc.	Any structures are affected enroute.	Status of permission (if required) for laying
1	Raw Water Main	Kondanagaram Village From River Bank	Kondanagaram WTP site	3.98	Berm of Rural Roads, &SH Road crossing & Railway crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
2	Clear Water Main	Kondanagaram WTP site	Sankarankoil Booster Station III	12.0 54.0	Berm of Roads, &SH Road crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
3	Clear Water Main	Sankarankoil Booster Station III	Puiyankudi Booster Station	18.8	Berm of Roads, &NH & ODR Road crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
4	Clear Water Main	Sankarankoil Booster Station III	Sump & Service Reservoirs in Rajapalayam Municipality	33.0 9.0	Berm of Roads, &SH Road crossing & Railway crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution

5	Clear Water Main	Sankarankoil Booster Station III	Thiruthangal Booster Station	48.57	Berm of Roads, &ODR Road crossing & Railway crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
6	Clear Water Main	Sankarankoil Booster Station III	Service Reservoirs in Sankarankoil Municipality	3.5 KM	Berm of Roads, &SH, ODR Road crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
7	Clear Water Main	Sankarankoil Booster Station III	Sump & Service Reservoirs in Puliyankudi Municipality	22 KM	Berm of Roads, &SH, ODR Road crossing & Railway crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
8	Clear Water Main	Sivakasi Booster Station	Service Reservoirs in Sivakasi Municipality	7 KM	Berm of Roads, & SH, ODR Road crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
9	Clear Water Main	Thiruthangal Booster Station	Service Reservoirs in Thiruthangal Municipality	11 KM	Berm of Roads, & SH,ODR Road crossing & Railway crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution
10	Clear Water Main	Thiruvenkadam Booster Station	Service Reservoirs in Thiruvenkadam TP	1 KM	Berm of Roads, & SH, ODR Road crossing	Nil	After getting Adm.Sanc. permission will be obtained before execution

TABLE 3. Distribution System (connecting all the OHTs)

Sl. No	Description	From	To	Length in KM	Available RoW (in metres) and lane details	RoW Ownership(SH, NH, Corporation, ODR, River/canal crossing etc.,)	Status of permission (if required) for laying
1	At Sankarankoil Municipality	Service Reservoirs	Inside Town limit	5.00	0.80/ single lane	SH & ODR Railways	After getting Adm.Sanc. permission will be obtained before execution
2	At Puliyankudi Municipality	Service Reservoirs	Inside Town limit	4.98	0.90/ double lane	ODR & NH	After getting Adm.Sanc. permission will be obtained before execution
3	At Rajapalayam	Service Reservoirs	Inside Town limit	5.12	0.90/ double lane	SH&ODR	After getting Adm.Sanc. permission will be obtained before

	Municipality						execution
4	At Sivakasi Municipality	Service Reservoirs	Inside Town limit	4.60	0.75/ double lane	SH &ODR	After getting Adm.Sanc. permission will be obtained before execution
5	At Thiruthangal Municipality	Service Reservoirs	Inside Town limit	3.50	0.75/ double lane	SH & ODR Railways	After getting Adm.Sanc. permission will be obtained before execution
6	At Thiruvenkadam TP	Service Reservoirs	Inside Town limit	1.20	0.75/ double lane	SH	After getting Adm.Sanc. permission will be obtained before execution

Figure 1 – Flow Diagram of CWSS

Annexures:

1. Action taken by TWAD to obtain EUP for the sites.

2. Social Screening Forms

3. Site details

4. Records of Stakeholder Consultations (for eg. news clippings, invitation letters, proceeding minutes, photographs etc.)