


CHECK LIST FOR FCA Online proposals

SL. No	Details	Yes	No
1.	Proposals No.	Yes	
2.	Name of the Project	Yes	
3.	Short Narration of the proposal	Yes	
4.	Area in Ha.	Yes	
5.	Number of years	Yes	
6.	Authorization letter		
7.	Component wise Breakup details (Division, District, RF, Village, Length, Breadth details)	Yes	
8.	KML file of the segments	Yes	
9.	Survey of India Topo Sheet indicating the Boundary of forest land	Yes	
10.	Geo referenced map with GPS	Yes	
11.	Justification for locating the Proposal in forest land.	Yes	
12.	Map indicating Alternative examines		No
13.	Beneficiaries	Yes	
14.	Displacement		No
15.	Cost Benefit Analysis	Yes	
16.	Status of Wildlife Clearances		No
17.	Status of Wildlife Clearances		No
18.	Forests Rights Act Certificate from the District Collector in Form I/II	YES	
19.	Details of Compensatory Afforestation land		No
20.	Certificates i. Forest area is minimum ii. Violation of Forest (Conservation) Act, 1980 iii. Lease rent. iv. No alternate suitable land	Yes Yes Yes Yes	
21.	Undertakings i. NPV ii. Additional NPV iii. Compensatory Afforestation iv. Penal Compensatory. Afforestation v. Maintenance/Protection of Plantation under Compensatory Afforestation for 7-10 yrs. vi. Cost towards lease rent vii. Cost of felling of trees and transportation of the trees to be removed.	Yes YES YES Yes YES YES YES	No

மாவட்ட ஆட்சியர் அலுவலகம்,
தூத்துக்குடி மாவட்டம்,
தூத்துக்குடி.

சான்றிதழ்

தமிழ்நாடு குடிநீர் வடிகால் வாரியம் மூலம் நிறைவேற்றப்பட்டுள்ள நாளொன்றுக்கு 20 மில்லியன் காலன் (20 எம்.ஜி.டி) குடிநீர் திட்டத்திற்கு ஸ்ரீவைகுண்டம் அணைக்கட்டு நீர் சேகரிப்பு பகுதியில் (வன நிலம் புல எண்: 600) நீர் சேகரிப்பு கிணறு, மின் இயக்கி அறை, நடைமேம்பாலம் இவைகள் 800 சமீ பரப்பளவு நிலத்தில் கட்டப்பட்டுள்ளது. இப்பகுதி அணைக்கட்டு எல்லையில் இருந்து 400 மீ தூரத்தில் உள்ளது. இப்பகுதியில் மட்டுமே மேற்கண்ட குடிநீர் திட்டத்திற்கான கிணறு அமைக்க போதிய ஆழம் உள்ளதாக கண்டறியப்பட்டதால் வனநிலம் புல எண் 600 நீங்கலாக மாற்று இடங்களில் குறிப்பிடத்தக்க ஆழம் இல்லாததால் மாற்று இடம் வழங்க இயலவில்லை என சான்று கூறுகிறேன்.

மாவட்ட ஆட்சியர்,
தூத்துக்குடி மாவட்டம்,
தூத்துக்குடி.

FORM-II

(for projects other than linear projects)

Government of Tamil Nadu
Office of the District Collector,
Thoothukudi.

No: 5718/20 MGD/JDO/2018

Dated 05.07.2018

TO WHOM SO EVER IT MAY CONCERN


Incompliance of the Ministry of Environment and Forests (MoEF), Government of India's letter No. 11-9/98-FC(pt) dated 3rd August 2009 wherein the MoEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (FRA for short) on the forest land proposed to be delivered for non-forest purposes, it is certified that 0.08 ha of forest land in S.No. 600 of Srivaikundam village of Srivaikundam Taluk, Thoothukudi District proposed to be diverted in Favour of the Executive Engineer, TWAD Board, Maintenance Division, Thoothukudi for Construction of intake well, Foot Bridge, Control room with Passage & Transformer yard in Tamirabarani river.


It is further certified that:

- a) The complete process of identification and settlement of rights under FRA has been carried out for the entire 0.08 hectares of forest land proposed for diversion. A copy of records of all conclusion and meeting of the Forest Rights committee(s), Gram Sabha, Sub-Division Level Committee(s) and the District Level Committee are enclosed as annexure to annexure (Exempted vide MoEF's Circular ref No: 11-998-FC (pt) dtd: 5.09.2013)
- b) the Proposal for such diversion (with full details of the projects and its implications, in vernacular / local language) have been placed before each concerned Gram Sabha of forest dwellers, who are eligible under the FRA; (Exempted vide MoEF's Circular ref F. No: 11-9/98-FC (pt) dtd: 5.09.2013)

- c) each of concerned Gram Sabha(s), has certified all formalities/processes under the FRA have been carried out and that they have given their consent to the proposed diversion and the compensation ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of certificate issued by the Gram Sabha of..... Village(s) is enclosed as annexure ... to annexure (not applicable)
- d) the discussion and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha present; (not applicable)
- e) the diversion of forest land for facilities managed by the Government as required under section 3(2) of the FRA have been completed and the Gram Sabhas have given their consent to it; (not applicable)
- f) the proposal does not involve recognised rights of primitive Tribal Groups and Pre-agriculture communities.

Encl: As above.


District Collector,
Thoothukudi.

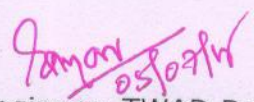

05/07/18

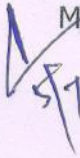
O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

JUSTIFICATION

20 MGD water supply scheme closed conduit system. Water supply scheme to Thermal Power Project, SIPCOT complex, Heavy water plant and other Industries in Thoothukudi District for Industrial and other purposes.

Now the raw water is being drawn from the North main channel of Srivaikundam Anaicut. In closure period (Summer) the drawal of raw water for treatment faces much difficulties due to Agricultural objection. Agriculturalist approached High Court and obtained orders for taking 20 MGD raw water direct from Srivaikundam Anicut and the Government approved the same. Also the PWD authorities have suggested tapping the requirement (20 MGD) at Srivaikundam Anaicut itself and conveying the same through closed conduit system to the 20 MGD Treatment plant to avoid illegally taping the water. Accordingly a project report has been prepared for 20 MGD water supply scheme through closed conduit system. (Report on Detailed Estimate is enclosed separately).


Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

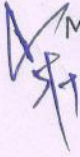


O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

BRIEF SCHEME REPORT

20 MGD water supply scheme closed conduit system. Water supply scheme to Thermal Power Project, SIPCOT complex, Heavy water plant and other Industries in Thoothukudi District for Industrial and other purposes.

Now the raw water is being drawn from the North main channel of Srivaikundam Anaicut. In closure period (Summer) the drawal of raw water for treatment faces much difficulties due to Agricultural objection. Agriculturalist approached High Court and obtained orders for taking 20 MGD raw water direct from Srivaikundam Anicut and the Government approved the same. Also the PWD authorities have suggested tapping the requirement (20 MGD) at Srivaikundam Anaicut itself and conveying the same through closed conduit system to the 20 MGD Treatment plant to avoid illegally taping the water. Accordingly a project report has been prepared for 20 MGD water supply scheme through closed conduit system. (Report on Detailed Estimate is enclosed separately).


Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

APPENDIX
(See Rule 6)
FORM - 'A'

Form for seeking prior approval under section 2 of the proposals by the
State Governments and other authorities

PART - 1

(to be filled up by user agency)

1	Project Details		
i)	Short narrative of the proposal and project/scheme for which the forest land is required.	:	20 MGD Water Supply Scheme closed conduit system water supply scheme to Thermal Power project SIPCOT Complex. Heavy Water Plant and other Industries in Thoothukudi District for Industrial purposes.
ii)	Map showing the required forest land, boundary of adjoining forest on a 1,50,000 scale map	:	Map enclosed.
iii)	Cost of the Project	:	Rs. 28000 Lakhs.
iv)	Justification for location of the project in the forest area.	:	Now the raw water is being draw from the North main channel of Srivaikundam Anaicut. In closure period (Summer) the drawal of raw water for treatment faces many difficulties due to Agricultural objections. Agriculturalist approached Highcourt and obtained orders for taking 20 MGD raw water direct from Srivaikundam Anaicut & Government approved the same (Judgement & GO Copy enclosed)
v)	Cost Benefit Analysis (to be enclosed)	:	NIL
vi)	Employment likely to be generated	:	There is possibilities for growth of Industries and possibility for formation of new Industries, if adequate water provided. Because of this employment opportunity can be generated.
	Purpose - wise break up of the total land required.	:	Total area required 800 sp.m construction of intake well with foot bridge, control room, Passage and Transformer yard.

	Details of displacement of people due to the project, if any	:	---
i)	Number of Families	:	---
ii)	Number of scheduled castes/Schedules Tribe families	:	---
iii)	Rehabilitation plan (to be enclosed)	:	---
iv)	Whether clearance under Environment (Protection) Act, 1986 required? (Yes / No)	:	Not applicable.
v)	Undertaking to bear the cost of raising and maintenance of compensatory afforestation and / or penal compensatory afforestation as well as cost for protection and regeneration for safety zone etc as per scheme prepared by the state Government (Undertaking to be enclosed)	:	Enclosed.
vi)	Details of Certificates/documents enclosed as required under the instructions.	:	1) Check list 2) Specific undertaking for the payments of net present value of the forest land 3) District Collector Certificate for No alternative suitable non forest land is available for the 20 MGD closed conduit water supply scheme 4) Map showing the required forest land. 5) Certificate that provision of forest conservation Act 1980 have not been violated in the Reserve forest area grounded for the project. 6) Scheme brief note.

Jayaraj
Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

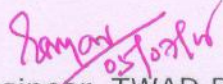
5/1

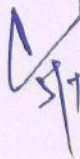
O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

CERTIFICATE FOR LAND ALTERNATION

**PROPOSALS UNDER FOREST (CONSERVATION) ACT 1980 FOR
PROVIDING WATER SUPPLY SCHEME TO 20 MGD CLOSED CONDUIT
SYSTEM.**

1. Certified that the demand for forest land for the Project is minimum.
2. Certified that no alternate suitable non forest land is available for the project.
3. Amount required for a compensatory afforestation and catchment treatment cost etc is provided in the project estimate and would be paid to Forest Department on Demand by the Project Authority.

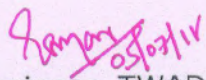

Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

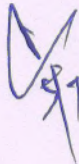


O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

CERTIFICATE

This is to certify that the provision of Forest Conservation Act 1980
have not been violated in the reserve forest area granted for providing water
supply scheme to 20 MGD Closed Conduit system.

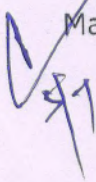

Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

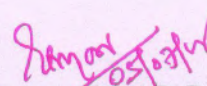


O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

UNDERTAKING

We hereby giving our Concurrence/Undertaking for the payment of Net present Value of the forest land, as per rules in force, raising plantation cost, Maintenance of Plantation, Annual lease Rent, etc of Srivaikundam Forest Area will be paid without any delay to the Forest Department on receipt of demand note.

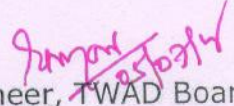

Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

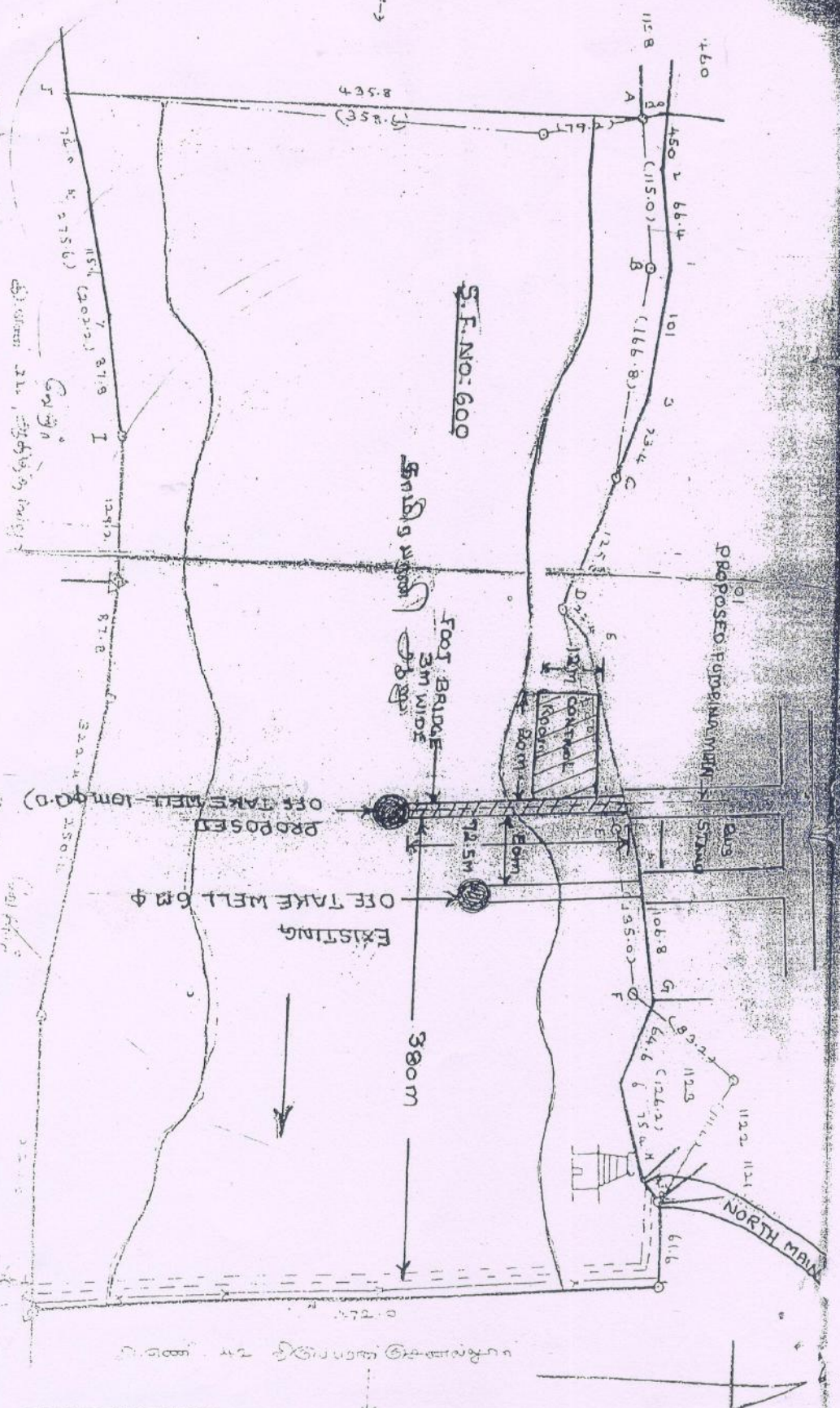


O/o, Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.

UNDERTAKING

We hereby giving our Concurrence/Undertaking for the payment of Additional amount of the Net Present Value (NPV) and Compensatory Afforestation of the diverted forest land if any, becoming due after revision of the same by the Hon'ble Supreme Court of India in future, shall be charges by the State Government from the user agency to the Srivaikundam Forest Area will be paid without delay to the Forest Department on receipt of demand note.


Executive Engineer, TWAD Board,
Maintenance Division, Thoothukudi.



S.F. NO: 600

சுமிகு யானை பிடிப்பு

Foot BRIDGE 3m wide

PROPOSED FOOT BRIDGE

STORAGE

NORTH MAIN

EXISTING

PROPOSED

OFF TAKE WELL 6m φ

OFF TAKE WELL 10m φ (D.O.)

AREA REQUIRED

① Well - $\frac{\pi d^2}{4} = \frac{\pi \times 1^2}{4} = 0.785 \text{ m}^2$

(2) Foot Bridge - $72.5 \times 3 = 217.5 \text{ m}^2$

(3) Control Room : $20 \times 12 = 240 \text{ m}^2$

Total : 552 m^2

Assistant Executive Engineer,
TWA Urban Sub-Division-II,
Thoothukudi.

Executive Engineer,
TWA Urban Sub-Division-II,
Thoothukudi.

District Forest Officer

400 : 600

Dr. C.N. Mahesvaran, I.A.S.,
Managing Director



TAMIL NADU WATER SUPPLY & DRAINAGE BOARD
TWAD HOUSE, No. 31, Kamarajar Salai,
Chepauk, Chennai - 600 005.
Office : 28525501, Fax: 28522934
email: mdtwadboard@gmail.com
Website: www.twadboard.gov.in

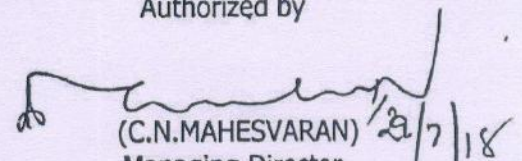
AUTHORIZATION LETTER

This is to certify that Mr.G. Balasubramanian is Executive Engineer(A/c), TWAD Board, Maintenance Division, Thoothukudi, Tamil Nadu and he is authorized person to carry out all online/offline forest clearance proposals with the Forest Department on behalf of Managing Director, TWAD Board, Chennai for the work of getting permission & rectification for 0.080 ha extent land for intake well, Foot Bridge and Transformer in Reserve land survey No.600 of Srivaikundam Village for the work of 20 MGD WSS through Closed Conduit System from Srivaikundam Anaicut, Tamil Nadu.

Date:06.07.2018

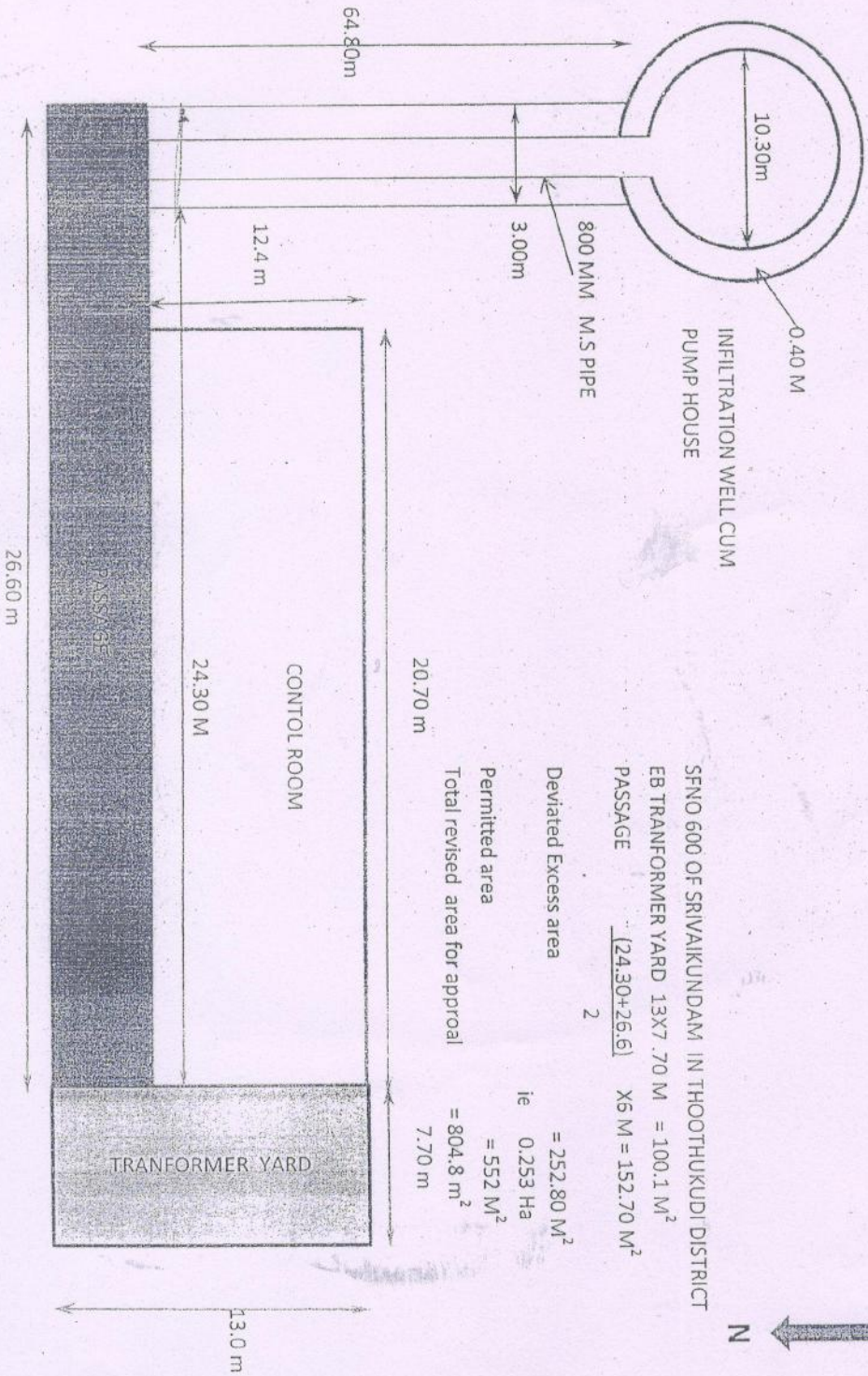
Place: Chennai

Authorized by


(C.N.MAHESVARAN) 2/7/18
Managing Director,
TWAD Board, Chennai-5.

20 MGD WSS HEAD WORKS AT SRIVAIKUNDAM

THAMIRAPARANI RIVER



SFNO 600 OF SRIVAIKUNDAM IN THOOTHUKUDI DISTRICT

EB TRANSFORMER YARD 13X7.70 M = 100.1 M²

PASSAGE $\frac{(24.30+26.6)}{2}$ X 6 M = 152.70 M²

Deviated Excess area = 252.80 M²

ie 0.253 Ha

Permitted area = 552 M²

Total revised area for approval = 804.8 m²

7.70 m

REPORT TO ACCOMPANY THE DETAILED ESTIMATE FOR PROVIDING
CLOSED CONDUIT SYSTEM FROM SRIVAIKUNDAM ANICUT
TO THE EXISTING 20 MGD WATER SUPPLY SCHEME

2800

ESTIMATE AMOUNT : Rs. 3825 lakhs

I. PREFATORY :-

Thoothukudi is an important industrial town situated on the South-East coast of India between latitudes 8 Degree and 9 Degree North and longitudes 78° and 79° East. Being situated on the sea coast and near the equator, the town has humid climate. This town has an average rainfall of 57.7 cm and bulk of this rainfall is received during North-East monsoon period of October to December. The town is connected by road, rail and by air. This town is a port city and noted for Pearl Fishing and salt Manufacturing Industries. Other Industries like Southern Petrochemical Industries Corporation, Tuticorin Alkali Chemicals, Tuticorin Thermal power project, Dharangathara Chemicals works, SIPCOT, Arcelormittal Titanium Sponge plant, Heavy water plant and Port Trust are located in and around Thoothukudi.

To meet the requirement of water for the aforesaid industries, 20 MGD WSS was sanctioned in G.O.Ms.No.2289/PWD Dated 12.4.70 for Rs. 470.40 Lakhs and subsequently revised the proposal for Rs. 565.30 lakhs in G.O.Ms.No. 413/PWD dt.12.3.1980. The scheme was executed and put into beneficial use during the year 1975 and is being maintained by TWAD Board. The scheme has been declared as TWAD Board owned scheme vide G.O.Ms.No. 83 dt. 4.5.98.

2. DETAILS OF 20 MGD WATER SUPPLY SCHEME :

The Source for the scheme is the surface water of River Narmadaparam drawn through North Main Channel from Srivaikundam Anicut. The head works of the scheme is located near Iruvappapuram. The surface flow of North main channel is drawn from Perkulam regulator to the raw water sump through two numbers of RCC conduits of size 8' X 6'. During non-flow season (Closure period) the water stored in the nearby Irrigation Tank (Arumugamangalam Tank) is drawn to the sump by means of temporary pumpsets & pipe lines. The water from the sump is pumped to the treatment

unit at Manjaneerkayal by means of 4 number of 80 HP turbine pumpsets having a duty of 7500 gpm x 27' head (2 Nos. stand bye) through 1200mm PSC 4 KSC pipes for a length of 3780 M. The water is filtered through 12 numbers of twin type rapid sand filter units after the conventional pretreatment. From the filter units the treated water is collected in the clear water reservoir of 40 lakhs litres capacity located nearby. From the clear water reservoir, the water is fed to the sump cum pumphouse and pumped to the beneficiaries through 1200mm PSC 4 KSC clear water pumping main of length 11386M by means of 135 HP Clear Water Vertical Turbine pump sets (3 nos. - 50% stand bye)and branched to the beneficiaries as detailed below.

At LS 464M - Branch to PRC & DCW -	1.00 MGD
At LS 4280M-Branch to Zirconium & Titanium -	1.50 MGD
At LS 7520 M - Branch to SIPCOT sump -	1.70 MGD
At LS 9268 M - Branch to TAC Colony -	0.20 MGD
At LS 9900M - Branch to SPIC Colony -	0.80 MGD
At LS 10386 M - Branch to sump for TTPP, TAC, HWP and SPIC Ammonia -	8.80 MGD
At LS 11386 M - To SPIC sump -	6.30 MGD

From the sump provided for TTPP, TAC, and HWP water is pumped to the following beneficiaries through 750mm CI LA CL pipe -2344M and 600mm CI LA cl pipe - 4576M upto the sump provided for TTPP at LS 6920M

At LS 1374M - Branch to HWP	- 0.60MGD
At LS 2344M - Branch to TAC	- 1.50 MGD
At LS 5980M - Branch to SPIC Ammonia	- 0.50 MGD
At LS 6920M - To TTPP Sump	- 6.20 MGD

3. ALLOCATION OF QUANTITY TO BENEFICIARIES

Beneficiary	Quantity in MGD		
	G.O.Ms.No.288 Dt.17.12.89	G.O.Ms.No.48 dt. 28.2.95	BP.Ms.No.45 dt.29.5.2003
1) M/s.SPIC	7.30	7.00	5.50
2) M/s. TAC	1.70	1.00	0.60
3) M/s. HWP	0.60	0.60	0.50
4) M/s. TTPP	6.20	5.00	3.50
5) M/s. DCW	1.00	1.00	0.50
6) M/s. SIPCOT	1.70	2.75	1.70
7) M/s. Zirconium	1.50	0.15	0.80
sponge plant			
8) M/s Sterlite Industries India Ltd		2.50	3.00
9.) For future requirement & losses			
TOTAL	20.00 MGD	20.00 MGD	3.90 20.00 MGD

NECESSITY FOR THE PROPOSAL

A link channel connecting Arumuga Mangalam tank and North main channel has also been constructed for drawing raw water requirements during closure period. However, the experience in drawal of raw water from the North main channel reveals that much difficulties are met with to tap even a quantity of least 50 % of raw water requirement during the closure period, water is being illegally tapped or pilfered during its transit by the wayside roots. This illegal tapping could not be controlled in the past period even though protection arrangements were made jointly by PWD and Revenue Department. Moreover PWD authorities are stating that in order to supply 20 MGD of water at Iruvappapuram, they have to release at least 50 MGD of water at Srivaikundam anicut. Therefore the PWD authorities have suggested tapping the requirement at Srivaikundam Anicut itself and conveying the same through closed conduit system to the 20MGD Plant. Accordingly a proposal has been formulated for 20 MGD WSS through Closed Conduit System.

5. ADMINISTRATIVE APPROVAL

The proposal for providing Closed Conduit System to 20 MGD WSS has been administratively approved vide G.O. Ms.No. 160 / RD / dt. 30.7.1998 for Rs. 2193.00 Lakhs to install and Rs. 375.98 Lakhs to maintain annually. The G.O stipulates that,

1. The financial potentiality should be raised by levying water charges based on the capital investment and maintenance cost for the scheme
2. Government funds or funds allotted by the Governments from the financial Institutions like LIC., etc., should not be used for the implementation of this scheme.
3. On completion of the scheme, completion report and fund utilisation should be sent to Government.

In BP.Ms.No. 45 dt. 29.05.2003, It is ordered that the TWAD Board will take up the above proposal as deposit work.

As the beneficiaries expressed their inability to bear the installation cost as investment for carrying out this work as deposit work, they suggested to raise the financial resources by way of increased tariff or certain fixed water charges. Accordingly several meetings were conducted with the beneficiaries and finally the following conclusions were arrived at.

(9)

1. The beneficiaries will have to remit their implementation share as additional tariff at the rate of Rs. 10.00 per cubic metre for 50% of their respective demand (as per the quantity finalised in the BP.Ms.No. 45 dt. 29.5.2003) in addition to the existing tariff of Rs. 15.00 per cubic metre every month for the implementation period of twenty months towards the installation cost.

2. The amount thus collected will be utilised for implementation of Closed Conduit proposal only.

The above proposal was placed in the Board meeting held on 19.1.2006 for approval and the Board accorded approval for carrying out the implementation of Closed Conduit System to 20 MGD WSS on the above lines vide BP.Ms.No. 39/ PM / dt. 13.4.2006

6. BRIEF DESCRIPTION OF THE PROPOSAL :

It is proposed to draw 20 MGD of water from the Srivaikundam Anicut through ^{yo} ~~off~~ take well of 10 m dia. The water will be pumped to the proposed sump at ridge point near Petmanagar. The alignment of pumping main is along the sides of the road leads to Vagaikulam from Srivaikundam via Thirupullangudi, Perur and Petma Nagar. The length of pumping main is 8140m as against the original sanctioned proposal of 8000M. The classification of soil met with in this alignment is ordinary soil upto LS 6000M and beyond that it is red earth, SDR and MR. Hence, ^{in the pumping main} it is proposed to lay 1000mm BWSC 8,6- KSC Pipes for a length of 6540 M ^{Since the pipeline has to be laid in the paddy field area} and for the balance 1600M, 1000mm PSC 6,4 KSC pipes are proposed. Since the alignment of pumping main is coming through the road and also the road width is very less to work with 1200mm/1100mm PSC Pipes it is proposed to use 1000mmdia BAR WRAPPED STEEL CYLINDER PIPES in the above reaches. Since the joints are made of welding there will be minimum expenditure in maintenance and for attending the repair work if any during later period.

The water collected in the proposed ²⁰ Lakh Litre sump at ridge point will be gravitated to the treatment site at Manjaneerkayal (for a distance of ^{13.79 m} 1431m) by laying 1200mm PSC 4 KSC pipes for ^{10500m} 8010m, and 1100mm PSC pipes ^{1200 mm BWSC or KSC pipes of 1600m and 6x50} for a length of ^{2215 m} 6305m upto Iruvappapuram stand post and then by using the

ting 1200mm PSC 4 KSC pipes ^{2861m} ~~3700m~~ from Iruvappapuram stand post to treatment site at Manjaneerkayal.

In order to avoid excess pressure head created due to gravity main the existing pumping main of 1200 MM PSC -4KSC ^{pipes 2861m} it is proposed to provide the 4.0L.L.Capacity ^{stand post 7.50 m} with (6.0m) Staging as balancing Reservoir at Iruvappapuram within TWAD Board premises.

Necessary provision is also made for providing Inlet connection from the existing pumpset from Iruvappapuram to the proposed 4 LL stand post so that this stand post can be put in use in both cases when direct pumping from Srivaikundam is done as well as from Iruvappapuram thro' NMC.

7. COMPONENTS OF THE PROPOSAL

7.1 HEAD WORKS :

It is proposed to construct an ⁱⁿ intake well of 10.0m dia at a distance of 75m from the bank of the river. The ⁱⁿ intake well along with pumproom is suitably designed after checking the details of soil, depth of water above bed level. *It is also proposed to construct a foot bridge of length 99.50m from the intake well to the bund and it is proposed to lay the connector main of 800 mm size of pipeline over the foot bridge.* Salient details of the off-take well cum pumphouse is as follows.

Size proposed :	= 10.0m dia with pump house
Bottom of ⁱⁿ Offtake well	= (+) 2.00m
Average Bed level of River (G.L)	= (+) 8.00 m
Maximum depth of water at the location @ 75M	= 4.00 m
Floor level of pumphouse	= (+) 18.20 m
Foot valve level	= (+) 5.00 m
Bund level of River	= (+) 18.20 m
Maximum flood level	= (+) 16.030 M occurred during 1993
Crest level of Srivaikundam	
Anicut	= (+) 12.01 M
Sill level of Northmain	
Channel	= (+) 9.57 m

7.2 CONTROL ROOM

The control room of size 20m x ^{12m}25m is proposed inside the River adjoining to the bund by providing column foundations.

The salient Details of the control room are as follows.

Size = 20 m X ^{12m}25 m

Floor level = + 18.20 m

The pump sets housed in the pump house over the off-take well will be receiving power supply from the control panel housed in the control room to be located near the bank of the River. The indoor Transformer is also proposed to be housed in the control room.

7.3. Pumpsets: (Design of pumpset enclosed in vol 7)

It is proposed to use 3.3kv H.T. vertical type turbine pumpsets for the Head works. It is proposed to run two pumpsets parallel and to have 50 % standby (2+1). The efficiency of the pumpset is assumed as 75 %. Hence the Horse power of the each pumpset works out to 400 HP. The duty of the pumpset is 31570 lpm x 43m Head each. Which will have a combined discharge of 63140 lpm against a head of 43m when 2 pumps are operated in parallel. The hours of pumping is proposed as 24 hours.

7.4. PUMPING MAIN

The conveying main has been designed as a pumping main upto the ridge point at LS 8140 m. At LS 8140 m a ground level sump of ²⁰10 L.L. is proposed. The details of pipes of the pumping main are as follows.

1. LS 0-5100 ^{6000m}	5100 M ^{6000m}	1000MM BWSC 8Ksc
2. LS 5100-6540 ⁶⁰⁰⁰	1440 M ⁶⁴⁰	1000MM BWSC 6Ksc
3. LS 6540-7110	570 M	1000 MM PSC 6Ksc
4. LS 7110-8140	1030 M	1000MM PSC 4Ksc

7.5. STAFF QUARTERS:

The staff quarters are proposed in the sanctioned outline proposal at Head works site.

1. Watchman quarters (Twin type) - 1 No
2. Electrician quarters (Twin type) - 1 No
3. Electrical Superintendent Quarters - 1 No

Since the head work site is situated adjacent to the Srivaikundam Special Village Panchayat it is now proposed to be deleted.

7.6 GROUND LEVEL SUMP AT LS 8140M(RIDGE POINT)

A ground level sump of ²⁰10 L.L. capacity has been proposed to be constructed at SF.No. 839A/2 of Srimoolakkarai village which is a Poramboke land. The land required to construct the sump is 40m x 40m. The salient details of the sump are as follows. Detention time adopted is ²⁰15 minutes.

Capacity	= ²⁰ 10 LL
MWL	= (+) 33.90 M
LWL	= (+) 29.90 m
Av.G.L.	= (+) 31.40 M
Dia of sump	= (+) 20 M 25.25 M

S.F.No. 839/2 of Sri Moolakkarai village

7.7. GRAVITY MAIN

The conveying main has been designed as gravity main from the ground level sump at LS 8140m to the newly proposed stand post of capacity 4.00 L.L near existing raw water pump house at L.S 14315 M at Iruvappapuram.

THE DETAILS OF PIPE ARE AS FOLLOWS

LS 0m - 10500m	= 1200mm PSC 4 KSC pipes.	10500
L.S. 10500m - 12100m	= 1200mm BNSC 4 KSC Pipes (Upto 4.00 L.L Capacity standpost)	1600
LS 12100 - 14315	= 1100mm PSC 6 KSC Pipes	2215
LS 14315m - 18179m	= 1200mm PSC 4 KSC pipes (existing) (Stand post to treatment plant)	3864

TOTAL

18189

The above stand post is proposed as a Break pressure Tank, so as to minimize the available pressure in Gravity main and to utilize the existing 1200mm PSC ^{PSC} main from Iruvappapuram to treatment plant.

Salient details of Stand post at Iruvappapuram

Capacity	= 4.00 LL
AV.GI	= + 7.48 m
LWL	= + (13.48 m) 14.98 m
MWL	= + (17.08 m) 18.58 m

It is proposed to locate the above stand post within TWAD Board premises. at Iruvappapuram existing Headworks.

As per the Instructions of the Higher officials LS levels were taken along the proposed alignment of pumping main and Gravity main from Srivaikundam to Iruvappapuram and from this to Manjalneerkayal. This level particulars were used for preparing the Detailed Estimate. The salient details of existing head works at Iruvappapuram are furnished below.

SUMP size = 7.30M x 6.30M

MWL	= (+) 8.235 M
LWL	= (+) 4.935 M
G.L.	= (+) 7.480 M

To be verified, In sketch - 4.925 m

PUMPHOUSE

Size	= 16.70 m x 8.20 m
------	--------------------

PUMPSETS

Capacity	= 90 HP Turbine
Discharge	= 7500 GPM (34095) LPM
Head	= 27' (8.24 m)
Nos	= 4 Nos (2 Nos standbye)

8. LUMPSUM PROVISIONS

1. For dewatering arrangements
2. For removal of formed earth bund
3. Levelling the site.
3. For land acquisition
4. Obtaining power supply & Providing separate feeder main
5. For approach road and strengthening the bund
6. For dismantling and reconstruction of existing culverts and other structures.
7. Realigning of Saverpuram pumpingmain if necessary wherever crossing the proposed line.
8. Provision for surge arrangements

9. RATES:-

The TWAD schedule of rates for the year 2006-2007 and local rates are adopted for preparing the estimate. For the pumpsets, the rates have been adopted based on the quotations obtained as approved by the SE, T.V. Circle, Kovilpatti and not included in the schedule of rates items.

10. COST

The total cost of the estimate works out to Rs.2825 lakhs Annual Maintenance charges - Rs. 310 Lakhs

11. FINANCE

Implementation of the above scheme may be taken up by TWAD as deposit work in BP MS.No.45/Dt.29.5.2003. On 9.11.2004, the Chief Engineer, TWAD Board, Madurai conducted a meeting with all beneficiaries of 20MGD WSS and requested them to contribute the amount required for implementation. A viable and feasible alternative for mobilization of fund for implementation of the scheme by collecting an implementation share at the rate of Rs.10.00/1000 litres in addition to existing tariff of Rs. 15.00/1000 litre every month was proposed to the beneficiaries of 20MGD WSS.

The above proposal of mobilization of fund for implementation of the 20MGD closed conduit Scheme was placed before the Board at its meeting held on 19.1.2006 for its approval and the Board in resolution No.2.20 Dt.20.1.2006, approved to take up the proposal for implementation through mobilization of fund as suggested in BP.Ms.No.45 Dt.29.5.2003.

On 4.12.2006, an agreement was concluded with all the beneficiaries at Chennai in the presence of the Managing Director, TWAD Board. and the collection of the implementation share from the beneficiaries has been commenced from 11/06 onwards.

12. MAINTENANCE OF THE SCHEME

On completion of the scheme, the scheme will be maintained by TWAD Board.

② The work should be commenced after 6 months from the date of commencement of the collection of implementation share as per the agreement (MOU) concluded with the beneficiaries.

J. Arun
30.1.07

A. S. Sivas
30.1.07

Executive Engineer,
TWAD Board, Urban Division
Tamil Nadu

(12.03.07)

Superintending Engineer,
TWAD, E.C. I.V. Circle
Kovilpatti

AF-200

AF-200

EE (Kovilpatti)
Tamil Nadu



Forests - Diversion of 0.055 ha. of forest land in Srivaigundam Reserve La. Sy.No.600 of Srivaigundam Village in Thoothukudi Forest Division to TWAD Board Urban Division, Thoothukudi for construction of Intake well along with Control room and foot bridge - Proposal under Section 2 of Forest (Conservation) Act, 1980. Orders issued.

ENVIRONMENT & FORESTS (FR.10) DEPARTMENT

G.O.(Ms) No.18

Dated: 7.3.2008

Read:

1. Government of India, Ministry of Environment and Forests, Let No.11-9/98-FC, Dated 21.9.2007.
2. From the Principal Chief Conservator of Forests, Chennai Ref.No.TS4/74244/07, Dated 20.12.2007.

ORDER:

In the Government of India's letter first read above, general approval for diversion of forest land of less than one ha. to Government departments for various developmental schemes under Forest Conservation Act, 1980, granted initially for a period of two years ending 31.12.2006 has been further extended upto 31.12.2008 or until the Scheduled Tribes and other Traditional Forest Dwellers Act 2006 is brought in to force, whichever is earlier.

2. The Principal Chief Conservator of Forests in his letter second read above has sent proposal under section 2 of Forest (Conservation) Act, 1980 for diversion of 0.055 ha. of forest land in Srivaigundam Reserve Land, Sy.No.600 of Srivaigundam Village in Thoothukudi Forest Division to TWAD Board, Thoothukudi for construction of Intake well along with Control room and foot bridge for drinking water purposes.

3. The Government after examination accord approval for diversion of 0.055 ha. of forest land in Sy.No.600 of Srivaigundam Village in Thoothukudi Forest Division to TWAD Board, Thoothukudi for construction of Intake well along with Control room and foot bridge, for drinking water purposes subject to the following conditions:-

- i) The legal status of forest land shall remain unchanged.
- ii) The user agency shall deposit the Net Present Value of the diverted Forest land measuring 0.055 ha. as per the orders of the Hon'ble Supreme Court dated 30.10.2002 and 1.8.2003 in IA No.566

W.P.(C) No.202/95 and the guidelines issued by Ministry vide letter No.5-1/1998-FC(Plt.) dated 18.9.2003 and 22.9.2003 in this regard.

ii) Additional amount of the Net Present Value of the diverted forest land if any becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the user agency. The user agency shall furnish the undertaking to this effect.

iii) The funds received from the user agency towards Net Present Value under the Project shall be transferred to Ad-hoc CAMPA in account number C.A.-1579 of Corporation Bank, Block-11, CGO Complex, Phase-1, Lodhi Road, New Delhi-110 003 (or) Union Bank of India, Sunder Nagar Branch, New Delhi A/c. No.344901010070128.

4. The Principal Chief Conservator of Forests is requested to incorporate any other suitable conditions which are necessary for the above said diversion of the forest land.

5. The Principal Chief Conservator of Forests is also requested to take action accordingly and send a report to Government in due course.

(BY ORDER OF THE GOVERNOR)

R. RAJAGOPAL
SECRETARY TO GOVERNMENT

To
The Principal Chief Conservator of Forests, Chennai 15.
The Inspector General,
Government of India,
Ministry of Environment and Forests,
New Delhi - 110 003.
The Chief Conservator of Forests (Central),
Government of India,
Ministry of Environment and Forests,
Regional Office, Bangalore.
The District Collector, Thoothukudi.
The Conservator of Forests, Thoothukudi
The District Forest Officer, Thoothukudi.
The Executive Engineer,
Tamil Nadu Water Supply and Drainage Board,
Urban Division, Thoothukudi.

/ Forwarded by Order /

SECTION OFFICER

Government of Tamil Nadu
Erratum

Drinking Water supply scheme - Thoothukudi District - Closed Conduit Scheme - Taking the water from Srivaikundam dam site to the 20 MGD Water Supply Scheme under operation in Thoothukudi - Providing additional 3 MGD drinking water to the Thoothukudi Thermal power station IVth stage scheme - To spend Installation cost Rs. 2193.00 lakhs and annual maintenance cost Rs. 375.98 lakhs orders issued according administrative sanction.

Rural Development Department

G.O. M.S No:160

Dated 30.07.1998

Read over

Government order (Stage) No.21, Rural Development Department dt 28.01.97

Managing Director, TWAD Board, Lr. No: 78982/PDC/AE6/dt 12.12.97

1. The Managing Director, Tamil Nadu Water Supply and Drainage Board has requested the Government to accord administrative approval to spend Rs. 2193 lakhs for installation and Rs. 375.98 lakhs for annual maintenance for the scheme closed conduit of conveying of 23 MGD from Srivaikundam Water thro' Anaicut to the existing and to provide additional 3 MGD Water to the Thoothukudi Thermal Power Station IVth Stage.
2. As per G.O. (Stage) No.21, Rural development Dt 22.1.97 this given 20 MGD Water supply scheme is considered as a property Owned by Tamil Nadu water supply and drainage Board. So this scheme is to be executed and maintained by TWAD Board. The Managing Director, TWAD Board has reported that the installation cost of the scheme will be borne by the Factory Beneficiaries as Water tariff.
3. The proceeding as per the recommendations of Technical committee field on 16.9.97 was placed in the Board Meeting. The Board decided to request the Government to obtain administrative sanction for the scheme vide the resolution No:57 dt 27.11.97. The Managing Director, TWAD Board has requested the Government to according Administrative sanction to the scheme sending the recommendation of the Board committee.

After detailed observation of the proceeding of the Managing Director, the Government accorded Administrative sanction for spending Rs. 2193 lakhs for executing the scheme for conveying 23 MGD Water thro' closed conduit from the Srivaikundam dam site to existing 20 MGD Water Supply Scheme and providing additional 3 MGD water to the Thermal power station IVth stage with the following conditions.

a) The funding for the installation cost and maintenance cost for this scheme as to the raised by levying tariff according the water quantity.

b) Government funds, Government allotment under Government finance schemes, Insurance corporation funds should not be used for the scheme.

c) On completion of this scheme, completion report and fund utilization certificate should be submitted to the Government.

5. The Tamil Nadu Government Director of Stationery and printing Department is requested to publish the report attached with this Government order in the ensuing Tamil Nadu Government Gazatte.

6. This order is issued with the consent of the Finance Department, Non official
Note No: F.S/P.1/98/Dt 28.4.98

As per Governor's Order

Ramesh Chandra Bande
Secretary to Government.

To
The Managing Director,
TWAD Board,
Chennai - 5

TAMILNADU WATER SUPPLY AND RAINAGE BOARD

From

M.Jeyaseelan, B.E.,
Executive Engineer,
TWAD Board, Maintenance Division,
Thoothukudi.

To

The District Forest officer
Thoothukudi district
Thoothukudi

Lr. No:18817/ F 20MGD/ JDO/ 2017/ dated 20.9.17.

Sir,

Sub: TWAD Board - 20 MGD WSS - Executed and commissioned during the year 1975 with North main channel - Arumugamangalam as source and later shifted to upstream side Srivaikundam Anaicut - Permission sought for Constructions Intake well, Foot Bridge and Control room for supply of water to industries as well as for drinking purpose and to Divert forest land to an extent of 0.055 ha. to non forest purpose in the prescribed format - Recommended by the District Collector - Scrutinized and recommended by District Forest officer and Conservator of forest - G.O accorded approval for 0.055 ha. to construct structures for drinking purpose - Forest land handed over for execution & commissioned in the year 2011- Mr. Joel file a petition before NGT and got order for stay the operation and latter modified the order and direct to seek permission of MoEF&CC for supply of water to industries -Notice of Violation issued by District forest officer - detailed reply submitted reg. -

Ref:

1. Executive Engineer TWAD Board - Urban division Thoothukudi addressed to District Forest Officer Thoothukudi District Letter No: 2910/JDO1/ F 20MGD/ 2007/ dated 25.10.2007.
2. District Collector Thoothukudi addressed to DFO Thoothukudi District - ROC NO: PA9 6801/07 Dt 30.10.07.
3. District Forest Officer Thoothukudi District Thoothukudi addressed to the Conservator of forest Tirunelveli Circle Tirunelveli C.No: D/7868/2007/ Dt 09.11.2007.
4. Conservator of Forest Tirunelveli circle addressed to the Principal chief conservator of Forest Chennai C.No: D/12455/2007 Dt.04.12.2007.
5. The Principal conservator of Forest Chennai addressed to the Secretary Environmental and Forest Department Ref No: 754/74244/2007 Dt 20.12.2007.
6. GO Ms No:18 Environment and Forest department Dt: 07.03.2008.
7. BP Ms.No.45 PM Wing dated 29.5.2003
8. BP Ms.No.39 PM Wing dated 13.4.2005

9. Orders of Hon'ble National Green Tribunal South zone Chennai dated 7.7.2017
10. Notice issued by the District Forest officer Thoothukudi division Thoothukudi Vide C No D/2016/2017/ Dated 3.8.2017
11. EE /Maint Dn/ TWAD Bd/Thoothukudi Ir no. 18817/F.20 MGD /JDO/2017/ dated .8.2017 addressed to EE/RWS Dn /TWAD Bd /Thoothukudi.
12. Executive Engineer TWAD Bd Maintenance Divn Thoothukudi letter no.18817/F.20 MGD /JDO/2017/ dated 23.8.2017 addressed to District Collector Thoothukudi.
13. District Collector Thoothukudi Lr No.18817/F.20 MGD /JDO/2017/ dated 29.8.2017 addressed to District Forest officer Thoothukudi.

((((()))))

With reference to the Notice issued by the District Forest officer Thoothukudi cited in the ref -10 regarding Violations of G.O Ms No. 18 of Environment and Forest department dated 07.03.2008 in 20 Mgd WSS - Closed conduit system. I submit the following details for kind consideration please.

1. The High power committee constituted by Tamilnadu Government for Thoothukudi area development has recommended that the requirement of water for the industries shall be tapped from Thamiraparani River vide G.O Ms No:2289 Public Work Department Dt.12.11.1970. Accordingly a proposal for tapping the water for industries ie 20 MGD from North Main Canal near Arumugamangalam tank from Srivaikundam anicut had been prepared at a cost of Rs.470 Lakhs. As per the proposal, the raw water from North Main canal - Arumugamangalam tank was pumped to Manjalneerkayal treatment site where it was treated to the drinking water standards and supplied to the industries. From the industries own sump it had been used for drinking needs and for industrial purposes after required treatment for the concerned industries. This scheme was commissioned in the year 1975 and functioning till 28.2.2011.
2. Due to objection in drawl of water, the Agriculturist got direction from Honorable High Court of Madras to consider the proposal of tapping water directly from

7

Srivaikundam Anaicut through closed conduit system. Accordingly a proposal for providing closed conduit system to 20MGD WSS had been accorded administrative sanction for Rs.21.93 Cr. to draw 20MGD of raw water directly from Srivaikundam Anaicut through intake well of 10M dia and other auxiliary units to pump the water through closed conduit system to Iruvappapuram and then the water was conveyed through existing arrangement to Manjalneerkayal treatment plant site .The proposal was implemented as per B.P. Ms.No.39 dt.13.04.2005. The scheme was executed by then Urban Division Thoothukudi .On completion of the scheme the related records and files were handed over to RWS division Thhothukudi for further follow up action .

3. At present 20 MGD WSS closed conduit system is not in functional status and it was stopped from 7th jan 2017 onwards considering the poor storage in dams to meet the drinking water requirement of public during summer. In this situation an Advocate Thiru S.Joel , filed an application before the National Green Tribunal south Zone in application no.128 / 2017 seeking directions to stop the function of 20 Mgd WSS on the ground that TWAD Bd violating G.O Ms No. 18 dt7.3.2008 of Environment & Forest Dpt. The Hon'ble National Green Tribunal has also passed an interim order to stay the operation of 20 MGD WSS and on 7th july 2017 Hon'ble Judges passed an interim order modifying the earlier order dt 31.5.17 . In the order it has been noted that " *the supply of water for the industrial activities which is stated to be on contributory basis by these industries, has been continued for the past many years and it was taking note of all these facts only, the conservator of Forests has given recommendation to the Principal Chief Conservator of Forests who in turn, has given his recommendations to the Government of Tamil Nadu on 20.12.2007. The Government of Tamil Nadu while passing G.O Ms No: 18 E&F (FR 10) department dated 7.3.2008 has not chosen to mention to*

other purposes like industrial activities and restricted only for drinking purposes alone and it appears that there is a mistake in passing such order" Further applying the principle of sustainable development, the industries should not allowed to the run out of water, There is another issues viz the employees working in the industries who are residing in the said area are also deprived of water. Therefore, as an interim arrangements, the earlier order dated 31.5.2017 is modified to effect that the situation which was in existence before the interim order dated 31.5.2017. Further NGT also directed the user agency in the mean time to approach MoEF & CC for seeking permission. Accordingly a proposal seeking permission from Forest Dept have been sent to District forest officer Thoothukudi by the District Collector vide ref -13 .

4. Under this situation a joint Inspection was made by the District Forest Officer Thoothukudi in Head Works of 20 MGD WSS _ Closed conduit system at Srivaigundam Anaicut on 3.8.17 and a Notice was issued vide C.No/2016/2017 dt 3.08.17. The main content of the notice is as follows.

- I. A letter dt 12.05.17 has been sent to Division office to offer remarks on genuineness of utilization of the area of 0.055 ha allotted for the construction of Head works components for drinking purpose as approved in the G.O but so far no reply has been received .
- II. Total area utilized is 0.08 Ha ,where as the extent of area leased vide G.O Ms. No. 18 Environment and Forest dept dt 7.03.2008 is only 0.055 Ha. Hence you have utilized an extent of 0.025 Ha illegally and unlawfully executed the following work without valid order from the competent authorities.

a)	Compound wall and Passage	- 0.015 ha
b)	Transformer yard	- 0.010 ha
	Total	= 0.025 ha

1. As per G.O it has been very clearly and specifically mentioned as the area 0.055 Ha required has been allotted for drinking purpose only. However during the field inspection on 3.8.17 it is found that the water is being utilized for Industrial purpose which is vitiated the objective of the G.O resulting total violation of the Government order .

5. In this regard it is submitted that

- the said letter dt 12.5.17 from District Forest Officer not been received in this office the same has been informed while acknowledging the receipt of the notice.
- the said violation was happened during execution of project in the year 2008- 2011. On completion and commissioning of the scheme, the execution Division ie Urban Division Thoothukudi has wound up and the related records and files were handed over to RWS division, Thoothukudi for further follow up action regarding this project and hence in the ref-11. the Executive Engineer RWS Dn has been requested to explain the reasons for violations notified by the District Forest officer . The Executive engineer RWS division Thoothukudi on pursuing the related records and informed that there is no correspondence was made with regard to Violations either by TWAD Bd or by Forest Dept during or even on completion of the project. The lease amount has been paid regularly to Forest Dept .On enquiry from those engineers during execution, it was informed that Intake well, Foot Bridge and control Room were the main components of Head works and While commencing execution of Head works in the upstream of Srivaikundam anaicut , the forest authority objected and stop the work stating that, the storage area of Srivaikundam Anaicut falls under Reserve Forest survey No:600 and instructed to get suitable permission

from Forest Department. Accordingly permission proposal in the prescribed format was submitted and necessary permission was obtained. As per permission the components were constructed without deviation. Control Room was constructed near by the River bund and there was a gap in between control room and River Bund .To have path way to control room from bund the sloppy area was filled up with earth and protected from erosion of soil, and it is being used as open path way then while getting power supply from EB as per IE rules transformer yard was erected in the path way as such it was consider as River Poram poke land (RS no.601) and also there is no objection from Forest Dept till violation was notified during joint inspection made by the District Forest Officer on 3.8.17 . Hence said violation is only deviation and the notified deviated area amounts to 0.025 ha. During execution, these area only been protected against erosion of river bund in favor of Forest Dept and also there is no endangered fauna or flora. As per guideline issued by GoI vide 11-9/98-PC dt 21.9.2007, State government can accord general approval for conversion of Forest land to non forest purpose to an extent of 1.0 ha. The total area including deviated area is only 0.088 ha and is well within 1.0 ha and hence the said violated area may please be consider for ratification. In this regard a Proposal already been sent to District forest officer by the District Collector, Thoothukudi vide Ir No 18817/F.20 MGD /JDO/2017/ dated 9.8.2017 as directed by the Hon'ble National green Tribunal.

- While execution of Head works as said earlier , the forest authority objected and stop the work stating that, the storage area of Srivaikundam Anaicut falls under Reserve Forest survey No:600 and instructed to get suitable permission from Forest Department.

Accordingly, in the reference 1st letter cited, then Executive Engineer urban Division, Thoothukudi has sent a proposal to District forest Officer, Thoothukudi for seeking permission for construction of intake well, Foot bridge and control room in Reserve Forest Survey No:600 to meet out the water requirement of following industries viz.

- a.) Southern Petrochemical Industries corporation(SPIC)
- b.) Thoothukudi Alkali Chemicals (TAC)
- c.) Thoothukudi Thermal Power Station
- d.) Dharangadhara chemical works
- e.) SIPCOT
- f.) Zirconium & Titanium plant and
- g.) Heavy water plant

The proposal was prepared and submitted in the prescribed format as per Forest Conservation Act 1980. In the prescribed format for seeking permission under Forest Conservation Act 1980, in Annexure I "Check List for proposal under Forest (Conservation) act 1980" under Sl No: 24 "Information regarding number of benefits of Beneficiary of the project it has been specifically mentioned as **"water supply to industries"**. Further in the Form- A (Form for seeking prior approval under section 2 of the proposals by the state government and other Authorities) Part I (to be filled by the user agency) under Sl no.1, Short narrative of the proposal and project /scheme for which forest land is required it is furnished as " 20 MGD WSS closed conduit system water supply scheme to Thermal power project, SIPCOT Complex, Heavy water plant and other industries in Thoothukudi district for drinking and other purpose"

> In the District collector letter addressed to the District forest officer Thoothukudi cited in the ref- 2 it has been specifically mentioned that the 20 MGD WSS was sanctioned by the Govt to meet the requirements of water for the industries like Southern Petro chemical industries Corporation, Thoothukudi Alkali Chemicals, Thoothukudi Thermal Power Plant , Dharangadhara Chemical works, SIPCOT, Zirconium and Titanium Sponge project, Heavy Water Plant etc ., further the proposals to draw 20 MGD water from Srivaikundam anicut through closed conduit system also approved vide G.O M/s No 160 /Rd/Dt 30.7.1998 for Rs 21.93 crores and request to give enter upon permission in SF No 600/(Forest Land) for early execution of the project.

Based on the recommendation of the District Collector, Thoothukudi, the proposal duly countersigned by the District Forest Officer and submitted to the Conservator of the Forest Tirunelveli, in which it has been mentioned that the TWAD Board has submitted a proposal for diversion of land for non forest purpose for construction of certain infrastructure required for supply of water to Industries like Southern Petro Chemical Industries Corporation, Thoothukudi Alkali Chemicals Thoothukudi thermal power plant, Dharangadhara Chemical works , SIPCOT , Zirconium and Titanium Sponge project, heavy water plant etc /. The same proposal was submitted to the Principle chief conservator of Forest by the Conservator of forest with recommendation that, **the proposed reserved land is essential for Providing Water Supply to the Industries and also for Drinking Purpose.**

But, while passing the G.O.Ms No.18 dt7.3.2008 by the Environment and Forest Dept, it was approved for diversion of 0.055 ha. of forest land in Survey No.600 of Srivaikundam Village to TWAD Bd for construction of Intake well along with Control room and Foot Bridge for drinking purpose. Based on the above facts Hon'ble National Green Tribunal has noted in the order dt 7.7.17 that " *It was taking note of all these facts only, the conservator of Forests has given recommendation to the Principal Chief Conservator of Forests who in turn, has given his recommendations to the Government of Tamil Nadu on 20.12.2007. The Government of Tamil Nadu while passing G.O Ms No: 18 E&F (FR 10) department dated 7.3.2008 has not chosen to mention to other purposes like industrial activities and restricted only for drinking purposes alone and it appears that there is a mistake in passing such order*"

Further applying the principle of sustainable development, the industries should not allowed to the run out of water, There is another issues viz the employees working in the industries who are residing in the said area are also deprived of water. Therefore, as an interim arrangements, the earlier order dated 31.5.2017 is modified to effect that the situation which was in existence before the interim order dated 31.5.2017. Further directed the user agency in the mean time to approach MoEF & CC for seeking permission.

6. A proposal, for getting ratification & approval for the violations notified by the District Forest Officer has already been submitted to the District Collector Thoothukudi vide letter cited in the - ref 12 and in turn it was sent to the District Forest officer by the District Collector vide ref-13.

7. Considering the following that,

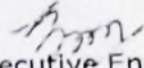
- a. The proposal submitted by then Executive Engineer Urban division Thoothukudi for seeking permission to Construct Intake well, Foot Bridge and Control Room is submitted in the prescribed format furnished by the Forest dept under Forest act 1980 and subsequently in the recommendation made on the proposal by the District Forest officer and Conservator of Forest viz " The Reserved land is essential for providing water supply to Industries and also for drinking purpose"
- b. Taking note of the points in the order passed by the Hon'ble National Green Tribunal south zone dated 7.7.17 that "while passing G.O Ms No: 18 E&F (FR 10) department dated 7.3.2008 has not chosen to mention to other purposes like industrial activities and restricted only for drinking purposes alone"..
- c. the notified deviated area was executed as pathway and Transformer yard by assuming as Govt Poramboke land (RS no.601) during execution of the project . These area only been protected against erosion of river bund in favor of Forest Dept and also there is no endangered fauna or flora. Further as per guideline issued by GoI vide 11-9/98-PC dt 21.9.2007, State government can accord general approval for conversion of Forest land to non forest purpose to an extent of 1.0 ha. The total area including deviated area is only 0.088 ha and is well within 1.0 ha.

For the said violations by the District Forest Officer, a proposal requesting
(i) To ratify the additional area utilized during execution over and above the sanctioned area in the G.O Ms No.18 of Environment and Forest dept dated 7.03.2008 , (ii) Necessary amendment to the GO Ms No. 18 of Environment and

Forest dept dated 7.03.2008 ie "Drinking purpose" amended as "Industrial purpose as well as drinking purpose" has already been submitted to the District Forest officer vide ref -13 cited.

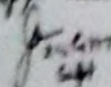
Hence considering the above facts and the circumstances explained above, the said violations made during execution may kindly recommended for ratification and to grant necessary amendment to the GO Ms No. 18 of Environment and Forest dept dated 7.03.2008. This is submitted for information and favorable order please. Since the matter is pending before the Honourable Green Tribunal south zone, no further action may please be pursued.

End:- Copy of letters mentioned as above


Executive Engineer,
TWAD Bd Maintenance Division,
Thoothukudi.

Copy Submitted to the

- 1) The Managing Director TWAD to Chennai for information of.
- 2) The Law Officer TWAD to Chennai for information of.
- 3) The Chief Engineer TWAD to Chennai for information of.
- 4) The Superintending Engineer TWAD to T. I. Street, Thoothukudi for information of.

Sec.
Copy retained


TAMILNADU WATER SUPPLY AND DRAINAGE BOARD



ABSTRACT

THE PROPOSEL FOR IMPLEMENTING THE WORK OF CONVEYING RAW WATER DIRECTLY FROM SRIVAIGUNDAM ANAICUT TO TREATMENT PLANT AT ~~SRIVAIKAYAL~~ THROUGH CLOSED CONDUIT SYSTEM UNDER 20 MGD WATER SUPPLY SCHEME- ORDERS ISSUED

PROGRAMME MANAGEMENT WING

B.P .Ms .No.33

Dated: 13.4.06

Read: B.P.MsNo45
Dt 29.5.2003

Board's Resolution No 2.20 Dt 19.1.06

Order

The Government in G.O. Ms. No.160 /dated 30.07.1998 accorded administrative ~~approval~~ for the proposal of drawal of 23 MGD raw water from Srivaigundam ~~Reservoir~~ and conveying it to the existing sump at Iruvappapuram through closed ~~conduit~~ system for Rs. 2193.00 lakhs to install and Rs. 275.98 lakhs to maintain annually, subject to the following conditions.

1. The financial ~~potentiality~~ should be raised by levying water charges based on the ~~capital investment~~ and maintenance cost for the scheme.
2. Government ~~funds~~ or funds allotted by the Government from the financial institutions like LIC etc. should not be used for the implementation of the scheme.
3. On completion of the scheme, completion report and fund utilization certificate should be ~~sent to~~ Government.

The work ~~could not~~ be taken up for implementation for want of funds arrangement for ~~implementation~~, on the conditions, stipulated above. The beneficiaries also ~~expressed~~ their inability to invest towards the capital cost. In turn, they requested TWAD Board to implement the scheme by arranging funds on its own and agreed to ~~bear~~ the water charges levied by TWAD Board towards the investment to be ~~borne~~ by TWAD in addition to the regular water charges collected from them.

Now, taking into consideration of the actual drawal by the beneficiaries, the Chief Engineer, ~~South~~ Region, Madurai prepared a proposal for the drawl and conveyance of ~~21 MGD~~ water through closed conduit at an estimated cost of Rs. 2410.00 lakhs ~~to install~~ and Rs. 200.00 lakhs to maintain annually.

99

The quantity earmarked for the beneficiary industries under the scope of the revised proposal is as follows:-

S.No	Name of beneficiary	Requirement in MGD
1	M/S.Southern Petro chemical Industries corporation (SPIC)	5.50
2	M/S. Tuticorin Alkali Chemicals (TAC)	0.60
3	M/S. Heavy Water Plant (HWP)	0.50
4	M/S. Tuticorin Thermal Power Project (TTPP)	3.50
5	M/S. Dharangadhara Chemical Works (DCW)	0.50
6	M/S. SIPCOT Thoothukkudi	1.70
7	M/S. Sterilite Industries	3.00
8	M/S. Zirconium & Titanium Sponge Plant	0.80
9	For future Industrial requirement & losses	3.90
	Total	20.00

The Chief Engineer, Southern Region, Madurai has now suggested that the Government has to be addressed to amend / revise the G.O. Ms. No. 160, dt. 30.7.98, so that TWAD could arrange for the loan from funding agencies on behalf of the beneficiaries for executing the scheme and the same can be collected from the beneficiaries as fixed charges for the loan repayment and variable charges for the commitment towards extra annual maintenance or water charges may be collected from the beneficiaries to match with the annual commitment towards installation and additional maintenance.

Accordingly the proposal was placed before the Board in its meeting dated 5.5.03 for consideration of the following

1. To recommend to the Government the revised proposal for the 20 MGD water supply scheme for Rs. 2410.00 lakhs, for permitting TWAD Board for availing loan assistance for implementation and to repay the loan availed either by collecting fixed charges from the beneficiaries for the annual commitment towards capital cost and variable charges towards annual maintenance.

or

2. To collect water charges from beneficiaries for the quantum of water supplied to match with the annual commitment towards repayment of loan for installation and commitment towards maintenance or at a fixed rate per 1000 litres to be fixed by the Board.

The Board after deliberations, ordered in B.P.Ms No 45/Dt 29.5.2003 that the TWAD Board would take up the proposal of implementation of 20 MGD water supply scheme through closed conduit system as a deposit work.

But, the eight beneficiaries again expressed their inability to participate in the capital investment of the scheme and a separate meeting was conducted by the Chief Engineer, TWAD Board, Southern Region, Madurai with the beneficiaries at Thoothukudi on 9.11.2004 to decide on the mode of mobilisation of fund for the scheme. In the meeting, it was decided to mobilise the required funds by collecting

(101) 3

the implementation share in convenient monthly installments from the beneficiaries as detailed below.

1. The beneficiaries will remit their implementation share as additional tariff at the rate of Rs.10.00 per cubic metre for 50% of their respective demand in addition to the existing tariff of Rs.15 per cubic meter every month for the implementation period of twenty two months towards the cost of installation.
2. The amount thus collected will be utilised for implementation of closed conduit proposal. An amount of about Rs.5.00 crores must be available in advance with TWAD Board in order to take up the work. Hence the work can be commenced after six months from the date of commencement of the collection of implementation share/additional tariff.

Considering the advantages of the closed conduit scheme to the beneficiaries and also to TWAD Board and PWD, the eight beneficiaries were therefore requested to give their consent to this proposal. Accordingly, the consent letters have been received from all the eight beneficiaries for taking up the closed conduit scheme as per the fund mobilisation outlined above.

In the consent letters given, the beneficiaries have demanded to ensure that the additional tariff is collected only for the implementation of the closed conduit scheme and will not be used for any regular maintenance or revamping works.

The above proposal for mobilisation of fund for implementation of the 20MGD closed conduit scheme was placed before Board at its meeting held on 19.1.06 for its approval and the Board vide its resolution No 2.20 dated 20.1.06 after detailed discussion, has resolved as follows on the above subject:

1. The beneficiaries will have to remit their implementation share as additional tariff at the rate of Rs.10.00 per cubic metre for 50% of their respective demand (as per the quantity finalised in the B.P.Ms. No.45 Dt 29-5-2003) in addition to the existing tariff of Rs.15 per cubic meter every month for the implementation period of twenty two months towards the cost of installation (Rs 2410.00 lakhs).
2. The amount thus collected will be utilised for implementation of closed conduit proposal only.
3. An MOU/Agreement shall be concluded with the beneficiaries duly incorporating the relevant conditions to safeguard the interest of TWAD Board

Accordingly, the Board after careful consideration approves to take up the proposal of implementing 20 MGD closed conduit through mobilisation of fund adopting the following methodology.

1. a) The beneficiary industries as indicated in the annexure-3 shall remit as additional tariff at the rate of Rs.10.00 per cubic metre for 50% of their respective demand (as per the quantity finalised in the B.P.Ms. No.45 Dt 29-5-2003) every month positively before 15th of

(15)

succeeding month for the implementation period of twenty two months towards the cost of installation (Rs 2410.00 lakhs) as already agreed by above mentioned Industries irrespective of the quantity of water supplied, in addition to the existing tariff of Rs.15 per cubic meter being paid every month.

b) The beneficiaries are liable to pay the enhanced rate of regular tariff if any raised by TWAD Board from time to time for such beneficiaries as a tariff revision policy.

c) If any beneficiary industry fails to remit the above remittance in full / part within the stipulated period, or fails ultimately to remit the additional tariff, then the original allotment to the beneficiary will be cancelled notwithstanding anything contrary contained in any other agreement if any already entered and the beneficiary will be deleted from the list of beneficiaries and no compensation by any means will be entertained in such event. In such an eventuality, the balance amount required (balance amount corresponding to the amount to be paid by the defaulter) will be borne by the remaining beneficiaries in proportion to their allotment of water as indicated in Annexure-3 in the interest of completion of work.

d) In case the amount referred in the above para is not shared by the other beneficiaries, for the timely completion of the project, and the TWAD Board has to incur any expenditure by way of mobilisation of funds from any other sources, in the interest of completion of the scheme the industries shall be liable to pay such additional cost and interest thereof, if any, in proportionate basis along with their additional tariff.

2. The amount thus collected will have to be utilised for implementation of closed conduit proposal only.

3. All efforts will be taken by TWAD Board to complete the scheme within the stipulated period. But, if there is any delay in completing the works, due to non payment (or) delayed payment of implementation share (or) due to reasons beyond the control of TWAD Board, (or) due to 'Force Majeure' conditions, the beneficiaries shall agree to extend their full co-operation to revise the implementation schedule and the cost due to be arrived at based on mutual consent between the beneficiaries and TWAD Board.

4. If the total cost of the work during execution exceeds the estimate cost due to the reasons such as tender excess etc., beneficiaries will have to bear the additional cost on the above terms.

5. An MOU/Agreement shall be concluded with the beneficiaries duly incorporating the relevant conditions to safeguard the interest of TWAD Board

6. The Chief Engineer, TWAD Board, Southern Region, Madurai may take action to accord technical sanction after taking into account

the correct logistics for the implementation of this scheme in accordance with Chapter II Clause 183, Sub clause 2 of D'Code for the proposal, as the cost of proposal (Rs. 24.10 Crores) now worked out is within 10% excess over the cost of Rs.21.93 Crores for which administrative sanction has been accorded vide G.O.Ms.No 160/Dt 30.7.98, after getting the MOU/Agreement signed by all the beneficiaries.

The Chief Engineer, Southern Region, Madurai is requested to act accordingly on the decision of the Board.

Sd/ - S. Karuthiah Pandian, 13.4.
Managing Director,
TWAD Board,
Chennai.600 005.

(By Order of the Board)

To

The Chief Engineer, TWAD Board, Southern Region, Madurai,

Copy to:

The Managing Director, TWAD Board, Chennai - 5.

The Finance Director, TWAD Board, Chennai - 5.

The Engineering Director, TWAD Board, Chennai - 5.

The Superintending Engineer, TWAD Board, T.V.Circle, Kovilpatty

The Executive Engineer, TWAD Board, Urban Division, Thoothukudi.

The Executive Engineer, TWAD Board, Maint. Division, Thoothukudi.

The Joint Chief Engineer(PM), The Joint Chief Engineer(O & M),
TWAD Board, Chennai

The Deputy Chief Engineer(U), TWAD Board, Chennai - 5.

Board cell(3 copies)

/t.c.f.b.o/

F. Shanthan 18/4/06
Assistant Executive Engineer (Urban)
TWAD Board, Chennai 600005

18/4/06

(True Copy)

18/4/06
30/10/00?
Assistant Executive Engineer,
TWAD Urban Sub-Division-II,
Thoothukudi.

**PROVIDING 20 MGD WATER SUPPLY SCHEME THROUGH CLOSED
CONDUIT SYSTEM FROM SRIVAİKUNDAM ANAICUT.**

GENERAL ABSTRACT

Sl. No.	Description	Amount (Rs.in lakhs)
1	Head works	270.00
2	Conveying main	1633.60
3	Construction of 10 lakh litre sump	34.15
	Sub Total	1937.75
	Petty Supervision charges at 2 1/2%	48.44
	Unforeseen items at about 2 1/2%	47.57
	Sub Total	2033.76
	Centage 18 1/2%	376.24
	TOTAL	2410.00
(Rupees Two thousand four hundred and ten lakhs)		

Annexure 2

PROVIDING 20 MGD WATER SUPPLY SCHEME THROUGH CLOSED CONDUIT
ABSTRACT OF ANNUAL MAINTENANCE ESTIMATE

Sl. No	Description of work	Amount (in Rs.)
1	Establishment Charges	679500
2	Electrical energy charges	23700000
3	Repairs and renewals and spares to pumpset valves etc., at 10% cost of pumpset	297000
4	Provision for periodical inspection of pumping plant by reputed agency at 1%	128000
5	Provision for lubricants and inspection charges	30000
6	Provision for removal of silt at Head works twice in a year	5000
7	Provision for telephone charges	15500
	TOTAL	24900000

Rs.249.00 lakhs

WORKING SHEET

Estimate cost:Rs.2410.00 lakhs
Annual maintenance cost:Rs.249.00 lakhs

Sl. No.	Beneficiaries	50% of demand furnished by the beneficiaries on 5.2.03.	Monthly installment at Rs.10 per month./1000lts (Rs. in Lakhs)
1	Southern Petro Chemicals Industries Corporation	2.75 MGD	37.50
2	Tuticorin Alkali Chemicals	0.30 MGD	4.09
3	Heavy water plant	0.25 MGD	3.40
4	Tuticorin Thermal Power Project	1.75 MGD	23.87
5	Dharangadara chemical works	0.25 mgd	3.41
6	SIPCOT	0.85 MGD	11.59
7	Sterlite Industries	1.50 MGD	20.46
8	Zirconium & Titanium Sponge plant	0.40 MGD	5.46
	Total	8.05	109.78

For one month revenue realised will be = Rs.109.78 lakhs

For Twenty two months the revenue realised will be

$$= 109.78 \text{ Lakhs} \times 22$$

$$= 2415.16 \text{ Lakhs}$$

$$= 24.15 \text{ Crores.}$$