

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE
BENCH, CHENNAI**

APPEAL NO. 45 of 2024

IN THE MATTER OF: -

M.P.Shanmugharaja

.... Applicant

Versus

The Member Secretary, SEIAA and Ors.

.... Respondent

**ADDITIONAL DOCUMENTS FILED ON BEHALF OF STATE LEVEL
ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)**



Filed by:
G.M. SYED NURULLAH SHERIFF
Senior Standing Counsel
MoEF & Cc.
Mob. No. 9444015330
Counsel for Respondent no. 1

3234

U-8

**GOVERNMENT OF TAMILNADU
WATER RESOURCES DEPARTMENT**



From
Er.V. Veeralakshmi M.E.,
Superintending Engineer, WRD,(i/c)
State Dam Safety Organisation,
Chepauk, Chennai-5.
Email id : tndamsafety@gmail.com

To
The Member Secretary,
State Level Environment Impact
Assessment Authority (SEIAA) –
Tamil Nadu,
3rd Floor, Panagal Maaligai, ✓
No.1, Jeenis Road, Saidapet,
Chennai – 600 015.

Lr.No. ¹⁴⁰ M / F.3 / Dam Safety Act / SDSO / AE IV / 2023, dated 02.07.2024

Sir,

Sub: TNWRD - State Dam Safety Organization – State Level Environment Impact Assessment Authority (SEIAA) – TN – Clarification regarding safety distance around the Mettur Dam for carrying out the mining activities – Details Requested by SEIAA – Report furnished - Reg.

- Ref:**
1. Member Secretary, SEIAA, Chennai, Lr.No. SEIAA-TN/F.No.9781/Legal/2024 dated 05.03.2024 addressed to this office.
 2. Executive Engineer, WRD, Mettur Dam Division, Mettur, Lr.No.120 m / DB / JDO 1 / F.214 (DS) / 2024 dated 02.04.2024 addressed to this office and copy marked to the Chief Engineer, WRD, Trichy Region.
 3. The Chief Engineer, WRD, Trichy Region Letter No. 133M / AE-II / F.38 (Mettur General) / 2024, dated 10.05.2024 addressed to Director, NIRM.
 4. This office Letter No.86 M / F.3 / Dam Safety Act / SDSO / AE IV / 2024, dated 26.04.2024 addressed to SEIAA.
 5. The Chief Engineer, WRD, Trichy Region Letter No. M / AE-II / F.38 (Dam Safety) / 2024, dated 25.06.2024.

In the reference letter 1st cited, it has been informed that the project proponent, Thiru. MP.Shanmugaraja has sought Environmental clearance for the proposed Rough Stone Quarry located at a distance of 1.8 Km from the Mettur dam and requested this office to provide information on the recommended safety distance that should be maintained around the Mettur Dam from the said rough stone quarry boundary area.

In this connection, it is informed that as per Dam Safety Act 2021, the State Dam Safety Organisation provides guidance for the Licencees / Dam Safety Units on "Surveillance, inspection, operation and maintenance of the specified dam for prevention of dam failure related disasters and to provide for

institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto". There is no information in Dam Safety Act, 2021 regarding carrying out of mining activities near dam site.

The 4 Regional Chief Engineers, WRD viz., Chennai Region, Trichy Region, Madurai Region and Coimbatore Region are the owners for the total 90 WRD dams and Chief Engineer, Hydro, TANGEDCO is in charge of 38 TANGEDCO dams in Tamil Nadu as detailed below:

Chief Engineer, WRD	No.of dams
Chennai Region, Chennai	28
Trichy Region, Trichy	6
Madurai Region, Madurai	32
Coimbatore Region, Coimbatore	24
Total	90

Since, the concerned Regional Chief Engineers are in charge for carrying out mining activities near dam site & any other activities related to the dams, the letter 1st cited was communicated to Chief Engineer, Trichy, WRD to furnish detailed report for stone quarry operations in nearby area of Mettur Dam.

However the Chief Engineer, WRD, Trichy Region in the reference letter 5th cited has send the detailed report stating that if the stone quarry is permitted to operate in S.F.No 140/1 & 140/2 in Moolakkadu Village in Mettur Taluk, it will affect the seismograph readings in Mettur Dam which will lead the disintegrty and loss of stability of Mettur Dam Structure. Hence, the Chief Engineer, WRD, Trichy Region is firmly insisted that the mining operation and other activities nearest to the Mettur dam is not permitted. A copy of the reference letter 5th cited is submitted herewith for favour of information please. Further, it is informed that to avoid any delay, Regional Chief Engineer may be contacted directly.

for Superintending Engineer, WRD,
State Dam Safety Organisation, Chennai (i/c)

1. Copy submitted to the Chief Engineer, WRD, Operation and Maintenance and State Dam Safety Organization, Chepauk, Chennai -5 for favour of information.
2. Copy submitted to the Chief Engineer, WRD, Trichy Region, Trichy for favour of information & further follow up action. The Chief Engineer, Trichy Region is requested to continuously monitor that no legal / illegal activities are not carried out nearby WRD structures especially dams and to ensure the safety of the dams as per Dam Safety Act, 2021.
3. Copy to the Superintending Engineer, WRD, Upper Cauvery Basin Circle, Salem for information and necessary action.
4. Copy to the Executive Engineer, WRD, Mettur Dam Division, Mettur and necessary action.

WATER RESOURCES DEPARTMENT

From
Er. M. Subramanian, BE.,
Chief Engineer, WRD.,
Trichy Region, Trichy – 20.
Phone No: 0431-2331411
Fax No: 0431-2331148
E. mail-ID: cetrydb@hotmail.com

To
The Superintending Engineer, WRD.,
State Dam Safety Organization,
Chepauk,
Chennai-05.

Letter. No:- M/ AE-II / F. 38 (Dam Safety) /2024 / Date: .06.2024

Sir,

Sub : TNWRD – State Dam Safety Organization – State Level Environment Impact Assessment Authority (SEIAA) – TN – Safety distance around the Mettur Dam for carrying out the mining activities - Detailed report - Sent - Regarding.

- Ref : 1. Member Secretary, State Level Environment Impact Assessment Authority, TamilNadu, Chennai Letter No. SEIAA / TN / F.No. 9781 / Legal / 2024 / dated 05.03.2024.
2. The Special Chief Engineer, State Dam Safety Organization (SDSO), WRD, Chepauk, Chennai-05 Letter No. 46M / F.3 / Dam Safety Act / SDSO / AE-IV / 2023 / Dated 13.03.2024.
3. This office Letter No. 455SE / AE-II / F.36 (Dam Safety) / 2024 / Dated 14.03.2024. (addressed to Executive Engineer, WRD., Mettur Dam Division, Mettur)
4. Executive Engineer, WRD., Mettur Dam Division, Mettur Letter No. 120M / DB / JDO-1 / F. 214(DS) / 2024 / Dated 02.04.2024.
5. Special Chief Engineer, WRD., State Dam Safety Organization (SDSO), WRD, Chepauk, Chennai-05 Letter No. M / F.3 / Dam Safety Act / SDSO / AE-IV / 2023 / Dated 15.04.2024.

In the reference letter 4th cited, the Executive Engineer, WRD., Mettur Dam Division, Mettur has submitted the detailed report on the above subject as follows.

p.t.o.

The Mettur Dam was Constructed during the year 1925-1934 and it is located at Navapatty village of Mettur Taluk in Salem District. The Proposed rough stone quarry is situated at S.F.No.140/1 & 141/2 in Moolakkadu village of Mettur Taluk in Salem District. The Proposed Quarry site is surrounded by Palamalai reserve forest on three sides and the fourth side is nearer to Stanley Reservoir water spread area. The aerial distance between the proposed rough stone quarry site and the water spread area is 1.25 km. The road distance between Mettur Dam body wall and the proposed quarry site is 4.40 Km. The aerial distance between Mettur Dam body wall and the proposed quarry site is 3.40 Km.

The proposed rough stone quarry site is very nearer (4.40 km) to the Mettur Dam body wall and water spread area. Due to the Mining activities, the 90 years old dam may get affected and also the inflow from Palamalai reserve forest to water spread area may get deviated. Carrying out mining operation near to Mettur Dam body wall, the integrity and stability of Mettur Dam may not be ensured. Also blasting in near by quarry sites will affect the readings recorded in seismograph and accelerograph fixed in the Dam body wall to study the seismic activity in the surroundings of Mettur Dam. Hence, the mining operation and other activities nearest to the Mettur Dam is not advisable.

In this regard, we are furnishing the additional details on seismic status of Mettur Dam reported by Dam Safety Review panel during February 2020.

The Dam site despite being located in Zone 2 of the Seismic zonation map of India (BIS 1893- part I, 2002), the rocks of this region is transacted by number of major lineaments, faults and shears Mostly oriented in NE/SW and E-W directions. Through many of these crustal weak zones could be of Proterozoic (2500 – 500 million years) age and they may be tectonically reactivated many times since that period due crustal movement and stresses accumulation. Hence, the existence of active fault (weak zones) surrounding the dam site area can be distinct possibility (the attached Geological document can be referred). In the last 100-125 years many low and moderate magnitude earthquake (Mag. 3 to 5) have occurred in the area north and northeast of the dam site at the Krishnagiri – Thirupattur segment and at the border zone of Tamil Nadu and Karnataka where the regional rock type changes gradually. A few minor seismic incidences have also been reported very close to the project site. Moreover, during 1900, a major earthquake of magnitude 6 occurred at Coimbatore area which is located at the distance of 150 km from the dam site.

Considering the age of the dam of presence of numerous tectonic shears, faults, lineament zones in and around the dam site area, it is advised to install a seismograph & Accelerographs at the dam to record the earthquake related vibrations and analyze the data. It is also necessary to conduct site specific seismic hazard analysis to arrive at the expected ground acceleration for the possible maximum credible earthquake that can occur on existing faults of the area.

Based on the seismic hazard analysis, the existing design parameters may be rechecked and the required safety and strengthening should be incorporated for the structure if needed.

Based on above DSRP report, the Seismograph & Accelerograph instruments were installed at Dam site and readings are being monitored. If the stone quarry is permitted to operate in S.F. No 140/1 & 140/2 in Moolakkadu village in Mettur Taluk, It will affect the seismograph readings in Mettur dam which will lead the the disintegrity and Loss of stability of Mettur Dam Structure. Hence, It is firmly insisted that the mining operation and other activities nearest to the Mettur Dam is not permitted.

Encl: Copy of reference letter 4th cited .

S. Manoj
25/06/24
Sr Chief Engineer, WRD,
Trichy Region, Trichy 20.

6024
25/06/2024



Water Resources Department

E.E.	15/4/24
A.E.E.	
Supdt.	

From
Er. B.Sivakumar, M.E.,
Executive Engineer, WRD.,
Mettur Dam Division,
Mettur Dam-636 401.

To
The Special Chief Engineer, WRD.,
State Dam Safety Organisation,
Chepauk,
Chennai-5

AE-4

Lr.No: 120m / DB / JDO 1 / F. 214(DS) / 2024 / Dt. 02 04.2024

Sir,

Sub: TNWRD – State Dam Safety Organization – State Level Environment Impact Assessment Authority (SEIAA) – TN – Clarification regarding safety distance around the Mettur Dam for carrying out the mining activities – Details requested by SEIAA – Submission of details – Reg.

- Ref:**
1. The Special Chief Engineer, State Dam Safety Organization (SDSO), WRD, Chepauk, Chennai – 05, Letter No.46M/ F.3 / Dam Safety Act / SDSO / AE-IV / 2023 / Dated 13.03.2024. (Addressed to the Chief Engineer, WRD., Trichy Region, Trichy)
 2. The Chief Engineer, WRD., Trichy Region, Trichy Lr No.455SE / AE-II / F.36 (Dam Safety) / 2024 / Dt.14.03.2024.
 3. The Superintending Engineer, WRD., Upper Cauvery Basin Circle, Salem-7 Endt No.231 EE / DB / DO.1 / F.Dam Safety / 2024 / Dt.21.03.2024
 4. The Assistant Executive Engineer, WRD., Stanley Dam Sub Division, Mettur Dam Lr No./2024 / F.55 / A.E.E / SDS / Dt.01.04.2024

The detailed report on the above subject at the site of proposed rough stone quarry over an extent area of 0.64.5 Ha of patta land located at S.F.No.140/1 & 141/2 of Moolakkadu Village in Mettur Taluk of Salem District after Inspection is furnished below.

The Mettur Dam was constructed during the year 1925-1934 and it is located in Navapatty village of Mettur Taluk in Salem District. The Proposed rough stone quarry is situated at S.F.No.140/1 & 141/2 in Moolakkadu Village of Mettur Taluk in Salem District. The Proposed quarry site is surrounded by Palamalai reserve forest on three sides and the fourth side is nearer to Stanley Reservoir water spread area. The aerial distance between the proposed rough stone quarry site and the water spread area is 1.25 km. The road distance between Mettur Dam body wall and the proposed quarry

site is 4.40 Km. The aerial distance between Mettur Dam body wall and the proposed quarry site is 3.40 km.

The proposed rough stone quarry site is very nearer to the Mettur Dam body wall and water spread area. Due to the mining activities, the 90 years old dam may get affected and also the inflow from Palamalai reserve forest to water spread area may get deviated. Carrying out mining operation near to Mettur Dam body wall, the integrity and stability of Mettur Dam may not be ensured. Also blasting in near by quarry sites will affect the readings recorded in seismograph and accelerograph fixed in the Dam body wall to study the seismic activity in the surroundings of Mettur Dam. Hence, the mining operation and other activities nearest to the Mettur Dam is not advisable. The rough stone quarry site map and Index map of Mettur Dam is attached herewith for your kind information and necessary action please.

Encl:

1. FMB Sketch - 2 x 4 No's
2. Catchment Area Map - 2 No's
3. Water Spread area map - 2 No's
4. Index Map - 2 No's

Mon 02/04/24
**Executive Engineer, WRD,
Mettur Dam Division, Mettur Dam-1**

02/04/24

District : Salem

Taluk : Mettur

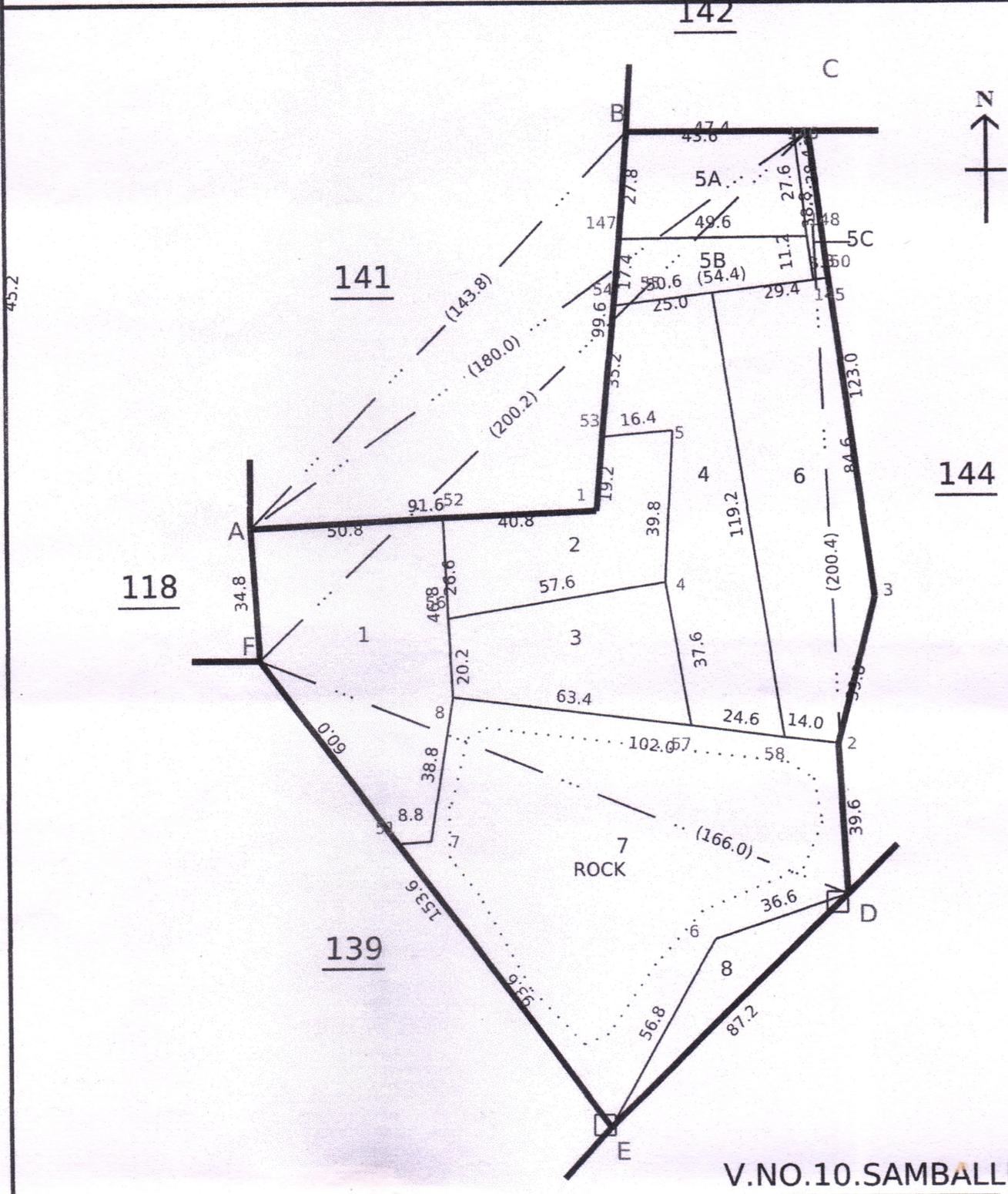
Village : Moolakkadu [9]



Survey No : 140

Area : Hect 02 Ares 28.50

Scale : 1 : 1534



Assistant Engineer, P.W.D.
 Stanley Dam Section
 Mettur
 Assistant Engineer, P.W.D.
 Stanley Dam Sub Division, Mettur

Data Digitally Signed By
 VIJI S

Date of Issue: 29-03-2024 14:09:02



District : Salem

Taluk : Mettur

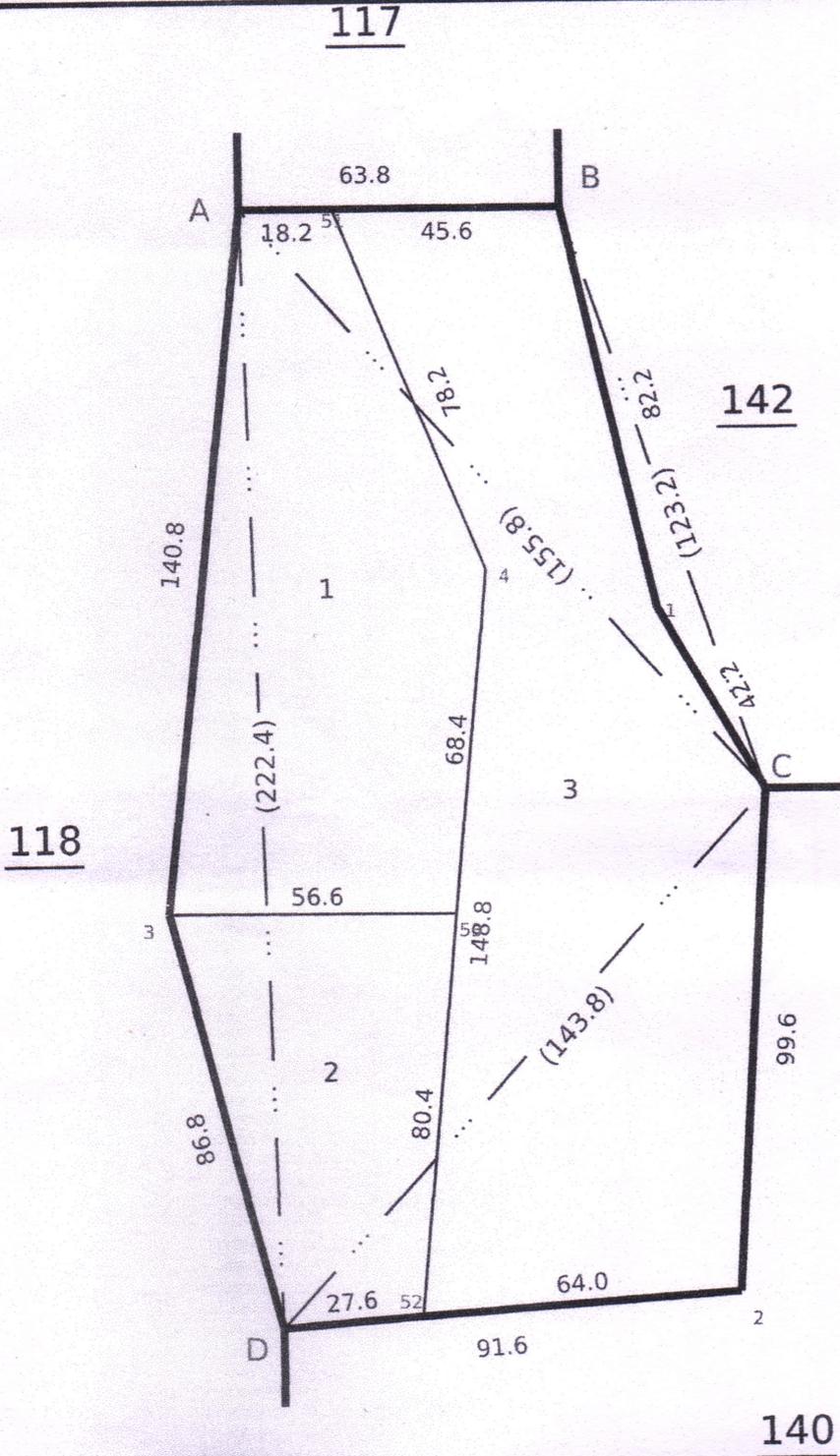
Village : Moolakkadu [9]



Survey No : 141

Area : Hect 02 Ares 8.50

Scale : 1 : 1477



Assistant Engineer, W.P.D.
Stanley Dam Section
Mettur Dam-1

Assistant Executive Engineer, W.R.D.,
Stanley Dam Sub Division, Mettur Dam-1.

Signed By Tahsildar

Name of approver : mett

Date of Approval : 01-01-2006



Date of Issue: 29-03-2024 14:14:58

District : Salem

Taluk : Mettur

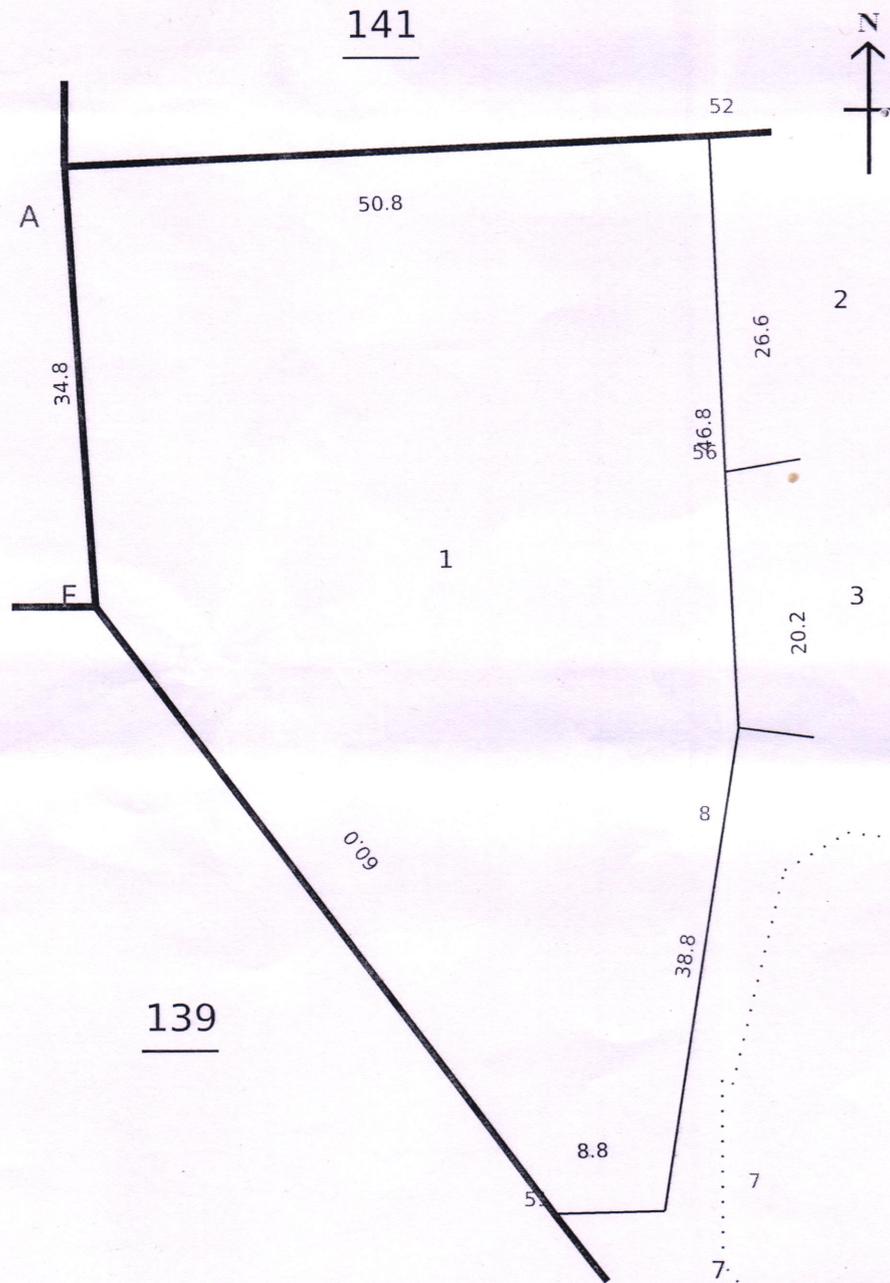
Village : Moolakkadu [9]



Survey No : 140/1

Area : Hect 00 Ares 29.00

Scale : 1 : 562



Data Digitally Signed By
VIJI S

Date of Issue: 29-03-2024 12:47:15



District : Salem

Taluk : Mettur

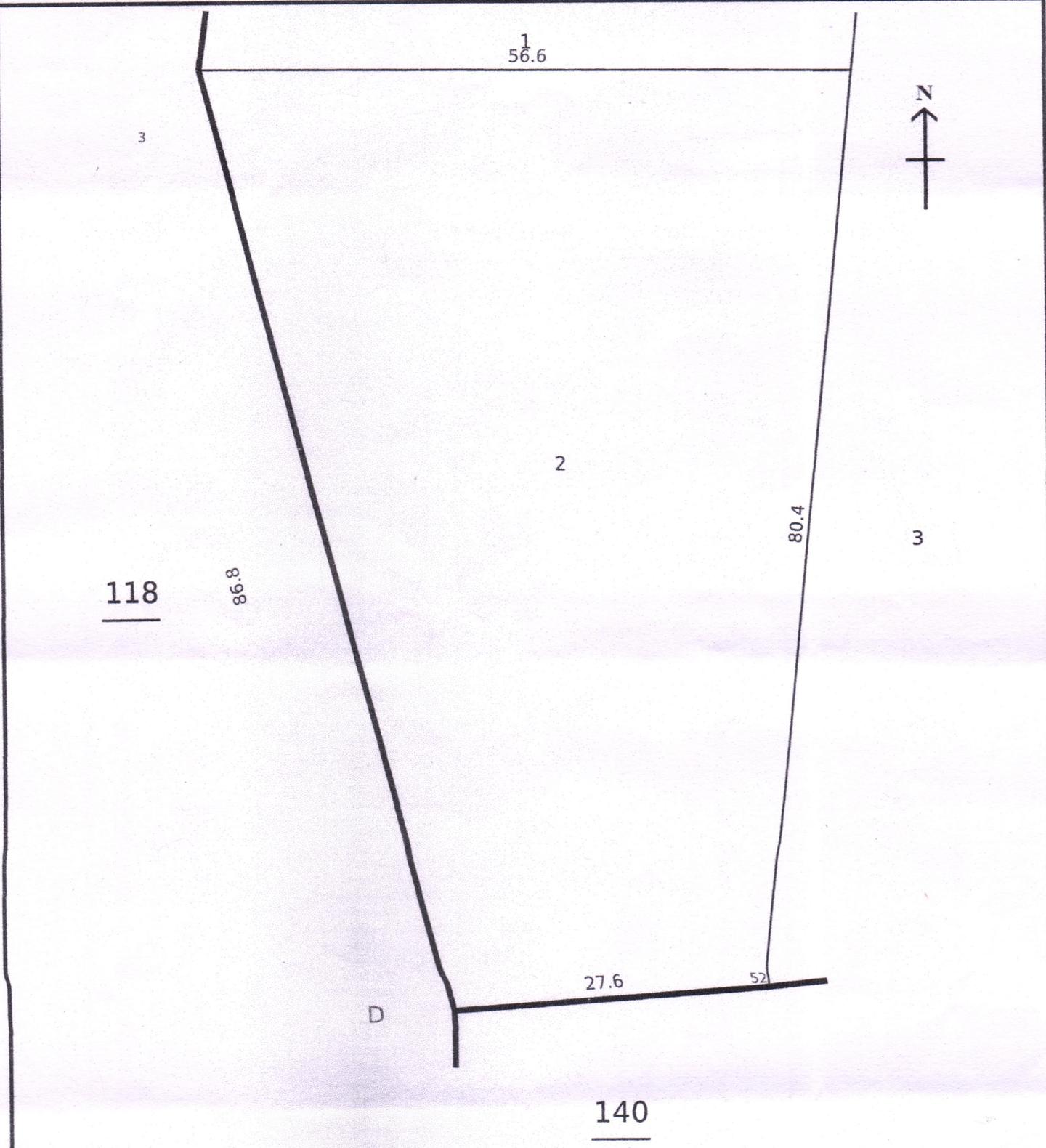
Village : Moolakkadu [9]



Survey No : 141/2

Area : Hect 00 Ares 35.50

Scale : 1 : 480



Assistant Engineer, W.R.D.
Stanley Dam Section
Mettur Dam-1

Assistant Executive Engineer, W.R.D.,
Stanley Dam Sub. Division, Mettur Dam-1.

Signed By Tahsildar

Name of approver : mett

Date of Approval : 01-01-2006

Date of Approval : 01-01-2006



Date of Issue: 29-03-2024 14:05:55