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Office of the Executive Engineer,
Project Division, Kattappana

KERALA WATER AUTHORITY

337/AEE/2022/Pr.D-KTPA-MTPZA

17.12.2022

From

Executive Engineer,
Project Division,
Kattappana.

To

The Wildlife Warden
Wildlife Division Office
Idukki

Sir,

Sub: - Application for Wildlife clearance - Part-I (Seeking recommendation of Standing Committee of NBWL/ SBWL) for KIIFB -Project: TRAN 10: WRD 025-06 - WSS to Ayyappankovil Panchayat - Part II

Through KIIFB -Project: TRAN 10: WRD 025-06 - WSS to Ayyappankovil Panchayat - Part II Kerala Water Authority has undertaken a mission of providing FHTC to every household in Ayyappankovil Panchayat in Idukki district. Proposed location Check dam near to the existing pumphouse has been identified as the only possible location where sufficient water can be sourced to meet the demands. This proposed location comes under Idukki Wildlife statuary. E-Parivesh portal through which application for Wildlife clearances (Part-I, seeking recommendation of Standing Committee of NBWL/ SBWL) are applied has found to be under maintenance. Considering the urgency and importance of the project we are submitting the copies of applications forms and necessary attachments along this letter. Kindly take necessary steps to grand the permissions.

The details of Land required for Floating pumphouse and pipeline to be laid with it are detailed below:



- Village – Ayyappankovil
- Survey No-
- Owned by- Idukki Wildlife Sanctuary
- Component- Check dam
- Area of land required- 0.17 Hectares
- Geo reference of the location-

9.700912

9.701219

77.029667

77.031014

Yours faithfully,



Executive Engineer

**EXECUTIVE ENGINEER
PROJECT DIVISION
KERALA WATER AUTHORITY
KATTAPPANA**



8.0 COST BENEFIT ANALYSIS AND INVESTMENT CRITERIA

The Financial analysis of the project is carried out taking into consideration the capital and recurring operating costs. The capital investment of the project is 34.2 cores which have to be invested in 1 years i.e. 2022 to 2023. The operation and maintenance cost of the project is calculated from 2023 onwards till 2053. This consists of Establishment charges, Electricity, Chemicals and Maintenance & other charges. The following assumptions are made for calculating the maintenance cost of the project

1. The establishment expense is assumed to increase 2 % every year
 2. The power charge which is presently 5.30 Rs / unit is assumed to increase 2% every year
 3. The cost of chemicals is assumed to increase 2% every year.
 4. The maintenance and other miscellaneous charges are assumed to increase 3% yearly.
- The average operation and maintenance cost of the project comes out to 2850.12 Lakhs.

The revenue from the project is calculated on following assumptions.

1. The distribution of total water connections are distributed almost evenly in the time horizon with total number of domestic water connection is 1200, Non domestic connection is 90, Industrial connections is 10 nos.
2. The water tariff of Non domestic connections is fixed at Rs. 15/KL minimum Rs.150/-, for industrial @40/KL min Rs.250/- and for domestic @Rs.20/- per Rs.4/KL. The rates of water distributed through stand posts are fixed at Rs.5250/ year for rural area as per the Kerala water Authority Monthly water Tariff w.e.f.01.10.2014.
3. The water charges are assumed to be increasing after every 5 year

The detailed table for Revenue, Cost, and Benefit-cost is appended in the following table and the CBR value is assessed as **0.962**

Total cost	Project Component's	Amount in Lakhs	2023	2024	2025	2026	2053	Total
	WSS to Rajamala & Pettimudi Zones	3420						
Annual maintenance power & O&M	96	96.43	97.53	98.46	99.13	600.23	9204	

Benefit	Benefits	Rate lakhs/Year	Year	Amount	Year	Amount	Year	Amount	Total Benefit
			2023		2024		2054		
	Domestic	0.048	1460	70.08	1531.356	73.50509	2013.45	96.6456	
	Non Domestic	0.06	180	10.8	181.8	10.91	241	14.46	
	Industrial	0.096	25	2.4	25.25	2.42	34	3.264	
	Total								9567.57

Cost
Benefit
Ratio- 0.962

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JUSTIFICATION FOR FOREST LAND

The Project named "*KIIFB -Project: TRAN 10: WRD 025-06 - WSS to Ayyappankovil Panchayat - Part II*" is aimed for providing potable drinking water to Nedumkandam, Ayyappankovil Panchayath in Idukki District of Kerala.

These Panchayaths are socially and economically in fast developing stage and lack of reliable water supply schemes has led to an acute water scarcity. Hence it is very necessary to implement sustainable WSS to these panchayaths. The areas being drought affected during summer season worsen the situation further. Hence new schemes are proposed to meet the water demand at a rate of 100lpcd in rural areas for a design period of 30 years from 2023. All the schemes are sourced from Idukki reservoir to meet the estimated water demand throughout the year because no any other sustainable water source available at proposed areas.

These water sources located at forest lands are vital for implementation of proposed project and cannot be relocated to any other locations since it will affect the scope and feasibility of the project.

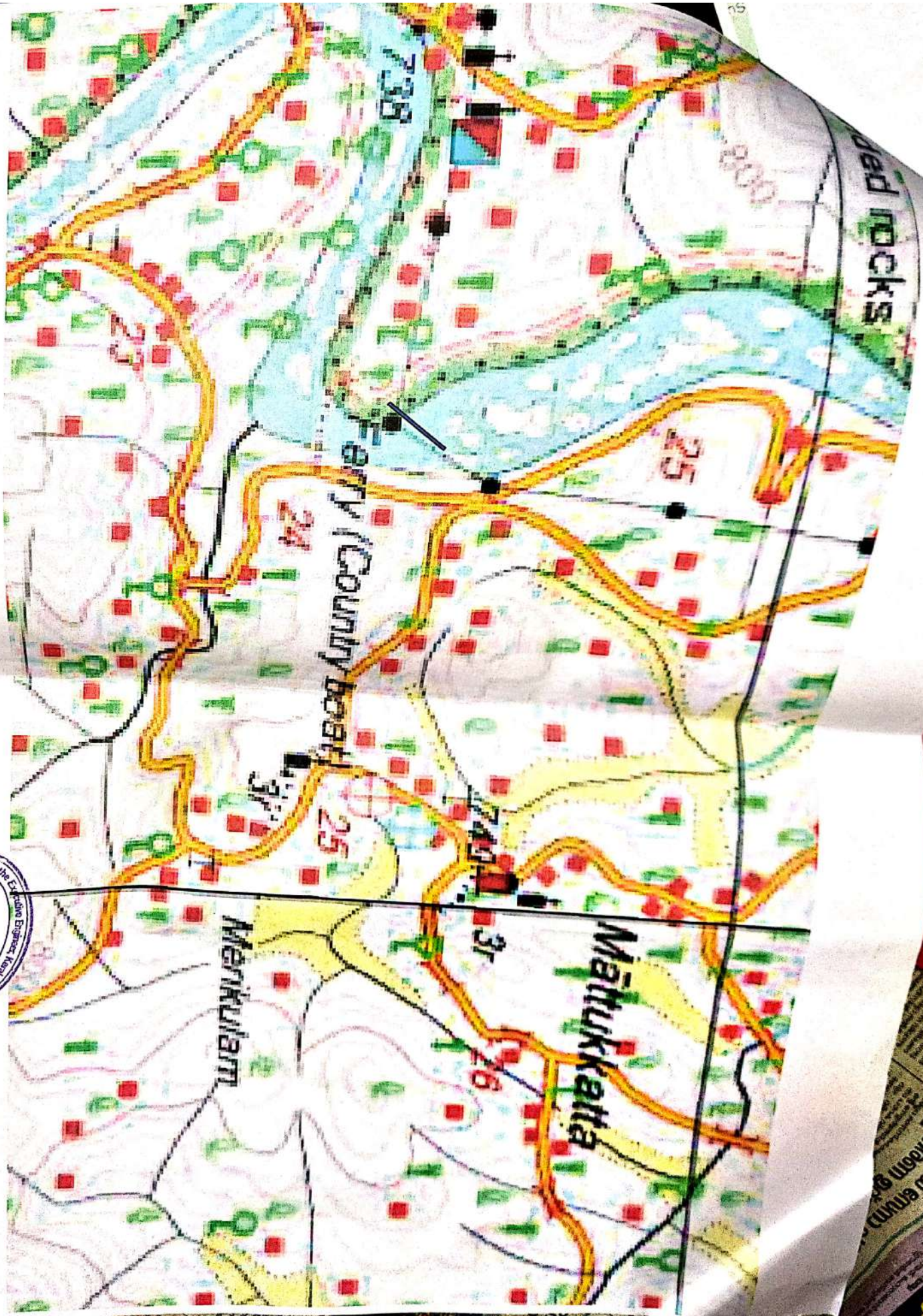
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