

PATIYA MINOR IRRIGATION PROJECT

TQ. DHARNI

DIST. AMRAVATI

Note

Introduction:

Patiya minor irrigation project is proposed to construct on local nalla in Tapi basin. The project is situated in tribal area near village Patiya in tahsil -Dharni, district Amravati. Construction of the earthen dam on local nalla located about 2.0 km east from village patiya is proposed. The project is located in topo sheet no. 55 G-2 latitude 21°35'58" and longitude 77°02'54". The project comes in trible area near Melghat tiger Project to remove the irrigation backlog in Amravati division.

Administrative Approval:

The Project is administratively approved by the Executive Director, Vidarbha Irrigation Development Corporation, Nagpur vide Letter no.- VIDC/TC-7/24/Patiya/AA(31/2008) Dated- 30/01/2009 for Rs. 955.779 lakhs. The administrative approval proposal is based on CSR 2008-09.

Catchment area and Water availability:

As per administrative approval the catchment area of the project is 9.875 sq. km and the type of basin is average. Water availability is calculated based on the data received from nearest meteorological station available at Dharni. Total 101 years rainfall data used for the calculation from the year 1901 to 2001. Average annual rainfall of the area is about 109.55 cm (43.13 inch), whereas 50% dependable rainfall is 104.22 cm (41.03 inch). By using Stranger's Equation, water available at site is 2.9825 MM³. Based on this, 2.48 MM³ water use proposed from the projected storage of 2.57 MM³.

Water use:

As per administrative approval the total water use proposed is 2.57 MM³. Which is shown below-

a) Kharip crops	0.03286 MM ³
b) Rabbi crops	1.70259 MM ³
c) Loss	0.37134 MM ³
d) Evaporation	0.06178 MM ³
e) <u>Drinking Water</u>	<u>0.30376 MM³</u>
Total	2.47233 MM ³

Controlling Levels:

Dam Level	Meter
a) Nalla Bed Level	94.70
b) LSL (Low Storage Level)	99.35
c) MDDL (Min. Drawdown Level)	99.65
d) FRL (Full Reservoir Level)	107.50
e) HFL (High Flood Level)	109.00
f) TBL (Top Bank Level)	110.50

Components of Dam:

A) Dam

The length of the earthen dam is 710 m and maximum height of the dam as 15.80m.

- B) Waste weir
Chhanel type waster weir is located on left side of earthen dam of 70m in length.
- C) Head Regulator
Well type head regulator is located at RD 100m.
- D) Irrigation
The irrigation potential of 296 Ha is proposed by self lifting the water from series of storage weir constructing across the existing natural nalla.

Land Acquisition:

Total area required for the project including the submergence is 64.48 Ha in which private land is 39.01 Ha, government land 16.14 and forest land 9.33 Ha included.

Environmental clearance:

Environmental clearance is not required as the culturable command area of the project is 354Ha which is less than 2000 Ha.

Wild life clearance:

During the 32nd meeting of standing Committee of National Board of Wild Life held on 21st January 2015, approval to the Patiya Minor Irrigation Project Having Forest area of 9.33 Ha belongs to West Melghat Division, Paratwada near Patiya village of Tah. Dharni Distt. Amravati Maharashtra (Outside Melghat Tiger Reserve) is given.

Forest Land:

In this project, Forest land coming under Dam seat & waste weir is 0.08 ha and in submergence is 9.25 ha.

Rehabilitation:

Rehabilitation is not required as project will not affect any family or village.

Physical Status:

Project work not started.