

DAMS CHECK LIST 2026

CIVIL ENGINEERING APPRAISAL

S#	Items	Descriptions / What is required	Page No.
1	Title of PC-I	PSDP Number / Source of funding, Nomenclature as per PSDP, Name of Tehsil (s) / District(s), Name of Scheme / Project, Cost in Rs. Million	
2	Cost Summary / General Abstract of Cost	Matching with Title of PC-I, Componential Breakup, Overhead Charges such as BST, Contingency, Consultancy (Design, Supervision), Price Adjustment, Land / Property Compensation, Shifting of Utilities	
3	Page Numbering	Pages are numbered for ease of reference during scrutiny and approval process	
4	Status of Land	Free of Cost or charged, District Administration concurrence in case of charged. If Free of Cost , the land owner must give an affidavit showing willingness duly signed with 2 witnesses to be attached	
5	Basis of Rates in Detail Estimates	Composite Schedule of Rates (CSR) / Non-Schedule Rate (NSR), Applicable Premium (if any)	
6	Source of NSR (if applicable)	Rate analysis on pattern of CSR Volume II, 2 or 3 reputed Firm quotations in respect of major (by cost) NSR, Non-application of Premium, To ascertain basis of estimation	
7	Provision of PMU (in case cost is in excess of Rs. 3 Billion)	Tabular estimation of Staff on Man Month Basis	
8	Feasibility Report (in case cost exceeds Rs. 500 Million or cost contains 30% Infrastructure Component)	Report as submitted when Feasibility was carried out	
9	Background History (in case of Improvement, Rehabilitation, Reconstruction, Augmentation etc.)	Including Year of Construction, Cost, Reason(s) of deterioration, Designed Population, Target Population, Proposed changes in Design	
10	Contingency	In the permissible range as per Planning Commission guidelines	
11	Vehicles	Justification as per Planning Manual Clause 2.47	
12	Consultancy (Design)	Percentage cost of Civil Works as awarded to the Consultant	
13	Consultancy (Supervision)	Tabular estimation of Staff based on Man Month Basis as awarded to the Consultant	

14	Price Adjustment	Calculated as per Planning Manual Clause 2.62xviii on yearly allocation basis (to be incurred)	
15	Signatures	On GAOC, at end of each Detail Estimate, Drawings, Designs, Site Plan, Comparative Statement (in case of Revised / Modified PC-I) duly by concerned SDO and XEN	
16	Site Plan	Showing location of Dam with respect to other topographic features., Including other Dams (if in vicinity)	
17	Comparative Statement (in case of Modified / Revised PC-I)	Columns of Approved (Component, Quantity, Amount) Modified / Revised (Component, Quantity, Amount) Difference, Componential Remarks (to justify change in cost in terms of technical parameters)	
18	Non Duplication Certificate	Certificate to the effect that the proposed work in PC-I is not part of any other Scheme or has been executed in the past	
19a	Item Description used in Detail Estimate	(in case item is present in CSR) Item description as per CSR (in case item is absent in CSR) Item description containing the required specs	
19b	Rates used in Detail Estimate	(in case item is present in CSR) correct CSR Reference, Rate as per CSR Book) Unit of measurement as per CSR Book (in case item is absent in CSR) rate as obtained in rate analysis, Unit of measurement as per conventional practice	
19c	Quantity in Detail Estimate	Quantity Description (name of location), Entry of Length, Breadth and Height in corresponding columns), Detail Measurement Sheet (if separately attached)	
19d	Amount in Detail Estimate	Mathematically correct result of (Quantity x Rate)	
19e	Total Cost of Detail Estimate	Mathematically correct sum of all items	
20	Certificate of Quantities obtained from Drawings	Certificate to the effect that Quantities are obtained from Drawings, duly signed by XEN concerned	
21	Fill quantity in Embankment	Calculated on basis of Earthwork Sheet containing columns of RD, NSL, PTL, H, Area, Mean Area, Length, Volume	
22	Stone Pitching Quantity	Calculated on basis of Sheet containing columns of RD, NSL, PTL, H, Inclined H, Thickness, Length and Volume	
23	L Section	Plotted between PTL / NSL (y axis) and RD (x axis), to be used in Earthwork Sheet	
24	X Section	Containing RL of NSL, PTL at specified RD, Pond Level marked, to be used in Earthwork Sheet	
25	Classification of Rock (if applicable)	Certificate duly signed by SE concerned containing Rock Classification by percentage	
26	Classification of Soil	Certificate duly signed by SE concerned containing Soil Classification by percentage	
27	Drawings (Plans and Sections)	Legible, Dimensioned Drawings so as to relate with Quantity Details in Detail Estimate or Detail Measurement Sheet, Added separately in respect of each Component	
28	Design	Calculated on basis of Halcrow-ULG formula on 200 year return	

	Discharge	period or more and including data of 2022 Flood	
29	Stability Design Sheet for Dam Embankment	Containing calculations of Base Shear due to Water Pressure and check against Sliding as per Shear Resistance at Base of Dam	
30	Stability Design Sheet for Dam	Containing calculations of Shear Resistance of Dam, Horizontal Pressure on Upstream Side, Average Horizontal Stress at Base Level and Stability of Foundation Soil	
31	Top and Bottom Width Design Sheet	As per Upstream and Downstream Slopes adopted and as per convention	
32	Life of Dam Design Sheet	Containing calculations of sedimentation and Life of Dam	
33	Impact on Life of Dam Design Sheet (in case Check Dams are proposed)	Containing calculation of sedimentation saved because of Check Dams and resulting increase in Life of Dam	
34	Pondage Capacity	Based on Contour Drawings of Pondage Area	
35	Safe Width of Spillway	Containing calculations of Width of Spillway as checked against Peak Discharge	
36	Discharge of Pipe Outlet	Containing calculations of Length, Dia of Pipe, Head Difference and Discharge Capacity of Pipe	