

## SALIENT FEATURES OF LOWER ORR PROJECT

|                          |                                   |   |
|--------------------------|-----------------------------------|---|
| <b>1</b>                 | <b>LOCATION OF DAM.</b>           | <input type="checkbox"/>                            |
| 1.1                      | District                          | Ashok Nagar/Shivpuri                                |
| 1.2                      | River/River Basin                 | Orr/Betwa (Yamuna)                                  |
| 1.3                      | Name of nearest Village           | Didauni   |
| 1.4                      | Latitude                          | 24°-50'-50" N                                       |
| 1.5                      | Logngitude                        | 78°-5'-55" E  |
| 1.6                      | Toposheet No.                     | 54 L/1  |
| 1.7                      | Location                          | Lower Orr dam site is situated near village Didauni |
| <input type="checkbox"/> |                                   |   |
| <b>2</b>                 | <b>HYDROLOGY.</b>                 | <input type="checkbox"/>                            |
| 2.1                      | Catchment area upto dam site      | 1843 Sqkm   |
| 2.2                      | Dependable yield                  | <input type="checkbox"/>                            |
| <input type="checkbox"/> | i. 50% dependability              | 501.15 MCM  |
| <input type="checkbox"/> | ii. 75% dependability             | 362.52 MCM  |
| 2.3                      | Design flood                      | <input type="checkbox"/>                            |
| <input type="checkbox"/> | i. Peak flood                     | 12068 Cumecs  |
| <input type="checkbox"/> | (1000 Year flood)                 | <input type="checkbox"/>                            |
| <input type="checkbox"/> |                                   |   |
| <b>3.0</b>               | <b>RESERVOIR DATA</b>             | <input type="checkbox"/>                            |
| 3.1                      | Top of Dam Level                  | 384.00 M  |
| 3.2                      | Maximum Water Level               | 380.40 M  |
| 3.3                      | Full Reservoir Level              | 380.00 M  |
| 3.4                      | i. Dead Storage Level             | 360.50 M  |
| <input type="checkbox"/> | ii. Minimum Draw Down level       | 360.50 M  |
| <input type="checkbox"/> | iii River Bed Level               | 339.00 M  |
| 3.5                      | Gross storage capacity at FRL/MWL | 371.80 MCM  |
| 3.6                      | Submergence area at FRL/MWL       | 2723.70 ha  |

|          |                                  |            |
|----------|----------------------------------|------------|
| 3.7      | Live storage capacity above MDDL | 328.20 MCM |
| 3.8      | Dead storage capacity at MDDL    | 43.63 MCM  |
|          |                                  |            |
| <b>4</b> | <b>DETAILS OF SUBMERGENCE</b>    |            |
| 4.1      | Water spread at FRL              | 2723.70 ha |
| 4.2      | Water spread at MWL              | 2723.70 ha |
| 4.3      | a) Culturable area at FRL        | 853.28 ha  |
|          | b) Un-culturable area at FRL     | 576.18 ha  |

|            |   |  |
|------------|---|--|
| 4.4        | Forest area at FRL  | 968.24 ha                                  |
| 4.5        | Other Lands at FRL  | 326.00 ha                                  |
| 4.6        | Roads & Residence etc.                                    | 19.614 ha                                  |
| 4.7        | Number of Villages affected.                              | 12 nos.                                    |
|            |   |  |
| <b>5</b>   | <b>DAM</b>  |  |
| 5.1        | Type of dam   | Earthen (Homogenous) with Central Spillway |
|            | <b>Spillway with radial gates (over flow portion).</b>    |  |
| 5.2        | Length of spillway with radial gates (over flow portion). | 247.00 m                                   |
| 5.2.1      | Top Level of gates  | 380.00 m                                   |
| 5.2.2      | Crest level of spillway                                   | 370.00 m                                   |
| 5.2.3      | Foundation level  | 339.00m                                    |
| 5.2.4      | Lowest River Bed Level                                    | 341.00m                                    |
| 5.2.5      | Maximum height above Lowest River Bed Level               | 45.00 m                                    |
| 5.2.6      | Number & size of radial gates                             | 12 Nos each of size 15.0 m × 10.0 m        |
| <b>5.3</b> | <b>Transition dam (non-over flow portion)</b>             |  |
| 5.3.1      | Top of dam level  | 384.00 m                                   |
| 5.3.2      | Length of dam   | (a) Left side 140 m                        |
| 5.3.3      | Top width   | 8.00 m                                     |

|                          |   |  |
|--------------------------|---|--|
| 5.3.4                    | Maximum height above deepest foundation level | 45.00 m                                    |
| <b>5.4</b>               | <b>EARTHEN DAM</b>                            | <input type="checkbox"/>                   |
| 5.4.1                    | Top of dam                                    | 384.00 m                                   |
| 5.4.2                    | Length of dam                                 | 1731.00 m                                  |
| 5.4.3                    | Top width                                     | 7.00 m                                     |
| 5.4.4                    | Maximum height above G.L.                     | 45.00 m                                    |
| <input type="checkbox"/> |   |  |
| <b>6</b>                 | <b>IRRIGATION</b>                             | <input type="checkbox"/>                   |
| 6.1                      | CANAL SYSTEM                                  | <input type="checkbox"/>                   |
| <input type="checkbox"/> | Length of main canal/Feeder canal             | 91.260 km long main canal and 15 km feeder |
| <input type="checkbox"/> | Bed Width of main canal                       | 5.00 m                                     |
| <input type="checkbox"/> | Full supply Depth of main canal               | 3.06 at head and 1.70 m at tail            |
| 6.2                      | Quantity of Water Supply                      | 6 MCM to the enroute villages/towns        |

|                          |                               |   |
|--------------------------|-------------------------------|---|
| <b>7</b>                 | <b>ESTIMATED COST</b>         | <b>Price level -2007-08</b>                 |
| 7.1                      | Esitmated cost                | Rs.137083 Lakh                              |
| <input type="checkbox"/> | i) Unit-I Head work           | Rs.81611Lakh                                |
| <input type="checkbox"/> | ii) Unit-II Canal             | Rs.54346 Lakh                               |
| <input type="checkbox"/> | iii) Command area development | Rs. 1126 Lakh                               |
| <input type="checkbox"/> |                               |   |
| <b>8)</b>                | <b>BENEFITS</b>               | <input type="checkbox"/>                    |
| <input type="checkbox"/> | a) Water supply               | 6.0 MCM, about 1.65 Lakh person will be ben |
| <input type="checkbox"/> | b) Power                      | NIL   |
| <input type="checkbox"/> | c) GCA                        | 85672 ha                                    |
| <input type="checkbox"/> | d) CCA                        | 45047 ha                                    |
| <input type="checkbox"/> | e) Pressurized Irrigation     | 9009 ha                                     |
| <input type="checkbox"/> | f) Annual Irrigation          | 67570 ha                                    |
| <input type="checkbox"/> | g) Intensity of Irrigation    | 150%  |
| <input type="checkbox"/> |                               |   |

|                          |                                   |                          |
|--------------------------|-----------------------------------|--------------------------|
| <b>9)</b>                | <b>FINANCIAL ASPECTS</b>          | <input type="checkbox"/> |
| <input type="checkbox"/> | Benefit cost ratio                | 1.82                     |
|                          |                                   | <input type="checkbox"/> |
| <b>10)</b>               | <b>TARGET DATE FOR COMPLETION</b> | <input type="checkbox"/> |
| <input type="checkbox"/> | (1) Dam without spillway gates    | Fourth year              |
| <input type="checkbox"/> | (2) Dam with spillway gates       | Fifth year               |
| <input type="checkbox"/> | (3) Canal system                  | <input type="checkbox"/> |
| <input type="checkbox"/> | a) Part                           | Fourth year              |
| <input type="checkbox"/> | b) Full                           | Fifth year               |