

IRRIGATION AND GROUND WATER

Although there is no river passing through the district but there are two canals namely Bathinda branch and Kotla branch of Sirhind canal system which irrigates 84.6% of the total irrigated area of the district remaining 15.4% of the area is irrigated by 71364 Electric & Diesel Tube-wells..This information is presented block wise in given below table -

Source wise/Block wise Net Irrigated area during 2011-12 in the district

Sr. No.	Block	Irrigated Area (ha)			
		By Canals)	%	By Tub- well	%
1	Bathinda	48646	20	367	1
2	Nathana	37668	16	1430	3
3	Sangat	19560	8	9674	22
4	T/Sabo	30670	13	16716	39
5	Maur	27201	12	1742	4
6	Rampura	49962	21	5497	13
7	Phul	23358	10	7780	18
Total		237065	100	43209	100

Ground Water Scenario in District Bathinda.

Bathinda District is occupied by Indo-Gangetic alluvium. There is no surface feature worth to mention and the maximum elevation of the area is 220.6 M above MSL and the minimum elevation is 197.5 M above MSL and the slope of the area is towards Southwest. No river passes through the district but the district has a network of canals. The major canals of the area are Bathinda Branch and Kotla Branch of Sirhind Canal System which irrigates more than 80% of the area. In district there are 46741 electric tubewells and these are generally shallow and depth range of 40 M to 100 M. There are 15977 number of Diesel tubewells and these are generally shallow and maximum diesel tubewells are found in south western part.

In district Bathinda there are 34 monitoring stations to record the fluctuation in water levels. The stage of ground water development ranges between 48% (Block Talwandi Sabo) to 177% (Block Phul). 5 Blocks fall in the OVER-EXPLOITED category and 3 blocks fall in SAFE category and the whole district has been assessed to be CRITICAL with stage of ground water development at 93%.

There has been a declining trend in water level in entire northern segments of the district comprising Phul, Bhagta, Rampura, Nathana and Bathinda blocks due to heavy with drawal of ground water of irrigation purposed asin these areas the farmers mostly are stick to wheat-paddy rotation. To curtain the fast decling trend in water levels, Punjab Government has encated “The Punjab Preservation of Sub-Soil Water Act, 2009” in April’2009 and according to this Act, no farmer shall transplant pady before 10th june and if any farmer contravenes the provision of this Act, he will be litable to penalty of Rs.10000 per hectare per month and his sown paddy/nursery will be destroyed at his expenses. The strict compliance of this Act in District Bathinda has shown good results and the observations in June’2011 has shown that water levels has registered some rise as aompared to the figures of water levels of last year (June’2010) and as analyzed from the figures of June 2001

Ground Water Position in District Bathinda.

<i>Sr. No</i>	<i>Blocks</i>	<i>Average Rise/Fall in 10 years June 02 to June 2011 (in meters)</i>	<i>Average Annual rainfall 2002-2011 (in meters)</i>	<i>Average Rise/Fall Annual June 11 to 12 (in meters)</i>	<i>Depth to Water Level Range(in meters) June 2002</i>	<i>Stage of Ground June 2011</i>	<i>Category of Block June 2012</i>		
1	Bathinda	-0.18	369.53	-0.33	4.20 to 11.95	4.25 to 15.35	4.44 to 15.97	75%	SAFE
2	Sangat	0.12	335.40	0.46	5.90 to 10.40	3.30 to 9.90	3.50 to 9.05	44%	SAFE
3	Talwandi Sabo	-0.15	335.40	0.19	2.90 to 10.00	4.00 to 11.30	3.85 to 11.05	48%	SAFE
4	Nathana	-0.52	369.53	-0.44	9.55 To 11.05	13.17 to 17.70	13.63 to 18.35	103%	OVER EXPLOITED
5	Phul	-0.72	346.17	-1.14	10.70 To 11.51	14.80 to 20.00	15.62 to 20.80	177%	OVER EXPLOITED
6	Bhagta	-0.67	346.17	-0.55	9.45 To 11.00	14.70 to 18.00	15.25 to 18.55	177%	OVER EXPLOITED
7	Rampura	-1.00	346.17	-1.82	7.25 To 10.50	14.02 to 20.20	14.85 to 23.00	110%	OVER EXPLOITED
8	Maur	-0.34	335.40	0.38	5.30 To 9.60	8.25 to 13.03	8.05 to 13.23	114%	OVER EXPLOITED
District Bathinda		-0.43	348.47	-0.41	2.90 To 11.95	3.30 to 20.20	3.50 to 23.00	93%	CRITICAL