

**FORMAT FOR SUBMISSION OF INFORMATION ON
PROPOSED ACTION PLANS FOR
“RESTORATION OF POLLUTED WATER BODIES (LAKES AND PONDS)”**

IN

**COMPLIANCE TO HON’BLE NGT ORDERS DATED 10.5.2019 & 25.02.2020 IN O.A. NO.
325/2015**



Submitted by:

Himachal Pradesh State Wetlands Authority (HPSWA)

H.P.Council for Science, Technology & Environment(HIMCOSTE)

Vigyan Bhawan, Bemloe, Shimla 171001, H.P.

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S. No	Content						
1	Name of the State/UT	:	Himachal Pradesh				
	Contact Details (Department-wise)	:	Name of the State/UT Department	Name of the Nodal Officer	Contact Tel. No	Mobile No.	E.mail
			Himachal Pradesh State Wetlands Authority	Mr. Nishant Thakur Joint Member Secretary	0177-2656489	7018323400	Nishthak81@gmail.com
			Department of Industries	Mr. Anil Thakur Dy. Director, Industries	-	9418018764	Dirindus-hp@nic.in
			Department of Jal Shakti	Er. Vinod Kumar Thakur, Executive Engineer	-	9418474184	hprrg@rediffmail.com
			Department of Urban Development	Mr. K.C. Gaur, Additional Director	-	9418127691	Ud-hp@nic.in
			Department of Forest(wildlife)	Mr. Anil Thakur Chief Conservator of Forest(Wildlife)		9418457800	Pccfwl-hp@nic.in
			H.P. State Pollution Control Board	Mr. Chandan Singh, Assistant Engineer	-	9418018223	csvnit@gmail.com

2	Information on water bodies such as Lakes & Ponds		Type of Water Body	Total No. of Water Bodies Identified	Ownership of Identified Water Bodies (Indicate No. of Water Bodies)		Status On-going Restoration of Water Bodies with Financial Support from NRCD/MoJS/with own resources of the State/UT		
					Government	Private/Individual	Total No. of Water Bodies Selected for Restoration	Total No. of Water Bodies restored so far	Total No. of Water Bodies presently under restoration
					Lakes	6	6	-	4(NRCD)
	Ponds								
3	Whether water bodies are geo-tagged/ provided with Unique Identification Number (UIN)	:	Yes						
4	Major causes of pollution in identified water bodies	:	Improper disposal of Sewage /Industrial Effluent/ Waste like Municipal Solid Waste/Hazardous Waste/Plastic waste/Construction & Demolition Waste) (Pl. put <input checked="" type="checkbox"/> whichever is correct)						
5	Other Problems Associated with the Identified Water Bodies	:	<input checked="" type="checkbox"/> Silting / <input checked="" type="checkbox"/> Weeding /Encroachments/No Provision of inflow or outflow control measures/ Poor Embankment/Poor Watershed Management in Catchment/No Adequate Buffer Zone/Any other) (Pl. put <input checked="" type="checkbox"/> whichever is correct)						
6	Water Quality Compliance Status of Identified lakes, and ponds in the State/UT		Type of Water body	No. of identified water bodies	No. of Water Quality Monitoring Stations	No. of Water Bodies complying to			
						Primary Water Quality Criteria for Bathing	Drinking Water Quality Criteria after Conventional Treatment	Water Quality Criteria for Agriculture/ Fishing/Any other criteria	
						Lakes	6	11	1
	Ponds	-	-	-	-	-			
7	Proposed Water Body-wise Action Plans for restoration of prioritised water bodies	:	Attached details of six lakes						

	with timelines and implementing agencies		
8	Any other relevant information	:	-

Date:

**Signature of the Designated Officer
with Date and Seal**

Name of the Lake: Govind Sagar, H.P.

1	Location details of the Water Body (Address with GPS location)	Govind Sagar lake, Distt. Bilaspur, H.P. Latitude 31°24'22.59"N Longitude 76°29'21.44"E
2	Details of Area and Dimensions of the Water Body	Length-56 kms,width-3 kms.
3	Water Depth (in m) (During monsoon and non-monsoon period)	163 m
4	Ownership of the water body	BBMB
5	Allocated Unique Identification Number (UIN)	No
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	GobindSagar Lake Habitat: Mixed type- Residential, Commercial, Office Spaces, Govt Offices, Market areas etc) Population: 16760 persons No of industries: 54 Industrial Estates – 01
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	Goving sagar lake is across Satlej river
8	Major Plant and Animal communities present in the water body	Fishes, Khair, Bamboo
9	Designated Use of Pond or Lake(Drinking/Irrigation/Aqua Culture/Tourism/ Protected Bio-diversity)	Aqua Culture, Tourism, Irrigation
10	Major Drains outfall into Water Body	GobindSagar Lake 1. Nallah/Drain along indoor stadium 2. Nallah along meat market 3. Nallah/ Drain along vyasgufa 4. Nallah/ Drain in Village Lakhanpur.
11	Physical condition of the water Body	-
12	Water Quality of Water Body	Attached

11	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion							
12	Status of Sewage Management in the Catchment area	:	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			26.65	27.974	9.924	05	15.9	Jal Shakti Vibhag, H.P.(Rs.7155 lacs)

13	Status of Industrial Effluent Management in the Catchment area	:	Total Industrial Effluent Inflow into the water body (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			0	02 Nos. Septic Tanks with capacity of 160 KLD	nil	Nil	Nil	Nil
14	Waste Management in the Catchment area of water body	:	Type of waste	Quantity of Waste Generation in the catchment area (TPD)	No. of Treatment and disposal Facilities and Capacity in the catchment area (in TPD)	Gap in Treatment and Disposal of Waste in the catchment area (in TPD)	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines for completion
			MSW	4.5 TPD	4 TPD	0.5 TPD Material recovery	Trommel machine	MC Bilaspur
			HW	Spent Oil- 8.8 KL/annum Oil filter – 800 No.	Spent Oil- 8.8 KL/annum 100% to recyclers Oilfilter- 800No, 100% to TSDF	Nil	Nil	Nil
			BMW	Data Under Compilation	-	-	Waste sent to CBWDF at Vill. Sandli Distt.	-

						Solan	
		C & D	Nil	Nil	NIL	Used for land filling etc	-
		Plastic	0.6 TPD	0.6 TPA	0.1 TPA	Processed by ACC Barmana	-
15	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)	S. N o.	Activity	Time line	Amount(Rs .)	Implementing agency	
		1.	Inventarisation of industries/hotels of the catchment , regulation implementaion	2020-21	-	HP PCB	
		2.	Organisation of Swachhata Campaign near the lake and surrounding villages and urban areas	2020-21	Existing Swachhata campaign budget	Rural Department Urban Development Deptt	
		3.	Preparation & Distribution of IEC material on the values of the lake	2020-21	Rs.25,000/-	HPSWA	

Name of the Lake: Rewalsar, H.P.

1	Location details of the Water Body (Address with GPS location)	Rewalsar Lake, Distt. Mandi, H.P. Latitude 31°38'3.42"N Longitude 76° 50'0.07"E
2	Details of Area and Dimensions of the Water Body	Lake Area: 2.6 ha
3	Water Depth (in m) (During monsoon and non-monsoon period)	Maximum depth- 16.5m.Appx.
4	Ownership of the water body	Govt. of Himachal Pradesh
5	Allocated Unique Identification Number (UIN)	Nil
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	Rewalsar Lake Habitat: Mixed type- Residential, Commercial, Office Spaces, Govt Offices, Market areas, Religious areas etc) Population: 1725 persons No of industries: 12 (Consented Hotels only) Industrial Estates – NIL
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	Inflow from the catchment, natural springs inside the waterbody.
8	Major Plant and Animal communities present in the water body	In Catchment: Rewalsar wetland is surrounding by thick vegetation and mountains which is a store house of both floral and faunal biodiversity. Rewalsar has forest area is occupied by chir forest and scrub. The type of vegetation is sub-tropical type composed of khair, Shisham, Kachnar and chir stc. The cheif macrophytic genera in Rewalsar. lake are ; Nymphaea, Trapa, Ceratophyllum and Phragmites in Rewalsar Blue green algae also develop in large numbers in Rewalsar Wetland The faunal biodiversity of the area is rich. It has jackals, leopards,snakes, monitor-lizard, mongoose, monkeys, porcupine and barking dear. Indian coot, Brown coot, white Breasted kingfishers,Kalij pheasant,birds are recorded in the area. In the lake: Forty-seven species belonging to seven groups of phytoplankton were identified from the lake. <i>Microcystis aeruginosa</i> and <i>Synedra ulna</i> exhibited a perennial habit. <i>Ankistrodesmus</i>

		<p><i>falcatus, Chlorella vulgaris, Scenedesmus bijugatus, Chlamydomonas reinhardi, Eudorina elegans, Navicula cuspidate, Synedra ulna, Euglena acus, Euglena oxyuris, Spirulina gomontii, Oscillatoria princeps and Arthrospira khannae</i> were abundant, and <i>Oscillatoria limosa</i> and <i>Microcystis aeruginosa</i> were highly abundant.</p> <p>The fish Fauna consisting of <i>Channa marulius, C. straitus, C. punctius, Cyprinus carpio, Carrasius auratus, Catla caltla, Punctius ticto, P. sarana</i> and <i>Rasbora rasbra</i>.</p>
9	Designated Use of Pond or Lake(Drinking/Irrigation/Aqua Culture/Tourism/ Protected Bio-diversity)	Culture, Tourism
10	Major Drains outfall into Water Body	Natural inflow from the hill side only no other drain has any outfall into the lake
11	Physical condition of the water Body	Good
12	Water Quality of Water Body	Attached

11	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion							
12	Status of Sewage Management in the Catchment area	:	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			0.25	Nil	0.25	1	0.35	Jal Shakti Vibhag, H.P.(Rs.157.5 lacs)
13	Status of Industrial Effluent Management in the Catchment area	:	Total Industrial Effluent Inflow into the waterbody (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			Nil	Nil	Nil	Nil	Nil	N.A.
14	Waste Management in the Catchment area of water body	:	Type of waste	Quantity of Waste Generation in the catchment	No. of Treatment and disposal Facilities and Capacity	Gap in Treatment and Disposal of Waste in the	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines

			area (TPD)	in the catchment area (in TPD)	catchment area (in TPD)		for completion
		MSW	1 TPD	0.80 TPD	0.20 Material recovery	Shredder machine Baling machine	NP Rewalsar
		HW	Nil	Nil	Nil	-	NA
		BMW	Data Under Compilation	-	-	Waste sent to CBWDF at Vill. Sandli Distt. Solan	NA
		C & D	5 TPA	0.47 Quintal per day	-	Used for land filling etc	N.A.
		Plastic	4 TPA	4 TPA(ACC, Barmana)	Nil	-	N.A
15	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)						
		S . No	Activity	Time line	Amount(Rs.)	Implementing agency	
		1	Inventarisation of industries/hotels of the catchment , regulation implementaion	2020-21	-	HP PCB	
		2	Organisation of Swachhata Campaign near the lake and surrounding villages and urban areas	2020-21	Existing Swachhata campaign budget	Rural Department Urban Development Deptt	
		3	Preparation & Distribution of IEC material on the values of the lake	2020-21	Rs.250,000/-	HPSWA	
		4	Organisation of	2020-	Rs.20,000/-	HPSWA	

				Swachhata Campaign near the lake with Nagar panchayat	21		
			5	Sensatisation workshops/meetings for stakeholders	2020-21	Rs.,20,000/-	HPSWA
			6	Afforestation 5ha	2020-21	Rs.5,00,000/-	HP Forest Department
			7	Soil Conservation measures	2020-21	Rs.10,00,000/-	HP Forest
			8	Training and awareness activities	2020-21	Rs.1,00,000/-	HP Forest Department
			9	Repair of path and perennial water resources	2020-21	Rs.4,00,000/-	HP Forest

Name of the Lake: Pong Dam, H.P.

1	Location details of the Water Body (Address with GPS location)	:	Pong Dam Lake Distt. Kangra, H.P. Latitude 31°58'45.48"N Longitude 76° 2'42.34"E						
2	Details of Area and Dimensions of the Water Body	:	Pong Dam: Total capacity:- 8,570,000,000 m ³ (6,947,812 acre-ft) Active capacity:- 7,290,000,000 m ³ (5,910,099 acre-ft) Catchment area:- 12,560 km ² (4,849 sq mi) Surface area:- 260 km ² (100 sq mi) Maximum length:- 41.8 km (26 mi)						
3	Water Depth (in m) (During monsoon and non-monsoon period)	:	35.7 mt						
4	Ownership of the water body	:	BBMB						
5	Allocated Unique Identification Number (UIN)	:	No data available						
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	:	<p>Detail of areas/town:-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 55%;">Name of the Areas/towns</th> <th style="width: 30%;">Name of the Industrial Area/Estate</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Pong Dam Lake</td> <td>Tehsil Dehra, Tehsil Fatehpur, Tehsil Jaswan, and Tehsil Jawali</td> <td>Dhaliara (IA), Nargala Jawali (IA), Dehra (IE) and Jawali (IE)</td> </tr> </tbody> </table> <p>Detail of the Industries in the Surrounding area of Pond or Lake are Enclosed (for Pong Dam Lake)</p>		Name of the Areas/towns	Name of the Industrial Area/Estate	Pong Dam Lake	Tehsil Dehra, Tehsil Fatehpur, Tehsil Jaswan, and Tehsil Jawali	Dhaliara (IA), Nargala Jawali (IA), Dehra (IE) and Jawali (IE)
	Name of the Areas/towns	Name of the Industrial Area/Estate							
Pong Dam Lake	Tehsil Dehra, Tehsil Fatehpur, Tehsil Jaswan, and Tehsil Jawali	Dhaliara (IA), Nargala Jawali (IA), Dehra (IE) and Jawali (IE)							
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	:	Water body across the river Beas.						
8	Major Plant and Animal communities present in the water body	:	In Catchment: Plants: Acacia, Jamun, Shisham, Mang, Mulberry, Ficus, Kachnar, amla etc. Animal: nilgai, Sambhar, Barking deer, Wild boar, Monkey, Jackal, Leopard, Jungle cat In water : Fishes, turtle, Birds						
9	Designated Use of Pond or Lake (Drinking/Irrigation/ Aqua Culture/Tourism/ Protected Bio-diversity)	:	Pong Dam: Irrigation, Aqua Culture, Tourism, Protected Bio-diversity and Hydro Electric Production (396 MW)						
10	Major Drains outfall into Water Body	:	Pong Dam: The maximum length of the dam is 41.8 km. There are tributaries which outfall into this water body, but . Beas river & a large number						

			of major and minor tributaries –some perennial and some seasonal, viz Dehar,Bhul, Gaj, Baner, Nekar, etc. from the Dhauladhar ranges – directly drain into Pong Dam.
11	Physical condition of the water Body	:	Clear & adhering to the water quality criteria of A,B,C,D,E
12	Water Quality of Water Body	:	Attached
13	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion		Since the physical condition of the Water Bodies is clear & the results of water quality monitoring of water bodies i.e. Pong Dam lake is adhering to the water quality criteria of A and B, no action plan as of now is required.

14	Status of Sewage Management in the Catchment area	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
		42.85	32.35	22.10	6	31.94	Jal Shakti Vibhag, H.P.(Rs.14373 lacs)
15	Status of Industrial Effluent Management in the Catchment area	Total Industrial Effluent Inflow into the water body (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
		NIL As there is no industrial effluent discharge into the water body	Pong Dam Lake-0.07	Nil	----	----	NA
16	Waste Management in the Catchment area of water body	Type of waste	Quantity of Waste Generation in the catchment area	No. of Treatment and disposal Facilities and Capacity in the	Gap in Treatment and Disposal of Waste in the catchment	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines for

			(TPD)	catchment area (in TPD)	area (in TPD)		completion										
		MSW	63.5	62.5	1	NA	31.03.2021(Remarks: Polluted River Action Plan- River Beas at Kullu to Dehra Gopipur)										
		HW	54.0 LPD	Common treatment facility at Nalagarh/ authorised recycler	NIL	NIL	NA Remarks: Polluted River Action Plan- River Beas at Kullu to Dehra Gopipur)										
		BMW	203 kg/day	2 common facilities at Solan	Nil	Nil	NA Remarks: Polluted River Action Plan- River Beas at Kullu to Dehra Gopipur)										
		C & D	-	-	-	-	-										
		Plastic	9 to 9.5 MTD	Ambuja cement	Nil	Nil	NA Remarks: Polluted River Action Plan- River Beas at Kullu to Dehra Gopipur)										
17	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)	<table border="1"> <thead> <tr> <th>.</th> <th>Activity</th> <th>Time line</th> <th>Amount(Rs.)</th> <th>Implementing agency</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Inventarisation of</td> <td>2020-</td> <td>-</td> <td>HP PCB</td> </tr> </tbody> </table>						.	Activity	Time line	Amount(Rs.)	Implementing agency	1	Inventarisation of	2020-	-	HP PCB
.	Activity	Time line	Amount(Rs.)	Implementing agency													
1	Inventarisation of	2020-	-	HP PCB													

		.	industries/hotels of the catchment , regulation implementation	21			
		2	Organisation of Swachhata Campaign near the lake and surrounding villages and urban areas	2020-21	Existing Swachhata campaign budget	Rural Department Urban Development Deptt	
		3	Plantation for Habitat improvement	2020-21	4,20,000/-	HP Forest Department (Wildlife wing)	
		4	Preparation & Distribution of IEC material on the values of the lake	2020-21	Rs.20,000/-	HPSWA	

Name of the Lake: Dal Lake, H.P.

1	Location details of the Water Body (Address with GPS location)	:	Dal Lake: 32° 14' 50.08" N & 76° 18' 38.25" E						
2	Details of Area and Dimensions of the Water Body	:	Dal Lake: Area around Lake:- Around 1 ha (i.e. 10,000 square meters)						
3	Water Depth (in m) (During monsoon and non-monsoon period)	:	Dal Lake: 3.048 m (Approximate)						
4	Ownership of the water body	:	Government						
5	Allocated Unique Identification Number (UIN)	:	NO						
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	:	<p>Detail of areas/town:-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 60%;">Name of the Areas/towns</th> <th style="width: 30%;">Name of the Industrial Area/Estate</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Dal Lake</td> <td>Tota-Rani, Naddi (villages) (Bhatala Panchayat)</td> <td>No IA or IE</td> </tr> </tbody> </table> <p>Detail of the Industries in the Surrounding area of Pond or Lake are Enclosed as Annexure</p>		Name of the Areas/towns	Name of the Industrial Area/Estate	Dal Lake	Tota-Rani, Naddi (villages) (Bhatala Panchayat)	No IA or IE
	Name of the Areas/towns	Name of the Industrial Area/Estate							
Dal Lake	Tota-Rani, Naddi (villages) (Bhatala Panchayat)	No IA or IE							
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	:	Catchment area runoff.						
8	Major Plant and Animal communities present in the water body	:	-						
9	Designated Use of Pond or Lake (Drinking/Irrigation/ Aqua Culture/Tourism/ Protected Bio-diversity)	:	Tourism						
10	Major Drains outfall into Water Body	:	There is no identified major drain. The catchment runoff flow to lake.						
11	Physical condition of the water Body	:	Clear & adhering to the water quality criteria of A,B,C,D,E						
12	Water Quality of Water Body	:	-						
13	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion		Since the physical condition of the Water Bodies is clear & the results of water quality monitoring of water bodies i.e. Pong Dam lake and Dal lake are adhering to the water quality criteria of A and B, no action plan as of now is required.						

14	Status of Sewage Management in the Catchment area	:	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			0	0	0	0	0	NA
15	Status of Industrial Effluent Management in the Catchment area	:	Total Industrial Effluent Inflow into the water body (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			NIL As there is no industrial effluent discharge into the water body	Dal Lake- Not Required	Nil	----	----	NA
16	Waste Management in the Catchment area of water body	:	Type of waste	Quantity of Waste Generation in the catchment area (TPD)	No. of Treatment and disposal Facilities and Capacity in the catchment area (in TPD)	Gap in Treatment and Disposal of Waste in the catchment area (in TPD)	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines for completion
			MSW	-	-	-	-	-
			HW	50 ltr per annum	NIL	NIL	NIL	NA
					NIL	NIL	NIL	NA
			BMW	-	-	-	-	-
			C & D	-	-	-	-	-
Plastic	-	-	-	-	-			
17	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)	:						
			.	Activity	Time line	Amount(Rs.)	Implementing agency	
			1	Inventarisation of industries/hotels of	2020-21	-	HP PCB	

			the catchment , regulation implementation				
		2	Organisation of Swachhata Campaign near the lake and surrounding villages and urban areas	2020- 21	Existing Swachhata campaign budget	Rural Department Urban Development Deptt	
		3	Preparation & Distribution of IEC material on the values of the lake	2020- 21	Rs.20,000/-	HPSWA	
		4	Sensatisation workshops/meetings for tourists and others with district Administration	2020- 21	Rs.50,000/-	HPSWA	
		5	Entrance Gates, Cafeteria and shops, Toilet Block, urban element, Benches, Sinages, railing, Dustbins, Beautification of lake area, paths, parking, view points, landscaping plants, Renovation of existing rain shelter, retaining wall lake side, Gabion wall with woven create wire in lake, renovation of existing temple	2020- 21	Budget is available with tourism department	Deputy Director of Tourism , District Kangra	

Name of the Lake: Khajjiar, H.P.

1	Location details of the Water Body (Address with GPS location)	:	Khajjiar Lake, District Chamba, Latitude 32°32'47.09N Longitude 76° 3'29.13"E
2	Details of Area and Dimensions of the Water Body	:	2.7 ha to 3.5 ha
3	Water Depth (in m) (During monsoon and non-monsoon period)	:	0.17mt-5.66 mt
4	Ownership of the water body	:	Govt. of Himachal Pradesh(Forest Department)
5	Allocated Unique Identification Number (UIN)	:	NA
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	:	As per 2011 census Population of Khajjiar Village: 15 nos Hotel/Guest houses
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	:	Flow of Catchment run off water inside the lake and outflow in the nullah.
8	Major Plant and Animal communities present in the water body	:	Catchment area: Medicinal Plants: Patish, Barian, Chora, Shafoo, Rasount, Juhi, Asmani booti, Karu, Kaur, Salam misri, Kuth, Barhmi, Banfasha And Ashwagandha Animal: Leopard, Himalayan Fox, Black Bear, Stripped Hyena, Goral, Barking Deer, hanuman Languor, Rhesus Monkey, Flying Squirrel etc. Birds: Black Eagle, Cinereous vulture, Himalyan Griffon, Egyptian Vulture, Lammergeier, Himalyan Monal, Kalij Pheasant, Koklass, Wedge-Tailed Green Pigeon, Oriental Turtle Dove, Plum-Headed Parakeet, Slaty-headed Parakeet, Black Bulbul, Common Chiffchaff, Greenish Warbler, Himalayan Woodpeckers, Rock Bunting, Crested Bunting etc. In water body: <i>Acorus, cynodon, Phragmites, Pithophora species, Marsilea, Eleocharis.</i> Fishes
9	Designated Use of Pond or Lake(Drinking/Irrigation/Aqua Culture/Tourism/ Protected Bio-diversity)	:	Biodiversity, Tourism
10	Major Drains outfall into Water Body	:	Catchment of Khajjiar
11	Physical condition of the water Body	:	Hazy colour, No odour, fall under water quality criteria D for propagation of wildlife and fisheries.
12	Water Quality of Water Body	:	Attached

11	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion							
12	Status of Sewage Management in the Catchment area	:	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			Nil	Nil	Nil	NIL	NIL	NA
13	Status of Industrial Effluent Management in the Catchment area	:	Total Industrial Effluent Inflow into the water body (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion
			NIL	NIL	NIL	NIL	NIL	NA
14	Waste Management in the Catchment area of water body	:	Type of waste	Quantity of Waste Generation in the catchment area (TPD)	No. of Treatment and disposal Facilities and Capacity in the catchment area (in TPD)	Gap in Treatment and Disposal of Waste in the catchment area (in TPD)	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines for completion
			MSW					
			HW	NIL	NIL	NIL	NIL	NIL
			BMW					
			C & D					
			Plastic					
15	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)	:	S.No	Activity	Estimated cost	Agency	Timelines for completion	
			1.	Inventarisation of industries/hotels of the catchment , regulation implementation	2020-21	HP PCB	2020-21	
			2.	Organisation of Swachhata Campaign near the lake and surrounding	Existing Swachhata campaign budget	Rural Department Urban	2020-21	

			villages and urban areas		Development Deptt	
		3	Awareness programme for community and tourists	50,000	HP Forest Department (Wildlife wing)	2020-21
		4.	Repair of mule track to check the soil erosion	2,00,000/-	HP Forest Department (Wildlife wing)	2020-21
		5.	Dustbins to be installed	1,50,000/-	HP Forest Department (Wildlife wing)	2020-21
		6.	Installation of sign boards	1,00,000/-	HP Forest Department (Wildlife wing)	2020-21
		7.	IEC material preparation and distribution	25,000/-	HPSWA	2020-21

Name of the Lake: Renukaji, H.P.

1	Location details of the Water Body (Address with GPS location)	:	Renuka Ji Lake, District Sirmour, H.P. : 30°36'36.23"N and 77°27'13.99"E
2	Details of Area and Dimensions of the Water Body	:	2.54 km ² , circumference = 3.3km
3	Water Depth (in m) (During monsoon and non-monsoon period)	:	On moving in upstream direction of lake, water becomes deep in the middle and the depth increases steeply just beyond 2 meters from the bank and 13 m maximum .
4	Ownership of the water body	:	H.P Forest Department
5	Allocated Unique Identification Number (UIN)	:	Ramsar SiteNo-1571
6	Details on Habitat (Surrounding Areas/towns with population and no. of industries in the surrounding area /industrial estates in the catchment of pond or lake)	:	Renuka ji WLS essentially occurs in isolation, it is surrounded by villages and agriculture field, this is leading to a lack of connectivity corridors with other areas. Hydrologically, as well the lake is isolated from nearby Giri river. The rest of the area contains mixed forest of Anogeissus, Laanea, Terminalia, Bauhinia, Khair, Shsham, Cassia, Cordia etc.
7	Details on inflow/outflow, evaporation, flooding frequency, magnitude of flow into the water body	:	The entire Catchment of Renuka lake form the main zone of influence surrounded by Taran dhar, Jammu dhar and Khalla-kiar. Any disturbance in this valley is liable to increase the silt/debris inflow to the Renuka lake. The zone of influence in the south west area is restricted to Jogger-khad and Giri river.
8	Major Plant and Animal communities present in the water body	:	The overhanging vegetation as well as submerged and emergent vegetation of Polygonum spp. and Phoenix Spp. Alongwith population of small plants like Sirodella Spp. Is a key habitat where carps fingerlings can have feeding grounds. Lake has rich diversity of fishes, including Tor (Mahaseer), Labeo calasu, Spp. And Bagarius sp. Several bivalves, Reptiles and Amphibian Spp. have been reported from the lake.
9	Designated Use of Pond or Lake(Drinking/Irrigation/Aqua Culture/Tourism/ Protected Bio-diversity	:	Tourism, Protected Bio-diversity
10	Major Drains outfall into Water Body	:	Renuka ji Wildlife Sanctuary Catchment runoff and water spring
11	Physical condition of the water Body	:	Good

12	Water Quality of Water Body	:	Attached
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11	Proposed Action Plans with action-wise implementing agency, estimated cost and timelines for completion :								
12	Status of Sewage Management in the Catchment area	:	Total sewage inflow into the water body (in MLD)	Existing Sewage Treatment Capacity (in MLD)	Gap in sewage treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Sewage Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion	
			-	-	-	-	-	-	
13	Status of Industrial Effluent Management in the Catchment area	:	Total Industrial Effluent Inflow into the waterbody (in MLD)	Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)	Gap in Industrial Effluent Treatment (in MLD)	Proposed No. of Treatment Facilities	Proposed Treatment Capacity (in MLD)	Implementing Agency, Estimated Cost and Time lines for completion	
			N.A						
14	Waste Management in the Catchment area of water body	:	Type of waste	Quantity of Waste Generation in the catchment area (TPD)	No. of Treatment and disposal Facilities and Capacity in the catchment area (in TPD)	Gap in Treatment and Disposal of Waste in the catchment area (in TPD)	Proposed No. of Facilities and their (in TPD)	Implementing Agency, Estimated Cost and Time lines for completion	
			MSW	N.A					
			HW						
			BMW						
			C & D						
			Plastic						
15	Additional Measures (Pl. indicate action-wise implementing agency, estimated cost and the timelines for completion)	:	.	Activity	Time line	Amount(Rs.)	Implementing agency		
			1	Inventarisation of industries/hotels of the catchment , regulation implementation	2020-21	-	HP PCB		
			2	Organisation of	2020-	Existing	Rural		

			.	Swachhata Campaign near the lake and surrounding villages and urban areas	21	Swachhata campaign budget	Department Urban Development Deptt
			4.	Preparation & Distribution of IEC material on the values of the lake	2020-21	Rs.20,000/-	HPSWA

River Monitoring Data of Lakes

Name of location	Classification	Temp °C	pH	Jan-19				T.C. MPN/100ml	NH ₄ -N (mg/L)	Baron (mg/L)	SAR
				Cond. uS	DO (mg/l)	BOD (mg/l)					
1 D/S Bilaspur at Govindsagar	C	18	8.5	249.4	9.8	0.3	540	0.28	0.076	0.189	
2 U/S Khairan solid waste dumping site bilaspur	B	17	8.62	316.5	9.7	0.1	240	NIL	0.12	0.143	
3 D/S Khairan solid waste dumping site bilaspur	B	17	8.58	259.6	9.9	0.2	280	0.56	0.045	0.197	
4 Rewalsar Lake	C	11	6.88	181.9	5.3	4	920	0.84	ND	0.25	
Feb-19											
1 D/S Bilaspur at Govindsagar	B	18.5	8.19	274.3	9.8	0.5	350	0.56	0.064	0.217	
2 U/S Khairan solid waste dumping site bilaspur	B	18	8.1	278.5	9.8	0.1	210	NIL	0.014	0.089	
3 D/S Khairan solid waste dumping site bilaspur	B	18	8.28	284.7	9.7	0.2	220	0.28	0.037	0.239	
4 Rewalsar Lake	C	12	7.85	284.4	7.9	17	>1600	0.84	ND	0.344	
Mar-19											
1 D/S Bilaspur at Govindsagar	C	12	8.29	275.6	9.7	0.3	540	0.84	0.055	0.529	
2 U/S Khairan solid waste dumping site bilaspur	B	13	8.26	279.2	9.8	0.2	220	NIL	0.018	0.145	
3 D/S Khairan solid waste dumping site bilaspur	B	12	7.8	280.3	9.8	0.2	240	NIL	0.046	0.18	
4 Rewalsar Lake	C	12	7.45	207	6.5	3	920	0.28	ND	0.31	
Apr-19											
1 D/S Bilaspur at Govindsagar	C	16	7.87	227	9.8	0.4	920	0.56	0.085	0.382	
2 U/S Khairan solid waste dumping site bilaspur	B	17	7.93	229	10.2	0.2	220	NIL	0.009	0.121	
3 D/S Khairan solid waste dumping site bilaspur	B	17	7.94	221	10.3	0.2	350	NIL	0.021	0.079	
4 Rewalsar Lake	C	15	8.2	181	12.5	3	1600	0.84	ND	0.174	
May-19											
1 D/S Bilaspur at Govindsagar	C	15	8.21	136	10.5	0.4	920	0.84	0.079	0.205	
2 U/S Khairan solid waste dumping site bilaspur	B	14.5	8.12	147	10.8	0.2	220	NIL	0.015	0.153	
3 D/S Khairan solid waste dumping site bilaspur	B	15	8.19	146	10.6	0.2	280	0.28	0.021	0.176	
4 Rewalsar Lake	C	24	7.97	214	6.2	4	920	0.56	ND	0.146	
Jun-19											
1 D/S Bilaspur at Govindsagar	C	18	8.02	216	9.6	0.6	540	*	0.098	0.234	
2 U/S Khairan solid waste dumping site bilaspur	B	25	8.5	411	7.3	0.2	170	*	0.018	0.11	
3 D/S Khairan solid waste dumping site bilaspur	B	18	7.96	220	9.8	0.3	280	*	0.029	0.189	
4 Rewalsar Lake	C	26	8.12	225	8.9	3	920	*	ND	0.255	
Jul-19											
1 D/S Bilaspur at Govindsagar	C	24.0	7.63	220.0	10.2	0.4	540	*	0.086	0.578	
2 U/S Khairan solid waste dumping site bilaspur	B	22.0	7.72	296.0	9.1	0.2	170	*	0.018	0.597	
3 D/S Khairan solid waste dumping site bilaspur	B	23.0	7.87	215.0	9.8	0.2	220	*	0.024	1.60	
4 Rewalsar Lake	C	28.0	6.49	192.0	8.1	0.8	920	*	ND	1.630	
Aug-19											
1 D/S Bilaspur at Govindsagar	C	23.0	7.87	194.0	9.8	0.4	540	*	0.074	0.363	
2 U/S Khairan solid waste dumping site bilaspur	B	24.0	8.06	183.0	9.7	0.1	220	*	0.021	0.311	
3 D/S Khairan solid waste dumping site bilaspur	B	24.0	8.07	199.0	9.9	0.2	280	*	0.028	0.319	
4 Rewalsar Lake	C	24.0	8.06	196.0	11.0	3.0	920	*	ND	0.337	
Sep-19											
1 D/S Bilaspur at Govindsagar	C	24.0	7.69	245.0	9.8	0.2	540	*	0.071	0.360	
2 U/S Khairan solid waste dumping site bilaspur	B	25.0	7.92	248.0	9.7	0.4	280	*	0.024	0.370	
3 D/S Khairan solid waste dumping site bilaspur	B	25.0	7.89	254.0	9.6	0.2	170	*	0.015	0.350	
4 Rewalsar Lake	C	28.0	7.87	200.0	9.3	4.0	920	*	ND	0.55	
Oct-19											
1 D/S Bilaspur at Govindsagar	C	22.0	8.30	207.0	8.9	0.3	540	0.28	0.077	*	
2 U/S Khairan solid waste dumping site bilaspur	B	21.0	8.27	203.0	8.9	0.2	220	NIL	0.058	*	
3 D/S Khairan solid waste dumping site bilaspur	B	22.0	8.27	2.4	8.8	0.2	280	0.56	0.104	*	
4 Rewalsar Lake	C	21.0	8.18	183.0	8.5	12.0	920	0.84	NIL	*	
Nov-19											
1 D/S Bilaspur at Govindsagar	B	21.0	8.36	186.0	9.4	0.2	350	*	0.074	*	
2 U/S Khairan solid waste dumping site bilaspur	B	22.0	8.37	188.0	9.2	0.2	170	*	0.052	*	
3 D/S Khairan solid waste dumping site bilaspur	B	21.0	8.33	189.0	8.9	0.2	240	*	0.092	*	
4 Rewalsar Lake	C	19.0	7.08	178.0	8.7	6.0	920	*	NIL	*	
Dec-19											
1 D/S Bilaspur at Govindsagar	B	13	7.84	206	8.7	0.2	280	*	0.067	*	
2 U/S Khairan solid waste dumping site bilaspur	B	13	8.01	211	9.2	0.1	140	*	0.049	*	
3 D/S Khairan solid waste dumping site bilaspur	B	14	8.03	206	9.1	0.1	220	*	0.101	*	
4 Rewalsar Lake	C	12	7.6	147	11.3	4.2	540	*	ND	*	
Jan-20											
1 D/S Bilaspur at Govindsagar	B	16.0	8.52	218.0	10.1	0.4	350	*	0.074	*	
2 U/S Khairan solid waste dumping site bilaspur	B	18.0	8.66	273.0	9.3	0.2	110	*	0.024	*	
3 D/S Khairan solid waste dumping site bilaspur	B	16.0	8.38	198.0	10.6	0.2	170	*	0.031	*	
4 Rewalsar Lake	B	18.0	7.53	160.0	8.9	2.2	350	*	ND	*	

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Water Quality of Pong Dam lake

Name of Sampling location	Date of collection	Temp. °C	pH	D.O. mg/l	BOD mg/l	F.C. MPN /100ml *	T.C. MPN /100ml *	Remarks
River Beas U/s Dehra	02.01.19	11.0	7.96	9.6	0.10	4.00	110.0	B
River Beas U/s Dehra	16.02.19	12.0	7.52	9.3	0.20	6.10	130.0	B
River Beas U/s Dehra	27.03.19	12.5	7.79	9.4	0.10	3.70	120.0	B
River Beas U/s Dehra	29.04.19	13.0	7.98	9.2	0.30	3.70	110.0	B
River Beas U/s Dehra	23.05.19	13.5	7.23	9.2	0.20	1.80	63.0	B
River Beas U/s Dehra	27.06.19	13.0	7.18	9.2	0.10	1.8	58	B
River Beas U/s Dehra	26.07.19	13.5	8.17	9.3	0.10	2.0	63	B
River Beas U/s Dehra	28.08.19	18.0	7.99	7.5	0.10	2.0	70	B
River Beas U/s Dehra	13.09.19	16	7.98	7.6	0.2	4	94	B
River Beas U/s Dehra	10.10.19	14.5	8.14	9.2	0.1	2	43	A
River Beas U/s Dehra	28.11.19	12	7.74	8.4	0.1	2	70	B

River Beas U/s Dehra	14.12.19	10	7.94	8.4	0.2	2	63	B
River Beas U/s Dehra	09.01.20	13	8.04	9.2	0.1	2	33	A
River Beas U/s Dehra	06.02.20	12.5	7.87	9.3	0.1	2	27	A

Name of Sampling location	Date of collection	Temp. °C	pH	Cond. uS	D.O. mg/l	COD mg/l	BOD mg/l	F.C. MPN /100ml *	T.C. MPN /100ml *
River Beas D/s Dehra	27.06.19	7.3	7.29	215.2	9.0	4.0	0.40	2.0	79
River Beas D/s Dehra	26.07.19	13.5	8.08	239.0	9.1	5.0	0.30	2.0	79
River Beas D/s Dehra	13.09.19	17	8.01	195	8.7	2	0.1	2	58
River Beas D/s Dehra	14.12.19	10	7.75	275	8.7	3	0.1	2	48

NO ₃ -N mg/l	NH ₄ -N mg/l	TKN mg/l	TDS mg/l	TFS mg/l	Total Hardness mg/l	CaCo ₃	MgCo ₃	F ⁻ mg/l	Boron mg/l
0.91	Nil	Nil	146.0		148	120.0	28.0	0.3	0.04
0.52	Nil		150.0		128	102.0	26.0	0.2	0.03

0.34	Nil		151		212	138	74	0.28	0.07
0.98	Nil		173		104	88	16	0.17	0.05

Cl⁻ mg/l	SO₄²⁻ mg/l	T. Alkalinity mg/l	P. Alkalinity mg/l	PO₄⁻ mg/l	Na⁺ mg/l **	K⁺ mg/l **
32.66	8.41	135.0	Nil	ND	21.08	5.19
52.54	18.96	140.0	Nil	0.05	16.20	1.18
25.6	28.84	230	Nil	ND	26.21	2.45
18.46	20.16	170	Nil	0.01	19.32	1.56

Ca⁺⁺ mg/l	Mg⁺⁺ mg/l	TSS mg/l	Turbidity NTU	Remarks
48.12	6.83	46.0	19.0	B
40.90	6.34	52.0	21.0	B
55.31	18.06	23	7	B

35.29	3.9	5	1	A
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Name of Sampling location	Date of collection	Temp. °C	pH	Cond. uS	D.O. mg/l	COD mg/l	BOD mg/l	F.C. MPN /100ml *
River Beas U/s Pong Dam	18.04.19	13.0	7.78	187.6	8.9	2.0	0.2	6.0
River Beas U/s Pong Dam	10.07.19	13.0	7.29	197.6	9.3	2.0	0.10	4.0
River Beas U/s Pong Dam	05.10.19	13	7.8	183	8.9	2	0.1	2

T.C. MPN /100ml *	NO ₃ -N mg/l	NH ₄ ⁻ -N mg/l	TKN mg/l	TDS mg/l	TFS mg/l	Total Hardness mg/l	CaCo ₃	MgCo ₃	F ⁻ mg/l
140	ND	0.03	0.11	112.0	80.0	106.0	82.0	24.0	0.20
84	0.42	Nil		130.0		86	74.0	12.0	0.1
79	0.34	Nil		113		98	74	24	0.14

Boron mg/l	Cl ⁻ mg/l	SO ₄ ⁻ mg/l	T. Alkalinity mg/l	P. Alkalinity mg/l	PO ₄ ⁻ mg/l	Na ⁺ mg/l **	K ⁺ mg/l **	Ca ⁺⁺ mg/l	Mg ⁺⁺ mg/l
0.04	21.30	57.14	105.0	Nil	ND	16.23	3.08	33.68	7.81
0.04	29.82	17.22	120.0	Nil	ND	8.04	1.04	29.67	2.93

ND	12.78	18.42	155	Nil	ND	5.14	0.38	29.67	5.86
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TSS mg/l	Turbidity NTU	Fe	Cu	Pb	Zn	T. Cr.	Cd	Ni	%Na	SAR	Remarks
7.0	2.0	0.02	ND	ND	0.03	ND	ND	ND	22.62	0.65	B
6.0	2.0										B
6	3	0.948	ND	ND	0.003	ND	ND	ND	10.13	0.23	B

Name of Sampling location	Date of collection	Temp. °C	pH	D.O. mg/l	BOD mg/l	F.C. MPN /100ml *	T.C. MPN /100ml *	Remarks
River Beas U/s Dehra	02.01.19	11.0	7.96	9.6	0.10	4.00	110.0	B
River Beas U/s Dehra	16.02.19	12.0	7.52	9.3	0.20	6.10	130.0	B
River Beas U/s Dehra	27.03.19	12.5	7.79	9.4	0.10	3.70	120.0	B
River Beas U/s Dehra	29.04.19	13.0	7.98	9.2	0.30	3.70	110.0	B
River Beas U/s Dehra	23.05.19	13.5	7.23	9.2	0.20	1.80	63.0	B
River Beas U/s Dehra	27.06.19	13.0	7.18	9.2	0.10	1.8	58	B

River Beas U/s Dehra	26.07.19	13.5	8.17	9.3	0.10	2.0	63	B
River Beas U/s Dehra	28.08.19	18.0	7.99	7.5	0.10	2.0	70	B
River Beas U/s Dehra	13.09.19	16	7.98	7.6	0.2	4	94	B
River Beas U/s Dehra	10.10.19	14.5	8.14	9.2	0.1	2	43	A
River Beas U/s Dehra	28.11.19	12	7.74	8.4	0.1	2	70	B
River Beas U/s Dehra	14.12.19	10	7.94	8.4	0.2	2	63	B
River Beas U/s Dehra	09.01.20	13	8.04	9.2	0.1	2	33	A
River Beas U/s Dehra	06.02.20	12.5	7.87	9.3	0.1	2	27	A

Last one year water quality results under NWMP of Khajjiar Lake

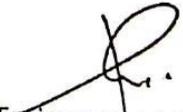
Sr. No	Month	Temp °c	pH	Conduc-tivity	DO mg/l	COD mg/l	BOD mg/l	No3 mg/l	TC MPN/100 ml	FC MPN/100 ml
1.	January, 2019	Sample not collected due to heavy snow fall								
2.	February, 2019	7.7	7.48	73.4	6.1	12.0	0.90	-	180	6.1
3.	March, 2019	7.9	7.82	48.7	6.1	20.0	1.8	-	180	7.0
4.	April, 2019	11.1	7.98	176.7	6.2	12.0	1.9	-	220	8.1
5.	May, 2019	10	7.86	176.8	6.0	32.0	6.5	1.59	120	6
6.	June, 2019	12	8.03	169.4	6.1	24.0	4.0	0.92	280	8.2
7.	July, 2019	7.0	7.70	256.0	6.1	16.0	2.80	1.20	-	-
8.	August, 2019	5	7.9	88.0	6.0	56.0	6.5	0.72	220	8.3
9.	September, 2019	10	7.66	59.8	5.8	28.0	2.0	0.87	-	-
10.	October, 2019	14	7.52	77.8	5.2	24.0	4.0	0.68	280	8.0
11.	November, 2019	13	6.83	66.3	4.2	12.0	1.8	0.14	79	4.0
12.	December, 2019	13	6.85	55.7	6.1	24.0	4.4	1.24	220	13.0

CS Scanned with CamScanner

Status Report of Water Quality of Renuka Ji Lake

Month	Location- Renuka Ji lake				Sampling duration	Water Quality Status
	Year-2019					
	Parameters and Water Quality Criteria					
	pH	D.O. mg/l (>4.0)	BOD mg/l (<3.0)	F.C. MPN /100ml (<2500)	T.C. MPN /100ml (<5000)	
January	8.10	7.1	2.8	26.0	47.0	Satisfactory
February	7.87	6.7	1.8	31.0	84.0	Satisfactory
March	8.01	6.9	1.2	26.0	70.0	Satisfactory
April	8.03	6.4	1.1	25.0	84.0	Satisfactory
May	7.97	6.0	1.2	26.0	70.0	Satisfactory
June	7.86	5.8	0.9	25.0	58.0	Satisfactory
July	7.81	6.1	0.6	21.0	48.0	Satisfactory
August	7.75	5.7	1.3	25.0	84.0	Satisfactory
September	7.89	6.6	0.8	21.0	63.0	Satisfactory
October	7.62	6.2	0.7	21.0	46.0	Satisfactory
November	7.62	6.9	1.1	21.0	48.0	Satisfactory
December	7.46	6.0	2.2	21.0	48.0	Satisfactory
Average	7.83	6.3	1.3	24.0	62.5	Satisfactory

According to Primary Water Quality Criteria lake falls under B Class category of water. Water is suitable for outdoor bathing, as a drinking water source, propagation of wild life, fisheries and for irrigation purpose.


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