Action Plan: No. 8

Action Plan

for Rejuvenation of

River Nandhor / Kailash

(River Stretch: Along Sitarganj)

Sitarganj, Distt. US Nagar

(Uttarakhand)

Priority - IV

January, 2019

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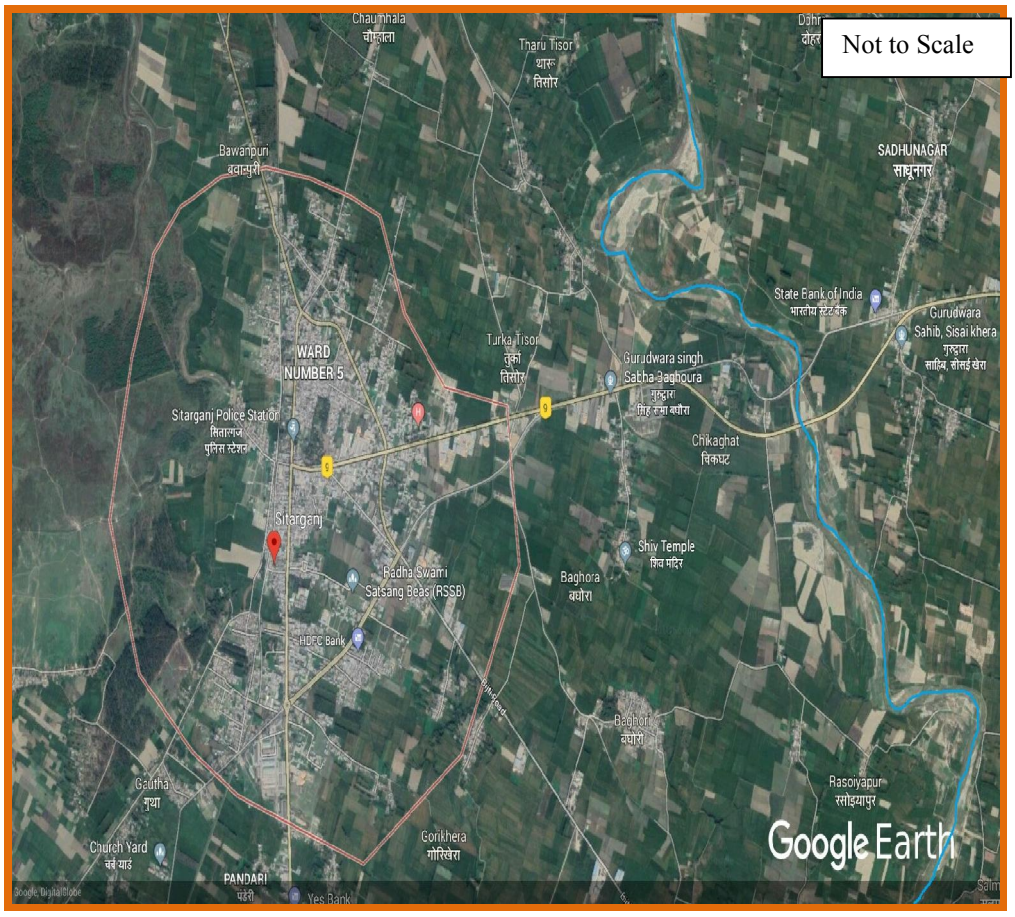
1. INTRODUCTION

River Nandhor/ Kailash originate from Pangoot, Nainital Forest and flows downward along the Eldeco Sidcul Industrial Park (ESIPL) Sitarganj and further Sitarganj town of Uttarakhand. River Nandhor also known as river Kailash from Sitarganj onwards. Within the catchment of river, about 66 operating industries are located in the ESIPL Sitarganj, which contributes its wastewater to CETP for treatment and disposal. 22 industries are presently not in operation. CETP receives about 2.4-2.5 MLD wastewater against the installed capacity of 4.0 MLD. Though the treated wastewater is being disposed through land disposal (Karnal technology) and overflow goes to Baigul canal, however, due to proximity of river Nandhor/Kailash, possibility of illegal disposal of wastewater from industries or CETP into river Nandhor/Kailash cannot be ignored. Two drains of Sitarganj city flowing along the Maharana Pratap Chowk to Khatima road also draining towards river Nandhor/Kailash.



Google image of Sitarbganj Town along with river Nandhor/Kailash (Not to scale).

Google image of river Kailash and Eldeco Sidcukl Industrial Park, Sitarganj.

WATER QUALITYGOALS:

It is an important aspect for maintain wholesomeness of river Nandhor/Kailash in context of meeting water quality criteria for bathing. As river passes close to the ESIPL, possibility of disposal of industrial wastewater cannot be ignored; therefore close observation is needed for any deterioration in water quality. Two drains from Sitarganj town also passing towards river Nandhor / Kailash. In order to meet the water quality criteria for bathing, it is imperative to keep close observation on industrial units /CETP and drains flowing towards river Nandhor/Kailash.

Water quality characteristics of river Nandhor in the year 2018 is as given below:

A. River Nandhor / Kailash at upstream of Sitarganj (US Nagar)

Month	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)
Jan-18	River Dry			
Feb-18	River Dry			
Mar-18	River Dry			
Apr-18	River Dry			
May-18	River Dry			
Jun-18	River Dry			
Jul-18	7.6	4.2	21	6.4
Aug-18	7.3	2	12	7.4
Sep-18	7.4	3.2	14	7.2
Oct-18	7.2	6	14	6.8
Nov-18	7.6	4	14	6.8
Dec-18	River Dry			
Average (Range)	**7.42** (7.2-7.6)	**3.88** (2-4.2)	**15** (12-21)	**6.92** (6.4-7.4)

B. River Nandhor / Kailash at downstream of Sitarganj (US Nagar)

Month	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)
Jan-18	7.6	4	24	8
Feb-18	8.1	8	46	7.6
Mar-18	7.7	2	20	7.2
Apr-18	7.38	7	18	6
May-18	7.46	8.2	40	6.2
Jun-18	River Dry			
Jul-18	7.8	8.2	34	6
Aug-18	7.1	6	30	6.8
Sep-18	7.3	8	30	6.2
Oct-18	7.89	10	42	5.8
Nov-18	7.9	10	32	5.6
Dec-18	7.6	8	24	5.2
Average (Range)	**7.62** (7.1-7.9)	**7.21** (2-10)	**30.90** (18-46)	**6.41** (5.2-8)

Basis of Proposed Action Plan for rejuvenation of river Nandhor/Kailash:

River Nandhor/Kailash is a spring fed river and and as such no direct source of industrial wastewater have been reported in stream (before ESIPL), therefore other sources including drains from town and hamlets shall be identified.

2. COMPONENTS OF ACTION PLAN:

The proposed action plan for rejuvenation of river Nandhor/Kailash consisting following components:

3.1 Source Control:

Source control includes industrial pollution control and treatment and disposal of domestic sewage as detailed below:

(a) Industrial Pollution control:

i. Inventorisation of industries: List of industries located in ESIPL, Sitarganj is given as **Annexure-1**.
ii. Industries which are connected with CETP shall meet the CETP inlet in order to meet prescribed CETP inlet standards as prescribed by UEPPCB (**Annexure-2**),

iii. Treatment of effluents, compliance with standards and mode of disposal of effluents.
iv. Regulatory regime: Compliance of effluent outlet standards as prescribed under the Environment (Protection) Rules, 1986 as amended.

(b) **Common Effluent Treatment Plant (CETP):** As CETP receives wastewater from about 69 operational industrial units, therefore appropriate operation of CETP is to be ensured to meet CETP outlet standards prescribed under the E(P) Rules, 1986 as amended (**Annexure-3**).

(c) Channelization, treatment, utilization and disposal of treated domestic sewage/Municipal drain.

i. Identification of drains their discharge in the catchment of river Nandhor/Kailash.
ii. Estimation of quantity of sewage generated and requirement of treatment capacity.
iii. Storm water drains now carrying sewage and sullage joining river Nandhor/Kailash and interception and diversion of sewage to STP.
iv. Treatment and disposal of septage and controlling open defecation.

(d) Solid Waste Management:

i. Collection, segregation, transportation, disposal and treatment of municipal solid wastes generated from town in accordance of provisions of the Solid Waste Management Rules, 2016.
ii. Restriction illegal disposal of solid waste along the river bank and flood plain zones.
iii. Burning of solid waste should be strictly prohibited.
iv. Construction and demolition wastes should be disposed in designated areas and no case it should be disposed in to river beds or flood plain zone.

3.2 River catchment/Basin management - Controlled ground water extraction and periodic quality assessment:

i. Periodic assessment of groundwater resources and regulation and regulation of ground water extraction by

industries particularly in over exploited and critical zones/blocks.

ii. Ground water re-charging/rain water harvesting.

iii. Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps.

iv. Assessment of the need for regulating use of ground water for Irrigation purposes.

3.3 Flood Plain Zone.

i. Regulating activities in flood plain zone.

ii. Management of Municipal, Plastic, Hazardous, Bio-medical and Electrical and Electronic wastes.

iii. Greenery development - Plantation plan.

3.4 Ecological/Environmental Flow (E-Flow)

i. Issues relating to E-Flow.

ii. Irrigation practices.

3. RIVER NANDHOR/KAILASH REJUVENATION PLAN:

Following are the action plan for rejuvenation of river Nandhor/Kailash as detailed below:

1.1 Industrial Pollution Control:

ESIPL, Sitarganj consisting of heterogeneous nature of industries. Following are the action points for sector-wise pollution control:-

(i) Maize Processing Industry:

(a) Wastewater containing high BOD and COD along with high ammonical nitrogen shall be treated and disposed in order to meet prescribed CETP inlet standards.

(b) Reuse of treated effluent shall be encouraged.

(c) CSL shall be not be disposed with wastewater connected to CETP.

(ii) Electroplating Industries:

(a) Electroplating industries which are the main source of metallic contamination of surface and ground water should be insisted for 'ZLD' system. Cyanide based electroplating process shall not be permitted.

(b) All the electroplating units or having electroplating process or industrial processes which are likely to discharge effluents containing heavy metal or pollutants that may damage environment, in such cases, UEPPCB shall make necessary amendments to the CCA (Consolidated Consent & Authorization) granted under the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981 and the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016, for incorporation of the effluent discharge standards for all the parameters as prescribed under Environment (Protection) Act, 1986.

(c) All the industrial units should have consents under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as well as Authorisation under the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016 as amended and Consents or Authorization as applicable should be granted or renewed only after verification or ensuring adequate systems for disposal of treated effluents or verification of compliances to the granted Consents/Authorization strictly.

(iii) Specific Action Points:

(a) UEPPCB with the support of District Industry Centre (DIC) shall carryout inventory of industries within two months time and all the industries which are presently in operation without Consent under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as the case may be should be directed by UEPPCB to obtain consent within three months and failing which action should be taken by UEPPCB for closure of all such industrial units.

(b) All the hazardous waste generating industries or the industries covered under Schedule-I of the Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 as amended, should be directed to obtain authorization within a month from UEPPCB and failing which action should be taken by UEPPCB for closure of all such industrial units.
(c) All the GPIs category industries have provided OCEMS at the outlet of ETPs. Industries will be directed to take measures to transfer real time data with auto validation facilities to the UEPPCB and CPCB with immediate effect.
(d) No industry should operate or continue manufacturing process unless they possess valid permission for ground water extraction from Central Ground Water Authority (CGWA). All such industries shall obtain groundwater extraction permission from the Central Groundwater Board (CGWA) within three month time period.
(e) Small scale/tiny and service providing units located in urban or semi-urban limits like Dairies, Auto Service Stations etc., should not be allowed to dispose waste water effluents or sledges into drains, thereby ensuring not causing damages to drains or sewers. Such units should have minimum provision of Oil & Grease traps.
(f) Drains carrying industrial wastewater shall be monitored regularly by the UEPPCB.
(g) Burning of any kind of waste including industrial solid waste and agriculture residue should be completely prohibited.

1.2 Treatment of Sewage:

(a) About 5.16 MLD sewage is generated from the entire city. As such no STP is proposed for the city.
(b) All municipal drains leading to river Nandhor/Kailash should be identified and their interception and diversion along with treatment plan shall be prepared.
(c) Septage management protocol shall be strictly followed.

Sewage Treatment Plan:

(a) Uttarakhand Jal Nigam would undertake measurement of flow of the drain(s) and formulate detailed project report (DPR) for each drain for treatment.
(b) The flow in each drain should exclude monsoon flow. Further, any drain if receiving fresh water from any escape channel etc, should be examined for its diversion rather than mixing with sewage.
(c) DPRs should be submitted to the River Rejuvenation Committee (RRC) for consideration as a part of Ganga/Yamuna basin management plan.
(d) Sewage treatment plan should also consider treatment and disposal of sewage from villages/gram panchayats/isolated settlements including discharge form toilets constructed under Swachh Bharat Abhiyan.
(e) Hotels/Restaurants particularly located on road-side should not dispose untreated sewage and solid waste into nearby pubic drain or rivers, such establishments should be properly regulated and levied with fines as directed by Hon'ble NGT in Ganga matter in case of any violation.

4.3 Solid Waste Treatment and Disposal:

(a) About 5.99MTPD solid waste is generated from 13 ward of the Sitarganj town. Action plan for solid waste processing and disposal has been prepared by the Directorate of Urban Development based on cluster approach.
(b) Door to Door collection of solid waste shall be encouraged and only segregated waste shall be accepted.
(c) Biodegradable wastes shall be used for composting while recyclable waste shall be sent to registered recyclers.
(d) Action Plan for Solid waste Management for Sitaragnaj town as prepared by the Urban Development Directorate, Uttarakhand shall be implemented.
(e) No case Construction and Demolition waste shall be disposed in river bed or flood plain zone. Nagar Nigam Rudrapur shall identify the site for such wastes.

1.3 Ground Water Quality:

(a) So far contamination of groundwater is not reported in the area, however groundwater quality monitoring shall be carried

out at least twice in the year (winter: December-January and summer: May-June) at three locations to ascertain level of pollutants in groundwater.

(b) CGWA would be requested to identify over exploited and critical blocks in the area with respect to the ground water extraction and industries be directed to comply with CGWA conditions.

(c) UPPCB should be vigilant and conduct surprise inspection of the industry to rule out any forceful injection of industrial effluents into groundwater resources or disposal of effluent in rain water recharge pits.

(d) No industrial unit should be establishment or allowed to continue its operation unless they obtain permission from CGWA for ground water extraction within three month.

(e) Rain water harvesting of industrial, commercial and other institutions may be insisted upon by CGWA and groundwater recharging with only clean water be encouraged by CGWA.

4.5 Flood Plan Zone (FPZ):

The Uttarakhand Irrigation Department shall identity/demarcates Flood Plain Zone and regulate the activities. Such regulations would also cover:

(a) Plantation in Flood Plain Zone (FPZ) – By State Forest Department.

(b) Checking encroachments – By District/Local Administration.

(c) Prohibition of disposal of municipal and bio-medical waste particularly in drains – By Local administration.

(d) State Government may notify Flood Palin Zones – within six months.

4.6 Environmental Flow (E-Flow):

(a) River Nandhor/Kailash carrying very thin and lean flow of original water.

(b) Fresh water flowing through escape channels/small barrages should be checked. Good quality of water should not be used for dilution of pollution unless; required degree of treatment is achieved for municipal sewage and industrial effluents.

(c) To conserve water and good irrigation practices to be adopted by the farmers for which mass awareness programmes through media be provided in vernacular languages to the farmers by the Uttarakhand State Irrigation and Agriculture Departments.

4.7 Monitoring of Action Plan:

The proposed Action Plan will be monitored by the River Rejuvenation Committee (RRC) constituted by Government of Uttarakhand vide Office order dated 05.12.2018, under the overall supervision and co-ordination of Principal Secretary, Environment, Govt. of Uttarakhand.

2. ACTION PLAN:

Short Term and Long Term Action and the Identified Authorities for initiating actions and the time limits for ensuring compliance:

S.N.	Action plan for rejuvenation of river Nandhor/Kailash	Organisation/ Agency Responsible for Execution of the Action Plan	Time Target
1.	**Industrial Pollution Control**		
	a) Action plans suggested under section - of the Action Plan.	UEPPCB	Within Three months.
	b) Inventorisation of the industries in the catchment area of River Nandhor/Kailash covering	DIC, US Nagar & UEPPCB	Within two months.

	assessment on aspects relating to Status of Consents under Water & Air Acts and Authorisation, Effluent Generation, ETP capacities and final mode of effluent discharges.		
	c) Actions against the Identified industries in operation without Consents under Water & Air Acts/Authorisation under the H & OW (M & TM) Rules, 2016 as amended.	UEPPCB	Within three months.
	d) Action against the industries not installed ETPs or ETPs exist but not operating or ETP outlet or treated effluent is not complying with effluent discharge norms.	UEPPCB	Within three months.
	e) Action against the GPIs which have not providing continuous real-time effluent quality data to UEPPCB and CPCB.	UEPPCB	Within a month.
	f) Routine /surprise inspection GPIs and Red category of industries for ensuring compliance of effluent discharge standards as prescribed under E(P) Rules, 1986, as amended.	Special Environmental Surveillance Task Force / UEPPCB	Regularly .
	g) Small scale/tiny and service providing units located in urban or semi-urban limits like Dairies, Auto Service Stations etc., have minimum provision of Oil & Grease traps.	UEPPCB	Within three month.

	h) Monitoring of drains carrying industrial wastewater (if any).	UEPPCB	Within a month.
	i) Prohibition of Burning of any kind of waste including agro-residue.	Nagar Palika Parisad, Sitarganj / District Administration	Within a month.
	j) Operation of CETP in order to meet the prescribed outlet effluent discharge standards and performance monitoring.	SIIDCUL / UEPPCB	Within a month
	k) Installation of Online Continuous Effluent Monitoring System at CETP outlet and 24x7 data transfer connectivity to CPCB and UEPPCB.	SIIDCUL	Within15 days.
2.	**Sewage Treatment & Disposal Plan**		
	a) Estimation of total sewage generation, existing treatment facilities, quantum of disposal of sewage presently through drains and / the gaps in sewage treatment capacity.	Uttarakhand Jal Nigam / Nagar Palika Parisad, Sitarganj	Within two months.
	b) To undertake measurement of flow of all the drains presently contributing pollution load in river Nandhor/Kailash and formulate Detailed Project Report (DPR) for each drain and submit DPR to RRC. Plan for utilization of treated water (at least 75%) should be a part of DPR. Proposal should include installation	Uttarakhand Jal Nigam / Nagar Palika Parisad, Sitarganj	Within two months.

	of OCEMS & PTZ camera at STP Outlet.		
	c) Channelization including diversion of sewage generated from household / township / villages to sewer lines and interception of all drains (excluding drains carrying industrial wastewater) for ensuring proper treatment through appropriate treatment system.	Jal Nigam / Nagar Palika Parisad, Sitarganj	Within six months after commissioning of Treatment system
	d) Ensuring dairy / automobile service stations and Hotels/ Restaurants should have their own treatment system and levy of fine in case found violation.	UEPPCB / Nagar Palika Parisad, Sitarganj	Within three months.
	e) Monitoring of STP outlet effluent quality w.r.t. STPs effluent discharge norms prescribed under E(P) Rules, 1986 as amended.	UEPPCB.	After commissioning of STP.
4.	**Solid Waste Treatment and Disposal**		
	a) Implementation of Action plan for Solid Waste Management for Sitarganj town prepared by Urban Development Directorate, Uttarakhand shall be implemented. No case collected solid waste shall be disposed illegally into river bed /flood plain zone.	Urban Development Directorate / Nagar Palika Parisad, Sitarganj.	Within a year.
	b) Door to door collection of solid waste shall be encouraged.	Nagar Palika Parisad, Sitarganj.	Within a month.
	c) Composting will be made out of bio-degradable waste and recyclable	Nagar Palika Parisad, Sitarganj.	Within two months.

	waste shall be disposed thorough registered recyclers.		
	d) Construction and demolition waste shall be disposed in designated area/place only. Designated place shall be earmarked by the Local authority.	Nagar Nigam, Rudrapur.	Within a month.
5.	**Ground Water Quality**		
	a) Groundwater quality monitoring at three locations during summer (May-June) and winter (December-January)	UEPPCB	Within a month.
	b) Identification of over exploited and critical area w.r.t. groundwater extraction.	CGWA	Within six months.
	c) To conduct periodic surprise inspection of industries to rule out any forceful injection of industrial wastewater in to groundwater or disposal of wastewater through rainwater recharging pit.	UEPPCB / CGWA	Regularly
	d) All the industry should be directed to obtain necessary permission for groundwater extraction from CGWA.	UEPPCB /CGWA	Within three month.
	e) Ensure rainwater harvesting by industries, commercial complexes / institutions and groundwater recharging with clean water.	CGWA	Within six months.
6.	**Flood Plain Zone (FPZ)**		
	a) Demarcation of flood plain zone and notification	Uttarakhand Irrigation	Within six

	of Flood Plain Zone	Department.	months.
	b) Plantation in Flood Plain Zone	Uttarakhand Forest Department	By next monsoon .
	c) Checking encroachment in the FPZ of Nandhor/Kailash River.	District Administration, US Nagar / Nagar Nigam, Rudrapur	Within three months.
	d) Prohibition of disposal of municipal plastic waste and biomedical wastes particularly in drains and FPZ.	Local Administration / Nagar Nigam, Rudrapur	Within a month.
7.	**Environmental Flow (E-Flow) and Irrigation Practices**		
	a) Measurements of Nandhor/Kailash River flow of at upstream and downstream of Sitarganj town and maintain record.	Uttarakhand Irrigation Department.	Regularly
	b) To conserve water and good irrigation practices to be adopted by the farmers by organising mass awareness programmes through media in vernacular language.	Uttarakhand Irrigation Department / Department of Agriculture.	Regularly .

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Annexure-1

List of industries connected with CETP, ESIPL , Sitarganj (US Nagar)

SN	Name	Address	Status
1	Gujarat Ambuja Exports Ltd.	C-50, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
2	Balaji Action Ltd.	C34 & C34 (A),Ph-III Eldeco Sidcul 262405	Connected
3	Laopala RG Ltd.	B-108,Phase I,Eldeco Sidcul Industial Park Sitarganj 262405	Connected
4	Karam Industries	C-35 A, Phase III, Eldeco Sidcul Industrial Park, Sitaragnj 262405	Connected
5	Mascot Fastners Pvt. Ltd.	B-155, Phase I, Eldeco Sidcul Industrial Park, Sitaragnj 262405	Connected
6	Indian Tonners & Devlopers Ltd.(ITDL)	D-11, Phase II, Eldeco Sidcul Industrial Park, Sitaragnj 262405	Connected
7	SNB Infra Heights Ltd.	B-09, Phase I, Eldeco Sidcul Industrial Park,, Sitaragnj 262405	Connected
8	Foundation Brakes	A-194 (B) , Phase I, Eldeco Sidcul Industrial Park, Sitaragnj 262405	Closed
9	Evergreen Motels	B-173 a, Phase I, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
10	Hi Tech Corporation Ltd.	D 63-64, Phase II, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
11	Alpla India Ltd.	D 11 (C), Phase II, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
12	Setco Automotive Ltd.	A 196, Phase I, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
13	Henkel Chembond Surface Ace Tech. Ltd	A 128, Phase -I, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
14	Henkel Chembond Surface Ace Tech. Ltd.	A 113, Phase -I, Eldeco Sidcul Industrial Park, Sitarganj 262405	Connected
15	PUNJAB BEVEL GEARS. Ltd	D-174,PHASE -I ELDECO SIDCUL INDUSTRIAL PARK Sitarganj 262405	Connected
16	Ghaziabad Precision Products Pvt. Ltd	D-50,PHASE- II ELDECO SIDCUL INDUSTRIAL PARK Sitarganj 262405	Connected
17	Speciality Industrial Polymers & Coatings Pvt. Ltd	A-165 PHASE- I ELDECO SIDCUL INDUSTRIAL PARK Sitarganj 262405	Connected
18	Parle Biscuits Pvt. Ltd.	D-10,Phase-II, Eldeco Sidcul Industrial Park Sitarganj 262405	Connected

19	Shri Sai Viswas Polymer	B-87&188,PHASE- I ELDECO SIDCUL INDUSTRIAL PARK Siatrganj 262405	closed
20	Maharani Innovative paints Pvt. Ltd.	B-03,PHASE- I ELDECO SIDCUL INDUSTRIAL PARK Siatrganj 262405	Closed
21	Vishal Plastic Industries	C-93 Phase III, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
22	Associate Appliance Ltd.	A-194L,Phase I, ELDECO SIDCUL Industrial Park Sitarganj 262405	Closed
23	Reckitt& Benkiser(Dry)	B-170, Phase -1, ELDECO SIDCUL Industrial Park	Connected
24	Reckitt& Benkiser(Wet)	B-96, Phase -1, ELDECO SIDCUL Industrial ParkSitarganj 262405	Connected
25	Isthmus Industries A 198	A-198, Phase-I, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
26	Isthmus Industries A 201	A-201, Phase-I, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
27	Atpac Industries	Plot No-A-21, Phase-I, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
28	Brakes India	B-9, Phase -I, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
29	Agemco Faucets Pvt Ltd.	Plot No. C-37(b), Phase-II, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
30	Crl Rubber Industries	Plot No, D-32-34, Phase-I, ELDECO SIDCUL Industrial Park Sitargnaj 262405	Connected
31	Moraceae Pharmaceuticals	Plot No. A-66, Phase-1, ELDECO SIDCUL Industrial Park Sitargnaj 262405	Closed
32	Pes Engineers Pvt. Ltd	Plot No. A-103, Phase-1, ELDECO SIDCUL Industrial Park Sitarganj 262405	Connected
33	Shiran Electricals	Plot No. A-22, Phase-1, Eldeco Sidcul Industrial Park Sitarganj 262405	Connected
34	Surin Auto Pvt. Ltd	A-194, Phase-1, Eldeco Sidcul Industrial ParkSitarganj 262405	Connected
35	Western Consolidated Pvt.Ltd	A-194 (e-f)Phase-1, Eldeco Sidcul Industrial Park Sitarganj 262405	Connected
36	Starways Industries	A-124/125 Phase-I Eldeco Sidcul Industrial Park 262405	Connected
37	Kae Engineers Pvt.Ltd	B-159,Phase-I Eldeco Sidcul Industrial Park 262405	Connected

38	Ang Industries Ltd.	A-197,Phase-I Eldeco Sidcul Industrial Park 262405	closed
39	Rajmata Engg. P. Ltd	D-77Phase-II Eldeco Sidcul Industrial Park 262405	Connected
40	Rama Industries	A-82b Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
41	PN Die Casting P. Ltd.	D-76,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
42	M.B. Thermoforming	A-132 Ph-IEldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
43	Mahalaxmi Sand & Minerals	D-82 Ph-IIEldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
44	Parul Fabricators	B-124, Ph - 1Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
45	Arjan Auto Technologies	D-81 Ph-IIEldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
46	Remsons Cable Industries	B-154 Phase I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
47	Fleet Guard Filters	D-62 Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
48	Klb Electricals	C-72 Ph-III,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
49	Klassic Klarol	B-226& 227 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
50	Innovative Textile	B-08 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
51	Shree Patel Industries	D-73 Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
52	Daksh Electronics	B-220 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
53	Mehra Metal Component P Ltd.	B-141 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
54	Uttaranchal Auto	D-42 Ph-II,,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
55	Pbg Industries	D-39 ph-II,,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
56	SSP PLtd.	C-60 A,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
57	Jay Switches P Ltd.	D-79 PH-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
58	Tara Health Food	A-02,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected

59	Savitri Electronics	B-173 Ph-I,,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
60	Primavera Manufacturing Company Pvt. Ltd.	D-53&D-54Phase-II, Eldeco Sidcul Industrial Park Sitarganj 262405	Connected
61	Automotive Stampings	A-194(a), Phase-1, Eldeco Sidcul Industrial Park Sitargnaj 262405	Closed
62	Parle Agro Pvt.Ltd.	Plot No: 153-157& 166-168 Sector -03 , IIIE Sidul 262405	Connected
63	Stork Rubber Products Pvt. Ltd	D-38 Ph-II, Eldeco Sidcul Industrial Park Sitargnaj 262405	Connected
64	Fiberfill Engineers	B-212,219 Ph-II Eldeco Sidcul Industrial Park Sitargnaj 262405	Closed
65	BSN Auto	D-59 PH-II Eldeco Sidcul Industrial Park Sitargnaj 262405	Closed
66	Technical Associates Ltd.	B-07 Ph-I, Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
67	RC Repro Trade(121-a)	A-121(a) Ph-IEldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
68	Mr. Sandeep Kr. &Chetan Kr.	B-203 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
69	Talbros Automotive Components Ltd.	B-177Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
70	Tusshar Axles Pvt. Ltd.	C-186 Ph III Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
71	RC Repro Trade A-6d	A- 6(d) Ph-IEldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
72	Shilpkar(India)Pvt. Ltd.	A-171 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
73	Lapo Pharma	B-213 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
74	Kamal Plastomet	A-5 Ph-I,,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
75	Amcor India Flexibles	C-60b Ph-III,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
76	Zee Insulated Wires Pvt. Ltd		Closed
77	Amrit Udyog	B-189 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
78	Bubeck Technologies	B-211 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
79	Wilson Engineering	D-11b Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected

80	Aaron Helmets Pvt. Ltd.	A-1 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
81	Heinz India Pvt.Ltd	D-99 A&B&100,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
82	Rex Polyextrusion Pvt.Ltd.	C-06 Ph-III,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
83	Ravi Packaging Pvt. Ltd	A-166 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
84	Kumaoun Ispaat Pvt. Ltd.	D-80 Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
85	Essae Digitronics Pvt Ltd	D-61 Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
86	Manuconcast Pvt Ltd	D-67 Ph-II,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Closed
87	Trinity Adhesive Pvt. Ltd.	A-174 Ph-I,Eldeco Sidcul Industrial Park, Sitarganj - 262405	Connected
88	Jainsons Engineering Pvt. Ltd.	C-62-63, Phase III, Eldeco Sidcul Industrial Park,Sitarganj 262405	Closed
89	Atlanta Remedies	C-106 Phase III, Eldeco Sidcul Industrial Park,Sitarganj 262405	Connected
90	Upto date Plastic D-35	D-35 Phase II Eldeco Sidcul Industrial Park,Sitarganj 262405	Connected
91	A.q. Industries	C-07 Phase III Eldeco Sidcul Industrial Park,Sitarganj 262405	Connected

Annexure-2

HEAD OFFICE
Uttarakhand Environment Protection and Pollution Control Board
29/20, Nemi Road, Dalanwala, Dehradun (Uttarakhand)
उत्तराखण्ड पर्यावरण संरक्षण एवं प्रदूषण नियंत्रण बोर्ड
29/20, नेमी रोड, डालनवाला, देहरादून (उत्तराखण्ड)

OFFICE ORDER

In pursuance to notification of the Ministry of Environment, Forests and Climate Change, Govt. of India vide S.O.- 4(E) of 1st January, 2016, the Uttarakhand Environment Protection and Pollution Control Board (UEPPCB), Dehradun hereby prescribe following inlet quality standards for **Common Effluent Treatment Plant (CETP)** located at the Eldeco Sidcul Industrial Park, Sitarganj, Distt. US Nagar, Uttarakhand, based on the design parameters submitted by CETP operator to UEPPCB:

1. Inlet effluent quality standards for CETP, ESIP, Sitarganj, Distt. US Nagar shall be as given below:

S.N.	Parameters	Concentration (Maximum)
1.	pH	5.5 – 9.0
2.	BOD	550 mg/L
3.	COD	1100 mg/L
4.	Total Dissolved Solids (TDS)	2100 mg/L
5.	Total Suspended Solids (TSS)	1500 mg/L
6.	Oil & Grease	20 mg/L
7.	Phenolic Compounds (as C_6H_5OH)	5.0 mg/L
8.	Ammonical Nitrogen (as N)	50.0 mg/L
9.	Cynide (as CN)	2.0 mg/L
10.	Hexavalent Chromium (as Cr^{+6})	2.0 mg/L
11.	Total Chromium (as Cr)	2.0 mg/L
12.	Copper (as Cu)	3.0 mg/L
13.	Lead (as Pb)	1.0 mg/L
14.	Nickel (as Ni)	3.0 mg/L
15.	Zinc (as Zn)	15.0 mg/L
16.	Arsenic (as As)	0.2 mg/L
17.	Mercury (as Hg)	0.01 mg/L
18.	Cadmium (as Cd)	1.0 mg/L
19.	Selenium (as Se)	0.05 mg/L
20.	Fluoride (as F)	15.0 mg/L
21	Boron (as B)	2.0 mg/L
	Radio Active Materials	
22.	Alpha Emitters, micro curie/mL	10^{-7}
23.	Beta Emitters, micro curie/mL	10^{-6}

2. To achieve above limit, individual contributing units are required to pre-treat their wastewater/effluent before discharging to common conveyance system. All contributing industries shall ensure compliance of above limits with immediate effect.
3. The operator of CETP, Sitarganj shall conduct the study in consultation with technical organization for upper limit of inlet Ammonical Nitrogen (above 50 mg/L).
4. CETP outlet quality standards shall be as per treated effluent quality standards notified under the Environment (Protection) Rules, 1986 as amended 01.01.2016.

This issues with approval of Competent Authority of the Board.

(S.P. Subudhi)
Member Secretary

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Annexure-3

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 1st January, 2016

S.O. 4(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. **Short title and Commencement.**—(1)These rules may be called the Environment (Protection) Amendment Rules, 2015.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule-I,—

(a) the serial number 41 and the entries relating thereto, shall be omitted;

(b) for serial number 55 and the entries relating thereto, the following serial number and entries shall be substituted, namely:—

S. No.	Industry	Parameter	Standards		
(1)	(2)	(3)	(4)		
"55.	**Common Effluent Treatment Plants(CETP)**				
	A. Inlet Quality Standards	For each Common Effluent Treatment Plant (CETP), the State Board will prescribe Inlet Quality Standards for General Parameters, Ammonical-Nitrogen and Heavy metals as per design of the Common Effluent Treatment Plant (CETP) and local needs & conditions.			
	B: Treated Effluent Quality Standards		Max. permissible values (in milligram/litre except for pH and Temperature)		
			Into inland surface water	On land for irrigation	Into sea
		General Parameters			
		pH	6 - 9	6 - 9	6 - 9
		Biological Oxygen Demand, BOD_3, 27 °C	30	100	100
		Chemical Oxygen Demand (COD)	250	250	250*
		Total Suspended Solids (TSS)	100	100	100
		Fixed Dissolved Solids (FDS)	2100✡	2100✡	NS*

Specific parameters			
Temperature, °C	Shall not exceed more than 5°C above ambient water temperature	Shall not exceed more than 5°C above ambient water temperature	Shall not exceed more than 5°C above ambient water temperature
Oil & Grease	10	10	10
Ammonical –Nitrogen	50	NS*	50
Total Kjeldahl Nitrogen (TKN)	50	NS*	50
Nitrate- Nitrogen	10	NS*	50
Phosphates, as P	5	NS*	NS*
Chlorides	1000	1000	NS*
Sulphates, as SO_4	1000	1000	NS*
Flouride	2	2	15
Sulphides, as S	2	2	5
Phenolic compounds (as C_6H_5OH)	1	1	5
Total Res. Chlorine	1	1	1
Zinc	5	15	15
Iron	3	3	3
Copper	3	3	3
Trivalent Chromium	2	2	2
Manganese	2	NS*	2
Nickel	3	NS*	3
Arsenic	0.2	NS*	0.2
Cyanide, as CN	0.2	NS*	0.2
Vanedium	0.2	NS*	0.2
Lead	0.1	NS*	0.1
Hexavalent Chromium	0.1	NS*	0.1
Selenium	0.05	NS*	0.05
Cadmium	0.05	NS*	0.05
Mercury	0.01	NS*	0.01
Bio-assay test	As per industry-specific standards	As per industry-specific standards	As per industry-specific standards

*NS-Not specified

Notes:

1. *Discharge of treated effluent into sea shall be through proper marine outfall. The existing shore discharges shall be converted to marine outfalls. In cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 m away from discharge point, then, the State Board may relax the Chemical Oxygen Demand (COD) limit:

Provided that the maximum permissible value for Chemical Oxygen Demand (COD) in treated effluent shall be 500 milligram/litre.

2. Maximum permissible Fixed Dissolved Solids (FDS) contribution by constituent units of a Common Effluent Treatment Plant (CETP) shall be 1000 milligram/litre. In cases where Fixed Dissolved Solids (FDS) concentration in raw water used by the constituent units is already high (i.e. it is more than 1100 milligram/litre) then the maximum permissible value for Fixed Dissolved Solids (FDS) in treated effluent shall be accordingly modified by the State Board.

3. In case of discharge of treated effluent on land for irrigation, the impact on soil and groundwater quality shall be monitored twice a year (pre- and post-monsoon) by Common Effluent Treatment Plants (CETP) management. For combined discharge of treated effluent and sewage on land for irrigation, the mixing ratio with sewage shall be prescribed by State Board.

4. Specific parameters for some important sectors, selected from sector-specific standards

Sector	Specific Parameters
Textile	Bio-assay test, Total Chromium, Sulphide, Phenolic compounds
Electroplating Industries	Oil & Grease, Ammonia-Nitrogen, Nickel, Hexavalent Chromium, Total Chromium, Copper, Zinc, Lead, Iron, Cadmium, Cyanide, Fluorides, Sulphides, Phosphates, Sulphates,
Tanneries	Sulphides, Total Chromium, Oil & Grease, Chlorides
Dye & Dye Intermediate	Oil & Grease, Phenolic compounds, Cadmium, Copper, Manganese, Lead, Mercury, Nickel, Zinc, Hexavalent Chromium, Total Chromium, Bio-assay test, Chlorides, Sulphates,
Organic chemicals manufacturing industry	Oil & Grease, Bio-assay test, Nitrates, Arsenic, Hexavalent Chromium, Total Chromium, Lead, Cyanide, Zinc, Mercury, Copper, Nickel, Phenolic compounds, Sulphides
Pharmaceutical industry	Oil & Grease, Bio-assay test, Mercury, Arsenic, Hexavalent Chromium, Lead, Cyanide, Phenolic compounds, Sulphides, Phosphates."

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