हिम धरा
HIM DHARA

Him Dhara, Environment Research and Action Collective
Himachal Pradesh

website: www.himdhara.org
email: info@himdhara.org

To

Director,

River Rejuvenation Committee

Urban Development Department,

Himachal Pradesh

18/12/2018

Sub - **Submission on the sources of threat to the health of Sirsa River Tehsil Baddi, District Solan, Himachal Pradesh**

We are from Himdhara Collective, which is dedicated towards researching and understanding about the environmental problems plaguing Himachal Pradesh and devising plans to safeguard the fragile Himalayan Ecology.

We wish to bring to your attention the sources of serious threat to the health of Sirsa River in the stretch along the industrialized and urbanized Tehsil Baddi, in Solan District, Himachal Pradesh. The chief sources of pollution are the untreated effluents from industrial units, the discharge from the outlet of Common Effluent Treatment Plant (CETP) situated at Kenduwal Village, and the Unscientific and Illegal open dumping of municipal waste at the site adjoining CETP. Please consider the following issues in this regard

1. **Impacts of Industrial Pollution in the region:** The Sirsa river in the Shivalik foothills of Himachal, which flows into the Sutlej, has been reduced to a drain carrying toxic industrial effluents of the Baddi Barotiwala Nalagarh Industrial hub, over the last ten years. The river has several villages located along its banks that have been impacted as a result of untreated effluents and toxic water being drained into it by more than 2000 industrial units in the region. The worst affected were the Gujjars, a pastoral community dependent on rearing cattle and buffaloes. In a people's public hearing conducted in April 2014 in Baddi several villagers from around the area gave written and oral testimonies on the severe health impacts on humans and livestock, especially skin allergies that have been on the rise. Livestock are forced to drink and bathe in the polluted water and graze on contaminated grass along the banks. The issue of regular fishkills has been highlighted in the media (Annexure 1 : Links to the news in media) as well as taken cognizance of in a suo-moto case by the High Court of Himachal Pradesh. (Annexure 2 - copy of the Public Hearing report).
2. **Issues raised at the time of setting up of CETP:** The High Court of Himachal Pradesh that issued an order (CWPIL No.13/2006 dated 10/09/2010), that a Common Effluent Treatment Plant be established for Baddi & Barotiwala areas. On the directions of the State Government of Himachal Pradesh, a Special Purpose Vehicle with the name of "Baddi Infrastructure" was incorporated and authorized to set up the CETP at Baddi. raised several questions about the efficacy and ability of such a plant to deal with a wide range of effluents from aromatic, pharmaceutical, dying and other chemical units. In a submission to the

Ministry of Environment in 2012 at the time that the plant was being considered for Environmental Clearance, a local citizens group, Him Parivesh and Himdhara Collective, had also raised many of the other issues that the plant is now facing, the biggest being that if the effluents are not treated at source then the CETP is unlikely to be able to handle them at the common unit leading to more pollution in Sirsa River and groundwater. Questions were also raised by this submission on the poor sludge management plan and the problem with using tankers for wastewater collection. The Environment Impact Assessment report of the CETP had failed to address these issues and despite this the unit was granted an Environment Clearance in January 2013.

3. **Underutilisation of the CETP:** As per the Environment Clearance letter granted to the CETP in January 2013 the unit was to deal with 25 Million Litres of effluent per Day. At the time of the clearance as per the letter there were 1262 industrial units in the area. As per other reports the total number of units in Baddi Barotiwala Nalagarh Industrial Area are above 2000. In July 2016 a news report in the Tribune reported that the plant was treating less than 11 MLD effluent as against the 25 MLD that it was supposed to. Taking suo-moto cognizance of the news report the High Court of Himachal directed the state to come up with the status report as part of CWPIL 11/2016. In the affidavits filed in the case in October last year it became clear that only 42 industries had connected with CETP out of the 428 that were expected to connect. it must be noted that the number 482 is less than half of the number of units that the CETP was meant to cater to. Even in the interim order dated 6th October 2016, there is a mention of the confusion vis a vis the number of units operational in the industrial area. (Annexure 3 - High Court order 6th October 2016)

   It was after the High Court took up the matter that the State Pollution Control Board, which has failed to ensure compliance to environmental norms by individual units started moving on the matter and ensured that notices were issued to (386) units who were not connecting to the CETP. Following this over the year, tripartite agreements were signed with 294 Units for connecting to the CETP up until 29.3.2017. The court ordered for the disconnection of electricity and suspension of the consent to operate for those units who would not connect with the CETP. The High Court disposed off the matter on 14th November 2017 stating that "that the units that complied with the directions issued by this Court, its application shall be considered favorably and water & electricity connection restored".

4. **Failure to treat effluents and non compliance by CETP:** While the court case attempted to deal with taking action of non connected units, the issue of the CETP functioning stood largely ignored. The biggest concern is that the CETP been unsuccessful in treating the waste water that gets supplied to it via tankers and pipelines.

   In an RTI application filed on 9 January 2017 with the Regional Pollution Control Board we were supplied monitoring reports. In response to another RTI filed on 14th July 2018 information was obtained that the sample from the discharge outlet of the CETP has periodically been tested by the PCB Regional Office, Baddi and it can be found in the test reports that the discharge contained impermissible pollutants. (Annexure 4 : Spreadsheet compiling the results of sample tested)

5. **No action on complaints and show cause violations by CETP:** Residents in neighbouring villages have made several complaints of leakages in the CETP pipelines carrying effluents at various locations. Newspapers also reported these events and show cause notices were filed by the regional Pollution Control Board in April and December 2016 with regards to the same which found not just leakages in effluent pipelines as a problem but also violations

like open dumping of untreated sludge and lead content in excess in water samples at one location. However, Baddi Infrastructure in response to the show cause notice on 9th December 2016 said that the leaked effluents were 'not toxic'.

During an inspection was done on 17 March 2018, by a team comprising of HPSPCB, following a public complaint from the residents of neighbouring villages, a few violations were noted and directions were given to CETP (Annexure 5 - copy of site inspection report). However it has to be noted that none of the directions have been complied with as yet. The CETP has been served show cause notice by the Pollution Control Board on 12th June 2018 period (Annexure 6 - Copies of Show Cause Notice), based on news published in various media about the problems caused by CETP.

6. **Illegal Municipal Waste dumping adjacent to CETP:** The site adjacent to the CETP was acquired for developing an Integrated Solid Waste Management Plant and Environmental Clearance for which was granted in 2015 (Annexure 7 - Copy of Environmental Clearance). However, illegal open dumping of the municipal garbage has been happening at the site in Kenduwal since 2016. Such dumping of garbage, apart from violating Environmental Clearance and Solid Waste Management Rules, 2016 is also posing great threat to the health of people living in the neighbouring villages and the aquatic life. The site was inspected for compliance of environmental clearance by Scientist of MoEF on 24th April 2017 and it was found that none of the conditions of Environmental Clearance was complied with (Annexure 8 - Copy of monitoring report).

   The Pollution control board has served show cause notice to MC Baddi in this regard on 5 occasions between 2016 and 2018 (Annexure 9 - Copies of Show Cause Notices), however no action has been taken against the violations. The heavy rains during the month of August, 2018 resulted the Sirsa River to swell up and flood the entire region and the open dumping site became waterlogged. To ease the water, the MC Baddi broke the boundary wall in September 2018 and this resulted in contaminated, leachate containing water to flow into the Sirsa River along with heaps of garbage (Annexure 10 - Photos Showing the broken boundary wall).

   There was a study conducted by the Department of Civil Engineering, Jaypee Institute of Information Technology, with technical collaboration from National Institute of Technology (NIT) Hamirpur, on the ecological effects of open dumping, in August 2017. The findings of the study indicate that the unscientific dumping of municipal garbage contaminates the soil upto a depth of 1.5 meters and causes it to become infertile, whereby damaging the utility of the soil for decades to come. Also, the study probes into contamination of groundwater and the findings indicate that leachate which flows from the garbage contains bio-toxins and traces of metals which pollute the groundwater making it unfit for drinking as well as irrigation (Annexure 11 - Copy of the study published in journal).

7. **Illegal Sand mining along the river banks and river bed** : As can be verified from numerous news reports, (Annexure 12 : Links to the news reports), the Sirsa River is subjected to heavy sand mining at various locations. Such activity severely impacts the flow of the river and also causes it to dry out.

   Sand mining also causes severe damage to the bridges across the river and the structures built along the banks of the river. During the public hearing that was held before the construction of CETP, the issue of sand mining was raised by the villagers. The NGT also

had banned sand mining from river bed in its order dated 28 Nov 2013, but compliance of the same has not been done yet in case of Sirsa River (Annexure 13 : NGT order on illegal sand mining).

8. **Failure of regulatory authorities**: The Pollution Control Board is the regulatory authority, however, despite having served Show Cause Notices in case of Open dumping of Municipal Garbage and for discharging toxic effluents by CETP, no further actions have been taken to prevent such instances of violations. The effluent discharge from the CETP is not tested for heavy metals like Mercury, Arsenic, hexavalent Chromium, etc. Even when the values obtained from sample test from the discharge outlet is found to be beyond the permissible limits, the PCB does not take any action against CETP. The PCB is constituted to safeguard the provisions in the Environmental Protection Act, Water (Prevention and Control of Pollution) Act and Air (Prevention of Pollution) Act, however, despite having come across serious breaches of provisions of the above Acts and that of Solid Waste Management Rules, there has been no steps taken to mitigate the sources of violations. The CETP has been functioning without renewing its consent to operate for over a year and half after the validity of its first consent ended in March 2016.

9. **Biomonitoring of Sirsa River in 2013 -** A study was conducted by researchers from zoology department of Delhi University and Punjab University focusing on biochemical oxygen demand (BOD) to assess the level of pollution of Sirsa River. (Annexure 14 : Copy of study published in International Journal of Theoretical and Applied Sciences). The study concludes that the effluents discharged from the industrial hub into the Sirsa River contain both organic and inorganic pollutants and suggests that reliable measures be taken for pollution abatement.

We keep forward the following demands in front of you in this regard :

1. Make a time bound action plan for reviving the health of Sirsa River and make the state PCB accountable for overseeing the implementation of the plan.
2. Make the implementation of the action plan transparent and the data be made available in the public domain.
3. Make a team comprising of local residents, representatives from Village Panchayats, and environmental scientists from independent organizations for collaborating with PCB.
4. Scientifically clean up the site where open dumping of municipal garbage has taken place and urge the Ministry of Environment, Forests & Climate Change to quash the Environmental Clearance granted on grounds of the violation.
5. Make it mandatory for testing of Mercury (Hg), Arsenic (As), etc. in the effluents that are treated by CETP.
6. Enforce the CETP to comply with the ZLD (Zero Liquid Discharge) Compliance directive of PCB.
7. Mandate the industries in the area under BBNDA to do preliminary effluent treatment at source and take punitive action against units that fail compliance.
8. Take proactive steps to stop the illegal sand mining which is rampant along the Sirsa River.
9. A carrying capacity study needs to be done and no further industrial expansion should be carried out in the area to prevent further deterioration of the health of the river.
10. An epidemiological study be conducted comprising of experts from institutions like PGI Chandigarh to ascertain impacts of toxic effluents in the river on human and animal health.
11. A study on the impact on the riverine ecology be conducted, taking into account the levels and nature of toxins that may be causing fish kills in Sirsa River.

12. The Municipal dumping site of the BBNDA which is on the floodplains of the Sirsa river needs to be relocated immediately in order to prevent contamination of water by the municipal garbage.
13. Stall the expansion of further industrial units until the revival plan for Sirsa River is fully implemented and ecological status of the river is restored to its fullest.

There is an urgent need to take remedial measures to restore the health of the Sirsa River and for that the entry of pollutants need to be prevented at the earliest. In order address the menace of river pollution it is essential to have a multi pronged approach that involves all the concerned bodies as well as makes a strict regulatory regime functioning in accordance with the law. A review of the policy of easing business entry in an area where the the system and capacities of monitoring and compliance adherence are weak will only further lead to serious deterioration, the impact of which is not just limited to the area but extends into states located downstream as well.

Thanking You,

Sumit Mahar (7060524669)

Ramanathan S (8547382896)