#### Monthly Action Taken for February, 2019

Questionnaire in respect to Hon'ble NGT order dated 07.08.2018 in OA no. 138 of 2016-Stench Grips Mansa's Sacred Ghaggar

1. Please provide to the Executing Committee the Status of 'Action Plan' prepared in compliance of order dated 07.08.2018 passed by Hon'ble NGT on the prevention of pollution of water in the Ghaggar River as well as on the entry & exit points of tributary/drain. In case of any non-compliance or that, who is the responsible Authority/Officer?

The action plan has been prepaid and uploaded on the website of the Board and Environment Department Haryana.

2. Status of Action taken on the approved 'Action Plan'. In case of 'no action' then indicate the name of the Authority/Officer.

The ATR status is as under:-

| Sr.<br>No. | DSTF        | ATR submitted /not submitted | Remark  |
|------------|-------------|------------------------------|---|
| 1          | Panchkula   | Submitted                    | The action taken on the Action plan have not been submitted nor submitted the |
| 2          | Ambala      | Submitted                    | names of officers who have not taken action.                                  |
| 3          | Kurukshetra | Submitted                    |   |
| 4          | Kaithal     | Submitted                    |   |
| 5          | Jind        | Submitted                    |   |
| 6          | Fatehabad   | Submitted                    |   |
| 7          | Sirsa       | Submitted                    |   |
| 8          | Hisar       | Submitted                    |   |

The names of responsible officers of PHED, Forest, Irrigation Deptt etc not informed

3. Whether the district level STFs are submitting monthly action taken report to the state level STFs with a copy to the Executing Committee (cecghaggar@gmail.com)? If not, indicate the name of the Authority/Officer for non-compliance thereof.

The District Level Committee are not submitting Action Taken reports. The names of officers is given as under

| Sr.<br>No. | Task Force | Name of Members  |
|------------|------------|--|
|            | Panchkula  | <ol> <li>Sh. Mukul Kumar, HCS, DC</li> <li>Sh. Abhishek Jorwal, IPS, DCP</li> <li>Sh. Rajinder Sharma, RO</li> <li>Sh. Manbir Singh Rathi, Advocate</li> </ol> |
|            | Ambala     | 1. Smt. Sharandeep Kaur Brar, IAS, DC  |

|             | 2. Sh. Ashok Kumar, IPS, SP 3. Sh. Rajinder Sharma, RO Sh. Nitish Sawhney, Advocate   |
|-------------|---|
| Kurukshetra | <ol> <li>Dr. SS Phulia, IAS, DC</li> <li>Sh. Surinder Pal Singh, IPS, SP</li> <li>Sh. Rajinder Sharma, RO</li> <li>Sh. Roshan Lal Gupta, Advocate</li> </ol>  |
| Kaithal     | <ol> <li>1.Dr Priyanka Soni, HCS,DC</li> <li>2. Sh. Waseem Akram, IPS, SP</li> <li>3. Sh. Sanjeev Budhiraja, RO</li> <li>4. Sh. Malkhan Singh, S/o Sh. Late Sh. Rasila Ram, R/o Vill. &amp; Post Office-Bakal, Kaithal</li> </ol> |
| Jind        | 1.Sh. Aditya Dhayia, IAS, DC<br>2.Sh. Ashwin Shenvi, IPS, SP<br>3.Sh. Sanjeev Budhiraja, RO   |
| Fatehbad    | <ol> <li>Sh. Dhirender Khadgata, IAS, DC</li> <li>Sh. Vijay Pratap Singh, IPS, SP</li> <li>Sh. Naveen Gulia, RO</li> <li>Sh. Kaushal Mehta, Advocate</li> </ol>   |
| Hisar       | 1. Sh. Ashok Meena, IAS, DC 2. Sh. Shiv Charan, IPS, SP 3. Sh. Naveen Gulia, RO   |
| Sirsa       | 1.Sh. Prabhjot Singh, IAS, DC 2. Sh. Hamid Akhtar, IPS, SP 3. Sh. Naveen Gulia, RO 4. Sh. RP Pillania, Advocate   |

4. Further, as directed by the Hon'ble NGT, monthly reports showing the action taken according to the 'Action Plan' have been uploaded to the website of respective SPCB/Committee as well as the Environment Department of the state or not?

The monthly Action Taken reports have been uploaded on the Website of HSPCB and Environment Department.

5. Whether the state level STF has sent its 3 monthly report on the action taken to the CPCB in terms of the direction contained in the order dated 07.08.2018 of the Hon'ble NGT?

The State level STF has reviewed the action plan and other actions to be taken for control of pollution in River Ghaggar. 1<sup>st</sup> quarterly report has been submitted and 2<sup>nd</sup> quarterly report shall be submitted after March 2019.

6. How many cases of violation were identified by each district level STF and what legal action has been taken against such violators to prevent further water pollution in the Ghaggar River.

| Sr<br>No. | DSTF        | No. of violations identified in Feb, 2019 | Action taken / Remark                                     |
|-----------|-------------|---|---|
| 1         | Panchkula   | 0   |   |
| 2         | Ambala      | 6   | RO Panchkula has issued show cause notice to 6 industries |
| 3         | Kurukshetra | 0   |   |
| 4         | Kaithal     | 0   |   |
| 5         | Jind        | 0   |   |
| 6         | Fatehabad   | 0   |   |
| 7         | Sirsa       | 0   |   |
| 8         | Hisar       | 0   |   |
|           | Total       | 6   |   |

Till end of Feb. 2019, 53 Industries have been inspected. 29 units complying and 24 units non complying. 6 Industries have been closed by the Board and 5 recommended for closure. 2 cases have been sanctioned for prosecution and 11 prosecution cases are under process. Show cause notice issued to 6 industries.

7. How many ground water samples of Ghaggar River catchment area have been taken and analyzed in each month? What was the result of analysis of such samples?

| Sr.<br>No. | DSTF        | No. of Ground<br>water samples in<br>Feb, 2019 | Action taken / Remark                   |
|------------|-------------|--|---|
| 1          | Panchkula   | 0  |   |
| 2          | Ambala      | 0  |   |
| 3          | Kurukshetra | 0  |   |
| 4          | Kaithal     | 2  | Complying with drinking water standards |
| 5          | Jind        | 0  |   |
| 6          | Fatehabad   | 1  | Complying with drinking water standards |
| 7          | Sirsa       | 5  | Complying with drinking water standards |

| 8 | Hisar | 0 |  |
|---|-------|---|--|
|   | Total | 8 |  |

- 53 Ground Water Samples have been collected and analyzed till end of February, 2019.
- 8. How many health camps/events involving the civil society were organized in each month by the respective states?

Health Department has given action plan for organizing health camps.

| SR.<br>No. | DSTF        | No. of Camps in<br>Feb, 2019 | Details of Camps  |
|------------|-------------|------------------------------|---|
| 1          | Panchkula   | 0                            |   |
| 2          | Ambala      | 5                            | <ol> <li>53 Patients at Shahpur on 02.02.19</li> <li>79 Patients at Niharsi on 05.02.19</li> <li>57 Patients at Addomajra on 15.02.19</li> <li>50 Patients at Ghasitpur on 22.02.19</li> <li>177 Patients at Ghail on 27.02.19</li> </ol>               |
| 3          | Kurukshetra | 0                            |   |
| 4          | Kaithal     | 5                            | <ul> <li>6. 40 Patients at Sihali on 01.02.19</li> <li>7. 56 Patients at Bhouper on 22.02.19</li> <li>8. 23 Patients at Budanpur on 23.02.19</li> <li>9. 24 Patients at Kusholi on 26.02.19</li> <li>10. 19 Patients at Sogalpur on 27.02.19</li> </ul> |
| 5          | Jind        | 0                            |   |
| 6          | Fatehabad   | 2                            | <ol> <li>66 Patients at Kalotha on 21.02.19</li> <li>37 Patients at Narail on 28.02.19</li> </ol>   |
| 7          | Sirsa       | 0                            |   |
| 8          | Hisar       | 0                            |   |
|            | Total       | 12                           |   |

9. The report of the water samples analysis taken from the each source of pollution be also sent in the attached format with the above report.

| Sr<br>No. | DSTF        | No. of samples in<br>Feb, 2019 | Action taken / Remark |
|-----------|-------------|--------------------------------|-----------------------|
| 1         | Panchkula   | 0                              |                       |
| 2         | Ambala      | 0                              |                       |
| 3         | Kurukshetra | 0                              |                       |

| 4 | Kaithal   | 2  | Results are awaited.  |
|---|-----------|----|---|
| 5 | Jind      | 0  |   |
| 6 | Fatehabad | 7  | Villages are discharging in to river Ghaggar. The action plan sought from Panchayats Deptt. |
| 7 | Sirsa     | 2  |   |
| 8 | Hisar     | 0  |   |
|   | Total     | 11 |   |

The results of samples in the prescribed format are enclosed as  $\mbox{\bf Annexure-}\,\mbox{\bf A}$ 

#### Annexure-A

# Samples of Ground Water of Panchkula Region

| Name                   |                      | Tubewell No. 1, (Huda Div No. III) Near Near boundary of River Ghaggar Sector-24, Panchkula |     | Sector-24, No. 5, |     |               |     |               |     | Sec-4, HUDA,<br>Panchkula |     | Tubewell No. 6, Div-II,<br>Sec-24, Panchkula |     |           |     |
|------------------------|----------------------|---|-----|-------------------|-----|---------------|-----|---------------|-----|---------------------------|-----|--|-----|-----------|-----|
| Coordinates            | -                    |   |     |                   |     |               |     |               |     |                           |     |  |     |           |     |
| Water Quality criteria | -                    |   |     |                   |     |               |     |               |     |                           |     |  |     |           |     |
| Remarks if any         | -                    |   |     |                   |     |               |     |               |     |                           |     |  |     |           |     |
| nnGeneral              | Parameters           | Jan   | Feb | Jan               | Feb | Jan           | Feb | Jan           | Feb | Jan                       | Feb | Jan  | Feb | Jan       | Feb |
|                        | Temperature          | -   | -   | -                 | -   | -             | -   | -             | -   | -                         | -   | -  | -   | -         | -   |
|                        | рН                   | 7.58  |     | 7.36              |     | 7.29          |     | 7.29          |     | 7.28                      |     | 7.3  |     | 6.34      |     |
|                        | DC                   | -   |     | -                 |     | -             |     | -             |     | -                         |     | -  |     | -         |     |
|                        | DO                   | -   |     | -                 |     | -             |     | -             |     | -                         |     | -  |     | -         |     |
|                        | Odour                | Odourles<br>s   |     | Odourless         |     | Odourl<br>ess |     | Odourl<br>ess |     | Odourl<br>ess             |     | Odourles<br>s                                |     | Odourless |     |
|                        | Oil & grease         | -   |     | -                 |     | -             |     | -             |     | -                         |     | -  |     | -         |     |
|                        | SS (Suspended soils) | ND  |     | ND                |     | ND            |     | ND            |     | ND                        |     | ND   |     | ND        |     |
| Organic Matter         | BOD                  | ND  |     | ND                |     | ND            |     | ND            |     | ND                        |     | ND   |     | ND        |     |
|                        | COD                  | 31.6  |     | 12.8              |     | 18            |     | 8.4           |     | 26.8                      |     | 16.8   |     | 9.6       |     |

| Na              | Name                       |        | Tubewell No. 1, (Huda Div No. III) Near dumping ground sector-23, Panchkula  Tubewell No. 3, (Huda Div No. III) Near Near boundary of River Ghaggar Sector-24, Panchkula |       | Sector-24, No. 5, Sec<br>HUDA, HUDA, |       | Tubewell 5. 5, Sec-24, HUDA, Panchkula  Tubewell No. 4, Sec- 24, HUDA, Panchkula |       | Sec-4, HUDA,<br>Panchkula |       | Tubewell No. 6, Div-II,<br>Sec-24, Panchkula |       |   |        |   |
|-----------------|----------------------------|--------|--|-------|--------------------------------------|-------|--|-------|---------------------------|-------|--|-------|---|--------|---|
| Nutrienis       | NH3-N                      | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
|                 | No2                        | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
|                 | No3                        | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
|                 | Total p                    | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
| Microbiological | Total and faecal coliforms | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
| Toxic Metal     | Toxic Metal                | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
|                 | Calcium                    | 82.4   |  | 89.6  |                                      | 44    |  | 80.8  |                           | 80    |  | 79.2  |   | 84     |   |
|                 | Magnesium                  | 10.692 |  | 19.44 |                                      | 26.73 |  | 17.01 |                           | 24.3  |  | 3.402 |   | 16.038 |   |
|                 | Nickel                     | ND     |  | ND    |                                      | ND    |  | ND    |                           | ND    |  | ND    |   | ND     |   |
|                 | Copper                     | ND     |  | ND    |                                      | ND    |  | ND    |                           | ND    |  | ND    |   | ND     |   |
|                 | Chromium                   | -      |  | -     |                                      | -     |  | -     |                           | -     |  | -     |   | -      |   |
|                 | Zine                       | 0.189  |  | 0.08  |                                      | 0.155 |  | 0.201 |                           | 0.184 |  | 0.145 |   | 0.130  |   |
|                 | Lead Iron                  | ND     | -  | ND    | -                                    | ND    |  | ND    |                           | ND    |  | ND    |   | ND     |   |
| Remakes improve | d or not improved          | ľ      | NA   | NA    |                                      | NA    |  | NA    |                           | NA    |  | NA    | I | NA     | • |

## **Samples of Ground Water of Jind Region**

|                        | Name                       |      | Tubewell No. 1, Near upstream Ghaggar Near Gurugwara, River, Village Chiali Village Bhatia |     |      |       |               |  |
|------------------------|----------------------------|------|--|-----|------|-------|---------------|--|
| Coordinates            |                            | - 1  | -  | •   |      | •     |               |  |
| Water Quality criteria |                            |      | -  |     |      |       |               |  |
| Remarks if any         |                            |      | -  |     |      |       |               |  |
| General                | Parameters                 | Jan  | Feb  | Jan | Feb  | Jan   | Feb           |  |
|                        | Temperature                | -    | -  | -   | -    | -     | Reports still |  |
|                        | рН                         | 6.92 | 7.58   | ND  | 7.59 | 7.02  | awaited       |  |
|                        | DC                         | -    | -  | -   | -    | -     |               |  |
|                        | DO                         | -    | -  | -   | -    | -     |               |  |
|                        | Odour                      | -    | -  | -   | -    | -     |               |  |
|                        | Oil & grease               | ND   | ND   | ND  | ND   | ND    |               |  |
|                        | SS (Suspended soils)       | ND   | 6  | ND  | ND   | 52    |               |  |
| Organic Matter         | BOD                        | ND   | ND   | ND  | ND   | 36    |               |  |
|                        | COD                        | 9.6  | 13.6   | 8.4 | 8.5  | 117.6 |               |  |
| Nutrienis              | NH3-N                      | -    | -  | -   | -    | -     |               |  |
|                        | No2                        | -    | -  | -   | 1    | -     |               |  |
|                        | No3                        | -    | -  | -   | 1    | -     |               |  |
|                        | Total p                    | -    | -  | -   | 1    | -     |               |  |
| Microbiological        | Total and faecal coliforms | -    | -  | -   | ı    | -     |               |  |
| Toxic Metal            | Toxic Metal                | -    | -  | -   | -    | -     |               |  |
|                        | Calcium                    | -    | -  | -   | 1    | -     |               |  |
|                        | Magnesium                  | -    | -  | -   | -    | -     |               |  |
|                        | Nickel                     | -    | -  | -   | -    | -     |               |  |
|                        | Copper                     | -    | -  | -   | -    | -     |               |  |
|                        | Chromium                   | -    | -  | -   | -    | -     |               |  |

|               | Name                             | upstrea | ll No. 1, Near<br>am Ghaggar<br>′illage Chiali | Near G | vell No. 2,<br>urugwara,<br>e Bhatia | Drain | narge of Kaithal<br>in River Ghaggar<br>at Khanuri |
|---------------|----------------------------------|---------|--|--------|--------------------------------------|-------|--|
|               | Zine                             | -       | -  | 1      | -                                    | -     |  |
|               | Lead Iron                        | -       | -  | -      | -                                    | -     |  |
| Remakes impro | Remakes improved or not improved |         |  |        | NA                                   | -     |  |

# Samples of Ground Water of Hisar Region (Sirsa and Fatehabad District)

| Nam                    | ie                         | Ghat<br>Tube | Budh<br>, Aman<br>well, F<br>llan, Si | deep<br>arwai | sou          | ear poi<br>rce, Vil<br>ania, S | lage         | sou          | ear poi<br>rce, Go<br>ewell, S | opal         | Sirs<br>Ro   | ar Brid<br>a - Dab<br>ad, Sir<br>025 GH | wali<br>sa,  | Sypl         | Chand<br>hen, Gl<br>Fateha | H-2          |              | ar ottu<br>887) S |              |
|------------------------|----------------------------|--------------|---------------------------------------|---------------|--------------|--------------------------------|--------------|--------------|--------------------------------|--------------|--------------|---|--------------|--------------|----------------------------|--------------|--------------|-------------------|--------------|
| Coordinates            |                            |              |                                       |               |              |                                |              |              |                                | -            |              |   |              |              |                            |              |              |                   |              |
| Water Quality criteria |                            |              |                                       |               |              |                                |              |              |                                | -            |              |   |              |              |                            |              |              |                   |              |
| Remarks if any         |                            |              |                                       |               |              |                                |              |              |                                | -            |              |   |              |              |                            |              |              |                   |              |
| General                | Parameters                 | Dec          | Jan                                   | Feb           | Dec          | Jan                            | Feb          | Dec          | Jan                            | Feb          | Dec          | Jan                                     | Feb          | Dec          | Jan                        | Feb          | Dec          | Jan               | Feb          |
|                        | Temperatur<br>e            | -            | -                                     | -             | -            | -                              | -            | -            | -                              | -            | -            | -                                       | -            | -            | -                          | -            | -            | -                 | -            |
|                        | рН                         | 8.2          | 7.4                                   | 8.6           | 8            | 7.9                            | 8.4          | 7.9          | 8                              | 8.6          | 7.6          | 7.8                                     | 8.5          | 7.9          | 7.2                        | 8.6          | 7.2          | 7.6               | 8.5          |
|                        | DC                         | -            | -                                     | -             | -            | -                              | -            | -            | -                              | -            | -            | -                                       | -            | -            | -                          | -            | -            | -                 | -            |
|                        | DO                         | -            | -                                     | -             | -            | -                              | -            | -            | -                              | -            | -            | -                                       | -            | -            | -                          | -            | -            | -                 | -            |
|                        | Odour                      | Odo<br>rless | Odo<br>rless                          | Odo<br>rless  | Odo<br>rless | Odo<br>rless                   | Odo<br>rless | Odo<br>rless | Odo<br>rless                   | Odo<br>rless | Odo<br>rless | Odo<br>rless                            | Odo<br>rless | Odorl<br>ess | Odo<br>rless               | Odo<br>rless | Odo<br>rless | Odo<br>rless      | Odorl<br>ess |
|                        | Oil & grease               | -            | -                                     | -             | -            | -                              | -            | -            | -                              | -            | -            | -                                       | -            | -            | -                          | -            | -            | -                 | -            |
|                        | SS<br>(Suspended<br>soils) | 14           | 11                                    | 12            | 10           | 13                             | 14           | 10           | 10                             | 12           | 14           | 12                                      | 10           | 16           | 10                         | 14           | 10           | 13                | 16           |
| Organic Matter         | BOD                        | ND           | ND                                    | ND            | ND           | ND                             | ND           | ND           | ND                             | ND           | ND           | ND                                      | ND           | ND           | ND                         | ND           | ND           | ND                | ND           |
|                        | COD                        | ND           | ND                                    | ND            | ND           | ND                             | ND           | ND           | ND                             | ND           | ND           | ND                                      | ND           | ND           | ND                         | ND           | ND           | ND                | ND           |
| Nutrienis              | NH3-N                      | -            | -                                     | -             | -            | -                              | -            | -            | -                              | -            | -            | -                                       | -            | -            | -                          | -            | -            | -                 | -            |

| Nam             | e                                | Ghat<br>Tube | Budh<br>, Amar<br>well, F<br>lan, Si | deep<br>arwai | sou | ear poi<br>rce, Vil<br>ania, S | lage | sou | ear poi<br>irce, Ge<br>ewell, S | opal | Sirs<br>Ro | ear Brid<br>sa - Dab<br>sad, Sir<br>025 GH | wali<br>sa, | Syp | Chand<br>hen, Gl<br>Fateha | H-2 |     | ar ottu<br>887) S |    |
|-----------------|----------------------------------|--------------|--------------------------------------|---------------|-----|--------------------------------|------|-----|---------------------------------|------|------------|--|-------------|-----|----------------------------|-----|-----|-------------------|----|
|                 | No2                              | -            | -                                    | -             | -   | -                              |      | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | No3                              | -            | -                                    | -             | -   | -                              | -    | -   |                                 | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Total p                          | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
| Microbiological | Total and<br>faecal<br>coliforms | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
| Toxic Metal     | Toxic Metal                      | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Calcium                          | 90           | 120                                  | 60            | 80  | 110                            | 40   | 60  | 120                             | 90   | 90         | 130  | 90          | 130 | 140                        | 50  | 130 | 90                | 70 |
|                 | Magnesium                        | 30           | 50                                   | 30            | 50  | 40                             | 20   | 30  | 40                              | 20   | 50         | 50   | 30          | 30  | 60                         | 20  | 60  | 40                | 30 |
|                 | Nickel                           | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Copper                           | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Chromium                         | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Zine                             | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
|                 | Lead Iron                        | -            | -                                    | -             | -   | -                              | -    | -   | -                               | -    | -          | -  | -           | -   | -                          | -   | -   | -                 | -  |
| Remakes improv  |                                  |              | NA                                   | ı             | NA  | ı                              | I    | NA  | ı                               | NA   | 1          | NA   |             | NA  | 1                          | NA  | 1   | NA                |    |

## **Samples of Drains of Panchkula Region**

| Nan                    | ne                                | Ghag<br>riv<br>before<br>disch<br>of S<br>Sec-2<br>Kak<br>Pun | er<br>ore<br>ting<br>arge<br>STP<br>28 at<br>rali, | Ghag<br>river a<br>meeti<br>disch<br>of ST<br>Sec-2<br>Kakra<br>Punja | after<br>ng<br>arge<br>P<br>8 at<br>ali, | Discha<br>of STP<br>28,<br>Panchk<br>at Vill-<br>Kakrali<br>Punjab | , Sec-<br>kula<br>, | Singh<br>Nalla<br>choe<br>befor<br>meeti<br>slaug<br>house<br>1,<br>Panc | h<br>e<br>ing<br>hter | MDC Drair<br>before me<br>manimajra<br>domestic<br>effluent, S<br>18, Panchi | eting<br>1<br>ector- | MDC Drain<br>meeting m<br>domestic<br>Sector-18,<br>Panchkula | nanimajra<br>effluent, | Manimajra<br>domestic<br>before me<br>MDC drair<br>Sector-18,<br>Panchkula | effluent<br>eting<br>ns, near |
|------------------------|-----------------------------------|---|--|---|--|--|---------------------|--|-----------------------|--|----------------------|---|------------------------|--|-------------------------------|
| Coordinates            |                                   | -   | -  | -   | -  | -  | -                   | -  | -                     | -  | -                    | -   | -                      | -  | -                             |
| Water Quality criteria | -                                 | -   | _  | -   | -  | -  | _                   | _  | _                     | -  | -                    | -   | -                      | -  | -                             |
| Remarks if any         | _                                 | _   | _  | _   | -  | -  | _                   | _  | _                     | _  | _                    | -   | _                      | -  | _                             |
| General                | Parameters                        | Jan   | Feb  | Jan   | Feb                                      | Jan  | Feb                 | Jan  | Feb                   | Jan  | Feb                  | Jan   | Feb                    | Jan  | Feb                           |
|                        | Temperature                       | -   | -  | -   | -  | -  | -                   | -  | -                     | -  | -                    | -   | -                      | -  | -                             |
|                        | pH                                | 7.56  |  | 7.54  |  | 7.05   |                     | 6.77   |                       | 6.47   |                      | 6.73  |                        | 6.74   |                               |
|                        | DC                                | -   |  | -   |  | -  |                     | -  |                       | -  |                      | -   |                        | -  |                               |
|                        | DO                                | -   |  | -   |  | -  |                     | -  |                       | -  |                      | -   |                        | -  |                               |
|                        | 0.15                              | Odo<br>urles  |  | Odo<br>urle   |  | Odour<br>less  |                     | Odo<br>urle  |                       | Odourless  |                      | Odourless   |                        | Odourless  |                               |
|                        | Odour                             | s<br>ND   |  | ss<br>ND  |  | ND   |                     | ss<br>12   |                       | 5  |                      | 5.5   |                        | 12.5   |                               |
|                        | Oil & grease SS (Suspended soils) | 77  |  | 88  |  | 27   |                     | 340  |                       | 94   |                      | 82  |                        | 102  |                               |
| Organic Matter         | BOD                               | 7   |  | 7   |  | 8  |                     | 110  |                       | 60   |                      | 64  |                        | 82   |                               |
|                        | COD                               | 43.2  |  | 36  |  | 49.6   |                     | 414.<br>4  |                       | 220  |                      | 267.2   |                        | 289.6  |                               |
| Nutrienis              | NH3-N                             | ND  |  | ND  |  | ND   |                     | 22.4   |                       | 18.48  |                      | 28.56   |                        | 30.24  |                               |
|                        | No2                               | -   |  | -   |  | -  |                     | -  |                       | -  |                      | -   |                        | -  |                               |
|                        | No3                               | -   |  | -   |  | -  |                     | -  |                       | -  |                      | -   |                        | -  |                               |
|                        | Total p                           | -   |  | -   |  | ı  |                     | -  |                       | -  |                      | -   |                        | -  |                               |

| Microbiological |             | 13,0   |    | 27,8   |     | 27,80,   |       | -     |     | -           |   | =           |    | =           |    |
|-----------------|-------------|--------|----|--------|-----|----------|-------|-------|-----|-------------|---|-------------|----|-------------|----|
|                 |             | 0,00   |    | 0,00   |     | 000.0,   |       |       |     |             |   |             |    |             |    |
|                 |             | 0.0,   |    | 0.0,   |     | 1,60,0   |       |       |     |             |   |             |    |             |    |
|                 | Total and   | 3,40,  |    | 4,00   |     | 0,000.   |       |       |     |             |   |             |    |             |    |
|                 | faecal      | 000.   |    | ,000   |     | 0        |       |       |     |             |   |             |    |             |    |
|                 | coliforms   | 0      |    | .0     |     |          |       |       |     |             |   |             |    |             |    |
| Toxic Metal     | Toxic Metal | -      |    | -      |     | -        |       | -     |     | -           |   | -           |    | -           |    |
|                 | Calcium     | -      |    | -      |     | -        |       | -     |     | -           |   | -           |    | -           |    |
|                 | Magnesium   | -      |    | -      |     | -        |       | -     |     | -           |   | 1           |    | 1           |    |
|                 | Nickel      | ND     |    | ND     |     | ND       |       | ND    |     | ND          |   | ND          |    | ND          |    |
|                 | Copper      | ND     |    | ND     |     | ND       |       | ND    |     | ND          |   | ND          |    | ND          |    |
|                 | Chromium    | ND     |    | ND     |     | ND       |       | ND    |     | ND          |   | ND          |    | ND          |    |
|                 |             | 0.03   |    | 0.09   |     | 0.151    |       | 0.04  |     | 0.102       |   | 0.048       |    | 0.131       |    |
|                 | Zinc        | 6      |    | 6      |     |          |       | 7     |     |             |   |             |    |             |    |
|                 | Lead        | -      | -  | -      |     | -        |       | -     |     | -           |   | -           |    | -           |    |
|                 |             | 0.00   |    | 0.03   |     | 0.076    |       | 0.03  |     | 0.136       |   | 0.039       |    | 0.167       |    |
|                 | Iron        | 8      |    | 2      |     |          |       | 8     |     |             |   |             |    |             |    |
|                 |             | not    |    | not    |     | not impi | roved | not   |     | not improve | d | not improve | ed | not improve | ed |
| Remakes impr    | oved or not | improv | ed | improv | /ed |          |       | impro | /ed |             |   |             |    |             |    |
| impro           | ved         |        |    |        |     |          |       |       |     |             |   |             |    |             |    |

| Coordinates  | -   |
|--|-----|
| Criteria         -<  |     |
| General         Parameters         Jan         Feb         Jan         Jan         Jan         Jan   | -   |
| Parameters   Jan   Feb   Jan   Jan |     |
| Temperature         - <th< td=""><td>-</td></th<>  | -   |
| PH   7.6   6.9   7.57   6.6   6.85   6.87   6.85     DC   -   -   -   -   -   -   -     DO   -   -   -   -   -   -   -     DO   Odo   Odo   Odour   Odo   Odourless   Odourless     Urles   Urle   Urle   Urle   Ss   Ss   Ss   Oli & grease   ND   10   ND   14   8   13   11   | Feb |
| DC         -   | -   |
| DO         -   |     |
| Odo urles         Odo urles         Odour less         Odourless         Odourless         Odourless           Odour s         ss         ss         ss         ss         13         11   |     |
| Odour         urles         urle         less         urle         ss           Oil & grease         ND         10         ND         14         8         13         11   |     |
| Odour         s         ss         s   |     |
| Oil & grease         ND         10         ND         14         8         13         11   |     |
| 5.1. 2. 6. 2. 2. 2   |     |
|  |     |
| SS   90   222   50   124   166.0.   190   98   |     |
| Organic Matter         BOD         9         120         7         68         100         90         70  |     |
| COD 65.6 398. 35.2 256 382.4 374.4 221.6   |     |
| Nutrienis         ND         26.3         ND         20.1         16.24         21.28         19.6           NH3-N         2         6         6         6         19.6  |     |
| No2  |     |
| No3  |     |
| Total p  |     |

| Microbiological |             | 34,5   |    | _      |     | 22,     |       | -     |          | -         |     | -          |    | -          |    |
|-----------------|-------------|--------|----|--------|-----|---------|-------|-------|----------|-----------|-----|------------|----|------------|----|
|                 |             | 0,00   |    |        |     | 10,00   |       |       |          |           |     |            |    |            |    |
|                 |             | 0.0,   |    |        |     | 0.0,    |       |       |          |           |     |            |    |            |    |
|                 | Total and   | 2,40,  |    |        |     | 10,90,  |       |       |          |           |     |            |    |            |    |
|                 | faecal      | 000.   |    |        |     | 0.000   |       |       |          |           |     |            |    |            |    |
|                 | coliforms   | 0      |    |        |     |         |       |       |          |           |     |            |    |            |    |
| Toxic Metal     | Toxic Metal | -      |    | -      |     | -       |       | -     |          | -         |     | -          |    | -          |    |
|                 | Calcium     | -      |    | -      |     | -       |       | -     |          | -         |     | -          |    | -          |    |
|                 | Magnesium   | -      |    | -      |     | -       |       | -     |          | -         |     | -          |    | -          |    |
|                 | Nickel      | ND     |    | ND     |     | ND      |       | ND    |          | ND        |     | ND         |    | ND         |    |
|                 | Copper      | ND     |    | ND     |     | ND      |       | ND    |          | ND        |     | ND         |    | ND         |    |
|                 | Chromium    | ND     |    | ND     |     | ND      |       | ND    |          | ND        |     | ND         |    | ND         |    |
|                 |             | 0.10   |    | 0.09   |     | 0.063   |       | 0.07  |          | 0.056     |     | 0.085      |    | 0.102      |    |
|                 | Zinc        | 6      |    | 1      |     |         |       | 2     |          |           |     |            |    |            |    |
|                 | Lead        | -      |    | -      |     | -       |       | -     |          | -         |     | -          |    | -          |    |
|                 |             | 0.03   |    | 0.16   |     | 0.062   |       | 0.07  |          | 0.054     |     | 0.136      |    | 0.122      |    |
|                 | Iron        | 3      |    | 4      |     |         |       | 9     |          |           |     |            |    |            |    |
| Remakes improv  | ed or not   | not    |    | not    |     | not imp | roved | not   | <u> </u> | not impro | ved | not improv | ed | not improv | ed |
| improved        |             | improv | ed | improv | ved |         |       | impro | /ed      |           |     |            |    |            |    |
|                 |             |        |    |        |     |         |       |       |          |           |     |            |    |            |    |

| Nan                    | ne                               | Sukhna<br>near R<br>Kalar<br>Makha<br>a be<br>mee<br>MDC | laipur<br>and<br>nmajr<br>fore<br>ting | Outlet<br>Chand<br>dome:<br>efflue<br>near<br>Bapud<br>colony<br>Chand | ligarh<br>stic<br>nt<br>lham | Industri<br>Area dra<br>after ma<br>treated<br>domesti<br>effluent<br>STP at R<br>khurd<br>Chandig | ain<br>eeting<br>ic<br>: of<br>taipur | Sirsa I<br>Nawa<br>Nagar<br>Kalka,<br>Panch | n<br>, | Sukhna N<br>coming fro<br>Himachal<br>Industries<br>domestic<br>of Parwan<br>Town at<br>Parwanoo<br>Barrier(H.<br>Kalka Har | om<br>Pradesh<br>and<br>effluent<br>noo<br>D | Bargodam I<br>Village- Bar<br>Panchkula |     | Baldkhad, I<br>Barrier, Par |     |
|------------------------|----------------------------------|--|--|--|------------------------------|--|---------------------------------------|---|--------|---|--|---|-----|-----------------------------|-----|
| Coordinates            |                                  | -  | -                                      | -  | -                            | -  | -                                     | -   | -      | -   | -  | -                                       | -   | -                           | -   |
| Water Quality criteria | -                                | -  | -                                      | -  | -                            | -  | -                                     | -   | -      | -   | -  | -                                       | -   | -                           | -   |
| Remarks if any         | -                                | -  | -                                      | -  | -                            | -  | -                                     | -   | -      | _   | -  | -                                       | -   | -                           | -   |
| General                | Parameters                       | Jan  | Feb                                    | Jan  | Feb                          | Jan  | Feb                                   | Jan   | Feb    | Jan   | Feb  | Jan                                     | Feb | Jan                         | Feb |
|                        | Temperature                      | -  | -                                      | -  | -                            | -  | -                                     | -   | -      | -   | -  | -                                       | -   | -                           | -   |
|                        | pH                               | 6.8  |  | 6.81   |                              | 6.77   |                                       |   |        | 7.97  |  | -                                       |     | -                           |     |
|                        | DC                               | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |
|                        | DO                               | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |
|                        |                                  | Odo  |  | Odo  |                              | Odour  |                                       |   |        |   |  |   |     |                             |     |
|                        |                                  | urles  |  | urle   |                              | less   |                                       |   |        |   |  |   |     |                             |     |
|                        | Odour                            | S  |  | SS   |                              |  |                                       |   |        | Bad   |  | -                                       |     | -                           |     |
|                        | Oil & grease                     | 10.0.  |  | 12.5   |                              | 5.5  |                                       |   |        | 8.5   |  | -                                       |     | -                           |     |
|                        | SS<br>(Suspended                 | 134  |  | 182  |                              | 162  |                                       |   |        |   |  |   |     |                             |     |
|                        | soils)                           |  |  |  |                              |  |                                       |   |        | 50  |  | _                                       |     | _                           |     |
| Organic Matter         | BOD                              | 86   |  | 80   |                              | 70   |                                       |   |        | 80  |  | -                                       |     | _                           |     |
| <u> </u>               |                                  | 290.   |  | 297.   |                              | 259.2  | <u> </u>                              |   |        |   |  |   |     |                             |     |
|                        | COD                              | 2  |  | 6  |                              |  |                                       |   |        | 329.2   |  | -                                       |     | -                           |     |
| Nutrienis              |                                  | 27.4   |  | 20.7   |                              | 19.04  |                                       |   |        |   |  |   |     | _                           |     |
|                        | NH3-N                            | 4  |  | 2  |                              |  |                                       |   |        | -   |  | -                                       |     | -                           |     |
|                        | No2                              | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |
|                        | No3                              | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |
|                        | Total p                          | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |
| Microbiological        | Total and<br>faecal<br>coliforms | -  |  | -  |                              | -  |                                       |   |        | -   |  | -                                       |     | -                           |     |

| Toxic Metal    | Toxic Metal | -      |      | -     |     | -       |       |       |     | -         |      | -          |    | -          |    |
|----------------|-------------|--------|------|-------|-----|---------|-------|-------|-----|-----------|------|------------|----|------------|----|
|                | Calcium     | -      |      | -     |     | -       |       |       |     | 100.08    |      | -          |    | -          |    |
|                | Magnesium   | -      |      | -     |     | -       |       |       |     | 23.814    |      | -          |    | -          |    |
|                | Nickel      | ND     |      | ND    |     | ND      |       |       |     | ND        |      | -          |    | -          |    |
|                | Copper      | ND     |      | ND    |     | ND      |       |       |     | ND        |      | -          |    | -          |    |
|                | Chromium    | ND     |      | ND    |     | ND      |       |       |     | ND        |      | -          |    | -          |    |
|                |             | 0.08   |      | 0.08  |     | 0.067   |       |       |     |           |      |            |    |            |    |
|                | Zinc        |        |      | 7     |     |         |       |       |     | 1.128     |      | -          |    | -          |    |
|                | Lead        | -      |      | -     |     | -       |       |       |     | -         |      | -          |    | -          |    |
|                |             | 0.10   |      | 0.09  |     | 0.089   |       |       |     |           |      |            |    |            |    |
|                | Iron        | 3      |      | 1     |     |         |       |       |     | 1.361     |      | -          |    | -          |    |
| Remakes improv | ed or not   | not    |      | not   |     | not imp | roved | not   |     | not impro | oved | not improv | ed | not improv | ed |
| improved       |             | improv | ed . | impro | ved |         |       | impro | ved |           |      |            |    |            |    |
|                |             |        |      |       |     |         |       |       |     |           |      |            |    |            |    |

| Nan             | ne                         | Surajp                | kula(Station        | Surajp      | alya lake,<br>our, Panchkula<br>-1392) | Burajko<br>Zone,<br>Panchki |     |
|-----------------|----------------------------|-----------------------|---------------------|-------------|--|-----------------------------|-----|
| Coordinates     |                            | -                     | -                   | -           | -                                      | -                           | -   |
| Water Quality   |                            |                       |                     |             |  |                             |     |
| criteria        | -                          | -                     | -                   | -           | -                                      | -                           | -   |
| Remarks if any  | -                          | -                     | -                   | _           | -                                      | -                           | -   |
| General         | Parameters                 | Jan                   | Feb                 | Jan         | Feb                                    | Jan                         | Feb |
|                 | Temperature                | 20.0                  | Sample collected on | 20.1        | Sample collected on                    | -                           | -   |
|                 | рН                         | 7.77                  | 19.02.2019          | 8.04        | 25.02.2019                             | -                           |     |
|                 | DC                         | -                     | and report          | -           | and report                             | -                           |     |
|                 | DO                         | -                     | awaited.            | -           | awaited.                               | -                           |     |
|                 |                            | Mild                  |                     | Odo         |  |                             |     |
|                 |                            |                       |                     | urle        |  |                             |     |
|                 | Odour                      |                       |                     | SS          |  | -                           |     |
|                 | Oil & grease               | -                     |                     | -           |  | -                           |     |
|                 | SS<br>(Suspended<br>soils) | 67                    |                     | 7           |  | _                           |     |
| Organic Matter  | BOD                        | 6                     |                     | 3.4         |  | -                           |     |
|                 | COD                        | 43.6                  |                     | 16.8        |  | -                           |     |
| Nutrienis       | NH3-N                      | -                     |                     | -           |  | -                           |     |
|                 | No2                        | -                     |                     | -           |  | -                           |     |
|                 | No3                        | -                     |                     | -           |  | -                           |     |
|                 | Total p                    | -                     |                     | -           |  | -                           |     |
| Microbiological |                            | 16,0<br>0,00          |                     | 542<br>0.0, |  |                             |     |
|                 | Total and faecal           | 0.0,<br>1,75,<br>000. |                     | nil         |  |                             |     |
| Taria Nastri    | coliforms                  | 0                     |                     |             |  | -                           |     |
| Toxic Metal     | Toxic Metal                | -                     |                     | -           |  | -                           |     |
|                 | Calcium                    | 41.6                  |                     | 65.6        |  | -                           |     |
|                 | Magnesium                  | 22.3                  |                     | 17.9        |  | -                           |     |

|              |             | 56     |        | 82     |        |   |  |
|--------------|-------------|--------|--------|--------|--------|---|--|
|              | Nickel      | -      |        | -      |        | - |  |
|              | Copper      | -      |        | -      |        | - |  |
|              | Chromium    | -      |        | -      |        | - |  |
|              | Zinc        | -      |        | -      |        | - |  |
|              | Lead        | -      |        | -      |        | - |  |
|              | Iron        | -      |        | -      |        | - |  |
| Remakes impi | oved or not | not im | proved | not im | proved |   |  |
| impro        | ved         |        |        |        |        | - |  |

## Samples of Drains of Jind Region (Kaithal District)

| Namo                   | е                          | upstrea | l No. 1, Near<br>m Ghaggar<br>illage Chiali | Gurug | ell No. 2, Near<br>wara, Village<br>Bhatia |       | e of Kaithal Drain in River<br>haggar at Khanuri |
|------------------------|----------------------------|---------|---|-------|--|-------|--|
| Coordinates            |                            |         |   |       | -  |       |  |
| Water Quality criteria |                            |         |   |       | -  |       |  |
| Remarks if any         |                            |         |   |       | -  |       |  |
| General                | Parameters                 | Jan     | Feb   | Jan   | Feb  | Jan   | Feb  |
|                        | Temperature                | -       | -   | -     | -  | -     | Reports still awaited                            |
|                        | pH                         | 6.92    | 7.58  | ND    | 7.59                                       | 7.02  |  |
|                        | DC                         | -       | -   | -     | -  | -     |  |
|                        | DO                         | -       | -   | -     | -  | -     |  |
|                        | Odour                      | -       | -   | -     | -  | -     |  |
|                        | Oil & grease               | ND      | ND  | ND    | ND   | ND    |  |
|                        | SS (Suspended soils)       | ND      | 6   | ND    | ND   | 52    |  |
| Organic Matter         | BOD                        | ND      | ND  | ND    | ND   | 36    |  |
|                        | COD                        | 9.6     | 13.6  | 8.4   | 8.5  | 117.6 |  |
| Nutrienis              | NH3-N                      | -       | -   | -     | -  | -     |  |
|                        | No2                        | -       | -   | -     | -  | -     |  |
|                        | No3                        | -       | -   | -     | -  | -     |  |
|                        | Total p                    | -       | -   | -     | -  | -     |  |
| Microbiological        | Total and faecal coliforms | -       | -   | -     | -  | -     |  |
| Toxic Metal            | Toxic Metal                | -       | -   | -     | -  | -     |  |
|                        | Calcium                    | -       | -   | -     | -  | -     |  |
|                        | Magnesium                  | -       | -   | -     | -  | -     |  |
|                        | Nickel                     | -       | -   | -     | -  | -     |  |
|                        | Copper                     | -       | -   | -     | -  | -     |  |
|                        | Chromium                   | -       | -   | -     | -  | -     |  |

| Name                | upstrea   | ll No. 1, Near<br>am Ghaggar<br>/illage Chiali |   | rell No. 2, Near<br>gwara, Village<br>Bhatia | Discharge of Kaithal Drain in River<br>Ghaggar at Khanuri |   |  |  |
|---------------------|-----------|--|---|--|---|---|--|--|
|                     | Zinc      | =  | - | -  | -   | = |  |  |
|                     | Lead Iron | =  | - | -  | -   | - |  |  |
| Remakes improved or | Not       | Improved                                       | N | ot Improved                                  |   |   |  |  |

## **Samples of Drains of Fatehabad District**

| Name                   |                            | Narail Drain,<br>Village Narail |     | Talwara<br>Drain, Vill<br>Talwara |     | Talwari Drain,<br>Vill Talwari |     | Kanwalgarh<br>Drain, Vill<br>Kanwalgarh |     | Kherpur<br>Drain, Near<br>Vill Kherpur |     | Sadhanwas Drain,<br>Sadhanwas,Tohan<br>a |     | Ratia Drain,<br>Ratia |     |
|------------------------|----------------------------|---------------------------------|-----|-----------------------------------|-----|--------------------------------|-----|---|-----|--|-----|--|-----|-----------------------|-----|
| Coordinates            |                            |                                 |     |                                   |     |                                |     | -                                       |     |  |     |  |     |                       |     |
| Water Quality criteria |                            |                                 |     |                                   |     |                                |     | -                                       |     |  |     |  |     |                       |     |
| Remarks if any         |                            |                                 | -   |                                   |     |                                |     |   | -   |  |     | -  |     |                       |     |
| General                | Parameters                 | Jan                             | Feb | Jan                               | Feb | Jan                            | Feb | Jan                                     | Feb | Jan                                    | Feb | Jan                                      | Feb | Jan                   | Feb |
|                        | Temperature                | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | рН                         | 8.2                             | 8.4 | 8.2                               | 8.5 | 8.6                            | 8.3 | 7.9                                     | 8.2 | 8.3                                    | 8.1 | 8  | 8.2 | 7.6                   | 8.1 |
|                        | DC                         | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | DO                         | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | Odour                      | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | Oil & grease               | 6                               | 4   | 4                                 | 4   | 4                              | 6   | 6                                       | ND  | 6                                      | 4   | 2  | 8   | 4                     | 4   |
|                        | SS (Suspended soils)       | 50                              | 60  | 50                                | 50  | 60                             | 65  | 50                                      | 40  | 70                                     | 70  | 50                                       | 60  | 40                    | 30  |
| Organic Matter         | BOD                        | 16                              | 18  | 16                                | 14  | 22                             | 24  | 18                                      | 10  | 28                                     | 26  | 12                                       | 22  | 18                    | 18  |
|                        | COD                        | 72                              | 64  | 40                                | 56  | 88                             | 96  | 64                                      | 40  | 96                                     | 128 | 24                                       | 128 | 56                    | 96  |
| Nutrienis              | NH3-N                      | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | No2                        | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | No3                        | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | Total p                    | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
| Microbiological        | Total and faecal coliforms | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
| Toxic Metal            | Toxic Metal                | -                               | -   | •                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | 1                     | -   |
|                        | Calcium                    | -                               | -   | ı                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | 1                     | -   |
|                        | Magnesium                  | -                               | -   | -                                 | -   | -                              | -   | -                                       | -   | -                                      | -   | -  | -   | -                     | -   |
|                        | Nickel                     |                                 | -   |                                   | -   |                                | -   |   | -   |  | -   |  | -   | -                     |     |

| Name                             |           |         | Drain,<br>Narail | Drai    | wara<br>n, Vill<br>wara |          | ri Drain,<br>alwari | Drair    | algarh<br>n, Vill<br>algarh | Drain     | erpur<br>n, Near<br>herpur | Sadhanw      | vas Drain,<br>vas,Tohan<br>a | Ratia D<br>Rat | •   |
|----------------------------------|-----------|---------|------------------|---------|-------------------------|----------|---------------------|----------|-----------------------------|-----------|----------------------------|--------------|------------------------------|----------------|-----|
|                                  |           |         | -                |         | -                       |          | -                   |          | -                           |           | -                          |              | -                            | -              |     |
|                                  | Copper    | -       | -                | -       | -                       | -        | -                   | -        | -                           | -         | -                          | -            | -                            | -              | -   |
|                                  | Chromium  | -       | -                | -       | -                       | -        | -                   | -        | -                           | -         | -                          | -            | -                            | -              | -   |
|                                  | Zine      | -       | -                | -       | -                       | -        | -                   | -        | -                           | -         | -                          | -            | -                            | -              | -   |
|                                  | Lead Iron | -       | -                | -       | -                       | -        | -                   | -        | -                           | -         | -                          | -            | -                            | -              | -   |
| Remakes improved or not improved |           | Improve | d                | Not Imp | roved                   | Not Impr | oved                | Improved |                             | Not Impro | oved                       | Not Improved | I                            | Not Improv     | /ed |

## **Samples of Drain of Sirsa District**

| Name                             |                            | Mallewala Drain,<br>Village Mallewala |     | Rania link Drain |     | Hisar-Ghaggar<br>Drain at<br>Firozabad,<br>Sirsa |               | Rori-Ghaggar<br>Drain |     | Discharge of PHED<br>STP, Ellenabad, 7.5.<br>MLD, Budhimedi<br>Drain, Near Village<br>Budhimedi. |     | Discharge of<br>PHED STP, 15<br>MLD, Kelnia<br>Drain, Kalnia,<br>Sirsa |     |
|----------------------------------|----------------------------|---------------------------------------|-----|------------------|-----|--|---------------|-----------------------|-----|--|-----|--|-----|
| Coordinates                      |                            |                                       |     |                  |     | -  |               | •                     |     | •  |     |  |     |
| Water Quality criteria           |                            |                                       |     |                  |     | -  |               |                       |     |  |     |  |     |
| Remarks if any                   | _                          |                                       |     |                  | _   |  | NIL Discharge |                       |     | -  | _   |  |     |
| General                          | Parameters                 | Jan                                   | Feb | Jan              | Feb | Jan  | Feb           | Jan                   | Feb | Jan  | Feb | Jan  | Feb |
|                                  | Temperature                | -                                     | -   | -                | -   | -  | =             | -                     | -   | -  | =   | -  | -   |
|                                  | рН                         |                                       | 8.7 | 8.6              |     |  | 8.1           | -                     | -   | 8.2  | -   | 8.2  | -   |
|                                  | DC                         | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | DO                         | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Odour                      | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Oil & grease               | -                                     | ND  | ND               | -   | -  | ND            | -                     | -   | 4  | =   | 4  | -   |
|                                  | SS (Suspended soils)       | -                                     | 220 | 80               | -   | -  | 130           | -                     | -   | 20   | -   | 24   | -   |
| Organic Matter                   | BOD                        | -                                     | 48  | 18               | -   | -  | 36            | -                     | -   | 18   | -   | 26   | -   |
|                                  | COD                        | -                                     | 96  | 64               | -   | -  | 136           | -                     | -   | 56   | -   | 64   | -   |
| Nutrienis                        | NH3-N                      | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | No2                        | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | No3                        | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Total p                    | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
| Microbiological                  | Total and faecal coliforms | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
| Toxic Metal                      | Toxic Metal                | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Calcium                    | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Magnesium                  | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Nickel                     | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | 1   | -  | -   |
|                                  | Copper                     | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Chromium                   | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | 1   | -  | -   |
|                                  | Zine                       | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   | -  | -   |
|                                  | Lead Iron                  | -                                     | -   | -                | -   | -  | -             | -                     | -   | -  | -   |  | -   |
| Remakes improved or not improved |                            | Not Improved                          |     | Not Improved     |     | Not Improved                                     |               | Not improved          |     | Not Improved   |     | Not Improved   |     |