PUNJAB GUIDELINES FOR GROUNDWATER EXTRACTION AND CONSERVATION, 2020

Punjab Water Regulation and Development Authority
S.C.O 149-152, Sector-17, Chandigarh

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CHAPTER-1

BACKGROUND AND DEFINITIONS

1.1 INTRODUCTION

The Punjab Water Regulation and Development Authority (hereafter the Authority) is publishing these Draft Directions of the Authority known as the 'Punjab Guidelines for Groundwater Extraction and Conservation' which shall apply to all commercial and industrial water users in the state of Punjab (hereafter Draft Guidelines) to seek comments and objections of any person during a period of one month from the date of publication. A copy of these Draft Guidelines is available on the website www.punjab.gov.in & www.irrigation.punjab.gov.in

Comments and Objections (hereinafter 'Objections') on this publication of these Draft Guidelines are sought in terms of the provisions of the Punjab Water Resources (Regulation and Management) Act, 2020 (hereafter the Act). The finalised Guidelines shall be published and notified, after considering all Objections received within one month of publication of these Draft Guidelines, as Directions of the Authority in terms of Section 15 of the Act, and shall have effect from the date of such Notification. These Draft Guidelines also contain proposed Charges for the Extraction of Groundwater (including fees, compensation charges, non-compliance charges, conservation credits, conveyance charges etc.) which shall be levied after approval of the Government in terms of Section 17(5) of the Act. All these Charges are termed 'Groundwater Charges' individually and collectively. Since these Groundwater Charges are described in various Chapters (and Paragraphs) of these Draft Guidelines, all of them have been collated and also placed in *Annexure 3* for ready reference.

1.2 AD-INTERIM PERMISSION

Till such date that these Draft Guidelines are finalised and notified, the Authority may, if it deems fit and necessary, with the consent of the person concerned, act upon these Draft Guidelines as if they were finalised and notified, to permit any person (Applicant) to extract and conserve groundwater, subject to compliance of the conditions contained in these Draft Guidelines, and without prejudice to the liabilities of the Applicant concerned to comply with all terms and

conditions contained in the finalised Guidelines as and when notified, from the date of such notification.

1.3 RECEIPT OF OBJECTIONS WITH FEES (Rs 500)

Objections may be submitted as follows by any person:

By email to: comments.pwrda@punjab.gov.in **, or**

By post to: Secretary, Punjab Water Regulation and Development Authority, SCO 149-152, Sector 17 C, Chandigarh 160017.

All Objections should be in the Format placed at Annexure 1, and shall be accompanied with the receipt of the applicable Fees of Rs 500/-payable to the Authority in terms of Section 15(4) of the Act. The Fees may be paid as follows:

I) by online transfer to HDFC Bank Account 500100071567691 of the Authority through Debit Card, Credit Card, or Net Banking or UPI or NEFT/RTGS, or

II) by cash at any of Branch of HDFC Bank in Punjab or Chandigarh in Account of the Authority, or at Reception Counter of the Authority, or

III)by Indian Postal Order, Pay Order or Demand Draft in favour of Secretary, Punjab Water Regulation and Development Authority, payable at Chandigarh.

1.4 HEARINGS

The Authority may in its discretion hold hearings on the comments received in response to these Draft Guidelines, and may hear any person either individually or in a group. Such hearings shall be conducted in a manner, including by electronic means, as directed by the Authority. It is clarified that no person shall have a right to be heard in person, and it shall be the discretion of the Authority to call any person for a hearing. However, it shall be the endeavour of the Authority that every category or class of persons, as determined by the Authority, is afforded an opportunity of being heard.

1.5 RESPONSE TO OBJECTIONS

The Authority shall not reply to, or express its opinion on individual Objections received. However, the intent and purpose of all Objections received shall be taken note of and considered before finalising the Guidelines. To this end the Authority shall publish a summary of the main issues raised in the Objections

received and the Response of the Authority on such issues. This Response of the Authority as well as the finalised Guidelines shall be available at www.irrigation.punjab.gov.in or at such website which may be notified by authority as and when the finalised Guidelines are notified by the Authority as per the provisions of the Act.

1.6 GROUNDWATER CHARGES

These Draft Guidelines pertain to usage of groundwater for purposes other than agriculture, drinking and domestic use. In other words, these Draft Guidelines cover the commercial and industrial use of groundwater, including institutions, construction and infrastructure projects.

No person shall be permitted to extract groundwater for commercial or industrial use without obtaining permission from the Authority. Permission will be granted subject to payment of Groundwater Charges and fulfilling of specified conditions.

These Draft Guidelines contain the Charges to be levied on a volumetric basis for the extraction of groundwater for commercial and industrial use, as well as other charges pertaining to the extraction of groundwater, including application fees, processing fees, registration fees, groundwater compensation, conveyance charges, conservation credits etc., (hereafter Groundwater Charges). The Government's approval has been sought for all such Groundwater Charges in terms of Section 17(5) of the Act. Whereas, comments have been sought on these Draft Guidelines in their entirety including the Groundwater Charges contained herein; it is clarified that these Groundwater Charges shall be levied only in accordance with the approval of Government under section 17(5) of the Act.

1.7 CHARGES ON EXTRACTION OF GROUNDWATER LEVIED BY OTHER ENTITIES

Several Entities in the State including Urban Local Bodies, Panchayati Raj Institutions, Government Departments, Area/Urban Development Authorities, Improvement Trusts, water users' associations, and bodies corporate may be levying a charge on groundwater extracted, supplied or consumed, whether known by any name such as a tariff, cess or fee. It is clarified that all such charges shall continue to be levied by the concerned Entity as per its jurisdiction and competence defined in the applicable law. The Groundwater Charges of the

Authority presently proposed to be levied under the Act are in addition to any charges levied by the concerned Entities under the relevant enabling laws. The Groundwater Charges proposed in these Draft Guidelines shall be notified after approval of the Government in accordance with the provisions of the Act.

1.8 COVID 19 EPIDEMIC

The COVID-19 epidemic has caused considerable hardship to the economy of the State, hence, it is considered appropriate that all Groundwater Charges in these Draft Guidelines be reduced by 20% till March 31st, 2021.

1.9 DEFINITIONS

The words and phrases used in these Draft Guidelines that have been defined in the Act or in the Regulations of the Authority shall have the same meaning as defined therein. In addition:

a) 'Applicant' shall mean a person who applies for permission to extract and conserve groundwater under these Guidelines for one or more Units, and such person includes an individual, association of persons, firm, society, company, department, autonomous body, statutory body or any other legally recognised juridical person;
b) 'Extraction' with respect to groundwater shall mean to include the abstraction, drawing out, conveyance or winning of groundwater through any means or equipment from below the surface of the ground to the surface or further to any place whether on the surface of the ground or otherwise, and shall include the drawing out or winning of water from a natural spring or artesian well at its source;
c) 'Groundwater Charges' shall mean all such charges as are fixed or charged by the Authority with the approval of the Government under Section 17(5) of the Act that relate to any activity connected with the extraction of groundwater or incidental thereto. Such charges, known by any nomenclature, shall include but shall not be limited to the following:
    i. Groundwater Extraction Charges for permitted extraction of Groundwater;
    ii. Groundwater Conveyance Charges for the conveyance or transportation of groundwater from its source to any place for

storage, consumption or usage through any means including channels, aqueducts, pipelines or vehicles (tankers);

iii. Groundwater Exploration or Sourcing Charges for any activities related to the development of new sources of groundwater, or the augmentation and renovation thereof;

iv. Groundwater Compensation Charges for extraction or conveyance of Groundwater without valid permission or in excess of permitted quantity;

v. Various fees including Registration fees, Application fees etc. for any purpose related to groundwater extraction, or conveyance including any permission, intimation, return or registration;

vi. Non-Compliance Charges for violations and defaults etc.; and

vii. Conservation Credits for specified water conservation activities undertaken by Water Users in relation to groundwater extraction.

d) 'Unit' shall mean a site including a project, plant, building, structure, mine, plot, layout, colony, complex, infrastructure, construction site or land for which permission is sought or for which permission is required or granted for the extraction of groundwater under these Guidelines.

CHAPTER 2

GROUNDWATER CONSERVATION

2.1 WATER CONSERVATION BY USERS AND BY PUBLIC AGENCIES

The objective of these Guidelines is to promote and ensure conservation of water by all persons extracting groundwater for commercial and industrial purposes. This objective may be implemented by the Unit in two ways. First the Unit may on its own accord implement water conservation measures both on its premises and outside. However, if the Unit is unable to implement the required water conservation measures, then the Authority shall utilise a portion of the Groundwater Charges paid by the Unit for implementing water conservation schemes through Public Agencies nominated by Government.

For Orange and Yellow Areas, the prescribed quantity of water to be conserved shall be well in excess of the groundwater used by the Unit so that it has a significant net positive impact on the water balance. Even for Units located in

Green Areas there shall be water conservation requirements. The burden of water conservation measures has been reduced for small users that consume less than 10 cubic metres daily, since many such small enterprises have limited ability to pay. This is reflected in the escalating slab rates of Groundwater Charges.

2.2 WATER CONSERVATION SCHEMES

The Government shall design and implement appropriate Water Conservation Schemes for water conservation in important sectors such as agriculture, groundwater recharge, urban rainwater harvesting, industrial wastewater treatment and reuse, and rural wastewater management. The Schemes shall be finalised in consultation with the Authority.

These Schemes may be implemented by any Water User or group or association of Water Users at their own level. Such Water Users shall earn appropriate Water Conservation Credits which shall effectively reduce their volumetric Groundwater Charges. Each Water User shall be expected to meet his target for water conservation as specified in these Draft Guidelines. In the event that a Water User is not able to achieve his target, in part or in its entirety, then the Groundwater Charges paid by him shall be utilised in part to defray the expenses of implementing such Schemes by a Public Agency. These Schemes shall be implemented on priority in the Orange and Yellow category areas. The highest priority shall be accorded to implementing water conservation measures in Orange category areas.

Conservation Credits will be available only on the schemes approved by the Authority. It is clarified that in addition to Water Conservation Schemes finalised by Government, Water Users may implement any other water conservation measures with the approval of the Authority. From time to time, Authority may also design or adopt new Water Conservation Schemes.

2.3 WATER CONSERVATION BY UNITS

All Units shall be expected to implement water conservation measures inside their premises as required by any other Statutory Body or Agency. No credit shall be provided in the Groundwater Charges for such activities. In case the Unit implements water conservation within its premises in addition to its statutory obligations, then it will be provided credit for the same. Units that undertake any

water conservation measures outside their premises in pursuance to these Guidelines, shall be provided a credit that shall be deducted from the amount of Groundwater Charges as per these Guidelines.

Units may apply to the Authority for implementing a Water Conservation Scheme to earn Conservation Credits in any of the sectors mentioned in Paragraph 2.2 and may proceed to implement such Scheme after approval of the Authority.

The monitoring of Water Conservation by units shall be done by an Agency to be specified by the Authority.

2.4 WATER SAVING SCHEMES IN AGRICULTURE

Water conservation measures that can be implemented by Units outside their premises in the agriculture sector include water saving in existing crops; replacing paddy cultivation with other crops that consume less water. Units may implement these measures of their own accord.

The saving in water will be based on the measured consumption of water in the field as compared to the benchmark of water consumption set for the crop in consultation with agriculture experts. Initially, this exercise will be limited to farmers using groundwater only. Priority shall be given to Orange and Yellow areas.

Some of the feasible interventions and the possible savings of water are listed below:

1. Water saving practices in paddy crop
    a. Delaying paddy transplanting to June 25 or later;
    Water saving: 100-200 mm or 1,000 to 2,000 m^3 per hectare.
    b. Alternate wetting and drying, and maximum 50 mm depth of irrigation water in the paddy field;
    Water saving: 150-250 mm or 1,500-2,500 m^3 per hectare.
    c. Delaying paddy transplanting to June 25 or later coupled with growing short duration varieties;
    Water saving: 150-250 mm or 1,500-2,500 m^3 per hectare.
2. Water Saving Practices in wheat crop

a. Use of small irrigation plots (6-8 plots per acre) for wheat crop;
   Water saving: up to 35 mm or up to 350 m^3 per hectare.

b. Direct sowing of wheat in standing paddy stubble using zero-till drills such as Happy Seeder or Super Seeder;
   Water saving: up to 70 mm or up to 700 m^3 per hectare.

c. Controlled irrigation of wheat field as per PAU recommendations;
   Water saving: 75-100 mm or 750-1000 m^3 per hectare.

d. Furrow irrigation in bed-planted wheat;
   Water saving: up to 75 mm or 750 m^3 per hectare.

e. Irrigation through sub-surface drip system;
   Saving of water: 350-450 mm or 3,500-4,000 m^3 per hectare.

3. Replacing paddy with other less water consuming crops

Groundwater resources can be conserved by diversifying from paddy crop to other water saving crops in the Kharif season as mentioned below.

a. From paddy to Kharif Maize;
   Water saving: 1,000 mm or 10,000 m^3 per hectare.

b. From paddy to millets (bajra);
   Water saving: 1,100 mm or 11,000 m^3 per hectare.

c. From paddy to oilseeds (groundnut);
   Water saving:1,100 mm or 11,000 m^3 per hectare.

d. From paddy to pulses (moong bean);
   Water saving:1,100 mm or 11,000 m^3 per hectare.

It is suggested that the feasibility of these water savings and the modalities for implementing measures that encourage farmers to achieve these savings may be formulated by the *Department of Agriculture and Farmers Welfare*.

The Authority recommends that when framing Water Conservation Schemes in the Agriculture sector, the Government may give priority first, to schemes incentivizing replacing of paddy cultivation with other less water consuming crops, orchards, trees or plantations; and second, for farmers that

continue to cultivate paddy, schemes involving water saving during paddy cultivation.

2.5 GROUNDWATER RECHARGE

a. Revival of drains:

Drains allow groundwater recharge through seepage. Some drains are either defunct or carry less water than their designed capacity due to siltation etc. Such drains can be revived by desilting and repairing them to increase their capacity to carry water and to recharge groundwater. The cross section of the drain can be restored or improved and ponds can be created by constructing check dams at intervals along the drain, leading to enhanced local groundwater recharge.

b. Groundwater recharge structures along canals, drains, rivulets, etc:

A significant amount of water in canals, drains, choes and rivulets during rainy season remains unutilised. This water could be used to recharge the groundwater. Recharge structures can be constructed along canals, drains, choes and rivulets so that excess water during the monsoon (and during the slack irrigation season in canals) can be used to recharge the groundwater aquifer.

c. Groundwater recharge structures for storm water in urban areas:

Urban areas contain extensive hard surfaces such as roads, pavements, building roof tops etc. that prevent infiltration of rain water into the ground. This leads to extensive storm water runoff from these spaces to drains and rivers. Whereas, private buildings and premises are required to construct rainwater harvasitng systems including recharge strucutres by the local bodies or the environmental authorities, such recharge structures for rainwater runoff can be constructed in public spaces in urban areas to improve groundwater recharge in cities.

It is suggested that the *Department of Water Resources* may examine the feasibility of all such measures and work out the modalities for implementing them.

2.6 WASTE WATER TREATMENT AND REUSE

a) Industrial waste water reuse:

Industrial waste water can be treated to meet required standards and reused for non-drinking and irrigation purposes. In case a Water User chooses to treat waste, water and make it available for reuse by achieving standards that are demonstrably higher/better than those prescribed by the law (by the environmental or other authority) then such Water User shall be eligible for conservation credits for such volume of water reused, if the Authority so approves,

It is understood that the *Department of Science Technology and Environment* is working on an action plan for implementing measures for treatment and reuse of industrial waste water for irrigation.

b) Village pond renovation for waste water treatment, recharge and reuse for irrigation:

Village ponds presently getting untreated wastewater along with runoff from their catchment area can be renovated to improve their storage capacity and to treat the wastewater and runoff water collected in the pond. This treated water will seep underground and can also be utilised for irrigation and other non-drinking purposes. Water Users may implement measures to renovate village ponds and to treat the water collected in village ponds so that it is reused for irrigation or other non-drinking purposes, provided that the treated water meets the prescribed standards.

It is suggested that the *Department of Rural Development and Panchayats* may work out the modalities for renovation, operation and maintenance of village ponds.

2.7 IMPLEMENTING WATER CONSERVATION COLLECTIVELY BY WATER USERS

Water Users may implement water conservation schemes outside their premises of their own accord either individually or collectively. They may for the purpose of collective water conservation measures constitute an Association or a Special Purpose Vehicle (a society, firm or company etc.) jointly funded and managed by a group of Water Users. Alternatively, Water Users may outsource their water conservation measures and may for this purpose engage a service

provider or organisation of their choice as to implement the water conservation measures on their behalf. Such collective water conservation measures shall be intimated to the Authority in advance, and the Authority shall be informed about the person(s) authorised to report the volume of water saved or conserved, and the apportionment of such conserved volume of water amongst the water users concerned.

CHAPTER 3

CHARGES FOR GROUNDWATER EXTRACTION

3.1 PAYMENT OF CHARGES

Extraction of groundwater shall be permitted upon payment of Groundwater Extraction Charges as described below.

3.2 SCHEDULE OF CHARGES

Each Water User shall be permitted to extract groundwater upon payment of the following charges and upon fulfilment of conditions imposed in the permission granted by the Authority, including commitments and liabilities to conserve groundwater.

Table 1: Groundwater Extraction Charges (Gross)

S.no	Category of Area*	Quantity Used		
		<10 m3/day	10-100 m3/day	>100 m3/day
		Charges in Rupees/ m3		
1	Orange	8	18	22
2	Yellow	6	14	18
3	Green	4	10	14
* Details are in Annexure 2 and apply to the entire document.				

Explanation: Slab Rates for Groundwater extraction.

Groundwater charges shall be volumetric and shall be based on actual consumption. The initial quantity (up to 10 cubic metres per day) shall be charged at the lowest applicable rate in the Schedule of Charges above and additional

quantities extracted during the billing period (month) shall be charged at the higher rates given in the said Schedule.

The water conservation target as a percentage of the groundwater consumed by each unit shall be as follows:

Table 2 : Water Conservation Targets

Area	**Quantity of Groundwater Consumed**		
	<10 m3/day	**10-100 m3/day**	**>100 m3/day**
Orange	200%	300%	400%
Yellow	150%	200%	300%
Green	100%	150%	200%

Accordingly, the Credit (rebate) for water conservation shall be allowed at a rate of Rs 2.00 per cubic metre of water saved by the unit, subject to the upper limit of the target specified in the Table above.

The table below shows the water conservation credits that shall be available to a Unit in a particular zone if it fully achieves its target for water conservation in that zone:

Table 3: Water Conservation Credits

S.no	**Category of Area***	**Quantity Used**		
		<10 m3/day	**10-100 m3/day**	**>100 m3/day**
		Credits in Rupees/ m3		
1	Orange	4	6	8
2	Yellow	3	4	6
3	Green	2	3	4

Accordingly, if a Unit in a Green Block which consumes less than 10 cubic metres per day achieves its targets of water conservation (100%) then it shall receive the credit (rebate) of Rs. 2.00 for every cubic metre of water conserved. Therefore, its net groundwater charge shall be 4-2= Rs. 2.

Similarly, if a Unit in an Orange Block which consumes more than 100 cubic metres per day achieves its water conservation target (400%) then for the quantity of water above 100cum/day the net charge shall be 22-8= Rs 14. These Net Charges are described in the Table that follows.

Table 4: Net Groundwater Extraction Charges for a unit that fully achieves its water conservation target

S.no	Category of Area*	Quantity Used		
		<10 m3/day	10-100 m3/day	>100 m3/day
		Credits in Rupees/ m3		
1	Orange	4	12	14
2	Yellow	3	10	12
3	Green	2	7	10

Note: The Net Charges in Table 4 above are based on the assumption that the Unit has achieved its entire target for water conservation measures by implementing such measures through its own efforts, and has reported the same to the Authority for its approval.

Water conservation measures implemented by a Unit for which it wants to claim Conservation Credits shall be inspected and assessed by the designated Monitoring Agency. The Conservation Credits will be given only after the Monitoring Agency intimates to the Authority its assessment and the details about the quantity of Water actually conserved by the user as per the Scheme. Till such assessment is available, the unit shall continue to make payment of groundwater extraction charges at the applicable rates.

3.3 ACTUAL WATER CONSUMPTION HIGHER THAN PERMITTED QUANTITY

In case the water user extracts a quantity greater than the permitted amount for two or more consecutive billing periods (months) then his permitted quantity shall be revised to the highest level of consumption recorded in any one of those months. In case monthly readings of the water meter are not available for any reason, then the average monthly consumption of groundwater shall be calculated for the period and the permitted quantity shall be revised (increased) accordingly.

In the event that the permitted quantity of groundwater extraction is revised then the Water User shall be liable and responsible for paying additional charges for the increased quantity permitted as well as for undertaking water conservation measures, installing equipment and water meters etc. as specified by the Authority for such increased quantity. All such liabilities shall begin from the first date of the month in which the higher consumption is recorded, noticed,

calculated or inferred. However, the time allowed for complying with any condition that involves the installation or alteration of any machinery, equipment or structure shall begin from the date that such revised permission for the higher quantity is granted.

3.4 BILLING CYCLE AND PAYMENT SCHEDULE

All volumetric charges shall be billed and paid on a monthly basis. A month shall be deemed to consist of 30 days for the purpose of calculating the slab rates applicable.

Example: If in any given month a Water User in an Orange Area consumes 500 cubic metres of groundwater then the first 300 cubic metres (10x30) of groundwater consumed shall be billed at Rs 8 per cubic metre and the remaining 200 cubic metres shall be billed at Rs 18 per cubic metre, the total bill amounting to Rs 2,400 + 3,600 = Rs 6,000.

Payment of Groundwater Charges shall be made on monthly basis. All payments shall be due on the 10th day of the month. Interest and Surcharge shall be levied on delayed payments as specified.

An Advance Deposit shall be paid by the Water User at the time of grant of permission. This advance deposit shall be equivalent to two months of charges for the permitted quantity of groundwater extraction. The Advance Deposit may be adjusted against dues or arrears of any nature pertaining to the User. In that event the User shall have to replenish the Advance deposit within the time period specified by the Authority.

3.5 FAILURE TO PAY ON TIME

Failure to make any payment in full and on time by a Water User shall be sufficient cause for the Authority to take remedial action for default, including but not limited to imposition and recovery of Groundwater Compensation Charges and interest as applicable, and also to take action for failure to comply with directions of the Authority. Such action under the provisions of the Act may include disconnecting the electricity connections, sealing the groundwater structures of the defaulting Water User, and cancellation of permission.

3.6 WATER METERING

All groundwater extraction structures shall have volumetric water meters installed on them. All water meters shall conform to the technical specifications, performance parameters and connectivity standards etc. as specified by the Authority. It shall be the responsibility of the Water User to ensure that each water meter is fully functional and in proper working order at all times.

Groundwater charges shall be volumetric and will based on meter readings. Groundwater charges shall be paid by the Water User on a self-assessed basis every month in accordance with the meter reading taken, recorded and reported by the water user. After water meter readings are obtained by an authorised person on behalf of the Authority, either physically or electronically, the balance charges if any shall either be paid by the Water User when the next bill is due or shall be credited to his account, as the case may be. In case the water user is found to have concealed or misreported the water meter reading for any period (month) then the Water User shall be considered to have unauthorisedly extracted the assessed quantity of groundwater during that period and shall be liable for the consequences thereof including payment of compensation charges.

3.7 CHARGES FOR PERIOD WITHOUT METERING

If groundwater is extracted by a water user for any period when a meter is not installed or is not functioning or is defective, then the consumption of groundwater during such period shall be assessed by the Authority in a transparent manner as it may specify in each case or in each class of similar cases. The charges for such assessed quantity of groundwater consumed shall be equal to the Groundwater Compensation calculated as per the provisions of these Guidelines.

3.8 CHARGES FOR GROUND WATER CONVEYANCE THROUGH WATER TANKERS

The following Groundwater Conveyance Charges shall be paid by a water tanker conveying, supplying or delivering groundwater for any purpose. These charges shall be irrespective of the groundwater charges, if any, payable by the owner or operator of the water extraction structure. However, no groundwater conveyance charge shall be paid by a water tanker for supply of drinking water in pockets with brackish or saline groundwater at all depths.

Table 5: Ground Water Conveyance Charges

S.no	Area	Charges in Rs./cum
1	Orange Area	22
2	Yellow Area	18
3	Green Area	14
The rates shall apply as per the location of the abstraction structure		

Explanation: The groundwater conveyance charges shall be paid by the owner or operator of the registered water tanker vehicle in advance every month. The monthly advance charges shall be paid on a self-assessed basis by the 10th day of the month. The monthly advance payment shall be matched with the actual conveyance by the water tanker recorded by GPS coordinate data, based on the assumption that the water tanker carries its full capacity for each trip. The balance amount calculated as per the actual conveyance shall be paid or credited, as the case may be, with the next monthly payment, or within 60 days, whichever is earlier.

3.9 GROUNDWATER COMPENSATION FOR UNAUTHORISED USE OF WATER TANKER

No Water Tanker shall carry groundwater unless it is registered with the Authority. In case a water tanker vehicle is used for conveyance of groundwater without registration with the Authority, then without prejudice to any other action that may be taken or charges that may be levied, the water tanker shall in addition to the groundwater conveyance charges also pay groundwater compensation at a rate equal to twice the amount of groundwater conveyance charges mentioned in Paragraph 3.8 above.

3.10 EXTRACTION OF SALINE GROUND WATER

Extraction of brackish/saline ground water in a pocket where the acquifers at all levels up to 300 metres depth contain only brackish/saline ground water will be permitted at 25% of the applicable groundwater extraction charges. No water conservation target or credits shall apply in such cases. The unit shall submit a hydrogeological report detailing the contours of the brackish/saline aquifer and its potential, and an assessment of the risk of mixing of good quality water due to extraction of brackish/saline water. The Unit shall also submit a copy of its environmental clearance as may be applicable.

The boundaries of such pockets within in each assessment unit which contain brackish/saline ground water at all depths shall be identified by the Government as per its latest assessment of dynamic ground water resources. Further, the quality parameters of groundwater extracted or to be extracted by the Unit shall be tested and this will be that basis for granting or refusing permission to a Unit that may lie within such an identified pocket.

In case such a Unit does not require environmental clearance, the Authority may impose conditions in respect of disposal, treatment and reuse of waste water and effluents so as to protect water resources including water bodies, water channels, surface water and groundwater.

3.11 PERMISSION OBTAINED FROM CENTRAL GROUNDWATER AUTHORITY

In case a Water User has already obtained a No Objection Certificate (NOC) of the Central Groundwater Authority (CGWA) prior to the date of publication of these Draft Guidelines, then that permission shall be treated as valid for the period that it has been granted by the CGWA. However, the Water User shall be bound by all the terms and conditions of this Notification including Groundwater Charges and shall apply to the Authority for obtaining permission, along with details of the NOC obtained from CGWA. All activities, including Water Conservation measures, undertaken in accordance with the CGWA's NOC shall be given due consideration and credit when granting permission by the Authority.

CHAPTER 4

APPLICATION FEES

4.1 FEES FOR VARIOUS APPLICATIONS:

Fees are required to be paid along with the application as mentioned below:

Table 6: Fees for Various Applications

S No.	Nature of Application	Groundwater Extraction Volume			
		<10 m^3/day	**10-100 m^3/day**	**100-1000 m^3/day**	**> 1000 m^3/day**
			Fees in Rs.		
1	Fresh Permission & Renewal	2,000	5,000	20,000	1,00,000
2	Change in User ID	1,000	2,000	5,000	10,000
3	Change in Name	1,000	2,000	5,000	10,000
4	Extension of Permission	1,000	2,000	5,000	10,000
5	Duplicate Permission	1,000	2,000	5,000	10,000
6	Corrigendum to Permission	1,000	2,000	5,000	10,000
7	Alteration or Correction	1,000	2,000	5,000	10,000
8	Cancellation or Amalgamation of Permission	1,000	2,000	5,000	10,000
9	Registration of Drilling Rig	25,000			
10	Registration of Water Tanker	10,000			
11	Registration of Extraction Structure or Tube Well	1,000	2,000	10,000	25,000
12	Comments and Objections, pertaining to the draft Guidelines	500			

Explanation: A Drilling Rig or Water Tanker may apply for any of the services listed at serial numbers 2 to 8 in the Table above with reference to the Rig or Tanker and shall pay the fees specified for a volume of groundwater extracted between 10 to 100 cubic metres per day for each such Rig or Tanker.

CHAPTER 5

PERMISSION FOR GROUNDWATER EXTRACTION

5.1 EXEMPTIONS FROM SEEKING PERMISSION

a) The following categories of uses shall be exempted from seeking permission for groundwater extraction and conservation:

   i. Drinking and Domestic water usage;
   ii. All Agricultural water usage, that is water used for any activities included in the definition of 'Agriculture and related activities' by the Government;

b) The following categories of water users shall be exempted from seeking permission for groundwater extraction and conservation:

   i. Drinking Water Supply schemes of Government, whether managed or operated by Government or by any other person including a water users' association;
   ii. Establishments of the Military and Central Paramilitary Forces;
   iii. Urban Local Bodies and Panchayati Raj Institutions, Improvement Trusts and Area Housing and Urban Development Authorities; and Places of Worship.

Note: It is clarified that all other categories of water usage and water users including industrial, commercial, infrastructure, institutional, construction and mining shall require permission for groundwater extraction and conservation.

5.2 VALIDITY OF PERMISSION

All permissions for groundwater extraction and conservation shall be granted for a period of three years unless specified otherwise by the Authority.

The Authority may for reasons to be recorded, modify or amend any conditions of permission after giving notice to affected persons and affording them an opportunity to provide their responses, replies or objections.

Fresh conditions of permission may be imposed at any time by the Authority as regards any existing or previously granted permissions, for reasons to be recorded by the Authority after giving notice as per the provisions of the Act.

5.3 AMENDMENT TO PERMISSION

In case of a change in the quantum of water extracted or intended to be extracted by a water user then such user shall apply for an amendment to his permission either in advance or within 30 days of the change. However, if such change in quantity necessitates any alterations or modifications to any water extraction structure or requires the construction of a new structure then the user shall necessarily apply in advance and shall undertake any such alteration, modification or construction only after permission has been granted.

In case any alteration, modification, of any water extraction structure, machinery or equipment is urgently or immediately required to be undertaken to maintain the operations of the user, then the user may proceed with such alteration, replacement or repair, and inform the authority. The user shall inform the Authority within 30 days of any such urgent alteration, replacement or repair. If such activity leads to an increase in the groundwater extraction utilisation or capacity of the water user then the user shall seek permission for the additional quantity along with such intimation.

It is clarified that if a water extraction structure requires only replacement or repair without any alteration or modification, then the water user may proceed with such replacement or repair either after informing the Authority in advance or he may inform the Authority within 30 days of beginning the process of such replacement or repair.

5.4 RENEWAL OF PERMISSION

The water user shall apply at least three months prior to the expiry of permission for renewal of the same, in the specified format along with the required documents and compliance statements. Renewal applications received late shall be charged a fee for delay as specified by the Authority. Any unauthorised extraction of water after permission period has expired and has not been renewed, shall be subject to Groundwater Compensation Charges as applicable.

5.5 CANCELLATION OF PERMISSION

In the event that a water user fails to comply with any condition of the permission granted or fails to comply with any direction of the Authority then in addition to any other action that the Authority may take in this regard, the permission granted may be cancelled.

CHAPTER 6

GROUNDWATER COMPENSATION AND OTHER CHARGES FOR NON-COMPLIANCE

6.1 GROUNDWATER COMPENSATION CHARGES

Any Water User who is required to obtain Ground Water Extraction Permission as per directions or orders of the Authority under the provisions of the Act and extracts ground water without valid permission shall be liable to pay enhanced Groundwater charges to be known as Groundwater Compensation Charges (GCC)for the quantum of ground water so extracted. The Groundwater Compensation Charges levied for such unauthorised extraction of groundwater shall be calculated as per the following equation:

GCC = Ground water extraction per day x Groundwater **Compensation Rate (GCR) x No. of days that Unit operates without valid permission of the Authority;**

where ground water extraction is in m^3/day and GCR is in Rs./ m^3

Groundwater Compensation Rates for Unauthorized extraction, in Rupees per cubic metre are as follows.

Table 7: Groundwater Compensation Rates

S No	Category of area	< 10 m^3/day	10 -100 m^3/day	> 100 m^3/day
1	Orange	16	36	44
2	Yellow	12	28	36
3	Green	8	20	28

6.2 INSTALLATION AND MAINTENANCE OF MACHINERY, EQUIPMENT AND INSTRUMENTS

All machinery, equipment and instruments installed or used by the water user for any purpose connected with groundwater extraction or conservation, including measurement and monitoring thereof, shall be as specified by the Authority. The water user shall be bound to install all such equipment, instruments, machinery and structures as may be required by the Authority for any purpose connected with the extraction or conservation of groundwater. In the event that the water user does not comply with such specifications, requirements or directions he shall be liable to pay Non-compliance Charges fixed by the Authority as described below.

6.3 NON-COMPLIANCE CHARGES

Non-compliance charges for certain violations and defaults are described below. These may be amended or revised from time to time.

Table 8: Non-compliance charges

S. No.	Items	Charges in Rs.	
		Units using <100 m^3/day	**Units using >100 m^3/day**
1	Non-installation of appropriate Water Meter, or faulty Water Meter	50,000	200,000
2	Non-disclosure or unauthorised construction of groundwater abstraction or injection structures Each functional Structure Each Defunct/Abandoned Structure	50,000 25,000	200,000 100,000
3	Non-Construction or Inadequate capacity of Water Recharge or Water conservation structures or measures	100,000	500,000
4	Non-maintenance of Recharge structures/ Water conservation structures/measures	20,000	100,000
5	Unauthorised Injection of water into the ground. Note: Water user shall be separately responsible for aquifer remediation as required by the competent authority	500,000	2,000,000

6	Non-maintenance of log book or non-submission of groundwater extraction data in time. Other violations pertaining to documentation and reporting.	10,000	50,000
7	Non-Submission of Water Audit Report in time	25,000	100,000
8	Construction or excavation of groundwater extraction structure by unauthorized or unregistered Drilling Rig (per structure).	50,000	200,000
9	Non-registration of each water supply tanker	50,000	
10	Non-registration of each well drilling rig	200,000	
11	Rig registered but without working GPS	10,000	
12	Water tanker registered but without working GPS	5,000	
13	Submission of false information or undertaking or failure to comply with undertaking in time	25,000	100,000
14	Non-payment of any Groundwater Charges including Fees, Non-Compliance Charges, Compensation Charges etc. on the due date; for every month or part thereof of delay (to be compounded annually)	1.5% of the overdue amount	1.5% of the overdue amount

Explanation 1: In case an act or omission by a Water User amounts to violation of more than one of the conditions of permission or directions of the Authority then each of the Non-compliance charges applicable shall be levied and the Water User shall be liable to pay the total amounts of all such charges.

Explanation 2: These charges are without prejudice to any civil or criminal proceedings that the Authority may initiate in accordance with the provisions of the Act and the Regulations framed thereunder.

Explanation 3: In case the Water User consumes any groundwater that is not metered or is improperly or incorrectly measured during any period of time due to an act or omission on the part of the User, then such consumption shall be treated as unauthorised and the User shall pay groundwater compensation charges for the assessed quantity of such unauthorised extraction of groundwater. This shall be in addition to, and without prejudice to any non-compliance charges levied or payable.

CHAPTER 7

MONITORING OF GROUNDWATER EXTRACTION

7.1 EXTRACTION METERING

Each Unit shall measure the ground water extracted from each tube well located in its premises on a daily basis. A Log Book for recording the daily volume of groundwater extracted from each tube well shall be maintained in electronic or physical format as required. Electronic or physical reports based on the log book shall be submitted or uploaded as specified in the permission. The Unit shall install a water meter at each of its extraction structures depending on the total groundwater extracted by the Unit as per the following Table:

Table 9: Type of Water Meter Required

Quantum of Ground Water Extracted (m^3/day)		
<10	**10-100**	**>100**
Mechanical Water Meter	Digital Water Meter	Digital water meter with telemetry

In other words, if a Unit has three tube wells and uses 40 cubic metres of groundwater every day, then it shall install a digital water meter at each of the three tube wells irrespective of the fact that a particular tube well my extract less than 10 cubic metres of groundwater per day.

7.2 MEASUREMENT OF GROUNDWATER LEVELS

a. All units extracting ground water exceeding 1000m^3/day are required to monitor the ground water levels through a piezometer. The details of the piezometer shall be as follows:
    i. The Piezometer shall be located at a horizontal distance ranging from 25to 75metres away from any tube well extracting groundwater.
    ii. The diameter of the piezometer should be between 100 and 150 mm.
    iii. The piezometer shall be of the same depth and also tap the same aquifer zones as the pumping tube well.
    iv. The piezometer shall be fitted with a digital water level recorder along with telemetry.
    v. A Display board showing the details of the piezometer shall be installed in the vicinity of the structure.

b.

i. All units drawing water between 50m^3 and 1000m^3/day shall monitor the water level manually in the tube well every Monday at a fixed time after the tube well has not been in operation for at least two hours. The readings are to be recorded in a register specifically maintained for the purpose and communicated periodically to the Authority as per details in the Permission letter.

ii. The water level measurements may be taken through a 25 mm airline (PVC or GI) lowered in the tube well to an appropriate depth. The water levels may be measured either with the help of a graduated steel water-level measuring tape or with an electrical sounder.

7.3 COMPLIANCE OF CONDITIONS OF PERMISSION

All Units shall comply with the provisions and conditions mentioned in the Permission granted and shall submit periodical reports as specified. Any non-compliance, partial compliance or delay in complying with any of the provisions or conditions of Permission shall amount to a violation of directions of the Authority.

7.4 REGISTRATION OF DRILLING RIGS/EQUIPMENT, WATER SUPPLY TANKERS

Registration of the following machinery, equipment and vehicles shall be compulsory:

a. Well drilling rigs with a vehicle registration number in the state of Punjab as well as Rigs entering Punjab state to undertake water well drilling, drilling equipment mounted on a truck/ drawn by a tractor/operated manually through an engine. All rigs/drilling machinery as above shall be equipped with a working GPS system.

b. Tankers used for Water supply with a vehicle registration number in the state of Punjab as well as such vehicles entering Punjab state. All water tanker vehicles shall be equipped with a working GPS system.

7.5 WASTER WATER TREATMENT AND REUSE

All units should obtain consent or clearance from competent authority regarding treatment, discharge and reuse of waste water.

7.6 RAINWATER HARVESTING AND RECHARGE IN PREMISES OF UNITS

All units granted permission shall undertake rainwater harvesting in their premises and may either store the harvested water for their use or use it for artificial recharge in accordance with the approval/consent of the competent authority and/or the local body.

7.7 RAINWATER HARVESTING AND RECHARGE BY MINING PROJECTS AND CONSTRUCTION PROJECTS

All mining projects granted permission shall undertake rainwater harvesting in their premises and artificial recharge of the harvested water as per consent or clearance of the competent authority and the byelaws of the local body. The water abstracted during dewatering due to mining operations and construction of foundations, basements etc. in construction projects shall be gainfully utilised after appropriate treatment for dust suppression, recharge to ground water aquifer, irrigation and/or drinking and domestic use in the project site or nearby areas.

7.8 APPROVED BUILDING PLAN

All units applying for permission shall submit a certified copy of approved building plan showing approved location and structures of the existing or proposed tube well(s). New units that do not have an approved building plan while applying for Ground Water Extraction Permission may submit the draft building plans showing the proposed location of the tube well(s) with an undertaking that the approved plans shall be submitted within 15 days of being approved by the competent authority, and that the tube well(s) shall be located and constructed as per such approval.

7.9 SEALING OF ABANDONED/DEFUNCT STRUCTURES

All units shall ensure proper sealing with cement grouting of the abandoned or defunct tube wells, dug wells or recharge structures within seven days of its abandonment or becoming defunct. The Unit shall submit a report to this effect to the Authority within a further period of seven days of sealing.

CHAPTER 8

WATER AUDIT

8.1 All units will be incentivized to achieve Industry standards of water productivity and efficiency in due course of time.

8.2 All units that have been granted permission to draw more than 100 m^3/day of ground water shall be required to undertake annual Water Audit through auditors to be empanelled by the Authority. The first Water Audit Report will be required to be submitted within six months of completion of one year from the date of grant of permission. Each subsequent Report shall be due similarly within a period of six months of the completion of the year to which it pertains.

8.3 The guiding principles for Water Audit, the process involved in preparing the Water Audit Report and the required contents of the Report are as follows:

a. Guiding Principles.

Water audit is a systematic process of objectively obtaining a water balance by measuring flow of water from the site of water withdrawal or treatment, through the distribution system, and into areas where it is used and finally discharged. Conducting a water audit involves calculating water balance, water use and identifying ways for saving water.

A detailed description of the current and the achievable water balance is an important deliverable of the Water Audit Report. This includes assessing the water quantity and quality requirement at various user areas which are mapped to assist in developing 'recycle' and 'reuse' opportunities.

b. Process.

The water audit process involves a preliminary water survey followed by a detailed water audit. A preliminary water survey is conducted to collect background information regarding the Unit's activities, water consumption, treatment and water discharge pattern and water billing rates. After the analysis of the secondary data collected from the industry or sector, a detailed water audit of the Unit is conducted, which involves the following steps:

- On-site briefing and discussion with facility manager and personnel;

- Water system analysis;
- Quantification of baseline water map;
- Monitoring and measurements using pressure and flow meters and other devices;
- Quantification of inefficiencies and leaks;
- Quantification of water quality loads and discharges;
- Quantification of variability in flows and quality parameters;
- Strategies for improving water use productivity, economising water use, improving water treatment and reuse;

c. Contents of Water Audit Report.

- Water consumption and wastewater generation pattern
- Specific water uses and conservation
- Complete water balance of the facility
- Water saving opportunities
- Comparison of the technology and practices of the Unit with best technology and practices for water use of the industry and recommendations, both short term and long term, for achieving the best standards.
- Methods, costs, benefits and timelines for implementing the recommendations
- Investments in new machinery, equipment or technologies required to achieve recommended industry standards of water efficiency and productivity.
- Full description, data, tables and figures

8.4 The Water Auditor shall obtain the consent or comments of the Water User as regards the contents of the Report and in particular as regards the recommendations contained in the Report and their implementation by the Unit.

ANNEXURE 1

OBJECTIONS REGARDING THE PUNJAB GUIDELINES ON GROUNDWATER EXTRACTION AND CONSERVATION, 2020.

Name: _____

Mobile telephone number: _____

Email address (if available): _____

Postal address: _____

_____

To,

Secretary, Punjab Water Regulation and Development Authority

SCO 149-152, Sector 17 C, Chandigarh 160017.

Email: comments.pwrda@punjab.gov.in

Objections regarding the following Paragraphs of the Punjab Guidelines on Groundwater Extraction and Conservation, 2020. _____.

(Please specify the para numbers)

Sir,

I have deposited a Fee of Rs. 500/-, vide receipt No. _____ Dated __/__/__

Please consider my Objections on the Draft Guidelines, which are enclosed.

SIGNATURE

DATE: NAME

ANNEXURE 2

GROUND WATER RESOURCE ASSESSMENT

The latest assessment of Ground Water Resources of Punjab is available as of 31.3.2017. This Ground water resource assessment was done jointly by the Central Ground Water Board, Ministry of Jal Shakti, Govt of India and Water Resources Department, Govt of Punjab and a joint report of the assessment was issued as the Ground Water Resources of Punjab State, as on 31st March 2017, by Central Ground Water Board, North Western Region, Chandigarh and the Water Resources Department, Government of Punjab in October 2018. The categories in this '2017 Assessment Report' have been considered while fixing Groundwater Charges under these Draft Guidelines

As per this report, the categorisation of assessment units is defined by the Stage of Ground Water Extraction as given below:

Table 10: Stage of Ground Water Extraction

Stage of Ground Water Extraction	**Category**
≤70%	Safe
>70%and ≤90%	Semi-Critical
>90%and ≤100%	Critical
> 100% Over Exploited	Over-Exploited

The Stage of ground water extraction and categorisation of blocks is based only on the Dynamic Ground Water Resources. In other words, this assessment leaves out the Static Ground Water Resource as well as resources of the deeper aquifers.

The abstract of Dynamic Ground Water Assessment for the year 2017 for Punjab is as follows, in Hectare Metres (Ha-M) and in Million Acre Feet (MAF).

Table 11: Dynamic Water Resources of Punjab 2017

Net Annual Ground Water Availability	21,55,496 Ha-M	17.46 MAF
Existing GW Draft for Irrigation	34,56,464 Ha-M	28.00 MAF
Existing GW Draft for Domestic and Industrial Use	1,21,772 Ha-M	0.99 MAF
Existing GW Draft for All Uses	35,78,236 Ha-M	28.99 MAF
Net GW Availability for Future Irrigation		
Development in Safe, Semi-critical, critical and Potential Resources in water logged areas	117,000 Ha-M	0.948 MAF
Average Stage of Groundwater Extraction of State	166%	

The number of blocks in Punjab falling in various categories in the year 2017 is as follows:

Table 12: Number of Blocks in Various Categories

Total Blocks	138
Over-Exploited Blocks	109
Critical Blocks	02
Semi-Critical Blocks	05
Safe Blocks	02

The stage of ground water extraction in Punjab varies from 24% in Dhar Kalan block, Pathankot to 368% in Patran Block, Patiala. In the overexploited category, out of a total of 109 blocks, 65 fall in the range of 103% to 199% whereas 44 fall in the range of 200% to368%.

For the proposes of these Guidelines, whereas the categorisation of the blocks has been considered the same as per the 2017 Assessment Report referred to above, the nomenclature of the category of the blocks has been modified for better management and conservation of groundwater resources as follows:

The 44 blocks that have a stage of ground water extraction exceeding 200% have been designated as "**ORANGE**" because of the higher extent of over-exploitation. These blocks would need most immediate and urgent attention for management and conservation of ground water in a fast track mode.

Blocks having stage of ground water extraction between 100 and 199% have been designated as "**YELLOW**" due to over-exploitation of ground water and need appropriate management and water conservation measures on an urgent basis.

Blocks that have ground water extraction levels below 100% (three categories, Critical, Semi-critical and Safe, clubbed together) have been designated as "**GREEN**" and need appropriate water management measures so that ground water conditions remain sustainable in the long run.

Consequently, the number of assessment areas (Blocks) in each category is as follows.

Table 13: Number of Assessment Areas by Status

Stage of Groundwater Development	**Status**	**Number of Assessment Areas**
0-99%	Green	29
100-199%	Yellow	65
200% and above	Orange	44

Accordingly, the Designated Status of Assessment Areas (Blocks) based on the categorisation contained in the 2017 Assessment Report titled "Ground Water Resources of Punjab State, as on 31st March 2017, Central Ground Water Board, North Western Region, Chandigarh and Water Resources Department, Government of Punjab, October 2018" is as follows.

Table 14: Category and Corresponding Status of Assessment Areas

BLOCK WISE GROUND WATER RESOURCES CATEGORY AND STATUS					
Sl. No	**District**	**Block**	**Stage of Ground Water Extraction (%)**	**Category (2017 Assessment Report)**	**Status**
1	2	3	4	5	6
1	AMRITSAR	AJNALA	178	Over-Exploited	Yellow
2	AMRITSAR	CHOGAWAN	133	Over-Exploited	Yellow
3	AMRITSAR	HARSHA CHINA	124	Over-Exploited	Yellow
4	AMRITSAR	JANDIALA	196	Over-Exploited	Yellow
5	AMRITSAR	MAJITHA	120	Over-Exploited	Yellow
6	AMRITSAR	RAYYA	168	Over-Exploited	Yellow
7	AMRITSAR	TARSIKA	174	Over-Exploited	Yellow
8	AMRITSAR	VERKA	123	Over-Exploited	Yellow
9	BARNALA	BARNALA	255	Over-Exploited	Orange
10	BARNALA	MAHAL KALAN	177	Over-Exploited	Yellow
11	BARNALA	SEHNA	185	Over-Exploited	Yellow
12	BATHINDA	BATHINDA	103	Over-Exploited	Yellow
13	BATHINDA	MAUR	127	Over-Exploited	Yellow
14	BATHINDA	NATHANA	73	Semi-Critical	Green
15	BATHINDA	PHUL	184	Over-Exploited	Yellow
16	BATHINDA	RAMPURA	69	Safe	Green
17	BATHINDA	SANGAT	67	Safe	Green

18	BATHINDA	TALWANDI SABO	65	Safe	Green
19	FARIDKOT	FARIDKOT	169	Over-Exploited	Yellow
20	FARIDKOT	KOTKAPURA	165	Over-Exploited	Yellow
21	FATEHGARH SAHIB	AMLOH	206	Over-Exploited	Orange
22	FATEHGARH SAHIB	BASSI PATHANA	207	Over-Exploited	Orange
23	FATEHGARH SAHIB	KHAMANON	199	Over-Exploited	Yellow
24	FATEHGARH SAHIB	KHERA	210	Over-Exploited	Orange
25	FATEHGARH SAHIB	SIRHIND	213	Over-Exploited	Orange
26	FAZILKA	ABOHAR	38	Safe	Green
27	FAZILKA	FAZILKA	155	Safe	Green
28	FAZILKA	JALALABAD	150	Over-Exploited	Yellow
29	FAZILKA	KHUYIAN SARWAR	56	Safe	Green
30	FEROZEPUR	FEROZEPUR	132	Over-Exploited	Yellow
31	FEROZEPUR	GHALL KHURD	198	Over-Exploited	Yellow
32	FEROZEPUR	GURU HAR SAHAI	117	Over-Exploited	Yellow
33	FEROZEPUR	MAKHU	149	Over-Exploited	Yellow
34	FEROZEPUR	MAMDOT	154	Over-Exploited	Yellow
35	FEROZEPUR	ZIRA	259	Over-Exploited	Orange
36	GURDASPUR	BATALA	171	Over-Exploited	Yellow
37	GURDASPUR	DERA BABA NANAK	151	Over-Exploited	Yellow
38	GURDASPUR	DHARIWAL	130	Over-Exploited	Yellow
39	GURDASPUR	DINA NAGAR	101	Safe	Green
40	GURDASPUR	FATEHGARH CHURIAN	144	Over-Exploited	Yellow
41	GURDASPUR	GURDASPUR	93	Critical	Green
42	GURDASPUR	KAHNUWAN	137	Over-Exploited	Yellow
43	GURDASPUR	KALANAUR	141	Over-Exploited	Yellow
44	GURDASPUR	QADIAN	143	Over-Exploited	Yellow
45	GURDASPUR	SRI HARGOBINDPUR	129	Over-Exploited	Yellow
46	HOSHIARPUR	BHUNGA	70	Safe	Green

47	HOSHIARPUR	DASUYA	123	Over-Exploited	Yellow
48	HOSHIARPUR	GARH SHANKAR	131	Over-Exploited	Yellow
49	HOSHIARPUR	HAZIPUR	69	Safe	Green
50	HOSHIARPUR	HOSHIARPUR-1	147	Over-Exploited	Yellow
51	HOSHIARPUR	HOSHIARPUR-II	68	Safe	Green
52	HOSHIARPUR	MAHILPUR	70	Safe	Green
53	HOSHIARPUR	MUKERIAN	86	Semi-Critical	Green
54	HOSHIARPUR	TALWARA	81	Semi-Critical	Green
55	HOSHIARPUR	TANDA	183	Over-Exploited	Yellow
56	JALANDHAR	ADAMPUR	190	Over-Exploited	Yellow
57	JALANDHAR	BHOGPUR	279	Over-Exploited	Orange
58	JALANDHAR	JALANDHAR-EAST	316	Over-Exploited	Orange
59	JALANDHAR	JALANDHAR-WEST	213	Over-Exploited	Orange
60	JALANDHAR	LOHIAN	266	Over-Exploited	Orange
61	JALANDHAR	NAKODAR	277	Over-Exploited	Orange
62	JALANDHAR	NUR MAHAL	218	Over-Exploited	Orange
63	JALANDHAR	PHILLAUR	206	Over-Exploited	Orange
64	JALANDHAR	RURKA KALAN	211	Over-Exploited	Orange
65	JALANDHAR	SHAHKOT	266	Over-Exploited	Orange
66	KAPURTHALA	DHILWAN	217	Over-Exploited	Orange
67	KAPURTHALA	KAPURTHALA	201	Over-Exploited	Orange
68	KAPURTHALA	NADALA	198	Over-Exploited	Yellow
69	KAPURTHALA	PHAGWARA	281	Over-Exploited	Orange
70	KAPURTHALA	SULTANPUR LODHI	223	Over-Exploited	Orange
71	LUDHIANA	DEHLON	208	Over-Exploited	Orange
72	LUDHIANA	DORAHA	121	Over-Exploited	Yellow
73	LUDHIANA	JAGRAON	156	Over-Exploited	Yellow
74	LUDHIANA	KHANNA	251	Over-Exploited	Orange
75	LUDHIANA	LUDHIANA	275	Over-Exploited	Orange

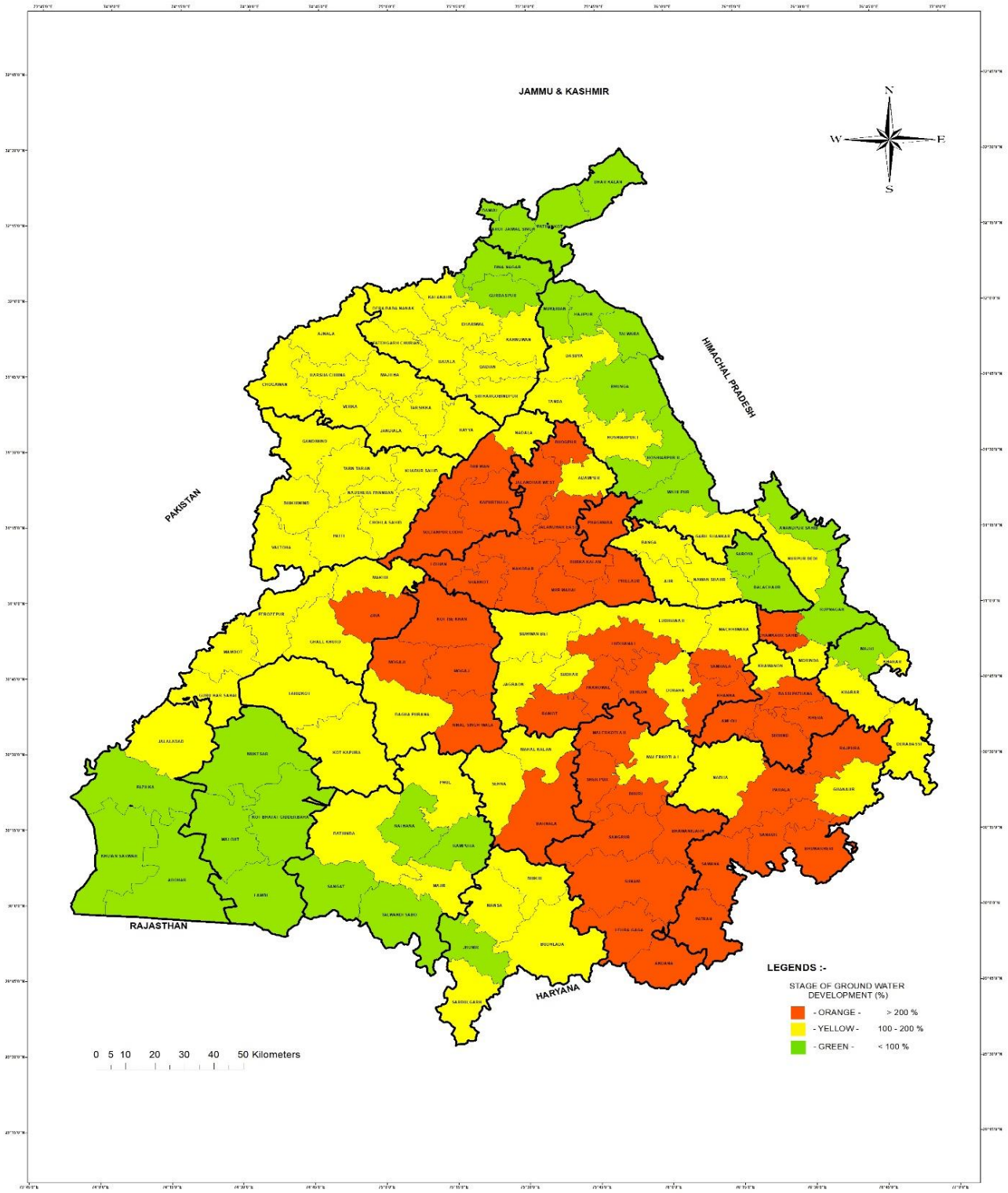
76	LUDHIANA	MACHHIWARA	119	Over-Exploited	Yellow
77	LUDHIANA	MANGAT	174	Over-Exploited	Yellow
78	LUDHIANA	PAKHOWAL	210	Over-Exploited	Orange
79	LUDHIANA	RAIKOT	256	Over-Exploited	Orange
80	LUDHIANA	SAMRALA	225	Over-Exploited	Orange
81	LUDHIANA	SIDHWAN BET	185	Over-Exploited	Yellow
82	LUDHIANA	SUDHAR	163	Over-Exploited	Yellow
83	MANSA	BHIKHI	125	Over-Exploited	Yellow
84	MANSA	BUDHLADA	188	Over-Exploited	Yellow
85	MANSA	JHUNIR	99	Critical	Green
86	MANSA	MANSA	123	Over-Exploited	Yellow
87	MANSA	SARDULGARH	193	Over-Exploited	Yellow
88	MOGA	BAGHA PURANA	178	Over-Exploited	Yellow
89	MOGA	DHARAMKOT (KOT ISE KHAN)	211	Over-Exploited	Orange
90	MOGA	MOGA I	283	Over-Exploited	Orange
91	MOGA	MOGA II	286	Over-Exploited	Orange
92	MOGA	NIHAL SINGH WALA	277	Over-Exploited	Orange
93	MOHALI	DERABASSI	147	Over-Exploited	Yellow
94	MOHALI	KHARAR	119	Over-Exploited	Yellow
95	MOHALI	SIALBA MAJRI	58	Safe	Green
96	MUKTSAR	GIDDERBAHA (KOT BHAI)	105	Safe	Green
97	MUKTSAR	LAMBI	45	Safe	Green
98	MUKTSAR	MALOUT	64	Safe	Green
99	MUKTSAR	MUKTSAR	85	Safe	Green
100	NAWANSHAHAR	AUR	177	Over-Exploited	Yellow
101	NAWANSHAHAR	BALACHAUR	63	Safe	Green
102	NAWANSHAHAR	BANGA	150	Over-Exploited	Yellow
103	NAWANSHAHAR	NAWANSHAHR	108	Over-Exploited	Yellow
104	NAWANSHAHAR	SAROYA	66	Safe	Green

105	PATHANKOT	BAMYAL	105	Safe	Green
106	PATHANKOT	DHAR KALAN	24	Safe	Green
107	PATHANKOT	NAROT JAIMAL SINGH	34	Safe	Green
108	PATHANKOT	PATHANKOT	81	Semi-Critical	Green
109	PATIALA	BHUNERHERI	231	Over-Exploited	Orange
110	PATIALA	GHANAUR	160	Over-Exploited	Yellow
111	PATIALA	NABHA	160	Over-Exploited	Yellow
112	PATIALA	PATIALA	228	Over-Exploited	Orange
113	PATIALA	PATRAN	368	Over-Exploited	Orange
114	PATIALA	RAJPURA	211	Over-Exploited	Orange
115	PATIALA	SAMANA	248	Over-Exploited	Orange
116	PATIALA	SANAUR	250	Over-Exploited	Orange
117	ROPAR	ANANDPUR SAHIB	80	Semi-Critical	Green
118	ROPAR	CHAMKAUR SAHIB	212	Over-Exploited	Orange
119	ROPAR	MORINDA	178	Over-Exploited	Yellow
120	ROPAR	NURPUR BEDI	109	Over-Exploited	Yellow
121	ROPAR	ROPAR	47	Safe	Green
122	SANGRUR	AHMEDGARH	275	Over-Exploited	Orange
123	SANGRUR	ANDANA	271	Over-Exploited	Orange
124	SANGRUR	BHAWANIGARH	251	Over-Exploited	Orange
125	SANGRUR	DHURI	320	Over-Exploited	Orange
126	SANGRUR	LEHRA GAGA	222	Over-Exploited	Orange
127	SANGRUR	MALER KOTLA	198	Over-Exploited	Yellow
128	SANGRUR	SANGRUR	285	Over-Exploited	Orange
129	SANGRUR	SHERPUR	254	Over-Exploited	Orange
130	SANGRUR	SUNAM	299	Over-Exploited	Orange
131	TARN TARAN	BHIKHIWIND	139	Over-Exploited	Yellow
132	TARN TARAN	CHOLA SAHIB	141	Over-Exploited	Yellow
133	TARN TARAN	GANDIWIND	134	Over-Exploited	Yellow

134	TARN TARAN	KHADUR SAHIB	164	Over-Exploited	Yellow
135	TARN TARAN	NAUSHEHRA PANUAN	177	Over-Exploited	Yellow
136	TARN TARAN	PATTI	177	Over-Exploited	Yellow
137	TARN TARAN	TARN TARAN	147	Over-Exploited	Yellow
138	TARN TARAN	VALTOHA	163	Over-Exploited	Yellow

Note: A Map of Punjab showing the 138 Assessment Units (Blocks) with their Designated Groundwater Status (Green, Yellow or Orange) based on the Government's Assessment Report of 2017 is displayed on the following page.

MAP OF PUNJAB
STATUS OF BLOCKS 2017



ANNEXURE 3

GROUNDWATER CHARGES

The following excerpts of these Draft Guidelines relate to 'Charges for Extraction of Groundwater' that require the approval of the Government under Section 17(5) of the Act.

From CHAPTER 1: BACKGROUND AND DEFINITIONS

1.6 GROUNDWATER CHARGES

These Draft Guidelines pertain to usage of groundwater for purposes other than agriculture, drinking and domestic use. In other words, these Draft Guidelines cover the commercial and industrial use of groundwater, including institutions, construction and infrastructure projects.

No person shall be permitted to extract groundwater for commercial or industrial use without obtaining permission from the Authority. Permission will be granted subject to payment of Groundwater Charges and fulfilling of specified conditions.

These Draft Guidelines contain the Charges to be levied on a volumetric basis for the extraction of groundwater for commercial and industrial use (hereafter Groundwater Charges). The Government's approval has been sought for such volumetric Groundwater Charges in terms of Section 17(5) of the Act. Whereas, comments have been sought on these Draft Guidelines in their entirety including the Groundwater Charges contained herein; it is clarified that these Groundwater Charges shall be levied only in accordance with the approval of Government under section 17(5) of the Act.

1.8 COVID EPIDEMIC

The Covid 19 epidemic has caused considerable hardship to the economy of the state, hence, it is considered appropriate that all Groundwater Charges in these Guidelines be reduced by 20% till March 31st, 2021.

1.9 DEFINITIONS

The words and phrases used in these Guidelines that have been defined in the Act or in the Regulations of the Authority shall have the same meaning as defined therein. In addition:

…

c) 'Groundwater Charges' shall mean all such charges as are fixed or charged by the Authority with the approval of the Government under Section 17(5) of the Act that relate to any activity connected with the extraction of groundwater or incidental thereto. Such charges, known by any nomenclature, shall include but shall not be limited to the following:
    i. Groundwater Extraction Charges for permitted extraction of Groundwater;
    ii. Groundwater Conveyance Charges for the conveyance or transportation of groundwater from its source to any place for storage, consumption or usage through any means including channels, aqueducts, pipelines or vehicles (tankers);
    iii. Groundwater Exploration or Sourcing Charges for any activities related to the development of new sources of groundwater, or the augmentation and renovation thereof~~,~~
    iv. Groundwater Compensation Charges for extraction or conveyance of Groundwater without valid permission or in excess of permitted quantity;
    v. Various fees including Registration fees, Application fees etc. for any purpose related to groundwater extraction, or conveyance including any permission, intimation, return or registration;
    vi. Non-Compliance Charges for violations and defaults etc.; and
    vii. Conservation Credits for specified water conservation activities undertaken by Water Users in relation to groundwater extraction.

From CHAPTER 3: CHARGES FOR GROUNDWATER EXTRACTION

3.2 SCHEDULE OF CHARGES

Each Water User shall be permitted to extract groundwater upon payment of the following charges and upon fulfilment of conditions imposed in the permission granted by the Authority, including commitments and liabilities to conserve groundwater.

Table 1: Groundwater Extraction Charges (Gross)

S.no	Category of Area*	Quantity Used		
		<10 m3/day	10-100 m3/day	>100 m3/day
		Charges in Rupees/ m3		
1	Orange	8	18	22
2	Yellow	6	14	18
3	Green	4	10	14
* Details are in Annexure 2 and apply to the entire document.				

Explanation: Slab Rates for Groundwater extraction.

Groundwater charges shall be volumetric and shall be based on actual consumption. The initial quantity (up to 10 cubic metres per day) shall be charged at the lowest applicable rate in the Schedule of Charges above and additional quantities extracted during the billing period (month) shall be charged at the higher rates given in the said Schedule.

The water conservation target as a percentage of the groundwater consumed by each unit shall be as follows:

Table 2 : Water Conservation Targets

Area	Quantity of Groundwater Consumed		
	<10 m3/day	10-100 m3/day	>100 m3/day
Orange	200%	300%	400%
Yellow	150%	200%	300%
Green	100%	150%	200%

Accordingly, the Credit for water conservation shall be allowed at a rate of Rs 2.00 per cubic metre of water saved by the unit, subject to the upper limit of

the target specified in the Table above. In case the quantity of water actually saved can only be measured at the end of the season or the year, the Unit shall be provided the credit only after the measurement or assessment of the quantity of water conserved has been completed.

The table below shows the water conservation credits that shall be available to a Unit in a particular zone if it achieves the target for water conservation in that zone:

Table 3: Water Conservation Credits

S.no	Category of Area*	Quantity Used		
		<10 m3/day	10-100 m3/day	>100 m3/day
		Credits in Rupees/ m3		
1	Orange	4	6	8
2	Yellow	3	4	6
3	Green	2	3	4

Accordingly, if a Unit in a Green Block which consumes less than 10 cubic metres per day achieves its targets of water conservation (100%) then it shall receive the credit of Rs. 2.00 for every cubic metre of water consumed. Therefore, its net groundwater charge shall be 4-2=2.

Similarly, if a Unit in an Orange Block which consumes more than 100 cubic metres per day achieves its water conservation target (400%) then for the quantity of water above 100cum/day the net charge shall be 22-8=14.

Water conservation measures implemented off-site by Units shall be inspected and assessed by the Public Agency designated by the Authority or the Government.

3.8 CHARGES FOR GROUND WATER CONVEYANCE THROUGH WATER TANKERS

The following Groundwater Conveyance Charges shall be paid by a water tanker conveying, supplying or delivering groundwater for any purpose. These charges shall be irrespective of the groundwater charges, if any, payable by the owner or operator of the water extraction structure. However, no groundwater conveyance charge shall be paid by a water tanker for supply of drinking water in pockets with brackish or saline groundwater at all depths.

Table 5: Ground Water Conveyance Charges

S.no	Area	Charges in Rs./cum
1	Orange Area	22
2	Yellow Area	18
3	Green Area	14
The rates shall apply as per the location of the abstraction structure		

Explanation: The groundwater conveyance charges shall be paid by the owner or operator of the registered water tanker vehicle in advance every month. The monthly advance charges shall be paid on a self-assessed basis by the 10th day of the month. The monthly advance payment shall be matched with the actual conveyance by the water tanker recorded by GPS coordinate data, based on the assumption that the water tanker carries its full capacity for each trip. The balance amount calculated as per the actual conveyance shall be paid or credited, as the case may be, with the next monthly payment, or within 60 days, whichever is earlier.

3.10 EXTRACTION OF SALINE GROUND WATER

Abstraction of brackish/saline ground water in a pocket with brackish/saline ground water at all depths may be permitted at 25% of the applicable groundwater extraction charges. The unit shall submit a hydrogeological report detailing the contours of the brackish/saline aquifer and its potential, and an assessment of the risk of mixing of good quality water due to extraction of brackish/saline water. The Unit shall also submit a copy of its environmental clearance as may be applicable.

The boundaries of such pockets in each assessment unit which have brackish/saline ground water at all depths shall be identified as per the latest assessment of dynamic ground water resources finalised by the Government.

In case the Unit does not require environmental clearance, the Authority may impose conditions in respect of disposal, treatment and reuse of waste water and effluents so as to protect water resources including water bodies, water channels, surface water and groundwater.

From CHAPTER 4: APPLICATION FEES

4.1 FEES FOR VARIOUS APPLICATIONS:

Fees are required to be paid along with the application as mentioned below:

Table 6: Fees for Various Applications

S No.	**Nature of Application**	**Groundwater Extraction Volume**			
		<10 m^3/day	**10-100 m^3/day**	**100-1000 m^3/day**	**> 1000 m^3/day**
			Fees in Rs.		
1	Fresh Permission & Renewal	2,000	5,000	20,000	1,00,000
2	Change in User ID	1,000	2,000	5,000	10,000
3	Change in Name	1,000	2,000	5,000	10,000
4	Extension of Permission	1,000	2,000	5,000	10,000
5	Duplicate Permission	1,000	2,000	5,000	10,000
6	Corrigendum to Permission	1,000	2,000	5,000	10,000
7	Alteration or Correction	1,000	2,000	5,000	10,000
8	Cancellation or Amalgamation of Permission	1,000	2,000	5,000	10,000
9	Registration of Drilling Rig	25,000			
10	Registration of Water Tanker	10,000			
11	Registration of Extraction Structure or Tube Well	1,000	2,000	10,000	25,000
12	Comments and Objections, pertaining to the draft Guidelines	500			

Explanation: A Drilling Rig or Water Tanker may apply for any of the services listed at serial numbers 2 to 8 in the Table above with reference to the Rig or Tanker and shall pay the fees specified for a volume of groundwater extracted between 10 to 100 cubic metres per day for each such Rig or Tanker.

From CHAPTER 6: GROUNDWATER COMPENSATION AND OTHER CHARGES FOR NON-COMPLIANCE

6.1 GROUNDWATER COMPENSATION CHARGES

Any Water User who is required to obtain Ground Water Extraction Permission as per directions or orders of the Authority under the provisions of the Act and extracts ground water without valid permission shall be liable to pay enhanced Groundwater charges to be known as Groundwater Compensation Charges (GCC)for the quantum of ground water so extracted. The Groundwater Compensation Charges levied for such unauthorised extraction of groundwater shall be calculated as per the following equation:

GCC = Ground water extraction per day x Groundwater **Compensation Rate (GCR) x No. of days that Unit operates without valid permission of the Authority;**

where ground water extraction is in m^3/day and GCR is in Rs./ m^3

Groundwater Compensation Rates for Unauthorized extraction, in Rupees per cubic metre are as follows.

Table 7: Groundwater Compensation Rates

S No	Category of area	< 10 m^3/day	10 -100 m^3/day	> 100 m^3/day
1	Orange	16	36	44
2	Yellow	12	28	36
3	Green	8	20	28

6.3 NON-COMPLIANCE CHARGES

Non-compliance charges for certain violations and defaults described below are as follows:

Table 8: Non-compliance charges

S. No.	Items	Charges in Rs.	
		Units using <100 m^3/day	Units using >100 m^3/day
1	Non-installation of appropriate Water Meter, or faulty Water Meter	Not applicable	200,000
2	Non-disclosure or unauthorised construction of groundwater abstraction or injection structures 7.1 Each functional Structure 7.2 Each Defunct/Abandoned Structure	50,000 25,000	200,000 100,000
3	Non-Construction or Inadequate capacity of Recharge / Water conservation structures/measures	100,000	500,000
4	Non-maintenance of Recharge structures/ Water conservation structures/measures	20,000	100,000
5	Unauthorised Injection of water into the ground. Note: Water user shall be separately responsible for aquifer remediation as required by the competent authority	500,000	2,000,000
6	Non-maintenance of log book or non-submission of groundwater abstraction data in time. Other violations pertaining to documentation and reporting.	10,000	50,000
7	Non-Submission of Water Audit Report in time	25,000	100,000
8	Construction or excavation of groundwater abstraction structure by unauthorized or unregistered Drilling Rig (per structure).	50,000	200,000
9	Non-registration of each water supply tanker	50,000	
10	Non-registration of each well drilling rig	200,000	
11	Rig registered but without working GPS	10,000	
12	Water tanker registered but without working GPS	5,000	
13	Submission of false information or undertaking or failure to comply with undertaking in time	25,000	100,000

14	Non-payment of any Charges, Fees, Levy Environmental Charges or Compensation etc. on the due date; for every month, or part thereof, of delay (to be compounded annually).	1.5% of the overdue amount	1.5% of the overdue amount

Explanation 1: In case an act or omission by a Water User amounts to violation of more than one of the conditions of permission or directions of the Authority then each of the Non-compliance charges applicable shall be levied and the Water User shall be liable to pay the total amounts of all such charges.

Explanation 2: These charges are without prejudice to any civil or criminal proceedings that the Authority may initiate in accordance with the provisions of the Act and the Regulations framed thereunder.

Explanation 3: In case the Water User consumes any groundwater that is not metered or is improperly or incorrectly measured during any period of time due to an act or omission on the part of the User, then such consumption shall be treated as unauthorised and the User shall pay groundwater compensation charges for the assessed quantity of such unauthorised extraction of groundwater. This shall be in addition to, and without prejudice to any non-compliance charges levied or payable.

Note: The Authority may from time to time amend the table of Non-compliance charges to reflect any changes in its directions, conditions of permission, or otherwise. The rates of non-compliance charges may also be revised from time to time.