

129



Government of Jammu and Kashmir,
Forest, Ecology & Environment Department
Civil Secretariat, Jammu/Srinagar

Consultant (Judicial),
Hon'ble National Green Tribunal,
Principal Bench, New Delhi.

No.FST-Lit/104/2024(7423976)

Dated:21.05.2024

Subject:- O.A No. 239/2024 In News item titled "**What Challenges Are Kashmiri Wetlands Facing?**" appearing in Kashmir Life dated 02.02.2024.

Sir,

With reference to the subject captioned above, and as per orders dated 13.03.2024 passed by the Hon'ble National Green Tribunal, I am directed to enclose herewith a copy of Action Taken Report and to request you that the said position may kindly be placed before the Hon'ble National Green Tribunal for its kind consideration.

Yours faithfully,

(Vivek Modi), SFS
Special Secretary (Technical)
Forest, Ecology & Environment Deptt.

Encls:As above.

Copy (**along with enclosures**) to:-

1. Shri Parth Awasthi, Additional Standing Counsel for Government of J&K in Hon'ble National Green Tribunal, Principal Bench, New Delhi with the request to ensure that the above ATR is filed before the Hon'ble Tribunal well before the next date of hearing.

Action Taken Report in compliance to Hon'ble National Green Tribunal Order dated 13.03.2024, in the O.A No.239/2024 in News item titled "What Challenges Are Kashmiri Wetlands Facing?" appearing in Kashmir Life dated 02.02.2024.

In compliance to the directions passed by the Hon'ble National Green Tribunal in the matter of O.A No.239/2024 in News item titled "What Challenges Are Kashmiri Wetlands Facing?" appearing in Kashmir Life dated 02.02.2024, it is humbly submitted as follows:

- I) That the Deputy Registrar, Hon'ble National Green Tribunal, Principal Bench, New Delhi, vide Notice dated 29-02-2024, addressed to J&K Pollution Control Board through its Member Secretary and J&K Wetland Authority, through Secretary, Forest, Ecology & Environment Department intimated that "OA No. 239/2024 Titled "What Challenges Are Kashmiri Wetlands Facing?" will be listed before the Hon'ble Tribunal at Faridkot House, Copernicus Marg, New Delhi-110001 on 13th March, 2024 through Physical Hearing (With Hybrid Option), and directed to appear before the Hon'ble Tribunal either in person or by a pleader duly instructed, with report.
- II) That, accordingly, vide letter No.FST-Lit/104/2024(7423976) dated 06-03-2024, a copy of above notice along with enclosures were forwarded to Member Secretary, J&K Pollution Control Committee and Director, Ecology, Environment & Remote Sensing, J&K with the request to take necessary action in the matter and attend hearing on the scheduled date and time (copy attached as **Annexure-I**).
- III) That, the Hon'ble National Green Tribunal was pleased to pass the following directions *vide* its Order dated 13.03.2024:

"1 This OA is registered suo motu on the basis of the news item titled "What Challenges Are Kashmiri Wetlands Facing?" appearing in Kashmir Life dated 02.02.2024.

2. The news item raises the issue of deteriorating condition of wetlands in India especially in Kashmir. As per the article in the Kashmir Valley alone, wetlands occupy an area of nearly 42,661 hectares comprising of 755 small and large water bodies. The news item discloses that unchecked deposition of millions of tons of sediments annually has led to shallowing of wetlands, elevated temperatures, increased Biochemical Oxygen Demand (BOD) and pH levels. The news item further states that illegal encroachment, cultivation activities and waste discharge have aggravated the situation. It has been disclosed that the Dal Lake is facing

the problem of discharge of municipal waste and pollution from local and external sources and similar is the situation of Wular Lake, Manasbal Lake, HaigamRakh, Hokersar, Anchar and Shalbug and these water bodies are grappling with issues like sedimentation, land use and land cover (LULC) changes, infrastructural impediments, haphazard planning and vested interests from various segments of society, including development authorities like LAWDA and WUMDA. The news item reflects the need for effective management of wetlands and water bodies and swift and tangible measures to ensure their sustainability.

3. *The news item raises substantial issue relating to compliance of the environmental norms, implementation of the provisions of the Wetland (Conservation and Management) Rules, 2017 and Environment (Protection) Act, 1986.*

4. *Power of the Tribunal to take up the matter suo-motu has been recognized by the Hon'ble Supreme Court in the matter of "Municipal Corporation of Greater Mumbai vs. Ankita Sinha &Ors." reported in 2021 SCC Online SC 897.*

5. *Hence, we implead the following as respondents in the matter:*

- i. Jammu & Kashmir Pollution Control Committee through its Member Secretary.*
- ii. Jammu & Kashmir Wetland Authority through its Secretary.*
- iii. Secretary, Forest, Ecology & Environment Department, Jammu & Kashmir.*
- iv. Member Secretary, Central Pollution Control Board.*
- v. Regional Officer, Ministry of Environment, Forest and Climate Change, Chandigarh.*

6. *Let notice be issued to the above Respondent for filing their response at least one week before the next date of hearing.*

7. *On advance notice, report on behalf of Jammu & Kashmir Pollution Control Committee (J&KPCC) has been filed stating that the monitoring of nine (9) wetlands i.e. Hokarsar, Mirgund, Manibugh, Freshkooori, Chattram, Kranchoo, Shallbugh, Hygam and Manasbal was done and on the basis of the monitoring report, they have been identified as 'B', 'C' and 'D' as per the designated best use of water quality criteria prescribed by CPCB. The Annexure A to the report discloses the classification of water bodies on the basis of the annual average as under:*

“Classification of various Wetlands of Kashmir Division on the basis of Annual Average:

Name of the wetland	Location	2021	2022	2023	2024
HOKARSAR	Inlet	Class B except DO	Class B except BOD	Class B except BOD	Class B except BOD
	Center	Class B except DO	C	C	Class B except BOD
	Outlet	Class B except BOD	B	B	B
MIRGUND	Inlet	-	B	Class B except BOD	B
	Center	C	B	C	B
	Outlet	Class B except BOD	Class B except BOD	B	B
MANIBUGH	Inlet	-	Class B except BOD		Class B except BOD
	Center	C	Class B except BOD	C	Class B except BOD
	Outlet	-	C	D	
FRESHKOORI	Inlet	-	D	Polluted	Polluted
	Center	Polluted	Polluted	Polluted	Polluted
	Outlet	-	Polluted	Polluted	Polluted
CHATTLAM	Inlet	B	Class B except BOD	Class 13 except BOD	B
	Center	Class B except BOD	Class B except BOD	Class B except BOD	Class B except BOD
	Outlet	Class B except BOD	B	Class B except BOD	B
KRANCHOO	Inlet	Class B except DO	C	C	
	Center	C	D	C	-
	Outlet	C	C	C	D
SHALLBUGH	Inlet	C	C	D	Class B except BOD
	Center	C	C	C	B
	Outlet	-	C	C	B
HYGAM	Inlet	Class B except BOD	C	B	B
	Center	B	C	B	B
	Outlet	-	B	B	B
MANASBAL	Inlet	B	B	B	B
	Center	B	B	B	B
	Outlet	B	B	B	B

8. The above table, however, does not disclose the physicochemical and biological including bacteriological data in terms of numeric values which may be needed for proper assessment of water bodies.

9. Though the report was filed by the J&K PCC, but no one is present on their behalf.

10. Hence, the report as directed above be filed by all the concerned authorities at least one week before the next date of hearing by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

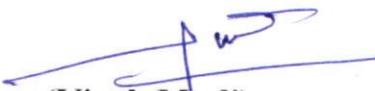
11. List on 22.05.2024.”

- IV) That, in compliance to the above directions of Hon’ble National Green Tribunal, a copy of notice received from the Consultant (Judicial), NGT along with order dated 13.03.2024 were forwarded to the Member Secretary, J&K Pollution Control Committee vide letter No.FST-Lit/104/2024-02(7423976) dated 19-04-2024 with the request to take appropriate necessary action in the matter on most immediate basis and furnish Action Taken Report (copy attached as **Annexure-II**).
- V) The J&K Pollution Control Committee, *vide* their communication No.JKPCC/SC/OA239/2024/3155 dated 29-04-2024, has submitted that information with respect to classification of various wetlands of Kashmir Division on the basis of Annual average as per the designated best use of water quality criteria prescribed by CPCB stands submitted to Hon’ble National Green Tribunal vide No.JKPCC/NGT/152/521-522 dated 12-03-2024. It has been further submitted that the Numerical data with respect to physico-chemical & Biological parameters for Kashmir wetlands is available with J&K Pollution Control Committee, and same will also be submitted to the Hon’ble National Green Tribunal before next date of hearing (copy attached as **Annexure-III**).
- VI) Further, Member Secretary, J&K Pollution Control Committee vide another reference No.JKPCC/Sc./OA-239/2024/832 dated 17-05-2024 in continuation to communication No.JKPCC/SC/OA-239/2024/3155 dated 29-04-2024 has enclosed the requisite information with respect to classification of various wetlands of Kashmir Division on the basis of Annual Average as per the designated best use of water quality criteria prescribed by CPCB and Numerical data for water quality (copy attached as **Annexure-IV**).
- VII) Vide letter No.FST-Lit/104/2024(7423976) dated 18-05-2024, it has been requested to PCCF (Wildlife)/Chief Wildlife Warden, J&K and APCCF/Chief Executive Director, Wular Conservation & Management Authority (WUCMA), Kashmir to furnish reply/response in the instant matter (copy attached as **Annexure-V**).
- VIII) In reply, Project Coordinator, CAT, WUCMA vide reference No.PC/CAT/WUCMA/24/270-72 dated 20-05-2024 (copy attached as **Annexure-VI**) has furnished the reply/response in the matter addressing

thereof, the concerns raised in the Order of this Hon'ble Tribunal dated 13.03.2024 like encroachment, sedimentation, water quality monitoring etc. with respect to the Wular Lake. In the said report, substantial efforts made by the WUCMA regarding the eviction of encroachment around the wetland; catchment area treatment by way of massive plantation, Dry Rubble Stone Masonry (DRSM) works, Crates etc.; and regular monthly water quality monitoring of the wetland by checking on 17 parameters, the samples taken from 11 sample points is also being done. In fact, the report mentions that as per the Wetlands Health Card prepared based on the parameters fixed by the MoEF&CC, the Wetland score of Wular has improved from "B" during the year 2021 to "A" during the year 2023. As such, it has been submitted in the report that the Wular Conservation & Management Authority (WUCMA), Kashmir has been constantly endeavoring to implement the Wular Eco-restoration plan in a scientific and rational way.

- IX)** Similarly, Regional Wildlife Warden, Kashmir Region, Srinagar vide reference No.RWLW/K/2024-25/106-08 dated 20-05-2024 (copy attached as **Annexure-VII**) also submitted the response furnished by the Wildlife Warden, Wetlands Division, Kashmir in the instant matter with regards to the concerns enlisted in the Order of this Hon'ble Tribunal dated 13.03.2024. A detailed report/response has been submitted by the Department of Wildlife Protection with respect to the eight wetlands of Kashmir including wetlands like Hokersar, Hygam, Shallabugh, Frashkooori, Chattalum, Manibugh, Kranchoo, Mirgund. The report discusses the efforts being made by the department of Wildlife Protection in eviction of encroachment from the periphery of these wetlands; solid waste management; checking siltation/sedimentation by way of a four-pronged strategy in close co-ordination with the other Departments like Irrigation and Flood Control, PWD (R&B) etc.; habitat management & improvement. Besides, the report also provides an insight into the five-year Integrated Management Action Plan (2022-27) being implemented for the conservation and improvement of these eight wetlands by the Department of Wildlife Protection.

This consolidated Action Taken Report report is, accordingly, being placed before the Hon'ble National Green Tribunal for its kind consideration.


(Vivek Modi)
Special Secretary (Technical),
Forest Ecology & Environment Department

135



Government of Jammu and Kashmir
Forest, Ecology & Environment Department
Civil Secretariat, Jammu/Srinagar

Annexure 'I'

Member Secretary,
Pollution Control Committee,
J&K.

Director,
Ecology, Environment & Remote Sensing,
J&K.

FST-Lit/104/2024(7423976)

Dated:06-03-2024

Subject: Notice of hearing in Suo Motu matter In re: News item appearing in Kashmir Life dated: 02.02.2024 entitled "What Challenges Are Kashmiri Wetlands Facing?".

Sir,

I am directed to forward herewith a Notice dated 29-02-2024 alongwith its enclosures received from Deputy Registrar, Hon'ble National Green Tribunal, on the above captioned subject and request you to kindly take necessary action in the matter and attend hearing on the scheduled date and time.

Yours faithfully,

(Abid Khan) 6/3/2024

Under Secretary to the Government

Encls:A/A.

Government of Jammu & Kashmir
Forest Ecology & Environment Department,
Civil Secretariat, Srinagar/Jammu.

MATTER MOST URGENT

Member Secretary,
J&K Pollution Control Committee.

No: FST-Lit/104/2024-02(7423976)

Dated: 19.04.2024.

Subject:- In re: News item titled "What Challenges Are Kashmir Wetland Facing?" appearing in Kashmir Life dated 02.02.2024.

Sir,

With reference to the subject captioned above, I am directed to forward herewith a copy notice received from the consultant (Judicial) NGT along with order dated 13.03.2024 passed in the afore-cited matter and to request you to take appropriate necessary action in the matter on most immediate basis and furnish Action Taken Report to this department, **by or before 23.04.2024 positively.**

Yours faithfully,


(Abid Khan) 19/04/2024

Under Secretary to the Government

Encl: As above.

137
Jammu and Kashmir Pollution Control Committee

Parivesh Bhavan, Forest Complex || Silk Factory Road
Transport Nagar, Jammu, 180 006 || Rajbagh, Srinagar, 190 008
Tel - 0191-2476927; mail - membersecretaryjkspcb@gmail.com

Annexure 'III'

Financial Commissioner (Additional Chief Secretary)
Department of Forest, Ecology and Environment,
Civil Secretariat,
Jammu/Srinagar

No. JKPCC/SC/OA239/2024/3155

Dt. 29-04-2024.

**Sub: - In re: News Items appearing in Kashmir Life dated 02-02-2024 entitled
"What Challenges are Kashmiri Wetlands Facing".**

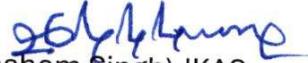
Sir,

Kindly refer to your office letter No. FST-Lit/104/2024-02(7423976) dt. 24-04-2024, on the above captioned subject. In this connection, I am directed to submit that information with respect to classification of various wetlands of Kashmir Division on the basis of Annual average as per the designated best use of water quality criteria prescribed by CPCB stands submitted to Hon'ble NGT vide No. JKPCC/NGT/152/521-522 dt. 12-03-2024(copy enclosed).

It is further submitted that the Numerical data with respect to physico-chemical & Biological parameters for Kashmir wetlands is available with J&K PCC, and same will also be submitted to the Hon'ble NGT (PB) New Delhi before next date of hearing in this case scheduled on 22nd May 2024.

Yours faithfully,

Encl: (As above).


(Ghansham Singh) JKAS
Member Secretary 29.4.24
J&K PCC Jammu

Jammu and Kashmir Pollution Control Committee

Parivesh Bhavan, Forest Complex || Silk Factory Road
Transport Nagar, Jammu, 180 006 || Rajbagh, Srinagar, 190 008

Tel - 0191-2476927; mail - membersecretaryjkspcb@gmail.com

The Consultant (Judicial)
Hon'ble National Green Tribunal (P.B)
New Delhi.

No. JKPC/NGT/152/S21-S22

Dt. 12-03-2024.

Sub: - Notice of hearing in Suo Motu matter in re: News Items appearing in Kashmir Life dated 02-02-2024 entitled "What Challenges are Kashmiri Wetlands Facing".

Ref.: Hon'ble National Green Tribunal email dated **29-02-2024**.

Sir,

In compliance to **Hon'ble National Green Tribunal Notice of hearing in Suo Motu matter in re: News Items appearing in Kashmir Life dated 02-02-2024 entitled "What Challenges are Kashmiri Wetlands Facing"**, kindly find enclosed the Status Report of J&K Pollution Control Committee.

It is requested that the Status Report may kindly be taken on record and place before the Hon'ble NGT for consideration.

Yours faithfully,

Encl: (As above).

J.N. Sharma
12/3/24

(J.N. Sharma)

Environmental Engineer

Copy to the: -

1. Sh. G.M. Kawoosa, Additional Standing Counsel for J&K Govt. in Hon'ble NGT matters in New Delhi, for information and necessary action. This is in reference to Govt. of J&K Order No. 8495-JK(LD) of 2022 Dated 12-10-2022.

**Before the Hon'ble National Green Tribunal
Principal Bench, New Delhi**

Original Application No. **239 of 2024**

IN THE MATTER OF

**“What Challenges Are Kashmiri Wetlands
Facing”**

**Status Report on behalf of Jammu and Kashmir Pollution Control Committee
pursuant to notice dated 29-02-2024 passed in OA No. 239 of 2024 titled “What
Challenges Are Kashmiri Wetlands Facing”.**

Background:

That the Hon'ble National Green Tribunal vide **notice Dated 29-02-2024** in
OA No. 239 of 2024 directed as follows :-

*“Member Secretary, J&K PCC and Jammu and Kashmir Wetland Authority,
through Secretary, Forest, Ecology and Environment Department to
appear before the Hon'ble National Green Tribunal on **13th March 2024**
through Physical Hearing (with Hybrid Option), when you may appear
before the Hon'ble NGT through either in person or by a pleader duly
instructed, with your report”.*

Status Report:

That in compliance to the notice passed which is reproduced herein above,
the status report with respect to Jammu & Kashmir Pollution Control Committee is
as follows:

That the monitoring of (9) wetlands viz. *Hokarsar, Mirgund, Manibugh, Freshkoori, Chattlam, Kranchoo, Shallbugh, Hygam and Manasbal* is being done by J&K Pollution Control Committee. Based on the monitoring report, these wetlands have been classified as B, C & D as per the Designated Best Use of Water Quality criteria prescribed by the Central Pollution Control Board. The copy of classification of wetland is appended as **Annexure 'A'**.

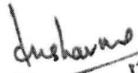
That the water quality monitoring of Dal Lake District Srinagar is being carried out regularly by J&K PCC at twenty-four (24) locations Based on the monitoring report, the Dal Lake is classified as class B as per the Designated Best Use of Water Quality criteria prescribed by the Central Pollution Control Board. The copy of classification of wetland is appended as **Annexure 'B'**.

That the water quality monitoring of Anchar Lake District Srinagar is being carried out regularly by J&K PCC at five (5) locations. Based on the monitoring report, the Anchar Lake is classified as class B as per the Designated Best Use of Water Quality criteria prescribed by the Central Pollution Control Board. The copy of classification of wetland is appended as **Annexure 'C'**.

That the water quality monitoring of Wular Lake District Bandipora is being carried out regularly by J&K PCC at eleven (11) locations. Based on the monitoring report, the Wular Lake is classified as class B as per the Designated Best Use of Water Quality criteria prescribed by the Central Pollution Control Board. The copy of classification of wetland is appended as **Annexure 'D'**.

Prayer:

In the premises, it is therefore respectfully prayed that the status report may kindly be taken on record for further directions before the Hon'ble National Green Tribunal.


(J.N. Sharma) 12-3-2024
Environmental Engineer
J&K PCC

A)

J&K Pollution Control committee
 Office of The Regional Director – Kashmir
 Analysis Report



Classification of various Wetlands of Kashmir Division on the basis of Annual Average.

Name of the wetland	Location	2021	2022	2023	2024
HOKARSAR	Inlet	Class B except DO	Class B except BOD	Class B except BOD	Class B except BOD
	Center	Class B except DO	C	C	Class B except BOD
	Outlet	Class B except BOD	B	B	B
MIRGUND	Inlet	=	B	Class B except BOD	B
	Center	C	B	C	B
	Outlet	Class B except BOD	Class B except BOD	B	B
MANBUGH	Inlet	=	Class B except BOD	=	Class B except BOD
	Center	C	Class B except BOD	C	Class B except BOD
	Outlet	=	C	D	=
FRESHKOORI	Inlet	=	D	Polluted	Polluted
	Center	Polluted	Polluted	Polluted	Polluted
	Outlet	=	Polluted	Polluted	Polluted
CHATTLAM	Inlet	B	Class B except BOD	Class B except BOD	B
	Center	Class B except BOD			
	Outlet	Class B except BOD	B	Class B except BOD	B
KRANCHOO	Inlet	Class B except DO	C	C	D
	Center	C	D	C	=
	Outlet	C	C	C	D
SHALLBUGH	Inlet	C	C	D	Class B except BOD
	Center	C	C	C	B
	Outlet	=	C	C	B
HYGAM	Inlet	Class B except BOD	C	B	B
	Center	B	C	B	B
	Outlet	=	B	B	B
MANASBAL	Inlet	B	B	B	B
	Center	B	B	B	B
	Outlet	B	B	B	B

Amir

Annexure - 'B'



J&K Pollution Control committee
 Office of The Regional Director – Kashmir
 Sheikh-ul-Alam Complex Rajbagh Kashmir

Classification of Dal Lake on the basis of Annual Average

S/NO	Sampling spots	2022-23	2023-24
1	Dalgate:3251	Class B except BOD	Class B except BOD
2	Nehru park 1309	Class B except BOD and Total coliform	Class B except BOD and Total coliform
3	Grand Palace Ghat	Class B except BOD	Class B except BOD
4	Near Nishat STP: 3253	Class B except BOD	Class B except BOD
5	Nishat Water Intake: 3261	Class B except BOD	Class B except BOD
6	Telbal entry: 3256	Class B except BOD	Class B except BOD and Total coliform
7	Near STP Habak: 3257	Class B except BOD	Class B except BOD
8	Near STP Hazratbal: 3258	Class B except BOD	Class B except BOD
9	Dobighat: 3259	Class B except BOD	Class B except BOD
10	Charchinari: 3252	Class B except BOD	Class B except total coliform
11	Abikarpura: 3254	Class B except BOD	Class B
12	Sonalank: 3260	Class B	Class B except BOD
13	Nayadyar: 4041	Highly Polluted	Highly Polluted
14	Jogilankar: 4042	Highly Polluted	Highly Polluted
15	Golden Lake:0	Class B except BOD and Total coliform	Class B except BOD and Total coliform
16	SKICC Backside	Class B except BOD	Class B except BOD
17	Makai Park Point	Class B except BOD	Class B except BOD and Total coliform
18	Nishat Garden	Class B except BOD	Class B except BOD and Total coliform
19	Near Shalimar Channel	Class B except BOD	Class B except BOD
20	Hazratbal Ablution point	Class B except BOD	Class B except BOD and Total coliform
21	Khonkhan Area IPS	Class C except BOD	Class C except BOD
22	Ashaibagh Bridge: 4040	Class B except BOD	Class B except BOD and Total coliform
23	Nigeen: 3262	Class B	Class B except BOD
24	Saderbal	Class B except BOD	Class B except BOD

Handwritten signature



J&K Pollution Control committee
Office of The Regional Director – Kashmir
Shiekh-ul-Alam Complex Rajbagh Kashmir

Classification of Anchar Lake on the basis of Annual Average

S/NO	Sampling spots	2022-23	2023-24
1	Anchar lake: Near Sangam: 4045	Polluted	Polluted
2	Anchar lake: Central Anchar: 4044	Class B except BOD	Class B except BOD
3	Anchar lake: Sindh Entry: 4043	Class B	Class B
4	Anchar lake: Near Jenab Sahab: 4047	Polluted	Polluted
5	Anchar lake: Near SKIMS Soura: 4046	Polluted	Polluted

Microbiological analysis not done

[Signature]



J&K Pollution Control committee
Office of The Regional Director – Kashmir
Shiekh-ul-Alam Complex Rajbagh Kashmir

Classification of Wular Lake on the basis of Annual Average

S/NO	Sampling spots	2022-23*	2023-24
1	Saderkot: 4048	Class B except BOD	Class B except BOD
2	Banwari	Class B except BOD	Class B
3	Nadihal(Erin Nallah): 3266	Class B except BOD	Class B except total coliform
4	Zalwan: 4049	Class B except BOD	Class B except total coliform
5	Ashtingoo	Class B	Class B except total coliform
6	Kanibath: 3265	Class B	Class B except total coliform
7	Watlab: 3264	Class B	Class B except total coliform
8	Ningli: 3263	Class B	Class B
9	Garrora	Class B except BOD	Class B
10	Hathlangoo	Class B	Class B except total coliform
11	Tulbagh	Class B	Class B except total coliform

* Microbiological analysis not done

[Handwritten signature]

Jammu and Kashmir Pollution Control Committee



Parivesh Bhavan, Forest Complex || Silk Factory Road
Transport Nagar, Jammu, 180 006 || Rajbagh, Srinagar, 190 008
Tel - 0191-2476927; mail - membersecretaryjkspcb@gmail.com



**Financial Commissioner (Additional Chief Secretary)
Department of Forest, Ecological and Environment,
Jammu / Srinagar**

No.: JKPCC/Sc./OA-239/2024/832

Date: 17-05-2024

**Sub: In re: News items appearing in Kashmir Life dated: 02.02.2024 entitled
"What Challenges are Kashmiri Wetlands Facing?"**

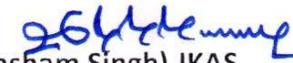
Ref: No. JKPCC/SC/OA-239/2024/3155; dt. 29.04.2024.

Sir,

Kindly refer to this office Communication No. JKPCC/SC/OA-239/2024/3155; dt. 29.04.2024 on the subject cited above. In this connection, I am directed to enclose herewith the requisite information with respect to classification of various wetlands of Kashmir Division on the basis of Annual Average as per the designated best use of water quality criteria prescribed by CPCB and Numerical data for water quality for kind information.

Submitted for kind information please.

Yours faithfully,


(Ghansham Singh) JKAS
Member Secretary 17.5.24



J & K Pollution Control Committee
Shiekh-ul-Alam Complex Rajbagh Kashmir

Regional Director,
J&K Pollution Control Committee,
Kashmir.

NO:- PCC/ROK//W.Lab/ 24-25/ 13

Dated:- 30/04/2024

Subject: - Hon'ble NGT direction dt: 13/03/2024 in Suo Motu matter in re: News items appearing in Kashmir Life dated : 02/02/2024 Entitled "What challenges are Kashmiri Wetlands Facing"
Ref. no JKPC/SC/OA-239/2024/899-901 dated 30/03/2024

Sir,

With regard to the matter captioned in the subject kindly find attached herewith Analysis reports of various Lakes/wetlands of Kashmir division. The water quality status of these wetlands in respect of various Physio-chemical parameters is as under:-

S.no	Name of Water Body	No. of Monitoring locations	Status of water Quality in terms of Class,B (Organized outdoor Bathing)water quality criteria CPCB
1	Wular Lake Bandipora	11	The test analysis reports for the months of March and April 2024 reveal that out of 11 monitoring locations two locations viz ,Garoorra and Zalwan do not qualify class B water quality criteria .
2.	Anchar Lake Srinagar ✓	05	The test analysis reports for the months of April 2024 reveal that out of 05 monitoring locations three locations do not qualify class B water quality criteria
3.	Dal lake Srinagar ✓	24	The test analysis reports for the months of March and April 2024 reveal that out of 24 monitoring locations none of the location qualify class B water quality criteria
4.	Hokarsar wetland Srinagar/Budgam	03	The test analysis reports for the months of April 2024 reveal that out of 03 monitoring locations 2 locations do not qualify class B water quality criteria
5.	Manasbal lake Ganderbal	03	The test analysis reports for the months of April 2024 reveal that all monitoring locations qualify class B water quality criteria
6.	Shalibugh wetland Ganderbal	03	The test analysis reports for the months of April 2024 reveal that out of 03 monitoring locations 2 locations do not qualify class B water quality criteria
7.	Hygam wetland Pampore Pulwama	03	The test analysis reports for the months of April 2024 reveal that all monitoring locations qualify class B water quality criteria
8.	Freshkooori Pampore Pulwama	02	The test analysis reports for the months of April 2024 reveal that none of the locations qualify class B water quality criteria
9.	Kranchoo Pampore Pulwama	03	The test analysis reports for the months of April 2024 reveal that none of the locations qualify class B water quality criteria
10	Chatlam Pampore Pulwama	03	The test analysis reports for the months of April 2024 reveal that out of 03 monitoring locations 2 locations do not qualify class B water quality criteria
11.	Manibugh Pampore Pulwama	02	The test analysis reports for the months of April 2024 reveal that none of the locations qualify class B water quality criteria

Submitted for favour of information and further necessary action please.

Enclosure:- 10 sheets

Yours Faithfully

I/C Water lab
Srinagar



J&K Pollution Control Committee
Office of The Regional Director – Kashmir
Sheikh-ul-Alam Complex Rajbagh Kashmir
Analysis Report

Date of Sampling:-05/03/2024
Physico Chemical Characteristics of Wular Lake for the Month of March, 2024

S/No	Sampling spots	Air Temp	Water Temp	pH	Condu civity	TDS	D O	COD	BOD	Phosph ate	Amm Nitroge n	Sulphat e	Hardnes s	Calcium um	Magnesi um	T Alkalinit y	Chloride y	Turbidit y
1	Saderkot: 4048	10.0	9.5	8.11	196	104	9.8	34.7	3.0	0.119	0.708	21.51	150.0	26.45	20.41	60.0	28.0	8.0
2	Banwari Nadhatta(Erin Nallah): 3266	18.0	10.0	7.86	171	90	10.0	27.8	2.5	0.075	0.504	5.75	150.0	36.07	14.58	74.0	20.0	6.0
3	Zalwan: 4049	12.5	11.8	7.71	179	126	9.5	36.5	3.7	0.146	0.402	13.18	140.0	41.68	8.74	96.0	24.0	6.0
4	Ashingoo Kanibath:	15	12.9	7.84	139	98	10	33.0	2.8	0.126	0.498	20.30	120.0	33.66	8.74	80.0	24.0	7.0
5	63265	13	10	7.84	142	100	9.9	33.0	2.9	0.102	0.918	21.36	140.0	40.88	9.23	56.0	26.0	6.0
6	Watab: 3264	12.6	9	8.1	196	138	10.0	29.56	2.5	0.102	0.588	27.87	184.0	50.50	14.09	88.0	26.0	5.0
7	Ningli: 3263	13.1	11.2	8.15	223	159	9.8	26.0	2.4	0.113	0.504	31.81	170.0	45.69	13.60	92.0	24.0	5.0
8	Gartora	19.5	8	7.50	273	145	9.4	38.25	4.0	0.143	0.498	39.84	152.0	48.09	7.77	74.0	32.0	8.0
9	Hathlangoo	11.8	9.7	8.10	212	142	9.2	26.0	2.5	0.123	0.642	22.57	230.0	48.09	26.73	98.0	24.0	12.0
#	Tulbagh	13.6	11.0	7.75	174	123	8.9	27.8	3.0	0.146	0.816	32.72	206.0	46.49	21.87	80.0	24.0	6.0
Primary water quality criteria for Bathing (class B)		-	-	6.5-8.5	-	-	>5mg/l	-	<3mg/l	-	-	-	-	-	-	-	-	-

→All Values are in mg/l except pH, turbidity & Temperature.
Samples collected by officials of Wular Development Authority.

Analyzed by

(Handwritten signatures)

(Handwritten signature)
I/C Water lab



J&K Pollution Control committee
 Office of The Regional Director – Kashmir
 Shiekh-ul-Alam Complex Rajbagh Kashmir

Analysis Report

Date of Sampling:-22/04/2024
 Physico Chemical Characteristics of Wular Lake for the Month of April, 2024

Sr	N O spots	Air Temp	Water Temp	pH	Condu ctivity	TDS	D O	COD	BOD	Phosph ate	Ammon ite	Sulphat e	Hardnes s	Calcium	Magnesi um	T Alkalinit y	Chloride y	Turbidit y
1	Saderkot: 4048	21.0	20	8.44	205.0	108.0	9.0	26.1	2.2	0.119	0.66	27.87	110	34.46	5.83	80.0	22.0	13.0
2	Banwari	20	18	8.35	191.0	101.0	7.7	28.03	2.4	0.074	1.152	5.3	140	10.08	9.72	100.0	18.0	10.0
3	Nadhal(Erin Nallah): 3266	18.2	19.5	8.08	72.0	40.0	10.0	16.84	1.5	0.068	0.726	6.96	84	20.04	8.26	46.0	16.0	22.0
4	Zalwan: 4049	25.5	21.5	10.49	118.0	60.0	8.7	20.55	2.2	0.100	0.69	11.66	102	26.45	8.74	52.0	10.0	7.0
5	Ashingoo	25	20	7.8	143.0	76.0	10.1	18.69	2.0	0.093	0.834	9.69	88	28.85	3.88	78.0	16.0	6.0
6	Kanibath:	25	23	8.1	170.0	90.0	10.3	26.16	3.0	0.209	0.768	13.63	100	32.86	4.37	96.0	14.0	8.0
7	Wadhab: 3264	22.1	16.9	8.07	172.0	91.0	9.0	18.69	2.0	0.119	0.768	15.45	144	40.88	2.91	84.0	16.0	6.0
8	Ningli: 3263	20	17.6	8.02	202.0	106.0	7.5	16.82	1.5	0.12	0.621	19.08	110	36.07	4.86	96.0	12.0	4.0
9	Garrora	19	17.5	8.50	202.0	106.0	9.5	24.29	2.6	0.09	0.66	28.33	120	35.27	7.77	84.0	20.0	9.0
#	Hathlangoo	23.1	19.2	8.11	170.0	90.0	8.9	16.82	2.0	0.015	0.864	17.72	120	40.08	4.86	86.0	12.0	10.0
#	Tulbagh	25.0	20.0	8.11	204.0	107.0	7.3	20.55	2.1	0.157	1.104	18.02	132	41.68	6.8	94.0	12.0	8.0
	Primary water quality criteria for Bathing (class B)	-	-	6.5-8.5	-	-	>5mg/l	-	<3mg/l	-	-	-	-	-	-	-	-	-

→ All Values are in mg/l except pH, turbidity & Temperature.
 Samples collected by officials of Wular Development Authority

Analyzed by

[Handwritten signature]

[Handwritten signature]
 I/C Water Lab



J&K Pollution Control committee
Office of The Regional Director – Kashmir
 Shiekh-ul-Alam Complex Rajbagh Kashmir
 Physico Chemical Characteristics of Anchar Lake for the Month of April, 2024
 Analysis Report

Date of Sampling:-06/04/2024

SNO	Sampling spots	Air Temp	Water Temp	pH	Condu ctivity	TDS	D O	COD	BOD	Phosph ate	Amm Nit	Sulphate	Hardne ss	Calcium	Magne sium	T Alkalin ity	Chlori de	Turbid ity
1	Anchar lake: Near Sangam: 4045	20.1	19.4	7.52	340	186.0	4.1	40.0	3.4	0.201	1.89	27.87	208	56.11	16.52	124.0	40.0	6.0
2	Central Anchar lake: 4044	20	19.5	7.71	361	201.0	7.5	32.0	2.5	0.229	1.722	40.45	220	61.72	17.49	146.0	42.0	7.0
3	Anchar lake: Sindh Entry: 4043	19.8	17.5	8.06	372	210.0	8.3	24.00	2.5	0.070	0.642	39.84	258	56.91	28.18	162.0	20.0	3.0
4	Anchar lake: Near Jenab Sahab: 4047	20	19.3	7.60	349	197.0	4.8	64.0	7.5	0.234	2.00	35.45	262	57.71	28.67	112.0	42.0	4.0
5	Anchar lake: Near SKIMS Soura: 4046	20.1	19.4	7.56	338	188.0	3.2	64.0	6.5	0.231	1.09	29.39	198	60.92	11.17	120.0	48.0	3.0
Primary water quality criteria for Bathing (class B)		-	-	6.5-8.5	-	-	>5mg/l	-	<3mg/l	-	-	-	-	-	-	-	-	-

→All Values are in mg/l except pH, turbidity & Temperature.

Samples collected by

Handwritten signature

Analyzed by

Handwritten signature

I/C Water lab

Handwritten signature



J&K Pollution Control Committee
 Office of The Regional Director – Kashmir
 Shiekh-ul-Aam Complex Rajbagh Kashmir
 Analysis Report

DATE OF SAMPLING:- 18/03/2024
 Physico Chemical Characteristics of Dal Lake for the Month of March, 2024

Sr	N	O	Sampling spots	Air Temp	Water Temp	pH	Conductivity	TDS	DO	COD	BOD	Phosphate	Amm Nit	Sulphate	Hardness	Calcium	Magnesium	Alkalinity	Chloride	Turbidity
1			Dalgate:3251	19.8	14.1	8.13	229.0	135.0	7.0	56.0	6.3	0.086	0.69	12.27	230	52.90	23.81	130	20.0	8.0
2			Nehru park 1309	19.4	15.2	8.78	229.0	136.0	8.50	40.0	3.7	0.086	0.708	12.72	180	52.90	11.66	128	28.0	4.0
3			Grand Palace Chai	19.5	15.5	8.90	222.0	134.0	7.5	64.0	5.9	0.074	0.672	12.72	190	52.90	14.09	130	20.0	5.0
4			Near Nishat STP: 3253	19.0	16.8	9.02	231.0	138.0	8.0	56.0	6.0	0.070	1.128	23.48	196	57.71	12.63	138	28.0	5.0
5			Nishat Water Inake: 3261	19.5	17	8.43	218.0	134.0	8.7	56.0	5.8	0.062	1.206	26.96	284	56.11	34.92	138	20.0	6.0
6			Telhal entry: 3256	19.5	21	7.71	269.0	167.0		112.0	18.8	1.08	1.752	64.23	260	58.51	27.70	130	16.0	34.0
7			Near STP Habak: 3257	19.8	21.2	7.65	254.0	161.0		120.0	23.5	0.132	1.668	63.78	286	78.95	22.84	135	24.0	20.0
8			Near STP Hazratbal: 3258	19.5	21	8.15	255.0	161.0		112.0	15.8	0.098	1.134	47.41	264	67.33	23.32	138	20.0	10.0
9			Dobghat: 3259	20.0	19.5	8.15	263.0	161.0		104.0	12.1	0.073	0.81	40.90	204	64.12	10.69	130	32.0	7.0
10			Charchnar: 3252	19.8	16.2	9.10	221.0	132.0	8.9	32.0	4.0	0.043	0.702	15.75	166	49.69	10.20	130	28.0	7.0
11			Abhakarpora: 3254	19	16.5	9.01	222.0	130.0	9.0	56.0	4.8	0.046	0.69	18.02	198	56.11	14.09	140	20.0	11.0
12			Soanank: 3260	20.5	19	8.52	255.0	157.0	7.9	56.0	5.0	0.085	0.888	43.93	210	60.92	14.09	140	20.0	9.0

→All Values are in mg/l except pH, turbidity & Temperature.

Samples collected by

Handwritten signature

Analyzed by

Handwritten signature

I/C Water Lab

Handwritten signature



J&K Pollution Control Committee
Office of The Regional Director – Kashmir
Sheikh-ul-Alam Complex Rajbagh Kashmir
Analysis Report

DATE OF SAMPLING:- 18/03/2024

Physico Chemical Characteristics of Dal Lake for the Month of March, 2024

S/No	Sampling Spots	Air Temp	Water Temp	pH	Condu civity	TDS	DO	COD	BOD	Phosp hate	Amm Nit	Sulph ate	Hardn ess	Calciu m	Magne sium	T Alkali nity	Chlori de	Turbid ity
13	Nayadyar: 4041	21.7	19.3	8.10	295.0	188.0	3.0	112.0	16.5	0.147	2.25	54.54	210	49.69	20.89	210	68.0	12.0
14	Joglinkar: 4042	22	19.5	8.12	306.0	195.0	2.3	120.0	18.0	0.152	2.33	55.14	220	58.51	17.98	212	64.0	14.0
15	Golden Lake: SKICC	19.7	14.8	8.54	228.0	134.0	7.5	40.0	4.1	0.062	0.75	12.12	220	51.30	22.35	140	24.0	9.0
16	Beckside Makai Park	19.5	16	8.81	234.0	141.0	7.4	48.0	5.0	0.097	0.672	18.78	240	62.52	20.41	140	24.0	15.0
17	Nishat Garden	17.6	16.3	9.02	226.0	133.0	8.2	48.0	5.0	0.048	0.684	21.96	240	64.12	19.44	140	36.0	8.0
18	Near Shalimar	18.8	17.5	8.32	260.0	157.0	9.0	56.0	5.8	0.076	0.702	47.87	276	54.50	34.02	158	28.0	6.0
19	Hazratbal Ablution point	21.0	19.8	8.47	259.0	159.0	8.0	80.0	9.1	0.073	1.07	43.02	280	65.73	28.18	130	28.0	8.0
20	Khonkhan Area IPS	20	15.0	7.55	246.0	145.0	6.2	64.0	6.6	0.200	0.798	13.02	180	48.09	14.58	140	28.0	5.0
21	Ashabagh Bridge: 4040	21.5	18.0	8.98	257.0	162.0	7.2	72.0	7.6	0.047	1.16	41.96	192	52.10	15.06	140	20.0	8.0
22	Nigeen: 3262	20.8	18.0	9.10	264.0	169.0	8.0	80.0	9.5	0.059	0.954	50.75	170	49.69	11.17	142	22.0	8.0
23	Saderbal	20.0	19.0	8.42	268.0	174.0	9.6	96.0	12.1	0.140	1.362	55.75	250	64.12	21.87	142	28.0	11.0

→ All Values are in mg/l except pH, turbidity & Temperature.

Samples collected by

Signature

Analyzed by

Signature

I/C Water lab

Signature



J&K Pollution Control Committee
Office of The Regional Director – Kashmir
Sheekh-ul-Alam Complex Rajbagh Kashmir
Analysis Report

DATE OF SAMPLING:- 22/04/2024
Physico Chemical Characteristics of Dal Lake for the Month of April, 2024

S. No	Sampling spots	Air Temp	Water Temp	pH	Condu civity	TDS	DO	COD	BOD	Phosp hate	Amn Nit	Sulpha te	Hardne ss	Calcium	Magne sium	Alkalini ty	Chloride	Turbidi ty
1	Dalgate:3251	24.2	22.7	8.13	266.0	143.0	8.6	41.67	4	0.024	0.744	23.48	200.0	52.10	17.01	160	22.0	7.3
2	Nehru park 1309	24.2	22.3	9.04	255.0	137.0	6.20	33.3	3.9	0.071	0.81	16.81	188.0	56.11	11.66	P=8 M=150 T=158	18.0	3.7
3	Grand Palace Ghat	24.5	22.5	9.01	258.0	138.0	9.2	58.3	5.3	0.068	0.726	19.99	180.0	48.89	14.09	P=6 M=128 T=134	24.0	6.1
4	Near Nishat STP: 3253	24.8	23.5	8.35	249.0	133.0	9.4	50.0	5.0	0.108	0.852	26.51	166.0	48.09	11.17	140	20.0	17.8
5	Nishat Water Intake: 3261	24.5	21.5	8.39	252.0	134.0	9.5	49.17	5.1	0.075	0.816	19.39	158.0	48.09	9.23	144	20.0	6.9
6	Telbal entry: 3256	23.8	21.5	9.39	208.0	110.0		108.0	13.7	0.094	0.954	17.54	150.0	41.68	11.17	P=16 M=130 T=146	16.0	7.0
7	Near STP Habak: 3257	24.2	21.0	9.15	198.0	104.0		100.0	12.1	0.093	0.816	15.9	124.0	36.07	8.26	P=6 M=130 T=136	16.0	5.0
8	Near STP Hazratbal: 3258	25.2	21.1	9.1	203.0	107.0		75.0	7.3	0.103	0.732	17.24	124.0	40.08	5.83	P=8 M=138 T=146	12.0	4.0
9	Dobghat: 3259	25.3	21.2	9.02	200.0	106.0		58.33	4.5	0.069	0.816	15.60	144.0	48.09	5.83	P=16 M=116 T=132	18.0	4.0
10	Charchinari: 3252	24.5	23.7	8.32	245.0	132.0	10.2	33.3	3.1	0.052	0.696	20.6	214.0	45.69	24.30	146	18.0	3.5
11	Abikarpora: 3254	24.7	23.4	9.03	238.0	127.0	9.6	25.0	3	0.065	0.648	23.63	154.0	39.27	13.6	P=12 M=116 T=128	20.0	3.2
12	Sonabank: 3260	25.3	21.9	8.69	211.0	112.0	10.6	41.67	4.2	0.081	0.654	13.18	146.0	48.09	6.31	120	22.0	5.8

→All Values are in mg/l except pH, turbidity & Temperature.

Samples collected by

BT

Analyzed by

Amir

I/C Water Iāb

Amir



J&K Pollution Control committee
 Office of The Regional Director – Kashmir
 Shiekh-ul-Alam Complex Rajbagh Kashmir
 Analysis Report

DATE OF SAMPLING:- 22/04/2024

N	Sampling spots	Air Temp	Water Temp	pH	Condu civity	TDS	DO	COD	BOD	Phosp hate	Amm Nit	Sulph ate	Hardn ess	Calciu m	Magne sium	Alkali nity	Chlori de	Turbid ity
13	Nayadyar:	24	19.5	7.26	277.0	144.0	4.0	66.67	7.0	0.162	1.61	17.11	170.0	54.5	8.26	134	18.0	5.0
14	Joglankar:	24	18.2	7.5	269.0	143.0	3.9	66.67	6.0	0.111	1.44	16.96	134.0	46.49	4.37	142	14.0	4.0
15	Golden Lake:0	24.3	22.5	8.87	246.0	137.0	9.9	58.3	4.8	0.31	1.01	16.36	208.0	48.09	21.38	146	12.0	6.6
16	SKICC Backside	24.7	23.4	8.46	249.0	132.0	10.8	50.00	5.3	0.059	0.792	30.9	164.0	44.88	12.63	146	20.0	6.2
17	Makai Park Point	24.6	23.3	8.49	248.0	131.0	10.3	33.3	3.6	0.065	0.804	27.42	216.0	46.49	24.3	150	16.0	7.3
18	Nishat Garden	24.1	21.8	8.48	245.0	130.0	9.7	4.67	4.1	0.102	0.738	17.72	156.0	49.69	7.77	138	18.0	8.0
19	Near Shalimar	23.9	21.8	8.1	233.0	123.0		58.33	5.5	0.087	0.81	18.63	194.0	46.49	18.95	120	19.0	16.0
20	Hazratbal Ablution point	23.8	22.5	9.25	182.0	97.0		66.67	7.7	0.082	0.78	14.08	126.0	40.88	5.83	150	18.0	5.0
21	Khonkhan Area IPS	24.1	18.1	7.55	269.0	140.0	4.8	41.67	4.3	0.594	1.152	14.54	164.0	52.1	8.2	150	22.0	3.0
22	Ashabagh Bridge: 3040	25.4	18.5	8.93	240.0	128.0		58.33	5.8	0.197	0.786	16.05	196.0	47.29	18.95	140	16.0	4.0
23	Nigeen: 3262	25.5	19.5	9.12	255.0	137.0		50.0	5.8	0.076	0.918	26.36	182.0	56.11	10.2	140	22.0	5.0
24	Saderbal	25.5	21.6	8.45	277.0	147.0		50.0	5.7	0.078	1.068	26.2	182.0	48.09	15.06	140	24.0	6.0

→ All Values are in mg/l except pH, turbidity & Temperature.

Samples collected by

BAH

Analyzed by

[Signature]

I/C Water Lab

[Signature]



J&K Pollution Control Committee
 Shiekh-ul-Alam Complex Rajbagh Kashmir

Analysis Report

Physico Chemical Characteristics of various Wetlands of Kashmir Division

S.no	LOCATION	Hokarsar Budgam			Manasbal Lake			Primary water quality criteria for outdoor Bathing(Organised) (class B)
		Inlet	Centre	Outlet	Inlet	Centre	Outlet	
Date of Sampling:- 22-04-2024								
1	Air Temp. °C	26.0	31.0	30.0	19.1	24.0	20.0	-
2	Water Temp. °C	20.4	20.5	18.5	16.5	21	18.1	-
3	pH	8.16	8.08	8.26	8.38	8.4	8.19	6.5 - 8.5
4	Conductivity µs/cm	340.0	300.0	333.0	267.0	262.0	273.0	-
5	T.D.S	184.0	158.0	176.0	147.0	144.0	150.0	-
6	D.O	8.5	5.0	6.0	8.5	10.0	8.0	>5mg/l
7	C.O.D	37.00	26.40	33.94	14.95	13.08	13.08	-
8	B.O.D	4.00	2.6	3.20	1.40	1.00	1.00	< 3mg/l
9	Phosphate	0.712	0.131	0.168	0.009	0.096	0.051	-
10	Ammonical Nitrogen	3.26	1.450	0.876	0.384	0.444	0.714	-
11	Sulphate	27.57	15.46	11.21	22.42	24.08	33.33	-
12	Hardness	158.0	186.0	204.0	186.0	172.0	168.0	-
13	Calcium	43.28	47.29	52.10	42.48	39.27	34.46	-
14	Magnesium	12.15	16.52	17.98	19.44	17.98	19.92	-
15	Total Alkalinity	168.0	176.0	170.0	120.0	110.0	126.0	-
16	Chloride	24.0	24.0	26.0	20.0	14.0	16.0	-
17	Turbidity NTU	93.0	45.0	26.0	3.0	4.0	3.0	-

→All Values are in mg/l except pH, conductivity, Turbidity & Temperature.
 Samples collected and submitted for analysis by Wildlife wetland division
 Analysis results are confined to the Samples Submitted for Analysis

Analyzed by

I/C Water Lab



J&K Pollution Control committee
Office of The Regional Director – Kashmir

Analysis Report

Physico Chemical Characteristics of various Wetlands of Kashmir Division

Date of Sampling:-	Shallbugh Ganderbal			Hygam Baramulla			Freshkroori Pulwama			Primary water quality criteria for outdoor Bathing (Organised) (class B)
	Inlet	Centre	Outlet	Inlet	Centre	Outlet	Inlet	Centre		
22-04-2024										
1	Air Temp. °C	22.9	30.2	18.8	18.0	16.0	15.0	20.0	20.9	
2	Water Temp. °C	17.1	16.7	19.5	20.0	18.0	17.0	18.6	19.0	
3	pH	7.25	7.60	7.81	8.08	7.91	8.30	9.58	8.45	6.5 - 8.5
4	Conductivity µs/cm	324.0	392.0	326.0	236.0	216.0	231.0	501.0	607.0	
5	T.D.S	173.0	207.0	172.0	130.3	120.0	127.8	282.0	331.0	
6	D.O	2.9	3.1	5.0	6.9	5.1	9.0	2.0	3.8	>5mg/l
7	C.O.D	72.00	48.00	32.00	26.16	18.69	24.29	96.00	104.00	
8	B.O.D	7.90	4.40	2.80	2.3	1.5	2.0	14.8	15.2	< 3mg/l
9	Phosphate	0.400	0.529	0.347	0.213	0.173	0.117	0.178	0.218	
10	Ammonical Nitrogen	2.0	1.88	1.21	2.400	1.920	1.05	2.242	2.250	
11	Sulphate	28.78	49.54	19.39	35.90	28.33	11.360	33.02	32.57	
12	Hardness	210.0	240.0	186.0	134	114	138.00	216.0	266.0	
13	Calcium	54.50	52.10	45.69	33.66	34.46	35.27	48.1	76.15	
14	Magnesium	17.98	26.73	17.49	12.15	6.8	12.15	23.3	18.46	
15	Total Alkalinity	202.0	210.0	180.0	122.0	126.0	138.0	P-8-M-232 Total=240	280.0	
16	Chloride	24.0	46.0	26.0	30.0	28.0	24.0	80.0	84.0	
17	Turbidity NTU	39.0	3.0	5.0	134.0	90.6	26.5	25.0	23.0	

→ All Values are in mg/l except pH, conductivity, Turbidity & Temperature.
Samples collected and submitted for analysis by Wildlife wetland division
Analysis results are confined to the Samples Submitted for Analysis

Analyzed by

[Handwritten Signature]

I/C Water Lab

[Handwritten Signature]



J&K Pollution Control Committee

Sheikh-ul-Alam Complex Rajbagh Kashmir

Analysis Report

Physico Chemical Characteristics of various Wetlands of Kashmir Division

S.no	LOCATION	Kranchoo pampore			Chatlam Pampore			Manibugh Pulwama			Primary water quality criteria for outdoor Bathing(Organised) (class B)
		Inlet	Centre	Outlet	Inlet	Centre	Outlet	Inlet	Centre		
Date of Sampling:-											
		23-04-2024			23-04-2024			23-04-2024			
1	Air Temp. °C	22.5	23.5	23.0	17.8	15.0	18.0	23.0	24.0		
2	Water Temp. °C	21.0	21.5	19	15.6	14.5	16.3	19.5	20.5		
3	pH	7.66	7.39	7.61	7.58	8.42	7.61	8.01	8.42		6.5 - 8.5
4	Conductivity µs/cm	570.0	443.0	561.0	416.0	814.0	445.0	940.0	780.0		
5	T.D.S	312.0	245.0	307.0	220.0	435.0	245.0	514.0	433.0		
6	D.O	5.8	4.0	3.4	4.8	5.6	5.0	4.5	6.7		>5mg/l
7	C.O.D	67.29	31.78	28.04	39.24	65.42	28.00	42.98	39.24		
8	B.O.D	5.7	3.5	3.30	3.50	5.7	2.9	4.10	3.2		< 3mg/l
9	Phosphate	0.323	0.084	0.064	0.1000	0.109	0.089	1.14	1.06		
10	Ammonical Nitrogen	1.572	1.056	0.684	0.504	1.030	0.468	1.14	1.060		
11	Sulphate	13.33	5.45	4.84	7.57	13.48	8.33	3.480	5.450		
12	Hardness	284.0	226.0	304.0	254.0	186.0	160.0	436.0	360.0		
13	Calcium	48.89	50.50	72.14	50.50	48.09	32.06	122.64	96.19		
14	Magnesium	39.36	30.61	30.13	31.10	16.0	19.44	31.57	29.16		
15	Total Alkalinity	286.0	300.0	360.0	260.0	450.0	262.0	690.0	340.0		
16	Chloride	22.0	20.0	34.0	30.0	70.0	28.0	48.0	38.0		
17	Turbidity NTU	7.0	10.0	8.0	4.0	3.0	3.0	15.0	11.0		

→All Values are in mg/l except pH, conductivity, Turbidity & Temperature.
Samples collected and submitted for analysis by WildLife wetland division
Analysis results are confined to the Samples Submitted for Analysis

Analyzed by

I/C Water Lab

157



Government of Jammu and Kashmir,
Forest, Ecology & Environment Department,
Civil Secretariat, J&K

Annexure 'V'

MOST URGENT
TIME BOUND

PCCF (Wildlife)/Chief Wildlife Warden,
J&K.

APCCF/Chief Executive Director,
WUCMA, Kashmir.

No. FST-Lit/104/2024(7423976)

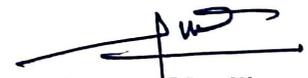
Dated:18-05-2024

Subject:- OA No.239/2024 In News item titled "What Challenges Are Kashmiri Wetlands Facing?" appearing in Kashmir Life dated 02.02.2024.

Sir,

I am directed to forward herewith a copy of order dated 13.03.2024 passed by the Hon'ble National Green Tribunal, in the above titled subject, and request you to kindly furnish reply/response in the matter, today positively.

Yours faithfully,


(Vivek Modi)
Special Secretary (Technical)

Encls:A/A.

158

Telephone: 0194-2312453



e-mail: pcwucma@gmail.com

Annexure 'VI'



Govt. of Jammu & Kashmir
WULAR CONSERVATION AND MANAGEMENT AUTHORITY KASHMIR
Forest Complex Rajbagh Srinagar (Near Silk factory) -190008

Special Secretary (Technical)
Forest, Ecology & Environment Department,
Civil Sectt. Srinagar

No: - PC/CATWUCMA/24/ 270-72

Dated: - 20 - 05-2024.

Sub:- OA No. 239/2024 in News item titled "What Challenges are Kashmiri Wetlands Facing" appearing in Kashmir Life dated: 02.02.2024.

Sir,

Apropos to the subject, i am directed to enclose herewith the reply/response in the matter for favour of information and further necessary action at your end please.

Encl: Report

Yours Faithfully

Project Coordinator,
CAT, WUCMA

Copy submitted to the:

1. Chief Executive Director, Wular Conservation and Management Authority-Kashmir for information please.
2. Coordinator Water Management WUCMA for information.



Government of Jammu & Kashmir
WULAR CONSERVATION AND MANAGEMENT AUTHORITY KASHMIR
Forest Complex Rajbagh Srinagar (Near Silk factory) -190008, email-cedwucma10@gmail.com

Sub: Status report w.r.t Wular lake in O.A no 239/2024 in News item titled
"What Challenges Are Kashmiri Wetlands Facing?" appearing in
Kashmir Life dated 02.02.2024

Introduction

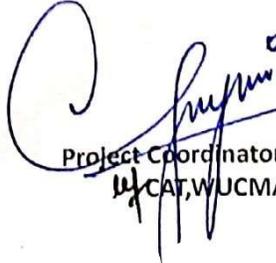
Wular Lake forms a part of river Jhelum basin which is a sub-basin of Indus River. Wular Lake is one of the largest freshwater lakes of Asia. Wular with its associated wetlands support rich biodiversity and provides habitat to migratory birds within Central Asia flyover. This lake is the largest fisheries resource in Kashmir valley supporting livelihoods of large human population living along its fringes. The Wular and its associated wetlands protect the Kashmir Valley from floods as well as maintains the flow to support agriculture and hydro-power generation. Recognizing importance of this wetland for its biodiversity and socio-economic values, the lake was designated as **Wetland of International Importance** under Ramsar Convention in 1990.

The State Government formally constituted the "Wular Conservation and Management Authority" (WUCMA) in 2012 vide SRO-311 & 314 of 2012 under the J & K Development Act of 1970 and the Authority came into existence in 2011-2012. The Authority has been given the task of conservation and preservation of the Wular lake and its feeder channels as well as the treatment of its catchment area falling under Erin and Madhumati watersheds in district Bandipora. In the instant application the Hon'ble NGT in its order dated: 13-03-2024 have raised concerns about four main issues of encroachment, sedimentation, water quality monitoring and solid waste management, thereby, seeking response from the respondents. The response to these concerns in case of Wular lake is submitted as under;

1. **Demarcation and removal of Encroachment:**The Demarcation of the Wular Lake has been carried out as per revenue record and stands completed. 1159 concrete boundary pillars have been fixed all over the periphery of the Lake. The boundary line is duly digitized using GPS & Remote sensing technology and each boundary pillar is geo-referenced. Net area of Wular Lake at present is 130 Square Kilometres. Further consolidation is being done by developing

- bund around the lake periphery and fencing the encroachment vulnerable areas. 0.20% of Wular is under encroachment with an area of 531 kanals and 08 Marlas (26.59 Ha) and 369 Kanals and 04Marlas (18.47 Ha) have been evicted and the process for eviction of balance encroachment is going on. All efforts are made to retrieve the balance encroachments from Wular Lake in which officials of Revenue, Forest & WUCMA departments are working in tandem and with synergy to remove encroachments from Wular lake. The encroachments under plantations and cultivations are being periodically removed with bund consolidation around the lake.
2. **Catchment area treatment:** To arrest soil erosion and prevent sedimentation of the lake, afforestation activities and soil & water conservation measures have been carried out in immediate catchment of Wular lake. So far 2952 Ha of degraded area have been treated with 32.0 lakh plants planted in Madhumati and Erin catchments to rehabilitate the degraded catchment. Small scale engineering measures including construction of check dams, landslide control structures, stream bank protection are also frequently done for Catchment area treatment. So far 56960 Cum of DRSM and 43956 Cum of Crates have been carried out for augmenting soil, conservation measures in highly degraded areas.
 3. **Water Quality Monitoring:** Water Quality monitoring is done on monthly basis through JK Pollution Control Committee for 17 parameters. The sample points are collected from 11 designated sites of the Wular lake. All water quality parameters of Wular lake are within permissible limits for designated best use category "C" as per water quality standards (IS 2296:1992) as recommended by CPCB. As per Wetland Health Card prepared based on parameters fixed by MoEFF & CC the Wetland score of Wular Lake has improved from "B" in 2021 to "A" in 2023.

In view of the above submissions, it is submitted that the Wular Conservation & management Authority has been constantly endeavouring to implement the Wular eco-restoration plan in most scientific and rational basis and it has achieved satisfactory results so far. It is, therefore, most respectfully submitted that the instant application may kindly be disposed of with appropriate orders as deemed fit and proper on the basis of replies filed by this respondent department.


Project Coordinator,
WUCMA



Government of Jammu and Kashmir
Department of Wildlife Protection
office of the Regional Wildlife Warden Kashmir Region
Address: Near Ghat No.21, Dal Lake Boulevard Road, Srinagar - 190001

Annexure 'VII'

The Principal Chief Conservator of Forests /
Chief Wildlife Warden,
Jammu and Kashmir,
Jammu.

No. RWLW/K/ 2024-25/ 106-08

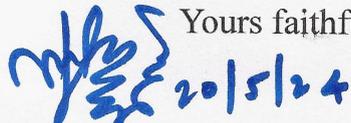
Dated: 20 - 05 - 2024

Subject: **Original Application No. 239/2024 – In the matter of suo moto
Versus Union Territory of Jammu and Kashmir.**

Sir,

In the matter of suo moto versus Union Territory of Jammu and Kashmir
(Original Application No: 239/2024), the response has been formulated by the
Wildlife Warden, Wetlands, which is submitted to your good Office for information
and favour of further necessary needful, please.

Encls: 21 leaves

Yours faithfully,

(Pradeepchandra Wahule, IFS)
Regional Wildlife Warden,
Kashmir Region,
Srinagar.

Copy to:-

1. The Special Secretary (Technical), Department of Forest, Ecology and Environment, for information.
2. The Wildlife Warden, Wetlands, Srinagar for information and required necessary action.

**BEFORE THE NATIONAL GREEN TRIBUNAL (NGT)
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 239/2024

News item titled **“What Challenges are Kashmiri Wetlands Facing”**
appearing in Kashmir Life dated: 02-02-2024

Next Date of Hearing: 22-05-2024

suo moto

Versus

Union Territory of Jammu and Kashmir

..... Respondent

Order dated 13.03.2024:

The news item appearing in Kashmir Life dated: 02-02-2024 has raised issues regarding management of Kashmir Wetlands and damage caused due to deposition of millions of tons of sediments annually leading to shallowing of Wetlands, elevated temperatures, increased Biochemical Oxygen Demand (BOD) and pH levels, besides, illegal encroachments, cultivation activities, waste discharge, haphazard planning and compliance of environmental norms. The matter published in the news item is vague and incorrect and does not specify any particular item, activity or work carried out in any of the identified wetlands under the administrative control of Department of Wildlife Protection, Wetlands Division, Kashmir. Management of Wetlands require various interventions, many of

which, are recurring and hence need repeated interventions to maintain good health of Wetlands. The interventions are taken in a phased manner wherein, priorities are set and are accordingly fitted into the Annual Plan of Operations (APO). Phasing of works are determined by availability of Budget allocations under different Schemes and nature of requirements.

Wetlands Division, Kashmir, Department of Wildlife Protection has got eight (08) Wetlands under its Administrative Control whose, brief description is given hereunder:

Brief description of Wetland Conservation Reserves under the administrative control of Wetlands Division, Kashmir

1 - Hokersar Wetland Conservation Reserve (RAMSAR site)

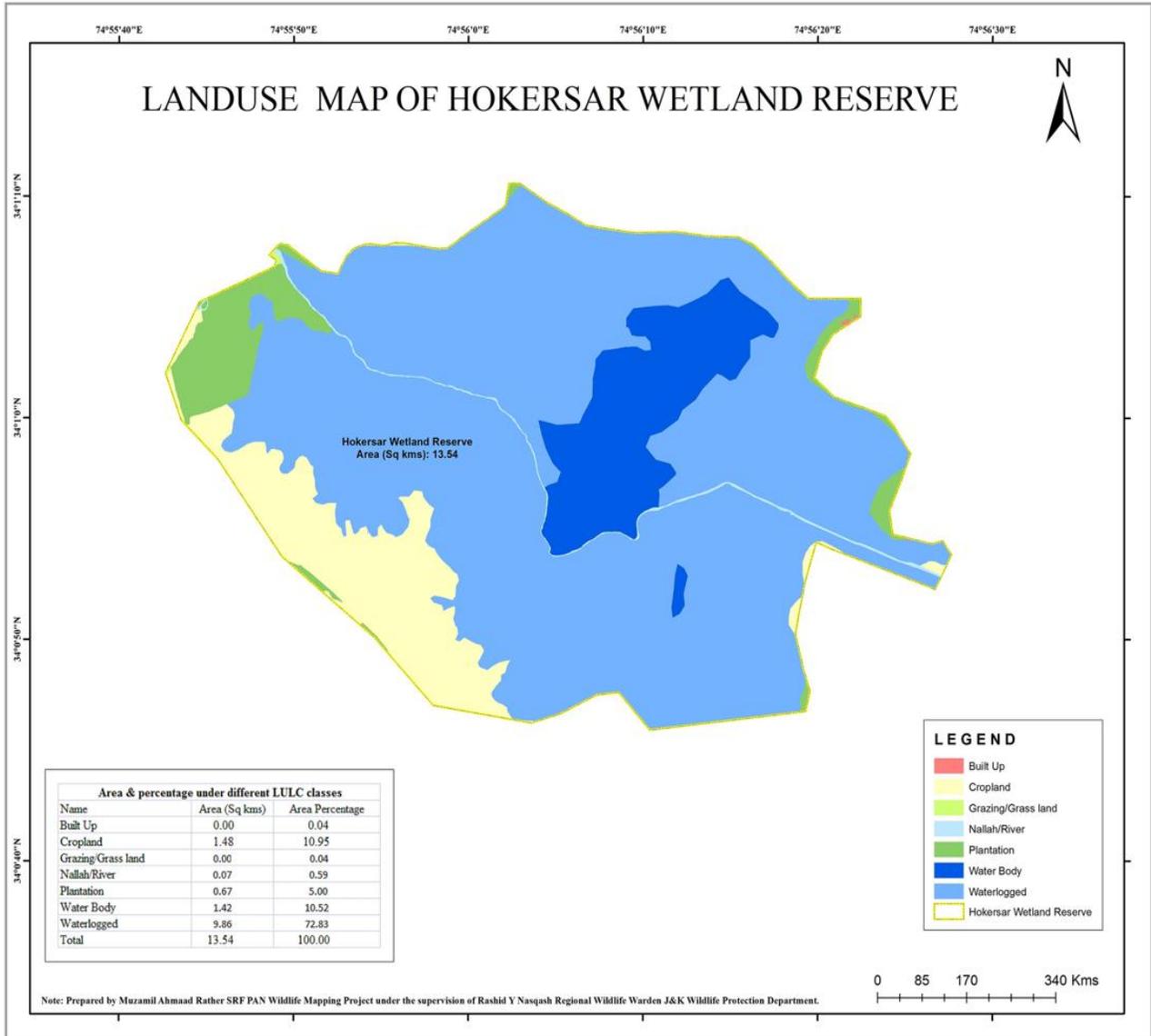
Hokersar Wetland Conservation Reserve is a shallow post-glacial water body, flanking the river Jhelum which is running across the valley. Hokersar is a permanent entropic lake lies surrounded by fresh water marshes on the flood plain of River Jhelum and is at about 10 Km west of Srinagar city. The area of Hokersar Wetland Conservation Reserve falls in the districts of Budgam and Srinagar.

Two perennial streams of Dood-ganga and Sukhnag feed the wetland, the Lake reaches a maximum depth of 2.50 m in spring during snowmelt and a minimum of 0.75 m in autumn. It is located in 34 ~ 05' N and 74 ~ 43' E at an altitude of 1580 m. The average rainfall is 550 mm, most of which falls between January and March. It is represented on G. T. Map 43 J/12 and 43 J/16, situated at an altitude of 1,584 m. above M.S.L. The wetland is roughly oval in outline and spread over 13.54 Sq. Km. area

The wetland is drained into the River Jehlum through Doodhganga flood spill channel, The vegetation ranges from submerged, attached, free floating to emergent aquatic vegetation, grasses, herbs, reeds and sedges, shallow areas support of *Typha and Phragmatis*. *Trapa natans*, *Nymphoides peltata*, *Nymphoide candida* and *Sparganium ramosum* and *Polygonum spp* occur in the open water areas.

There are many floating gardens in the lake, plantation of *Salix alba* has been taken up along the shoreline, while rice is grown in the surrounding areas, these crop fields also provide foraging areas for birds.

The lake is particularly important as a wintering area for migratory ducks and geese, and as a breeding area for herons, egrets and rails. There has been a considerable increase in the number of waterfowl numbers since shooting was banned.

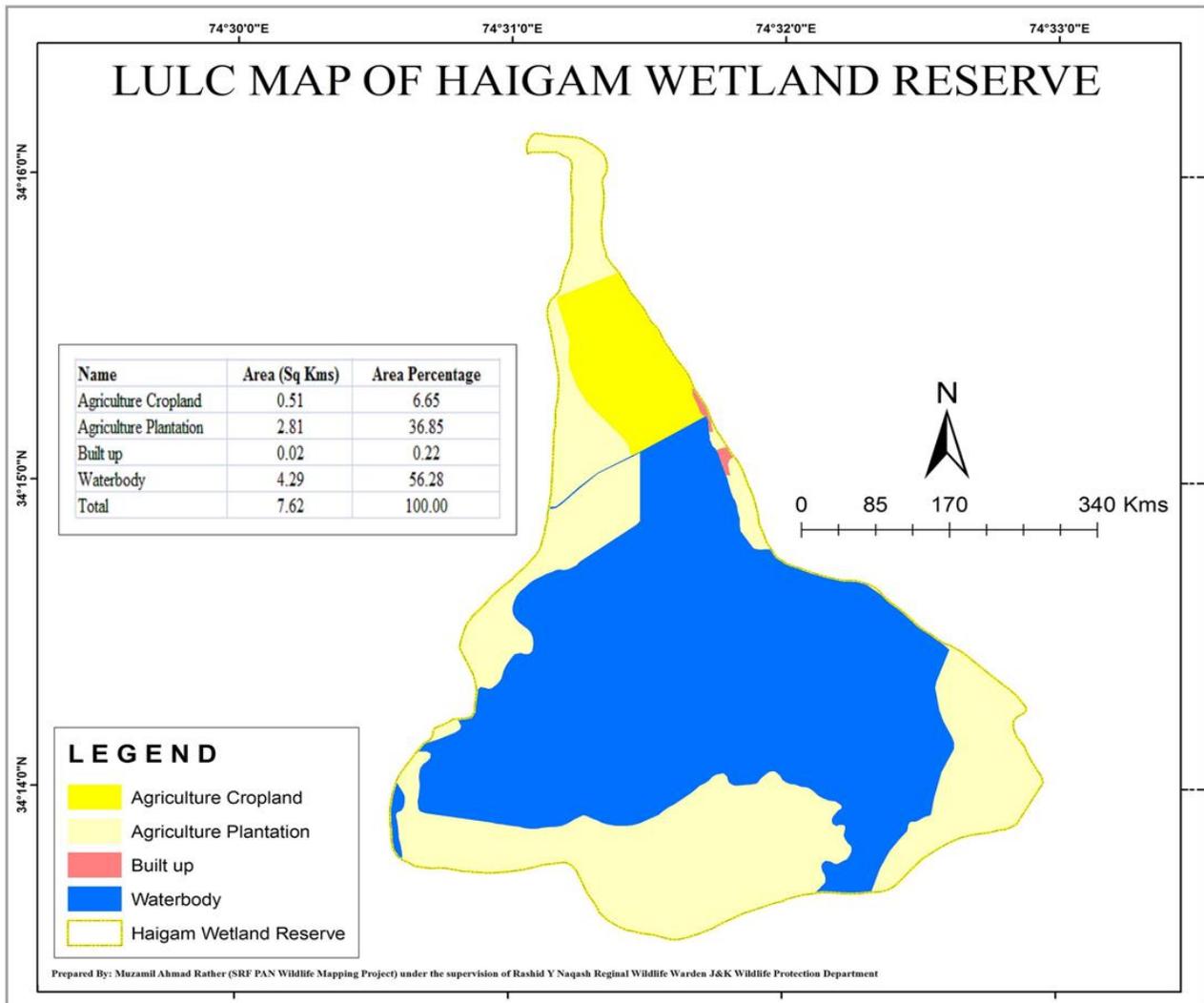


2 - Hygam Wetland Conservation Reserve (RAMSAR site)

Hygam Wetland Conservation Reserve has been declared a Ramsar Site on the eve of India's 75th year of independence. It is a renowned waterfowl reserve, about 40 Km north of Srinagar and falls in District Baramulla, Hygam Wetland Conservation Reserve has an area of 7.62 Sq Km's, and was notified a Reserve in 1945, Vide Cabinet Order No: 710-C of 1945, Dated: 17-07-1945. Hygam Wetland Conservation Reserve derives its name from the village where it is situated.

Hygam Rakh is a permanent shallow freshwater lake with a maximum depth of 1.2 m. perennial stream of Balkul and Nigli feed it but the water table falls in late summer and reaches the lowest ebb in autumn, and rises in early winter.

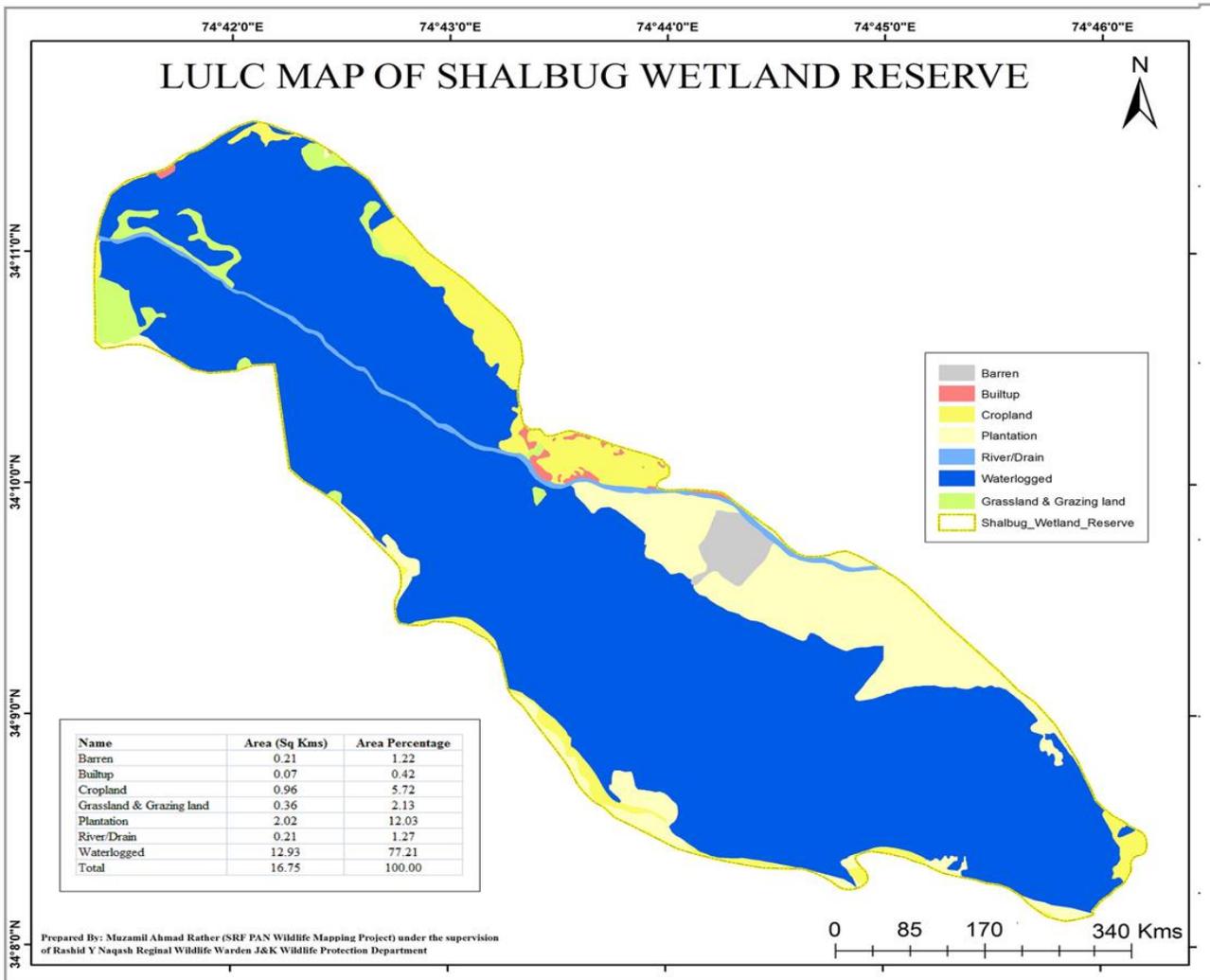
The surrounding area are predominantly paddy fields and marshes with some pastures and get flooded after heavy rains, most of the lake is covered with a dense growth of reeds and other emergent vegetation, dominant species include *Typha angustata*, *Phragmites communis*, *Phalaris arundinacea*, *sparganium rerectum*, *Sparganium ramosum*, *Scirpus Maritimus* and *Scirpus Triquenter* (Kal et al 12980, Kaul 1982) in open areas there are various floating leaf species such as water lilies *Nymphaea stellata* and *Nymphaea alba*, Fringed Water Lily *Nymphoides pellata*, and water Chestnut *Trapa Natans* (Kaul et al. 1980), The vegetation is rooted in the bottom of shallower areas or on a floating mat of roots and silt. Hygam Rakh is the largest remaining reed-bed area in the Kashmir Valley and it is of major ornithological importance (Holmes and Parr 1988). It is particularly important for migratory species and marshland breeding species. Hygam provides a vital staging area for many passage migrants (Islam et al. 2004). Since shooting was banned in 1995-96, there has been a steady increase in the migrant population of waterfowl and other birds at Hygam Wetland Conservation Reserve.



3 - Shallabugh Wetland Conservation Reserve (RAMSAR site)

Shallabugh Wetland Conservation Reserve has also been declared a Ramsar Site on the eve of India's 75th year of independence. Shallabugh Wetland Conservation Reserve has an area of 16.65 Sq. Km's and is located near Srinagar City between 34°09'N, 74°43' E and 1,565 m above M.S.L. The Wetland is fed by the perennial Sindh nalla and several other small streams that usually dry out during the summer. The depth of the wetland ranges between 0.5–2m. The shallow areas have extensive reed beds providing good habitat for waterfowl. The wetland is important for long distance migrants as a stopover site for feeding and resting. It has been observed that the waterfowl population which start their inward migration to the Shallabugh Wetland Conservation Reserve in mid-November peaks to around more than 300,000 to 400,000 during the last week of February and later start declining in numbers as the temperature in the Valley rises. The population density of waterfowl varied across varying degrees of disturbance and food availability within the wetland with the maximum number of recordings being on the area preferably in the middle of wetlands. The emergent vegetation and dense macro-phytic vegetation of Shallabugh Wetland Conservation Reserve provide safe nesting and breeding habitats for Mallard and other water birds like common Moorhen, Coot. The Wetland harbors a variety of aquatic and semi-aquatic vegetation providing a good habitat for a variety of birds. Wetland vegetation comprising of *Potamogeton*spp, *Myrio- phyllumverticillatum*, *Nymphaeaspp*, *Phragmites australis*, *Trapanatans*, *Typha spp*.

The Shallabugh Wetland Conservation Reserve along with other Wetlands of the Valley provide buffering of water flows in vulnerable high mountain catchments across the Greater Himalayan regions of Kashmir and are also crucial for sustaining bio-diversity and local people's livelihoods. Presently, the livelihood of a sizeable population of around 10 villages depends on Shallabugh Wetland Conservation Reserve for extraction of wicker willow, popular, fishery, livestock grazing, around 300 households' families around Shallabugh Wetland Conservation Reserve alone are earning their livelihood through wicker willow-based basket industry and the majority community has switched to the Poplar cultivation mainly in and around the wetland because of high profitability to the growers. This excessive use and extraction of resources by the communities for their livelihood generation has put tremendous pressure on the wetland and access denied to the resources at times have adversely affected the rural economy thus acceptance of wetland and biodiversity conservation ideals by local people is also greatly affected.

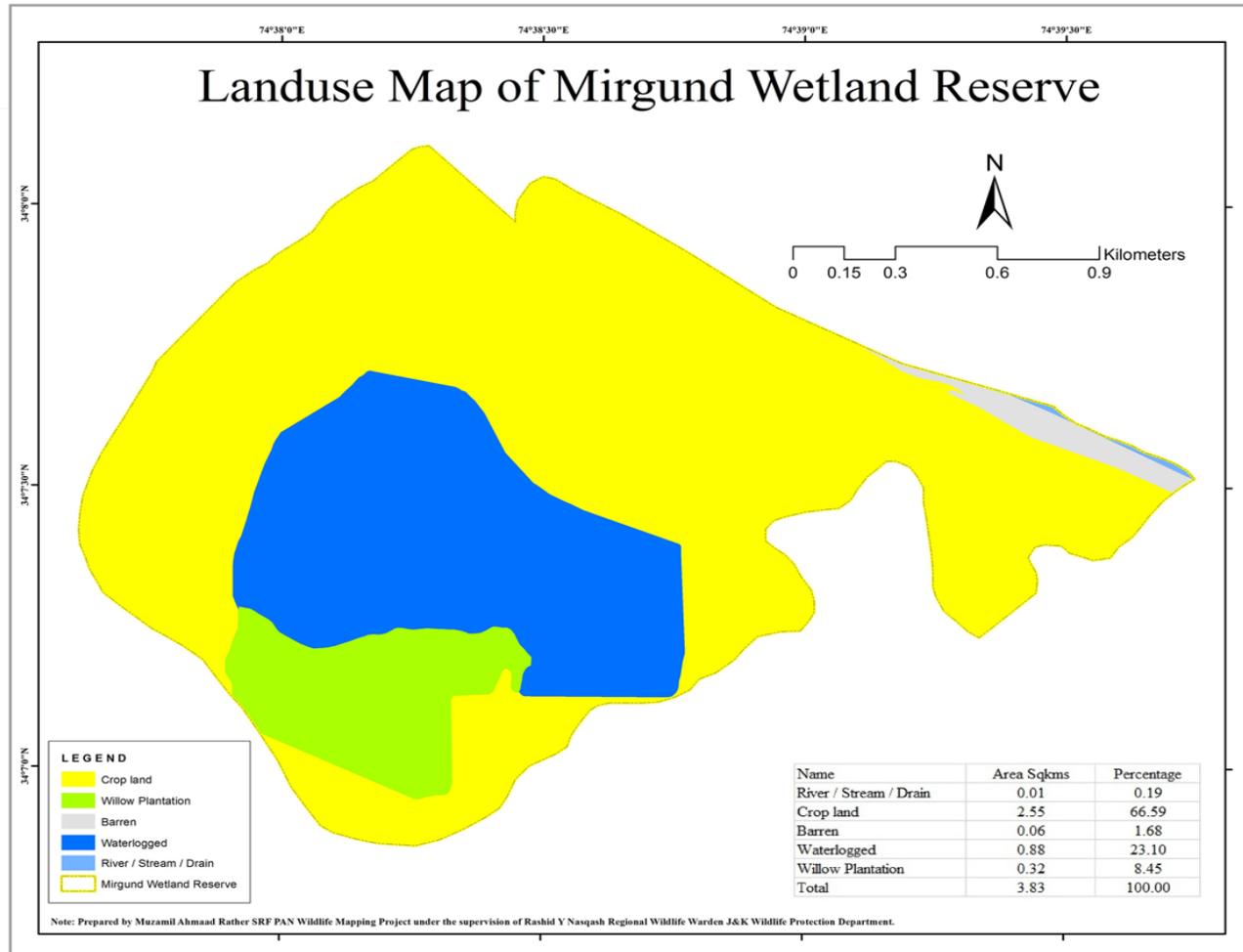


4 - Mirgund Wetland Conservation Reserve.

Mirgund Wetland Conservation Reserve is situated in the Jhelum flood basin of Kashmir Valley, it is a paradise for migratory birds, just 16 km away from Srinagar city on Gulmarg Road sandwiched between Narbal, Check-i-Kawoosa, Mazhamz, Archandrahama, Arampura and Mirgund villages. Mirgund Wetland Conservation Reserve is a shallow, freshwater Wetland associated with reed-beds and riverine marshes. Lying on the flood plain of the Jhelum flood channel the Wetland is fed by the local runoff, the Sukhnag and the Ferozpur Nallas, the depth of the water generally varies between 0.1m and 0.5m. much of the wetland dries out during the summer and the water level fluctuates considerably according to the local runoff. Willow (*Salix sp*) has been planted on the periphery of the Wetland. Earthen Bunds have been constructed to maintain the water level and also to control siltation.

The open water spread has floating communities of *Nymphaeacandicia* and *N. stellata*. The wetland is surrounded by paddy fields, pastures and plantations. All these

habitat types provide foraging grounds for migratory birds. The wetland is being extensively used for harvesting fodder by the local inhabitants.



5 - Chattlum Wetland Conservation Reserve

Chattlum Wetland Conservation Reserve is situated on the eastern bank of the River Jhelum merely 11 km away from Srinagar city located at 34.02° N and 74.93° E with an average elevation of 1,574 meters. Chattlum Wetland Conservation Reserve with an area of 1100 Kanals (55 Ha) is situated on east of Pampore and is more or less, an oval shaped. The villages that are in close vicinity to this Wetland are Lalpora (Chatlam) and Meej on Northern side and Konibal-Munpora on eastern side, with Kranchu-Chandhara wetlands on Southern side.

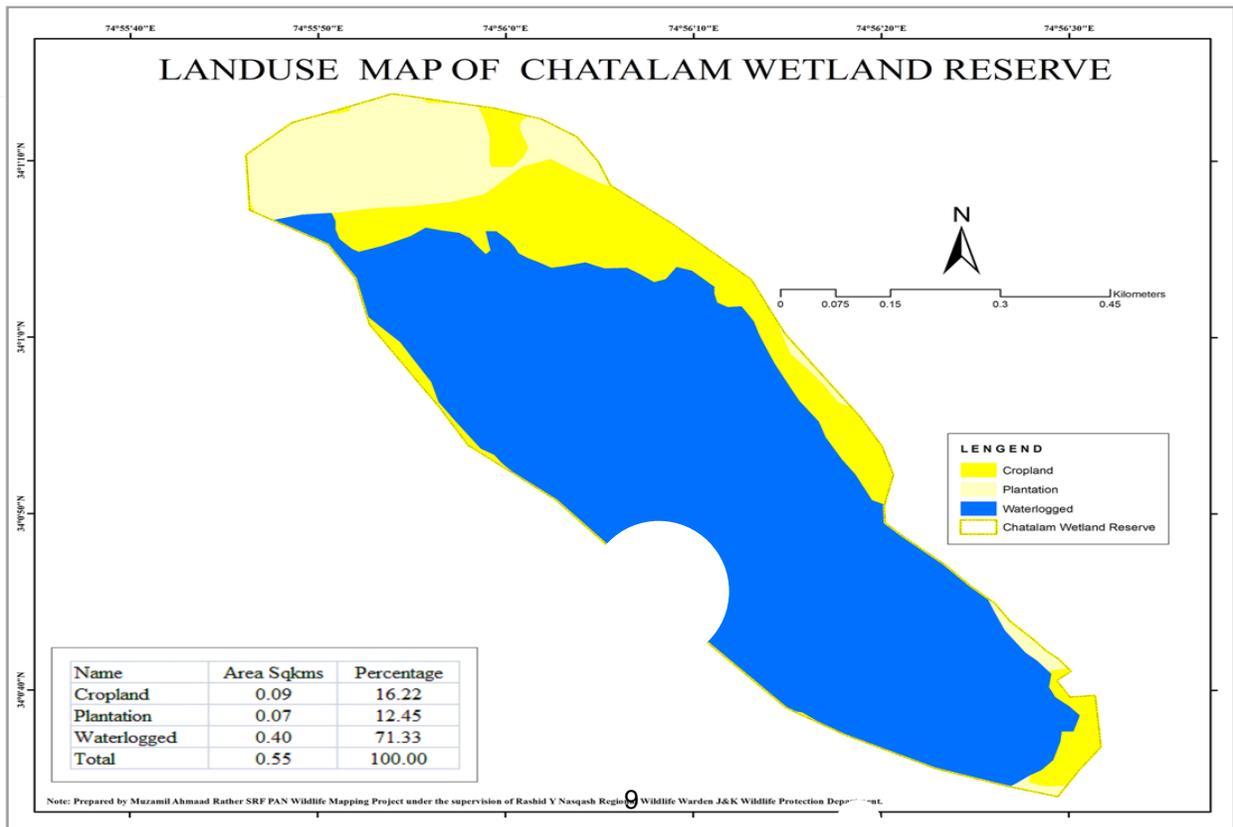
Chattlum Wetland Conservation Reserve locally called as BODSAR with total basin area of 2.1 Km² lies between 34^o.01/ N latitude and 75^o.58/E longitude in the south of the Srinagar City at a distance of 16 Km. Out of total 2.1 Km² basin area that is bounded by a vast catchment area extending from Pampore and Bagi-inayatullah in the

west and Konibal to Wuyan in the east, it has 0.7 Km² surface area and 1.4 Km² marshy area. The wetland is a permanent but relatively shallow water body with fluvial origin and enjoys a sub-mediterranean climate. It is fed by the perennial water channel of adjoining areas originating from the eastern mountain slopes, which makes its way, to Wetland in the west in Chattlum village of tehsil Pampore of district Pulwama apart from being the largely spring fed. The water table depends of the Wetland is high and it remain with adequate water discharge throughout the year.

The Wetland reaches a maximum depth of 4.5 m in spring during snow melt and a minimum of 3.5 m in autumn. The catchment of the wetland houses 12 villages having a population of about 33,000 which use this wetland for fishing, irrigation and domestic purposes, besides, about 11,805 cattle head count dwells in the catchment area which pose grazing pressure on the Wetland, the incessant increase in the agricultural activities in the catchment area is marked by various land use practices dominated by saffron and rice cultivation, apart from local resident birds which breed in the Wetland provide ample and conducive habitat for breeding individuals of Mallards.

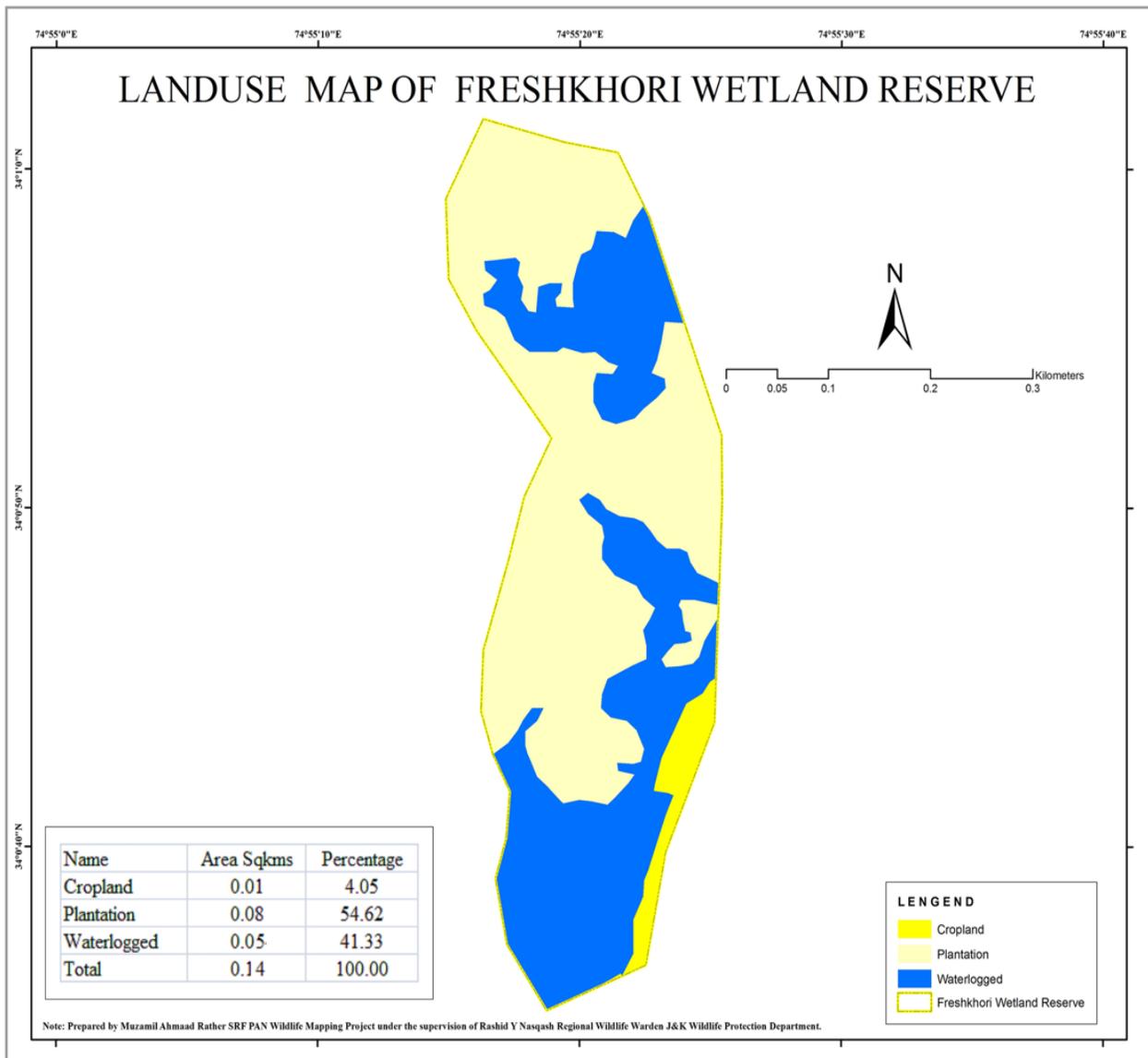
The vegetation ranges from submerged, attached, free floating to emergent. Shallow areas support thick stands of *Typha* and *Phragmites*. *Trapa natans*, *Nymphoides peltatum*, *Nymphoide candida* and *Nymphoidestellata* occur in the open water areas. There are many floating gardens in the lake. Plantation of *Salix alba* has been taken up along the shoreline, while rice is grown in the surrounding areas. These crop fields also provide foraging areas for birds.

Chattlum Wetland Conservation Reserve is an important Wetland for both resident and migratory waterfowl, the wetland is particularly important as a wintering area for migratory ducks and geese, and as a breeding area for herons, egrets and rails.



6 - Fashkooori Wetland Conservation Reserve

Fashkooori Wetland Conservation Reserve (Fushkooori) is situated in Pulwama District, very close to Pampore Town. It is spread over an area of 14 Ha and lies between 34° 1.022'N74° 55.274'E and 34° 0.592'N74° 55.319'E. This Wetland receives large congregations of waterfowl during winters besides sizeable number of summer migrants and resident birds inhabit this Wetland. The most dominant waterfowl families in Fashkooori Wetland are Anatidae followed by Ardeidae and Rallidae. The Wetland act as a satellite refuge for local migration patterns from adjoining other Pampore Wetlands. Mallards have been recorded to breed in this wetland as tall patches of Typha provides a good and suitable condition for the duck to breed.

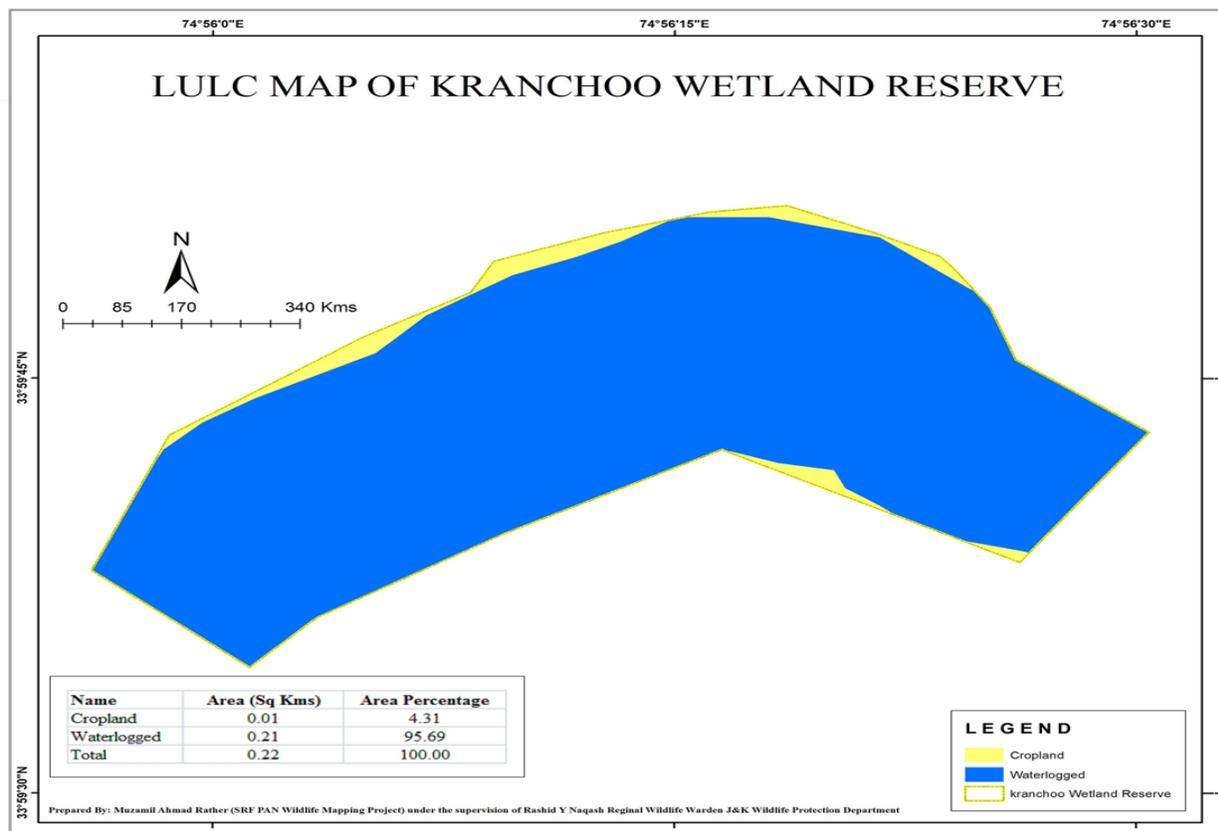


7 - Kranchoo Wetland Conservation Reserve

Kranchoo Wetland Conservation Reserve (Kreentchoo or Kranchoo) lies about 17 Kms east of Srinagar on Srinagar-Jammu National Highway. The area of Wetland is 6.4 ha and it lies in Pulwama District. It is fed by its immediate watershed (Karevas) but largely it is spring fed. It has been named after Kranchoo village situated near it. The Wetland has about 96% waterlogged area, there is no report of any encroachment in the wetland area under the jurisdiction of Department of Wildlife Protection.

Kranchoo Wetland Conservation Reserve is an important water body for both resident and migratory waterfowl. Hussain (1989) counted 64 species in and around the Wetland during bird ringing studies. The Wetland is particularly important as a wintering area for migratory ducks and geese and as a breeding area for herons, egrets and rails apart from local resident birds, the Wetland provides ample and conducive habitat for breeding of Mallards.

Vegetation ranges from submerged, attached, free floating to emergent, shallow areas support thick stands of *Typha* and *Phragmites*. *Trapa natans*, *Nymphoides peltatum*, *Nymphoide candida* and *Nymphoide stellata* occur in the open water areas. There are many floating gardens in the lake. Plantation of *Salix alba* has been taken up along the shoreline, while rice is grown in the surrounding areas. These crop fields also provide foraging areas for birds.



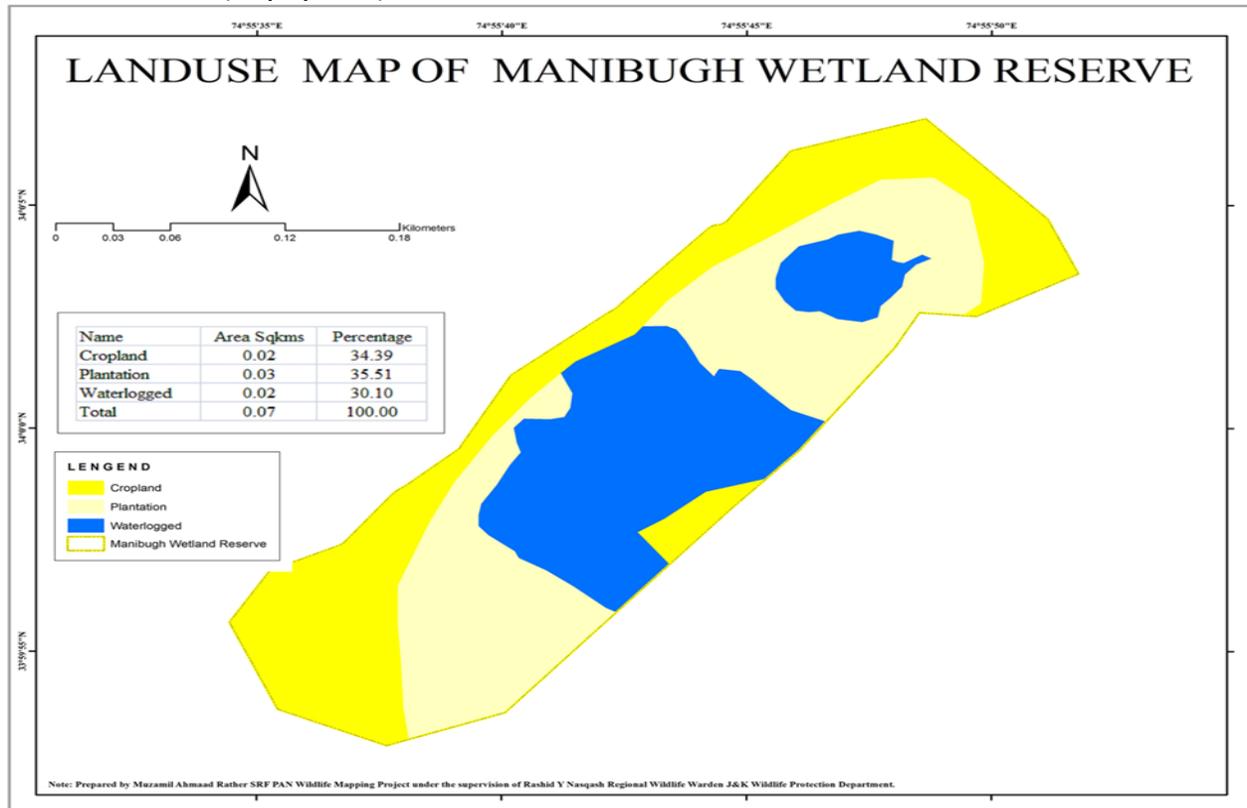
8 - Manibugh Wetland Conservation Reserve

Manibugh Wetland Conservation Reserve is situated near Pampore Town in District Pulwama and lies between 34° 0.111'N 74° 55.812'E & 33° 59.897'N 74° 55.595'E at an altitude 1588 mtr spread over an area of 7 Hac

Manibugh Wetland Conservation Reserve is the breeding ground and the meeting point of many birds. The ecosystem of Wetland is of great ecological and socio-economic importance as it harbors a diverse collection of waterfowl as the wetland is providing a good habitat for birds with abundant food, safe place for roosting, nesting and breeding, form the ornithologist point of view.

the Pampore Wetlands including Manibugh is a heaven for migratory species of birds, including endemic and near endemic ones, this Wetland is renowned for its beauty and favorite destination for bird watching, has a rich biodiversity and macrophyte richness, besides, this mentioned inland wetland, there are three more satellite wetlands in its vicinity together they form integrated and complex ecosystem. These satellite wetlands offer refuge to thousands of migratory birds from different parts of the World including Central Asia and China.

A total of (85) species of birds belonging to twenty-five (25) families including fifteen (15) species of migratory waterfowl have been recorded so far in Manibugh Wetland Conservation Reserve, these belong to the families of *Anatidae*, *Rallidae*, *Laridae*, *Hirundinidae*, *Accipitridae*, *Podicipedidae*, *Ardeidae*, *Sturnidae*, *Motacillidae*, *Paridae*, *Muscicapidae*, *Scolopacidae*, *Passeridae*, *Alcedinidae*, *Phalacrocoracidae*, *Recurvirostridae*, *Upupidae*, *Columbidae*.



The Activity wise Action taken and Achievements during the last four (04) years is summarized as under:

Encroachment status and Evictions made by Department in Wetlands under question:

Abstract of Notices served under Section 27(3), 33(c), 36(B), 51 & 52 of Wildlife Protection Act, 1972 by Wetlands Division, Kashmir for eviction of age-old encroachments in eight Wetland under its jurisdiction from 2019 to 2024.

S No	Name of the Wetland Reserve	Name of Villages Notices served	Number of First Notices served in 2019-20	Number of Second Notices served in 2020-21	Number of Final Notice served in 2023-24	Total Number of Notices served till date
1.	Hokersar WLR	Zainakoot	356	20	-	376
		Haji Bagh	119	20	-	139
		Sub Total	475	40	-	515
2.	Hygam WLR	Wandakpora	35	Nil	-	35
		Radigam	43	Nil	-	43
		Akhoonpora	13	Nil	-	13
		Hangipora	02	Nil	-	02
		Sub Total	93	Nil	-	93
3.	Shallabugh WLR	Tengpora	05	Nil	-	05
		Takinwari	04	Nil	-	04
		Badiwooder	05	Nil	-	05
		Kreshbal	12	Nil	-	12
		Sangam	14	Nil	-	14
		Bakshipora	04	Nil	-	04
		Reshipora	01	Nil	-	01
		Sub Total	45	Nil	-	45
4.	Mirgund WLR	Gagerpora	35	Nil	-	35
		Sub Total	35	Nil	-	35
5.	Chtattalum WLR	Chattalum	50	Nil	132	182
		Sub Total	50	Nil	132	182
6.	Freshkooori WLR	Namlabal	84	Nil	-	84
		Sub Total	84	Nil	-	84
7.	Kranchoo WLR		0	0	0	0
		Sub Total	0	0	0	0
8.	Manibugh WLR		0	0	0	0
		Sub Total	0	0	0	0
	All Wetlands	Grand Total	782	40	132	954

Details of Anti-encroachment drives carried out and eviction made:

S No	Name of the Wetland Reserve	Name of Villages Notices served
1.	Hokersar WLR	<ul style="list-style-type: none"> • From Gate No.3 of Hokersar WLR to Tiffin Shed 11 Hac of land has been retrieved / cleared by way of cutting / felling of trees and dredging of channel • 180 Kanals of land has been evicted by way of cutting of trees planted by local inhabitants. • Under Zainakoot Beat 36 Hac of land has been retrieved / cleared by way of excavation of peripheral channel in coordination with FMD Baramulla • Under Gund Hassi Bhat Beat from Ali Abad to Gund Hassi Bhat 16 Hac of land has been evicted by way clearance / felling of trees planted by local inhabitants. • 8 Hac of land evicted by way making of peripheral channel from Gotapora to Sureshbal
2.	Hygam WLR	90 Kanals of land retrieved by way of demolition of temporary cross bunds and inundation of wetland areas.
3.	Shallabugh WLR	0.5 Hac of land have been retrieved by way of cutting of trees under Sangam & Kreshibal Beats
4.	Mirgund WLR	65 Hac of land have been retrieved and merged with Mirgund Wetland Reserve due to completion of demarcation process.
5.	Chtattalum WLR	Eviction under process, Revenue details awaited
6.	Freshkooori WLR	Eviction under process, Revenue details awaited
7.	Kranchoo WLR	No encroachment has been reported
8.	Manibugh WLR	No encroachment has been reported

Above Table reflects that eviction to the tune of approximately 407 (four zero seven) Hac has been made by this Division. Continued efforts are being put in by this Department to gain substantial ground with regard to eviction of age-old encroachments

Solid Waste Management:

All the said wetlands have many villages falling in these zones of influence and the generated solid waste in these habitations do find a way in these wetlands inspite of regular cleanliness drives being conducted by the Department of Wildlife Protection on regular intervals. The Department is in continuous and regular touch with the concerned Urban Local Bodies and Rural Sanitation J&K Government for taking appropriate measures of collective scientific disposal of solid waste generated in these

fringe villages of these wetlands. The J&K PCC is conducting water quality monitoring and assessment on regular intervals and the latest report with respect to water quality in these wetlands is given as under:



J&K Pollution Control committee
Office of The Regional Director – Kashmir

Analysis Report

Physico Chemical Characteristics of various Wetlands of Kashmir Division

LOCATION	Shallbugh Ganderbal			Hygam Baramulla			Freshkroori Pulwama			Primary water quality criteria for outdoor Bathing(Organised) (class B)
	Inlet	Centre	Outlet	Inlet	Centre	Outlet	Inlet	Centre		
Date of Sampling:-	22-04-2024			21-04-2024			23-04-2024			
1 Air Temp. °C	22.9	30.2	18.8	18.0	16.0	15.0	20.0	20.9		
2 Water Temp. °C	17.1	16.7	19.5	20.0	18.0	17.0	18.6	19.0		
3 pH	7.25	7.60	7.81	8.08	7.91	8.30	9.58	8.45	6.5 - 8.5	
4 Conductivity µs/cm	324.0	392.0	326.0	236.0	216.0	231.0	501.0	607.0		
5 T.D.S	173.0	207.0	172.0	130.3	120.0	127.8	282.0	331.0		
6 D.O	2.9	3.1	5.0	6.9	5.1	9.0	2.0	3.8	>5mg/l	
7 C.O.D	72.00	48.00	32.00	26.16	18.69	24.29	96.00	104.00		
8 B.O.D	7.90	4.40	2.80	2.3	1.5	2.0	14.8	15.2		
9 Phosphate	0.400	0.529	0.347	0.213	0.173	0.117	0.178	0.218	< 3mg/l	
10 Ammonical Nitrogen	2.0	1.88	1.21	2.400	1.920	1.05	2.242	2.250		
11 Sulphate	28.78	49.54	19.39	35.90	28.33	11.360	33.02	32.57		
12 Hardness	210.0	240.0	186.0	134	114	138.00	216.0	266.0		
13 Calcium	54.50	52.10	45.69	33.66	34.46	35.27	48.1	76.15		
14 Magnesium	17.98	26.73	17.49	12.15	6.8	12.15	23.3	18.46		
15 Total Alkalinity	202.0	210.0	180.0	122.0	126.0	138.0	P=8 M=232 Total=240	280.0		
16 Chloride	24.0	46.0	26.0	30.0	28.0	24.0	80.0	84.0		
17 Turbidity NTU	39.0	3.0	5.0	134.0	90.6	26.5	25.0	23.0		

→All Values are in mg/l except pH, conductivity, Turbidity & Temperature.

Samples collected and submitted for analysis by WildLife wetland division

Analysis results are confined to the Samples Submitted for Analysis

Analyzed by

[Handwritten Signature]

[Handwritten Signature]
I/C Water Lab



J&K Pollution Control Committee

Shiekh-ul-Alam Complex Rajbagh Kashmir

Analysis Report

Physico Chemical Characteristics of various Wetlands of Kashmir Division

S.no	LOCATION	Kranchoo pampore			Chatlam Pampore			Manibugh Pulwama			Primary water quality criteria for outdoor Bathing(Organised) (class B)
		Inlet	Centre	Outlet	Inlet	Centre	Outlet	Inlet	Centre		
	Date of Sampling:-	23-04-2024			23-04-2024			23-04-2024			
1	Air Temp. °C	22.5	23.5	23.0	17.8	15.0	18.0	23.0	24.0		-
2	Water Temp. °C	21.0	21.5	19	15.6	14.5	16.3	19.5	20.5		-
3	pH	7.66	7.39	7.61	7.58	8.42	7.61	8.01	8.42		6.5 - 8.5
4	Conductivity µs/cm	570.0	443.0	561.0	416.0	814.0	445.0	940.0	780.0		-
5	T.D.S	312.0	245.0	307.0	220.0	435.0	245.0	514.0	433.0		-
6	D.O	5.8	4.0	3.4	4.8	5.6	5.0	4.5	6.7		>5mg/l
7	C.O.D	67.29	31.78	28.04	39.24	65.42	28.00	42.98	39.24		-
8	B.O.D	5.7	3.5	3.30	3.50	5.7	2.9	4.10	3.2		< 3mg/l
9	Phosphate	0.323	0.084	0.064	0.1000	0.109	0.089	1.14	1.06		-
10	Ammonical Nitrogen	1.572	1.056	0.684	0.504	1.030	0.468	1.14	1.060		-
11	Sulphate	13.33	5.45	4.84	7.57	13.48	8.33	3.480	5.450		-
12	Hardness	284.0	226.0	304.0	254.0	186.0	160.0	436.0	360.0		-
13	Calcium	48.89	50.50	72.14	50.50	48.09	32.06	122.64	96.19		-
14	Magnesium	39.36	30.61	30.13	31.10	16.0	19.44	31.57	29.16		-
15	Total Alkalinity	286.0	300.0	360.0	260.0	450.0	262.0	690.0	340.0		-
16	Chloride	22.0	20.0	34.0	30.0	70.0	28.0	48.0	38.0		-
17	Turbidity NTU	7.0	10.0	8.0	4.0	3.0	3.0	15.0	11.0		-

→All Values are in mg/l except pH, conductivity, Turbidity & Temperature.

Samples collected and submitted for analysis by WildLife wetland division

Analysis results are confined to the Samples Submitted for Analysis

Analyzed by

[Handwritten signature]

[Handwritten signature]
I/C Water Lab

Demarcation details of Wetland Conservation Reserves.

Continuous efforts have been put in by the Department to demarcate the Wetland Boundaries, which has been followed by the construction / installation of Boundary Pillars and sometimes permanent consolidation is being achieved by erection of Chainlink, Barbed wire fencing and construction of Bunds. Since, the Wetlands are surrounded by revenue and proprietary lands, therefore, lot of challenges are being faced by the Department while clearing the disputes with regard to demarcation lines. However, as on date substantial achievements have been made in this direction which, is quantified in the table below:

S No	Name of the Wetland Reserve	Total Area	Points Surveyed	Number of Boundary Pillars installed on ground till 31-03-2024	Remaining Boundary Pillars to be installed during 2024-25
1.	Hokersar WLR	13.54 Sqkm	74	50	24
2.	Hygam WLR	7.62 Sqkm	75	56	19
3.	Shallabugh WLR	16.75 Sqkm	91	49	42
4.	Mirgund WLR	3.83 Sqkm	108	10	98
5.	Chtattalum WLR	0.55 Sqkm	30	30	0
6.	Freshkoori WLR	0.14 Sqkm	30	30	0
7.	Kranchoo WLR	0.22 Sqkm	22	15	7
8.	Manibugh WLR	0.07 Sqkm	18	10	8
	All Wetlands	Total	448	250	198

Siltation of Wetlands

Siltation of Wetlands is a major challenge that is continuous and progressive in nature. Main source of the siltation remains the feeding channels of Wetlands in addition to the depositions carried over by flood waters. This Department has been working aggressively to work out the solutions which, will create permanent check to tackle the silt deposition. Four-pronged strategy in this direction is to be implemented in a phased wise manner.

- A. To Construct Regulatory Gates at the entry points of feeding channels.
- B. To retard the water velocity at the entry points by construction of Settling Basins, Velocity damping structures and by construction Zig Zag Channels
- C. Construction of Embankments to regulate flood waters that finds its way in to Wetlands.
- D. Dredging and Desilting of Wetlands by Auction of critically silted up areas

Implementation of these strategies requires coordination and intervention of other Line Departments like Irrigation & Flood Control (I&FC), Public Works Department (PW R&B) etc. an immediate step taken in this direction is the construction of Water Regulatory gate in the Hokersar Wetland Conservation Reserve. The work has been taken up like Irrigation & Flood Control (I&FC) and is expected to be completed by end of current financial year 2024-25.



Similar kind of intervention shall be taken up in the Hygam Wetland Conservation Reserve during the current financial year detailed as under:

S No	Name of Work	Year of execution	Financial layout	Scheme
1	Diversion of Nigli Nallah and Balkul for regulating water supply and sit deposition during floods in Hygam WLR	2024-25	35.00	CAMPA
2	Construction of Check Dam and Hydraulic Gate at entry point of Nigli Nallah into Hygam WLR	2024-25	20.00	NPCA CSS

Another important intervention in this direction is the dredging which, helps in removal of *microphyte* vegetation and excess silt deposition. This Department has adapted a way wherein, critically silted areas are being auctioned for the purpose of dredging thereby, achieving de-siltation of Wetland in addition to which, substantial revenue is also being generated. This technique has been implemented in the Hokersar Wetland Conservation Reserve and following progress has been achieved:

Details of Auction Plots taken up at Hokersar WLR

Haji Bagh Auction Plot

Details		
Auctioned Area	HAC	7.245
Approved Quantity	CUM	75154
Amount realized H/1	INR in Lakh	43.48
Lifted Quantity	CUM	38572

Soibugh Auction Plot

Details		
Auctioned Area	HAC	26.37
Approved Quantity	CUM	193358
Amount realized H/1	INR in Lakh	126.26
Lifted Quantity	CUM	24500

Near New Trash Guard Auction Plot

Details		
Auctioned Area	HAC	1.00
Approved Quantity	CUM	8971
Amount realized H/1	INR in Lakh	5.32
Lifted Quantity	CUM	6000

**Habitat Management Creation of Boat Ways / Navigation Channels/
Clearance of Floating Vegetation / Making of Clear Water Pools:**

Some additional activities are being taken up by the Department annually to maintain and improve the health of Wetlands whose, quantified description is tabulated below alongwith the proposed targets for upto 2027

Habitat Management	Unit	Phy 2022-27 (SqM)	Fin (Lakh)	Achieve 2022-23 (SqM)	Achieve 2023-24 (SqM)	Physical Targets for Year 2024-25 (SqM)	Financial Targets Year 2024-25 (Lakh)	Physical Targets 2025-27 (SqM)
Clearance of Floating Vegetation/ Pools in all eight Wetlands of this Division	SqM	120000	444.00	18000	23000	20662	76.45	58338
Hokersar WLR		80250	321.00	3917	2873	5143	18.00	68317
Hygam WLR		77500	310.00	265	2568	2571	7.00	72096
Shallabugh WLR		85000	340.00	2022	3553	7143	25.00	72282

Raising of Embankment / Bunds along Wetland Reserve peripheries:

Land and Water Resource Management	Unit	Phy 2022-27 (Cum)	Fin (Lakh)	Achieve 2022-23 (Cum)	Achieve 2023-24 (Cum)	Physical Targets for Year 2024-25 (Cum)	Financial Targets Year 2024-25 (Lakh)	Physical Targets 2025-27 (Cum)
Embankment along peripheries in all wetlands of This Division	Cum	34320	96.00	4853	5832	8500	34.00	15135
Hokersar WLR		3888	13.61	600	326	1333	4.00	1629
Hygam WLR		6320	33.12	2271	358	2000	6.00	1691
Shallabugh WLR		9300	32.55	1266	1180	4666	14.00	2188

Besides, 268 Cleanliness Drives have been conducted in all eight (08) Wetland Conservation Reserves under the Administrative Control of Wetlands Division, Kashmir.

Integrated Management Action Plan (IMAP) 2022-27:

An Integrated Management Action Plan (IMAP) has been formulated for all Wetlands for a period of Five (05) years w.e.f 2022 to 2027. This document provides a roadmap for the holistic Management Action Plan that shall pave the way for effective conservation of all Wetlands. Besides, providing the que for scientific managemental interventions required, it sets up a time line for the achievements along with the financial implications phased over the Plan Period.

Cumulative Targets under APO 2024-25 for the management of Wetlands:

Budgetary Allocation for the works that would continuously upgrade the health of Wetlands by mitigating the effects of stress parameters are tabulated as under:

Cumulative targets proposed under APO 2024-2025

S. No.	Activity	Hokersar	Hygam	Shalabugh	Mirgund	Chattlum	Manibugh	Kranchoo	Freshkhorri	Total
1	Survey Demarcation	24	19	42	98	-	08	07	-	198 BP's
2	Habitat Improvement by way of clearance of floating vegetation and creation of boat ways	7333	5454	6250	2666	5143	1571	27286	6250	61953 CUM'S
3	Strengthening / Raising of Embankments	-	1000	43040	2162	-	-	-	-	46202 CUM's
4	Anti Poaching Activities	3688	321	321	321	166	-	321	160	5298 Man Days
5	Consolidating boundaries by way of Fencing		508			1071	-	-	-	1579 RFT's
6	Cleanliness drive to collect / dispose Solid Waste	140	20	40	20	60	40	40	30	390 Drives
7	Awareness Programme	08	02	02	01	02	01	01	01	18 Program mes
8	Water Quality Assessment	To be Conducted quarterly								

				y	y					
9	Bio fencing	-	-	-	-	-	-	-	-	-
10	Water Pollution Monitoring	01	01	01			02	02		07
11	Boats / Jetties	02	01 Donga Boat			-	-	-	-	3
12	Watch tower / other infrastructure	NIC = 1, MAC Control Rooms = 02 Khan Sahib and Chadoora Budgam				Completion of B.O office, Boundary Wall, Maintenance of Lawn/Approach path and installation of Gate etc Viewing Deck	-	-	-	4 No.

Compliance report for submission before the Hon'ble National Green Tribunal (NGT)

**Wildlife Warden
 Wetlands Division, Kashmir
 Srinagar**