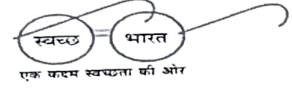


नॉर्दर्न कोलफील्ड्स लिमिटेड
खडिया परियोजना
(मिनिरातना कंपनी)
(कोल इण्डिया लिमिटेड की अनुषंगी कंपनी)



Northern Coalfields Limited
Khadia Project
(A Miniratna Company)
(A subsidiary of Coal India Limited)

Office of General Manager



CIN- U10102MP1985GOI003160

An ISO: 9001, ISO: 14001 & OHSAS: 18001 Certified Company

थाना- शक्तिनगर, जनपद-सोनभद्र (उ. प्र.), पिन - 231222/ Thana-Shaktinagar, Dist. Sonebhadra (U.P.) Pin- 231222
Phone: 05446- 232274, (FAX) 05446- 232274 Email: cgm.khd@gmail.com, website : www.nclcil.in

Ref: NCL/KHD/GM/Min/Env/FC 53.142/2024-25/ 4246

Date: 20/4/24

To,
Executive Engineer,
Water Resource Department,
Sl. No. -02,
Singrauli, Madhya Pradesh

Subject:- Comments on proposed measures and impact of the project on hydrological regime.

Dear Sir,

Khadia Expansion Opencast Project of M/s Northern Coalfields Limited has applied for forestry clearance of 53.142 Ha forest land in Singrauli District of Madhya Pradesh. During the processing of the said application, Ministry of Environment, Forest and Climate Change (MoEF&CC), New Delhi has raised a query as detailed below.

“As per the Mining plan, it has been reported that numerous seasonal nallas flowing through this area and meet the master drain the Rihand dam (Govind Ballabh Pant Sagar) which is located south of this area. Tippa Jharia nala drains the Khadia (Expansion) OCP area in north and Ballia nalla drains this OCP in south and meet the Gobind Ballabh Pant Sagar. Therefore, comments of the water resource department on the proposed measures and impact of the project on the hydrological regime are required to be submitted.”


In compliance of the above, a plan for conservation and protection of seasonal nallahs flowing through the leasehold area of Khadia Expansion Opencast Project, NCL is enclosed herewith.

It is requested to kindly give your comment on the proposed measures and impact of the project on the hydrological regime.

Encl.:- As above.



Yours faithfully,


20/04/2024
General Manager
Khadia Area, NCL



**Northern Coalfields Limited
Khadia OCP**

**Plan for conservation and protection of seasonal nallahs flowing through
the leasehold area of Khadia Expansion Opencast Project, NCL (1697.906
Ha Area).**

1. Tippa Jharia:-

Tippa Jharia does not flow from the leasehold boundary of Khadia OCP (1697.906 Ha). However, some of the drainage flowing from leasehold boundary in monsoon season and carrying storm water meets Tippa Jharia in the North.

Details and plan of conservation and protection of these drainage pattern (total 03) are as detailed below.

a) Seasonal Drain-1:

Brief Details of Seasonal Drain			
Sl. No.	Particulars	Details	
1	Type of Seasonal Drain	Ephemeral (Seasonal)	
2	Location within mine boundary	Start	End
	(i) Latitude	24°9'1.5084"	24°9'8.7624"
	(ii) Longitude	82°43'1.33"	82°43'0.653"
3	Length of Seasonal Drain	Approx 380 m within mine lease area.	
4	Direction of flow	A ridge / highest point lies in the drain within mine leasehold area. From that point, a portion of the water flows towards South west direction and another portion flow towards North Direction.	
5	Discharge	Dry throughout the year but it carries some discharge in the monsoon season.	

Plan for Conservation and Protection:-

The highest point of Seasonal Drain-1 is within the mine leasehold boundary, as shown with the contour in map enclosed at Annexure-1, The drain is generally dry except in monsoon season and the downward (southward) flow of the drain is collected within the sump created within mine premises of Khadia and Dudhichua. The outward (Northward) flow of this drainage meets Tippa Jharia Drain in North which ultimately discharges into Rihand Reservoir, therefore when the mine will progress in North direction, the seasonal drain- 1 will be cut off part by part, without interrupting the course of seasonal drainage. A surface plan of the mine lease with existing drain is enclosed herewith as Annexure-1. Howsoever, for the protection of existing drain, gabion walls will be constructed at the time of mining in the vicinity of this drain. Since it is a very small drainage and Ephemeral in nature, river training measures are not required. Since the bed and side slopes of Seasonal Drain-1 is made of sandstone, the stone pitching work is not required to prevent erosion.

[Signature]
Dr. M. R. (Enr.)
Khadia

[Signature]
19/4/24

[Signature]

Waste Management Plan of the Seasonal Drainage-1:

Khadia OCP is an existing mine with OB removal started from 1981-82. The major waste generated from mining activities is overburden. The overburden is completely being backfilled in the mine voids created due to excavation of coal. Also the Overburden dumps are being technically and biologically reclaimed. The overburden waste is not being dumped in or around the existing season Seasonal Drains.

Since the said drain will be intersected during the course of the mining, elevation of which will always be more than mine pit, there will be no scope of discharge of mine water / effluent in to drainage. Also, every year monsoon action plan is prepared at Khadia OCP and the run off of the mine area are led to Mine Sumps / Sedimentation ponds constructed within the mine area.

This drain lies in part of mine area which is in MP state, where no handling of hazardous / chemical substances takes place. Hence, there will be no chance of mixing of hazardous / chemical substances in surface run off discharging in the seasonal drain.

b) Seasonal Drain-2:

Brief Details of Seasonal drain

Sl. No.	Particulars	Details	
1	Type of Seasonal Drain	Ephemeral Seasonal Drain (Seasonal)	
2	Location within mine boundary	Starting Point	End Point
	(i) Latitude	24°8'44.6424"	24°9'9.7308"
	(ii) Longitude	82°43'17.958"	82°43'12.961"
3	Length of Seasonal Drain	Approx 840 m.	
4	Direction of flow	Northward	
5	Discharge	Dry throughout the year but it carries some discharge in the monsoon season.	

Plan for Conservation and Protection:-

Seasonal Drain-2 flow from South to North and meets Tippa Jharia Nalla which ultimately discharges into Rihand Reservoir, therefore when the mine will progress in North Direction, the Seasonal Drain- 2 will be cut off part by part, without interrupting the course of seasonal drainage. Also the Drain, as shown in the enclosed map, originates inside the mine lease area therefore no diversion of the same is required. A surface plan of the mine lease with existing Seasonal Drain is enclosed herewith as Annexure-1. Howsoever, for the protection of existing Seasonal Drain, gabion walls will be constructed at the time of mining in the vicinity of the Seasonal Drain. Since it is a very small Seasonal Drain and ephemeral in nature, river training measures are not required. Since the bed and side slopes of Nalla-1 is made of Sandstone, the stone pitching work is not required to prevent erosion.

Waste Management Plan of the Seasonal Drain-2:-

Khadia OCP is an existing mine with OB removal started from 1981-82. The major waste generated from mining activities is overburden. The overburden is completely being backfilled in the mine voids created due to excavation of coal. Also the Overburden dumps

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Manager
Khadia

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are being technically and biologically reclaimed. The overburden waste is not being dumped in or around the existing season Seasonal Drains.

Since the said Seasonal Drain will be intersected during the course of the mining, elevation of which will always be more than the depth of quarry of the mine, there will be no scope of discharge of mine water / effluent in the Seasonal Drain. Also, every year monsoon action plan is prepared & enforced at Khadia OCP and the run off of the mine are led to mine sumps / sedimentation ponds.

This Seasonal Drain lies in part of mine area which is in MP state where no handling of hazardous / chemical substances takes place, hence there will be no chance of mixing of hazardous / chemical substances in surface run discharging in the Seasonal Drain.

c) Seasonal Drain-3:

Brief Details of Seasonal Drain

Sl. No.	Particulars	Details	
1	Type of Seasonal Drain	Ephemeral Seasonal Drain (Seasonal)	
2	Location within mine boundary	Starting point	End Point
	(i) Latitude	24°8'28.9536"	24°9'3.2112"
	(ii) Longitude	82°43'28.42"	82°43'37.038"
3	Length of Seasonal Drain	Approx 1245 m.	
4	Direction of flow	Northward	
5	Discharge	Dry throughout the year but it carries some discharge in the monsoon season.	

Plan for Conservation and Protection:-

Seasonal Drain-3 flow from South to North and meets Tippa Jharia Nalla in North which ultimately discharges into Rihand Reservoir, therefore when the mine will progress in North direction, the Seasonal Drain- 1 will be cut off part by part, , without interrupting the course of seasonal drainage. Also the Drain, as shown in the enclosed map, originates inside the mine lease area therefore no diversion of the same is required. A surface plan of the mine lease with existing Seasonal Drain is enclosed herewith as Annexure-1. Howsoever, for the protection of existing Seasonal Drain, gabion walls will be constructed at the time of mining in the vicinity of the Seasonal Drain. Since it is a very small Seasonal Drain and Ephemeral in nature, river training measures are not required. Since the bed and side slopes of Drain- 1 is made of sandstone, the stone pitching work is not required to prevent erosion.

Waste Management Plan of the Seasonal Drain-3:

Khadia OCP is an existing mine with OB removal started from 1981-82. The major waste generated from mining activities is overburden. The overburden is completely being backfilled in the mine voids created due to excavation of coal. Also the Overburden dumps are being technically and biologically reclaimed. The overburden waste is not being dumped in or around the existing season Seasonal Drains.

Since the said Seasonal Drain will be intersected during the course of the mining, elevation of which will always be more than mine pit, there will be no scope of discharge of mine water / effluent in to Seasonal Drain. Also, every year monsoon action plan is prepared at

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Khadia OCP and the run off of the mine area are led to Mine Sumps / Sedimentation ponds constructed within the mine area.

This Seasonal Drain lies in part of mine area, where no handling of hazardous / chemical substances takes place. Hence, there will be no chance of mixing of hazardous / chemical substances in surface run off discharging in the Seasonal Drain.

2. Balia Nallah:-

Brief Details of Nallah

Sl. No.	Particulars	Details	
1	Type of Nallah	Ephemeral nallah (Seasonal)	
2	Location within mine boundary	Starting Point	Ending Point
	(i) Latitude	24°7'28.7076"	24°7'7.6692"
	(ii) Longitude	82°39'54.367"	82°40'38.579"
3	Length of Nallah	Does not enter mine premises.	
4	Direction of flow	Towards South East	
5	Discharge	Dry throughout the year but it carries some discharge in the monsoon season.	

Plan for Conservation and Protection:

Balia-Nallah flows from North West to South East along the Khadia leasehold boundary, which ultimately discharges into Rihand Reservoir. Balia nalla does not enter in leasehold area as shown in the map enclosed at Annexure 1. Also any stream of Balia Nallah does not flow through the mine boundary except storm water run-off of the residential township area of Khadia OCP. Also the leasehold boundary of Khadia OCP towards Balia nallah is a close boundary with brick masonry walls.

Waste Management Plan of the Ballia Nallah:

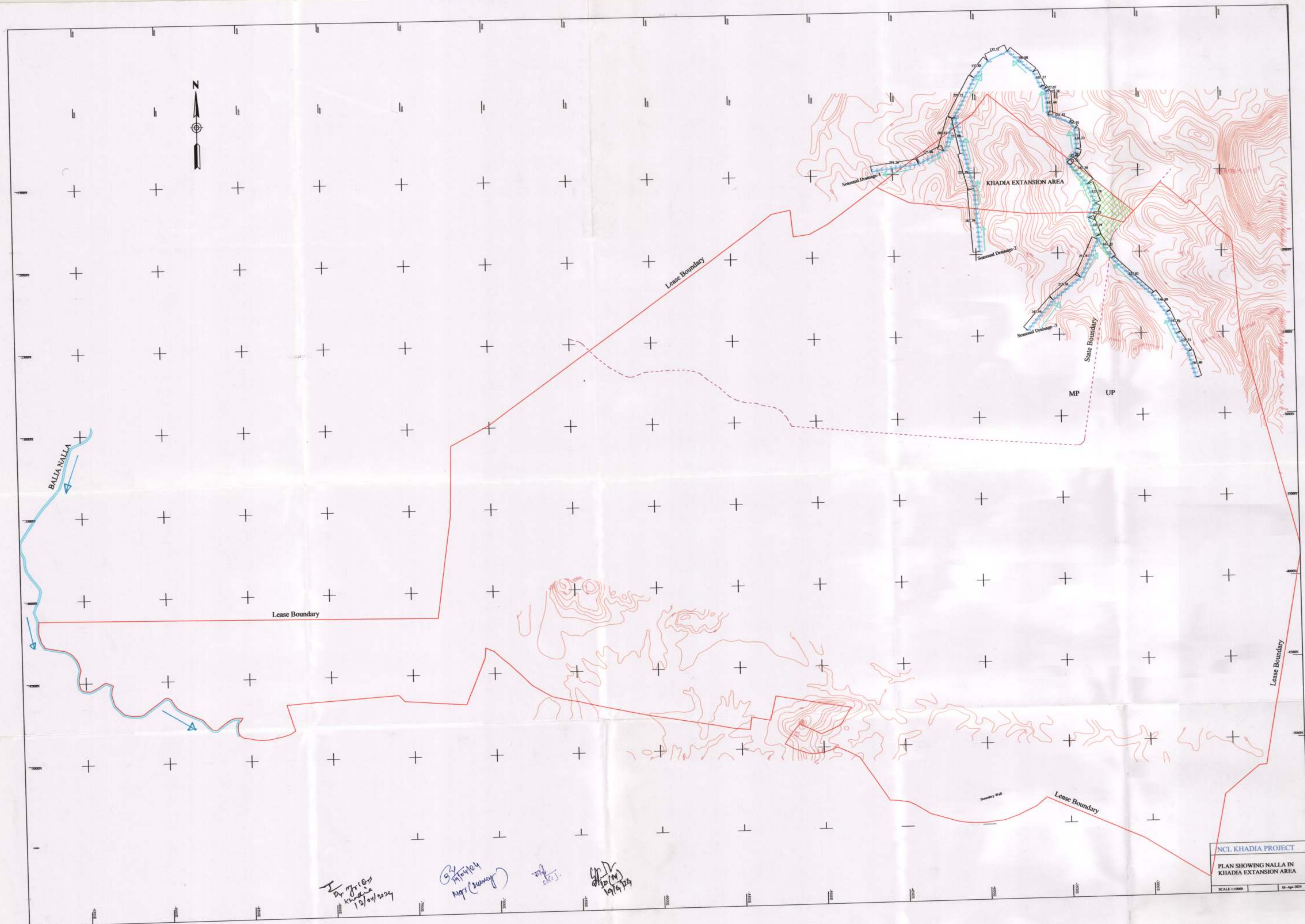
Khadia OCP is an existing mine with OB removal started from 1981-82. The major waste generated from mining activities is overburden. The overburden is completely being backfilled in the mine voids created due to excavation of coal. Also the Overburden dumps are being technically and biologically reclaimed. The overburden waste is not being dumped in or around the existing season nallahs.

Since the Balia Nallah is flowing near to only residential township area of Khadia OCP and active mining operations are being carried out at considerable distance, there is no chance of discharge of effluent from Khadia OCP into Balia Nallah. The effluent generated from residential township area is being treated in Sewage Treatment Plant (1.5 MLD capacity) and the treated water is being reused for horticulture purposes in Nandan Kanan Park, Miyawaki Plantation site, parks built up for various purposes located within the residential township of Khadia OCP etc.

*I
S. Singh
Khadia*

gk

SSA



Dr. Jyoti
Khatke
12/01/2024

9/1/2024
MPT (Munim)

27/2/2024

27/2/2024

NCL KHADIA PROJECT
PLAN SHOWING NALLA IN
KHADIA EXTENSION AREA
SCALE 1:10000 18-Apr-2024