



# PRESENTATION I: NJHEP General Orientation

*Mr Azam Joya*  
*Mr Usman-e-Ghani*

**24 April 2024**



# Purpose of the site visit

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- The **Neelum Jhelum Hydroelectric Plant** ('NJHEP') is a Pakistani Run-of-River hydro-electric plant ('HEP'). As such, it is not covered by the Indus Waters Treaty and is not subject to the design, construction and operational constraints of Part 3 of Annexure D of the Treaty.
- **Procedural Order No 10** makes clear that the purpose of the site visit is solely to familiarize the Court “with general aspects of the design and operation of run-of-river hydroelectric plants along the Indus system of rivers” (¶ 1.1). It “is not to establish the facts specific to any such Indian run-of-river hydro-electric plant” (¶ 1.2) or “to receive any information that seeks to apply facts to the Treaty, or otherwise seeks to interpret the Treaty” (¶ 1.3).
- Pakistan affirms its appreciation of the Court’s direction that the site visit “is not an opportunity for the Parties to make written or oral submissions outside of [the Court’s pleading] schedule” (¶ 1.3) and has instructed the members of its delegation to this effect (¶ 1.4).
- Insofar as the presentations refer to features of the NJHEP, they do so simply for purposes of addressing and illustrating points of Run-of-River hydro-electric plant design and operation relevant to the site visit purpose.
- The Site Experts cannot and do not speak to Pakistan’s case in the proceedings before the Court and are not in a position to offer informed interpretations of the Treaty. The presentations are intended to be neutral, succinct and objective technical presentations.



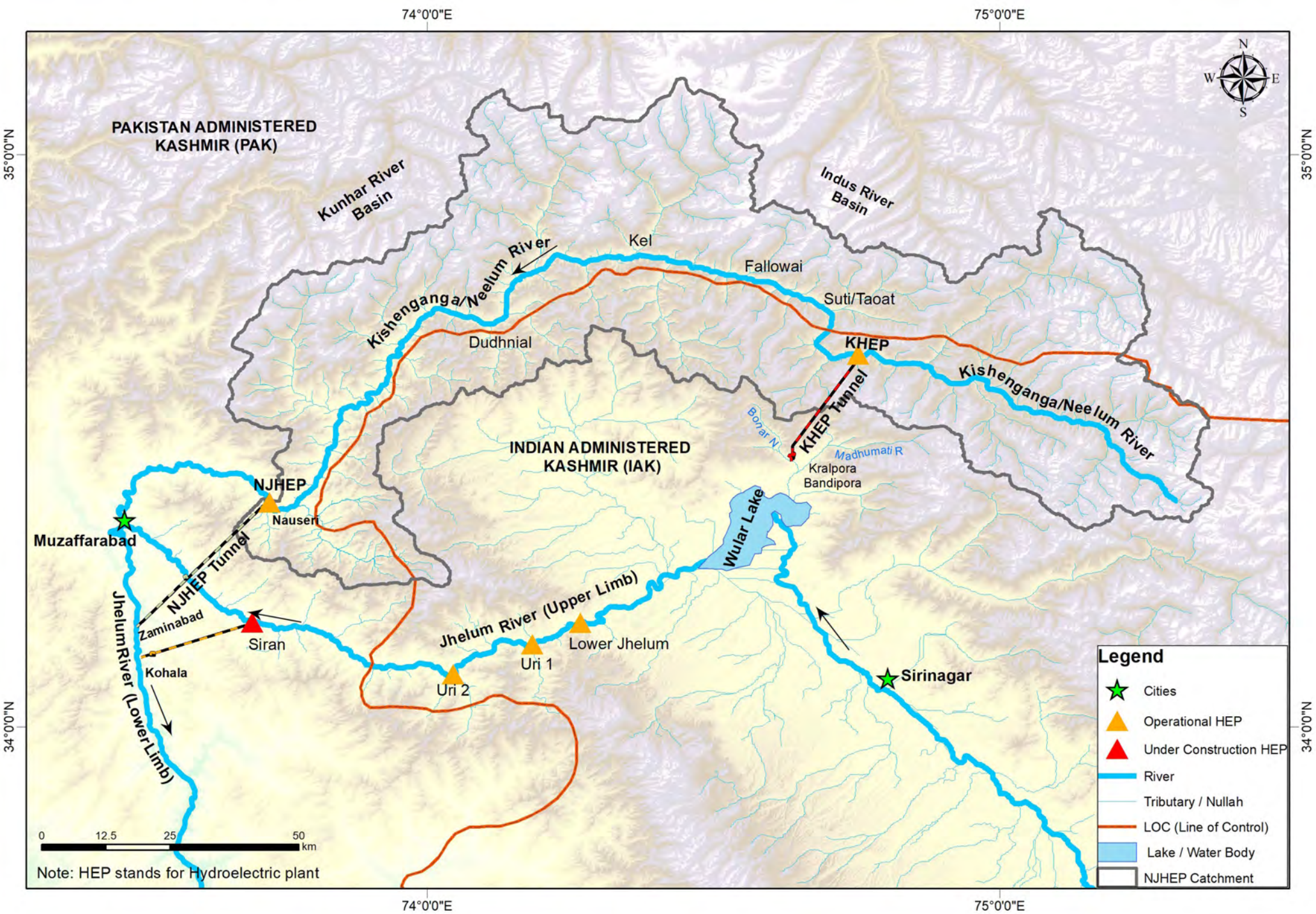


**Welcome**



# NJHEP overview



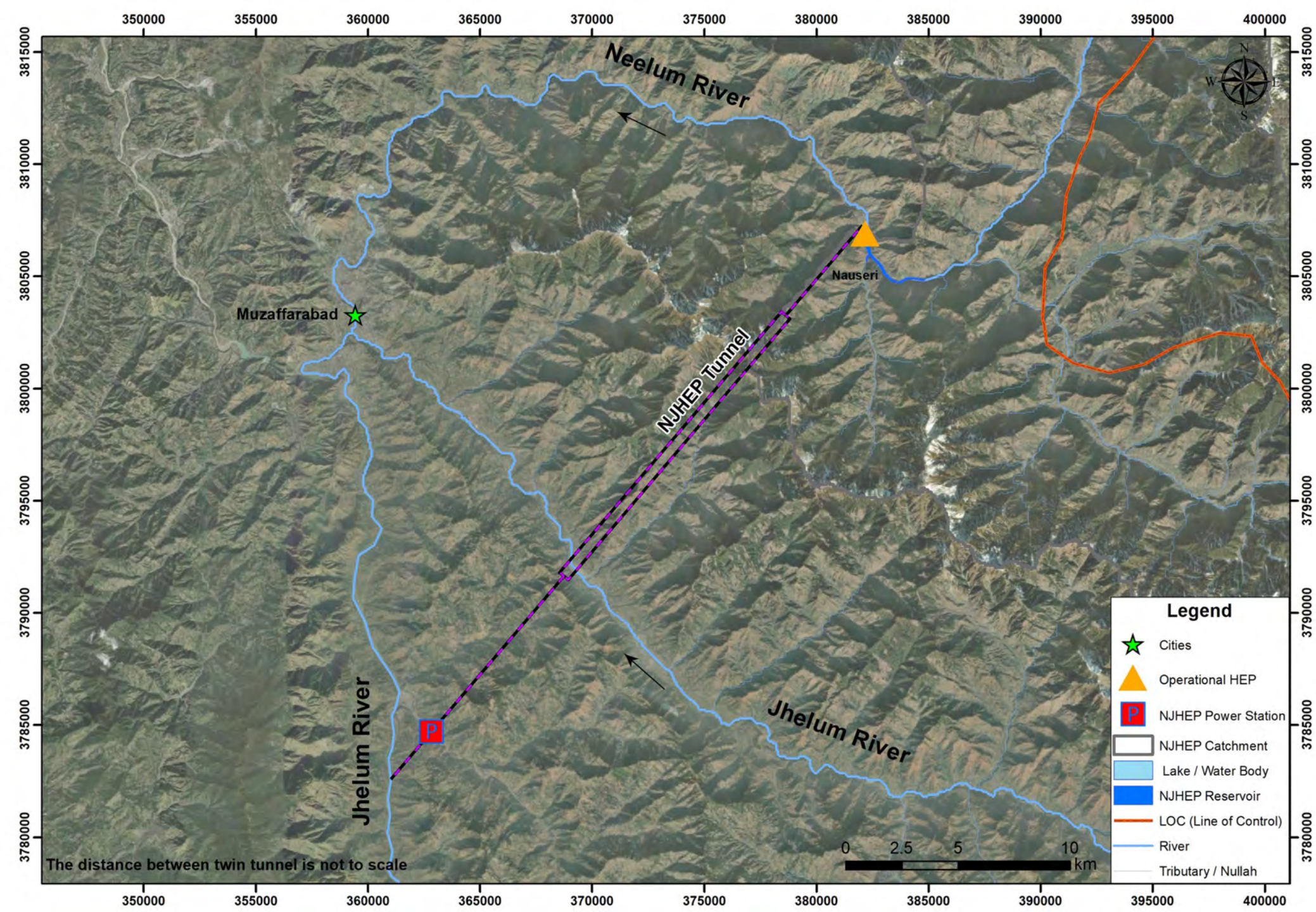


# Situating the NJHEP





# NJHEP site



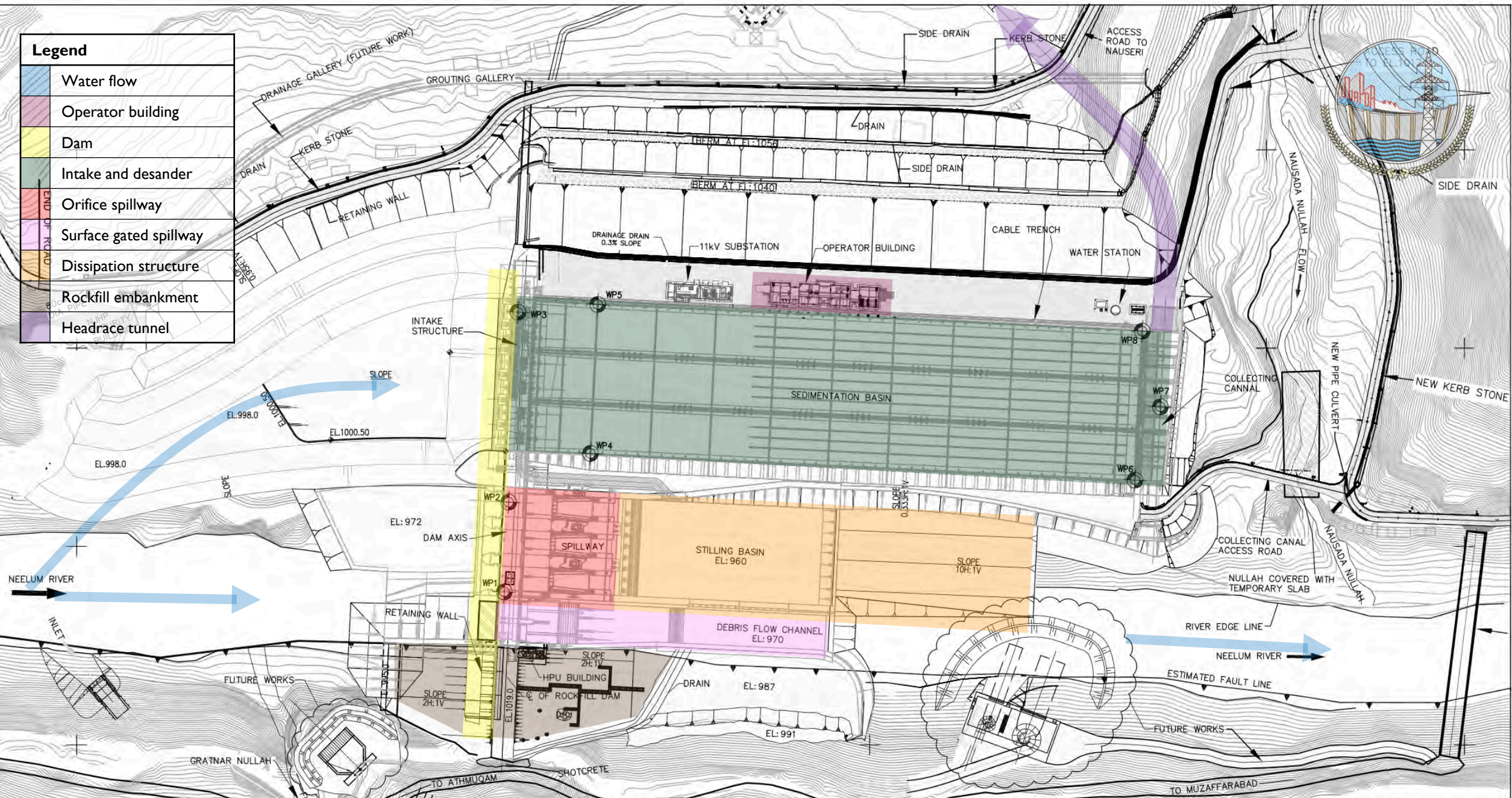




# NJHEP headworks



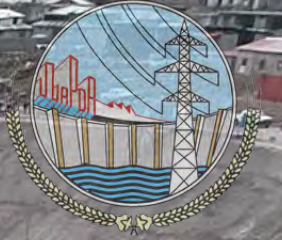
Legend	
	Water flow
	Operator building
	Dam
	Intake and desander
	Orifice spillway
	Surface gated spillway
	Dissipation structure
	Rockfill embankment
	Headrace tunnel



4	RECORD DRAWING	<b>8</b>	KS	FAT	JRS	27.06.19
3	GENERAL REVISION					24.04.15
2	GENERAL REVISION DAM TYPE CHANGED TO COMPOSITE DAM		SH	DR.T	FM	01.02.11
1	FOR CONSTRUCTION		SH	AJH	WES	24.12.09



Upstream  
view





# Downstream view





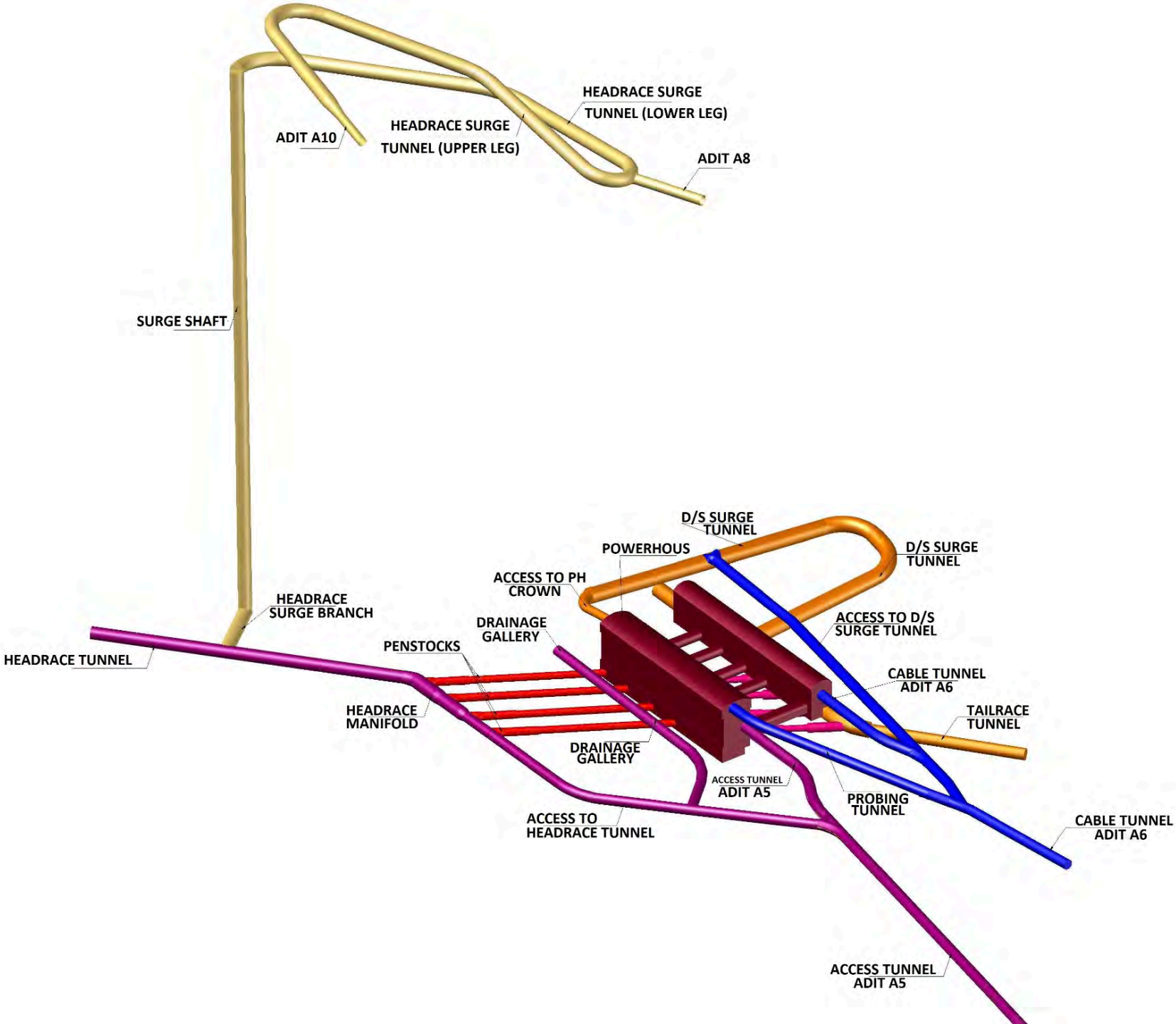


# NJHEP powerhouse site

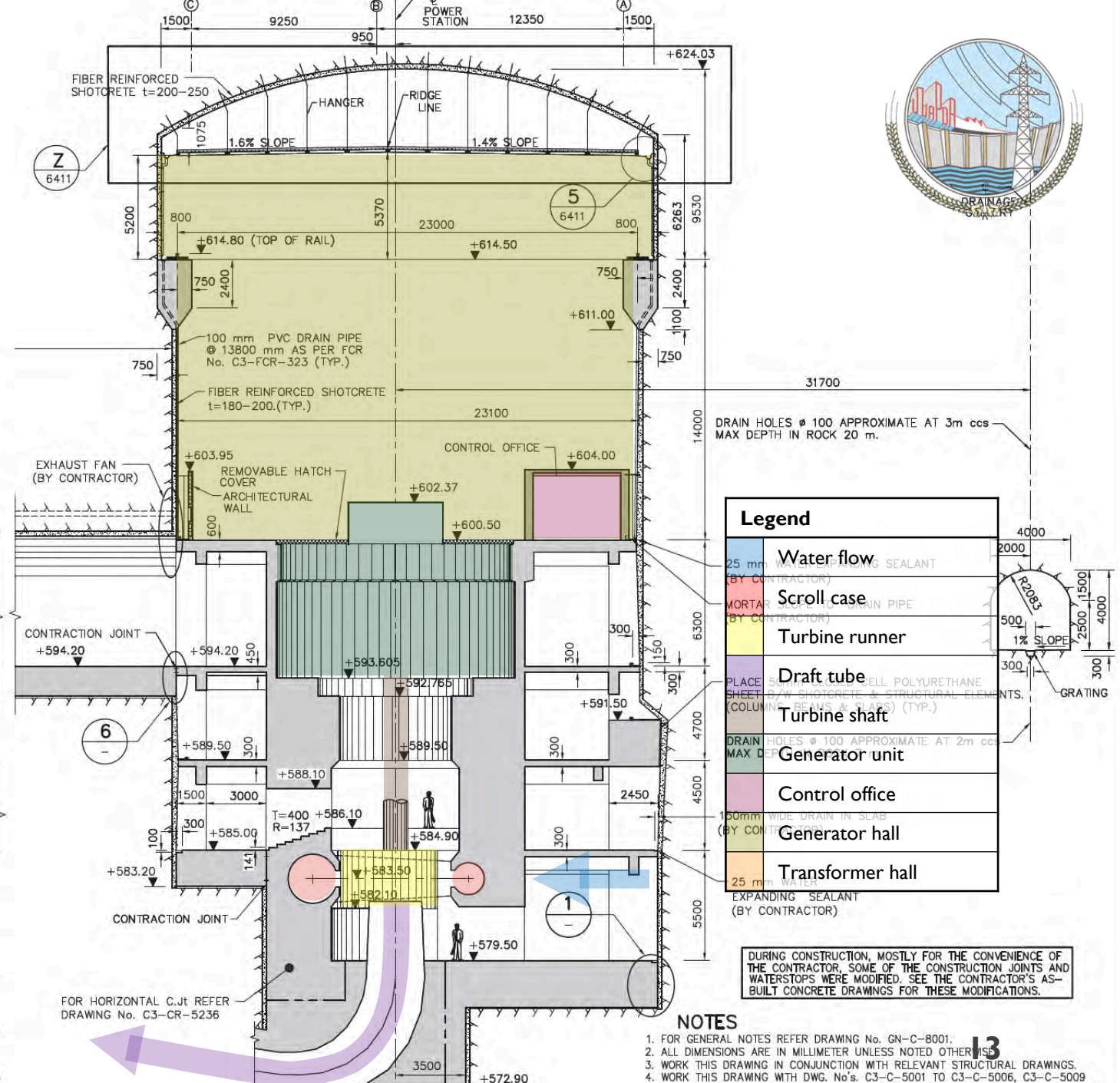
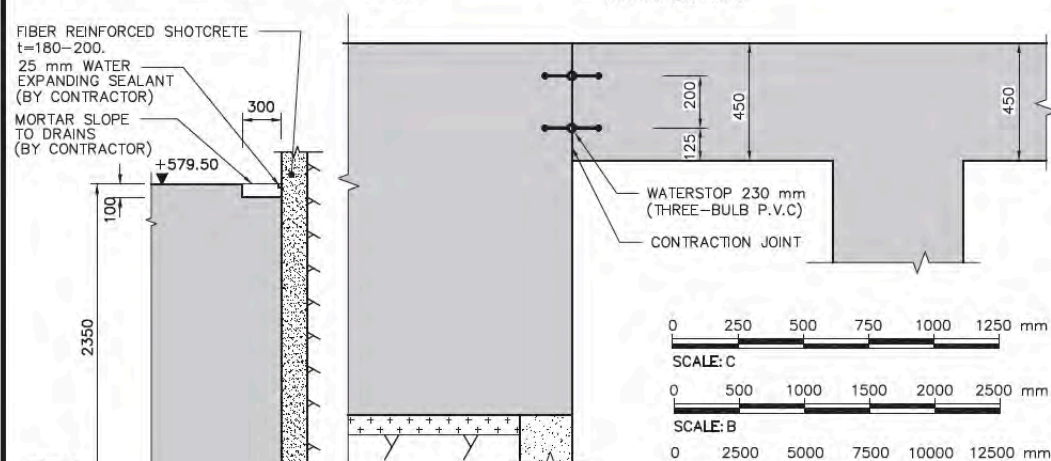
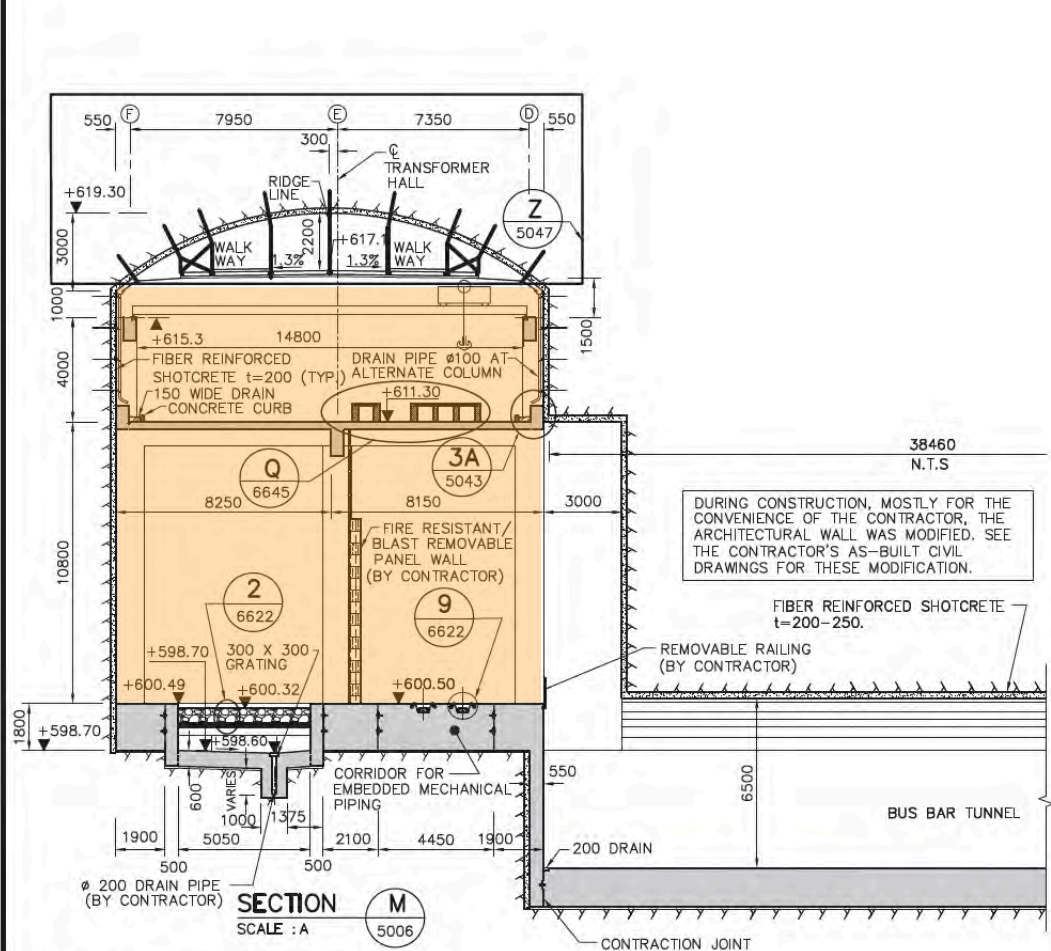
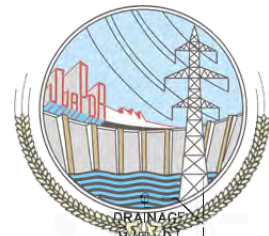




# NJHEP powerhouse layout







DURING CONSTRUCTION, MOSTLY FOR THE CONVENIENCE OF THE CONTRACTOR, THE ARCHITECTURAL WALL WAS MODIFIED. SEE THE CONTRACTOR'S AS-BUILT CIVIL DRAWINGS FOR THESE MODIFICATION.

DURING CONSTRUCTION, MOSTLY FOR THE CONVENIENCE OF THE CONTRACTOR, SOME OF THE CONSTRUCTION JOINTS AND WATERSTOPS WERE MODIFIED. SEE THE CONTRACTOR'S AS-BUILT CONCRETE DRAWINGS FOR THESE MODIFICATIONS.





# NJHEP switchyard







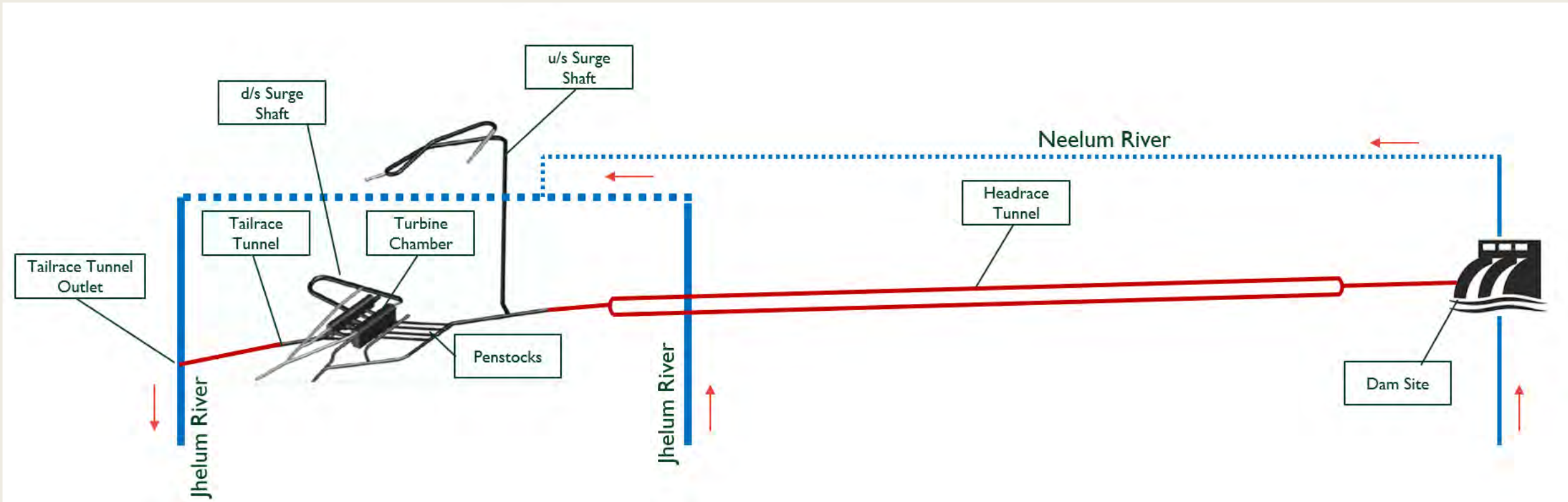
# NJHEP tailrace discharge







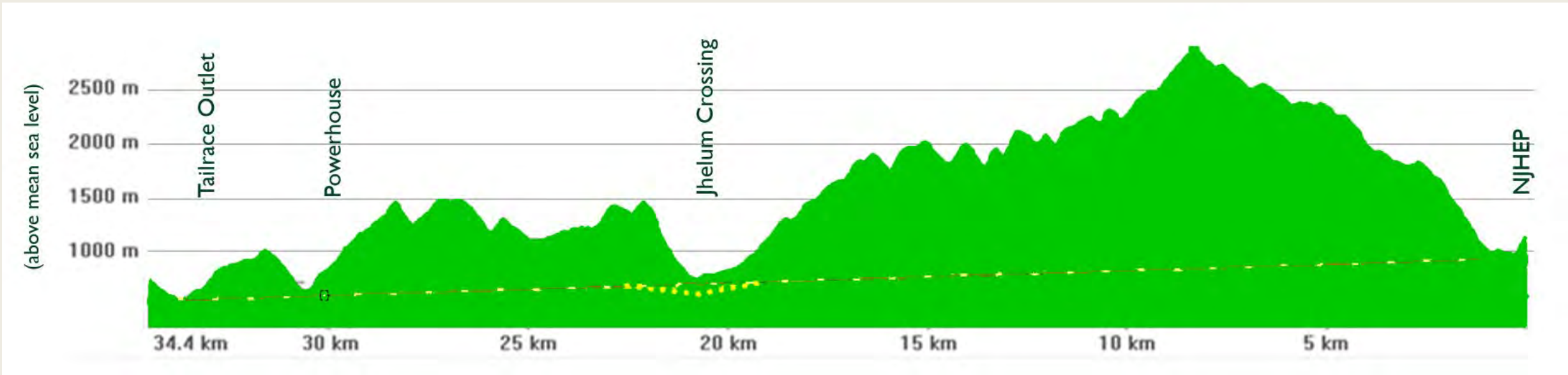
# NJHEP hydraulic profile







# NJHEP tunnelling







# Site visit itinerary





Time	Item
[TTBA]	<b>Presentation 1: NJHEP General Orientation</b> 1 hour; Pearl Continental conference room
[TTBA]	<b>Presentation 2: HEP design, construction and operation</b> 1.5 hours; Pearl Continental conference room
[TTBA]	COA notification of (additional technical questions) and/or points of special interest for purposes of site visit arrangements

# Day 2

**24 April 2024**





Time	Item
8:00	Depart Pearl Continental for NJHEP dam site
9:30	Arrive at NJHEP dam site
9:45	<b>Presentation 3: General site orientation</b> 1 hour; NJHEP dam/reservoir
10:45	Coffee break
11:15	<b>Presentation 4: Overview of dam site physical location elements</b> 1.5 hours; NJHEP conference room
12:45	Lunch break
13:30	<b>Presentation 5: Run-of-River HEP basics (I)</b> 1 hour; NJHEP conference room
14:45	<b>Presentation 6: Run-of-River HEP basics (II)</b> 1 hour; NJHEP conference room
15:45	Coffee break
16:00	<b>Presentation 7: Site inspection</b> 2 hours; NJHEP dam and reservoir
18:00	Depart NJHEP dam site for Pearl Continental

# Day 3

**25 April 2024**





Time	Item
9:15	Depart Pearl Continental for NJHEP powerhouse
10:15	Arrive at NJHEP powerhouse
10:30	<b>Presentation 8: General site orientation</b> 30 minutes; Powerhouse
11:00	Coffee break
11:30	<b>Presentation 9: Dam–powerhouse basics</b> 1.5 hours; Powerhouse conference room
13:00	Lunch break
13:45	<b>Presentation 10: Power production</b> 1 hour; Powerhouse conference room
14:45	<b>Presentation 11: Site inspection</b> 1.5 hours; Powerhouse
16:30	Opportunity for on-site COA internal deliberations
17:00	<b>COA questions and directions for Day 5 agenda</b>
17:30	Depart Powerhouse for Pearl Continental

# Day 4

**26 April 2024**





Time	Item
[TTBA]	Return visit to dam/reservoir and/or Powerhouse as directed by COA
[TTBA]	COA directed Q&A to Site Experts

# Day 5

**27 April 2024**





Time	Item
13:00	Absent contingency, depart Muzaffarabad for Islamabad
17:00	Arrive in Islamabad and check-in at Serena
-	PCA meeting with GOP Agent, Lead Counsel and GOP Liaison to address any outstanding administrative issues and Day 8 airport transfer arrangements

# Day 6

**28 April 2024**

***Contingency Day I***





Time	Item
13:00	Absent contingency, depart Muzaffarabad for Islamabad
17:00	Arrive in Islamabad and check-in at Serena
-	PCA meeting with GOP Agent, Lead Counsel and GOP Liaison to address any outstanding administrative issues and Day 8 airport transfer arrangements

# Day 7

**29 April 2024**

***Contingency Day II***





Time	Item
-	Airport transfers from Serena to be arranged by GOP Liaison

# Day 8

**29 April 2024**






# Site visit presenters




# Presenters


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Azam Joya  
WAPDA,  
General  
Manager



Usman-e-  
Ghani  
Additional  
PCIW



Lt Gen (Rtd)  
Sajjad Ghani  
WAPDA,  
Chairman





*Dr Tahir Hayat  
Diamer Basha  
Consultants  
Group, CEO*



*Arfan Miana  
NJHPC, CEO*



*Ayub Malik  
NJHEP, Deputy  
Project Manager*



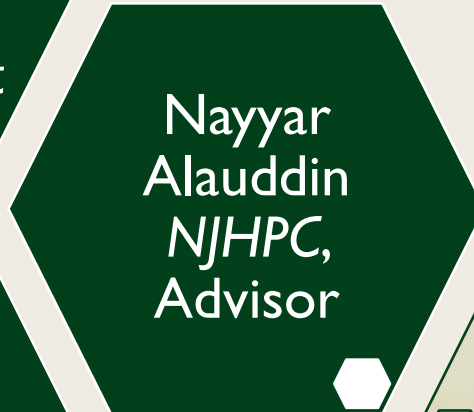
# Presenters II



Fiaz Hanif  
Sendhu  
*Tarbela-V HEP,  
Chief Geologist*



Umar Farooq  
*Senior  
Engineer,  
NESPAK*



Nayyar  
Alauddin  
*NJHPC,  
Advisor*



# Presenters

III





# Presenters IV

