# EARL PUMPING STATION

## Community Liaison Working Group - Monday 1 November 2021



## What we are building...



- 50m deep drop shaft
- 5m internal diameter tunnel
- 10m deep Combined Sewer Outfall (CSO)
- Various services diversions
- Will reduce annual sewer discharges into the River Thames locally from around 25 to just 4

# **CONSTRUCTION UPDATE**

July to November 2021

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# **CONSTRUCTION UPDATE**

## July to November 2021



## CSO

- Deep Soil Mixing works completed
- Jet grouting started
- Guide walls completed
- Secant piles started

## Shaft

- Hoist removed
- Vortex top plinths completed
- Shaft water temporary fill (flooding) completed
- Shaft enclosure wall started



## Surface works

Watermain replacement

completed



## Other

- Extra welfare removed and area rearranged for shaft works purpose
- Muck bin reinstated, silos and pant installed for the CSO geotechnical works

# WHAT IS COMING NEXT?

November 2021 and beyond...



## **SHAFT WORKS**



- The shaft is temporarily full of water ready to allow the TBM crossing.
- <u>Tunnel Tracker</u>
- Meanwhile we complete the shaft enclosure at surface level.
- Once TBM will have passed through, we will :
  - Drain the shaft,
  - Complete concrete landing works at the top of the Vortex tube,
  - Make good concrete surfaces within the shaft,
  - Remove the concrete backfill and the tunnel segments located at the bottom of the shaft.







# **COMBINED SEWER OVERFLOW**

- We are continuing geotechnical works using construction techniques to create a sealed box in the ground to enable us to safely excavate the CSO.
- We have completed Deep Soil Mixing works at the bottom of the box and we are continuing with Jet Grouting and Secant piles all around the box.
- Tension piles to anchor the sealed box in the ground will complete the geotechnical works prior the dewatering and the excavation to start.





**Tideway** 

## THE NEXT SIX MONTHS...



| Programme Overview                                |          | 2021     |         | 2022     |       |       |     |  |  |  |
|---|----------|----------|---------|----------|-------|-------|-----|--|--|--|
|   | November | December | January | February | March | April | May |  |  |  |
| TBM crossing                                      |          |          |         |          |       |       |     |  |  |  |
| Shaft enclosure wall (South half)                 |          |          |         |          |       |       |     |  |  |  |
| Shaft drainage                                    |          |          |         |          |       |       |     |  |  |  |
| Shaft concrete making good / Intermediate landing |          |          |         |          |       |       |     |  |  |  |
| Backfilling/segments removal                      |          |          |         |          |       |       |     |  |  |  |
| CSO Jet grouting                                  |          |          |         |          |       |       |     |  |  |  |
| CSO secant piles                                  |          |          |         |          |       |       |     |  |  |  |
| CSO tension piles                                 |          |          |         |          |       |       |     |  |  |  |
| CSO dewatering & start of excavation              |          |          |         |          |       |       |     |  |  |  |



(08:00 - 18:00) Monday to Friday, (08:00 - 13:00) Saturday

(18:00 - 20:00) Monday to Friday, (13:00 - 17:00) Saturday

# AND BEYOND



| Programme Overview                       | 2021 | 2022 |    | 2023 |    |    | 2024 |    |    |    |    |
|--|------|------|----|------|----|----|------|----|----|----|----|
|  | Q4   | Q1   | Q2 | Q3   | Q4 | Q1 | Q2   | Q3 | Q4 | Q1 | Q2 |
| CSO Geotechnical works                   |      |      |    |      |    |    |      |    |    |    |    |
| CSO Civils works                         |      |      |    |      |    |    |      |    |    |    |    |
| TBM crossing                             |      |      |    |      |    |    |      |    |    |    |    |
| Shaft remaining internal and upper works |      |      |    |      |    |    |      |    |    |    |    |
| System testing and commissioning         |      |      |    |      |    |    |      |    |    |    |    |
| Architectural and landscaping works      |      |      |    |      |    |    |      |    |    |    |    |

# ENVIRONMENT





# **NOISE & AIR QUALITY**





|         | Noise           | Air Quality       |  |  |  |  |
|---------|-----------------|-------------------|--|--|--|--|
| Month   | S61 Exceedances | 24h PM₀Exceedance |  |  |  |  |
| June 21 | 1               | 0                 |  |  |  |  |
| July 21 | 0               | 0                 |  |  |  |  |
| Aug 21  | 0               | 0                 |  |  |  |  |
| Sept 21 | 0               | 0                 |  |  |  |  |

### June Exceedance:

Linked to concrete pours for Shaft Secondary Lining – shut down. Works occurring next to noise monitor and had progressed to the site surface.

Local Authority was informed. Works activity ceased following this.

# NOISE MITIGATION

# Key methods for reducing noise on site:

- Planning construction works methodologies with noise impacts as a key consideration (Section 61 consent)
- Monitoring noise across site to identify exceptional noise sources
- Screening static plant where possible
- Screening known loud activities where possible (concrete breaking, floor sawing etc)
- Sourcing/developing low noise plant and equipment where possible
- Shutting down plant and equipment when not in use
- Off site fabrication of construction elements where possible

- Removal of concrete blocks during demolition to avoid concrete breaking
- Trailling innovative techniques to reduce noise like chemical demolition agents or hydraulic splitting of concretes.





# ARCHITECTURE & LANDSCAPING





# A&L UPCOMING SUBMISSION



- The draft submission of the Architecture and Landscaping elements of the works at Earl Pumping Station is expected to be submitted to the London Borough of Lewisham by end-2021/early-2022.
- The draft application will be submitted to discharge the relevant requirements set out in Schedule 3 of the TWUL Development Consent Order 2014 (as amended), granted by the Secretaries of State in September 2014. This Order approved the principle of the development, including the necessity and location of the permanent above ground works and their maximum height.
- This means that the scope of what the London Borough of Lewisham can approve and the comments that they can consider, is limited to the size, height, visual appearance, and materiality of the proposed structures and works because the application only relates to the above ground materials, finishes and soft & hard landscaping.
- Nearer to the submission or immediately following the submission of the draft proposal, a CLWG meeting will be scheduled to present the draft proposal to the community for comment. Further engagement will also be undertaken outside of this forum.
- Once submitted, comments are to be sent to London Borough of Lewisham at <u>planning@lewisham.gov.uk</u>.

# **COMMUNITY INVESTMENT**





## Celebrating 8yrs of partnership with London Youth Rowing



Tideway staff past and present joined schools from the Active Row and Breaking Barriers programme and the whole team from London Youth Rowing at the Olympic Park to celebrate the success of our partnership with the charity.







## **Creekside Discovery Centre, Deptford**





### https://www.creeksidecentre.org.uk/







Activities on land and our beach with crab racing, prizes, quizzes and games for all the family. Find local archaeology, discover creek fish and wildlife with visiting exports. Food: Dookles Caribbean Grill - chicken, fish and vegan -Es per licket for first 100 portions. Find out what we do for you: Creekside Discovery Centre, 14 Creekside, Deptford, London SEB 45A

Book online: creeksidecentre.org.uk



REEKSIDE

## LEGACY COMMUNITY INVESTMENT





Whenever Tideway East staff raise an observation, whether onsite or in writing, a donation is triggered for CVB to make to a charity, chosen by the Tideway East workforce.

These charities have previously benefited from our observations about safety, welfare, the environment and workplace.



## KICKSTART SCHEME



### 100% Government Funded Work Placement for 16 – 24 Yr Olds

We have signed up with the scheme, to provide extended work experience for 16 - 24-year-olds that are on Universal Credit and at risk of long-term unemployment. The Princes Trust also supports the scheme.

To date, Costain has employed seven young people nationwide, working in the Highways and Natural Resources sectors - **including three here on Tideway East.**  **RIVER TIMES** 

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YOUR UPDATE ON LONDON'S SUPER SEWER

Tideway

Deptford urban wildlife charity

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gets funding boost from Tideway

**RIVER TIMES** LOCAL NEWS

### TBM ANNIE UPDATE FROM GREENWICH PUMPING STATION

'Annie', a giant tunnel boring machine (TBM) creating the 4.5km link between Greenwich and London's new super sewer, is now around a guarter of the way to her destination.

The 'Greenwich connection tunnel' is a vital piece of Tideway's new infrastructure needed to clean up the River Thames.

Six TBMs are being used to create the super sewer and its connection tunnels on the Tideway project, and Annie is one of only two still working underground.

Although not as big as the TBMs used on the main tunnel, Annie is still around 6.4m wide, and will excavate through Tideway's sites at Deptford Church Street and Earl Pumping Station.

#### DEPTFORD CREEK USED TO **REMOVE TUNNELLING SPOIL** FROM GREENWICH SITE

Barges have begun to navigate Deptford Creek to remove tunnelling spoil from Phoenix Wharf at Tideway's Greenwich Pumping Station site.

The creek, also known as the River Ravensbourne, is a tributary of the Thames, and facilitates marine access for Tideway's barges.

Using the river helps keep tens of thousands of lorries off London's congested roads, is safer for pedestrians and cyclists and produces far fewer emissions than the HGV equivalent.



## www.tideway.london/news

For the latest updates visit

Named after Annie Scott Dill Russell, the first female scientist to work at the Greenwich Observatory, the machine was initially assembled at a site by the O2 Arena (see below) having been shipped from Germany before being dismantled



### **TBM SELINA WITHIN 5KM OF** SUPER SEWER FINISH LINE



The tunnel boring machine (TBM) being used to create the final, easternmost section of London's new super sewer now has less than 5km to go.

Once complete, the Thames Tideway Tunnel will be fully excavated from Acton in west London, to Abbey Mills Pumping Station, where TBM 'Selina' is set to finish.

TBM Selina arrived in London last summer, carried by a giant vessel called a Skylift 3000, before being lowered 60m underground at Tideway's site in Bermondsey.

At the time of writing, Selina was between Brunel's Thames Tunnel and the Rotherhithe Tunnel, before making her way past King Edward Memorial park and on to her destination.



#### **TBM URSULA LIFTED** FROM SITE AFTER **7.6KM TUNNEL DRIVE**

A giant floating crane was used to lift a 700-tonne tunnel boring machine from Tideway's Chambers Wharf site in Bermondsey,

The machine, TBM Ursula, had finished its 7.6km tunnel drive from Kirtling Street in Battersea to Bermondsey.

The crane, the 'Matador 3', had travelled from Rotterdam for the manoeuvre, which first involved lifting Ursula from the bottom of a 60m-deep shaft.

Delivery Manager Jim Avant said: "This is another step towards a cleaner River Thames and is another huge milestone involving so many of our partners to ensure a successful and safe operation. The lifting and removal of TBM Ursula from site required months of detailed planning and collaboration across our teams.















# **RECONNECTING LONDON** WITH THE RIVER THAMES

**#SuperSewer** 

www.tideway.london