

**Langarth Garden Village
Threemilestone
Truro**

**Briefing to Strategic Planning Committee
and Kenwyn Parish and Truro City Councils**

10 September 2020

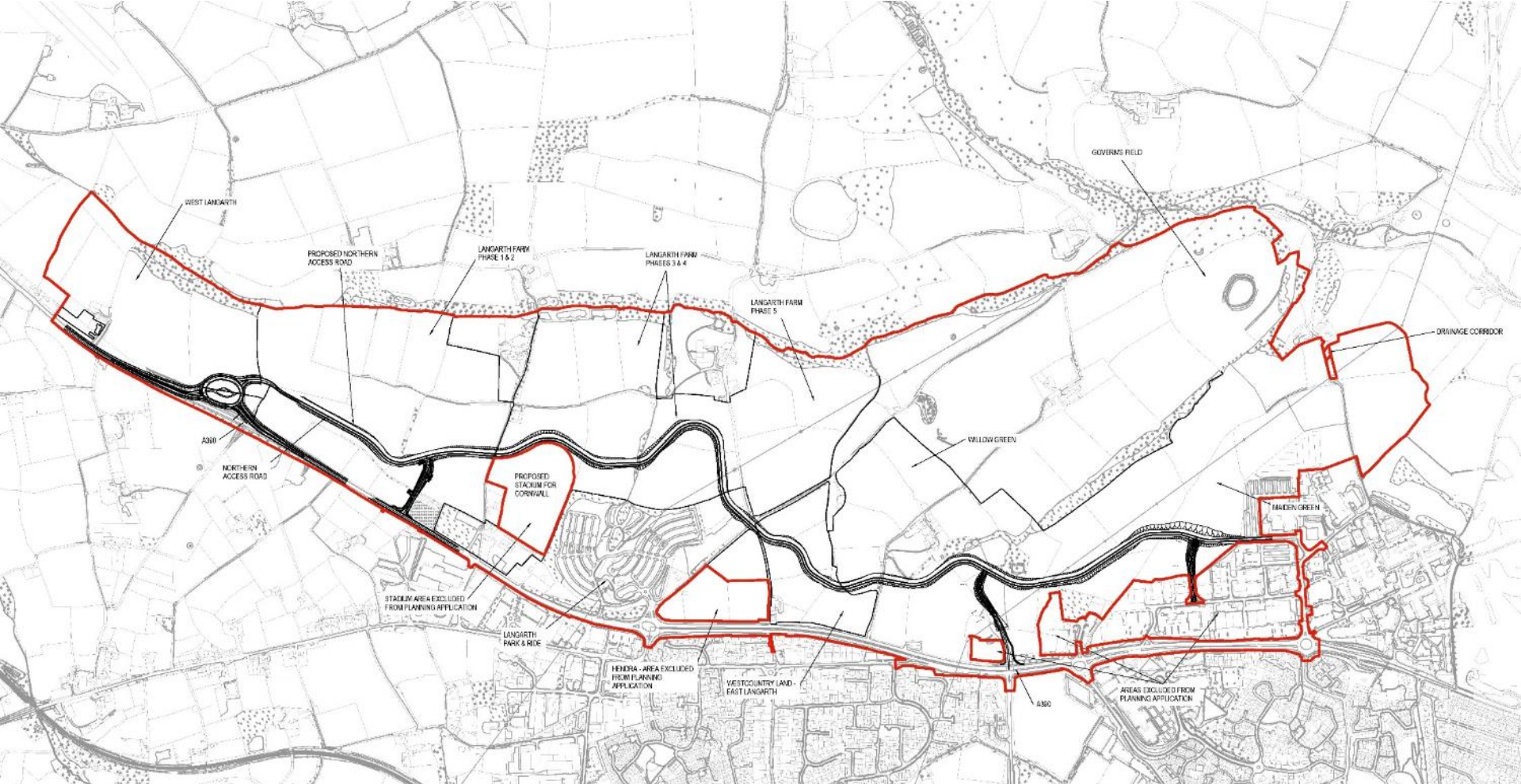
**Adam Birchall, Chris Daly,
Terry Grove-White, Pat Valvona
SWW and Environment Agency**



Agenda for this Briefing

- Introductions
- Application update since our last Briefing in May
- Presentations from CC as applicants for Langarth Garden Village, SWW and Environment Agency on sewerage, drainage and flood risk
- Q&A

Application Masterplan and Northern Access Road (NAR)





Ownership update

Land acquired
by CC (plus
stadium site)

Treliske
Retail Park
(outside of
masterplan)

Park and Ride

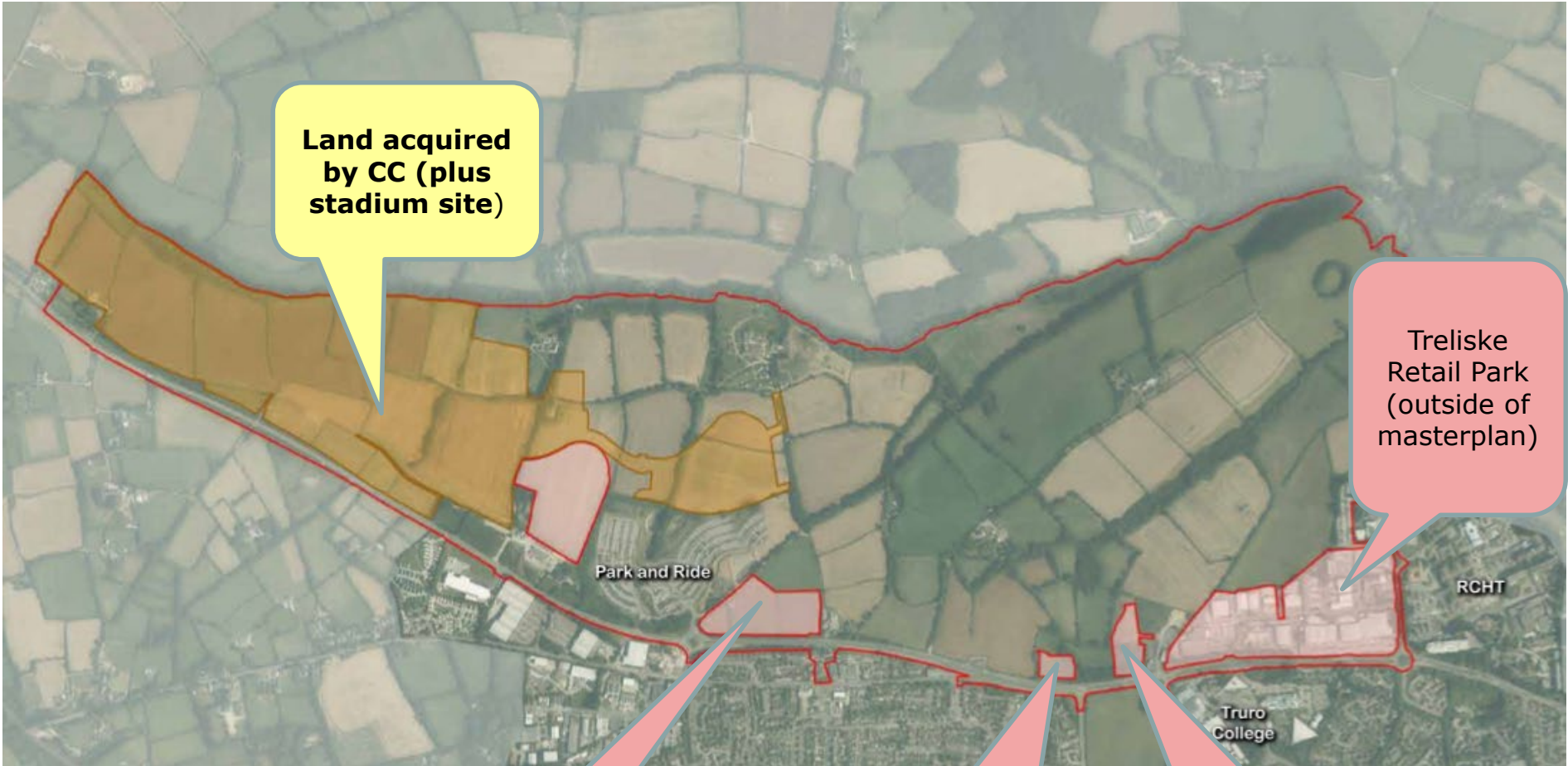
RCHT

Truro
College

Hendra site
(outside of
masterplan)

Walker Developments
Petrol Filling Station
(outside of masterplan)

Walker Developments
Travelodge application
(outside of
masterplan)



Langarth Garden Village

Planning Application update

- The scale of the development means of range of housing can be provided;
- Up to 3550 homes plus student/health accommodation;
- Phased 20 – 25 year build period
- 35% Affordable housing (policy compliant)

Langarth Garden Village

Planning Application update

- Planning Application to be submitted beginning November
- Other applications submitted concurrently:
 - Energy Centre and
 - Threemilestone Community Projects
- New website launched: www.langarth.co.uk

Technical presentations

1. CC as applicants
2. SWW
3. Environment Agency
4. Q&A

LANGARTH GARDEN VILLAGE

Drainage Strategy Update

September 2020

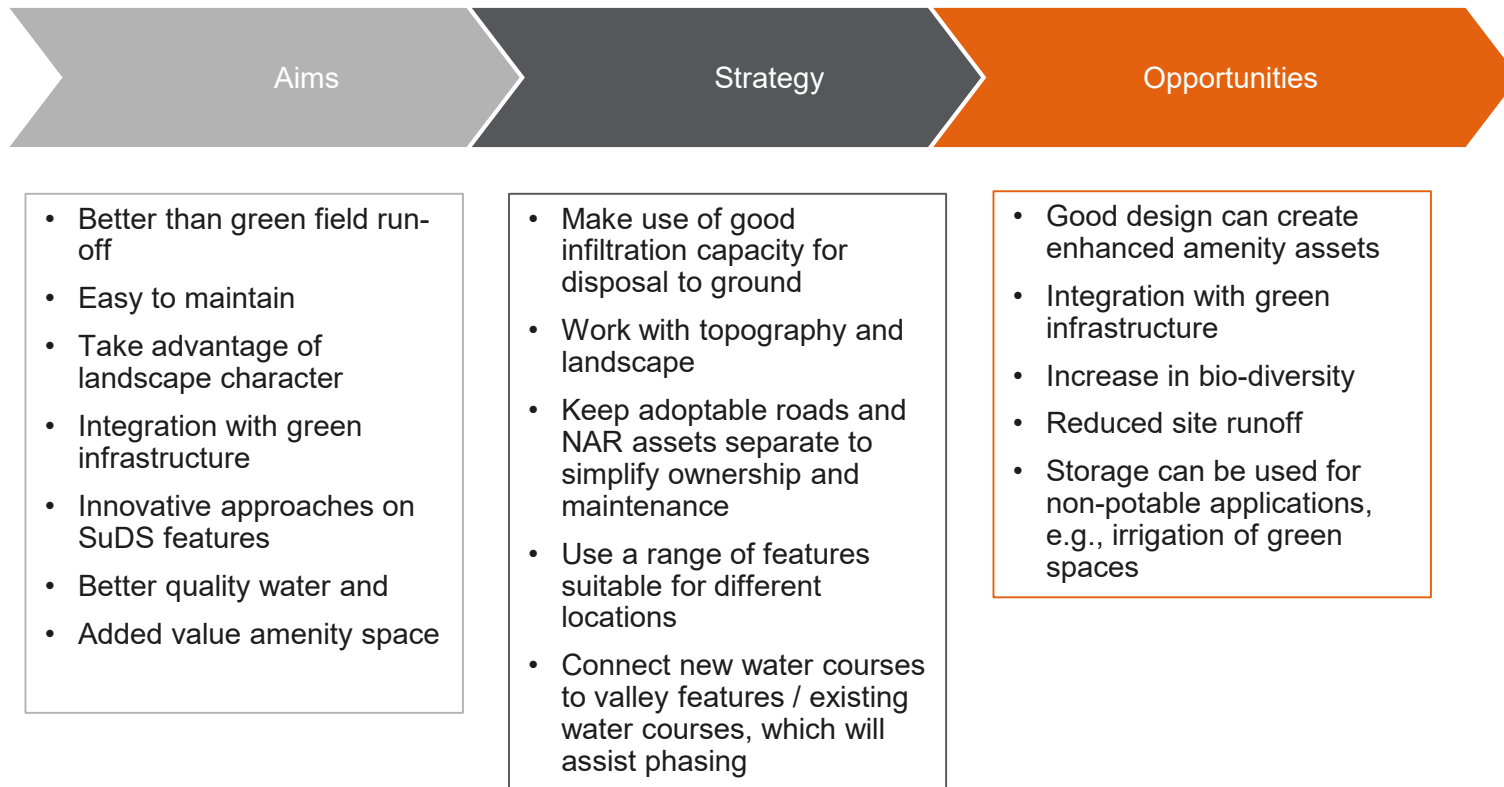
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Water Supply



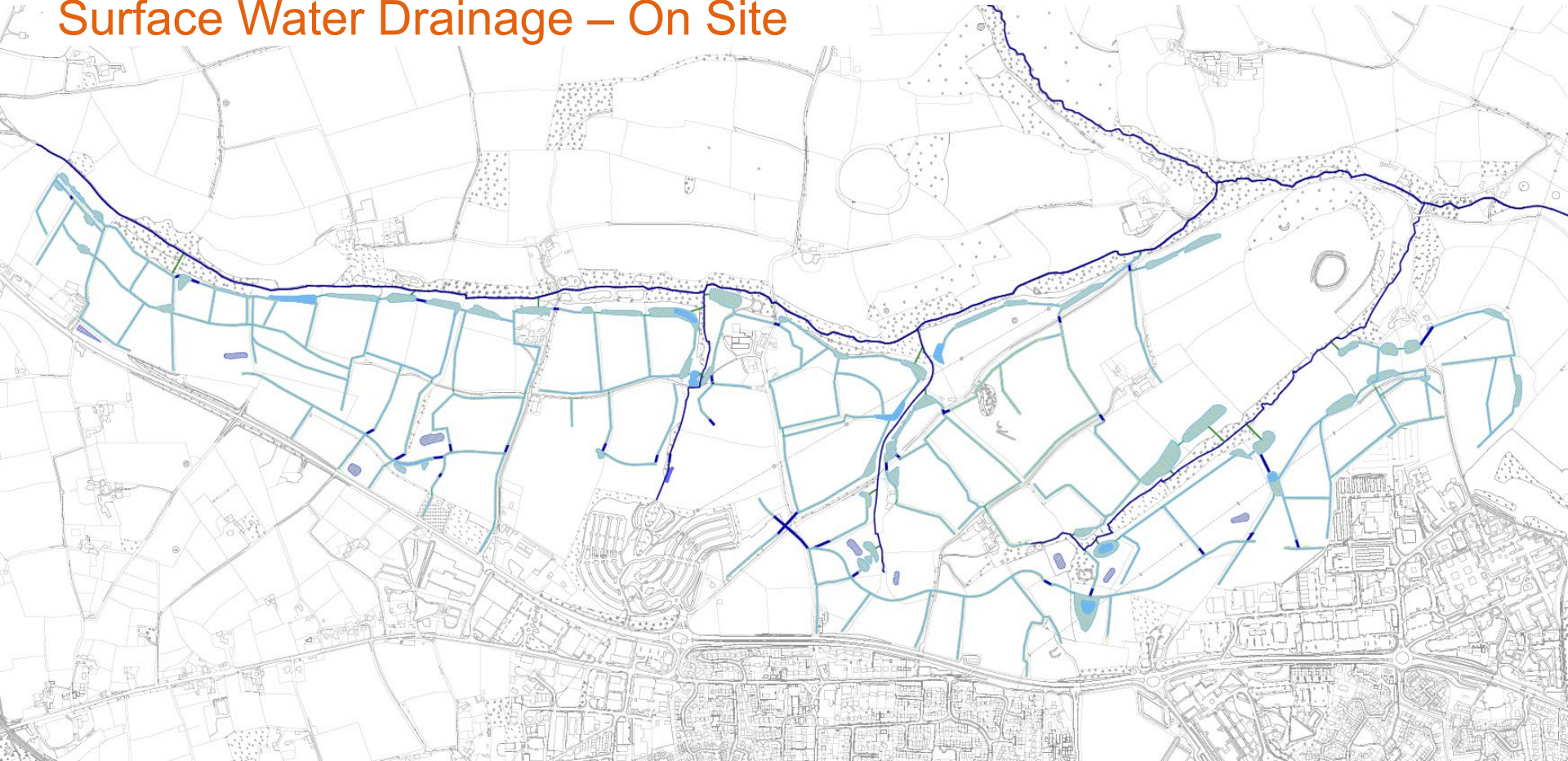
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Surface Water Drainage – On Site

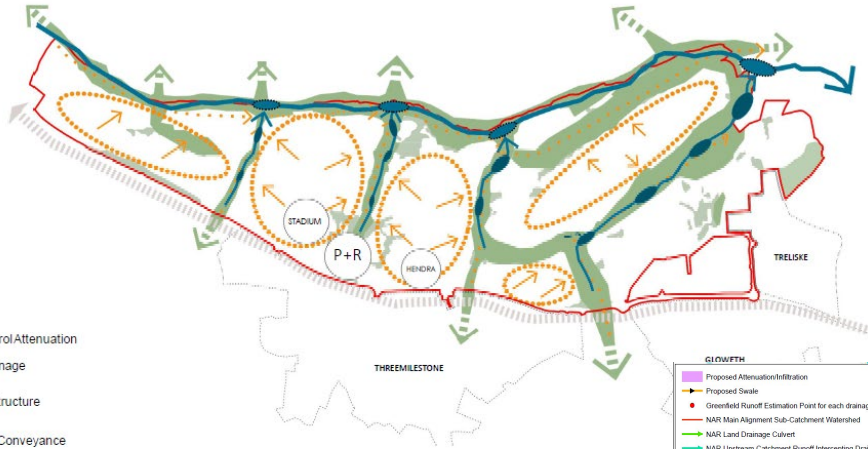


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Surface Water Drainage – On Site

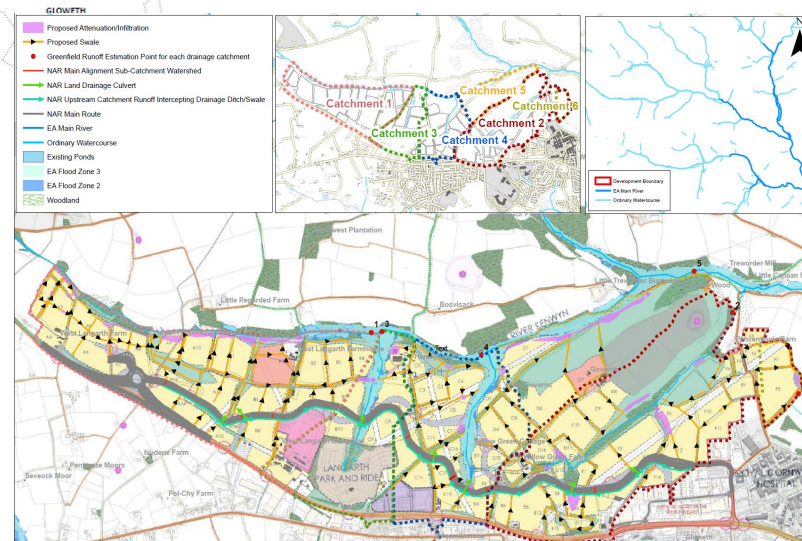


Surface Water Drainage – On Site



- Source Control/Attenuation
- Surface Drainage
- Green Infrastructure
- Water Lines/Conveyance
- Detention Ponds
- Retention Ponds (Long Term Storage)

Masterplan

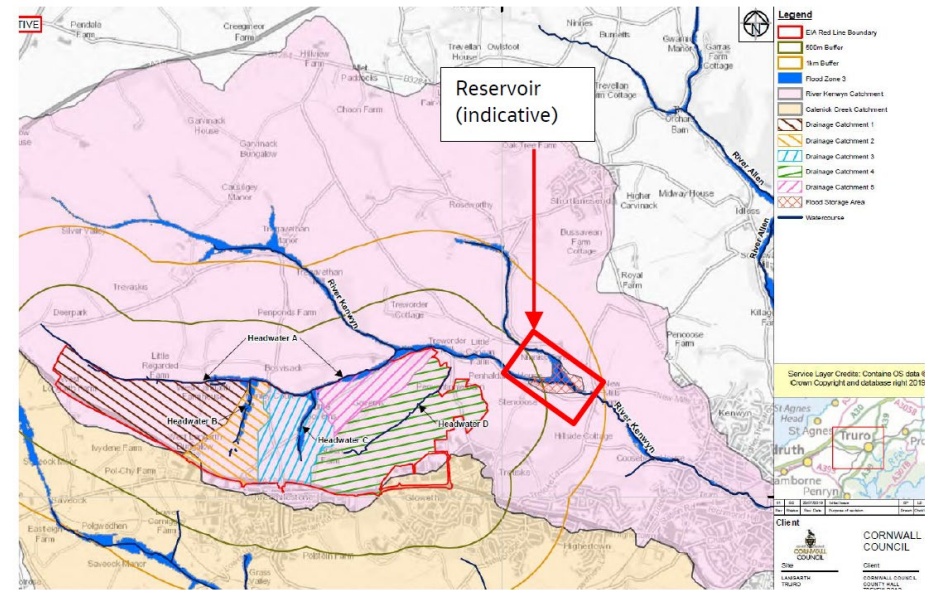


SuDS Drainage features

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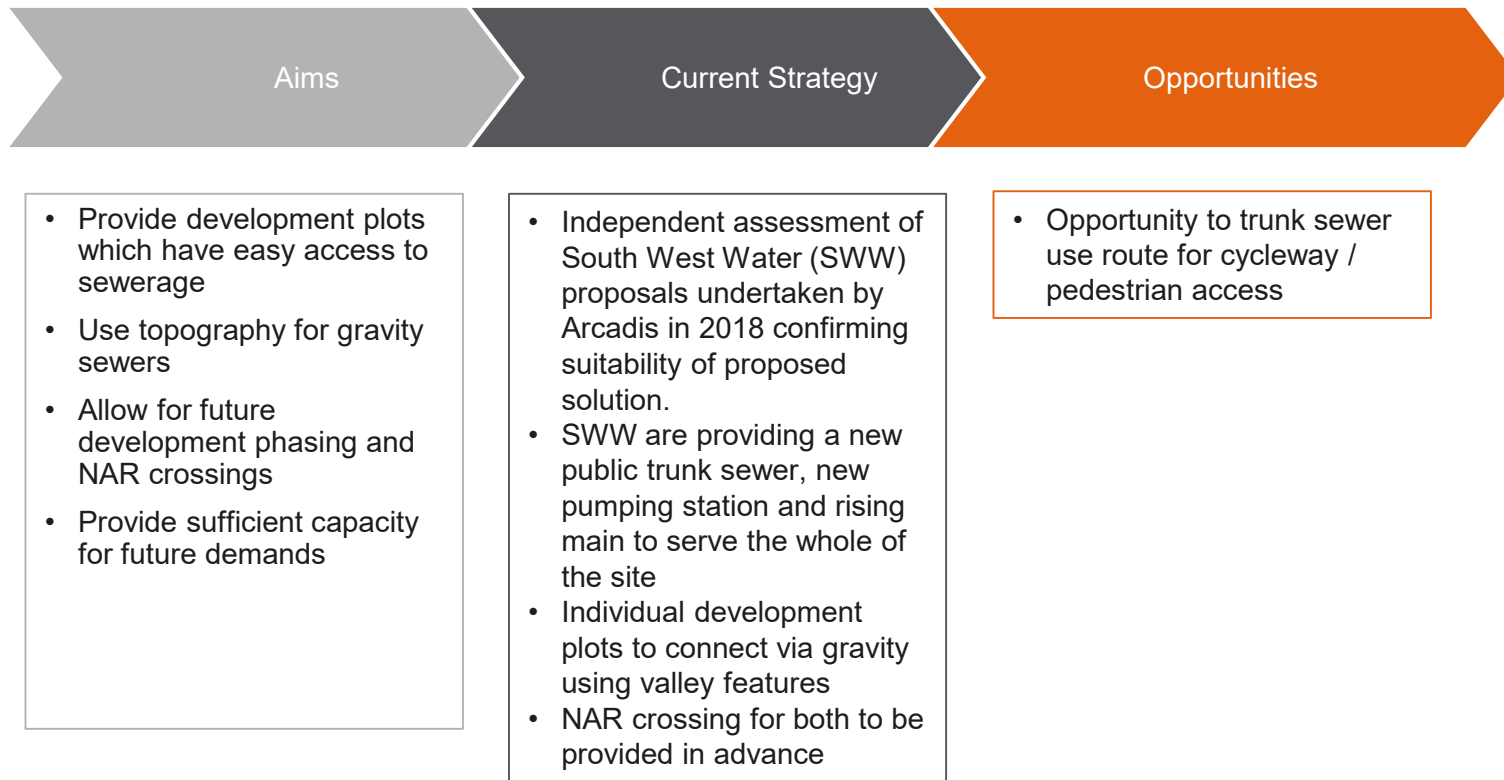
Surface Water Drainage – Off Site

- Environment Agency are reviewing strategic flood protection assets for Truro under 6 yr Capital Programme
- The Langarth Team and the EA are currently engaging in evaluation of potential impact of development as part of this review.



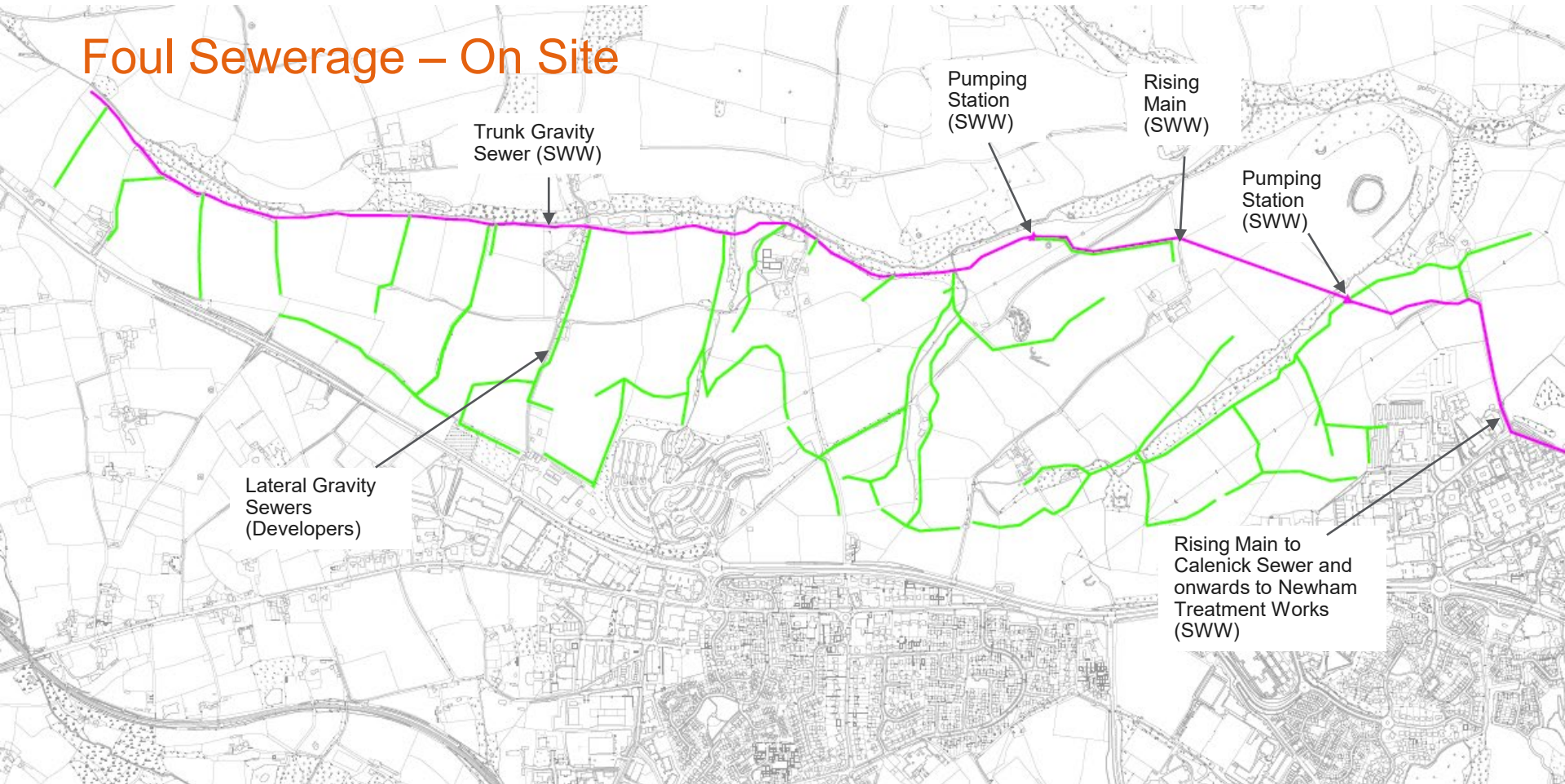
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Foul Sewerage – On Site



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Foul Sewerage – On Site



Langarth proposed development

Environment Agency

Protection of floodplains on the development site and surface water drainage overview

- We have assessed the DRAFT Flood Risk Assessment and are generally satisfied with the content.
- The watercourses on the site have been adequately modelled and the built development will be located outside of the flood plains in areas at low risk of flooding.
- The site falls within the Truro Critical Drainage Area (CDA). The general principle of the proposed surface water management is acceptable and in line with the requirements of the CDA.
- Cornwall Council (Lead Local Flood Authority) will assess in detail the surface water management plan for the development site, which also includes the control of surface water during construction.

Main Rivers & Ordinary Watercourses

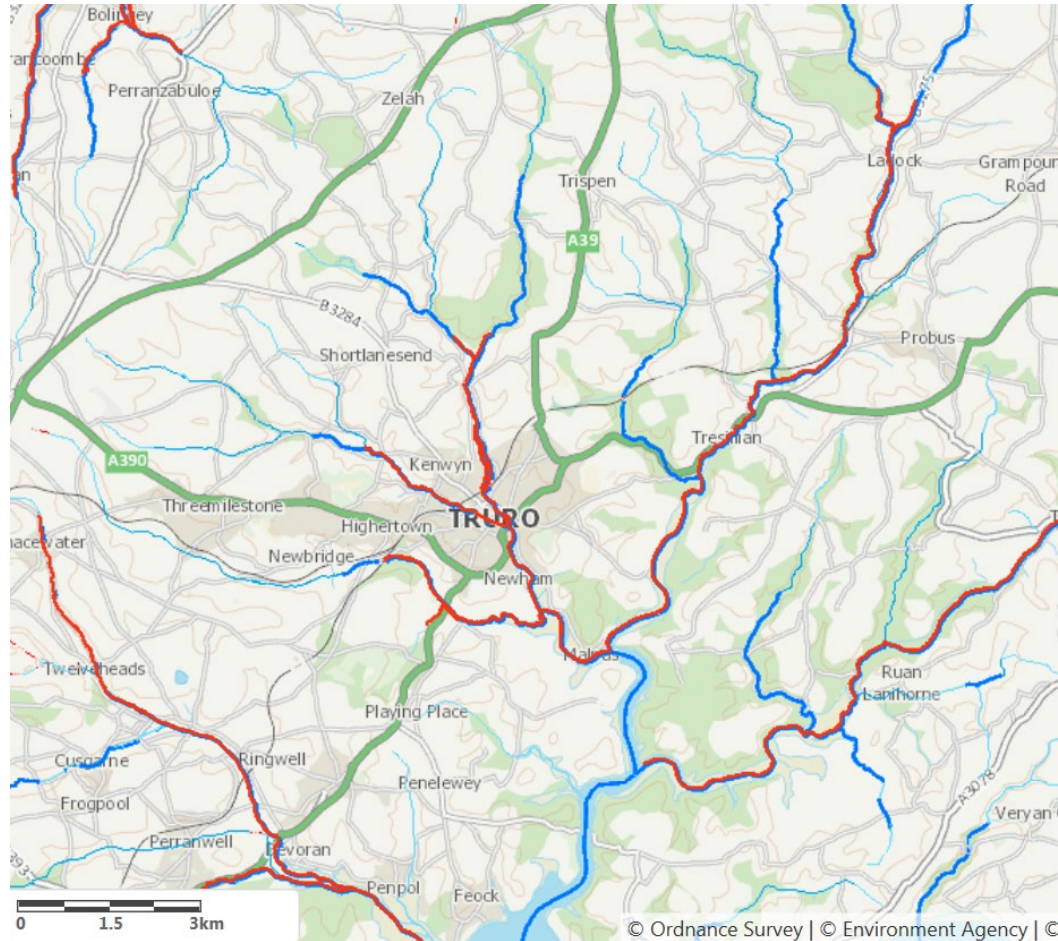
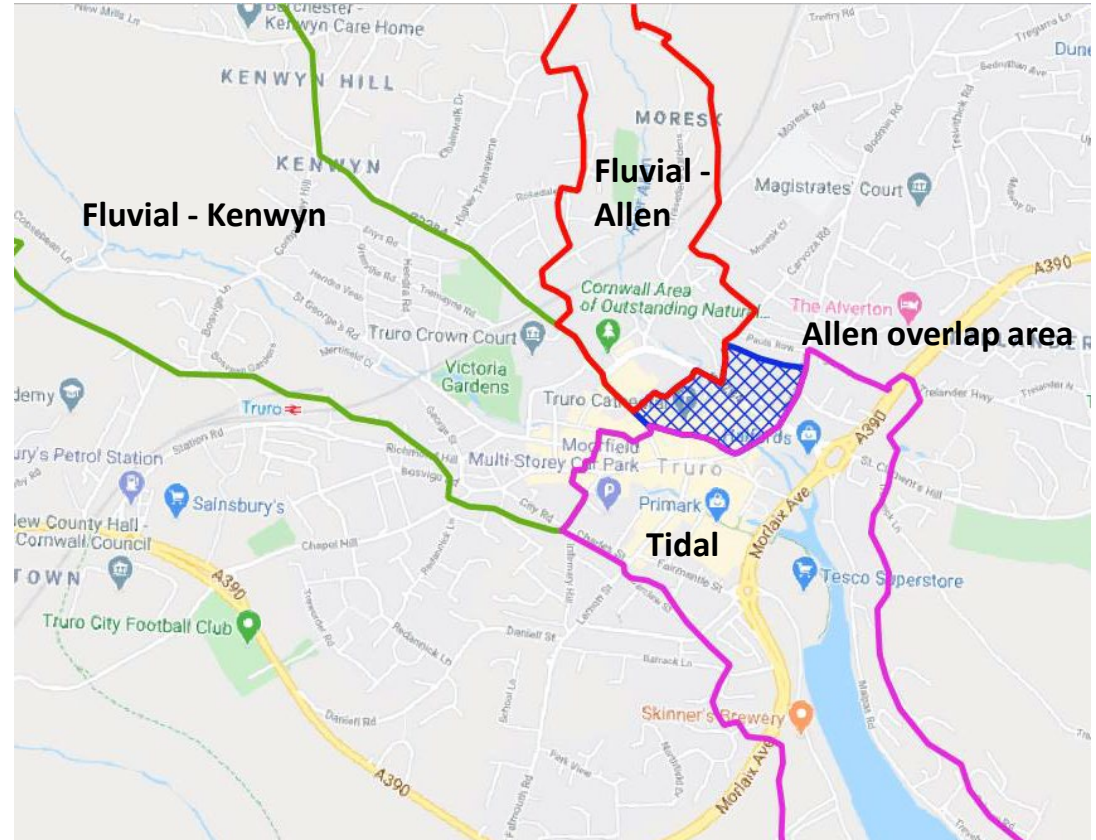




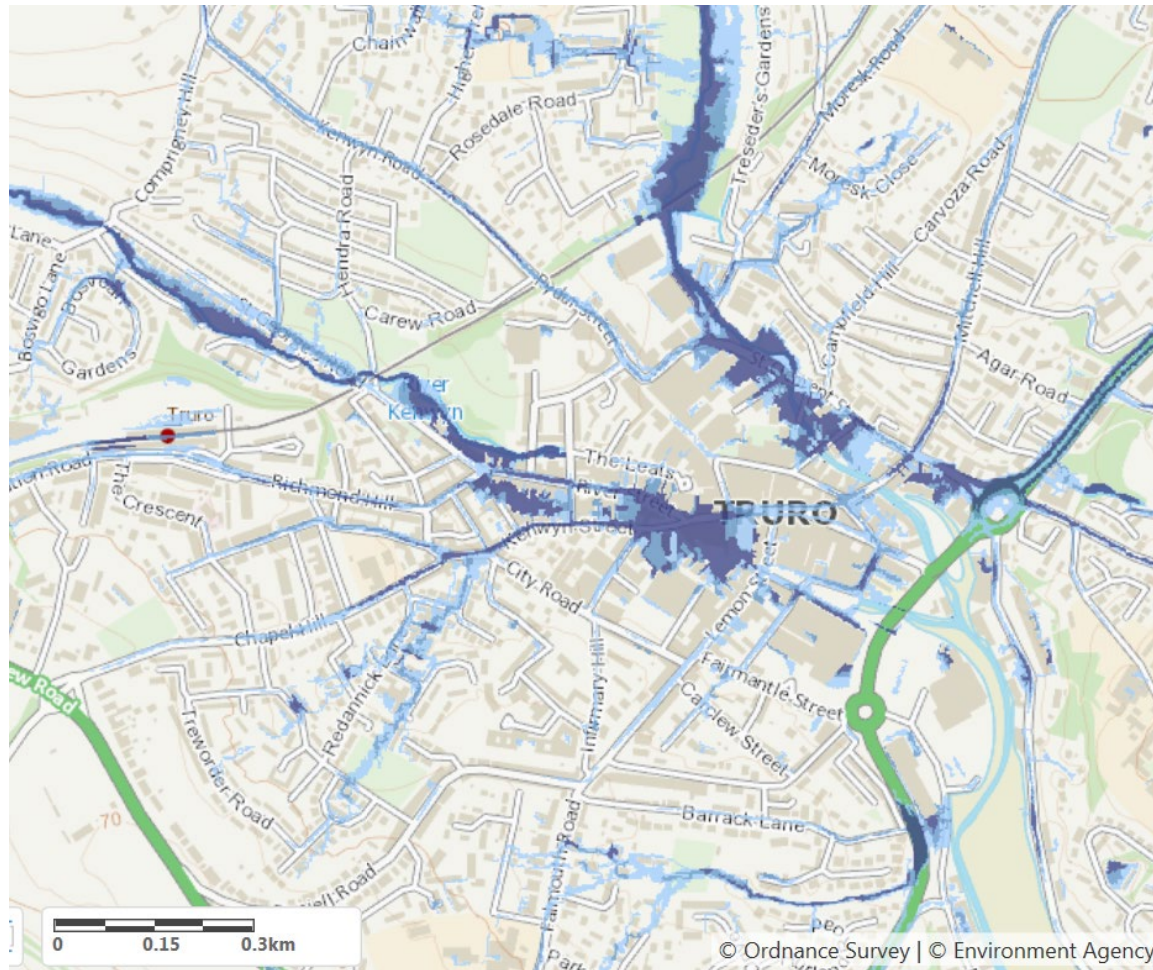
Figure 2-1 - Truro updated model extent

Flood risk areas in Truro

- Only a small area of overlap at the downstream end of the River Kenwyn. Most properties along the River Kenwyn are predominantly at risk of fluvial flooding.
- Large area of overlap on the River Allen around the Cathedral area. Properties almost equally at risk of both fluvial and tidal flooding.
- We have drawn four polygon areas: River Kenwyn fluvial; River Allen fluvial; River Allen overlap and Tidal. Tested impact of which area the River Allen is counted in.



Surface Water Flood Risk





South West
Water

Langarth Development Strategy

10 September 2020

Journey so far



- Undertaken an evaluation of the network to confirm capacity. We have previously explained the detailed process behind this.
- Cornwall Council undertook an independent review of the evaluation to confirm the solution. This was undertaken by Arcadis.

The Solution required:-

- Newham Treatment Works to be upgraded to meet the capacity.
- Works at Calenick Pumping Station to meet the capacity.
- A new sewer and pumping station to drain the site to the connection point on the Calenick sewer. The Developers have chosen to deliver this through a Sewer Requisition.

Key Constraints – Considered as part of the evaluation



- Permitted Combined Sewer Overflow (CSO) operation is very sensitive due to Shellfish harvesting in Fal
- Sewers in city centre / Kenwyn valley are at capacity and unable to accommodate Threemilestone/Langarth growth
- Historic Calenick pumping station issues have been investigated and Capital Maintenance projects completed
- Newham Treatment works is running at almost full design load.

Design - Capacity



- We discussed and agreed with Cornwall Council the area to be considered for development.
- Newham Treatment Works – Currently has a population equivalent 30,000, with a design horizon of 2045, we have allowed for 45,994.
- Calenick Pumping Station – Currently has a population equivalent 7,996 and with a design horizon of 2045, we have allowed for 20,047. (This equates to 120 l/s).
- The new proposed sewer and pumping station would cater for 65 l/s which supports a population equivalent to 5,598.

Update on Progress on our commitments



Previously we told you that we needed to undertake the following to enable this development to proceed:-

- Review Calenick PS pass forward flow – ensure it has the capability of 120l/s
- Install mechanically raked CSO screening at Calenick PS
- Upgrades at Newham Treatment Works.
- New Sewer and pumping station to serve the site.

Since 2018 we have undertaken:-

- Completed the upgrading of Newham Treatment Works at a cost of £6.8m. It is currently going through the final phase of testing.
- Reviewed and confirmed that Calenick Pumping Station has the capability of passing forward a flow of 120 l/s in line with the design capacity. This included the provision of a mobile generator socket.
- Review into the requirement for a mechanically raked screen. This work is still ongoing. Any works associated with this review, will be complete prior to the connection of this development.
- In discussion with developers to secure the new sewer and pumping station via a sewer requisition.

Review as site progresses



As promised previously, as the site progresses we will:-

- Consider opportunities under SWW's Downstream Thinking programme.
- Assess the impacts of the additional flows using the EDM data at Calenick Pumping Station.
- Review the Storage on the Calenick sewer.
- Review the need and consider whether a pumped overflow is needed at Calenick Pumping Station.

Sewer Requisition - Process



The Sewer Requisition is provided for by a legal process under the Water Industry Act.

1. Developers make application to South West Water to provide them with a foul sewer.
 2. SWW produce a design proposal and provide a cost of undertaking the work.
 3. Developers agree to the work to proceed. This includes signing a legal agreement and making payment.
 4. SWW deliver the works in accordance with the programme contained in the offer.. This will include for the detailed design and construction.
- We are currently on stage 3.

The Sewer Requisition



- Designed to cater for 65 l/s.
- Rising main and pumping station. Preliminary route currently proposed. Exact location will be confirmed as part of the detailed phase. This will include negotiations with appropriate landowners.
- Pumping station and sewers will be designed to meet the new Design and Construction Guidance which came into affect on the 1st April 2020.
- The pumping station will be managed to deal with initially low flows but be sized to cater for the whole development. This includes providing suitable odour control as appropriate.

Thank you

Question and Answers?

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