



## CASE STUDY

CLIENT: **Anglian Water**

Site: **Letchworth Parkwood STW**

### Background

As part of M&N's expanded servicing contract framework agreement, M&N engineers are responsible for **Planned Preventative Maintenance** across a wide range of inlet screens throughout the Anglian Water territory.

During a routine visit to the Letchworth Parkwood STW the team found 3 Escalator Screens to be experiencing operational abnormalities so further inspection was undertaken to make servicing recommendations for the equipment.

The initial on-site analysis identified several key repairs that were necessary to prevent costly screen failures, improve screening results and extend the lifespan of the assets. The key elements were a result of natural operational wear and included:

- Worn Gearbox units
- Worn chains
- Driven Sprockets in need of replacement
- Chains at full adjustment

### Challenges

- Disruption to operational stability had to be kept to a minimum
- Screening operations had to be maintained
- Refurbishment could not be undertaken on site

### Implementation

As it was necessary to carry out work 'off site' the team worked closely with Letchworth STW Optimiser **Dale Patton** to establish the best approach to maintain operational stability during the refurbishment & repair programme.

The team elected to stagger works over a 4-week period, at each stage leaving 2 screens 'in operation' whilst work was undertaken to the remaining screen at M&N's extensive Portland workshops.

Utilising M&N's dedicated heavy lifting & transport vehicles scheduled work could be carried out quickly, minimising disruption to screening operations.



Once at the Portland workshops each screen was stripped and pressure wash cleaned to allow for a more thorough inspection of their working parts and the elements identified during the preliminary 'on site' analysis.

Anglian Water received a detailed evaluation of what was required and an advisory report recommending further action to be taken, timings & cost breakdowns.

Specialist M&N personnel undertook the individual elements of refurbishment on the Escalator Screens ensuring that each screen was refurbished and back at Letchworth Parkway within a week of removal from site.

Timeline:

5<sup>th</sup> Feb – Removal of Inlet Screen 1 from channel

15<sup>th</sup> Feb – Install of refurbished Inlet Screen 1 & removal of Inlet Screen 2

22<sup>nd</sup> Feb – Install of refurbished Inlet Screen 2 & removal of Inlet Screen 3

29<sup>th</sup> Feb – Final install of refurbished Inlet Screen 3

On each screen the CHASSIS was repaired and the existing GEARBOX UNIT fully refurbished. Alongside this the team supplied and fitted new DRIVE CHAINS, PLASTICS & SEALS and DRIVEN SPROCKET, all of which were covered by M&N's **12 month Refurbishment Guarantee**.