



HISTORY OF THE SITE

Due to the site's history as a landfill, the potential for impacts on heritage assets - such as buried archaeology and other aspects of onsite historic value - is limited. It is still important, as part of our proposal, to assess the potential for impacts on heritage and also the impacts on the setting of any heritage assets near to the proposed site.

Our research indicates there are no designated or undesignated heritage assets recorded within the site, which has been the subject of previous disturbance as a result of its former use as a landfill which operated from the 1970's – 2003. The landfill has since been restored and is used for grazing. The depth of installation of any of the solar farm equipment will be limited to avoid any impacts to the cap of the former landfill.

Due to the absence of sensitive receptors with regard to the historic environment, the site is not considered to lie within a 'Sensitive Area' as noted within the relevant planning regulations.

The operation of the proposed development has the potential to impact on heritage assets in the wider area through

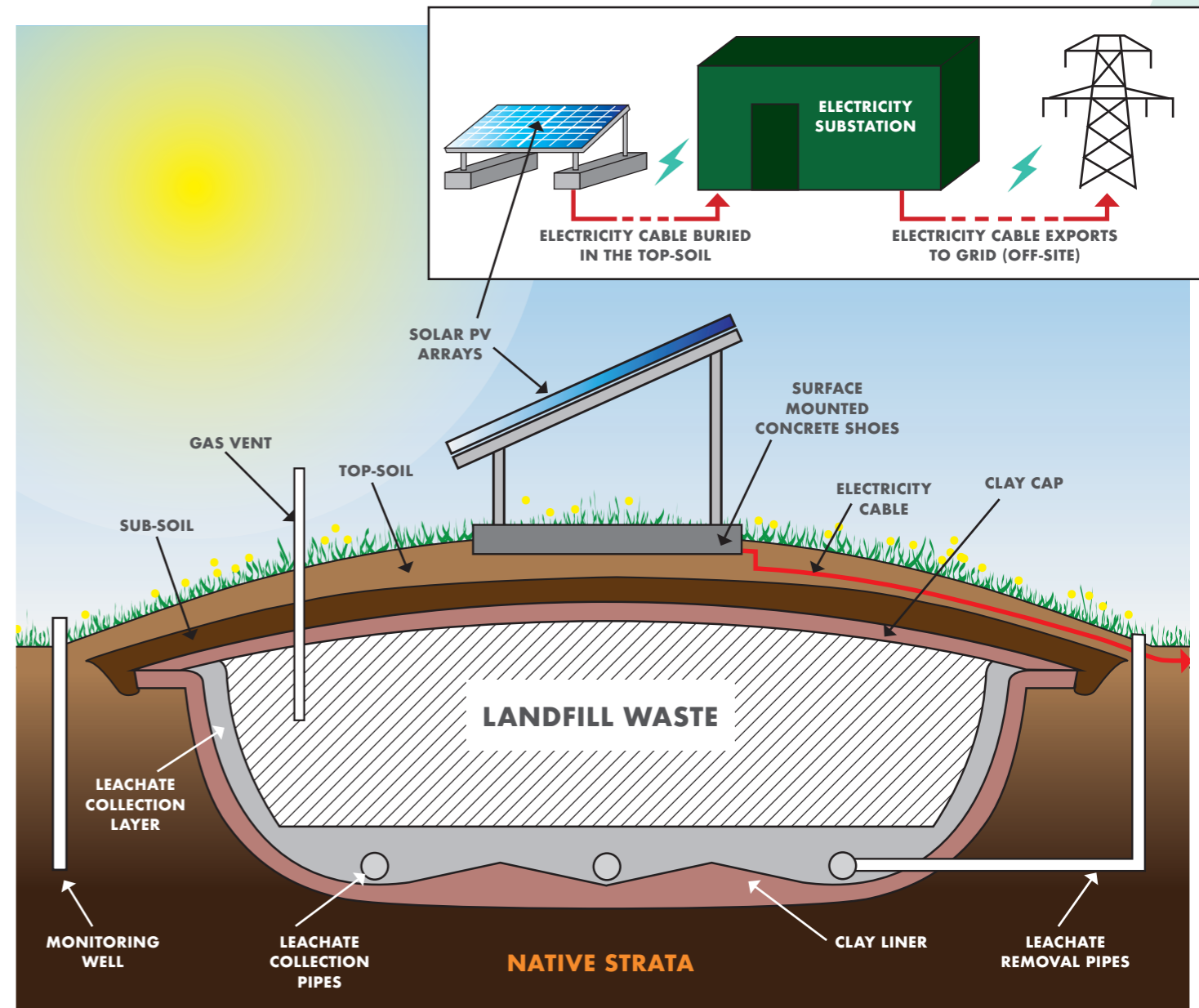
changes in their setting. The changes would be temporary and reversible, and any impacts would be considered alongside the existing screening provided by trees and hedges on site and any mitigating features of the proposals.

Our assessment of heritage will focus on these potential impacts on setting of local heritage assets such as listed buildings and our findings, along with any measures that may be required to mitigate any impacts we perceive, will be included in our planning proposal.

BUILDING SOLAR FARMS ON RESTORED LANDFILL

Installing a solar farm on completed landfill is a practical solution to a number of issues. It delivers a productive purpose to an otherwise 'sterilised' area of land. It avoids using a greenfield site for solar development. It helps to safeguard the landfill site for the life of the solar farm, ensuring good maintenance of the solar farm and the landfill go hand-in-hand.

There can be additional upsides too – The construction of the solar farm may be able to make use of existing infrastructure, such as access tracks and security features (such as security fence and CCTV) which increases efficiency. There may also be an ongoing electricity demand at the waste site that can



be powered directly with clean power from the solar farm, which is what we are aiming to do at Purton.

While there are benefits, there are also some complexities and risks that need to be considered and provided for:

Once a landfill site is completed, it is imperative that the waste stays where it is put and does not escape which could result in damage to the local environment. It is the Environment Agency's responsibility to oversee the safe management of landfill sites and they issue Waste Management Licences to responsible operators.

To keep waste safe it is encased in an impermeable engineered clay cap, often a minimum of 1 metre in thickness, on top of which sub-soil and top-soil is layered.

Gas vents and leachate pipes are installed so that any gases created from decomposing material can be released and liquid build-up in the form of leachate can be pumped from the landfill and safely processed.

When designing the solar farm to be installed on a landfill the essential objective is to ensure the landfill can continue to be managed as normal. Therefore, instead of securing the panels to ground-penetrating steel piles, we ensure the ground and especially the clay cap are undisturbed and fix the solar panels to a surface mounted ballast. Cabling is kept above ground and protected in cable trays and the inverters required to change the electricity from Direct Current (DC) to Alternating current (AC) are mounted to the rear of the solar arrays. A minimal amount of cabling is laid in a shallow trench within the top-soil.

The electrical transformers and the switchgear are mounted on pre-made concrete plinths and do not disturb the cap.

The layout of the solar farm takes into consideration the location of the gas vents and the leachate pipework, ensuring that the maintenance or remediation of the landfill can continue as normal.