

RBG, Kew – New Herbarium Project FAQs

Why do we need to move the herbarium?

For several years now, like many other large collections-based institutions, we have been exploring options to move some of our collections off site. There are several compelling reasons for this, but the primary aim is to secure the future safety and usability of these collections, as well as our capacity for growth. Relocating the herbarium collection is critical to fulfilling the strategic priorities as set out in Kew's [Manifesto for Change](#) and [Science Strategy](#), and the obligation we have to protect and preserve our collections and to ensure their long-term utility to national and international researchers.

We should always seek to deliver sustainable, long-term solutions for Kew and therefore we need a site with the capacity for growth for future decades and centuries to ensure our collections are both safe and accessible. The importance of long-term capacity for growth is clear, and unfortunately, the existing site does not allow for sufficient extension or enlargement. Crucially, moving our herbarium off-site also unlocks the potential at our current site for future science expansion.

We are also particularly concerned about the risks faced by the majority of the herbarium collection currently housed in the 19th and 20th century wings. These wings fall well short of best practice for collections care and safety. They do not provide a controlled environment as there is no temperature or humidity control, pest control is limited, and they do not provide adequate fire and flood protection. Work undertaken by consultants has shown that, given the heritage protection afforded to these buildings, it would not be possible to modify them to reach the standard of protection to which we aspire.

Can the existing herbarium buildings be extended and renovated to provide additional space?

We were originally planning to extend and enlarge our present herbarium buildings and the initial feasibility studies and planning were done on that basis. However, we have received clear advice that any significant new development beyond the existing footprint onto metropolitan open land, or an increase in height, would be very challenging, and planning consent unlikely to be given. It is clear that we need a long-term (50-100 year) solution to ensure the security, use and care of our 7m plant specimens.

Can mitigations for risks be put in place in the heritage wings?

Mitigation could be implemented to partially address some, but not all, of the various risks, rendering the collections vulnerable to fire, flood, pests, and variable temperature and humidity levels. However, it would be difficult, if not impossible, to raise standards to an acceptable level without intrusive works that would compromise the listed status of the buildings. These standards could be easily provided within a modern purpose-built facility.

How was Thames Valley Science Park (TVSP) determined as the proposed new location?

Following endorsement by Kew's Board of Trustees to pursue an off-site option in 2021, we explored possible locations both in and around London. Land agents were engaged to identify and evaluate potential sites using pre-agreed criteria, including the surrounding infrastructure and local amenities for staff, distance from Kew, accessibility by public transport for both national and international visitors, cost, and environmental sustainability. We also considered the opportunities for scientific collaboration available at the different sites and for maximising the impact of our work.

In June 2023, the Trustees identified Thames Valley Science Park (TVSP) in Reading as their preferred location, subject to the satisfactory completion of further risk assessments, feasibility

and due diligence studies (including that the proposed site is not on a flood plain), and to the agreement of commercial terms. The due diligence work was completed by December 2023 and the Trustees confirmed their intention to relocate Kew's herbarium collection to TVSP.

TVSP offers the opportunity to work closely with several collaborators including the University of Reading (which owns the park), the British Museum (which has already constructed a new facility for its archaeological research collections there), and the Natural History Museum, which will be moving a large part of its biodiversity collections to the site.

What kind of working environment will the new herbarium provide?

The new building will be designed to be an effective working environment for curators, researchers and visitors, designed around current and expected curation and research workflows, and informed by our current spaces and those in other recently constructed herbaria.

Our staff will play a central role in specifying the design of these facilities, which we expect to include research bays, project rooms, consultation and laying-out spaces, shared offices, meeting rooms, and multifunctional collaboration spaces. We plan that 150+ people will be able to work on site on any given day – not only collections staff, but students and researchers based at Kew and elsewhere – so that everyone can work directly with physical specimens on site as frequently and for long as they need to.

Which collections will be moved to the new herbarium?

We expect to move our collection of ~7m dried plant specimens, the spirit collection and some sections of the Library that are specifically used in tandem with the physical collections, e.g. the floras. We currently expect the Fungarium and Economic Botany collection to remain at Kew Gardens.

Will the specimens be damaged by the move to a new site?

The transfer will be undertaken by specialist movers guided by our expert staff and adhering to best practice around biosecurity and the transport of delicate objects. Like other herbaria, Kew currently has an active programme of shipping specimens to researchers all over the world; professionally moving them to a new site is no riskier than this established and ongoing practice.

Will there be laboratories at the new herbarium?

In addition to retaining and expanding our facilities at our Kew and Wakehurst sites, we are committed to supporting sampling and DNA extraction within the new herbarium and providing sufficient laboratory capacity to accommodate new techniques and approaches. There are also opportunities to work with the Natural History Museum and the University of Reading to create shared facilities at the site.

How will a new herbarium site change the way Kew works across the organisation and with its partners?

Like many research organisations, RBG Kew is a multi-site organisation. In addition to Kew, we have a site in Wakehurst – where the Millennium Seed Bank is located and where we are about to embark on creating a major new research and conservation nursery – and a research centre in Madagascar. Adding a fourth site will create new challenges, and we will seek to improve our working practices and supporting technology to ensure our staff can continue to work effectively together.

Kew already works with many partners worldwide on collaborative research and engagement programmes. We look forward to welcoming our collaborators to our new facilities. TVSP, the proposed site, is within an hour by both car and rail of both London and Heathrow Airport. Bus links connect the site to central Reading and we expect these will be further improved as the development of the TVSP is completed.

How will Kew ensure the project is aligned to its Sustainability Strategy?

Kew's Sustainability Strategy sets a target for Kew's new buildings to meet a whole-life net zero standard wherever possible – this standard would ensure that the building operates efficiently, with minimal environmental impacts from operation; minimises embodied emissions from construction; and generates as much renewable power as it can. The refurbishment and redevelopment of the existing Kew site will similarly seek to set ambitious targets to improve energy efficiency and minimise embodied carbon impacts by re-purposing and retaining existing buildings.

How will moving the herbarium collection impact on our World Heritage Site (WHS) designation at the Kew site ?

Work to understand the impact of moving the herbarium collection on Kew's Outstanding Universal Value (OUV) as a World Heritage Site (WHS) has progressed with the support of specialist heritage advisors. We will be exploring options for the future use of the historic buildings that maintain the significance of the herbarium and the collections at the Kew site and we are committed to working closely with UNESCO through the project development process. The Trustees are confident that an outcome can be achieved that responds to the OUV of the WHS, whilst allowing for the continued progression of Kew's scientific and educational role, which is in turn part of the OUV of the WHS.

What will happen to the current herbarium after the move?

In parallel to building the new herbarium, we will progress plans to restore the heritage wings and to redevelop the rest of the current Herbarium complex to create a new 'Science Quarter'. This is critical to supporting our growing programme of work in biodiversity research as it will provide additional capacity, including new laboratories, education facilities, seminar rooms and improved workspaces for our staff and students. Wing E, our newest wing which can provide the temperature and humidity control that our heritage wings lack, will likely become home to our Fungarium and Economic Botany collections.

The 'Science Quarter' will bring together different scientific disciplines and create space for partner organisations to work alongside Kew's scientists. It will also enable us to open these spaces to visitors to the garden, supporting greater public engagement in collections research. Delivering this transformation will be contingent on additional funding being secured.

What is the timescale for completion?

We are still in the early stages of the project and progress is contingent on us developing a business case and securing Government funding which we will be seeking through our sponsoring body, Defra. The process of designing and building the facility and moving the collections is expected to take 5-10 years to complete.

Building a new facility off site helps to minimise the disruption to our vital research as the work can be undertaken in parallel with our existing programmes. Renovating the existing site would be a lengthy and disruptive process. It would likely require us to find an interim off-site solution (thus moving the specimens twice) or result in our specimens being inaccessible during build works.

The next stage is for us to develop a concept design for the building (RIBA stage 2). We have appointed architects who will work with staff and stakeholders to transform the outline brief into a design for a world-class facility that will enable us to care for and research our specimens well into the future.

Who is involved in this project from Kew Science?

The project has a robust governance structure including a Working Group, Project Board and topic-specific workstream and user groups. Our Head of Science Collections, Priority Leader for Accelerated Taxonomy, Deputy Directors of Science, and Director of Science are leading on the work from a science perspective.

How can I find out more?

Please see these blog posts on our website, [Ambitious programme to transform our science | Kew](#) and [Relocating Kew's herbarium for the future of our collections | Kew](#) which provide background and information on our rationale and process. Further blog posts will be added as the project progresses. If you have any feedback or thoughts, please feel free to communicate them to us through newherbarium@kew.org.

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